

An aerial photograph showing a dense urban area on the right side, transitioning into a large, dark green forested area on the left. The terrain is hilly and rugged. The text is overlaid on the image.

**The Fiocruz Atlantic Forest Campus and the Growth Acceleration Program (GAP) of Juliano Moreira Colony:** the incorporation of sustainability principles into an integrated planning proposal in the buffer zone of a protected area, the Pedra Branca State Park in Rio de Janeiro, Brazil.

**Luis Carlos Soares Madeira Domingues**  
[luiscarloso.madeiradomingues@gmail.com](mailto:luiscarloso.madeiradomingues@gmail.com)  
[madeira@fiocruz.br](mailto:madeira@fiocruz.br)

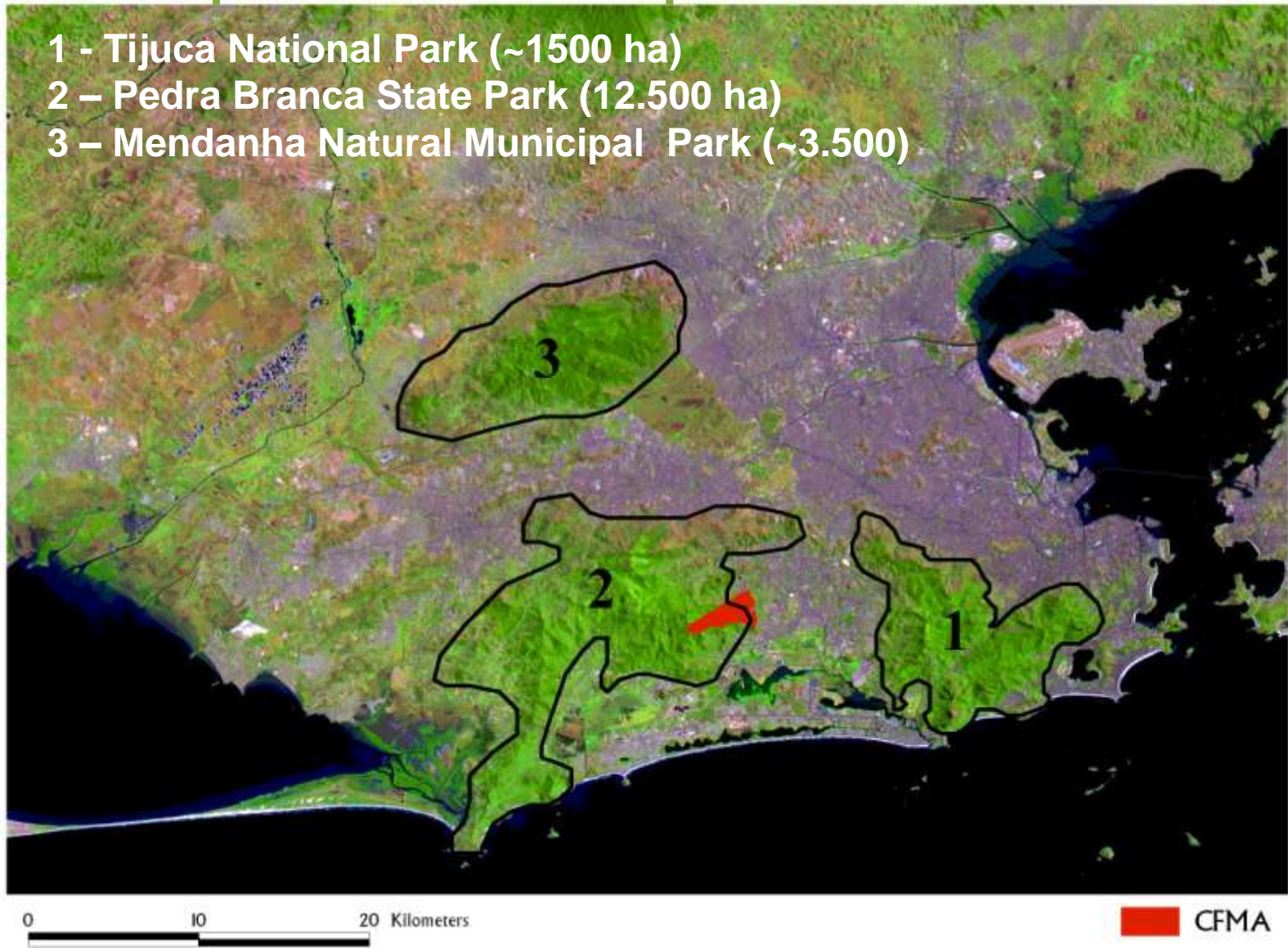
**Claudison Rodrigues**

**Cecilia Benites**

Image © 2009 DigitalGlobe

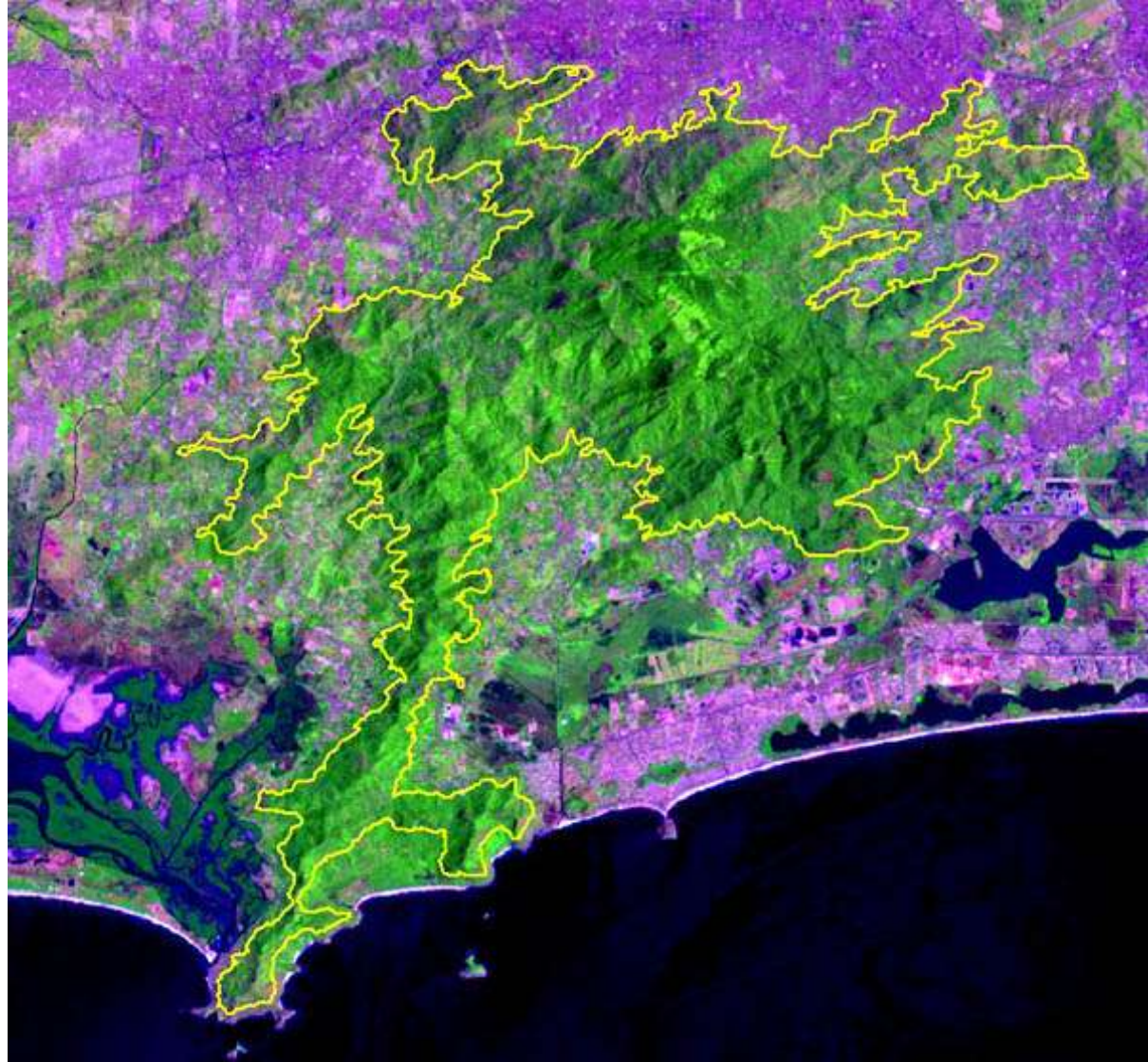
# Three urban parks in the metropolis

- 1 - Tijuca National Park (~1500 ha)
- 2 – Pedra Branca State Park (12.500 ha)
- 3 – Mendanha Natural Municipal Park (~3.500)



# The Pedra Branca State Park

- History of protection: conservation of water potential .
- Devastation of city – since XVI.
- Advance of urban expansion – one of the mains problems along the boundaries today.

