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Planning for the 2020 round of population censuses in the Caribbean

Samantha John-Aloye
Abdullahi Abdulkadri



UNITED NATIONS



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Abstract

The population and housing census is a major data source that was widely used by Caribbean countries to monitor their progress towards achieving the Millennium Development Goals (MDGs). It also provides a potentially rich source of data for monitoring the progress towards achieving the Sustainable Development Goals (SDGs). A Technical Needs Assessment Survey (TNAS) of Caribbean countries to determine their proposed plans and technical needs for the 2020 round of censuses provided a basis for assessing the viability of the census to produce data for the SDG indicators. The results of the TNAS indicate that the majority of the countries are in the initial stages of planning for the 2020 round of censuses. However, many countries identified proposed changes to the census in areas of cartography, the census questionnaire, data capture, data processing, data evaluation, data analysis, and data dissemination. The highest ranked priority areas for technical assistance are in the use of technologies for data capture, data processing, mapping update, and funding. The findings of the assessment indicate that the decennial population and housing census represents a viable source of data in the Caribbean to produce indicators for eleven of the seventeen SDGs.

Introduction

Caribbean countries routinely conduct a Population and Housing Census every ten years. Censuses in the subregion are organised under a common framework endorsed by the Regional Census Coordinating Committee (RCCC).¹ This framework includes the use of a Common Census Questionnaire, which, for the 2010 round of censuses, facilitated the comparability of demographic and housing statistics across the subregion with the incorporation of the common “core” questions in the national census questionnaires. During that round, most countries conducted their enumeration over the 2010-2012 period. By routine, these countries would be due for another census during 2020-2022. These enumerations will take place in a decade when the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs) is likely to be accelerated. Therefore, the 2020 decade will be a pivotal period for the follow-up and review of the SDGs.

The preparation of Voluntary National Reviews (VNRs) to the High Level Political Forum on Sustainable Development (HLPF) will undoubtedly place greater demand on the National Statistical Offices (NSOs) for demographic and other forms of data.² Since the census provides a rich source of demographic data across Caribbean countries, it is necessary to identify which of the SDG indicators could be produced from censuses and where opportunities exist to use the censuses to collect data on relevant SDG indicators. Along this line, the Caribbean Community (CARICOM) Secretariat is working with its Member States to revise the common census questionnaire for the 2020 round of censuses. This common census questionnaire comprises of core and non-core questions that individual countries would be expected to adopt in their national census questionnaire to enable subregional comparisons of key indicators.

At the Latin America and Caribbean regional level, The Economic Commission for Latin America and the Caribbean (ECLAC), in implementing the biennial program of work of the Statistical Conference of the Americas of ECLAC in the area of capacity building in preparation for the 2020 Census round, conducted a technical needs assessment survey (TNAS) of National Statistical Offices (NSOs) in Latin America and the Caribbean in 2016.³ This survey provided a first indication of the

¹ CARICOM (2014), “37th Meeting of the Standing committee of Caribbean statisticians”. <http://www.caricomstats.org/sccs.37.html>.

² United Nations (2017), “High-Level Political Forum on Sustainable Development”. <https://sustainabledevelopment.un.org/hlpf>.

³ ECLAC (2016), “Assessment of Development Account Project 08/09 Z Strengthening the capacity of National Statistical Offices (NSOs) in the Caribbean small island developing States to fulfil the Millenium Development Goals (MDGs) and other internationally

changes being contemplated by countries to the census questionnaire and the anticipated technical assistance needs. The survey recorded a 64 per cent response rate among Caribbean countries with only twelve of twenty countries covered by the survey completing and returning a questionnaire.⁴ Given the low response rate, a follow-up survey of NSOs in the Caribbean was conducted in August 2017 using the same instrument. The second survey resulted in a 95.4 per cent response rate, where twenty-one⁵ out of twenty-two countries Caribbean Development and Cooperation Committee (CDCC) Member and Associate Member Countries surveyed provided responses.

This paper documents the results of the TNAS and provides recommendations on the provision of technical assistance to NSOs in support of the conduct of the censuses. The paper also provides an assessment of how the contemplated changes on the questionnaire for the 2020 round of censuses in the Caribbean could impact the production of data for SDG indicators in the subregion. This assessment is primarily based on the draft list of core SDG indicators for the Caribbean produced by the CARICOM Technical Working Group on the SDG Indicators,⁶ the results of the 2017 TNAS, and the national reports on the 2010 round of censuses by Antigua and Barbuda,⁷ Aruba,⁸ The Bahamas,⁹ Barbados,¹⁰ Belize,¹¹ Bermuda,¹² The Cayman Islands,¹³ Commonwealth of Dominica,¹⁴ Guyana,¹⁵ Jamaica,¹⁶ Saint Lucia,¹⁷ Saint Vincent and the Grenadines,¹⁸ and Trinidad and Tobago.¹⁹

Agreed Development Goals (IADGs)". http://repositorio.cepal.org/bitstream/handle/11362/40162/S1600177_en.pdf?sequence=1&isAllowed=y.

- ⁴ Ruiz, M., Silva, A., Villarroe, M.C., Jones, F (2016), "Population and Housing Census: Survey of Caribbean Statistical Offices on Plans for the 2020 census round including Technical Assistance Needs: Final Results". ECLAC, Port of Spain.
- ⁵ Anguilla, Antigua and Barbuda, Aruba, the Bahamas, Barbados, Bermuda, Belize, the British Virgin Islands, the Cayman Islands, Dominica, Grenada, Guyana, Jamaica, Montserrat, Saint Kitts and Nevis, Saint Lucia, Sint Maarten, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, and the Turks and Caicos Islands
- ⁶ ECLAC (2011), "Report of the working group on censuses of the statistical conference of the Americas of ECLAC". <https://www.cepal.org/publicaciones/xml/9/44899/LCL3385i.pdf>.
- ⁷ Statistics Division (2014). Antigua and Barbuda 2011 Population and Housing Census: Book of Statistical Tables I. Statistics Division, St. John's City.
- ⁸ Central Bureau of Statistics (n.d.), "Fifth Population and Housing Census Aruba: 20 September 2010: Selected Tables". Central Bureau of Statistics, Oranjestad.
- ⁹ Department of Statistics (2012). "The Commonwealth of the Bahamas 2010 Census of Population and Housing". Department of Statistics: Nassau.
- ¹⁰ Barbados Statistical Service (2013). "2010 Population and Housing Census: Volume 1". Barbados Statistical Service: Bridgetown
- ¹¹ The Statistical Institute of Belize (2013). "Belize Population and Housing Census Country Report 2010". The Statistical Institute of Belize: Belmopan.
- ¹² Department of Statistics (2012). "2010 Population and Housing Census Report". Department of Statistics, Hamilton.
- ¹³ Economics and Statistics Office (2011). "The Cayman Islands 2010 Population and Housing Census Report November 2011". Economics and Statistics Office, Georgetown.
- ¹⁴ Central Statistics Office (2011). "Commonwealth of Dominica 2011 Population and Housing Census: Preliminary Results. Central Statistics Office, Roseau.
- ¹⁵ Bureau of Statistics (2014). Guyana Population and Housing Census 2012: Preliminary Results". Bureau of Statistics: Georgetown
- ¹⁶ Statistical Institute of Jamaica (2012). "Population and Housing Census 2011 Jamaica: General Report: Volume I." Statistical Institute of Jamaica: Kingston.
- ¹⁷ Central Statistics Office (2011). "2010 Population and Housing Census Preliminary Report". Central Statistics Office, Castries.
- ¹⁸ Statistical Office (n.d). "St. Vincent and the Grenadines Population and Housing Census Report 2012". Statistical Office, Kingstown.
- ¹⁹ Central Statistical Office (2012). "Trinidad and Tobago 2011 Population and Housing Census Demographic Report." Central Statistical Office, Port of Spain.

I. Technical Needs Assessment Survey (TNAS)

A. Methodology

The TNAS was administered to the Chief Statistician, Director, Deputy Director, Senior Statistician, or Senior Census Officer of the NSOs in the Caribbean. Firstly, designated representatives were emailed the TNAS along with available dates and times for interviews (telephone and video) to review and complete the TNAS. After the interviews, the completed TNASs were emailed to the respondents for their review and finalization. Respondents with no updates to the 2016 TNAS were not required to re-submit the survey. This approach was successful in increasing the response rate from 64 percent in 2016 to 95.4 percent in 2017.

The questionnaire used for the TNAS survey (see annex I) sought for information from NSOs in the following areas:

- General information
- Cartographic update
- Methodological design
- Content of the census questionnaire
- The census staff training plan
- Testing and pilot census
- Data capture
- Analysis and dissemination of information
- Country necessities

Responses received from the countries were summarized along these thematic areas.

B. Plans for the 2020 round of censuses

Eighteen of the twenty-one countries that completed the survey have set a tentative date or year for their next census (see Table 1). Seven countries are planning to conduct their census in 2020, eight in 2021, one in either 2020 or 2021, and two in 2022. Bermuda conducted their census in 2016 and is currently finalizing the results, so they are not due for another census until 2026 and have not commenced planning for that census.

Table 1
Proposed year for 2020 census round by Caribbean country

| Country | Proposed Census Year |
|----------------------------------|----------------------|
| Anguilla | 2021 |
| Antigua and Barbuda | 2021 |
| Aruba | To be Determined |
| Bahamas | 2020 |
| Barbados | 2020 |
| Belize | 2020 |
| Bermuda | To be Determined |
| British Virgin Islands | To be Determined |
| Cayman Islands | 2020 |
| Grenada | 2021 |
| Guyana | 2022 |
| Jamaica | 2021 |
| Montserrat | 2021 |
| Saint Kitts and Nevis | 2021 |
| Saint Lucia | 2020 |
| Sint Maarten | 2021 |
| Saint Vincent and the Grenadines | 2021 |
| Suriname | 2022 |
| Trinidad and Tobago | 2020 |
| Turks and Caicos Islands | 2020/2021 |

Source: Authors' compilation based on Technical Needs Assessment Survey 2017.

