

III-rd CIS International Statistical Forum

Population Census in Brazil

Innovations, Challenges, and Lessons Learned

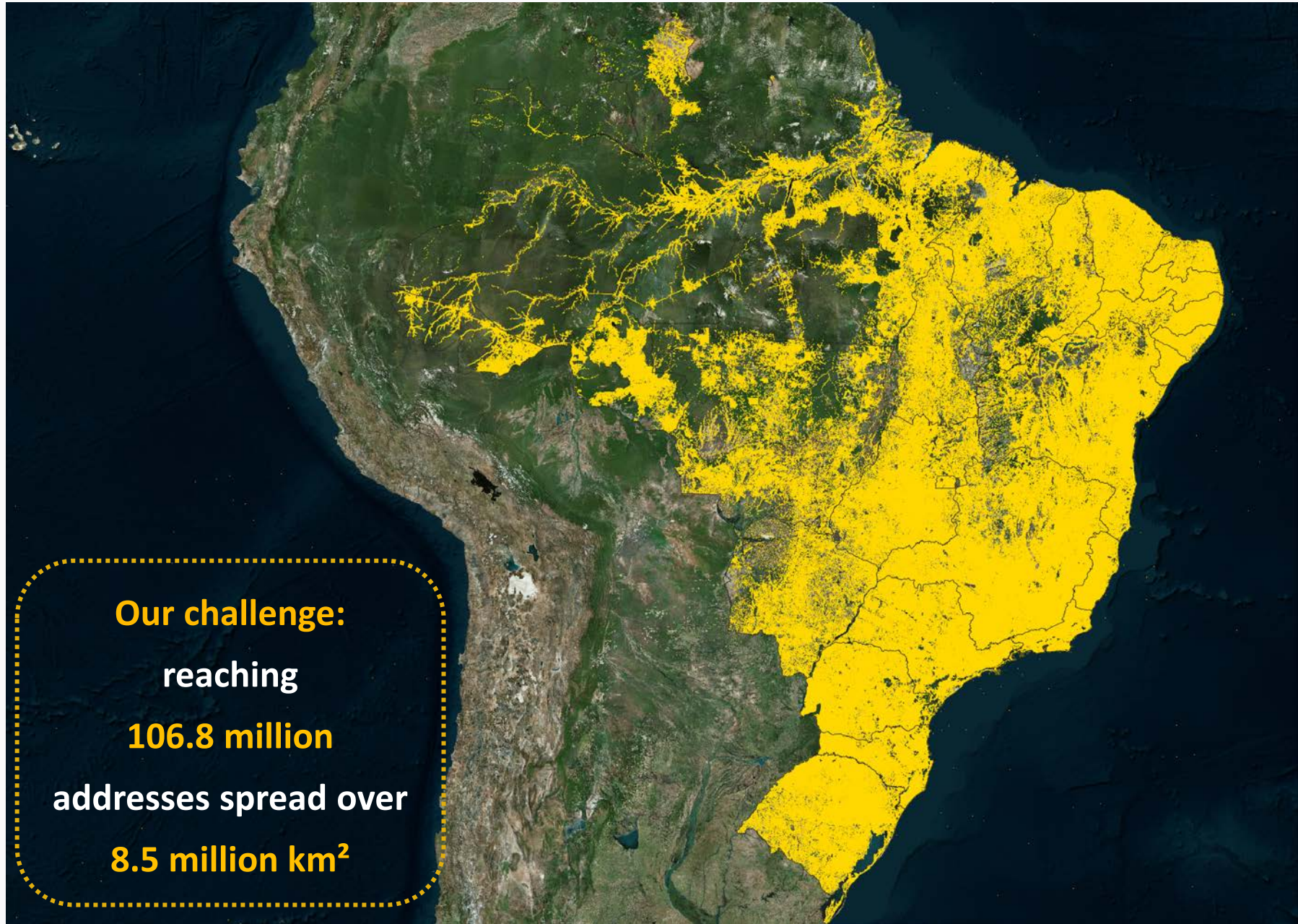


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Deputy Director
Surveys Directorate
IBGE/Brazil