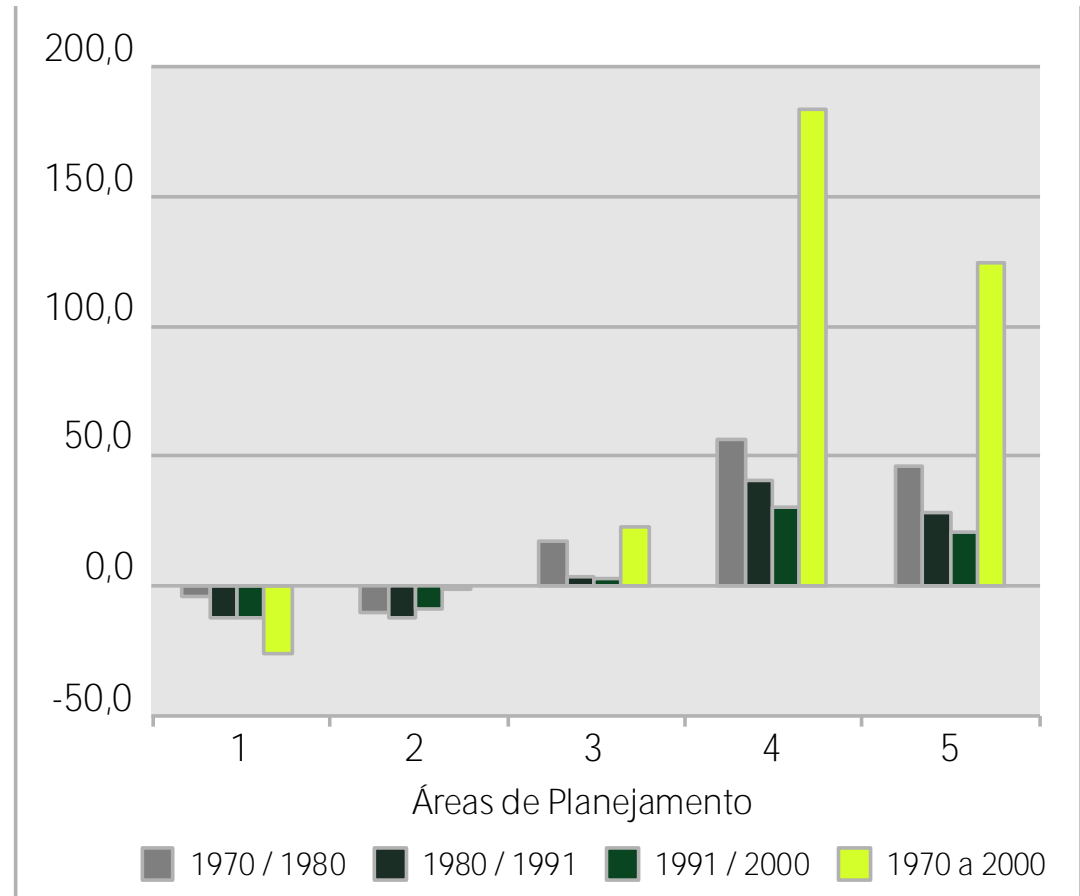


# City growth toward west – surround PBSP

## Rio – Population Evolution (%) in the 5 *Planning Areas* 1970/2000

### Redistribution of population since the 1970 decade:

- relevant population loss in downtown area (AP1) and decrease in AP2 (south and north zones);
- Expressive growth in AP4 and AP5 (west zone).



SILVEIRA, Carmen B. In: *Uso Residencial na Área Central do Rio de Janeiro: Um estudo na periferia do centro*. Dissertação de mestrado. Rio de Janeiro: Universidade Federal do Rio de Janeiro/IGEO/PPGG, 1995. Fonte: IBGE - décadas de 1970 a2000. Elaboração de SILVEIRA, Carmen B.

# Olimpic Games projects near PBSP



  BRT's projects for Olympic Games

 Olympic Games Facilities

# Limits of Juliano Moreira Colony

**Juliano Moreira Colony: 786 hectares**

- Sector 1:**  
FIOCRUZ  
Fiocruz Atlantic Forest  
Campus (FAFC)
- Sector 2 :**  
S.M. Health
- Sector 3:**  
S.M. Habitat
- Sector 4:**  
Property Developers.
- Sector 4A:**  
S.M. Habitat
- Sector 5:**  
S.M. Health
- Sector 6:**  
C.R.P.H.F./Fiocruz





