Challenges for Sao Paulo Macrometropolitan Environmental Governance- Research and Policy Responses

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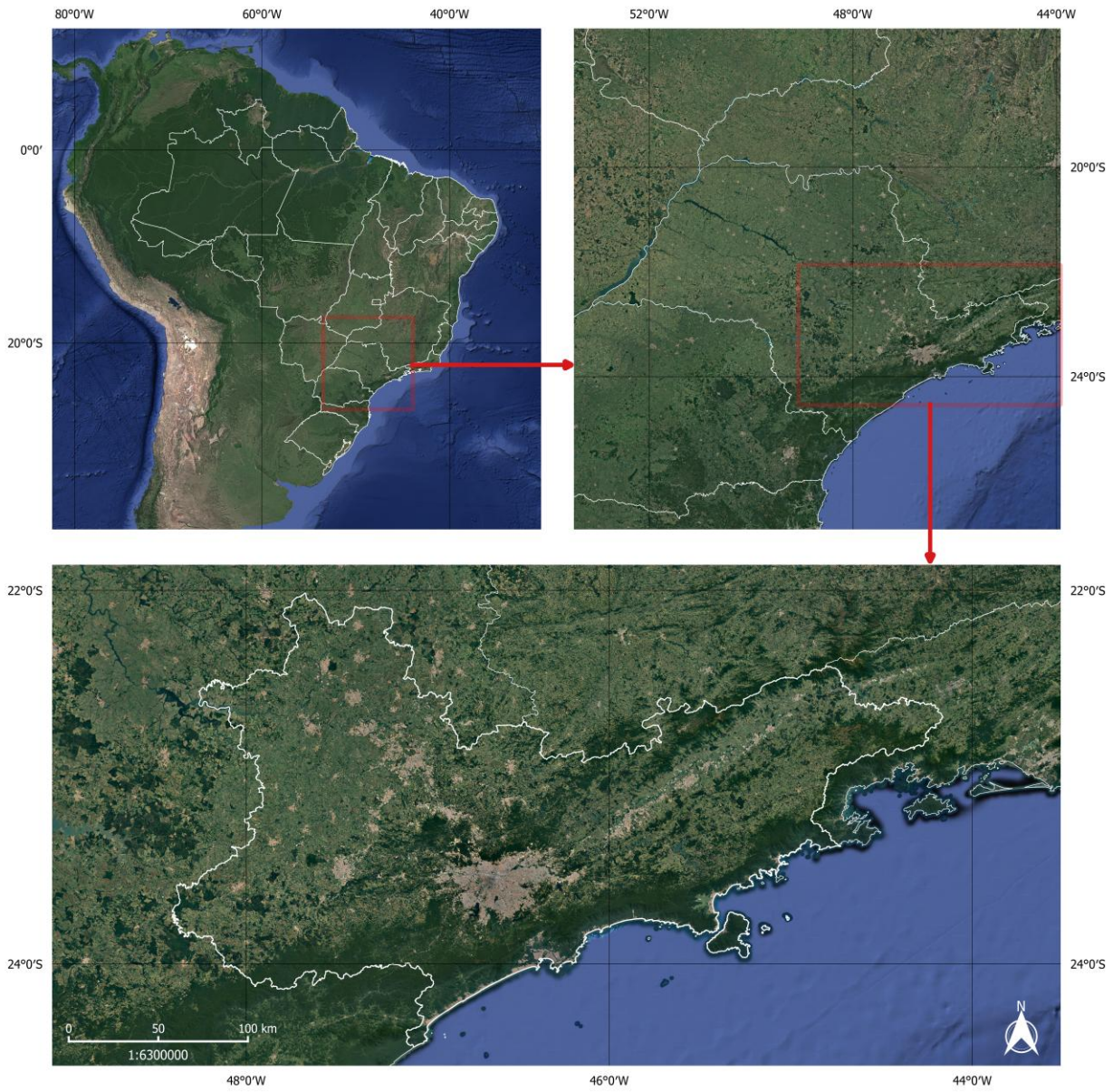
The Project

- ✓ New Challenges to approach Environmental Governance and its interfaces facing climate change in a scale that transcends the Metropolitan Region of São Paulo- Fapesp project 2015/03804-9 – 2017-2022- Interinstitutional project- IEE/USP and UFABC Laboratories
- ✓ Coordination- IEE/USP
- ✓ Analysis of impacts of different processes of environmental degradation and increased vulnerability
- ✓ Interdisciplinary framework to analyze the set of processes that should be part of an action and integrative agenda of different interfaces of environmental governance within a context of climate variability.