Baku, Republic of Azerbaijan, September 2025

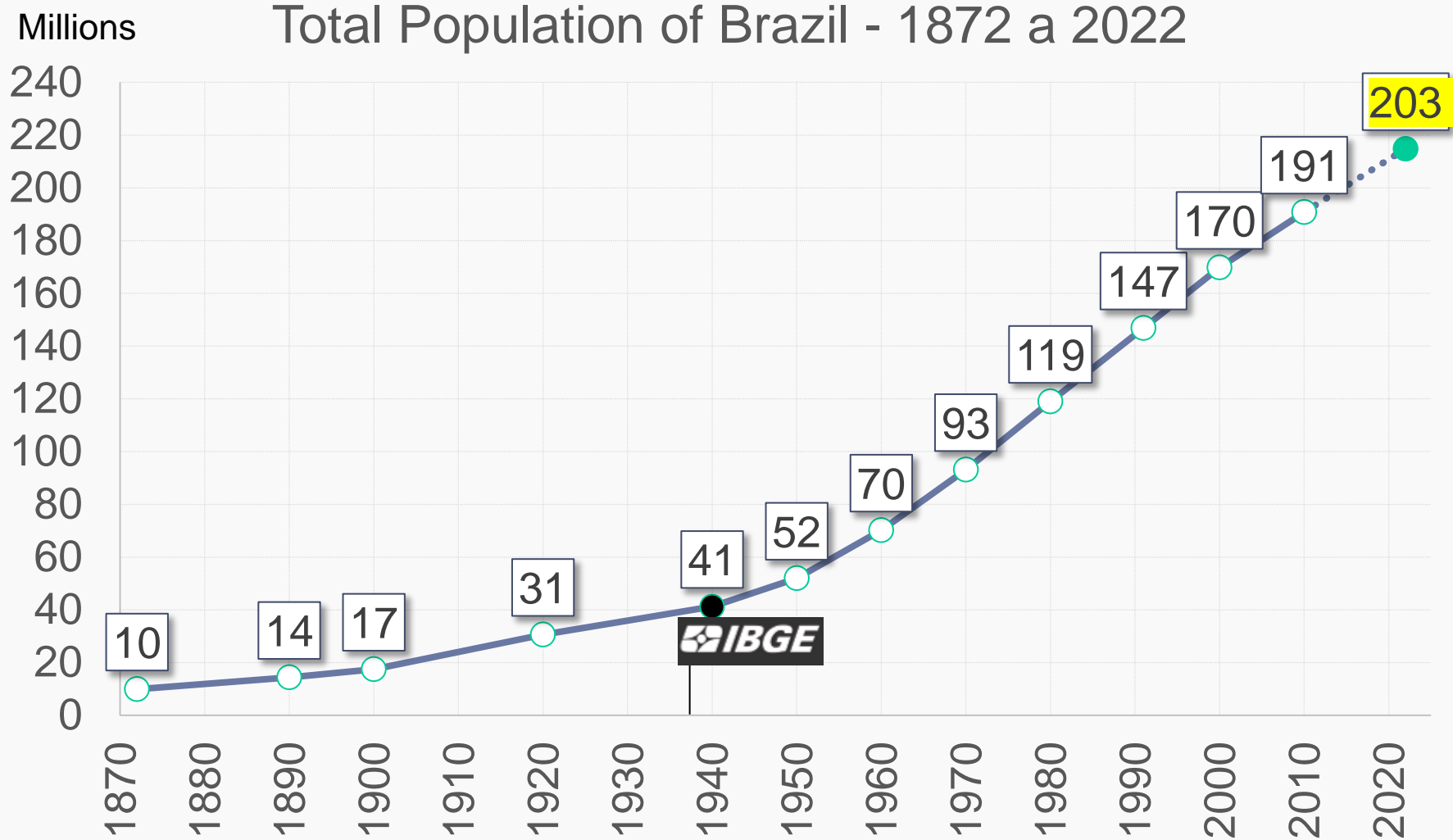
Population Census in Brazil



Our challenge:
reaching
106.8 million
addresses spread over
8.5 million km²

Population Census in Brazil

Presentation



Census 2010

2010

-



Census 2022

Population Census in Brazil

Presentation

State Coordinations: 27

Area Coordinations: 583

Sub-Area Coordinations: 1,444

Municipalities: 5,570

Collection Offices: 6,040

Enumeration areas: 450 thousand

Area Covered: 8.5 million km²

Households visited: 90.7 million

Addresses visited: 106.8 million

Enumerated Population: 203 million

Team involved: >200 thousand people

Duration of data collection: 10 months (Aug/2022-Jun/2023)



Population Census in Brazil: themes explored

2022

BASIC

(UNIVERSE – 26 QUESTIONS)

LIST OF RESIDENTS

CHARACTERISTICS OF THE HOUSEHOLD

CHARACTERISTICS OF RESIDENTS

Ethnic-Racial Identification
(Quilombolas and Indigenous)

Civil Registry

Education: literacy

Income of the reference person

MORTALITY



5 min

EXTENDED

(SAMPLE – 77 QUESTIONS)

CHARACTERISTICS OF THE RESIDENTS

Nuptiality

Indirect Identification of the Family

Fertility

Religion

Persons with Disabilities

Internal and International Migration

Education

Commuting for Study

Work and Income

Commuting for Work

Autism



16 min

Population Census in Brazil

2022

Multiple strategies to acquire the data:



Face-to-face Interviews

CAPI = Computer-Assisted Personal Interviewing

72.433.841

Questionnaires

(98,88%)



Self-response by the Internet

CASI = Computer-Assisted Self Interviewing

410.598

Questionnaires

(0,56%)



