



# Guidance Note: UNFPA Technical and Operational Support to the 2020 Census Round

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This Guidance Note was jointly developed by the UNFPA Inter-Divisional Working Group on Census (IDWG Census), coordinated by the Population and Development Branch.



The United Nations Population Fund (UNFPA) has developed this guide to enable census experts worldwide and UNFPA Regional and Country Offices to better understand the census processes and identify potential areas and roles that UNFPA can play to ensure successful implementation of the census. The guide can facilitate discussions with governments and other duty bearers and aids in the identification of components of census, which UNFPA and other donors may support. It will also prove useful for development partners and government institutions engaged in the census process.

This guidance note should be read alongside the [UN Principles and Recommendations for Population and Housing Censuses, Revision 3](#), which is the reference document for censuses in the 2020 round. It should also be referenced with the [UNFPA Strategy for the 2020 Round of Population and Housing Censuses \(2015-2024\)](#).



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The aim of this document is to improve UNFPA's contributions to the successful implementation of the national population and housing censuses during the 2020 census round, including in the COVID-19 context. It provides a detailed description of key phases and activities of the census by implementation timeline and outlines potential roles for UNFPA and other development partners at each phase.

The guide builds on key findings and recommendations from the [Evaluation of UNFPA support to population and housing census \(2005 – 2014\)](#). The evaluation was forward-looking and strategic in nature. It assessed the effects of UNFPA's contributions to support the strengthening of national capacities for the production and availability of census data and the overall utilization of the produced data to drive evidence-based decision-making and policy formulation. The results of the evaluation have informed UNFPA's strategy for the 2020 census round. It is an elaboration of the [Census Step by Step Reference Guide](#), to include among other things, elements related to the impact of COVID-19 on census.

Additional information and links to relevant guidance notes, technical and operational documents and other resource materials are available on the [Census Global Community of Practice \(CoP\)](#). The CoP is dedicated to all issues related to the population and housing census. With it, all UNFPA staff who work on census issues or share a passion for census can access the CoP's regular updates which provide timely, relevant and quality support to national censuses across all UNFPA programme countries. UNFPA Country offices are encouraged to consult with the census experts at the Regional and Country Offices and Headquarters on thematic areas where further clarification or technical support is needed.

## What is a Population and Housing Census?

A population and housing census is an enumeration of every person and related housing units within a country; it provides information on numbers of people, their spatial distribution, age and sex structure, their living conditions and other key demographic and socioeconomic characteristics.

Conducting a census involves a series of carefully orchestrated steps beginning with the pre-census planning phase. The pre-planning phase is regarded as the core of the census cycle and is critical to the completion of a successful census. The early phases of planning determine the strategic direction for the entire census programme, ensure a common understanding of the requirements for conducting a quality census, and provide an understanding of the integral role that the census has in the overall national statistical framework of the country.

Each phase of the census cycle is dependent on the preceding phase, and the quality and timeliness of the output from the preceding phase directly affects the success of subsequent phases. The three phases of census operations include:

- Pre-census planning, comprised of activities that are initiated as early as 3-4 years prior to enumeration;
- Enumeration;
- Data processing, analysis, dissemination and utilization of the results.

Depending on the situation in the country and the availability of resources, UNFPA may contribute in various manners and at different phases to support the country to successfully conduct the census.

## Utilization of Census Data

Census data are critical for policy development, good governance, socio-economic development planning, disaster risk reduction and crisis response, social welfare programmes and business market analyses. In most developing countries, censuses are the primary source of data on the size and spatial distribution of the population and its characteristics, and this is likely to remain the case for the foreseeable future.

Some specific uses of census data in the delivery of public services and administration include to ensure:

- Equity in distribution of government services;
- Distribution and allocation of government resources, including funds among various regions and districts for education, health, housing among other services;
- Delineation of electoral/political boundaries at constituencies, districts and/or other subnational levels;
- Identification of vulnerable and specific population groups
- Addressing gender issues as well as inequalities;
- Measurement of the impact of economic development, among many other uses;
- Development of a master sampling frame to conduct household based surveys;
- Provision of parameters for estimating populations affected by humanitarian crisis.

## Potential Users of Census Data

The information collected from the census is often used by a wide variety of government departments (national and subnational officials), community leaders, non-governmental organisations, civil society organisations, development partners, academia, researchers, students, businesses and members of the general public, among other groups. All potential data users are eligible to use the census data at no or minimal monetary cost depending on national policy.

### a) Government at the National and Subnational Levels

Census data is used by governments at national and sub-national level to:

- Inform the distribution and allocation of government resources, including funds among various regions and districts for education, health, housing among other services. For example, to determine where to build new schools, child-care centres, hospitals, clinics or health centres, and the required staffing.



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- Identify areas where services such as clean water, electricity, fuel and affordable housing should be focused. These apply to both the current population and future populations (projections), both of which are generated from the census.
- Analyse employment patterns across the various sectors and industries, as well as employment status of individuals in order to develop strategies to address skill shortages and future training needs.
- Mapping, disaggregate key indicators for monitoring national development plans and Sustainable Development Goals (SDGs).
- Identify vulnerable population groups and inequalities to identify those left behind in pursuit of sustainable development.

### b) Academia, Researchers and Students

The census is an important source of information for academics, researchers and students across a broad range of social and economic disciplines:

- Census figures may feature across several aspects of the education curriculum, including mathematics, history, geography, civic and social studies.
- Frequently, sampling frames produced from the census are used by researchers and research institutions for large-scale household surveys such as Demographic Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), living conditions surveys, etc.

### c) Electoral Bodies, Networks and Groups

Census data is vital for good governance and monitoring progress towards democratization of countries. For example:

- Delineating electoral/political boundaries at constituencies, districts and/or other subnational levels.
- Enhancing electoral transparency by providing estimates of eligible voters per constituency, ward, state/region, or any other administrative level, which may be used for monitoring purposes. However, it is important to highlight the independence of census data and electoral processes and figures.

#### **d) Interest Groups and Representative Groups**

- Census information is extensively used by interest and representative groups, such as political parties, women's rights groups, youth groups to design and target their campaigns.

#### **e) Media**

- The media can use census information to create news stories, feature articles, documentaries and other formats for traditional and digital media.
- The census may provide vital information about vulnerable and specific groups, which the media may highlight through their various outlets.

#### **f) Business Sector**

- Census data may help bring new businesses to communities. Before setting up a business, one of the first things investors consider is people: Who lives in the area? Are there enough skilled people? Who are the potential customers?

#### **g) Local Communities**

- The census is used to plan a wide range of public services provided by local authorities which are dependent on population size and composition, such as day-care centres, community halls, facilities for special groups including older persons, people with disabilities, etc.
- Communities may also use census data to strengthen their case in demanding services from the local authorities, as well as to hold them accountable for the use of public resources.

#### **h) Humanitarian Actors**

- Population data from census can be used by humanitarian actors to prepare contingency plans and responses.
- Census data when combined with other sources can produce estimates about the size and characteristics of the population affected by a humanitarian crisis or catastrophe. Census data are the base of the common operational datasets on population statistics (COD-PS).

### **Impact of COVID-19 on Census - UNFPA Key Messages**

COVID-19 has caused many Governments to postpone or delay their census conducts, as a precaution to mitigate the risk of transmission during census activities. The World Health Organization (WHO) findings suggest consistent wearing of masks, using alcohol-based hand sanitizer or washing hands with soap and water, and social distancing in public reduce the transmission of COVID-19. Whilst many governments have postponed censuses, others have proceeded with census implementation, taking a variety of measures to reduce the risk of COVID-19 transmission, including use of personal protective equipment such as masks, hand sanitizers, disinfectant sprays and thermometers. Governments ultimately assume responsibility for the types of personal protective equipment (PPE) procured for the protection of their population.

