Brazil Experience in SDG data production, dissemination and capacity building

Claudio Stenner
Coordinator of Geography

Instituto Brasileiro de Geografia e Estatística IBGE

IBGE
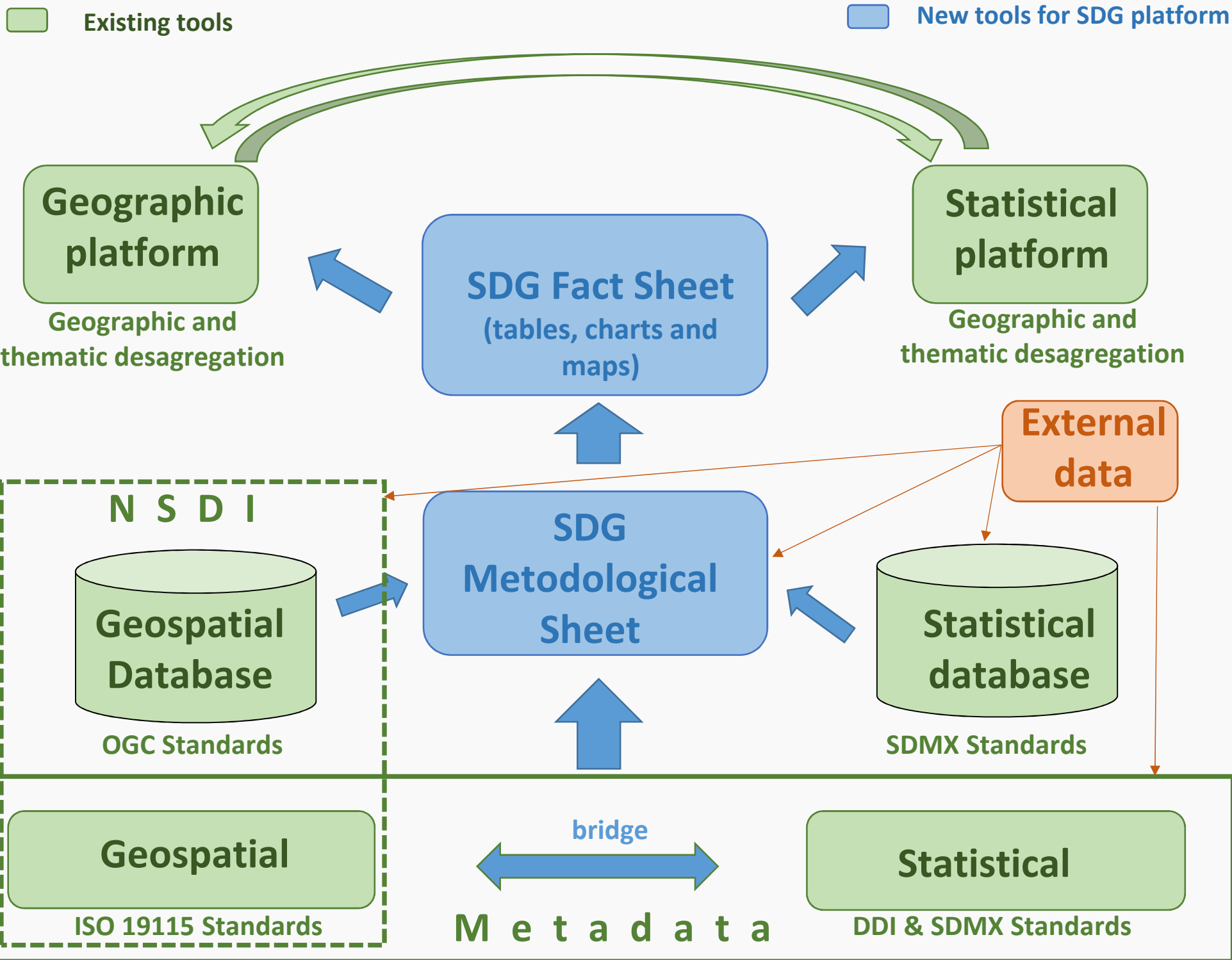
About SDG Indicators

- Great diversity of information, coming from many <u>different sources and institutions</u>

- The official Institute of Geography and Statistics (IBGE) produces only part of the information needed to produce the SDG indicators

- For the implementation of policies towards the SDG it is necessary that the information be presented with thematic and geographical disaggregation.

- Greater geographical disaggregation is available in census than in intercensus periods for many indicators

- Different types of information: traditional household census and surveys, administrative registers, remote sensing, ground sensors

What kind of capacity is necessary to SDG?

- Expertise to produce and disseminate traditional statistics with all disaggregation needed

- Expertise to work with remote sensing

- Expertise to work with administrative registers

- Expertise do produce a integrated geographic and statistic information

- Produce different kinds of information in a regular base

- Expertise to integrate different kinds of information from many different organizations

- Promote a Institutional articulation between many different organizations

- Some additional technical capacity for specifics indicators

Things that already exist in Brazil that make the task easier

- Geography and statistic in the same institution;

- Adoption of international standards (SDMX, OGC…): This is the key bridge between many different sources and institutions

- Adoption of models and frameworks (GSBPM, GSGF..): It may provide a common geographies for SDG and more.

- The existence of systems to storage and disseminate both statistical and geographic information.

- The existence of a generic institutional training program

Existing tools

New tools for SDG platform

Geographic platform

Geographic and thematic desagregation

SDG Fact Sheet (tables, charts and maps)

Statistical platform

Geographic and thematic desagregation

External data

N S D I

Geospatial Database

OGC Standards

SDG Metodological Sheet

Statistical database

SDMX Standards

Geospatial

ISO 19115 Standards

bridge

Statistical

DDI & SDMX Standards

M e t a d a t a

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Capacity building strategy

<u>Capacity building inside the IBGE</u>

- To qualify the central team for methodological-operational development of SDGs, when it is necessary, we use the Institute's regular training program, which includes:

    - Long-term license (from 1 year to 4 years) to take master's, doctorate and postdoctoral courses

    - Short-term license to do other courses outside IBGE

    - Short technical courses within IBGE

    - Participation in seminars and technical meetings

    - National School of Statistical Sciences, which is part of IBGE

- For capacity building of decentralized teams for SDG, IBGE can use the training structure used in all others IBGE works

Capacity building strategy

Capacity building outiside IBGE

- Meetings with producers of SDG information: a 3-day event that brings together the other institutions responsible for producing SDGs information. Three national meetings have already been held, of great importance for the institutional articulation

- Creation of Working Groups for each goal of the SDG, including organizations with relevant information and expertise. In these groups the specific issues of each indicator are raised and addressed.