Telephone Interviews

CATI = Computer-Assisted Telephone Interviewing

412.598

Questionnaires

(0,56%)

Innovations

Some of the novelties of the 2022
Census

Population Census in Brazil

Innovations



Tecnologia
Precisão
Cobertura

Capturing GPS
Coordinates



Population Census in Brazil

Innovations



Use of **Administrative Records**, large databases (**Big Data**) and **paradata** for the validation and quality control of the collection



Population Census in Brazil

Innovations

Administrative Records in Census planning



National Register of Individuals (CPF) were matched with IBGE's National Address Register (CNEFE) for Statistical Purposes to link with the phone numbers of some residents in the Enumerator's Mobile Data Collection Device (DMC).



Data from the Mortality Information System (SIM) of the Ministry of Health were matched with Census death records for the purpose of correcting the reported ages of infant deaths.

Administrative Records in Census planning



Data used to identify priority census tracts for updating and also for monitoring data collection coverage.

Population Census in Brazil

Innovations

Enumerator and Supervisor Route Paradata

Use of geotechnologies to control cover (urban and rural EA)



Population Census in Brazil

Innovations

- Use of collected routes may optimize paths, facilitating logistics for future operations in difficult-to-access, poorly addressed, and remote areas.



Population Census in Brazil

Innovations

Control of geographic coordinates with geofences

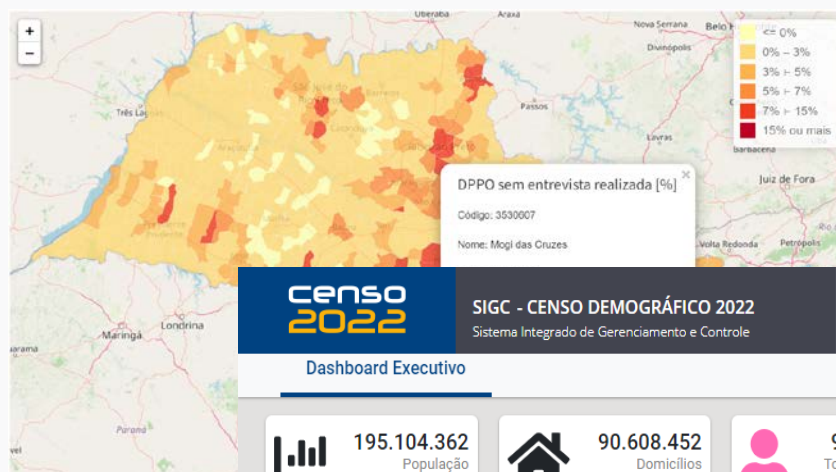
Use of geotechnologies to control cover (urban and rural EA)