As the lead UN agency providing census technical support in the field, in response to the COVID-19 pandemic, UNFPA issued guidance notes/ briefs/ dashboards as follows:

- [Technical Brief on the Implications of COVID-19 on Census \(March 2020\)](#)
- [UNFPA Guidance Note on Personal Protective Equipment \(PPE\) Recommendations for Census \(September 2020\)](#)
- [Guidance Note on Personal Protection Equipment \(PPE\) Recommendations for Census \(issued jointly with UNSD, September 2020\)](#)
- [COVID-19 Population Vulnerability Dashboard](#)
- [Impact of COVID-19 on census - UNFPA Census tracker dashboard](#)
- [Updated Guidance on Procurement and Use of Supplies in Response to COVID-19 \(30 September 2020\)](#)

In general, UNFPA recommends the postponement of census as most prudent, where this is possible. However, for countries proceeding with the population and housing census during the COVID-19 pandemic, a key priority is "how to reduce the risk of transmission for all census personnel, and for the general public."

If census implementation requires the deployment of field staff, the national statistical authority should conduct a detailed risk assessment, including the need for personal protective equipment and procedures to minimize the risk of transmission of COVID-19 to both the census-takers and the responding population. In that context, COs need to:

- Advocate for census authorities to confer with national health authorities on the need to align PPE requirements for census with other COVID-19 national operational plans for reducing the risk of transmission (i.e. training, transport, mandatory outside interviews, etc.);
- Monitor the updates on the use of protective gear issued by WHO and ensure that the census authorities are fully briefed on these;
- Strongly advise census authorities to institute a standing committee with the ministry of health and other relevant bodies at the national level (for example, a national COVID-19 crisis management task force, where this exists) to ensure the most effective protective measures and protocols that are in line with national circumstances;
- Support national census authorities to implement national guidelines related to census operations and/or define complementary guidelines on other aspects of census operations, that will impact the risk of COVID-19 transmission;
- Support review of census operational and logistical planning to address the impact of COVID-19;
- Advocate for the importance of the census as a key data source for SDGs and national development indicators, and also for the national response to COVID-19, to ensure that countries do not cancel plans for 2020 round census and that the census is implemented when it is deemed safe to do so depending on the national context.

All technical resources, briefs, tools, and guidelines listed in this Guide can be accessed through [UNFPA's Global Census Community of Practice \(CoP\)](#).

## Key Phases of the Census and Potential Roles of UNFPA

The matrix below was developed to maximize the data produced by the census and the support that UNFPA Country Offices provide to national governments throughout the census cycle. It details key phases of the census with brief descriptions of what is involved, and key areas in which UNFPA frequently engages and provides support. Please note that UNFPA engagement may vary due to different country contexts.



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This document was prepared by Population and Development Staff at Headquarters and in Regional Offices.

## Matrix: Key phases of the census and potential roles of UNFPA

Census Phases and Recommended Timing	Census Activity	Description and Purpose	Role of UNFPA Country Office
Pre-census / Planning to be initiated four to three years prior to expected date of the census	Developing the Census Project Document	<p>The census strategy and implementation plan are outlined in the Census Project Document. The approval of the project document signals the government's commitment to undertaking the census</p> <p>The census exercise is a long-term engagement that requires careful planning and management as any activity that is delayed, missed or not properly planned, could delay or otherwise jeopardize the success of the census.</p> <p>Census implementation must begin with the preparation of a Census Project Document, whose contents should include among others, objectives, strategies for each component, budgets, a broad list of major items, timelines and expected products.</p>	<ul style="list-style-type: none"> <li>• Lobby government (Ministry of Finance and/or Planning) for early allocation of adequate resources for the census, beginning from the preparatory stages.</li> <li>• The census project should be integrated into the UNFPA Country Programme Document, along with adequate levels of resources outlined in the CPD Resource Mobilization Plan.</li> <li>• Support the drafting of the detailed project document and ensure that the Census Project Document, which includes an implementation plan, quantities, and budgets, is finalized and adopted by the government.</li> <li>• Ensure that assessments of key components of the census phases, i.e. mapping, enumeration methodology, publicity, data processing, products/outputs, etc. are undertaken to ensure a realistic project document. This should set the basis for support by other relevant UNFPA branches i.e. Procurement, Finance and Administration, etc.</li> </ul>
	Statistical Capacity Assessment	<p>The statistical capacity assessment provides a quantitative measure of the capacity of a National Statistical Office (NSO) to conduct a successful census.</p> <p>The primary objective is to measure the overall capacity of an NSO, including equipment and staffing, to manage and implement all aspects of the census.</p> <p>The assessment will identify areas for capacity strengthening across the various components of the census operation. This assessment will contribute to the section on capacity strengthening or development in the Census Project Document.</p> <p>The best practice is that the statistical capacity assessment be completed prior to developing the Census Project Document. Moreover, an evaluation of the previous census and assessment of the whole prevailing context is necessary before developing a suitable project document.</p>	<ul style="list-style-type: none"> <li>• Support the NSO in undertaking the assessments on statistical, operational and financial capacities and identify equipment and human resource gaps. The results of the assessments will enable UNFPA to support the NSO to lobby with government and donors for additional funding to fill resource and capacity gaps.</li> <li>• Support South-South and Triangular Cooperation initiatives as part of capacity building for the census.</li> <li>• UNFPA to consider supporting filling gaps in requirements, such as Chief Technical Advisers (CTA), technical and operations consultants, equipment subject to resource availability and training of NSO staff.</li> <li>• Support knowledge sharing exercises between NSOs that have conducted census activities since the COVID-19 pandemic began and those that have not yet conducted activities about how to adjust plans and activities due to the pandemic.</li> </ul>

	<p>Review of the Institutional Structure and Assessment of Legal Framework</p>	<p>The legal authority for the census determines the primary administrative responsibility, necessary funding level, and the general scope and timing of the census. The legal framework places an obligation on the public to cooperate, the enumerators to faithfully record responses and ensure the confidentiality of the information recorded.</p> <p>In countries that lack a permanent legal census authority, it is important to act early to establish an ad hoc legal authority or, preferably, enact legislation, which calls for a system of periodic censuses.</p> <p>As a result of the COVID-19 pandemic, many censuses may need to be delayed or postponed due to lockdown or social-distancing measures.</p>	<ul style="list-style-type: none"> <li>• Support the review of existing statistical laws to determine whether or not they are up to date for the conduct of the next census, including institutional arrangements, topics for enumeration, guarantees of confidentiality and the requirement for individuals to provide correct information.</li> <li>• UNFPA may advise on the need for census legislation where this is necessary.</li> <li>• Advise and support the NSO for the adoption and implementation of a National Strategy for the Development of Statistics in which the census should be anchored.</li> <li>• Support NSOs to assess the legal frameworks for postponing a census, if required, as a result of the COVID-19 pandemic.</li> </ul>
	<p>Census Budgeting and Resource Mobilization</p> <p>(Potentially presented on a yearly basis)</p>	<p>Census budgeting starts with a detailed year-by-year plan of major activities and tasks, including costs throughout the cycle. The costing exercise and census schedule should be prepared well in advance (as part of the Census Project Document) and presented to the Government and donors for resource allocation.</p> <p>Once the budget has been approved and allocation has been done by the government, gaps can be filled by donors, private sector, etc. Notably, external funders may condition their funding to support specific budget items.</p>	<ul style="list-style-type: none"> <li>• Support the NSO to develop the detailed census budget, including methodology and indicating actual costs from other censuses in countries that use similar techniques.</li> <li>• Ensure that the budget elements include: <ul style="list-style-type: none"> <li>○ Additional activities that are required as a result of COVID-19</li> <li>○ Resources for contingencies that are well thought out,</li> <li>○ Insurance, warehousing, logistics and transfer for equipment such as tablets.</li> <li>○ The budget should be guided by extensive market research to ensure that its estimates are as accurate as possible</li> <li>○ Seek support for budget planning from Regional Office/HQ as early as possible.</li> </ul> </li> <li>• Support the NSO to develop and implement a resource mobilization strategy to fund any budget shortfall, including engagement with the private sector, UN partners and other development partners.</li> <li>• UNFPA CO may offer to coordinate donor efforts, including managing multi-donor census funds and ensuring regular donor coordination meetings to review the census plan, status, concerns and assistance needs. As needed, consult Resource Mobilization Advisors in the regional offices, as well as HQ for advice on resource mobilization opportunities.</li> <li>• Map out potential donors and partners at the regional and country level. <ul style="list-style-type: none"> <li>○ Engage Resource Mobilization and Partnership Advisers early</li> <li>○ Investigate donors' priorities for COVID-19 Response</li> <li>○ Conduct exploratory meetings with donors identified</li> <li>○ Engage with donors/partners jointly with government</li> </ul> </li> <li>• Ensure donors/partners are equipped to monitor the value of their contribution:</li> </ul>