# Environmental and social exceptionality





# Cultural exceptionality - Historic Core Rodrigues Caldas



----- Limite entre setores da Colônia Juliano Moreira

**EDIFICAÇÕES E ÁREAS VERDES**

**T** Edificações de tombamento estadual (INEPAC)

**T** Edificação de Tombamento Federal (IPHAN)

**C** Edificações de Interesse Cultural

**L** Áreas livres

**V** Áreas verdes

**E** Edificações posteriores ao NRC

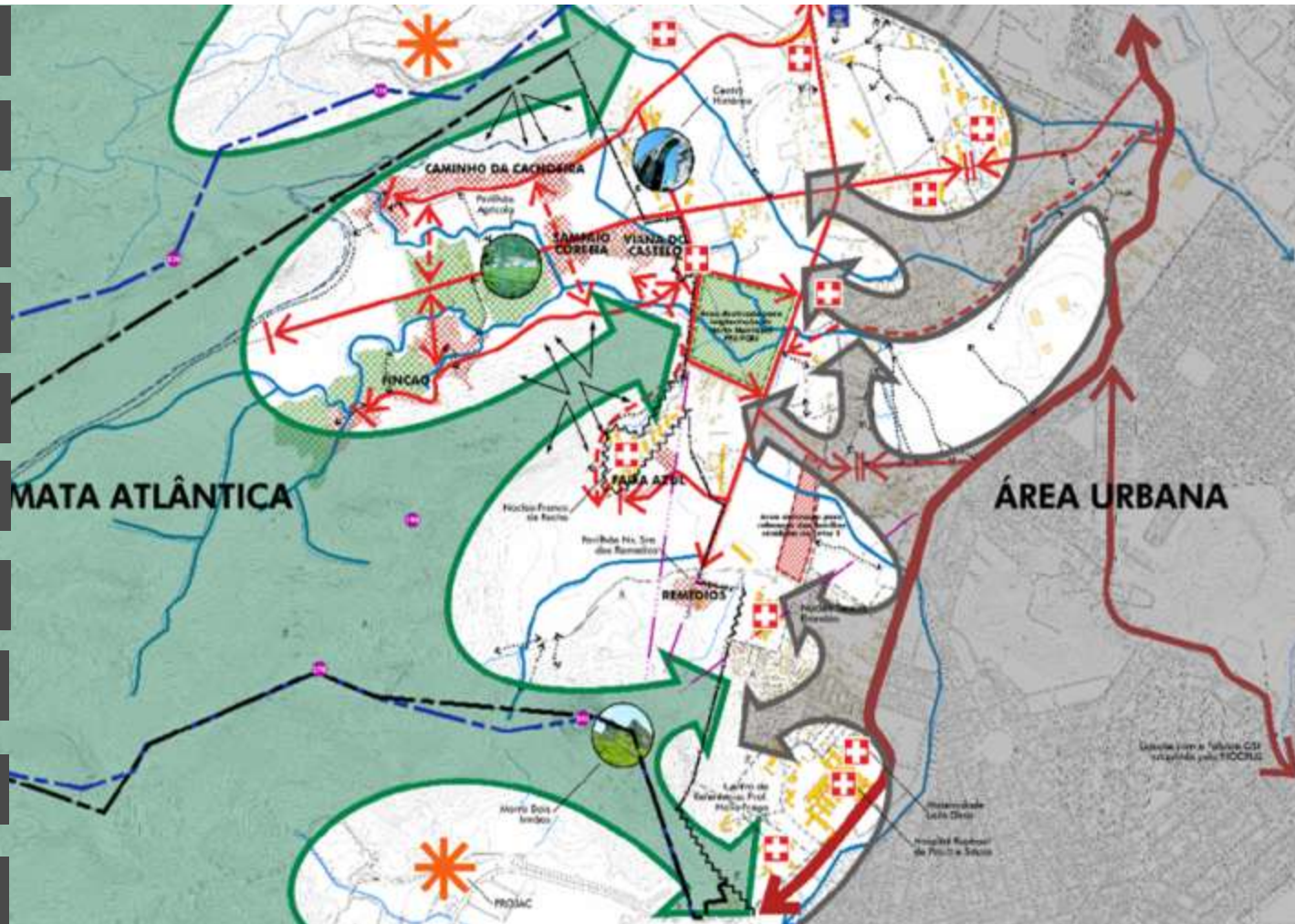
# Cultural exceptionality - Historic Core Rodrigues Caldas



Photos: Historic Core Rodrigues Caldas – Fiocruz/Casa de Oswaldo Cruz -2008/2010.

# Diagnostic Map

- Limits of Sectors
- Juliano Moreira Colony
- Rivers
- Forest regeneration
- City growth
- Mainly roads
- Fluxo impedido
- Possible conections
- ✳ Large properties
- Planting areas
- Residencial occupation sector 1



## Planning process

**1999** – With the signing of the Cession of Use Juliano Moreira Colony to PCRJ (SMS), given by the Ministry of Health with the participation of the SPU was established a Working Group to study regulation of the JMC on the municipality, preservation, allocation and equity jurisdiction.

**2001** – It was created by the City the Team Local Juliano Moreira - SMS, SMG, SMO, SMAC, SMC.

**2003** – The Juliano Moreira Colony was divided into six sectors;

**2004** – Fiocruz receives the Sector 1, to implement research activities and teaching and initiates a series of studies aimed at planning the occupation and the viability of projects for the area;

**2006** – Fiocruz joins the Working Group of the Municipality of Rio de Janeiro, seeking to integrate planning activities in the area. This process also sought to overcome the common challenges of management, enabling the strategic projects of Fiocruz, and presents itself as a condition to the effectiveness of any future actions in the area.

**2007** – Definition of JMC as the object of the Growth Acceleration Program (CAP), with the proposal elaborated by the Workgroup.

**2008** – Beginning of Colonia GAP contract. Implementation Management Committee.

# Vision

The Juliano Moreira Colony may represent a type of occupation and the beginning of a process of regeneration of the area targeting the concept of sustainability in its social, economic and environmental.