Examples of SDG 11 Indicators

SDG 11 – Some geographic definitions and informations needed

- City

- Urbanized/ Built-up area

- Rural/Urban

- Slum area

- Open space for public use

- Public transport information

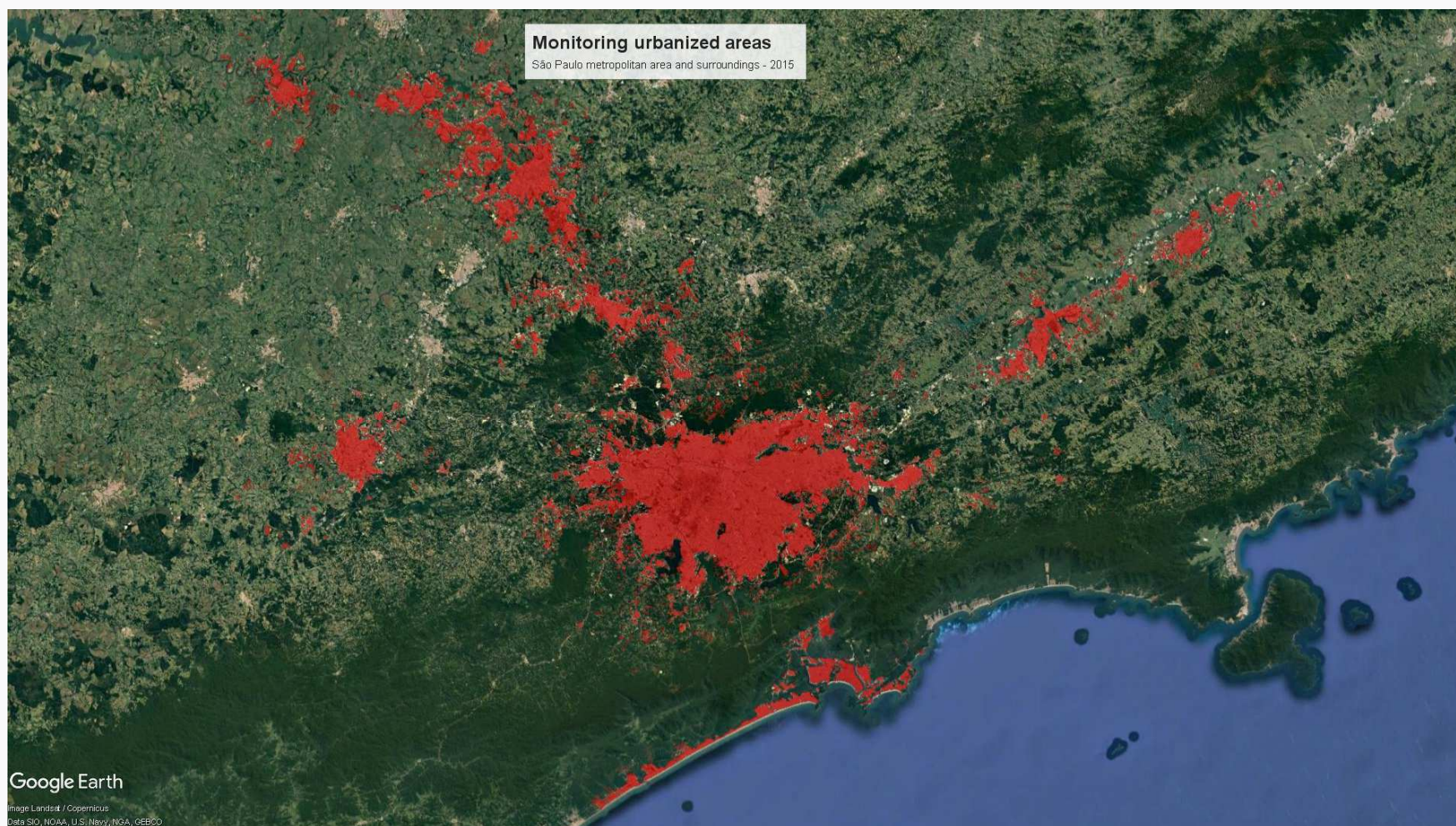# SDG 11 – Geographic definitions and informations needed

City: We already have the definition and the identification of cities, definied by statistical and geospatial information.
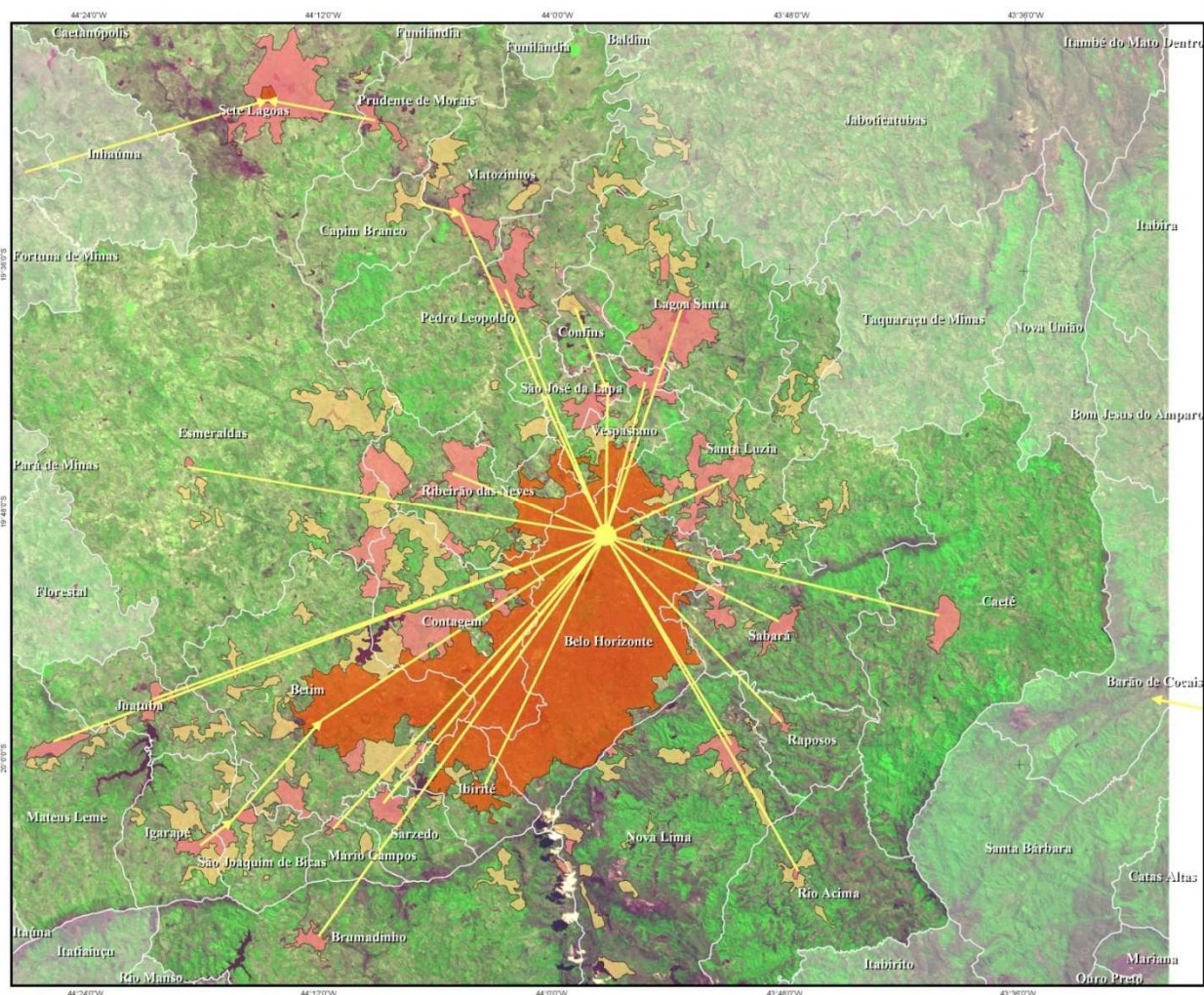