			<ul style="list-style-type: none"> <li>○ Organize information/awareness/progress (virtual) meetings with local partners and the development community at large on a regular basis</li> <li>○ Sound budget, M&amp;E framework and sound reporting</li> <li>○ Communicate around results achieved</li> </ul> <ul style="list-style-type: none"> <li>● UNFPA recently launched the Population Data Thematic Fund (PDTF), which has seen a growing interest from donors &amp; other partners, with census support as a core element. However, there are no financial commitments as of yet, and funding for the PDTF is also likely to be impacted by COVID-19 and shrinking official development assistance (ODA) budgets.</li> <li>● Support NSO to engage with government to allocate as much resources as possible.</li> <li>● Offer UNFPA support to the government to engage with international finance institutions in order to secure and leverage funds, mostly through grants/loans to the governments.</li> <li>● Support the NSO to review and update the census budget to adjust to budget gaps that may have arisen from the diversion of funds intended for census to the national COVID-19 response.</li> <li>● Support the NSO to adjust their budget for additional trainings and / or equipment costs due to COVID-19. Consideration for COVID-related budget adjustments may include: <ul style="list-style-type: none"> <li>○ Warehouse space extension</li> <li>○ Additional supplies and equipment</li> <li>○ Impact of procurement delays</li> <li>○ Travel restrictions and transportation costs</li> <li>○ Changes in training materials</li> <li>○ Duration of personnel contracts</li> <li>○ Provisions for virtual meetings and trainings</li> </ul> </li> <li>● Support NSO to develop new resource mobilization plans if funding streams have been reduced due to the pandemic</li> <li>● When developing a UNFPA proposal for support to the census: <ul style="list-style-type: none"> <li>○ Include full direct costs for census operations, particularly position costs,</li> <li>○ Undertake a detailed analysis of roles and functions within the country office to support the census implementation,</li> <li>○ Ensure the budget is as realistic as possible factoring in COVID-19 implications, particularly non-post costs.</li> </ul> </li> </ul> <p>TOOLS AND RESOURCES:</p> <p>a. BUDGETING</p> <ul style="list-style-type: none"> <li>a) Review the Guidance Note on Budgeting for Funding Proposals. This document provides guidance on how to prepare budgets in funding proposals for programme activities. It gives practical tips and provides an overview of frequently used budget items (inputs) required to deliver programme activities</li> <li>b) Use the Standard Post Costing Tool. It gives the estimated cost for international and local positions for most types of contracts (FTA, TA</li> </ul>
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			<p>&amp; SC). The tool can be found on the Resource Planning and Budgeting community</p> <p><b>c)</b> Cost Recovery Suite are a collection of several tools to help implement the cost recovery policy including an overview of the policy, the guidance note on the recovery of direct and indirect costs, useful tips to communicate with donors and a video that explains the policy</p> <p><b>d)</b> Guidance Note on the allocating post cost across funding sources advises offices when and how to prorate post costs across funding sources</p> <p><b>b. RESOURCE MOBILIZATION</b></p> <p><b>a)</b> Visit UNFPA's Resource Mobilization community for more information on overall donor priorities</p> <p><b>b)</b> Presentation on how the Population Data Thematic Fund adapts to COVID-19 Response</p> <p><b>c)</b> Population Data Thematic Fund Value Proposition</p>
Establishing of Advisory, Steering and Technical Committees	<p>In countries with special needs or those which may have not undertaken the census in recent rounds, an advisory group may include an International Technical Advisory Board/ expert group to advice on methodology, processing, technologies, operations and cartography. This adds credibility to the census in the international arena.</p> <p>Typically, a National Census Steering Committee, comprised of heads of ministries and agencies is established to provide policy direction and oversight of the census exercise.</p> <p>An Inter-agency Census Technical Committee provides guidance on technical issues related to the census.</p> <p>Sub-technical committees such as Media and Communications, Procurement/Logistics, Census Operations, or other sub-national committees may also be established to engage in planning, publicity, logistics and/or quality control.</p> <p>Advisory committees should also include members from the ministry of health and other relevant authorities due to increased transmission risks of COVID-19 during various census activities.</p>	<ul style="list-style-type: none"> <li>• Lobby for membership of strategic committees and support the functionality of the census committees, including procurement/logistics and travel, as necessary. These committees should be multi-sectoral and inclusive.</li> <li>• Advise on the establishment of local level census coordination committees to facilitate community mobilization for the census and to support fieldwork, where necessary.</li> <li>• Advise on the creation of an International Advisory Board, when needed, by drafting TORs and proposing members. The Regional Office and HQ should be consulted during this phase.</li> <li>• UNFPA may be approached by the government to lead census partners group and to co-ordinate the committee of census donors with the government.</li> <li>• Lobby for the inclusion of the ministry of health and other relevant COVID-19 response officials in advisory committees to ensure that issues of risks of COVID-19 transmission during census activities are catered for in the planning phase.</li> </ul>	
Review of Contracting Regulations	NSOs may choose to outsource parts of the census exercise, such as publicity and communications, data processing, mapping, recruitment of and payment of	<ul style="list-style-type: none"> <li>• UNFPA's role in contracting issues depends on the modality of support to the census. If UNFPA is given the responsibility for procurement, the CO</li> </ul>	