Ten of the twenty-one countries have undertaken activities in preparation for the next census which are in the initial planning stages. This entails preliminary meetings with stakeholders, cartographic updating, preparation of census documents such as the census order, the budget, the schedule, drafting of questions, and inauguration of advisory committee members. Four of the ten countries that have commenced census planning have secured partial funding for basic resources for the execution of the census such as software, equipment, from their national budget allocation. In addition, three countries indicated their need for technical assistance in planning, communication, and managing of a census from the planning to the dissemination phase.

It is important to note that during September and October 2017, a number of Caribbean countries were severely impacted by hurricanes. This is likely to reverse plans for or erode progress made towards the 2020 round of censuses. Therefore, it is essential to review the situation of these countries in relation to their plans for conducting the census to ensure successful planning and execution of the 2020 round of censuses in the affected countries.

C. Cartographic updates

Ten²⁰ of the twenty-one countries reported that they do not use urban-rural classification due to their geographic size and the definition of urban. Therefore, these countries plan to present census results at the country level. However, the results on the disaggregation by rural-urban classification will be reported for the other eleven countries.²¹

Among those ten countries that do not use urban-rural classification, half of them (five out of ten) proposed to make changes to the methodology for updating cartographic information. Some of the proposed changes include the use of new technologies such as Global Positioning System (GPS), aerial photographs, drone technology, Geographic Information System (GIS) software, and a method to identify and geo-reference buildings.

Among those eleven countries that do use urban-rural classification, six countries proposed to make changes to the methodology for updating the cartographic information of urban areas. The proposed changes in methodology for urban areas identified by countries include: geo-referencing of household and dwelling units using technologies such as GPS, satellite imagery; disaggregation of geographic data at the block and community levels; the collection of central points at enumeration district levels; digitization of geographic information of newly developed housing scheme. These six countries also proposed changes to the methodology for updating the cartographic information of rural areas, which were the same for urban areas except for the addition of geo-referencing of all physical features using GIS software. In all, only eleven countries intend to make changes to the methodology for updating cartographic information for the entire country.

Almost all countries (20 out of 21) have had or for-see difficulties in the process of updating their cartographic information. Among the ten countries not using urban-rural classification, nine countries have had or foresee difficulties in the process of updating their cartographic information. Table 2 indicates that the majority of those countries reported no up-to-date aerial photographs (six countries) and lack of human resources (six countries) as the main challenges encountered in the process of updating their cartographic information.

²⁰ Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Bermuda, Cayman Islands, Grenada, Montserrat, and Sint Maarten

²¹ Belize, British Virgin Islands, Dominica, Guyana, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, and Turks and Caicos Islands.

Table 2
Countries reporting difficulties in the process of cartographic update

| Main difficulties in the process of cartographic update | Country level | Urban | Rural |
|--|---------------------|---------------------|---------------------|
| | Number of countries | Number of countries | Number of countries |
| Neighbourhood without names | 2 | 4 | 5 |
| Repeated names | 0 | 1 | 1 |
| Conglomerates or houses without defined boundaries | 2 | 4 | N/A |
| Frequent changes to the names of the districts | | | 0 |
| Changes to urban-rural boundaries | 2 | 2 | 1 |
| Imaginary Limits/ Boundaries | N/A | N/A | 2 |
| Intangible References | N/A | N/A | 2 |
| Inadequate or non-existing building numbers | 3 | 5 | N/A |
| No systematic information about changes encountered | 2 | 4 | 2 |
| Different or non-standardised versions of map databases | 1 | 11 | 1 |
| Little knowledge of municipal authorities in urban areas | 0 | 1 | N/A |
| Lack of continuous updating which leads to an accumulated backlog of work to be carried out in a very short period | 4 | 6 | 5 |
| No up-to-date aerial photographs | 6 | 8 | 5 |
| No GPS | 4 | 6 | 7 |
| Unavailability of resources in a timely manner | 4 | 7 | 6 |
| Admission to private residential developments (gated communities) | 4 | 5 | N/A |
| Lack of human resources | 6 | 6 | 8 |
| Other | 3 | 2 | 4 |

Source: Authors' compilation based on Technical Needs Assessment Survey 2017.

*N/A means Not Applicable.

All the eleven countries using urban-rural classification identified difficulties in the process of updating their cartographic information in urban and rural areas. Table 2 indicates that the countries identified different or non-standardised versions of map databases (eleven countries), lack of up-to-date aerial photographs (eight countries), and unavailability of resources in a timely manner (seven countries) as the three main difficulties encountered or anticipated in the process of updating the cartographic information for urban areas. The lack of human resources (eight countries), no GPS (seven countries); and unavailability of resources in a timely manner (six countries), were the three main difficulties identified. Notwithstanding, the majority of the countries (sixteen out of twenty-one) are using or propose to use new technologies to update the cartography for the 2020 round of census.

Among the ten countries that do not use urban-rural classification, eight proposed to use new technologies for cartographic updates for the next census, whereas two are yet to make a decision. The findings presented in Table 3 indicate that digital cartography is the most reported (five countries) new technology that will be used by these countries for cartographic updates at their next census. Among the countries that use urban-rural classification, digital cartography from other government agencies (five countries), fieldwork with GPS (five countries), and satellite images (five countries) are the most reported technologies to be used for cartographic update of urban areas for their next census. However, aerial photographs (five countries), satellite images (five countries) and field work with GPS (four countries) are the proposed new technologies for cartographic updates of rural areas for the next census. One country does not intend to use new technologies and two countries are still in discussions. Therefore, it appears that digital cartography from other government agencies is the main technology that countries are contemplating to use in updating their cartographic information.

Table 3
Number of countries using new technologies for cartographic updating

| New technologies for cartographic updating | Country level | Urban | Rural |
|--|---------------------|---------------------|---------------------|
| | Number of countries | Number of countries | Number of countries |
| Aerial photographs | 2 | 3 | 5 |
| Orthophotomaps | 1 | 2 | 2 |
| Interactive Google Earth mapping | 1 | 3 | 3 |
| Field work with GPS | 3 | 5 | 4 |
| Satellite images | 2 | 5 | 5 |
| Own digital mapping | 3 | 3 | 3 |
| Digital cartography from other government agencies | 4 | 5 | 3 |
| Cadastral Mapping | 2 | 3 | 2 |
| Products purchased from commercial mapping companies | 1 | 3 | 2 |
| Other | 0 | 2 | 2 |

Source: Authors' compilation based on Technical Needs Assessment Survey 2017.

Eight countries have commenced their cartographic update and are at various stages of updating. The Cayman Islands, Jamaica, Montserrat, and Saint Vincent and the Grenadines have completed updates of their cartographic information at various geographic levels. Seven countries have commenced updating of their digital cartographic information and the Cayman Islands, Bermuda, Jamaica, Montserrat, and Saint Vincent and the Grenadines have completed updates of their digital cartographic information at various geographic levels. However, due to the effect of the hurricanes in September and October 2017 that affected a number of countries, cartographic information may need to be updated prior to the 2020 census.

The majority of the countries (eighteen out of twenty-one) identified difficulties in the digitization of cartographic information. As Table 4 indicates, the majority of the countries identified shortage of trained human resources (fifteen countries) and lack of financing (thirteen countries) as the main difficulties in the process of digitizing cartographic information.

Table 4
Number of countries reporting difficulties in the process of digitizing cartographic information

| Main difficulties in the process of digitizing cartographic information | Number of countries |
|---|---------------------|
| Shortage of trained human resources | 15 |
| High turnover of human resources | 2 |
| Difficulties in training | 4 |
| Difficulties with the chosen technology | 4 |
| Lack of financing | 13 |
| Other | 1 |

Source: Authors' compilation based on Technical Needs Assessment Survey 2017.

The majority of the countries are still in discussions on the use of new technologies for digitization of cartographic information. However, seven countries intend to introduce new technologies and among these, four plan to incorporating ESRI based suite of products ESRI Maps, ArcGIS Online, ArcGIS Collector, ArcGIS 10.3 while two intend to use drone technology, and one intend to use aerial photographs. Furthermore, seventeen countries reported mapping update as either a high (thirteen countries) or medium (four countries) priority area for technical assistance. The specific areas of need for technical assistance in mapping update include training in GIS software for mapping and analysis,

including geo-coding and geo-referencing, and developing a strategy to acquire cartographic data and software as a country or as a subregion.

D. Methodological design

The majority of the countries (eighteen countries) will be using the de jure census taking method for the 2020 round of censuses (see Table 5) but three of these countries also plan to use the de facto method to estimate the population count. Only one country is yet to make a decision on the type of census taking method.

Ten countries plan to make changes to the duration of data collection phase. Seven of these countries do not use urban/rural classification; therefore, these changes will be introduced for the entire country. The proposed changes are attributed to the use of Computer Assisted Personal Interviewing (CAPI) technologies (four countries), a longer data collection phase (two countries) and a change in type of form administered (one country). Trinidad and Tobago plans to introduce changes to the length of the data collection phase to urban areas due to the proliferation of gated communities. The British Virgin Islands plans to shorten the questionnaire, and Belize plans to shorten the data collection period.

Table 5
Proposed method of census-taking for 2020 census round by Caribbean country

| Country | Census - taking method |
|----------------------------------|--|
| Anguilla | De Jure but will use De facto for population count |
| Antigua and Barbuda | To be Determined |
| Aruba | De Jure |
| Bahamas | De Jure |
| Barbados | De Jure |
| Belize | De Jure |
| Bermuda | De Jure but will use De facto for population count |
| British Virgin Islands | De Jure |
| Cayman Islands | De Jure |
| Dominica | De Facto |
| Grenada | De Jure |
| Guyana | De Facto |
| Montserrat | De Jure |
| Saint Kitts and Nevis | De Facto |
| Saint Lucia | De Jure |
| Sint Maarten | De Jure |
| Saint Vincent and the Grenadines | De Jure but will use De facto for population count |
| Suriname | De Jure |
| Trinidad and Tobago | De Jure |
| Turks and Caicos Islands | De Jure |

Source: Authors' compilation based on Technical Needs Assessment Survey 2017.

Sixteen out of the twenty-one countries stated that all their enumerators are hired for their censuses, which may comprise students, teachers, and public employees. Thirteen out of the twenty-one countries plan to make changes to the profile of their enumerators mainly because of plans to introduce CAPI technologies for the 2020 round of censuses. All countries plan to use household as the unit of analysis. However, sixteen countries plan to use dwelling unit and two countries (Anguilla and British Virgin Islands) plan to use family unit as a unit of analysis.