Urban concentration of Belo Horizonte

SDG 11 – Geographic definitions and informations needed

Urbanized/built-up area: We have all urban areas with more than 100.000 inhabitants delimited in a scale of 1:50.000. We are working to delimited others urban areas until the end of 2018. This information will be used directly in the SDG, but also to improve Census track classification and land use data.

Monitoring urbanized areas
São Paulo metropolitan area and surroundings - 2015
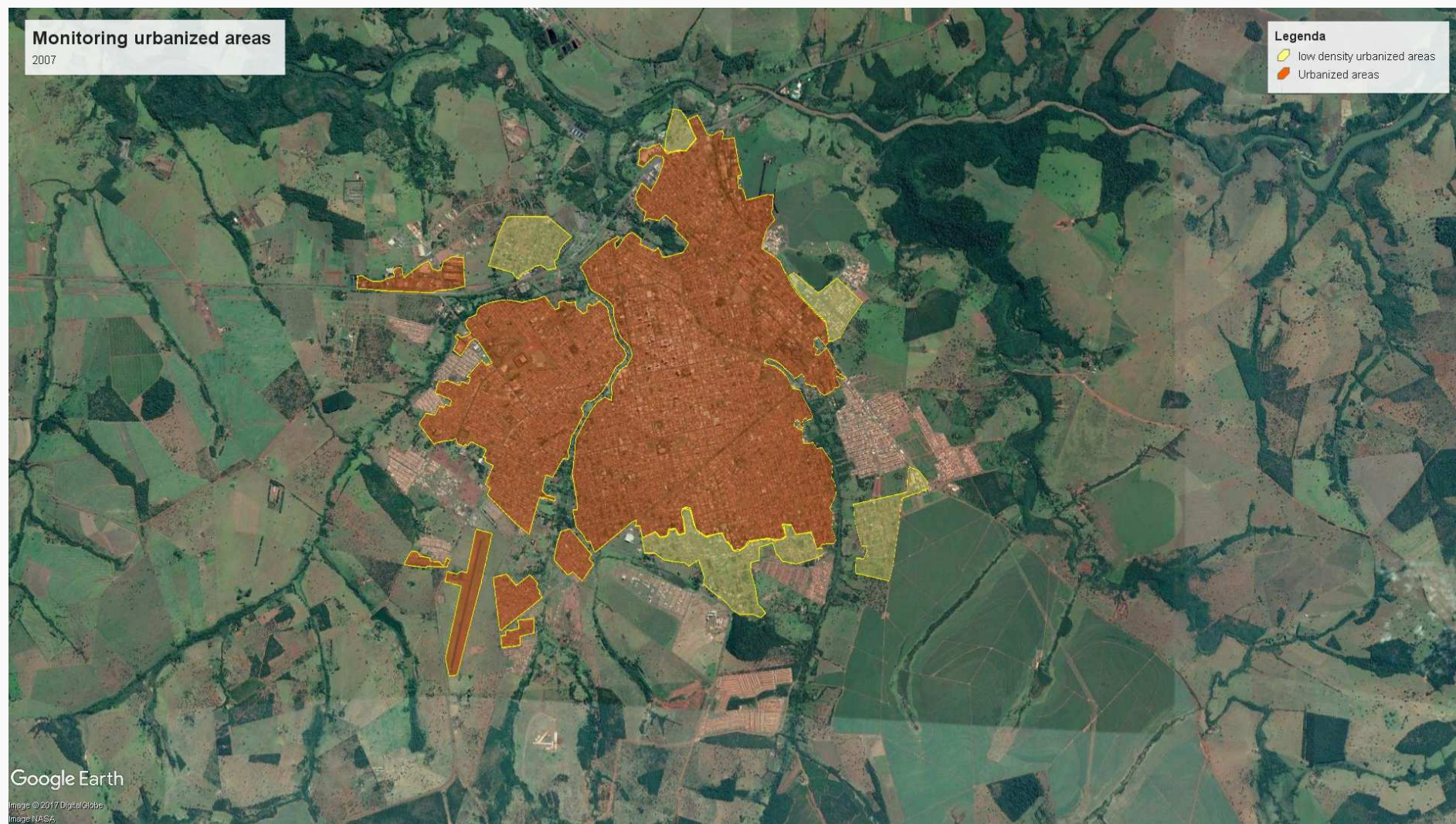
SDG 11 – Geographic definitions and informations needed

<u>Urbanized/built-up area challenge:</u> Create a process to monitoring the urbanized area growth in order to offer local level information. We will work on this next year.

SDG 11 – Geographic definitions and informations needed

Urbanized/built-up area challenge: Create a process to monitoring the urbanized area growth in order to offer local level information. We will work on this next year.