		field staff, etc. Requirements for contracting domestic or international companies should be reviewed to ensure compliance with technical and administrative specifications, policies and regulations.	<p>must engage with Procurement services Branch (PSB) and other HQ units as soon as possible to ensure proper procedures and timely delivery.</p> <ul style="list-style-type: none"> <li>• UNFPA may provide quality assurance throughout the process in cases where goods and services are contracted. This is based on UNFPA's comparative advantage of working in similar areas in other countries. Support may be offered from the Regional Office and HQ.</li> </ul>
	Data User/Producer Consultation	Data users need to be part of the planning process to ensure national ownership and increased data utilization. The NSO should consult data users to identify their needs in terms of type and format of census products and services. The consultation must include relevant users and should be completed within the necessary phases of the census.	<ul style="list-style-type: none"> <li>• Support the NSO to identify key phases when the census data users and producers consultations are needed to facilitate improvement, ownership and increased utilization of census data, especially by academia, NGOs, the private sector and sector ministries.</li> <li>• Provide technical support to facilitate these consultations.</li> <li>• Support the NSO to assess potential changes in the needs of data users as a result of the pandemic.</li> </ul>
	Procurement	<p>A procurement plan includes details of all products (vehicles, equipment including ICT, such as hardware and software infrastructure, materials and supplies) and installation of equipment and services.</p> <p>There are various modalities for procurement of census commodities and services. The policies and guidelines often differ depending on who is responsible for the procurement i.e. the NSO or UNFPA. It is important to ensure that the necessary guidelines are followed to avoid nullification of processes, which could result in having to start all over, which may affect the census process.</p> <p>Depending on the level of complexity of the census program, incorporation of key skills may be needed, such as a census IT or GIS expert/consultant, to define the specifications that will be incorporated into the solicitation documents.</p> <p>It is critical to seek advice from the Regional Office, PSB and other HQ units on procurement issues. The involvement of PSB as early as possible in this process is vital to its success.</p> <p>Procurement of apparent "simple" items, which are available at the local market, (e.g. office supplies, cardboard boxes, etc.) still require complete specifications and an international bidding process, as requested quantities are often high.</p> <p>The COVID-19 pandemic has negatively impacted the global supply chain through:</p>	<ul style="list-style-type: none"> <li>• If UNFPA is responsible for procurement, it is important to share the procurement plan with Regional Office and PSB for guidance, as soon as possible.</li> <li>• In some countries, UNFPA is given responsibility to manage procurement. In such cases, it is necessary to engage as soon as possible, Regional Office Information Technology Solutions Office (ITSO) and PSB, to review specifications and quantities, and Finance Branch, with regards to local logistical arrangements and inventory controls. If no Long Term Agreement (LTA) is in place, a competitive process must be completed, such as an ITB or Request For Proposal (RFP).</li> <li>• Consider sufficient time to prepare bidding documents, launch process, bid evaluation and contract submission to HQ CRC, for manufacturing and freight. The standard procurement process may take 3-6 months, but timelines should also include for additional time related to manufacturing, freight and import procedures, which vary based on the type of goods, country, and geographical location. At present there are LTAs in place that could be used for census purposes.</li> <li>• Special considerations apply to the procurement of payment services (e.g., for payments to census enumerators) from third party providers, as outlined in the policy on the management of cash disbursements.</li> <li>• If applicable, plan for additional quantitative (Number of Staff) and qualitative (Procurement Training and knowledge) capacity of operational and program staff in the CO. High quantity procurement of equipment, which are not part of UNFPA's daily procurement portfolio require additional capacity and knowledge about markets and procurement procedures.</li> <li>• Special considerations for manufacturing and shipping timelines should be made as a result of the pandemic. Vast disruptions in global travel and closures or reduced capacities in manufacturing plants can alter product availability. Timelines should be developed with ample buffer times during the COVID-19 pandemic.</li> <li>• Where possible, local procurement of PPE items should be considered to reduce the disruption of national border closures or other interruptions in international shipping chains.</li> <li>• UNFPA may support NSO to assess budgetary implications of global supply chain disruptions due to the pandemic.</li> </ul>

		<ul style="list-style-type: none"> <li>• Lockdowns causing disruption of production and transportation schedules of census commodities, have resulted in significant backlogs to clear.</li> <li>• Increased demand for personal protective equipment for census</li> <li>• Local legislations (determining operational implementation)</li> <li>• Increased costs (freight, higher unit costs, etc.)</li> </ul> <p>Procurement plans should be adjusted for any PPE needs if census activities will be conducted during the pandemic and the census authorities deem PPE use as a prerequisite for conducting activities.</p>	<ul style="list-style-type: none"> <li>• UNFPA can support NSO to adjust data collection plans to incorporate additional technology equipment, where needed.</li> <li>• There is need for closer collaboration and enhanced communication between technical/programme, and operation teams within UNFPA and also within the respective NSOs.</li> <li>• The UNFPA Guidance on Procurement and Use of Supplies in response to COVID-19 was updated in September 2020 to include census as a programme priority for procurement and use of supplies under COVID-19. This document should be consulted to identify items to be included under PPE for census</li> <li>• Country Offices are encouraged to contact their respective regional procurement focal points, as early as possible, for procurement -related support (procurement strategy, questions on sourcing, planning, procurement policy, etc.).</li> </ul>
Pre-census / Planning to be initiated three to two years prior to expected date of census	Convening Government Stakeholders	The NSO is generally tasked with the whole census operation, as well as the coordination of activities with other stakeholders. Stakeholders of census are either 1) users of census data or those who are involved in the implementation of the census or 2) those individuals/institutions/ organizations that can affect the success of the census or are affected by the census. Some key services required for the successful implementation of a census may be provided by other government agencies, e.g. mapping, publicity/awareness creation, IT systems, and transportation (vehicles/trains/postage, security, etc.). Early convening of stakeholders is required to accommodate their needs, ensure ownership and to seek their cooperation.	<ul style="list-style-type: none"> <li>• Ensure that the NSO includes key stakeholders when planning for the census implementation.</li> <li>• UNFPA CO may offer to support the convening of relevant departments of the government to ensure their cooperation with the census plan.</li> <li>• Ensure that any convening of government stakeholders also include relevant ministries and agencies tasked with the nation's COVID-19 pandemic response.</li> </ul>
	Selection of Appropriate Technologies and Data Processing System	<p>New technologies and innovations have provided opportunities as well as new challenges for NSOs. Many countries have adopted, or are considering the adoption of modern technologies, such as handheld devices or tablets or internet, while others still prefer using scanning technologies for census data collection and processing.</p> <p>The emergence of tablets and smartphones that incorporate GPS technology enables the simultaneous collection of geographic data with complex attributes and the creation or adjustment of geographic objects in the field. Examples of countries where handheld devices have been successfully used include: Brazil, Senegal, Egypt, Lesotho, Swaziland, Malawi, etc.</p>	<ul style="list-style-type: none"> <li>• Utilize technical expertise from the CO, RO, and HQ, including ITSO and PSB, and consultants to advise the NSO on technology solutions (hardware and software) selection. Identify if there are lessons learned from other countries. Refer to the <a href="#">UN Guidelines on the use of electronic data collection technologies in population and housing censuses</a>, published in 2019, to guide technological choices for the 2020 census round.</li> <li>• The Country Office may recommend and support an Information, Communication and Technology/Data processing assessment to determine the status of the IT system (network coverage, equipment, human resource skills, etc.) and readiness to support different technology options for the census. Gaps and required support will also be identified.</li> </ul> <p>IT Recommendations:</p> <ul style="list-style-type: none"> <li>• It is important to highlight all the technology requirements early in the planning phase</li> <li>• Consider buying spare laptops and tablets</li> <li>• Equip operations centre with multiple internet lines</li> </ul>