Nineteen countries plan to use a single form for private dwellings questionnaire; thirteen countries plan to use a form for collective households. The majority of the countries are still in discussions on an environmental form but do not plan to have a separate form for indigenous populations.

Fourteen countries ranked methodological design as either a high (6 countries) or medium (8 countries) priority area of technical assistance.

E. Content of the census questionnaire

As indicated earlier, the majority of the countries are still in discussions on the content of the census questionnaire. Information from countries that have advanced their plan shows that eight countries intend to introduce changes in the categories of questions that relate to dwelling characteristics (five countries), consumer durables (two countries), solid waste disposal (one country), Information and Communications Technology (ICT) (two countries), environment surrounding the dwelling (one country), and dwelling insurance and the type of insurance (one country).

Similarly, nine countries indicated that there are plans to make changes to some of the household questions that include changes in the categories of a question reflecting real changes in the situation in the country (four countries), ICT (three countries), the number of households in the dwelling (one country), international migrants (one country), mortality (two countries), and environmental problems affecting the household (one country).

The majority of the countries (thirteen countries) do not plan to introduce questions on usual residence and migration. However, three countries indicated that they have plans to make changes that include questions on the length of stay at previous residence (two countries) and possible expansion of emigration questions (one country).

The majority of the countries are still in discussions on questions on education and economic activity or do not expect any changes to these questions. However, seven countries identified changes that include questions on literacy (four countries), industry (two countries), occupational category (two countries), occupation (one country), location of place of study (one country), location of workplace (one country), question to verify economic activity (designed to identify people working in different informal activities) (one country), information on university students registered for on-line programmes (one country) and changes to skip patterns on education and training section (one country).

Although six countries are still in discussions and five countries do not plan to make any changes to questions on access to ICTs and digital literacy, ten countries plan to make changes to the questions. Changes to questions on access to ICTs and digital literacy include questions on the use of mobile phone in the last 12 (or 6) months (six countries), use of a computer in the last 12 (or 6) months (six countries), use of a tablet in the last 12 (or 6) months (six countries), use of internet in the last 12 (or 6) months (five countries), having written and sent an email (five countries), expansion of ICT questions (two countries), access to internet (one country), main purpose of use of ICT devices (one country), cell phone ownership (one country), and reduction in the reference period (one country).

Almost all the countries are still in discussions regarding questions on new topics to meet emerging national demand. However, nine countries indicated that topics such as remittances (five countries), nuclear families (two countries), health coverage (four countries), pension coverage (five countries), pension contribution (two countries), responsibilities for the care of children, sick or elderly (two countries), involvement in cultural activities (one country), elderly access to facilities (one country), contraceptive use (one country), regional and sub-regional free movement of labour (one country), and citizen by investment programme (one country) are under consideration for inclusion.

Fourteen out of twenty countries ranked questionnaire development as a high (two countries) or medium (twelve) priority area for technical assistance. Moreover, countries also stated that staff training is required from conceptualisation of the questionnaire to linking the questionnaire to the relevant indicators for analysis and on the United Nations principles and recommendations for the 2020 census rounds. The majorities of the countries (eighteen countries) is yet to develop the content for their

questionnaire but are in collaborations with CARICOM to finalise a regional questionnaire to be adopted at the national level.

Nine countries indicated that they are considering changes in the census staff training plan. Countries are contemplating extending the period for census trainer training (twelve countries) and census supervisors and enumerator training (fourteen countries), as well as increasing the number of training centres (five countries). Planned changes to the system of training include introducing new technologies as learning tools (seventeen countries), implementing close monitoring of the training plan and quality control (fifteen countries), and documentation of the entire process, including quality control (eleven countries). These proposed changes in the system of training enumerators are largely attributed to the utilisation of mobile CAPI devices for data collection for the 2020 round of censuses. Due to the planned introduction of mobile CAPI, twelve countries are considering changes in the census staff training of regional or local census delegates, and heads of census sectors as well. Consequently, seventeen countries ranked technical assistance in staff training as a high (ten countries) or medium (seven countries) priority area. Moreover, staff training was identified in all phases of the census including in the use of technologies.

F. Coverage evaluation plans

Ten countries plan to introduce changes in the quality control and coverage evaluation of the census. These changes include verification of vacant dwellings (four countries), verification of dwellings with absent residents (five countries), verification of total persons in selected households (three countries), monitoring of extreme cases of average interviews per day per enumerator (seven countries), monitoring of extreme cases of average persons per household (five countries), comparison with expected trend, including number of inhabitants, age structures, averages, etc., (four countries), tracking other quality indicators (7 countries), and follow up using other coverage indicators (three countries).

Nine countries plan to introduce changes in the methodology of assessing census coverage that include post census coverage and quality survey (three countries), coverage evaluation by region, parish or enumeration district (reporting results of fieldwork) (five countries), and demographic reconciliation (four countries).

Nineteen countries ranked quality and coverage control as a high (eleven countries) or medium (eight countries) priority area for technical assistance. Similarly, fifteen countries ranked assessment of coverage as a high (seven countries) or medium (eight countries) priority area for technical assistance.

G. Pilot census and test

Based on the plan by countries to utilize CAPI for the next census, a number of countries proposed to introduce changes in the system of pilot tests (nine countries) and pilot censuses (twelve countries). Furthermore, thirteen countries intend to conduct a census that is representative of the general population and key sub-populations. Two countries plan to conduct two pilot censuses whereas one country has no plans to conduct a pilot census.

H. Data capture

Almost all countries (twenty out of twenty-one) plan to use mobile (CAPI) device for data collection. Fifteen countries reported planned changes in the data processing method that consists of detection of inconsistencies in the capture process (thirteen countries) and automatic data validating, editing and imputation (eleven countries). Six countries are considering changes in the process of encoding open questions and fourteen countries are considering changes in the consistency checking and cleaning of the database. Moreover, twenty out of twenty-one countries covered in the survey ranked the use of technologies for data capture as either a high (sixteen countries) or medium (four countries) priority area for technical assistance. In addition, eighteen countries ranked data processing as a high (thirteen countries) or medium (five countries) priority area for technical assistance.

I. Data analysis and dissemination

Six countries plan to make changes to the plan for tabulating census results and five countries plan to make changes to the reporting of census results. These changes include information based on the data collection report (one country), preliminary results derived from the database (two countries), final checked and validated population data (three countries), population data adjusted by reconciliation, for example in comparison to the previous census (one country), population data adjusted by a coverage survey (two countries), and population data adjusted by another method (one country). Seven countries propose to make changes to the plan of analysis on special topics.

Six countries currently use an online processing method for census data dissemination and five additional countries are contemplating its use. All countries have regulations or policies regarding distribution of micro census data. Specifically for nine countries, micro data is not available for distribution. However, twelve countries have specific policies or regulations regarding the distribution of micro census data. This generally involves the delivery of microdata to other governmental institutions or international agencies at the enumeration district (ED) level and the distribution of data to other institutions at regional/municipal/parish level (three countries). It also covers the delivery of microdata to public institutions, only with the signing of a memorandum of understanding (MOU) that guarantees the use of these data exclusively for statistical purposes with a guarantee of statistical confidentiality (seven countries). Seven countries use REDATAM or other software for online processing and tabulation of census data.

Nineteen countries ranked data analysis as a high (eleven countries) or medium (eight countries) priority area for technical assistance in demographic analysis (including migration analysis) and population projection. Seventeen countries ranked data dissemination as a high (ten countries) or medium priority (seven countries) area for technical assistance.

J. Priority areas for technical assistance

The areas of need of technical assistance according to the level of priority of Member Countries are listed in Table 6. The ranking was done by taking a count of the countries that ranked an area as high, medium, or low priority. As Table 6 shows, the use of technologies for data capture recorded the largest number of countries ranking it as a high priority (sixteen countries), followed by funding (thirteen countries), mapping update (thirteen countries), and data processing (thirteen countries).

Table 6
Priority areas for technical assistance

| Priority Area | Number of Countries | | |
|---|---------------------|--------|-----|
| | High | Medium | Low |
| a) Funding | 13 | 4 | 3 |
| b) Mapping update | 13 | 4 | 3 |
| c) Methodological design | 6 | 8 | 5 |
| d) Census questionnaire | 2 | 12 | 6 |
| e) Staff training | 10 | 7 | 2 |
| f) Quality and coverage control | 11 | 8 | 2 |
| g) Assessment of coverage | 7 | 8 | 5 |
| h) Pilot census | 5 | 11 | 3 |
| i) Use of technologies for data capture (CATI ^a , CAPI ^b , CASI ^c , CAWI ^d) | 16 | 4 | 1 |
| j) Data processing | 13 | 5 | 2 |
| k) Analysis of information | 11 | 8 | 1 |
| l) Dissemination of information | 10 | 7 | 3 |

Source: Authors' compilation based on Technical Needs Assessment Survey 2017.

^aCATI: Computer Assisted Telephone Interview.

^bCAPI: Computer Assisted Personal Interview, laptop or mobile phone.

^cCASI: Computer Assisted Self Interview, using email or internet.

^dCAWI: Computer Assisted Web Interview for collecting data.

K. Summary

The results of the TNAS presented in this study represent a summary of the plans being made by countries for the 2020 round of censuses in the Caribbean. As was argued earlier, the census provides an opportunity for generating relevant data for the SDG indicators. Therefore, the TNAS results provide a basis for making an assessment of this opportunity for the Caribbean.

II. Population and housing census as a data source for the SDGs

The decennial population and housing census provides a snapshot of the demographic, social, economic, health situation of a nation's population for the year of enumeration. The target year for achieving the SDGs is 2030. This indicates that the census can only directly provide information for a maximum of two data points in the monitoring of countries' progress towards achieving the Goals. Nevertheless, the census is a potentially viable data source to produce SDG indicators because it provides information on the demographic, social, and economic characteristics of the entire population, including minority populations, at a point in time. These national data can be used to provide estimates of the current size of these populations as well as for projecting their future sizes, which is a critical denominator for a number of SDG indicators. Additionally, the census data can be used to supplement other sources of data derived from surveys, vital registration systems, surveillance systems, and administrative data.