Monitoring urbanized areas
2007- 2016 changes

Legenda
- Classification changes
- new low density urbanized areas
- New urbanized areas

SDG 11 – Geographic definitions and informations needed

Rural/Urban Definition: We are work in a approach to classify urban and rural areas in different ways. In the Census 2020 We area planning to have more than one classification of urban/rural. The main source of information for this classification are built-up areas, localization, commuted data and urban hierarchy. We are planning to do Seminars next year to discuss what is the best way to do this classification.
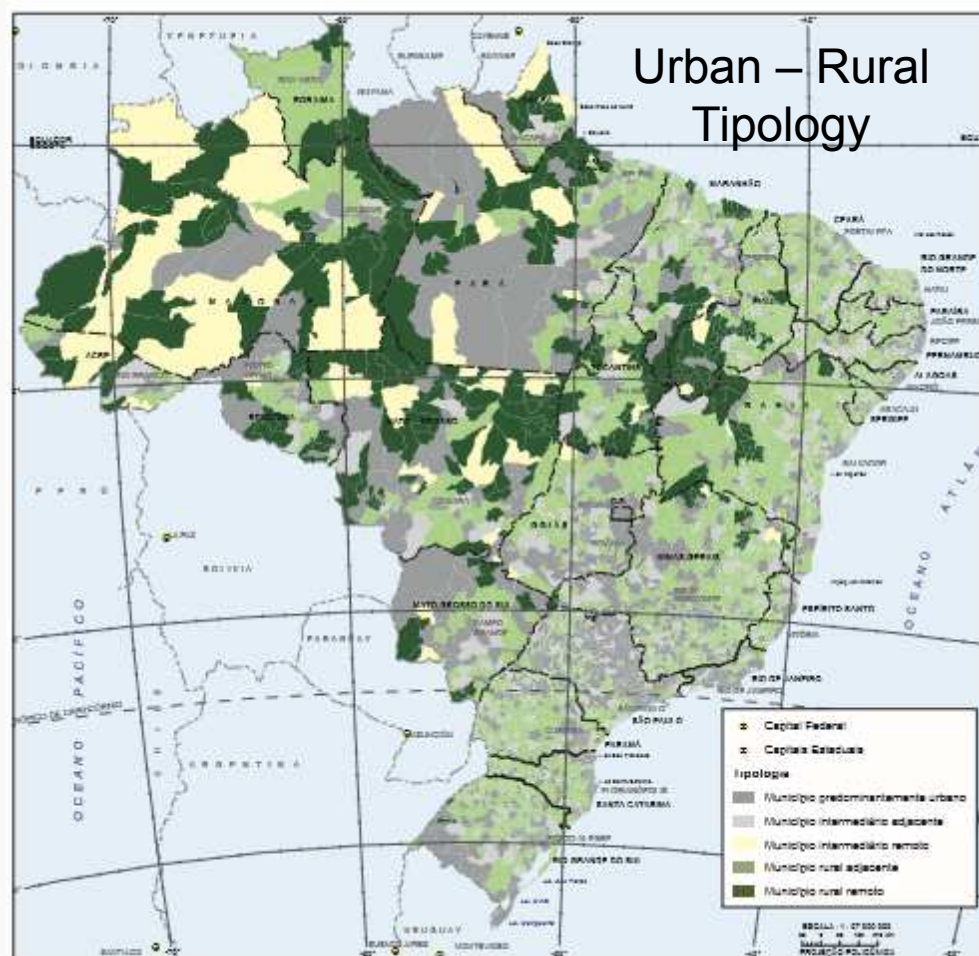
Fonte: IBGE, DGC/Coordenação de Geografia, IBGE, DGC/Coordenação de Cartografia, IBGE, Censo Demográfico 2010

Indicator 11.1.1 - Proportion of urban population living in slums, informal settlements or inadequate housing

The indicator 11.1.1 has two dimensions:

A) Proportion of urban population living in inadequate housing

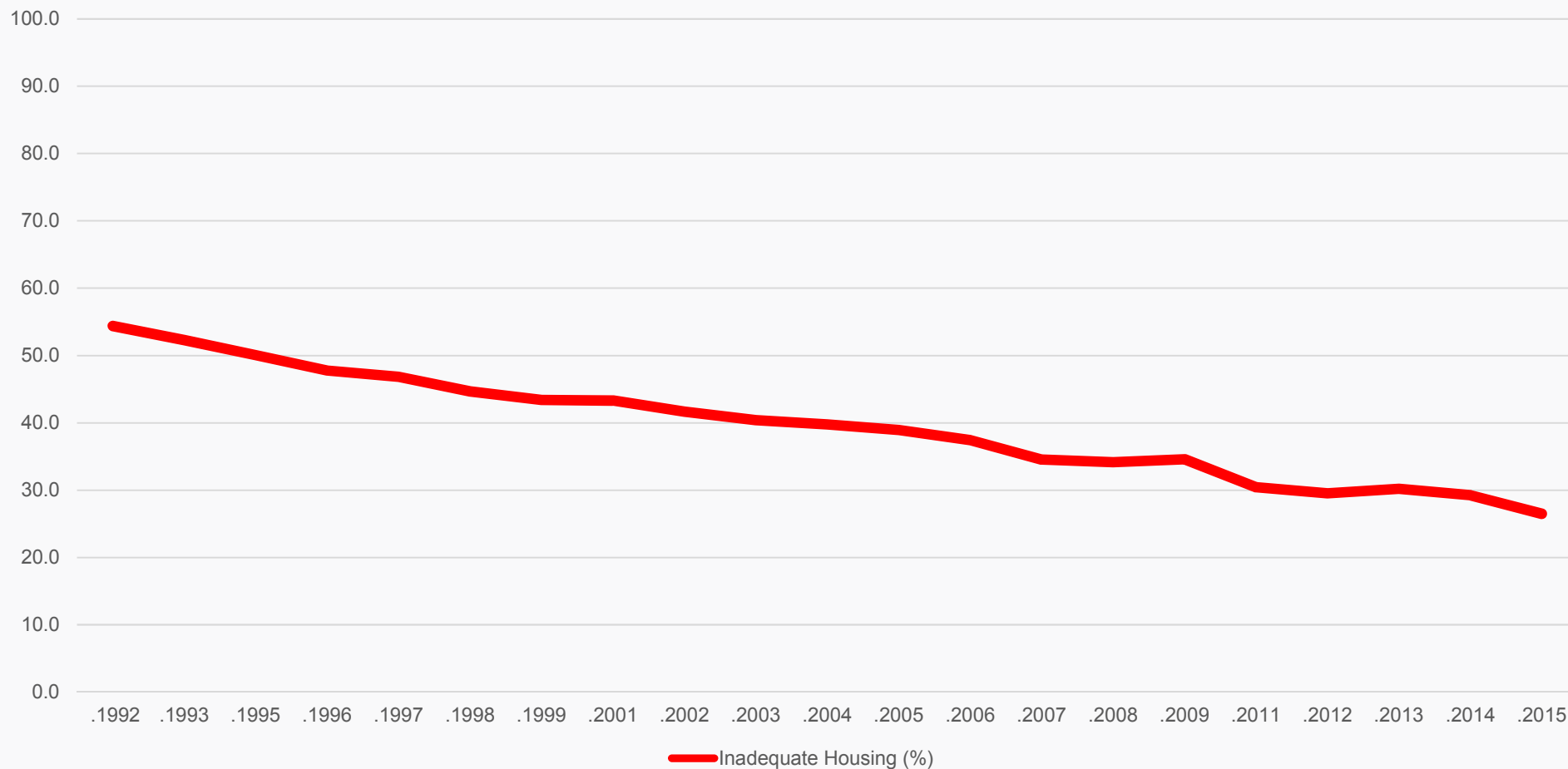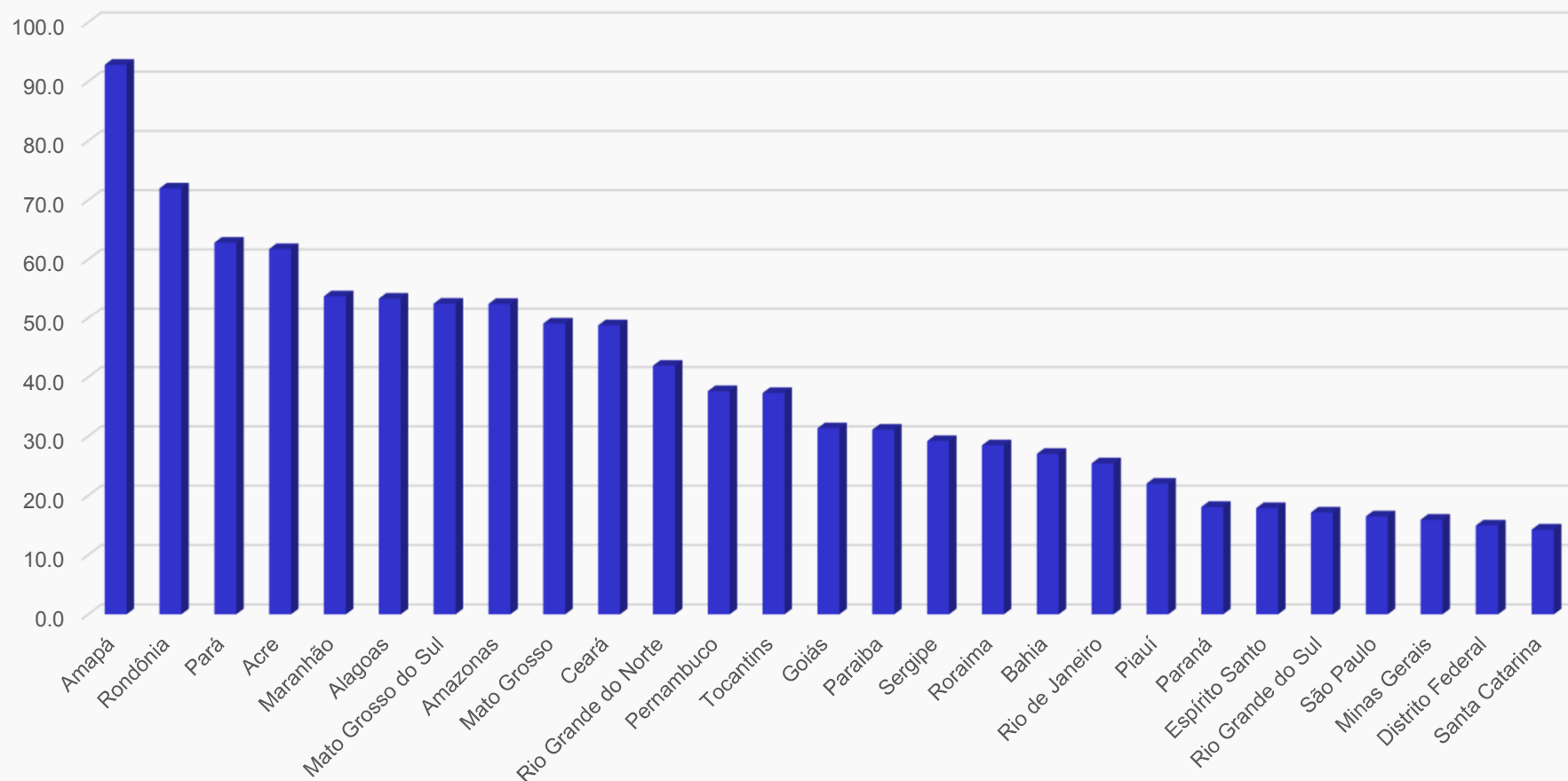- B) Proportion of urban population living in slums and informal settlements (geospatial component)

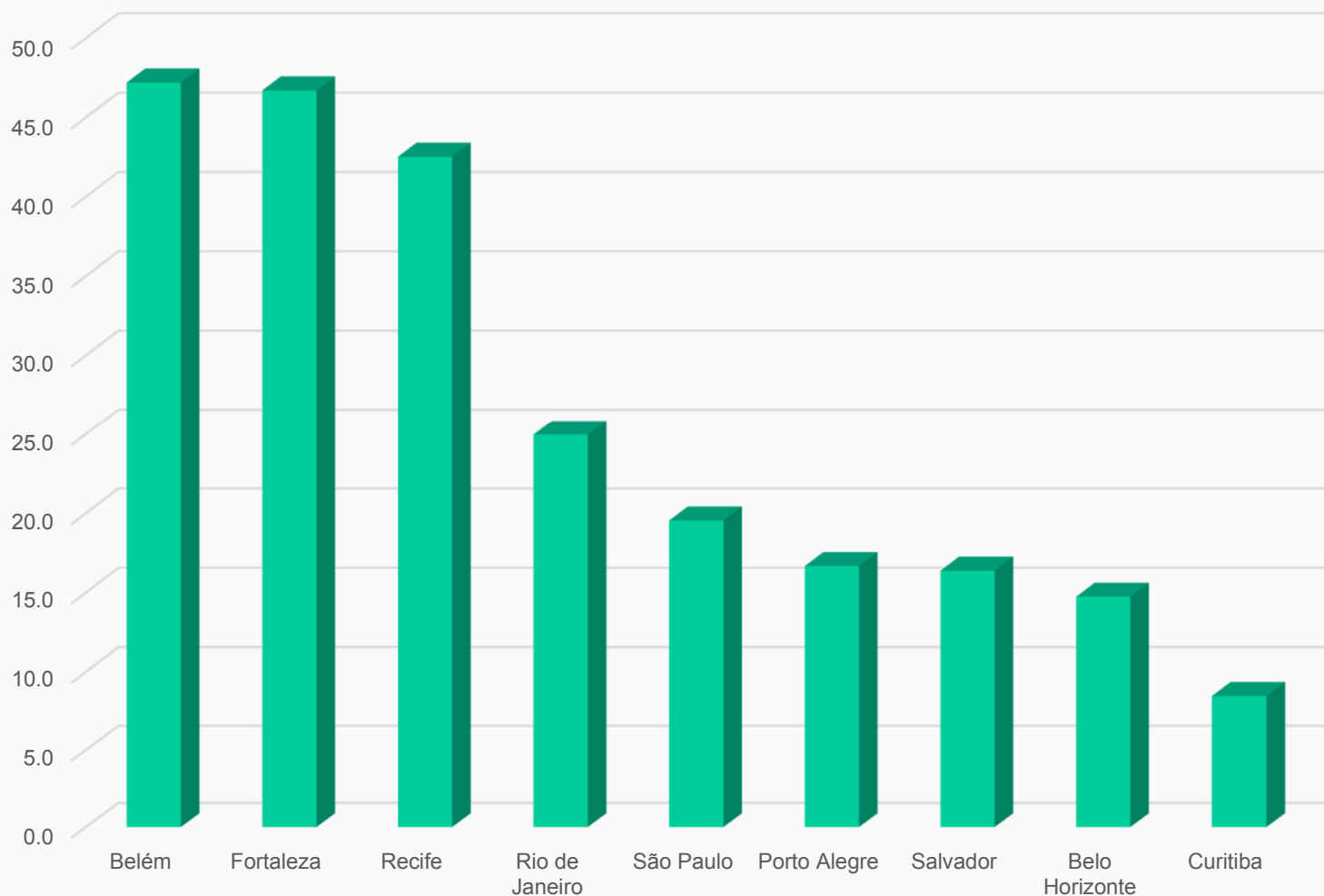# Indicator 11.1.1 - Proportion of urban population living in slums, informal settlements or inadequate housing