Population Census in Brazil

Innovations

- Intensive monitoring of all stages of the operation (Dashboards, management systems, monitoring of indicators, dynamic maps)



censo 2022

SIGC - CENSO DEMOGRÁFICO 2022
Sistema Integrado de Gerenciamento e Controle



ADMINISTRAÇÃO

ENTORNO

COLETA

SUPERVISÃO

PAGAMENTO

LUIZ
COORDENAÇÃO DO CENSO

Dashboard Executivo



195.104.362
População
Respondente



90.608.452
Domicílios
Particulares



99.958.304
Total de Mulheres
(coleta regular)



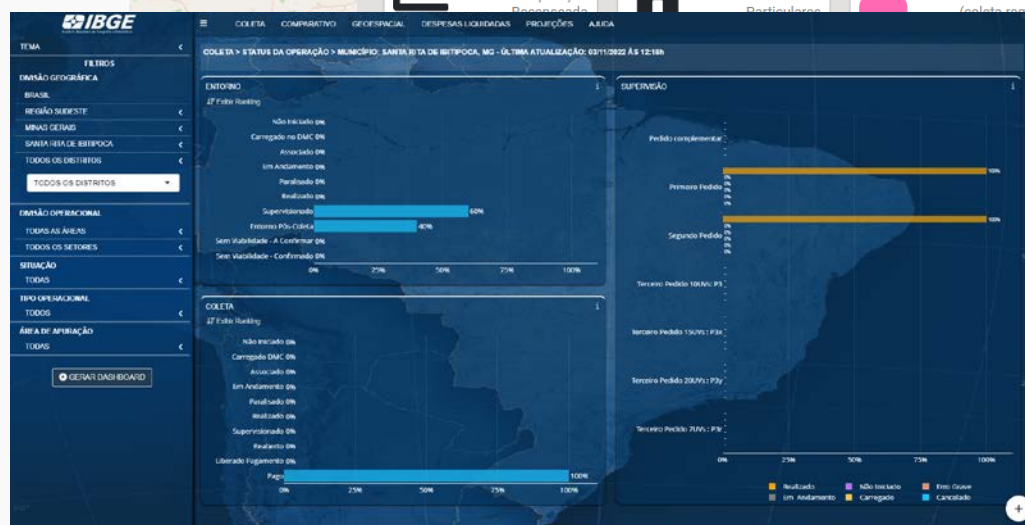
94.310.118
Total de Homens
(coleta regular)



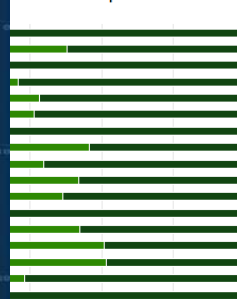
442.462
Total de Mulheres
(coleta web)



1.481.206
Total de Tickets Criados



da coleta por UF



393.478
Total de Homens
(coleta web)



362.737
Questionários Finalizados via
Coleta Web

**Domicílios
Particulares
Permanentes
Trabalhados**



69.820.366
Questionários Finalizados via
Coleta Regular

Informativos

**NOVA VERSÃO DO
APLICATIVO...**

09
mar

Population Census in Brazil

Innovations

- Complete Cartographic update – High resolution satellite images
Digital Globe/Maxar
- Importance of using high quality images in mapping densely populated regions - favelas



Population Census in Brazil

Innovations

- Indigenous territories – Specific Approach Questionnaire, specific mapping of the territory



Population Census in Brazil

Innovations

- Use of Artificial Intelligence / Machine Learning for the codification of Job Occupation and Job Activity records

Solution to standardize and capture information that is often difficult to obtain.