		<p>While these technologies have improved the planning and implementation of field operations and the overall quality of the census conduct, including speed and accuracy, associated challenges have arisen. These challenges include the lack of capacity, high start-up costs, uncertainty about the security of data confidentiality, etc. The adaptability of new technologies for census varies from country to country depending on the existence of support infrastructure, financial resources and relevant human resource capacity.</p> <p>It is of utmost importance that a fully operational technology infrastructure is established well before the data collection activities start. Any delays in executing the related work-plan could potentially disrupt census</p> <p>IT equipment and services (tablets, laptops, servers, connectivity and software) do fail and require prompt tech support to restore operations.</p> <p>During the COVID-19 pandemic and lockdowns, the ability to obtain prompt tech support may be limited. Failed equipment or services could potentially disrupt the census project.</p> <p>There is high market demand for well-qualified IT personnel with a large proportion of countries set to conduct census enumeration in 2021 and 2022, coupled with limited availability of international experts due to travel restrictions.</p>	<ul style="list-style-type: none"> <li>• Try not to deviate from the technology standards proposed by Information Technology Solutions Office (ITSO), where relevant</li> <li>• Consider cloud hosting instead of building local data centres, where this is possible.</li> <li>• Invest efforts in recruiting the right IT personnel and find ways to secure their services for the entire duration of the census exercise</li> <li>• Consider outsourcing certain IT tasks to well established vendors where necessary.</li> <li>• Where electronic data collection is considered, it is important to undertake a thorough feasibility assessment, and ensure proper data security with end-to-end encryption, and also to ensure device compatibility.</li> </ul>
Risk Assessment / Contingency Plan		<p>Due to the infrequent nature of conducting a national census, it requires adequate planning, including risks assessments and contingency planning.</p> <p>Risks exist at each stage and phase of the census exercise and may jeopardize the success of the census.</p> <p>Even though the negative outcome might not materialize, different risks should be explicitly assessed in advance and a contingency plan with correlated mitigation measures must be prepared. Since risks are dynamic and censuses take a long time to prepare, it might be appropriate to conduct the risk assessment two years prior to the census. This should be updated routinely as the situation may continue to change, and</p>	<ul style="list-style-type: none"> <li>• Advocate for a risk assessment and/or support its conduct.</li> <li>• Support the NSO to prepare the risk matrix, including the mitigation measures. Most NSOs are not practiced in preparing the donor required risk matrices. Check with RO on the template of risk assessment and use it accordingly.</li> <li>• Advise the NSO and the Government according to the level of the risks identified in the assessment and ensure that they are continuously updated.</li> </ul>

		<p>previously identified risks may concretize later than previously planned for.</p> <p>Due to COVID-19, risk assessments and contingency plans should account for potential transmission during all census activities, including during interactions between census staff and the general public. These plans should also account for potential diversions of funds due to national responses and delays or postponements of activities due to lockdown measures.</p>	
	Questionnaire Design	<p>Questionnaire design is a critical stage of the census process as this determines the substance of what information is collected during the census and hence defines the products of the census. The questionnaire must be designed in concordance with the specific objectives of the census, which were clearly defined in the census project document.</p> <p>The questionnaire design process must be guided by the current UN Principles and Recommendations for population and housing censuses.</p> <p>Countries, however, have the prerogative to include certain items to collect data relevant to their national contexts. The questionnaire could be presented at a user and producer consultation to ensure ownership and buy-in.</p> <p>It is advantageous for teams from sectors that are included in the questionnaires are involved in the design stage.</p> <p>As a result of the COVID-19 pandemic, questions regarding the impact of the pandemic on the population should be considered.</p>	<ul style="list-style-type: none"> <li>• If the NSO lacks expertise in subject matters, UNFPA CO may convene a series of expert group meetings to assist with questionnaire design.</li> <li>• Ensure that all relevant technical teams participate in the design stage.</li> <li>• Review the questionnaire and provide inputs in consultation with the RO.</li> <li>• UNFPA must ensure the organization of a technical workshop to discuss the questionnaire and other tools with all relevant sectors, civil society, university, etc.</li> <li>• Support the NSO to revise or include questions related to COVID-19 and its effects, if desired by the NSO.</li> </ul>
Pre-census / Planning to be initiated two to one year prior to expected date of census	Cartography and Delineation of Enumeration Areas	<p>Cartography serves three purposes: planning and supervising operations, census data collection, and presentation and analysis of results. Census maps are used to identify enumeration areas (EAs) in the field by census enumerators for data collection, to avoid omission or duplication of coverage, and to facilitate visual spatial displays of census findings.</p> <p>There is a need to undertake an assessment to determine if the updating of cartographic information is required, which method to use, if software is needed (ARCGIS or others), need for satellite imagery and cartographic equipment (GPS), plotters, etc. Maps are</p>	<ul style="list-style-type: none"> <li>• Support assessment of cartographic mapping to ensure that the appropriate approach is adopted and will add value to the census.</li> <li>• Ensure timely completion of cartography as it has implications on other activities, i.e. the budget will only be completed after mapping, the determination of the number of field staff for the enumeration, and subsequent recruitment of field staff, etc.</li> <li>• Advocate for timely completion of EA delineation.</li> <li>• UNFPA may offer to procure GIS software and/or consultancies to ensure timely completion of the EA delineation process.</li> <li>• Ensure that the NSO includes key stakeholders for planning mapping activities such as the ministry of interior, ministry of surveys and regional governors for territorial and administrative division issues.</li> <li>• Advise and support the NSO to adjust their cartography and overall census timelines if cartography work is interrupted by the pandemic. This</li> </ul>

		<p>also used for the development of the national sampling frames, upon which representative household based sample surveys are conducted.</p> <p>EA delineation is an important process, not only for managing the effectiveness of field operations, e.g. preventing omission and duplication, allocating equal workload to enumerators and geographical analysis of census outputs, but also for providing surveys.</p> <p>EA boundaries should follow physical features that are easily recognized by enumerators, improving accuracy and efficiency.</p>	<p>may include advising on validity of collected data if lengthy delays are experienced.</p>
Satellite imagery for census	<p>Modern, digital and georeferenced census often requires access to up to date very high-resolution satellite imagery for the census preparation (cartography and building identification for example), to ensure everybody is counted. Manually producing the required geographic data from older satellite imagery or through field data collection (geographic coordinates of buildings) can be a time-consuming and expensive process, and often result in outdated information.</p> <p>The cost of satellite imagery is now further reduced by online access services (without the need to download Terabytes of data, if internet connectivity allows good online access). Access to and ownership of high resolution and recent satellite imagery is becoming easier.</p>	<p>UNFPA can support NSO's to access latest satellite imagery using various long-term agreements that exist between the United Nations and satellite imagery data providers (Maxar, Airbus, Planet, others) for discounted "census packages" of readily-available data (recent satellite imagery mosaics and/or building footprints, road networks data for entire countries - automatically extracted from satellite imagery through Machine Learning and Artificial Intelligence).</p>	
ESRI Modernization Program for Official Statistics	<p>In the 2020 census round, GIS and geospatial data play a critical role both for cartography, enumeration and data dissemination. So NSOs and governmental institutions in charge of census need to use multiple GIS software and tools. To fill this need, ESRI has set up a special package of the ESRI suite for Less Developed Countries (LDCs) and Small Islands Developing States (SIDS). The package includes both desktop and server licenses for Arcgis, and a dozen other ESRI product and tools, that can be used for the different phases of census. This package costs USD10,000 a year. For the eligibility and the content of the package, one can refer to the link <a href="#">here</a>.</p> <p>UNFPA has negotiated with ESRI to extend the package to 2034 in support of both 2020 and 2030 rounds of the Census, and also extension to cover</p>	<ul style="list-style-type: none"> <li>• The UNFPA CO should inform the NSO and governmental institutions about the existence of this package and also connect them to the ESRI platform where they can register.</li> <li>• Given that CO generally provide some financial support to NSO for census, these funds can be targeted toward the acquisition of the ESRI package. Once the Government signs the MLA (Master License Agreement) with ESRI, UNFPA can pay for the license on behalf of the Government</li> <li>• The CO, in liaison with HQ, can also facilitate the organisation of training on ESRI products.</li> </ul>	