## Urban Concept and guidelines

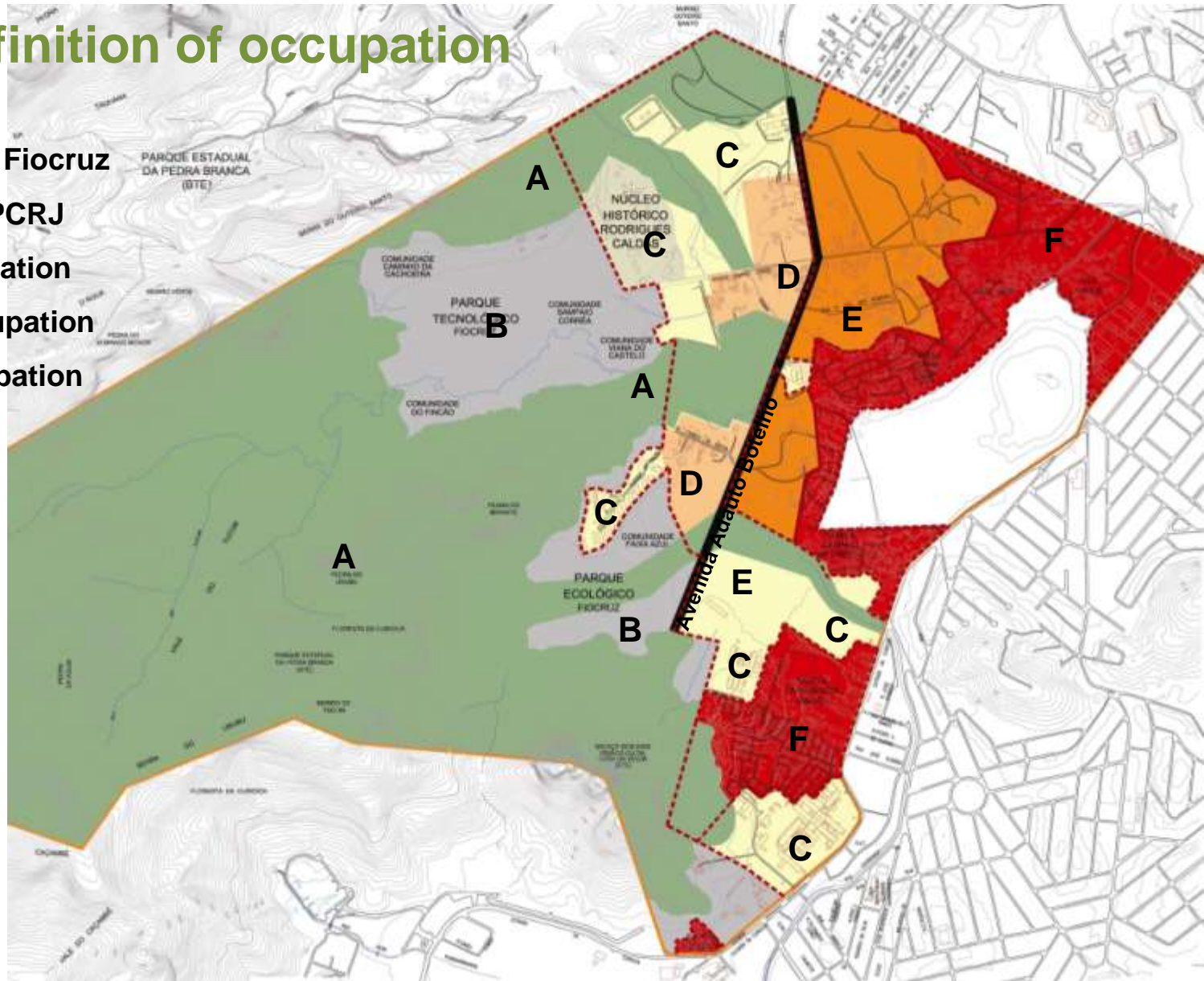
- Regularization of land and improving the quality of housing families of Juliano Moreira Colony;
- Restructuring urban Sector;
- Protection and restoration of cultural heritage and environmental;
- Consolidation of the occupation of Juliano Moreira Colony consistent with the role it should play as a buffer zone of PEPB;
- Consolidation of equipment mental health portion of the site of the former Colony;
- Allocation of areas to support activities and projects of Fiocruz and public facilities in order to overcome local and regional demands Jacarepaguá;
- Search for greater effectiveness of all existing and proposed equipment;
- The proposed use and occupation seeks to incorporate principles of sustainable employment and deployment of a territory healthy;

# Gradient definition of occupation







- A** Forest areas
- B** Institucional area - Fiocruz
- C** Institucional area PCRJ
- D** Low density occupation
- E** Media density occupation
- F** High density occupation