TEMA	REGISTROS	AUTOMÁTICA	%	MANUAL	%
ATIVIDADE	9.003.822	3.944.158	43,8%	5.059.664	56,2%
OCUPAÇÃO	9.025.852	4.278.472	47,4%	4.747.380	52,6%



Data Dissemination Strategies

Population Census in Brazil

First Results

Start of
Collection:
01/08/2022

End of Collection:
28/05/2023

First Results:
28/06/2023

Event for more than 500 people: Museum of
Tomorrow, in Rio de Janeiro



Population Census in Brazil

Itinerant Dissemination



Population Census in Brazil

Workshops



OFICINA: ÚLTIMO DIA DE INSCRIÇÃO

censo 2022

OFICINA
Um território de informações:
Potencialidades dos Dados do Censo 2022

19 DE JULHO DE 2024 • 14h - 18h

ESCOLA MUNICIPAL DE TEMPO INTEGRAL NEGRO COSME
TV. VISCONDE DE MAUÁ, 315 – LIBERDADE
SÃO LUÍS/MA

INSCRIÇÕES PELA LOJA IBGE
ACESSE O QR CODE:



Topics covered in the Workshop

- What is the Census;
- Operation numbers;
- Topics investigated;
- News from the 2022 Census;
- Data potential for local managers;
- Tools and ways to access data (2022 Census Overview, PGI, SIDRA, BDIA);
- Topics already disclosed and perspectives for future disclosures.

Data access

Population Census in Brazil

HOTSITE

<https://censo2022.ibge.gov.br/>



The screenshot shows the official website for the 2022 Brazilian Population Census. The header includes the IBGE logo, flags for Brazil and the United Kingdom, a language selection dropdown labeled 'Outros idiomas', and a navigation menu with links: About, Steps, Publicity, News, Institutional Partnerships, and Results. The main content area features three large news tiles. The left tile shows a favela with the headline '2022 Census: 16.4 million persons in Brazil lived in Favelas and Urban Communities'. The top right tile shows a man speaking at a podium with the headline '2022 Census: IBGE reveals composition of households and reported deaths at Casa Brasil IBGE'. The bottom right tile shows a family with the headline '2022 Census: In 12 years, proportion of female householders advances and equals that of male ones'. Below the main content, there are two sections: 'Latest News' with a small image of a press conference and a headline about data release in Acre, and 'Highlights' with two upcoming release announcements for October 9, 2025.

Latest News

BRASIL
In Acre, IBGE releases unprecedented data on people and households located in Conservation Units 14/07/2025
 The Brazilian Institute of Geography and Statistics (IBGE) released today (11), at 8 am local time and 10 am in Brasília, the publication

Highlights

IBGE will release, at 10 am on October 9, 2025, 2022 Population Census: Labor and Income: Preliminary sample results 09/09/2025