		additional countries, of priority to UNFPA, including Cameroon, Congo Republic, Cote D'Ivoire, Ghana, Namibia, eSwatini, Zimbabwe, Bolivia, Equatorial Guinea, Honduras, Iraq, Nicaragua, Sri Lanka, Tajikistan. Details of the MoU will be shared soon.	
Pre-Test and Pilot Census	<p>The pilot census is the 'dry run' for the actual census on a smaller scale, to evaluate all aspects of the census operation including the concepts and definitions, the adequacy of the questionnaires, the training of field enumerators and supervisory staff, field organization, census methodology, duration of data collection, data collection methodology and data transmission procedures, data processing and data tabulation. In countries with a large sample size for the pilot testing, operational arrangements including logistics and payment systems should be piloted.</p> <p>The results should inform the finalization of the plans for the census and to provide a basis for the final estimation of resource requirements for the census.</p> <p>The pilot census should be done one year before the expected date of census.</p> <p>Before planning a pilot census, the conduct of a series of pre-test surveys is highly desirable to test the formulation of concepts and definitions, census questionnaires, field instruction manuals, etc., and the evaluation of alternative methodologies and data collection techniques.</p> <p>The entire process of the pilot census must be evaluated, documented, shared with stakeholders and experiences should be used to improve the census planning, methodology, technical documents, software applications, etc.</p>	<ul style="list-style-type: none"> <li>• Support the timely implementation of the pilot census. Ensure that the pilot procedures mirror the plans for the actual census.</li> <li>• Provide support if not available within the NSO to analyse the pilot census process and use the lessons, outcomes and experiences gained from it to improve the census planning.</li> <li>• Advise the NSO not to accept "free" offers from vendors at the pilot census stage, such as processing equipment or software. Their purpose is to develop a reliance on their product to ensure that the implementation of the full census will require the product, which will often no longer be free of charge. This may create dependency on one vendor without carrying out the due procurement process. Frequently, the government will request to use the same products and services in the census exercise as the initial pilot census.</li> </ul>	
Setting up Census Data Processing Centre and main warehouse	<p>Once data collection is completed, the data processing centre becomes the heart of the operation. Location and security requirements need to be considered in the selection of the census processing centre and main warehouse where all census materials will be delivered, equipment will be installed and distribution will take place to the field. With these activities, planning for procurement of goods and services must be anticipated and requires considerable time.</p>	<ul style="list-style-type: none"> <li>• Lobby with the NSO to prioritize the selection and equipping of the data processing centre.</li> <li>• UNFPA may also support procurement of certain equipment to ensure the conditions in the centre are suitable for data capture, storage of forms (if used), back-ups, security and complies with requests from the NSO.</li> <li>• Ensure that these facilities are reflected in the Census Plan, as they are often omitted in the early planning phases and not considered until immediately prior to needing them.</li> <li>• Advise the NSO or government to develop and implement a business continuity disaster recovery plan that involves more than back-ups and</li> </ul>	

			<p>also strengthens the security of the data processing centre and main warehouse.</p> <ul style="list-style-type: none"> <li>• Support NSO to adjust security plans, where needed, due to national lockdown or social-distancing measures.</li> </ul>
Pre-census / Planning to be initiated one year prior to expected date of census	Communication Campaign (Publicity and awareness creation)	<p>The census requires that the entire population in a country is aware of the census in order to provide their accurate responses to an enumerator. This requires a communications campaign strategy to be developed and communication activities to be implemented. It can be done internally by the government or by a communications/marketing company that will apply more specialized communication techniques.</p> <p>It is important that the communication campaign and awareness creation is done in a sustainable way, with maximum impact at the time of enumeration.</p> <p>The pandemic has caused vast disruptions to census activities and has contributed to increased concerns about in-person interactions, such as those in field work. Communication campaigns should be revised to address the concerns about transmission and advocating for the safe participation in the census to prevent any under-coverage or low response rates.</p>	<ul style="list-style-type: none"> <li>• Support development of Communications and Awareness Creation Strategy if the NSO does not have capacity or resources.</li> <li>• Support selected strategic elements of the communication campaign.</li> <li>• Advise on partnership with ministries responsible for information and/or communication to implement the communication strategy.</li> <li>• Advise NSO to use community communication channels, where applicable.</li> <li>• Support NSO to adjust or add on to their communication campaigns to include messaging and advocacy for conducting and participating in the census during the COVID-19 pandemic.</li> </ul>
	Human Resource Recruitment and Management	<p>The human resource requirements for the census depends on geographic area and size of the population to be covered, topics covered, technologies applied, support from international organizations, number of activities, data collection and processing options, complexity of analysis and dissemination. HR responsibilities include: recruitment, hiring and remuneration, leave and administrative tasks.</p> <p>Payroll is a time consuming process, which normally requires the participation of different entities (UNFPA, NSO, national banks, private banks, etc.) and the development of a payment and verification system.</p> <p>Staff recruitment is time consuming and may require the development of an application. There may be need to consider different options for HR Recruitment and requires full transparency, as it may compromise the census is negative information from it.</p> <p>The pandemic has caused disruptions in recruitment activities, staffing needs, payroll and overall</p>	<ul style="list-style-type: none"> <li>• In countries where UNFPA funding is used to recruit and pay for field services the CO must ensure that appropriate recruitment processes and payroll processes are in place. For more details check the Census operational and financial management guidelines.</li> <li>• Support the NSO in drafting TORs of various cadres of staff and design a recruitment process.</li> <li>• Provide as much support as possible to the NSO for recruitment, payment, and management of field staff, as these processes should remain within the NSO's purview.</li> <li>• Support NSO in revising human resource recruitment and management plans to address disruptions caused by the pandemic. Revisions should also account for the possibility of contract extensions that could arise from postponements or delays.</li> </ul>

		implementation timelines. Human resource plans should undergo a revision process to adjust for any impacts of COVID-19.	
	Development of Training Materials	<p>The census training materials and enumerator manuals should be prepared well in advance of training and made available at the beginning of the staff-training course. It is advisable to delay the finalization and printing of the manuals until the pre-test takes place and after the census questionnaires and various administrative procedures are finalized. However, it is highly preferable to have draft manuals at an early stage. Printing of training materials should take place after all processes for developing the material have been completed, including the experiences and lessons learned from the pilot census.</p> <p>Development of training materials should now include materials on personal safety and conducting census activities during a pandemic. It is critical that census staff are adequately trained in how to use PPE, conduct interviews in a safe manner, implement activities while adhering to social distancing measures, etc.</p>	<ul style="list-style-type: none"> <li>• Support the census agency to develop training materials; provide any relevant expertise.</li> <li>• Ensure quality control by having experts review the developed materials and in special cases, have the RO review the materials.</li> <li>• Support NSO to develop training materials for the effective and safe conduct of the census during the pandemic. Support may include coordinating external guidance from health safety experts to develop these materials.</li> </ul>
	Printing of materials and Acquisition/ Procurement of Hardware	<p>Due to the high quantities of materials (in traditional or paper approach) to be ordered, a long delivery time should be accommodated for. Apart from the bidding process, if a Long Term Agreement (LTA) is not in place, suppliers will need to manufacture the required goods in the case of digital items such as tablets, and thus adequate lead-time needs to be factored in.</p> <p>The pandemic has caused massive shipping and supply chain disruptions and delivery times should be adjusted in procurement plans.</p>	<ul style="list-style-type: none"> <li>• If procured by UNFPA, UNFPA CO should ensure that all services, products and detailed specifications are listed and communicated to UNFPA's procurement office on time. These should also be shared with the RO.</li> <li>• Advise NSO on disruptions in the global supply chain of hardware and technology equipment. Support NSO to adjust hardware needs in light of any human resource changes.</li> </ul>
	Hiring / Training of Enumerators / Field Staff	<p>A recruitment plan should be in place one year in advance, and field staff, including enumerators, are to be hired 1-2 months in advance in order to effectively coordinate training. It is essential to ensure a controlled recruitment process, beginning with a reliable database of field staff as the basis for preparing the payroll. The success of the census in providing useful results depends largely upon the proper selection and training of field staff. At the base of the hierarchy is the field enumerator whose work is monitored by field supervisors. District supervisors work under the national or/and provincial census coordinators to provide</p>	<ul style="list-style-type: none"> <li>• Advise the NSO on recruitment, training and contingency planning.</li> <li>• Provide technical support and monitors to ensure that training is conducted as planned.</li> <li>• Advise and work with the NSO to have a controlled recruitment process, so that there is reliable database of enumerators as the basis for preparing the payroll.</li> <li>• Support NSO to adjust all recruitment, training, and contingency plans due to changes resulting from the pandemic.</li> </ul>

