

## TC Document

### I. Basic Information for TC

▪ Country/Region:	BRASIL
▪ TC Name:	Support for Innovation in the Population and Housing Census in Brazil
▪ TC Number:	BR-T1428
▪ Team Leader/Members:	Mejia-Guerra, Jose Antonio (IFD/ICS) Team Leader; Caldas De Andrade, Francisco Antonio (IFD/ICS) Alternate Team Leader; Catano Guzman, Mariana (IFD/ICS); Eschoyez, Guillermo Antonio (LEG/SGO); Yee Amezaga, Karla Mirari (IFD/ICS)
▪ Taxonomy:	Client Support
▪ Operation Supported by the TC:	N/A
▪ Date of TC Abstract authorization:	25 Jun 2019.
▪ Beneficiary:	Fundação Instituto Brasileiro de Geografia e Estatística - IBGE
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding:	OC Strategic Development Program for Institutions(INS)
▪ IDB Funding Requested:	US\$300,000.00
▪ Local counterpart funding, if any:	
▪ Disbursement period (which includes Execution period):	24 months
▪ Required start date:	September 2019
▪ Types of consultants:	Firms and Individuals
▪ Prepared by Unit:	IFD/ICS-Innovation in Citizen Services Division
▪ Unit of Disbursement Responsibility:	IFD-Institutions for Development Sector
▪ TC included in Country Strategy (y/n):	No
▪ TC included in CPD (y/n):	No
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Productivity and innovation; Institutional capacity and rule of law

### II. Objectives and Justification of the TC

- 2.1 Population and housing censuses are the base that supports the statistical system of a country, and they represent the largest effort of citizen mobilization in a country, since to count every resident within a given territory all dwellings must be visited within a determined time period. Thus, the logistics of a census are complex and require a large investment. The main challenge is to reach the door of each and every one of the homes in the country and interview all their residents, and this effort represents the largest share of the resources destined for the census.
- 2.2 The general objective of this project is to support Brazil, specifically the Brazilian Institute of Geography and Statistics (IBGE), to introduce technical and methodological innovations in the planning activities of the upcoming National Population and Housing Census, to increase the efficiency of the data collection process in the field.

- 2.3 The population and housing censuses provide an opportunity for national statistical offices to renew the technological infrastructure and to innovate. This investment and the progress made in the censuses have an important impact on the development of statistics during intercensal periods.
- 2.4 In 2010, Brazil conducted its population census using handheld electronic devices (HED) to collect data for the first time, making the country a pioneer in the large-scale application of this technology. The use of HED helped to improve the data delivery timeliness, made more efficient the work of field enumerators and increased the quality of the information generated by the census<sup>1</sup>.
- 2.5 The use of HED also allowed the IBGE to carry out other digital data collection processes, starting from 2010. In addition, IBGE used its experience to provide technical assistance to several countries in the region, including Paraguay and Uruguay, and in Africa (Cape Verde and Senegal).
- 2.6 The prevalence in the use of technology by citizens and, the increase in computing capacity and in the availability of satellite images present opportunities to innovate in census processes and to make a more efficient use of resources. The impact of these potential advances can only be evaluated by experimenting on a scale that allows to determine if it is possible to implement them in a population census.
- 2.7 One of the objectives proposed by the IBGE is to promote technical and methodological innovation in the production of statistical information. For this, the preparation of the Population and Housing Census 2020, in particular of the Pilot Census, can serve as the instrument to introduce innovations that make a more efficient use of available resources and achieve a more agile and easier field operation.
- 2.8 In this context, the IBGE has begun the planning of its Pilot Census and has identified three technological innovations to be tested: the collection of data by telephone (i.e. SMS messages), the online data collection, and the use of mobile phone call records to visualize the mobility of the population. These proposals are in line with the recommendations of the Conference of European Statisticians for the census round 2020<sup>2</sup>.
- 2.9 The Bank's assistance through this Technical Cooperation (TC) will have as specific objectives: (i) to support the IBGE in the introduction of technical and methodological innovations in the Pilot Population Census and (ii) to promote the internalization of the lessons learned for the preparation of the Population and Housing Census 2020. These activities will also include training, technical advice and exchange of experiences with other National Statistical Offices (NSOs) of Latin American and Caribbean (LAC).
- 2.10 This TC is linked to the operational support that the IDB has given to finance projects for the development of population censuses and the institutional strengthening of national statistical offices in LAC countries, including: Belize (BL-T1092), Argentina (AR-L1266), Haiti (HA-L1126), Honduras (HO-L1044), Nicaragua (NI-X1012) and El Salvador (ES-L1128, in the preparation phase). This project will contribute to maintain

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<sup>1</sup> Reference: [Guidelines on the use of electronic data collection technologies in population and housing censuses](#)

<sup>2</sup> Reference: [Conference of European Statisticians -Recommendations for the 2020 Censuses of Population and Housing](#)

an active presence in Brazil, the leading country in statistics, looking to the upcoming 2020 census round.

This TC is consistent with the Update to the Institutional Strategy 2010-2020 (AB-3008) and is aligned with the Productivity and Innovation development challenge, since it will contribute to lay the foundations to improve the functioning of the national statistical office. The TC also aligns with the cross-sectional area of Strengthening the institutional capacity of the State, since the proposed work will be implemented together with the IBGE staff and all necessary documentation and knowledge transfer processes are considered to promote the internalization of the lessons learned for the preparation of the census.