IBGE will release, on October 9, 2025, 2022 Population

Access to publications

Calendar of disseminations

Interactive access to maps

Data download

Dissemination of various geoscience and research products

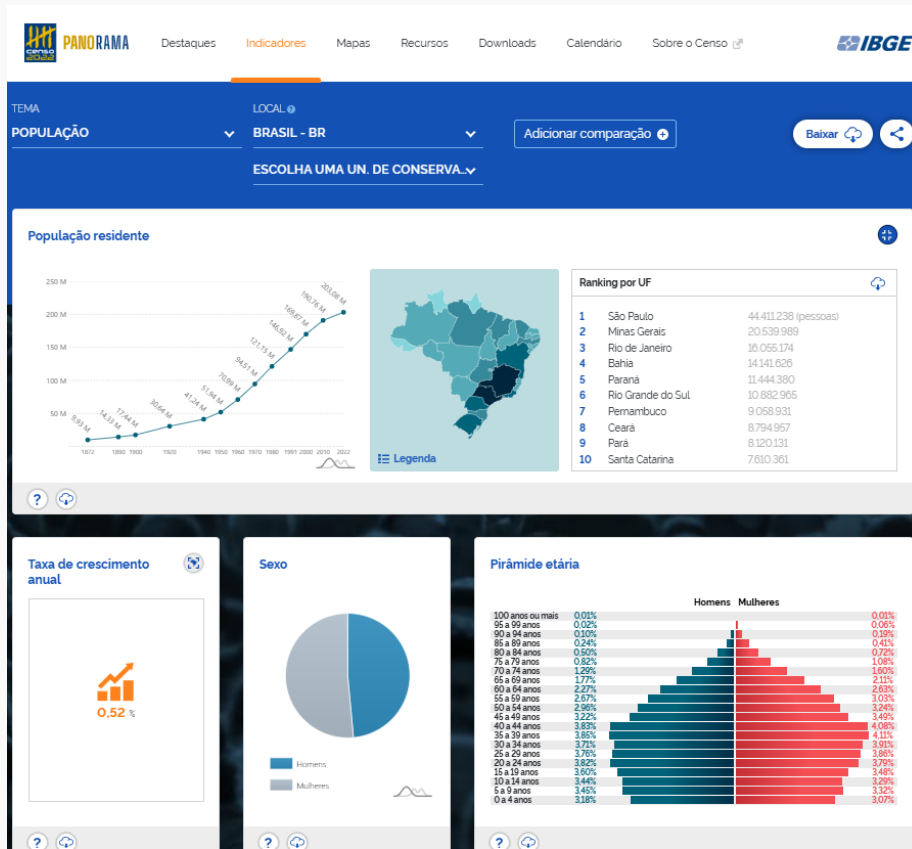
News and highlights

Population Census in Brazil

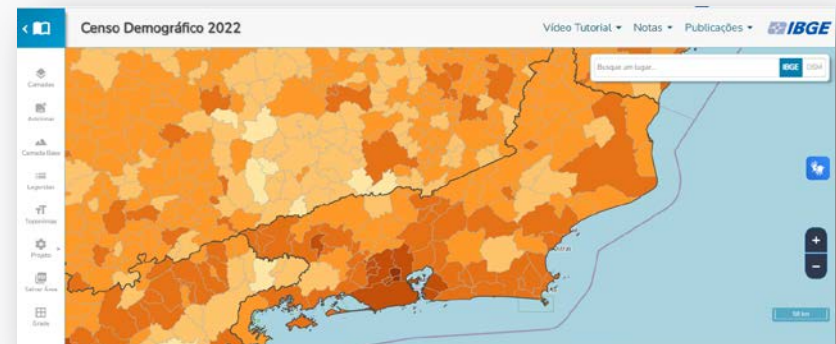
HOTSITE

<https://censo2022.ibge.gov.br/panorama/>

Visualization of main indicators



Interactive Map Mode



Data to download



Population Census in Brazil

HOTSITE

<https://censo2022.ibge.gov.br/panorama/>

Interactive map and info of addresses

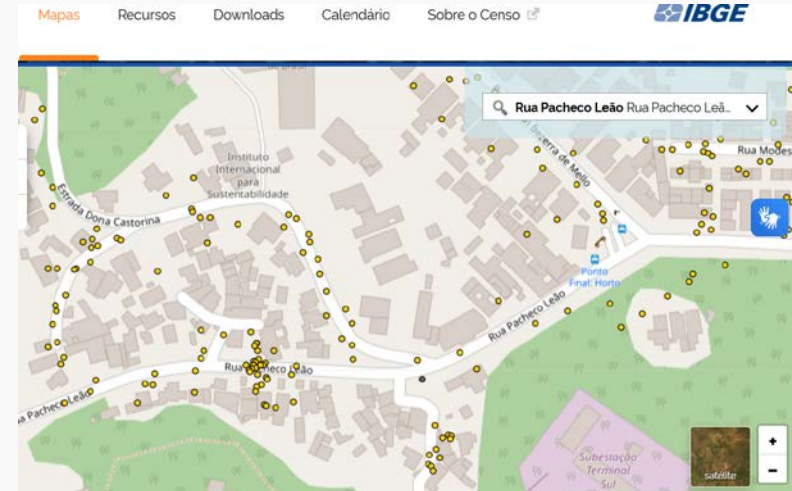


Coordenadas: -22.967233°, -43.237681°

RUA PACHECO LEAO 1992, JARDIM BOTANICO, CEP 22460030

6 domicílios/estabelecimentos:

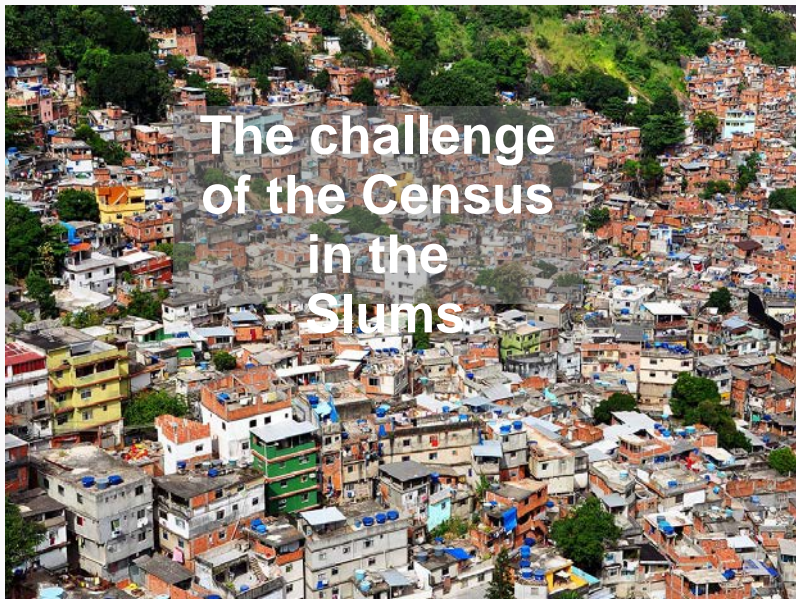
- 1. Complemento:** FNS CASA 1A
Espécie: Domicilio particular
Tipo de edificação: Casa
- 2. Complemento:** FNS CASA 3D
Espécie: Domicilio particular
Tipo de edificação: Casa
- 3. Complemento:** FNS CASA 3E
Espécie: Domicilio particular
Tipo de edificação: Casa



Key challenges

Challenges

- Insufficient budget
- Originally it was planned the hire of 183 thousand enumerators. We did not reach 120 thousand in the field.
- Lack of resources for dissemination of the operation to the population.
- Presidential elections in 2022 and country polarization.
- Fake news dissemination





- Need of complex plan and use may involve logistics for specific flights or boat for Transportation.

Hard-to-Reach Areas

Challenges



•Answers

Low productivity of some enumerators

- Financial Incentive (with reallocation of resources)
- Incentivized household visits at alternative times (after 6 pm and weekends)

Human resources
(shortage of enumerators
in some regions)

- Simplification of the selection process
- Relaxation of hiring restrictions (MP No. 1,141)

Refusals in high-income
places

- Use of the internet modality in condominiums with impossibility of access
- Notification of authorities regarding condominiums restricting access to census agents

High rates of
No Response

- Localized field reviews in areas with high non-response rates
- Actions to mobilize and raise public awareness
- Targeted initiatives in favelas and high-income regions

International Cooperation

Population Census in Brazil

International Cooperation

Partnerships were fundamental to the success of the operation



- Observa Censo 2022 (census observatory)
18 countries (Africa and Americas)