A) Proportion of urban population living in inadequate housing

- This part of the indicator may be produced with statistical approach, using a housing survey or census

- It's not necessary any specific geospatial information.

Indicator 11.1.1 - Proportion of urban population living in slums, informal settlements or inadequate housing

Brazil - Inadequate Housing (%) - 1992 - 2015

Inadequate Housing (%)

Indicator 11.1.1 - Proportion of urban population living in slums, informal settlements or inadequate housing

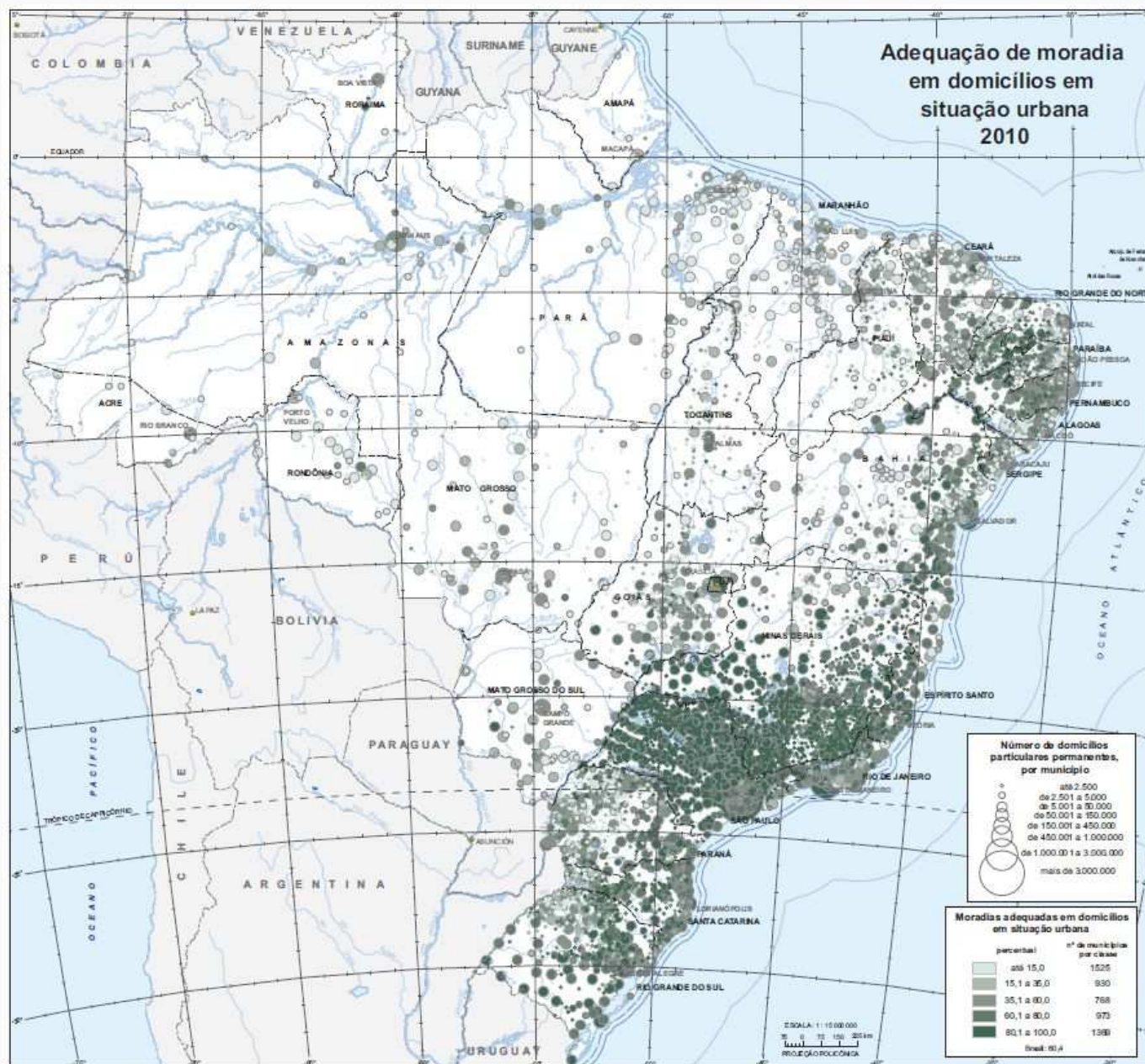States of Brazil - Inadequate Housing (%) - 2015

Indicator 11.1.1 - Proportion of urban population living in slums, informal settlements or inadequate housing

Brazil - Major Metropolitan Regions - Inadequate Housing (%) - 2015

Indicator 11.1.1 - Proportion of urban population living in slums, informal settlements or inadequate housing

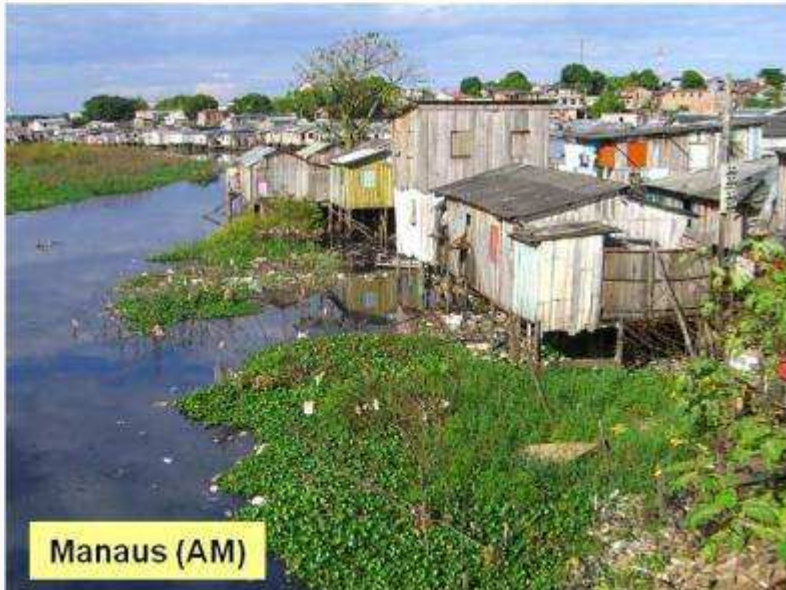Brazil – Municipalities - Inadequate Housing (%) - 2010