The CARICOM Technical Working Group (TWG) on SDG Indicators has selected a draft list of 109 SDG indicators as core for the Caribbean.²² Based on this list, the 2017 TNAS, and the national reports of the 2010 census round for some countries,²³ this assessment has identified that census data could be useful in computing 24 of these indicators (see Table 7). In this analysis, the census is considered a viable source for an indicator only if the census serves as a viable source of data for the numerator of that indicator.

²² CARICOM (2001-2017), "Meeting of the CARICOM Technical Working Group (TWG) Preparatory to the Ninth Meeting of the Joint Commission Under the Trade and Economic Cooperation". <http://caricom.org/meetings/meeting-of-the-caricom-technical-working-group-twg-preparatory-to-the-ninth>.

²³ Antigua and Barbuda, Aruba, The Bahamas, Barbados, Belize, Bermuda, The Cayman Islands, Dominica, Guyana, Jamaica, Saint Lucia, Saint Vincent and the Grenadines, and Trinidad and Tobago.

Table 7
Alignment of SDG targets and indicators with topics from the draft list
of CARICOM common questions

| SDG Targets | CARICOM Draft List of Core SDG Indicators | Topic from the CARICOM draft list of common questions |
|---|---|--|
| SDG 1: End Extreme Poverty In all its Forms Everywhere | | |
| 1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day. | 1.2.2 Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions | Housing Population characteristics Education and Training Health Crime |
| 1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable. | 1.3.1 Proportion of population covered by social protection floors/systems, by sex, and distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work injury victims and the poor and the vulnerable. | Population Characteristics Economic Activity Disability Fertility |
| SDG 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture | | |
| 2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round | 2.1.2 Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES) | Food Security and Hunger |
| SDG 3: Ensure healthy lives and promote well-being for all at all ages | | |
| 3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births. | 3.1.1 Maternal mortality ratio 3.2.1 Under-five mortality rate 3.2.2 Neonatal mortality rate | Mortality Fertility |
| 3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes. | 3.7.2 Adolescent birth rate (10-14; 15-19) per 1,000 women in that age group | Population Characteristics Fertility |
| SDG 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all | | |
| 4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education. | 4.2.2 Participation rate in organised learning (one year before the official primary entry age) by sex. | Education Population Characteristics |
| 4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university. | 4.3.1 Participation rate of youth/adults in formal and non-formal education and training in the previous 12 months, by sex. | Education Training Population Characteristics |
| SDG 5: Achieve gender equality and empower all women and girls | | |
| 5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate. | 5.4.1 Proportion of time spent on unpaid domestic and care work, by sex, age and location | Population Characteristics Economic Activity |

Table 7 (continued)

| SDG Targets | CARICOM Draft List of Core SDG Indicators | Topic from the CARICOM draft list of common questions |
|---|--|--|
| SDG 6: Ensure availability and sustainable management of water and sanitation for all | | |
| 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all. | 6.1.1 Proportion of population using safely managed drinking water services | Population characteristics Housing |
| 6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations | 6.2.1 Proportion of population using safely managed sanitation services including a hand washing facility with soap and water. | Population characteristics Housing |
| SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all | | |
| 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services | 7.1.1 Proportion of population with access to electricity | Population characteristics Housing |
| SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all | | |
| 8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services | 8.3.1 Proportion of informal employment in non-agriculture employment by sex. | Economic Activity Population Characteristics |
| 8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value | 8.5.1 Average hourly earnings of female and male employees by occupation, age and persons with disabilities. 8.5.2 Unemployment rate by sex, age and persons with disabilities | Population characteristics Economic Activity |
| 8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training | 8.6.1 Proportion of youth (aged 15-24 years) not in education, employment or training | Population Characteristics Education Training Economic Activity |
| SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable | | |
| 11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums | 11.1.1 Proportion of urban population living in slums, informal settlement or inadequate housing | Population Characteristics Housing Characteristics |
| SDG 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels | | |
| 16.1 Significantly reduce all forms of violence and related death rates everywhere | 16.1.1 Number of victims of intentional homicide per 100,000 population, by age, sex. | Population Characteristics Crime |
| 16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all | 16.3.1 Proportion of victims of violence in the previous 12 months who reported their victimization to competent authorities or other officially recognized conflict resolution mechanisms | Crime |

Table 7 (continued)

| SDG Targets | CARICOM Draft List of Core SDG Indicators | Topic from the CARICOM draft list of common questions |
|---|---|--|
| 17.8 Fully operationalise the technology bank and science, technology and innovation capacity- building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology | 17.8.1 Proportion of individuals using the Internet | ICT Population Characteristics |
| 17.19 By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries | 17.19.2 Proportion of countries that (a) have conducted at least one population and housing census in the last 10 years | |

Sources: Authors' compilation based on Technical Needs Assessment Survey 2017, CARICOM Draft Common Core Questionnaire, and Country Census Reports for 2010 Round of Censuses.

SDG 1: End extreme poverty in all its forms everywhere

Census data can be used to monitor progress on achieving SDG 1, end extreme poverty in all its forms everywhere. Data from the population characteristics and economic activity sections (that include questions of sources of livelihood) of the census questionnaire can be used to produce SDG indicator 1.3.1, which measures the population covered by social floors/systems with disaggregation by sex, age, disability, and employment status. SDG indicator 1.2.2 measures multi-dimensional poverty and can be produced using data from the housing and population characteristics sections, education and training, health and crime sections of the census questionnaire.

SDG 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture

The census can be used to monitor progress on SDG 2, end hunger, achieve food security and improved nutrition and promote sustainable agriculture. The census can provide data for one out of the five core SDG 2 indicators. SDG 2.1.2 measures the prevalence of moderate or severe food security in the population, based on the Food Insecurity Experience Scale (FIES). Although food security was not explicitly included in the technical needs assessment surveys and was not included in the 2010 census round it is included in CARICOM's draft list of questions for the 2020 census round and provides an opportunity to provide data for Indicator 2.1.2.

SDG 3: Ensure healthy lives and promote well-being for all at all ages

The census can be used to monitor progress on SDG 3 to ensure healthy lives and promote well-being for all at all ages. Data from the population characteristics, fertility, and mortality sections of the census questionnaire can be used to produce about one-third of the core SDG 3 indicators, which is four out of fifteen core SDG 3 indicators (see Table 7). SDG indicators 3.1.1, 3.2.1, and 3.2.2 measure the maternal mortality ratio, under-five mortality rate, and neonatal mortality rate, respectively, and can be produced using data from the fertility and mortality sections of the census questionnaire. Furthermore, SDG 3.7.2 measures the adolescent birth rate and can be produced using data from the fertility and population characteristics sections.

The results of the 2017 TNAS indicate that the majority of the countries do not plan to make any changes to the retrospective questions on fertility and mortality in childhood and adulthood. However, these countries usually include questions on fertility and infant mortality and CARICOM has classified these questions as core questions for the common questionnaire. Questions on child and maternal mortality were not included in the 2010 census rounds for the majority of countries but are being classified as a non-core section in the CARICOM common questionnaire.

SDG 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

The census could provide data to monitor progress on SDG 4. Data from the population characteristics, education, training sections of the census questionnaire can be used to produce three out of the eight core SDG 4 indicators. SDG indicator 4.2.2 measures early childhood schooling participation rates with disaggregation by sex. Therefore, data from the education and population characteristic sections of the census questionnaire can produce this indicator. SDG indicator 4.3.1 measures youth and adult participation rates in informal and formal education and training and data from the population disaggregated by sex from the population characteristics, education, and training sections of the census questionnaire can produce this indicator. SDG 4.5.1 measures disparities in education as it relates to gender, disabled and indigenous populations, and wealth. The sections on population characteristics, education section, the household section on consumer durables, and usual place of residence can produce this SDG indicator. The results of the TNAS indicate that the majority of the countries are still in discussions on questions on education or do not anticipate any plans to change these questions.

SDG 5: Achieve gender equality and empower all women and girls

Census data could be used to monitor progress on SDG 5. Data from the population characteristics, migration, and economic activity sections of the census questionnaire can be used to produce one out of the six core SDG 5 indicators. SDG indicator 5.4.1 measures unpaid domestic care and work with disaggregation by sex and location. Similar to the education section, although the results of the TNAS indicate that the majority of the countries are still in discussions on questions on economic activity or do not anticipate any changes to questionnaire for the 2020 census rounds, data for this indicator are usually collected in the census.

SDG 6: Ensure availability and sustainable management of water and sanitation for all

Data from the census questionnaire can be used to produce two out of the six core SDG 6 indicators. SDG 6.1.1 measures the proportion of population using safely managed drinking water services and SDG 6.2.1 measures the proportion of population using safely managed sanitation services including a hand washing facility with soap and water. Data from the population and housing characteristics sections of the census can produce these indicators.

The results of the TNAS indicate that half of the countries do not use urban/rural classification, which is due to their geographic size and the definition of urban. Therefore, disaggregation by urban/rural classifications is not relevant for those countries. The majority of the countries are still in discussions on the dwelling and housing characteristics sections for the 2020 census round, but these characteristics are usually included in the census questionnaires of many countries. In addition, CARICOM is considering reclassifying the question on drinking water from a non-core question to a core question.

SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all

Access to electricity is a core question on any census questionnaire and is the only core SDG 7 indicator on CARICOM's draft list to monitor progress on SDG 7. Data from the population and housing characteristics sections of the census can produce SDG 7.1 indicator.

SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

The census can provide data for three of the ten core SDG 8 indicators. SDG indicator 8.3.1 measures the share of informal employment in the non-agricultural employment, SDG indicator 8.5.1 measures average hourly earnings, and SDG indicator 8.5.2 measures unemployment. Data from the population characteristics and economic activity sections of the census questionnaire can produce these indicators. Additionally, data from the population characteristics, education, training, and economic sections of the census questionnaire can be used to produce SDG indicator 8.6.1 that measures the proportion of disengaged youth, those youth not in education, employment or training.

SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

The census does not provide any data to produce the core SDG indicators that monitor progress on SDG 9 and, therefore, would not be a viable source of data to monitor progress on this goal.