		<p>quality control and technical guidance during field work.</p> <p>Inefficiencies in the management of the human resources is associated with high turnover rates, especially for enumerators. Many census agencies may fail to prepare contingency plans in advance. It is important that 5% extra reserve staff are recruited and trained, and can be deployed to enumerate special population groups, if needed.</p>	
	Distribution of Census Material	<p>Distribution of census materials to the field from the main warehouse to all regions/ departments/ districts. Some countries prefer to distribute census materials with the military support, while others prefer to outsource logistics to private companies.</p> <p>Regardless of which distribution system is adopted, there is a need to have a controlled process, with adequate documentation support, security and storage facilities in the field.</p> <p>Planning must also be made to ensure that all required materials are returned to the required data processing locations.</p> <p>More guidelines on the distribution of materials to the field is contained in the census operational and financial management, so may be referenced.</p>	<ul style="list-style-type: none"> <li>• Advise the NSO on modalities that will enhance efficiencies in the overall distribution process.</li> <li>• Revise and implement any needed changes to distribution of census materials, including adjusting delivery times, implementing additional controls in the process to reduce inefficiencies in distribution.</li> </ul>
	Post Enumeration Survey Planning	<p>Planning for Post Enumeration Survey should be undertaken well in advance before census enumeration.</p> <p>The PES methodology, instruments and proposed processes should be pretested as part of the pilot census.</p> <p>There should be an independent team to implement the PES separately from the main census team.</p>	<ul style="list-style-type: none"> <li>• Support the NSO to ensure that PES is implemented as part of the overall data evaluation process.</li> <li>• Advise on an independent team to plan and conduct the post enumeration survey.</li> <li>• Provide technical support to plan and develop instruments and procedures, wherever necessary, to ensure that the PES is implemented and results are published.</li> </ul>
Enumeration	Enumeration	<p>The enumeration exercise is a key phase in the census implementation. The success of the census depends on it being done quickly, efficiently and with a proven methodology. Specifically, in the case of a de facto census, the entire enumeration should ideally be completed within the stipulated days that had been nationally agreed upon. The enumerators must each</p>	<ul style="list-style-type: none"> <li>• Monitor overall field operation processes and provide advice if necessary.</li> <li>• Support the NSO to develop mechanisms to ensure that those not enumerated can report out to the relevant authorities.</li> <li>• Support modalities for daily briefs by the NSO.</li> </ul>

		<p>identify their boundaries and data collected from each household within the assigned area.</p> <p>Security must be provided to enumerators, the data collected and equipment.</p> <p>A mechanism must be established for verifying that households already enumerated are marked uniquely and easily identifiable. This may include leaving a sticker or other marker on the entrance door or leaving some form of certificate in the household.</p>	<ul style="list-style-type: none"> <li>• UNFPA recommends that the NSO involve local authorities to participate in the process at a decentralized level (security issue, facilitation of communication, approval of fieldwork, etc.)</li> <li>• Develop and implement contingency plans for any disruptions to enumeration activities as a result of the pandemic.</li> </ul>
	Implement Post Enumeration Survey (PES)	<p>The PES serves as a methodology to quantify the degree of errors within the census exercise. While there are multiple demographic methods to detect and quantify the degree of errors in census data, the PES is the ideal method to evaluate the degree of coverage of the census. PES must be included in the project document and planned for prior to the census. Errors in censuses can arise from many sources, such as flawed data collection and processing procedures and faulty questionnaires, instructions, training materials and procedures. Errors are inevitable in such a large data collection exercise. It is critical that census cartography, which identifies all EAs in unambiguous geographical domains/units, is as complete as possible as the success of the PES is reliant upon that phase of the census. Data collection for the PES must be done within two or three months after the census data collection exercise.</p>	<ul style="list-style-type: none"> <li>• Advocate for the importance of planning early for and conducting a high quality PES; provide technical assistance for the PES.</li> <li>• Support analysis of PES data and advise on the use of results analysis.</li> <li>• Support NSO to develop contingency plans in the event that lockdown or social distancing measures disrupt PES data collection.</li> </ul>
Post-Census Processing, Analysis, Dissemination and Utilization	Data Processing	<p>Data processing exercise is a large operation that is conducted in a processing centre or in the cloud, either commercially or nationally based. Depending on the methodology to be used, the census may require installation of IT equipment (servers, computers, scanners, printers, etc.), office furniture, air conditioning, shelves, etc.</p> <p>It has been the general experience that in a well formulated census, around two-thirds of the total expenditure goes to planning and conducting the field work (both in digital and traditional census), while one-third is spent on data processing, analysis and dissemination. Data processing is the responsibility of specialized staff in the NSO.</p> <p>The pandemic may cause disruptions in data processing due to work from home or social distancing orders.</p>	<ul style="list-style-type: none"> <li>• Advise the NSO or provide technical expertise for census editing, including conducting routine controls such as checking for duplicate records and unexpected mistakes, to ensure high quality census data.</li> <li>• Advise the NSO to identify early needs of technical expertise for data processing.</li> <li>• Support NSO to identify and mitigate any potential delays in data processing that could arise from reduced capacities.</li> </ul>