Sao Paulo Macrometropolis

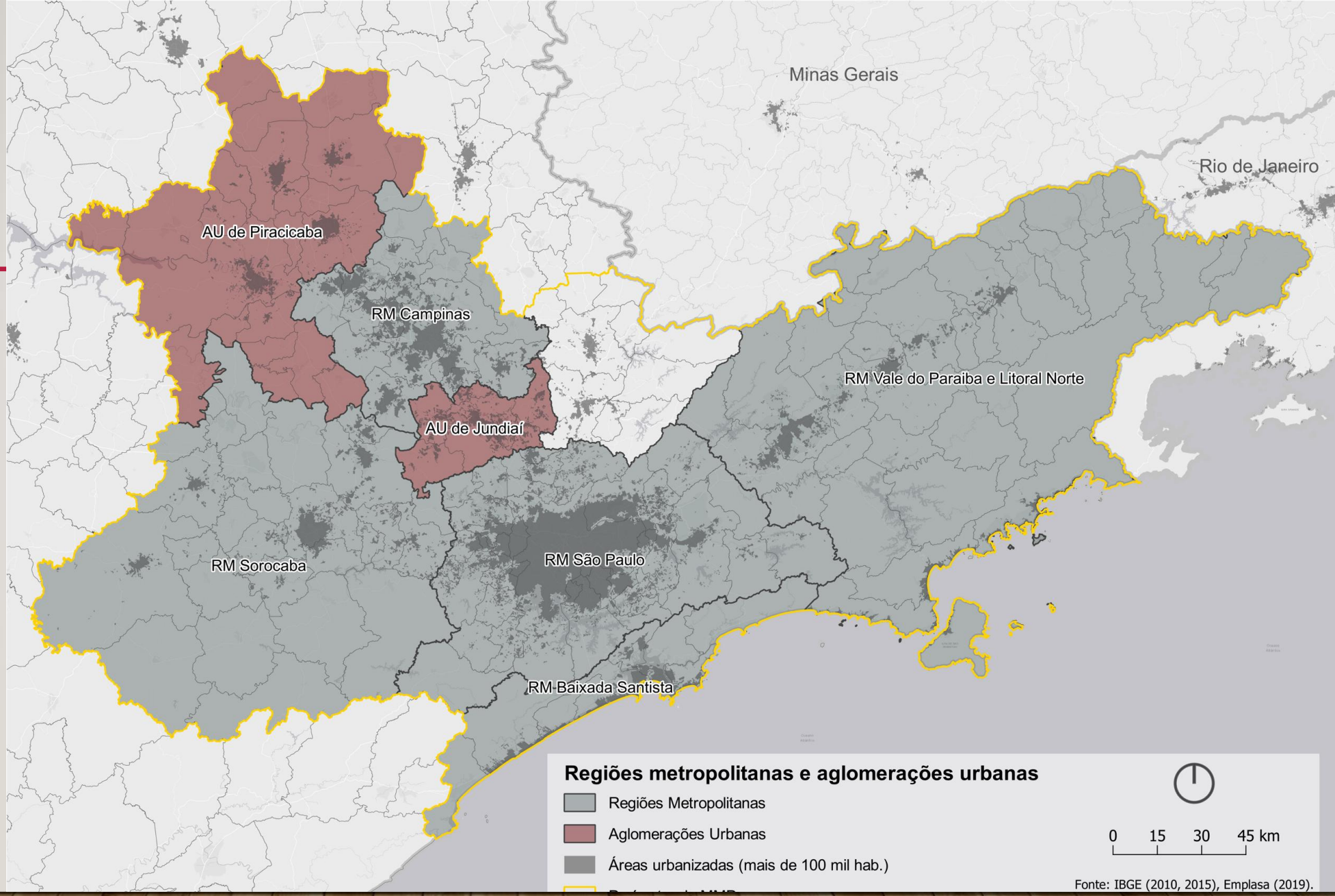
SPMM

5 Metropolitan Regions

and

2 Urban Aglomeration

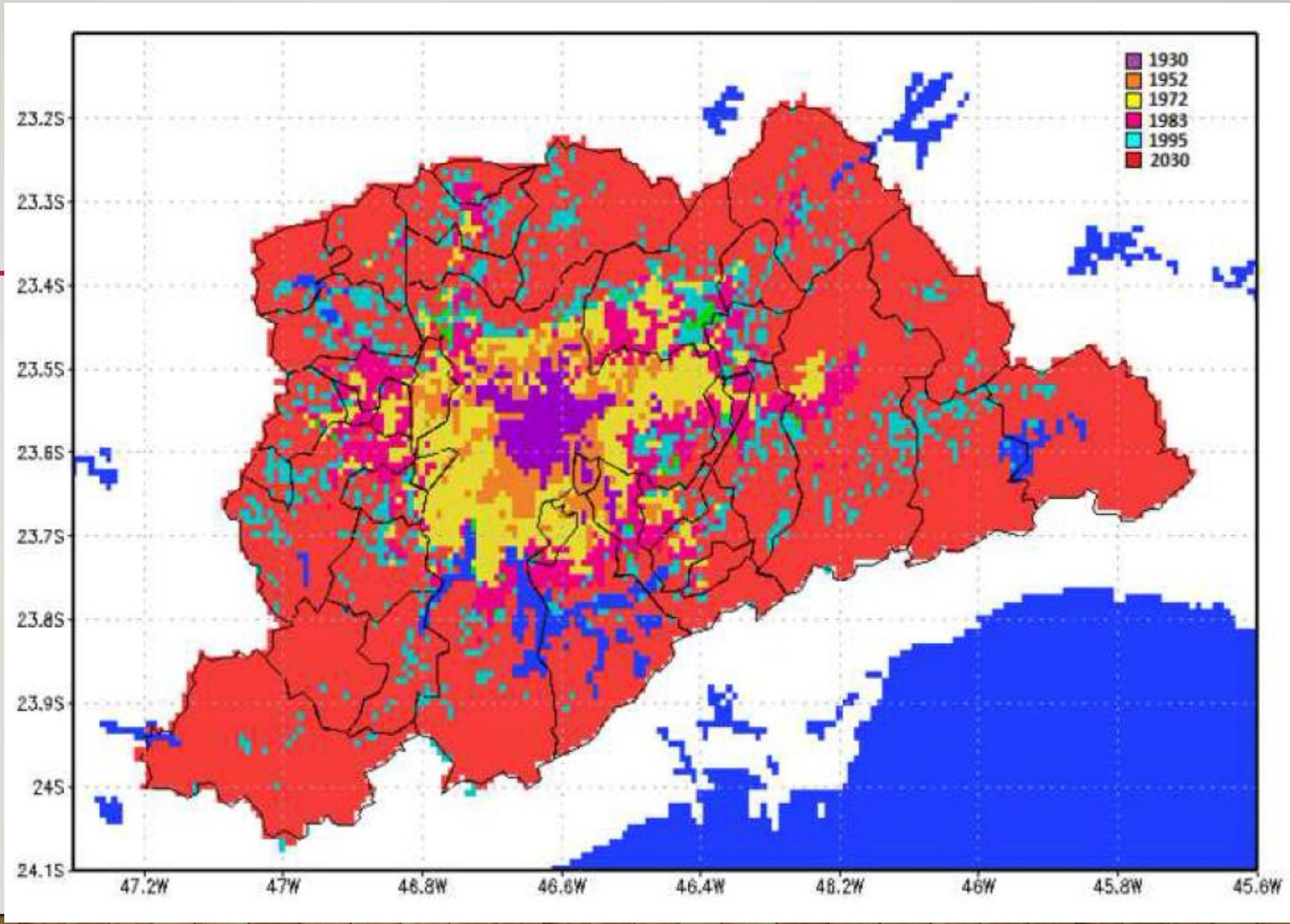
in Sao Paulo State



Sao Paulo Macrometropolis - SPMM

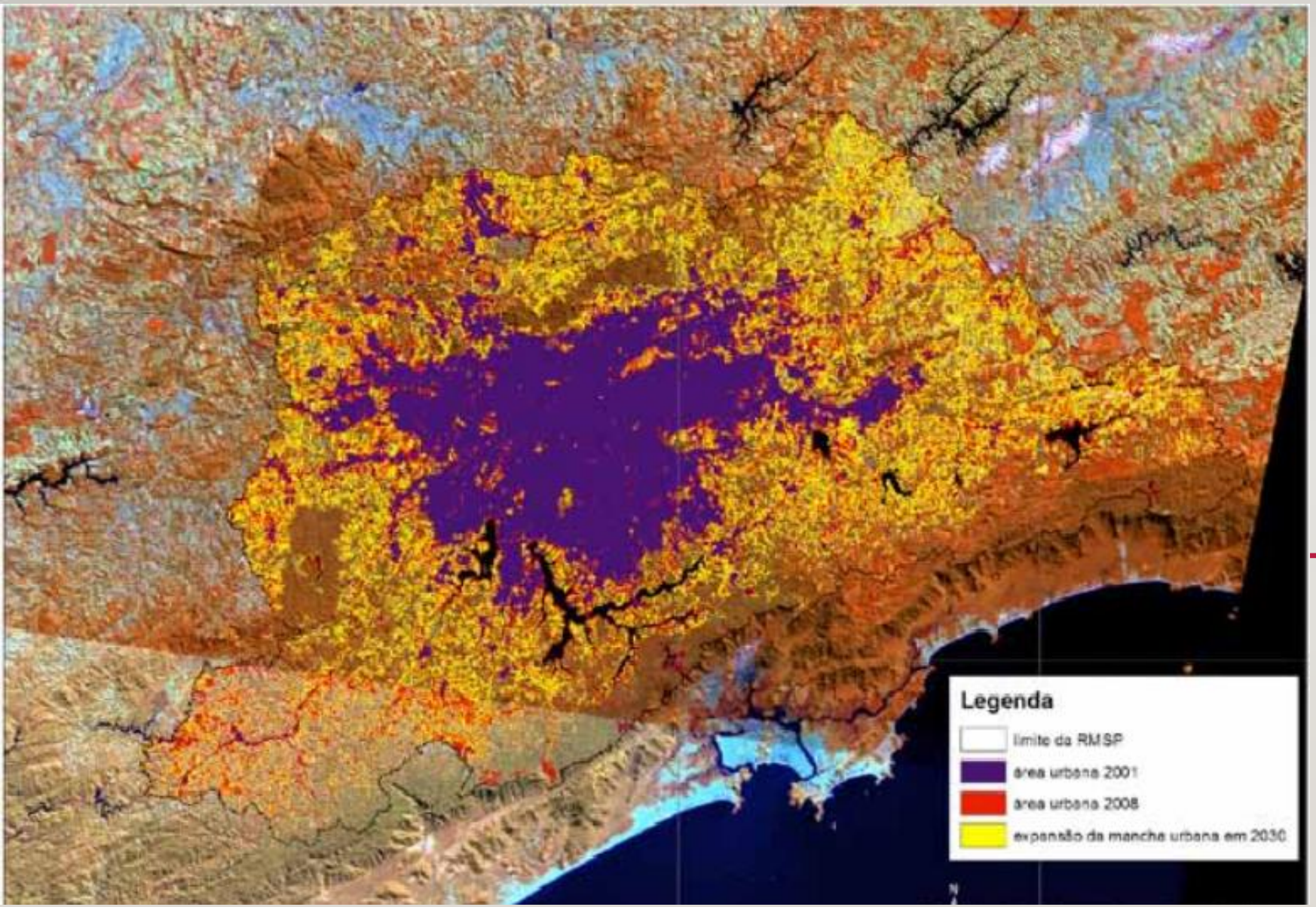
- ✓ 174 municipalities, 5 metropolitan area, 2 urban agglomerations
- ✓ Current population: 33.652.991
- ✓ Population density: 630,56 per Km^2
- ✓ 2.68 million people live in precarious conditions [subnormal sectors]
- ✓ SPMM concentrates high technology industries, diversified commerce, productive agroindustry, largest seaports and airports, highway network and poles of knowledge and innovation
- ✓ 20% of protected natural areas of the São Paulo State (Atlantic Forest and Cerrado-savanna)
- ✓ Major water supply system