SDG 10: Reduce inequality within and among countries.

The census does not provide data to produce the core SDG indicators that monitor progress on SDG 10 and, therefore, would not be a viable source of data to monitor progress on this goal.

SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable

The population census can provide data for one of the four core SDG 11 indicators. SDG indicator 11.1.1 that measures the proportion of urban population living in slums, informal settlement or inadequate housing can be produced by using data from the population and housing characteristics sections of the census questionnaire. However, countries that do not report on urban or rural classification can modify the indicator to measure the population living in slums, informal settlement or inadequate housing.

SDG 12: Ensure sustainable consumption and production patterns

The census does not provide any data for the core SDG 12 indicator 12.4.1 that assesses the progress on SDG 12, and, therefore, would not be a viable source of data to monitor progress on this goal.

SDG 13: Take urgent action to combat climate change and its impacts (Acknowledging that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change)

The census does not provide data for the core SDG 13 indicators that assess urgent action to combat climate change and its impacts and, therefore, would not be a viable source of data to monitor progress on this goal.

SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development

The census does not provide data for any of the core SDG 14 indicators that assess progress on SDG 14, conserve and sustainably use the oceans, seas and marine resources for sustainable development and, therefore, would not be a viable source of data to monitor progress on this goal.

SDG 15: protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

The census does not provide data for any of the core SDG 15 indicators that assess progress on SDG 15, and, therefore, would not be a viable source of data to monitor progress on this goal.

SDG 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

The census can be used to produce two out of the thirteen core SDG indicators to monitor progress on SDG 16. The crime section of the census questionnaire usually focuses on crime at the household level. Nevertheless, data from this section can be used as a proxy to produce SDG indicators 16.1.1 and 16.3.1 which measure crime at the individual level. SDG 16.1.1 measures the number of victims of intentional homicide per 100,000 population, by age, sex. SDG 16.3.1 measures the proportion of victims of violence in the previous twelve months who reported their victimization to competent authorities or other officially recognized conflict resolution mechanisms. Questions on crime was included in the majority of the countries for the 2010 round of censuses and are considered core questions in CARICOM's draft list of common questions for the 2020 round.

SDG 17 - Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

SDG 17 aims to strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development and data from the census can be used to measure two out of the sixteen core indicators. Questions on internet access are considered core questions for all countries and CARICOM. Therefore, data from the census questionnaire can be used to produce SDG 17.8.1 indicator that measures the proportion of the population with internet access. SDG 17.19.2 measures the number of proportion of countries that (a) have conducted at least one population and housing census in the last 10 years and can only be produced from the census.

Summary

In summary, the results indicate that the decennial population and housing census can serve as a viable or required data source in the subregion for producing indicators for eleven of the seventeen SDGs.

III. Conclusions and recommendations

The United Nations defines a population census as the “total process of collecting, compiling, evaluating, analysing and publishing or otherwise disseminating demographic, economic and social data pertaining, at a specific time, to all persons, living quarters and occupants thereof in a country or delimited part of a country.”²⁴ Therefore, the successful execution of a census requires adequate planning, human, financial and physical resources, trained staff in cartography, data collection, compiling, evaluating, analysing and disseminating of the census data, in a timely manner. The results of the TNAS indicate that the majority of the countries are in the initial stages of planning for the 2020 round of population and housing censuses. This provides a window of opportunity to provide technical assistance to these countries and to ensure that data for the 2020 round of censuses can, as far as is possible, be used to produce as many of the core SDG indicators as possible.

In this context, countries identified the use of technologies for data capture, data processing, mapping update, and funding as highest priority areas for technical assistance. This is because twenty of the twenty-one countries intend to use a mobile CAPI device to capture census data. In addition, six countries are considering changes in the process of encoding open questions and fourteen countries are considering changes in the consistency checking and cleaning of the database. Furthermore, twenty out of the twenty-one countries face challenges in updating their mapping databases that require standardisation of map databases, effective and efficient collaboration between NSOs and physical planning departments or agencies, accessible software and hardware, and qualified staff trained in cartographic technologies. Therefore, it is no surprise that funding is also of a high priority. The development and implementation of a regional and national strategy for acquisition of technologies and other resources should be considered within the regional census framework. It is important to note that some statistical offices depend on other

²⁴ United Nations Statistics Division (n.d) Principles and Recommendations for Population and Housing Censuses, Revision 3. Retrieved from <https://unstats.un.org>.

government agencies or departments for cartographic information; therefore, representatives from these agencies should also be included in any cartography training or strategy to acquire cartographic data and software. As such, countries identified staff training in data collection, data evaluation, data analysis, and data dissemination as priority areas for technical assistance. More specifically, data analysis is required in demographic analysis including migration, population estimates and projections, and data dissemination training is required in REDATAM.

Since the TNAS was conducted prior to the hurricanes that severely impacted a number of Caribbean countries in September and October 2017, there may be changes to proposed plans and technical needs for these countries. Therefore, it is recommended that the affected countries review and, if necessary, revise proposed changes and develop a plan of action for the successful planning and implementation of the 2020 round of censuses.

In as much as the census provides a comprehensive source of demographic data, this study has shown that the population and housing census can be a useful source of data for producing some of the SDG indicators. In particular, census data can be used to monitor progress on SDGs 1, 2, 3, 4, 5, 6, 7, 8, 11, 16, and 17. Hence, the decennial population and housing census represents a viable source of data in the Caribbean to produce indicators for the SDGs.

Bibliography

- Barbados Statistical Service (2013), “2010 Population and Housing Census: Volume 1”, Barbados Statistical Service: Bridgetown.
- Bureau of Statistics (2014), “Guyana Population and Housing Census 2012: Preliminary Results”, Bureau of Statistics: Georgetown.
- CARICOM (2014), “37th Meeting of the Standing committee of Caribbean statisticians”, [http:// www.caricomstats.org/sccs.37.html](http://www.caricomstats.org/sccs.37.html).
- Central Bureau of Statistics (n.d.). “Fifth Population and Housing Census Aruba: 20 September 2010: Selected Tables”, Central Bureau of Statistics, Oranjestad.
- Central Statistical Office (2012), “Trinidad and Tobago 2011 Population and Housing Census Demographic Report”, Central Statistical Office, Port of Spain.
- Central Statistics Office (2011), “Commonwealth of Dominica 2011 Population and Housing Census: Preliminary Results”, Central Statistics Office, Roseau.
- Central Statistics Office (2011), “2010 Population and Housing Census Preliminary Report”, Central Statistics Office, Castries.
- Department of Statistics (2012), “The Commonwealth of the Bahamas 2010 Census of Population and Housing”. Department of Statistics: Nassau.
- Department of Statistics (2012), “2010 Population and Housing Census Report”. Department of Statistics, Hamilton.
- ECLAC (2016), “Assessment of Development Account Project 08/09 Z Strengthening the capacity of National Statistical Offices (NSOs) in the Caribbean small island developing States to fulfil the Millenium Development Goals (MDGs) and other internationally Agreed Development Goals (IADGs)”, [http://repositorio.cepal.org/bitstream/handle/11362/40162/S1600177_en.pdf?sequence=1& isAllowed=y](http://repositorio.cepal.org/bitstream/handle/11362/40162/S1600177_en.pdf?sequence=1&isAllowed=y).
- _____ (2011), “Report of the working group on censuses of the statistical conference of the Americas of ECLAC”, <https://www.cepal.org/publicaciones/xml/9/44899/LCL3385i.pdf>.
- Economics and Statistics Office (2011), “The Cayman’ Islands 2010 Population and Housing Census Report November 2011”, Economics and Statistics Office, Georgetown.

- Ruiz, M., Silva, A. Villarroel, M.C., Jones, F (2016). "Population and Housing Census: Survey of Caribbean Statistical Offices on Plans for the 2020 census round including Technical Assistance Needs: Final Results", ECLAC, Port of Spain.
- Statistical Institute of Jamaica (2012), "Population and Housing Census 2011 Jamaica: General Report: Volume I", Statistical Institute of Jamaica: Kingston.
- Statistical Office (n.d), "Saint Vincent and the Grenadines Population and Housing Census Report 2012", Statistical Office, Kingstown.
- Statistics Division (2014), Antigua and Barbuda 2011 Population and Housing Census: Book of Statistical Tables I. Statistics Division, St. John's City.
- The Statistical Institute of Belize (2013), "Belize Population and Housing Census Country Report 2010", The Statistical Institute of Belize: Belmopan.
- United Nations (2017), "High-Level Political Forum on Sustainable Development". <https://sustainabledevelopment.un.org/hlpf>.
- United Nations Statistics Division (n.d), Principles and Recommendations for Population and Housing Censuses, Revision 3. Retrieved from <https://unstats.un.org>.