		Additional IT equipment may be needed for those working from home or altered work schedules to facilitate in-office work.	
Release of Preliminary Results		<p>Preliminary results may be released based on summaries generated soon after field enumeration and prior to the processing of individual data records.</p> <p>Preliminary results typically cover information by major administrative units on population by sex and number of households.</p>	<ul style="list-style-type: none"> <li>Advocate for the government to share the preliminary results as soon as they become available, or in some cases, support logistics for the launch of the provisional census results. This will increase the exposure of the preliminary results and how they will be utilized to the local population.</li> <li>Advise the NSO to validate the preliminary results so that differences with main census results are kept at minimum.</li> </ul>
Release of Main Results of the Census		Analysis of census data to the lowest administrative unit should preferably be undertaken by the NSO, other departments of government, academia, researchers and other partners to maximize the utilization of richness of data. The analysis and publications should consider the needs and realities of the country, through user consultations.	<ul style="list-style-type: none"> <li>If the NSO lacks analytical expertise, UNFPA CO may convene a series of Technical Committee/Expert Group Meetings (EGM) or bring on board national and/or international experts to build the NSO's capacity on data analysis and prepare the requisite products.</li> <li>Advise the NSO to identify the technical expertise needs for data analysis per specific item.</li> <li>Advise NSO to provide users with priority tables in excel for easy access.</li> </ul>
Dissemination of Main Census Results		Main census results are to be disseminated to the users at the earliest time possible. Sequential releases by subject matter (topics) is recommended. In addition to the traditional tables and reports, more diverse platforms are needed, including unpublished tables, dissemination on online and upon request to facilitate users' convenience. The dissemination should be an ongoing process, focusing on different elements of the results, rather than a one off event.	<ul style="list-style-type: none"> <li>Support the NSO to prepare and implement a comprehensive dissemination plan, including interest groups and the media.</li> <li>Support initiatives to train diverse data users on the modalities of utilizing data to achieve maximum benefits.</li> </ul>
Generation of Population Projections		Population projections are a key product of the census as they provide important data on the future status of the population, which is central to planning and decision-making. Also, sub-national population projections provide key data for the Common Operational Datasets on Population Statistics (COD-PS), which are critical in times of humanitarian crises.	<ul style="list-style-type: none"> <li>UNFPA may support generation of population projections, particularly sub-national projections</li> </ul>
Access to Sample / Micro Census Data		Data users may request access to micro-data for advanced analytical use. However, micro-data are to be strictly confidential and used exclusively for statistical purposes, while respecting the principle of data anonymity.	<ul style="list-style-type: none"> <li>Recommend interactive platforms for data dissemination and/or access to a sample of anonymised micro census data.</li> <li>Provide technical support to prepare data in formats that would ensure confidentiality of individual records.</li> </ul>
Thematic Analyses		Thematic analyses aim to analyse the census data fully by focusing on specific themes. This analysis can provide demographic and social economic indicators to planners and implementers of development policies at national and sub-national levels. The analysis provides the levels, trends, and differentials of indicators at national, and subnational levels where possible. This analysis will also suggest areas for further study to seek statistical	<ul style="list-style-type: none"> <li>In case the NSO lacks analytical expertise, UNFPA CO should contract qualified consultants to work with the NSO, line ministries and universities to prepare and publish the thematic reports. This must be implemented as part of capacity building support.</li> </ul>

		<p>parameters to answer the "why" questions that may arise by certain data users or their collaborating partners. Thematic and analytical reports must be based on user needs and respond to a country's specific development needs and emerging issues. These reports may combine census data with other data sources to provide a more comprehensive and context specific outlook. Outputs from thematic analyses may include thematic reports, policy briefs, datasheets, etc.</p> <p>Thematic analysis may be done by NSO staff if their capacity permits or experts from universities or consultants with expertise in analysis and report writing. It is an excellent opportunity for the NSO and teams from sector ministries to strengthen their capacities.</p>	
Small Area Estimation	<p>Censuses provide data from the national level to the lowest administrative level in the country. This makes the data amenable to the development of estimates of certain variables of interest for small/local areas in two major ways: 1) directly from the production of tables from the micro-level data for the required characteristics and 2) indirectly by applying small area estimation techniques. The small area estimation techniques combine other data sources, such as sample surveys and administrative statistics, with the population and housing census results. These techniques are important to providing sub-national estimates on indicators that are not directly collected by a census but are required to monitor SDGs.</p>	<ul style="list-style-type: none"> <li>• UNFPA may wish to support capacity strengthening in the small area estimation techniques by using either internal expertise from UNFPA RO or HQ, World Bank and/or external consultants.</li> <li>• It may be strategic to work with other development partners such as other UN agencies, World Bank, ILO, etc. to decide on the list of indicators to be generated from small area estimation.</li> </ul>	
Capacity Development of Sector Ministries on Utilizing census data	<p>With appropriate capacity building, ministries can link their administrative data and census data to improve the quality and coverage of service delivery. Using census data, adjustments can be made to estimates from administrative sources to give national level estimates.</p>	<ul style="list-style-type: none"> <li>• Support such capacity building including the sourcing of internal and external experts from various development partners. This should be implemented jointly with other UN agencies, bilateral and multilateral partners.</li> </ul>	
Preparation of Census Administrative and Methodological Report	<p>Documentation of the various phases or activities of the census is necessary to create institutional memory. Documentation should be prepared throughout the exercise, beginning with the first planning phase through to the final phases of the census. It should follow all planned activities and include how each activity was implemented, experiences gained, lessons learned and recommendations that arose from the various phases of the census. This publication would create an institutional memory of the census and ensure that future staff of the census office can develop plans</p>	<ul style="list-style-type: none"> <li>• Provide recommendations so that the process begins at the start of the exercise and is done internally by the census personnel.</li> <li>• Support preparation of the overall report through the hiring a consultant to prepare the publication at the end of the census project.</li> <li>• Support publishing the report both electronically and in printed copy.</li> <li>• Support NSO to include contingency plans and implemented mitigation measures due to the pandemic in the report to ensure that lessons learned from implementing a census in an emergency context are recorded.</li> </ul>	

		for future censuses from it. It should also be used by analysts to enhance their interpretation of the data.	
One or two years after the end of the census	Documentation and Archiving	<p>The purpose of establishing and maintaining thorough documentation of a project like the census is that its coverage is multi-dimensional. It is necessary to ensure the solid basis for conducting the next census; it is critical for assessing the efficient use of significant resources and book-keeping; it provides invaluable additional information to users of census statistics throughout the lifetime of these statistics.</p> <p>Consequently, planning for the development of the comprehensive documentation process needs to be undertaken at the very beginning of the preparations for the national population and housing census. Documenting each phase and activity of the census needs to be incorporated into the overall management and organizational structure, with clear and distinct assignments of responsibilities within each management and organizational level.</p> <p>Archiving ensures the preservation of relevant census materials, primarily census records, procurement processes, specifications, terms of references, etc. Archiving procedures and protocols for the population and housing census' statistical materials as well as management, financial and procurement would be similar to other statistical exercises under the auspices of the national statistical authorities. However, archiving individual records is unique as these cover the entire population of the country; thus, the need to develop specific procedures.</p>	<ul style="list-style-type: none"> <li>• Provide technical support that would document and archive the census processes and digital data.</li> <li>• Ensure that copies of the documents are shared with relevant institutions and potential users.</li> <li>• Support publishing the report both electronically and in printed copy.</li> <li>• Share these experiences with other country offices, regional offices and HQ so that they can disseminate the newly established best practices to countries planning to implement the census.</li> </ul>
	Census Evaluation	<p>Census evaluation consists of activities aimed to assess both coverage and quality of data collected, as well as the quality of census processes. A standard feature of census evaluation should be to review each of the major phases upon completion. This evaluation can identify strengths and weaknesses and make recommendations for investigation or redevelopment in the next census cycle.</p> <p>Evaluation efforts focused on census results should generally be designed to serve the following objectives: i) to provide users with indications about the quality of the census data to aid in their interpretation of the results; ii) to identify as far as is practicable the</p>	<ul style="list-style-type: none"> <li>• Advocate the NSO to begin the process of census evaluation/monitoring directly following the completion of all phases of the census.</li> <li>• Ensure that the census evaluation is captured in the Project Document and is being actively conducted throughout the stages of the census, as each phase of the census should be evaluated. It is also important that the findings are used to improve the next phases</li> <li>• Provide resources to hire the best experts in the area of census evaluation.</li> </ul>

		<p>types and sources of error in order to assist in the planning of future censuses; and iii) to serve as a basis for constructing a best estimate of census aggregates, such as the total population, or to provide census results, which are adjusted to account for identified errors at national or subnational levels. Specifically if some errors, such as coverage errors, are substantial and the validity of census results might be questionable.</p>	
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