- 2.12 One of the four priority areas of the Ordinary Capital Strategic Development Program for Institutions (INS) is to support the strengthening and use of country systems as detailed in GN-2819-1. The proposed activities of this TC will contribute to strengthen the IBGE through the support to introduce innovative solutions that improve the quality of official data and public services and policies.
- 2.13 The TC is also aligned with the IDBG Country Strategy 2019-2022 with the Republic of Brazil, approved on 30<sup>th</sup> of July 2019, in that it will support the achievement of objectives iii (increase the effectiveness of the public sector) and iv (reduce social inequality and opportunities through increasing the efficiency of public policies) by helping the IBGE to introduce technical and methodological innovations for the upcoming census that increase the efficiency of the production of statistical information, which in turn contributes to more efficient policy making.

### III. Description of activities/components and budget

- 3.1 **Component I. Online data collection (US\$50,000).** Evaluate the use of self-enumeration or online data collection as a tool to facilitate the field work of the Population and Housing Census. This component seeks to resolve issues such as the georeferencing of the information collected, the uniqueness of the data and the coordination of the field work. The activities of this component include the design and implementation of a pilot test for online census data collection, the training of the IBGE staff in the use of the new technology and the documentation of the lessons learned.
- 3.2 **Component II. Mobile-based solutions for data collection (US\$135,000).** Take advantage of the penetration of mobile telephones to test various alternatives to collect information through people's mobile phones, such as text messages and robocalls. The activities of this component include the design and implementation of a pilot data collection exercise using mobile phones, the training of the IBGE staff in the use of the new technology and the documentation of the lessons learned.
- 3.3 **Component III. Mobility statistics from mobiles phones (US\$90,000).** Explore the use of information provided by call detail records (CDR) to model the mobility of people. The activities of this component include the design and implementation of a pilot exercise on the use of call record detail (CDR) data to estimate urban mobility, the training of the IBGE staff in the use of the new technology and the documentation of the lessons learned.
- 3.4 **Component IV. Documentation and dissemination (US\$25,000).** Document all the results of the tests carried out in the previous three components with the aim of making available to other countries the experiences and lessons learned as a result of this operation. The activities of this component include systematizing all the documentation

generated by the project and organizing a regional seminar with other national statistical offices.

- 3.5 An essential element in the design of the tests conducted in the pilot exercises will be to consider the potential for the pilots to be scalable and sustainable.

#### **Indicative Budget (US\$)**

<b>Activity/Component</b>	<b>Description</b>	<b>IDB/Fund Funding</b>	<b>Counterpart Funding</b>	<b>Total Funding</b>
<b>Component I</b>	<b>Online data collection</b>	<b>\$50.000</b>	<b>0</b>	<b>\$50.000</b>
<b>Component II</b>	<b>Mobile-based solutions for data collection</b>	<b>\$135.000</b>	<b>0</b>	<b>\$135.000</b>
<b>Component III</b>	<b>Mobility statistics from mobiles phones</b>	<b>\$90.000</b>	<b>0</b>	<b>\$90.000</b>
<b>Component IV</b>	<b>Documentation and dissemination</b>	<b>\$25.000</b>	<b>0</b>	<b>\$25.000</b>
<b>Total</b>		<b>\$300.000</b>	<b>0</b>	<b>\$300.000</b>

- 3.6 The total amount of funding needed for this TC is US\$300,000 (non-reimbursable) to be financed with resources from the OC Strategic Development Program for Institutions (INS).

#### **IV. Executing agency and execution structure**

- 4.1 The beneficiary requested that the Bank be responsible for the execution of this TC. The IDB, through IFD/ICS, will be responsible for the execution of this TC.
- 4.2 The IDB has extensive experience in the provision and coordination of technical assistance and in the development of advances in capacity building and the institutional strengthening of national statistical offices. The IDB can also contribute to the generation of innovative solutions by attracting experts who are producing advanced knowledge on issues related to the implementation of population censuses in other parts of the world.
- 4.3 In order to facilitate this coordination, the Bank will request that the beneficiary reviews and approves all products of the TC before requesting the corresponding payments.
- 4.4 The Bank will contract consultancy services in accordance with the current policies and procedures at the Bank. Acquisitions and services will be carried out in accordance with the Bank's applicable policies and procedures, including the Policy for the Selection and Contracting of Consulting Firms for Bank-Executed Operational Work (GN-2765-1) and its operational guidelines (OP-1155-4), Complementary Workforce Policy (AM-650), and the IDB Corporate Procurement Policy (GN-2303-20).

#### **V. Major issues**

- 5.1 The main risk factors identified for the execution of the project are: (i) changes in the priorities of the execution objectives of the technical cooperation, (ii) institutional changes at IBGE, and (iii) resistance to innovation. These risks are linked to the innovative feature of the solutions that are proposed to be explored with this operation.
- 5.2 In this regard, the Bank will promote a close dialogue with the IBGE to ensure that the priorities are maintained in the objectives of the project and in the importance of keeping the technical cadres of officials involved in the direct execution of technical

cooperation. Emphasis will be placed on the potential positive impact of the introduction of innovations to make the use of resources more efficient within the framework of the budgetary restrictions faced by the government.

**VI. Exceptions to Bank policy**

6.1 There are no exceptions to Bank policy.

**VII. Environmental and Social Strategy**

7.1 There are no environmental or social risks associated with the activities outlined in this operation; therefore, its environmental classification is "C", according to the Environment and Safeguard Compliance Policy (OP-703). ([See Safeguard Policy Filter Report and Safeguard Screening Form](#)).

**Required Annexes:**

- [Request from the Client - BR-T1428](#)
- [Results Matrix - BR-T1428](#)
- [Terms of Reference - BR-T1428](#)
- [Procurement Plan - BR-T1428](#)
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