Annex

Annex 1 Survey Questionnaire



2020 POPULATION AND HOUSING CENSUS ROUND SURVEY FOR THE IDENTIFICATION OF NATIONAL NECESSITIES



I. IDENTIFICATION

| | |
|--|--|
| 1. Country | |
| 2. Name of the statistical office | |
| 3. Unit responsible for answering the survey | |
| 4. Name of responsible official answering the survey | |

| | |
|---|--|
| 5. Title of responsible official answering the survey | |
| 6. Telephone official responsible for responding to the survey (please include country code and area code) | |
| 7. Electronic address of the responsible official of the survey | |

II. GENERAL INFORMATION

| | |
|--|---|
| 8. Do you have a proxy for the next census date? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| If your answer is "YES" record date. If your answer is "NO" list the reasons why there is no date. | |
| 9. Have there been undertaken any actions towards the next census? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| If your answer is "YES" detail. If your answer is "NO" go to "III. Cartographic update. " | |

| | | |
|---|--|----|
| | | |
| 10. Is there a law, decree or other regulation that rules the census? | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| If your answer is "YES" detail (If it's possible send a copy for email). | | |
| 11. Have you created a special agent or instance in charge of the census planning or this will be done within the regular structure of the institution? | | |
| | YES | NO |
| Special Instance | | |
| Regular Structure of Institution | | |
| If you answer is affirmative, please provide details. | | |
| 12. Are the basic resources needed for the census operation secured? | <input type="checkbox"/> No <input type="checkbox"/> Yes, partially <input type="checkbox"/> Yes , totally | |
| | | |

| | |
|--|---|
| Please detail briefly. | |
| 13. Which of the following financial resources are planned so far? (check all that apply) | <input type="checkbox"/> Regular budget of the nation <input type="checkbox"/> Multilateral lending agencies <input type="checkbox"/> International cooperation Donations <input type="checkbox"/> Other(detail) |
| Please detail. | |
| 14. Do you have a work timetable? | <input type="checkbox"/> Yes (Please send a copy for email) <input type="checkbox"/> No |
| If your answer is “NO” explained why don’t have a timetable. | |

III. CARTOGRAPHIC UPDATE

Note: If your country hasn't initiated preparatory activities for the next census the questionnaire can be answered based on the recommendations to the methodologies or procedures evaluated from the previous census.

| | |
|---|---|
| 15. With respect to the last census, Which changes have been introduced or are considering changes in the methodology of cartographic update of urban areas? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| If your answer is “YES” provides details. | |
| 16 With respect to the last census, Which changes have been introduced or are considering changes in the methodology of cartographic updating of rural areas? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| If your answer is “YES” provides details. | |
| 17. What is the state of progress cartographic update? | Urban: ____ % Start date: _aaaa _mm_ End date: _aaaa _mm_ Rural: ____ % Start date: _aaaa _mm_ End date: _aaaa _mm_ |

| | |
|--|--|
| <p>18. Which of the following have been the main difficulties in the process of cartographic update in urban areas? (check all that apply)</p> | <ul style="list-style-type: none"> <input type="checkbox"/> Neighborhoods without name <input type="checkbox"/> Repetitive names <input type="checkbox"/> Conglomerates of houses without defined contours <input type="checkbox"/> Change of city limits <input type="checkbox"/> Inadequate or nonexistent numbering buildings <input type="checkbox"/> No changes achieve systematic information found <input type="checkbox"/> Different versions of map databases without unified criteria <input type="checkbox"/> Little knowledge of municipal authorities about the urban sectors of municipalities <input type="checkbox"/> Lack of continuous updating with which the work is collected in a very short period <input type="checkbox"/> Aerial photographs have not updated <input type="checkbox"/> Not have GPS <input type="checkbox"/> No availability of resources in a timely manner <input type="checkbox"/> Admission to private residential developments (with condominium regime) <input type="checkbox"/> Lack of human resources to use the new equipment <input type="checkbox"/> Other (specify) |
| <p>Please detail</p> | |

19. Which of the following have been the main difficulties in the process of cartographic update in rural areas? (check all that apply)

- Neighborhoods without name
- Repetitive names
- Frequent changes of names of districts
- Change of city limits
- Inadequate or nonexistent numbering buildings
- No changes achieve systematic information found
- Different versions of map databases without unified criteria
- Little knowledge of municipal authorities about the urban sectors of municipalities
- Lack of continuous updating with which the work is collected in a very short period
- Aerial photographs have not updated
- Not have GPS
- No availability of resources in a timely manner
- Admission to private residential developments (with condominium regime)
- Lack of human resources to use the new equipment
- Other (specify)

| | |
|---|---|
| Please detail | |
| 20. With respect to the last census, Which new technologies are used in the process of cartographic update in urban areas? (check all that apply) | <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Orthophotomaps <input type="checkbox"/> Using interactive Google Earth mapping <input type="checkbox"/> Work field with GPS mainly for roads <input type="checkbox"/> Satellite images <input type="checkbox"/> Own digital mapping <input type="checkbox"/> Digital Cartography other government agencies <input type="checkbox"/> Cadastral Mapping <input type="checkbox"/> Purchase a commercial mapping companies <input type="checkbox"/> Has not been defined yet technological tools to be used <input type="checkbox"/> Other (specify) |
| Please detail | |

| | |
|--|--|
| <p>21. With respect to the last census, Which new technologies are used in the process of cartographic update in rural areas? (check all that apply)</p> | <p><input type="checkbox"/> Aerial photographs</p> <p><input type="checkbox"/> Orthophotomaps</p> <p><input type="checkbox"/> Using interactive Google Earth mapping</p> <p><input type="checkbox"/> Work field with GPS mainly for roads</p> <p><input type="checkbox"/> Satellite images</p> <p><input type="checkbox"/> Own digital mapping</p> <p><input type="checkbox"/> Digital Cartography other government agencies</p> <p><input type="checkbox"/> Cadastral Mapping</p> <p><input type="checkbox"/> Purchase a commercial mapping companies</p> <p><input type="checkbox"/> Has not been defined yet technological tools to be used</p> <p><input type="checkbox"/> Other (specify)</p> |
| <p>Please detail</p> | |
| <p>22. Indicate the progress of the mapping update (in percent) by geographical area.</p> | <p>1st. level (total country) ____%</p> <p>2nd. level (regions) ____%</p> <p>3rd. level (departments / states) ____%</p> <p>4th. level (provinces) ____%</p> <p>5th. level (communes / municipalities / districts) ____%</p> |

| | |
|--|---|
| | 6th. level (tracts) ____% 7th. level (block) ____% |
| 23 Which is the progress of the digitalization of the cartography? | Urban: ____ % Start date: _aaaa _mm_ End date: _aaaa _mm_ Rural: ____ % Start date: _aaaa _mm_ End date: _aaaa _mm_ |
| 24. Which of the following have been the main difficulties in the process of cartographic digitalization? (check all that apply) | <input type="checkbox"/> Shortage of trained human resources <input type="checkbox"/> High turnover of human resources <input type="checkbox"/> Difficulties for training <input type="checkbox"/> Difficulties with the chosen technology <input type="checkbox"/> Financing <input type="checkbox"/> Other (specify) |
| Please detail | |
| 25. With respect the last census, which new technologies are used in the digitalization of the cartography? | |

| | |
|---|---|
| <p>26. Indicate the percentage of completion of the digitalization of the cartography by geographical area.</p> | <p>1st. level (total country) ____%</p> <p>2nd. level (regions) ____%</p> <p>3rd. level (departments / states) ____%</p> <p>4th. level (provinces) ____%</p> <p>5th. level (communes / municipalities / districts) ____%</p> <p>6th. level (tracts) ____%</p> <p>7th. level (block) ____%</p> |
|---|---|

IV. METHODOLOGICAL DESIGN

42

| | | |
|---|--|-----------|
| <p>27. Which type of census will be used?</p> | <p><input type="checkbox"/> Census de jure (in law)</p> <p><input type="checkbox"/> Census facto (in fact)</p> <p><input type="checkbox"/> Not yet decided</p> | |
| <p>28. With respect the last census, have you changed the type of census?</p> | <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes</p> | |
| <p>29. With respect to the last census, have you introduced changes or are they going to be made in the length of the recollection phase?</p> | | |
| | <p>Yes</p> | <p>No</p> |
| <p>Urban</p> | | |

| | | |
|---|---|--|
| Rural | | |
| If your answer is “YES”, in the urban or rural, provides details of changes. | | |
| 30. Are there any intention of using administrative records for data collection or validation of census data?(check those that apply) | <input type="checkbox"/> Purposes of data collection <input type="checkbox"/> With data validation purposes <input type="checkbox"/> There are no plans to use them | |
| Please explain the specific use of the administrative records. | | |
| 31. Which will be the profile of the enumerators? Indicate which percentage each category represents for the enumerators. Verify that the total enumerators sum 100%. | Students ____% Teachers ____% Publics employed ____% Hired enumerators ____% Other ____% | |
| 32. With respect to the last census, have you introduced changes or are they going to be made changes in the profile of the enumerators? | <input type="checkbox"/> Yes <input type="checkbox"/> No | |

| | | | |
|--|-----|--|-------------------|
| | | | |
| If you answer is “YES” detail the changes. | | | |
| 33. Which units of analysis related to dwelling and household will be used? | | Household __ Family __ Residence __ Dwelling __ | |
| If there are changes from the previous census, please describe. | | | |
| 34. Which type of questionnaires are planned for the next census? (Note: "extended form" refers to a second form applied by random sampling to private dwellings in order to collect more information on various topics) | | _ Basic form for private dwellings (ie single form) _ Basic form plus an extended form _ Still not decided | |
| 35. Which other forms are planned for the next census? | | | |
| | Yes | No | Still not decided |

| | | | |
|---|--|--|--|
| Form for collective households | | | |
| Specific form for indigenous people or African descent population | | | |
| Form for environmental topics | | | |
| If there are changes from the previous census, please describe. | | | |

V. CONTENT OF THE CENSUS QUESTIONNAIRE

45

| | |
|--|---|
| <p>36. With respect to the last census, have you introduced or are considering changes in the dwelling questions section? (check all that apply)</p> | <ul style="list-style-type: none"> _ Changes in the categories of a question according to current situation in the country _ Questions about environment and dwelling were eliminated _ Access to dwelling appliances were reduced _ Questions regarding use of rooms for kitchen, bathrooms or services were moved to household section _ Questions regarding use of rooms for kitchen, bathrooms or services were introduced _ Questions regarding quality of basic services were introduced _ Questions regarding solid waste disposal were introduced _ TIC's questions were introduced |
|--|---|

| | |
|---|--|
| | <ul style="list-style-type: none"> _ Questions regarding homeownership and parcel were introduced _ Still subject to discussion _ No change _ Other changes |
| <p>If exist “OTHER CHANGES”, please detail.</p> | |
| <p>37. With respect to the last census, have you introduced or are considering changes in the household questions section? (check all that apply)</p> | <p>Changes in the categories of a question according to current situation in the country</p> <ul style="list-style-type: none"> _ Questions about environment and dwelling were eliminated _ Access to dwelling appliances were reduced _ Questions regarding use of rooms for kitchen, bathrooms or services were moved to household section _ Questions regarding use of rooms for kitchen, bathrooms or services were introduced _ Questions regarding quality of basic services were introduced _ Questions regarding solid waste disposal were introduced _ TIC’s questions were introduced _ Questions regarding homeownership and parcel were introduced _ Still subject to discussion |