— Limits of JMC

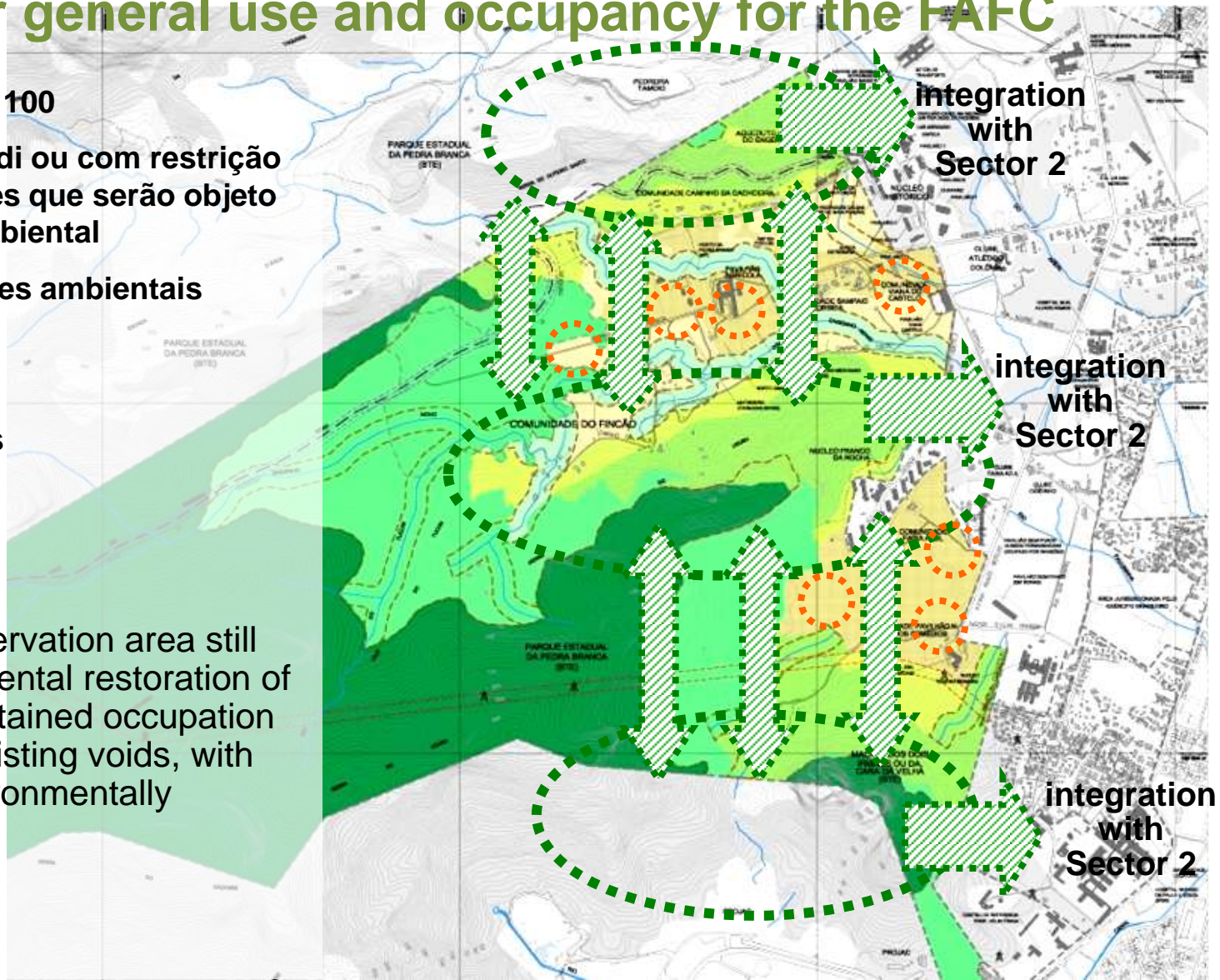
⋯ Limits of sectors



# Proposal for general use and occupancy for the FAFC

-  APP acima da cota 100
-  Áreas non edificandi ou com restrição de usos e atividades que serão objeto de recuperação ambiental
-  Áreas sem restrições ambientais
-  Clareiras
-  Reflorestamento
-  Corredores Verdes

Associates the conservation area still preserved, environmental restoration of degraded areas, sustained occupation of only part of the existing voids, with the definition of environmentally oriented parameters.



# Master Plan (Zoning)

- INTANGIBLE ZONE - 262ha
- PRIMITIVE ZONE - 91,6ha
- RECOVERY ZONE - 76,5ha
- PLANTING ZONE - 3,4ha
- EXTENSIVE USE ZONE - 29,6ha
- INTENSIVE USE ZONE - 12,4ha
- LAND REGULARIZATION ZONE - 24,5ha







## JMC Management Commite

One of the most important outcomes of this process that is expected to conclude in 2012 will be the regularization and improvement of urban and housing about 6,000 families and formal access to land for housing for other 5000 families.

The mangement commite has decisive influence in:

- Consolidation and enhancement of GAP project settings;
- Discussion and decision making of a interinstitutional form, transparent and democratic;
- Incorporation of a sector within the scope of GAP Colony;
- Definition and implementation of municipal ordinances (AEIF and AEIS) which define areas of particular interest in the área.
- Definition of guidelines for land regularization to be replicated.
- Orientation of public and private stakeholders for use and occupation of Sectors 4 and 4A.
- Definition of strategies and concrete actions from the perspective of regional planning.