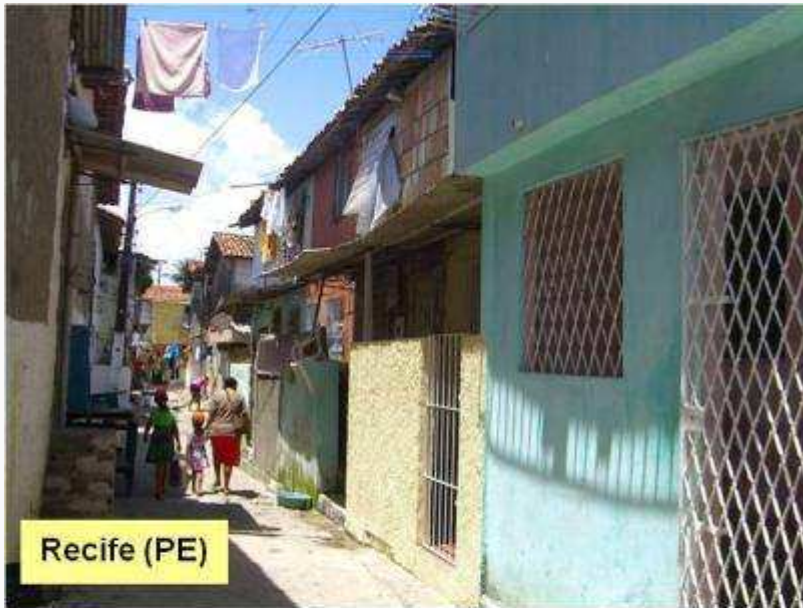# Indicator 11.1.1 - Proportion of urban population living in slums, informal settlements or inadequate housing

B) Proportion of urban population living in slums and informal settlements

- This part of a indicator needs a geographic approach.

- It is necessary to identify and delimited all the slums areas.

- Slums are very dinamics and changes its territory very fast.

- It is not possible to update the slums population data every year. Only in census it is possible to do it.

- We are developing a methodology to monitoring the growth in slum territory

The challenge to portray the reality

Recife (PE)

Rio de Janeiro (RJ)

Manaus (AM)

Maceió (AL)

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Introduction of satellite images for all urban areas

Belém (PA)

Rio de Janeiro (RJ)

Fortaleza (CE)

Cubatão (SP)

Belo Horizonte (MG)

Introduction of satellite images for all urban areas

Macapá (AP)

The application of the geographic census for slums
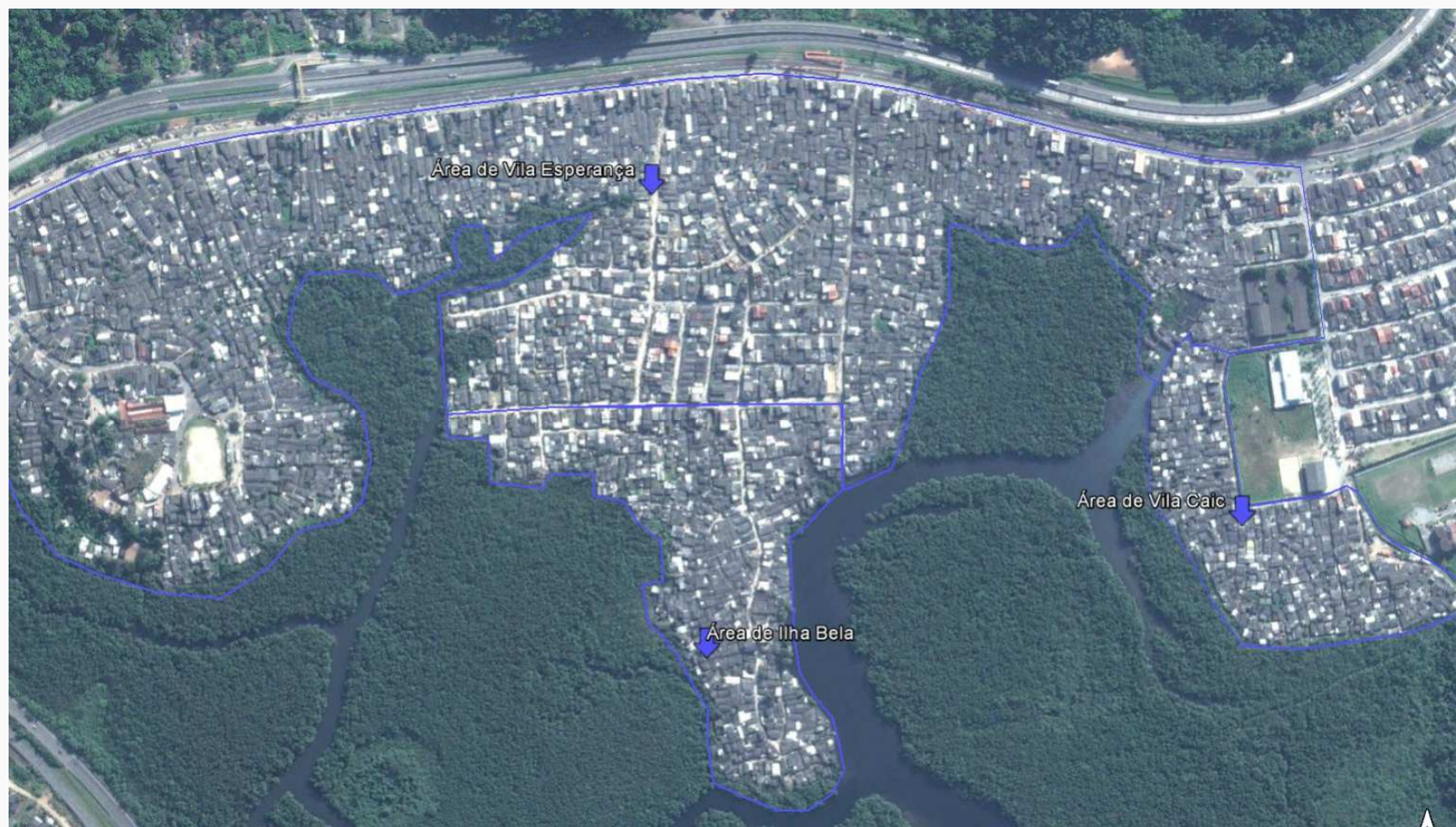