| | |
|---|---|
| | <input type="checkbox"/> No change <input type="checkbox"/> Other changes |
| If exist “OTHER CHANGES”, please detail. | |
| 38. With respect to the last census, have you introduced or are considering changes in the population questions section? (check all that apply) | <input type="checkbox"/> Head of household <input type="checkbox"/> Relationship <input type="checkbox"/> Age <input type="checkbox"/> Birth date <input type="checkbox"/> Sex <input type="checkbox"/> Marital status or union status <input type="checkbox"/> Religion <input type="checkbox"/> Condition of disability <input type="checkbox"/> No change to these questions |
| If exist “OTHER CHANGES”, please detail. | |

| | |
|--|---|
| <p>39. With respect to the last census, have you introduced or are considering changes in the habitual residence and migration questions section? (check all that apply)</p> | <p><input type="checkbox"/> Place of habitual residence</p> <p><input type="checkbox"/> Birth place</p> <p><input type="checkbox"/> Year of arrival to the country</p> <p><input type="checkbox"/> Fixed date for previous residence</p> <p><input type="checkbox"/> Previous place of residence</p> <p><input type="checkbox"/> Length of the last residence</p> <p><input type="checkbox"/> No change to these questions</p> |
| <p>If there are changes in any item, please specify.</p> | |
| <p>40. With respect to the last census, have you introduced or are considering changes in education and economic activity of population questions sections? (check all that apply)</p> | <p><input type="checkbox"/> Literacy</p> <p><input type="checkbox"/> Level of education achieved</p> <p><input type="checkbox"/> Last year's approved education level or amount of years of study approved</p> <p><input type="checkbox"/> Degree obtained at that level</p> <p><input type="checkbox"/> School attendance</p> <p><input type="checkbox"/> Location of place of study (to measure daily mobility to school)</p> <p><input type="checkbox"/> Activity in the previous week or other period of reference</p> <p><input type="checkbox"/> Question about verification of economic activity (related to improve the training of</p> |

| | |
|---|--|
| | female economic activity, rural population, indigenous populations) <input type="checkbox"/> Occupation <input type="checkbox"/> Branch of activity <input type="checkbox"/> Occupational category <input type="checkbox"/> Location of workplace (to measure daily mobility to work) <input type="checkbox"/> No change to these questions |
| If there are changes in any item, please specify. | |

| | |
|---|---|
| 41. With respect to the last census, have you introduced or are considering changes in the questions for identification of indigenous peoples and other ethnic groups section? (check all that apply) | <input type="checkbox"/> In indigenous peoples questions <input type="checkbox"/> In afro descent people questions <input type="checkbox"/> In other ethnic groups questions <input type="checkbox"/> No changes to these questions <input type="checkbox"/> Questions on these topics are not formulated |
|---|---|

| | |
|---|---|
| If there are changes in any item, please specify. | |
| 42. With respect to the last census, have you introduced or are considering changes in the retrospective questions on fertility and mortality in childhood or adulthood? (check all that apply) | <input type="checkbox"/> Total of children born alive <input type="checkbox"/> Total of surviving children <input type="checkbox"/> Date of birth of last child born alive <input type="checkbox"/> Survival of the last child born alive <input type="checkbox"/> Date of death (if the last child born alive has died) <input type="checkbox"/> Maternal orphan hood <input type="checkbox"/> Survival sisters <input type="checkbox"/> No changes to these questions <input type="checkbox"/> Questions on these topics are not formulated |
| If there are changes in any item, please specify. | |
| 43. With respect to the last census have you introduced or are considering changes in the questions to the TIC's access and digital literacy section? (check all that apply) | <input type="checkbox"/> Use of mobile phone in the last 12 (or 6) months <input type="checkbox"/> Use of a computer in the last 12 (or 6) months <input type="checkbox"/> Use of a tablet in the last 12 (or 6) months <input type="checkbox"/> Use of Internet in the last 12 (or 6) months |

| | |
|--|--|
| | <input type="checkbox"/> To write and send an email <input type="checkbox"/> No changes to these questions |
| <p>If there are changes in any item, please specify.</p> | |
| <p>44. Is it studying or has decided to introduce questions on new topics to meet any emerging demand in your country? (Eg. Family units, social coverage)</p> | <input type="checkbox"/> Nationality <input type="checkbox"/> Remittances <input type="checkbox"/> Family nuclei <input type="checkbox"/> Register Coverage <input type="checkbox"/> Health Coverage <input type="checkbox"/> Pension coverage <input type="checkbox"/> Pension contribution <input type="checkbox"/> Responsible for the care of children, sick or elderly <input type="checkbox"/> Other |
| <p>For (s) option (s) selected (s), please detail.</p> | |
| <p>45. At the present time, How much progress has been made in defining the content of (the) questionnaire (s)?</p> | |

| | Yes | No | Doesn't apply |
|---|-----|----|---------------|
| The list of questions has been defined | | | |
| Consultations with ministries, academia, experts have been done | | | |
| Pilot tests for analyzing the questions have been made | | | |
| Pilot tests for all procedures have been made | | | |
| Concepts manual have been written | | | |
| Basic form as well as expanded form contents have been defined | | | |
| The sample for the expanded form has been defined | | | |

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VI. THE CENSUS STAFF TRAINING PLAN

| Topic | | | |
|--|--|-----|----|
| 46. With respect to the last census, changes have been introduced or are considering changes in the training of the enumerators? | | Yes | No |
| | Expansion of the period of the census trainers training | | |
| | Expansion of the period of the census supervisors and enumerators training | | |

| | | | |
|--|---|--|--|
| | Introduction of new technologies as learning tools | | |
| | Increase the number of training centers | | |
| | Closely monitoring the training plan and quality control | | |
| | Document the whole process and assess quality indicators | | |
| | Still under discussion | | |
| Please detail main changes. | | | |
| 47. With respect to the last census, changes have been introduced or are considering changes in the staff training (regional or departments census delegates, heads of census tract, census industry leaders, etc.)? | <input type="checkbox"/> No <input type="checkbox"/> Yes | | |
| If your answer is "Yes" detailing what changes. | | | |

53

VII. COVERAGE EVALUATION PLAN

| | |
|---|---|
| 48. With respect to the last census, have been introduced or are considering changes in quality control and coverage evaluation during collection? (check all that apply) | <input type="checkbox"/> Verification of vacant dwellings <input type="checkbox"/> Verification of dwellings with absent residents |
|---|---|

| | |
|--|---|
| | <input type="checkbox"/> Verification of total persons in selected households <input type="checkbox"/> Monitoring extreme cases of average interviews per day per enumerator <input type="checkbox"/> Monitoring extreme cases of average persons per household <input type="checkbox"/> Comparison with expected trend (No. inhabitants, age structures, averages, etc.) <input type="checkbox"/> Tracking other quality indicators <input type="checkbox"/> Follow up with other coverage indicators |
| <p>Provide examples of the main quality and coverage controls in the field.</p> | |
| <p>49. With respect to the last census, have been introduced or are considering changes in the coverage evaluation methodology? (check all that apply)</p> | <input type="checkbox"/> Post census coverage and quality survey <input type="checkbox"/> Coverage evaluation by census tract or block (reporting results of fieldwork) <input type="checkbox"/> Demographic reconciliation <input type="checkbox"/> No changes to any item |
| <p>If there are changes in any item, detail which changes.</p> | |

VIII. TESTING AND PILOT CENSUS

| | |
|---|--|
| 50. With respect to the last census, have been introduced or are considering changes to pilot tests (partial testing of content or processes)? | <input type="checkbox"/> No <input type="checkbox"/> Yes |
| If your answer is "Yes" detailing what changes. | |
| 51. With respect to the last census, changes have been introduced or are considering changes to pilot census (total testing of content and processes)? | <input type="checkbox"/> No <input type="checkbox"/> Yes |
| If your answer is "Yes" detailing what changes. | |
| 52. How many pilot censuses (testing content and processes) are intended? Specify in each case size and geographic locations. | |
| 53. Are there specific pilot testing, for example, for the identification of indigenous peoples, Afro- descendant population, other ethnic groups or disables? (check all that apply) | <input type="checkbox"/> For identification of indigenous peoples <input type="checkbox"/> For identification of Afro-descendant population <input type="checkbox"/> Identification of other ethnic groups <input type="checkbox"/> Test questions on disabilities <input type="checkbox"/> Test questions on habitual residence <input type="checkbox"/> Other |

If you answer is “OTHER” please detail

IX. DATA CAPTURE

| | | | | | | |
|--|--|--|--|-------------------------------------|---|------------------------------|
| 54. With respect to the last census, changes have been introduced or are considering changes in the data capture method? | | Paper collection and digitizing (next) | Paper collection and optical reader (next) | Paper collection and scanner (next) | Mobile digitizing capture device (next) | Online self-processed (next) |
| | Paper and digitizing (previous census) | | | | | |
| | Paper and optical reader (previous census) | | | | | |
| | Paper and scanner (previous census) | | | | | |
| | Digitizing in mobile (previous census) | | | | | |
| | Self-processed online (previous census) | | | | | |
| Provide more information if it's considered necessary. | | | | | | |

| | |
|--|--|
| 55. With respect to the last census, changes have been introduced or are considering changes in the data processing method? (check all that apply) | <input type="checkbox"/> Detection of inconsistencies in the capture process <input type="checkbox"/> Automatic data filtering and imputation (validation) <input type="checkbox"/> There are no changes |
| If there are changes in any item, detail these changes. | |
| 56. With respect to the last census, changes have been introduced or are considering changes in the encoding process of open questions? | <input type="checkbox"/> No <input type="checkbox"/> Yes |

| | |
|--|---|
| 57. With respect to the last census changes have been introduced or are considering changes in the consistency analysis and cleaning of the databases? | <input type="checkbox"/> No <input type="checkbox"/> Yes |
| If your answer is "Yes" detailing what changes | |