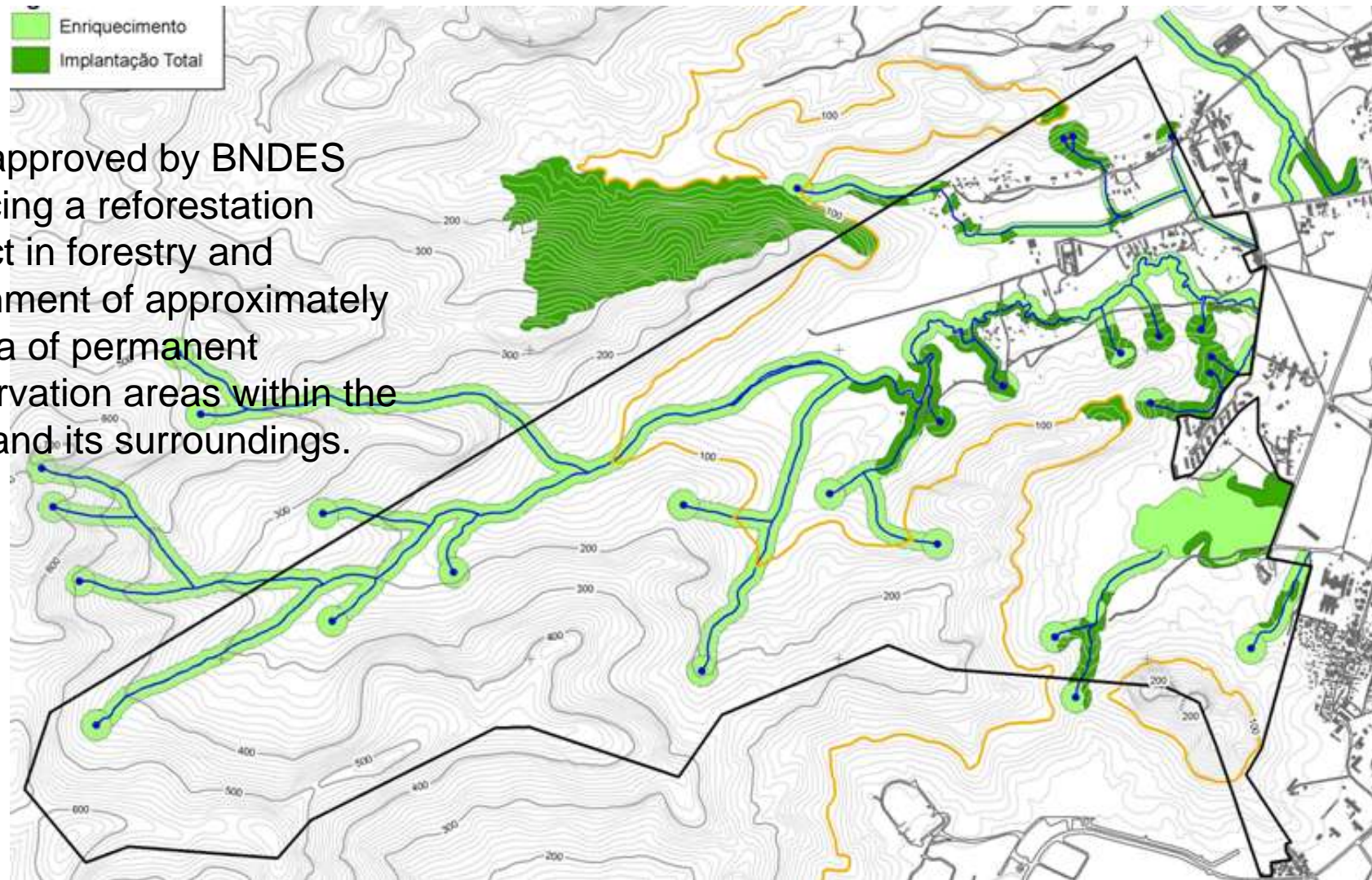
## Other actions

The GAP Project is associated with a set of actions that are being captained by Fiocruz, in coordination with partners in the GAP Management Committee and other partners, seeking to promote:

- healthier environments;
- strategies for employment generation and income;
- structuring networks of health and education services;
- strategies for environmental conservation;
- strategies for integrated management of cultural heritage.

## Other actions – reforestation and enrichment of APPs

Was approved by BNDES financing a reforestation project in forestry and enrichment of approximately 100 ha of permanent preservation areas within the Park and its surroundings.



## Preliminary considerations

Fiocruz Atlantic Forest Campus and the GAP Colony proposals may incorporate an **important role** in its context to allow the minimization of negative impacts of the buffer zone and offer greater protection to the park in its most preserved portion.







The **scale and effectiveness** of the strategy can be broadened considerably if we evaluate the **participation of** owners bordering the north and south of the area and those responsible for management of other sectors of the former colony as well as the institutions included in the process of planning and management of GAP Colony and the participation of population.