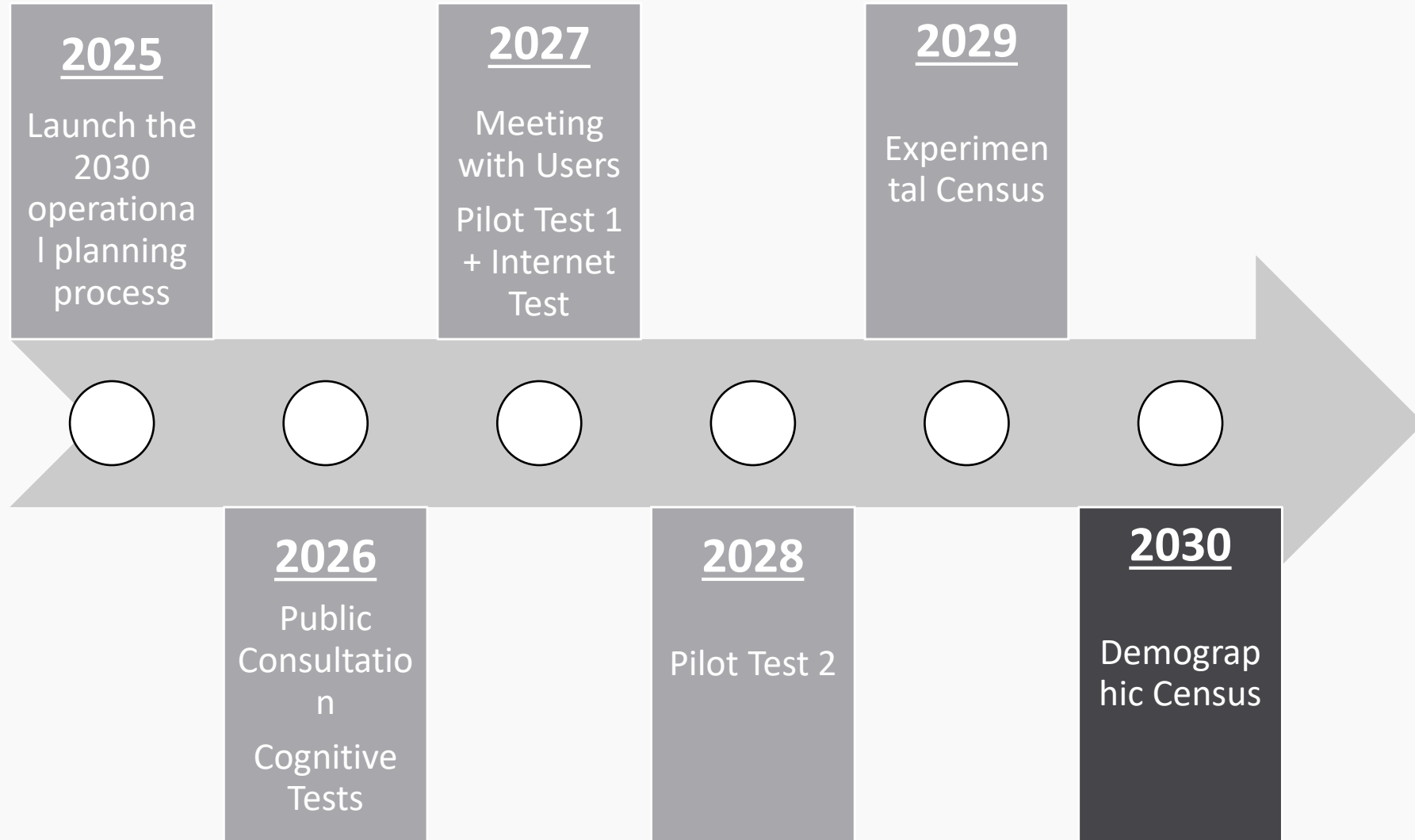
- Reference Center for Electronic Data Collection
- South-South and Triangular Cooperation
Phase 1: Brazil – Cape Verde – Senegal (2017)
Phase 2: In progress



2030 Census Planning

Population Census in Brazil

2030 Census Planning



Population Census in Brazil

2030 Census Planning

- Main improvements planned for the next Census

2030 Census

Online
data collection



Use of
administrative
records



Artificial
Intelligence



Thank you!

vladimir.miranda@ibge.gov.br

Mission:

“Portray Brazil with the information necessary to understand its reality and to exercise citizenship.”