Topography
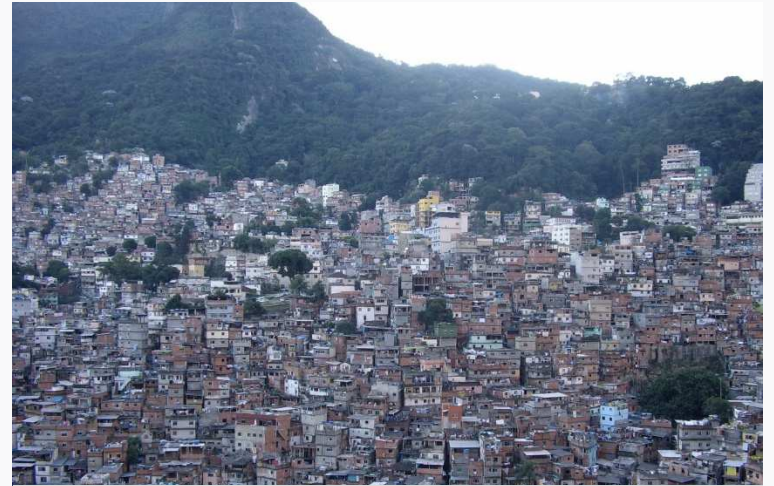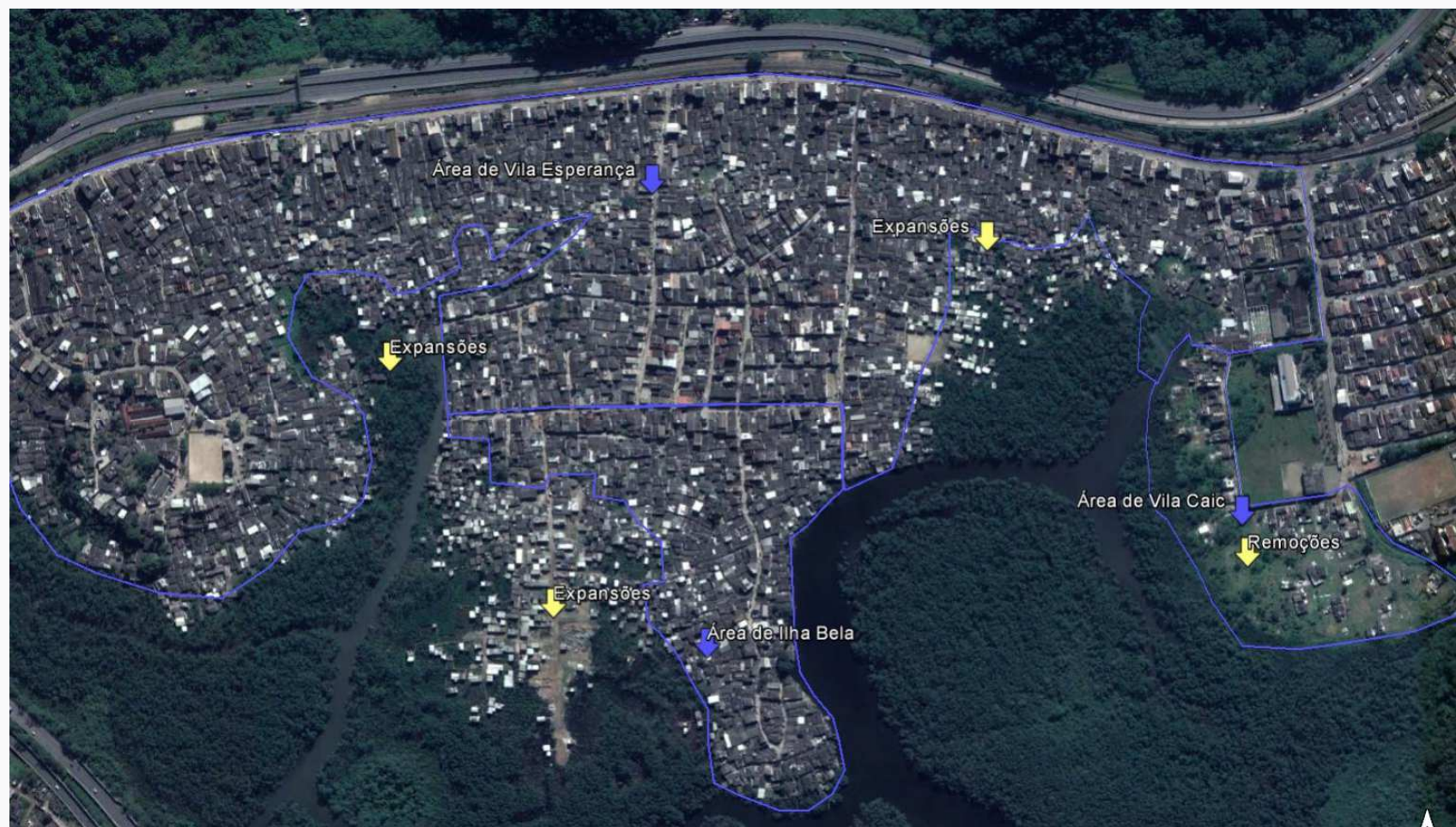

Density

Geographic placement

Accessibility

Indicator 11.1.1 - Proportion of urban population living in slums, informal settlements or inadequate housing

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Fundamental geospatial Information for SDG 11

- Cities: we defined cities using urbanized areas (remote sensing) and Commuting (Demographic Census)

- Urban/Rural: We are working to improve our definition, included urbanized areas, size of population and location.

- Urbanized areas: We are development a methodology to monitoring urbanized areas in Brazil with results each 2 or 3 years

- Open Space for Public use: its a very difficult information to obtain. Its not hard to find open space from remote sensing, but it is difficult to know if the open space is a public space. Its a combination between remote sensing information and administrative register. We don´t have yet a strategy to do this.

- Public transport System: Geographic Census?

- Slum areas: We are development a methodology to monitoring the growth of slums territory.

Next Steps

- Improve the use of administrative registers

- Create a unified and standartizied National Adress File.

- Develop a National Geographic Census, in order to obtain necessary information to SDG

Final Remarks

- Encourage the implementation of NSDI as capacity building action

- Encourage the adoption of the GSGF as a capacity building action

- Encourage the adoption of the international standards

- These 3 points are "bricks" in order to produce SDG indicators

Thank you!

claudio.stenner@ibge.gov.br