Future Scenarios of Urbanization



Future concerns

Expansion of MASP (2030)



Expansion of urban area of MASP for 2030. Source: Young et al. (2011)

Research Challenges

Environmental Governance in Macrometropolis with emphasis on sanitation and hydric dimension and its interfaces within a context of vulnerability and climate change

Demands

- ✓ Revision of existing practices as to territorial jurisdictions
- ✓ Identification of desirable patterns of governance
- ✓ Consider challenges of complexity, scientific uncertainties and socio-political ambiguities

Research Challenges

Governance though born from limitations of the State, represents opportunity to larger involvement of private sector and civil society in planning processes, production of public policies and decision making.

New challenges imply in Initiatives that take into account

- ✓ Dimensions of sustainability of systems
- ✓ Rational Use of Resources and Ecosystemic Services
- ✓ Strengthen Resilience
- ✓ Reduce Risks
- ✓ Adaptative Governance

New forms of knowledge and enlarge its dissemination, diversification of dialogue with Society, supporting public policies and stimulating innovation in governance within a territorial logic in transformation.

Conceptual Framework and Structure of Project

- ✓ Macrometropolis as a theoretical-conceptual object and a planning region.
- ✓ Dialogues with references associated to polycentric mega-city-regions and different matrices and global city-regions
- ✓ Organization of the Project – Five subthemes – Interdisciplinary Dialogue of subthemes and transversality of Climate simulations

1) Democratic governance of environmental sanitation and Analysis of Vulnerabilities and Nexus
2) Territorialities , space and innnovation
3) Ecossystemic Services within Environmental Governance
4) Governance of Energy Issues
5) Numeric Simulations of Climate

Conceptual Framework and Structure of Project

- ✓ São Paulo Macrometropolis heterogeneity and overlapping of several vulnerabilities, need to understand the main factors and conditions that interfere in governance practices.

- ✓ Promote more effective, interactive and democratic environmental governance.

- ✓ Uncertainties of climate changes and water scarcity, there is an imperative need to innovate the governance practices.

Multilevel Governance

- ✓ Theory of MLG, originating in political and administrative science
- ✓ Focus on cooperation between different governmental levels and scales
- ✓ Looking on already existing organizational structures and how they evolve and adjust their interactive practices in order to better coordinate political action across different governmental levels, thus, trying to diminish implementation deficits.

Interdisciplinary Goals of the Project

- ✓ Build an integrated model for assessing ecosystem services in face of climate change of the Macrometropolis, for the formulation of scenarios that will give subsidies to public policies of environmental governance and increase resilience of the system.
- ✓ Understand how the territorial dynamics and climate change have affected (and have been affected by) the planning system and the planning culture in the São Paulo Macrometropolis, and if these impacts represent innovations (*change*) or the maintenance of the *status quo (path dependency)*.

Interdisciplinary Goals of the Project

- How scenario of climate change, especially extreme events associated with climate variability, generate impacts to the planning system and planning culture.

- Need of outputs to dialogue with decision makers to promote in unsustainable pattern of development - at the macro level - and the pattern of spatial production and reproduction - at the local/regional level - characterized by degradation, segregation and environmental social inequalities.

Initial Findings
Governance, Territory, Ecosystems and Energy

- ✓ Water security situation in São Paulo Macrometropolis has to be understood as scarce resource.
- ✓ Management of the **severe water crisis in São Paulo** (2014-2015) indicated centralization of decisions, despite its decentralized structure in basin committees and integrated water resources management.
- ✓ Water supply prioritizes the identification of new water sources (hydraulic paradigm); we have high level of untreated wastewater and low level of water-use efficiency; high levels of urban insecurity and social vulnerability.
- ✓ Challenges: Urban Water Agenda 2030.
- ✓ New political agenda (2019-2022): indicates the centralization of water, energy and environment sectors. New States Secretary.
- ✓ Need to revise model of governance in multiscale, complexity and heterogeneity.

Conceptual Innovation of the Project

- ✓ Continuous process of evaluation of the interdisciplinary advances dialogue and social learning between areas of research through structured research action model developed by member of the team.

- ✓ Challenge is to produce learning material and contribute to capacity building through courses and workshops along the five years of the project.

Many Thanks for your attention!!

Look forward for Questions and Debate

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