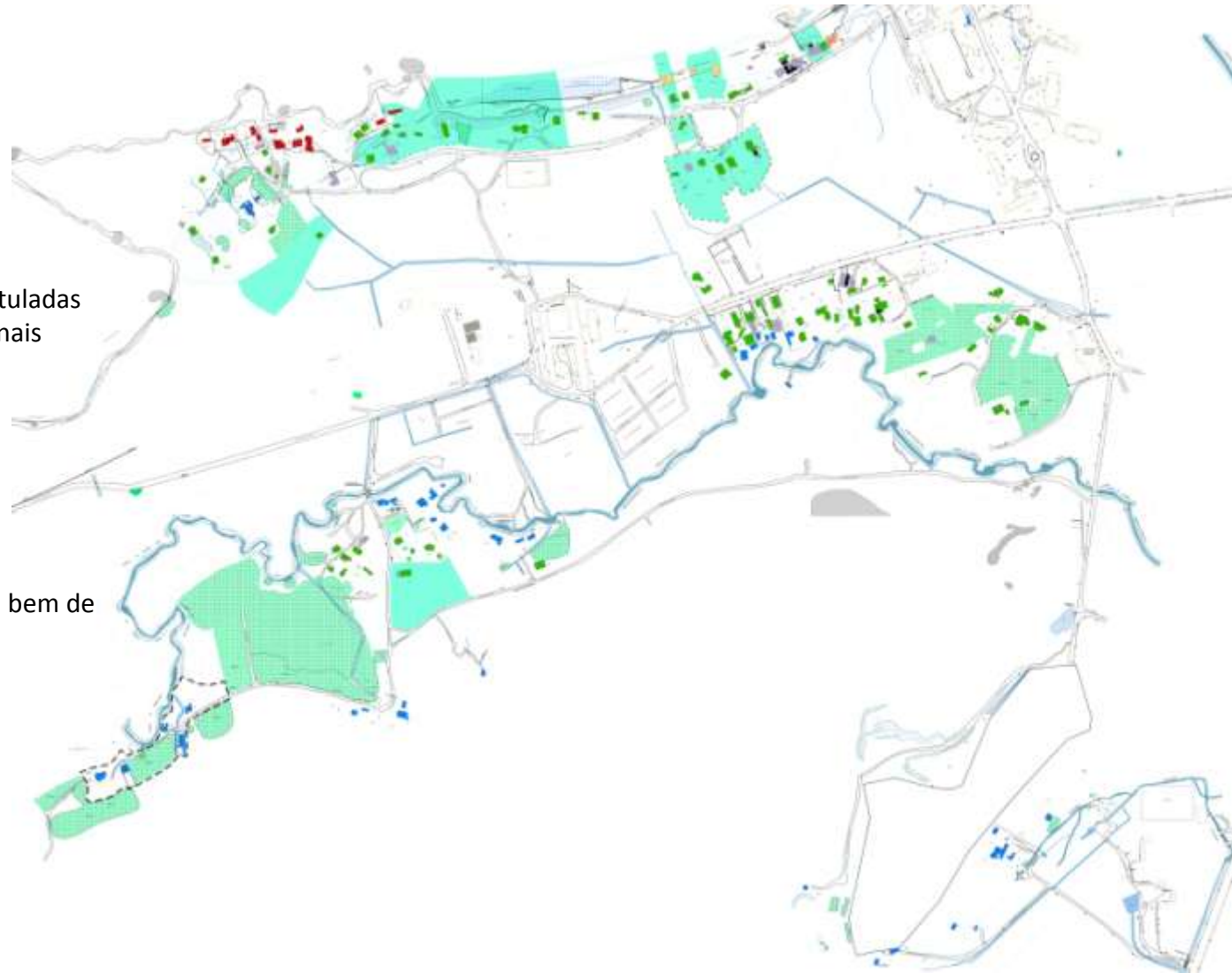
The success of this venture and achieving the intended goals depend, among other things, the **institutional competence** of the various partners in planning and managing the area in an integrated manner and in the process of **land regularization** and negotiation with the families living in the former Juliano Moreira Colony.

## Preliminary considerations

- A **planning process** consistent and continuous that already has approximately 10 years, a situation rare in our public experience;
- A local development strategy that **effectively try to integrate** the social, economic and environmental;
- A territorial **planning policies in an integrated** housing, mobility, infrastructure and environment policies;
- Action in defense of a proposed **city healthy** and **sustainable**, and that, in the particular case, may offer a promising alternative for the direct relationship between town and PBSP.

# Land Regularization Sector 1 – diagnostic

-  Unidades domiciliares a serem tituladas no local
-  Unidades domiciliares a serem tituladas no local com melhorias habitacionais
-  Unidades domiciliares em edificações funcionais
-  Unidades domiciliares em risco sanitário
-  Unidades domiciliares em risco geológico/geotécnico
-  Unidades domiciliares próximas a bem de interesse histórico-cultural
-  Cultura/plantio



# Land Regularization Sector 1 – urban design



- Unidades domiciliares tituladas no local
- Unidades domiciliares de reassentamento



# Historic Core restoration – urban proposal



Projeto de Revitalização do Núcleo Histórico Rodrigues Caldas – Fiocruz/Casa de Oswaldo Cruz -2009.