X. ANALYSIS AND DISSEMINATION OF INFORMATION

| | |
|--|---|
| <p>58. With respect to the last census, have been introduced or are considering changes to the plan for delivering tabulated census results?</p> | <p>No ____ Yes ____</p> |
| <p>If your answer is "Yes" detailing what changes</p> | |
| <p>59. With respect to the last census, have been introduced or are considering changes in the way of delivery of census results? (check all that apply)</p> | <p><input type="checkbox"/> Information based on the data collection report <input type="checkbox"/> Preliminary results derived from the database <input type="checkbox"/> Final assessed population data <input type="checkbox"/> Population adjusted by conciliation <input type="checkbox"/> Population adjusted by coverage survey <input type="checkbox"/> Population adjusted by another method <input type="checkbox"/> No changes are expected</p> |
| <p>If there are changes in any item, detailing what changes.</p> | |

| | |
|---|---|
| 60. Have you contemplated online processing? | <input type="checkbox"/> No <input type="checkbox"/> Yes |
| If your answer is "Yes" detailing which method/program | |
| 61. With respect to the last census, changes have been introduced or are considering changes in the analysis of specific issues aroused from the results, for example in migration, disability, indigenous peoples, etc.? | <input type="checkbox"/> No <input type="checkbox"/> Yes |
| If your answer is "Yes" detailing which changes | |
| 62. Does the country have policies or regulation for the distribution of census microdata? (check all that apply) | <input type="checkbox"/> Microdata is freely disseminated or upon web request, keeping the statistical confidentiality established by law <input type="checkbox"/> The microdata is delivered to other governmental institutions or international agencies at the EA level, and is distributed to other institutions at municipal level <input type="checkbox"/> The microdata is delivered only to the public administration, signing a MOU that guarantees the use for statistical purposes and statistical |

| | |
|--|--|
| | confidentiality <input type="checkbox"/> Online processing and tabulation using REDATAM or other software <input type="checkbox"/> Other |
| If you answer is "OTHER" please detail | |

XI. COUNTRY NECESSITIES

| Topic | |
|---|--|
| 63. With respect to the last census, share your opinion regarding priority areas in which technical assistance and/or horizontal cooperation is required? | <input type="checkbox"/> There is not <input type="checkbox"/> Yes there is |
| If your answer is "Yes there is" detailing which areas and what kind of technical assistance | |

64. Qualifying 1 to 3 indicate which are the priority level for technical assistance, cooperation or training for the following areas:

Scale: 1st. High Priority, 2nd. Medium priority, 3rd. Low or lower priority

| Topic | 1 | 2 | 3 |
|--|----------|----------|----------|
| a) Funding | | | |
| b) Mapping update | | | |
| c) Methodological design | | | |
| d) Census questionnaire | | | |
| e) Staff training | | | |
| f) Quality and coverage control | | | |
| g) Assessment of coverage | | | |
| h) Pilot census | | | |
| i) Use of technologies for data capture (CATI, CAPI, CASI, CAWI) | | | |
| j) Data processing | | | |
| k) Analysis of information | | | |
| l) Dissemination of information | | | |
| | | | |

[Note on point (i):

CATI: Computer Assisted Telephone Interview,

CAPI: Computer Assisted Personal Interview, laptop or mobile phone

CASI: Computer Assisted Self Interview, using email or internet

CAWI: Computer Assisted Web Interview for collecting data]

For the main options selected please give a brief description.

VIII. TESTING AND PILOT CENSUS

50. With respect to the last census, have been introduced or are considering changes to pilot tests (partial testing of content or processes)?

No

Yes

| | |
|---|--|
| If your answer is "Yes" detailing what changes. | |
| 51. With respect to the last census, changes have been introduced or are considering changes to pilot census (total testing of content and processes)? | <input type="checkbox"/> No <input type="checkbox"/> Yes |
| If your answer is "Yes" detailing what changes. | |
| 52. How many pilot censuses (testing content and processes) are intended? Specify in each case size and geographic locations. | |
| 53. Are there specific pilot testing, for example, for the identification of indigenous peoples, Afro- descendant population, other ethnic groups or disables? (check all that apply) | <input type="checkbox"/> For identification of indigenous peoples <input type="checkbox"/> For identification of Afro-descendant population <input type="checkbox"/> Identification of other ethnic groups <input type="checkbox"/> Test questions on disabilities <input type="checkbox"/> Test questions on habitual residence <input type="checkbox"/> Other |
| If you answer is "OTHER" please detail | |

IX. DATA CAPTURE

| | | | | | | |
|--|---|--|--|-------------------------------------|---|------------------------------|
| 54. With respect to the last census, changes have been introduced or are considering changes in the data capture method? | | Paper collection and digitizing (next) | Paper collection and optical reader (next) | Paper collection and scanner (next) | Mobile digitizing capture device (next) | Online self-processed (next) |
| | Paper and digitizing (previous census) | | | | | |
| | Paper and optical reader (previous census) | | | | | |
| | Paper and scanner (previous census) | | | | | |
| | Digitizing in mobile (previous census) | | | | | |
| | Self-processed online (previous census) | | | | | |
| Provide more information if it's considered necessary. | | | | | | |
| 55. With respect to the last | _ Detection of inconsistencies in the capture process | | | | | |

| | |
|---|--|
| census, changes have been introduced or are considering changes in the data processing mehtod? (check all that apply) | <input type="checkbox"/> Automatic data filtering and imputation (validation) <input type="checkbox"/> There are no changes |
| If there are changes in any item, detail these changes. | |
| 56. With respect to the last census, changes have been introduced or are considering changes in the encoding process of open questions? | <input type="checkbox"/> No <input type="checkbox"/> Yes |

| | |
|--|---|
| 57. With respect to the last census changes have been introduced or are considering changes in the consistency analysis and cleaning of the databases? | <input type="checkbox"/> No <input type="checkbox"/> Yes |
| If your answer is "Yes" detailing what changes | |

X. ANALYSIS AND DISSEMINATION OF INFORMATION

| | |
|---|---|
| 58. With respect to the last census, have been introduced or are considering changes to the plan for delivering tabulated census results? | No____ Yes____ |
| If your answer is "Yes" detailing what changes | |
| 59. With respect to the last census, have been introduced or are considering changes in the way of delivery of census results? (check all that apply) | <input type="checkbox"/> Information based on the data collection report <input type="checkbox"/> Preliminary results derived from the database <input type="checkbox"/> Final assessed population data <input type="checkbox"/> Population adjusted by conciliation |

| | |
|---|---|
| | <input type="checkbox"/> Population adjusted by coverage survey <input type="checkbox"/> Population adjusted by another method <input type="checkbox"/> No changes are expected |
| If there are changes in any item, detailing what changes. | |
| 60. Have you contemplated online processing? | <input type="checkbox"/> No <input type="checkbox"/> Yes |
| If your answer is "Yes" detailing which method/program | |
| 61. With respect to the last census, changes have been introduced or are considering changes in the analysis of specific issues aroused from the results, for example in migration, disability, indigenous peoples, etc.? | <input type="checkbox"/> No <input type="checkbox"/> Yes |
| If your answer is "Yes" detailing which changes | |

| | |
|--|---|
| <p>62. Does the country have policies or regulation for the distribution of census microdata? (check all that apply)</p> | <p><input type="checkbox"/> Microdata is freely disseminated or upon web request, keeping the statistical confidentiality established by law</p> <p><input type="checkbox"/> The microdata is delivered to other governmental institutions or international agencies at the EA level, and is distributed to other institutions at municipal level</p> <p><input type="checkbox"/> The microdata is delivered only to the public administration, signing a MOU that guarantees the use for statistical purposes and statistical confidentiality</p> <p><input type="checkbox"/> Online processing and tabulation using REDATAM or other software</p> <p><input type="checkbox"/> Other</p> |
| <p>If you answer is “OTHER” please detail</p> | |

XI. COUNTRY NECESSITIES

| | |
|--|---|
| <p>Topic</p> | |
| <p>63. With respect to the last census, share your opinion regarding priority areas in which technical assistance and/or horizontal cooperation is required?</p> | <p><input type="checkbox"/> There is not</p> <p><input type="checkbox"/> Yes there is</p> |

If your answer is "Yes there is" detailing which areas and what kind of technical assistance

64. Qualifying 1 to 3 indicate which are the priority level for technical assistance, cooperation or training for the following areas:
 Scale: 1st. High Priority, 2nd. Medium priority, 3rd. Low or lower priority

| Topic | 1 | 2 | 3 |
|---------------------------------|----------|----------|----------|
| a) Funding | | | |
| b) Mapping update | | | |
| c) Methodological design | | | |
| d) Census questionnaire | | | |
| e) Staff training | | | |
| f) Quality and coverage control | | | |
| g) Assessment of coverage | | | |
| h) Pilot census | | | |

| | | | |
|---|--|--|--|
| i) Use of technologies for data capture (CATI, CAPI, CASI, CAWI) | | | |
| j) Data processing | | | |
| k) Analysis of information | | | |
| l) Dissemination of information | | | |
| <p>[Note on point (i):</p> <p>CATI: Computer Assisted Telephone Interview,</p> <p>CAPI: Computer Assisted Personal Interview, laptop or mobile phone</p> <p>CASI: Computer Assisted Self Interview, using email or internet</p> <p>CAWI: Computer Assisted Web Interview for collecting data]</p> <p>For the main options selected please give a brief description.</p> | | | |


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59. Women's empowerment and migration in the Caribbean, LC/TS.2017/107, LC/CAR/TS.2017/7, 2017.
58. Mainstreaming disaster risk management strategies in development instruments: policy briefs for selected member countries of the Caribbean Development and Cooperation Committee, LC/TS.2017/80, LC/CAR/TS.2017/6, 2017.
57. Promoting energy efficiency in government transportation systems: a transition roadmap and criteria for a readiness analysis, LC/TS.2017/38, LC/CAR/TS.2017/5, 2017.
56. Assessing the opportunities for enhanced integration of the associate members of the Economic Commission for Latin America and the Caribbean, LC/TS.2017/38, LC/CAR/TS.2017/4, 2017.
55. Preliminary overview of the economies of the Caribbean 2016-2017, LC/TS.2017/29, LC/CAR/TS.2017/3, 2017.
54. Strengthening cooperation between telecommunications operators and national disaster offices in the Caribbean, LC/TS.2017/23, LC/CAR/TS.2017/1, 2017.
53. Economic Survey of the Caribbean 2016-Economic recovery in the Caribbean: the dichotomy of the goods and service economies, LC/L.4296, LC/CAR/L.507, 2017.

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