

Brazil Energy and Power IX

Brazil – Texas Chamber of Commerce
and American Chamber of Commerce

An environmental regulatory framework for
upcoming challenges in environmental licencing of
Offshore E&P of Oil and Gas

Houston, 28th of August 2011

Brazilian Context

Economic and Social Aspects

- Brazil is the largest country in area and population in Latin America and the Caribbean. It is an upper middle income country, with a GDP per capita of US\$8,327 and a population of 191 million in 2010.
- Brazil has immense natural resources and a strong industrial base, but still suffers from a wide gap between rich and poor. Innovative social programs and more inclusive growth have been gradually decreasing this inequality.
- During 2004-2010, Brazil's growth averaged 4.4%, compared to 1.9% during the previous 7 years. Brazilian GDP increased from US\$ 644 billion (2000) to US\$ 2,1 trillion (2010).

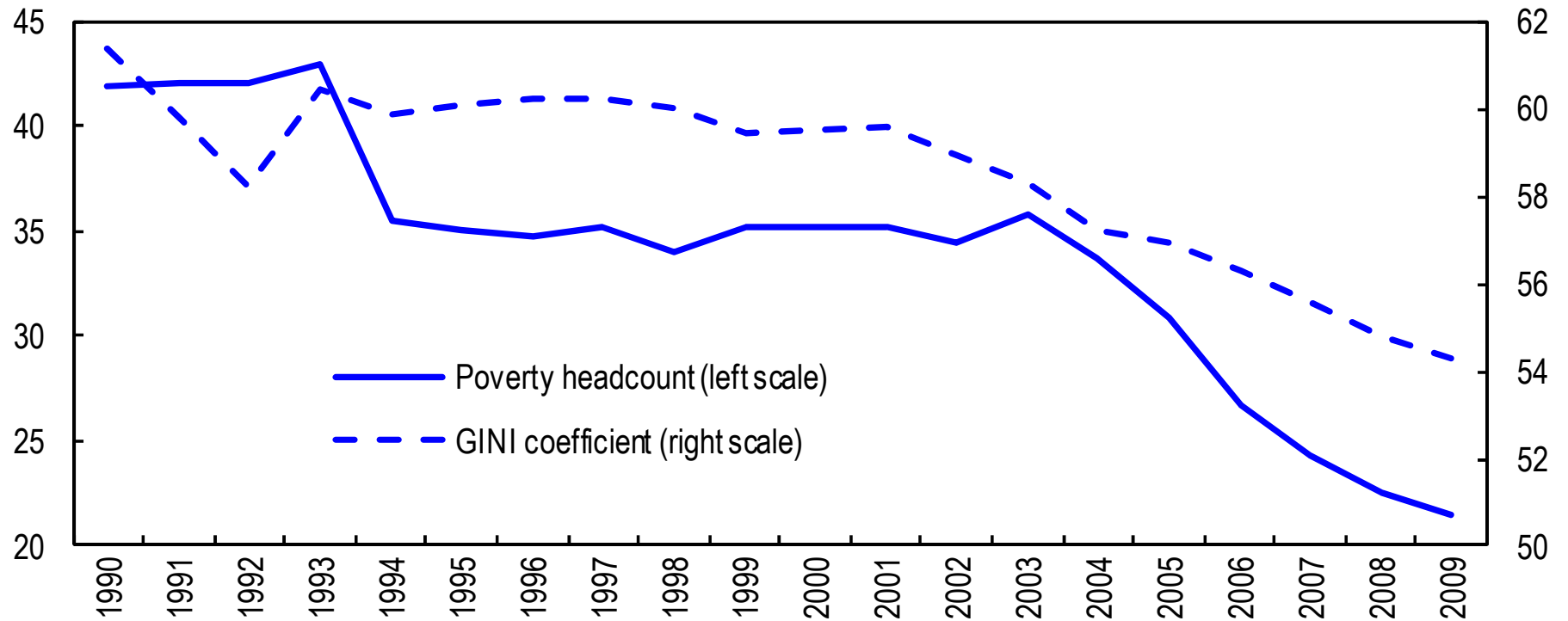
Brazilian Context

Economic and Social Aspects

- In recent years Brazil has achieved very rapid social progress. Between 2003 and 2009 poverty fell by 40% and extreme poverty by 52%. More than 22 million Brazilians emerged from poverty during that period and almost 13 million rose above extreme poverty.
- Rapid social progress was also observed in the areas of health and education. Malnutrition among children under five has been more than halved since the 1990s. Survival rates in that age group and the fraction of children with adequate weight for their age have both reached 98%. Almost all children are currently enrolled in school – 98% for those aged 7 to 14, and access to electricity is almost universal.

Brazilian Context

Economic and Social Aspects



Poverty and income distribution
Per cent of total population

Brazilian Context – Environmental Aspects

- National Environmental Policy (6938/81) and the National Environmental System (federal, state and local).
- National Climate Change Policy (12.187/2009).
- Brazil has also become more environmentally sustainable, with a 66% reduction in Amazon deforestation between 2005 and 2010.
- Brazil is likely to meet almost all Millenium Development Goals (MDGs) ahead of 2015.
- Rio+20 in June next year (Green Economy and Global Environmental Governance).
- FIFA World Cup (2014) and Rio Olympic Games (2016) as an opportunity for mainstreaming social and environmental policies (e.g. solid waste management, climate change mitigation, organise organic food and “fair trade products” supply chains).

Brazilian Context – Infrastructure Aspects

- Brazil under-invested in infrastructure for over three decades, and infrastructure investment rates have come up only slowly since 2007. Infrastructure needs are sizeable in almost all sectors.
- Against this background, the Brazilian Government have put in place a large infrastructure plan - Growth Acceleration Programme (Programa de Aceleração do Crescimento, PAC).

Brazilian Context

- Brazilian Competitiveness Policy – Brasil Maior (2011-2014): five major Guidelines – 3rd. Development of Energy Supply Chains – 5th. Improve knowledge in areas with intensive use of natural resources. Also, established Sustainable Production as a cross-cutting issue.
- In most areas, the regulatory framework is working well, but sectors are at different stages of development. An example is the need for better coordination among energy, infrastructure and environmental sectors.

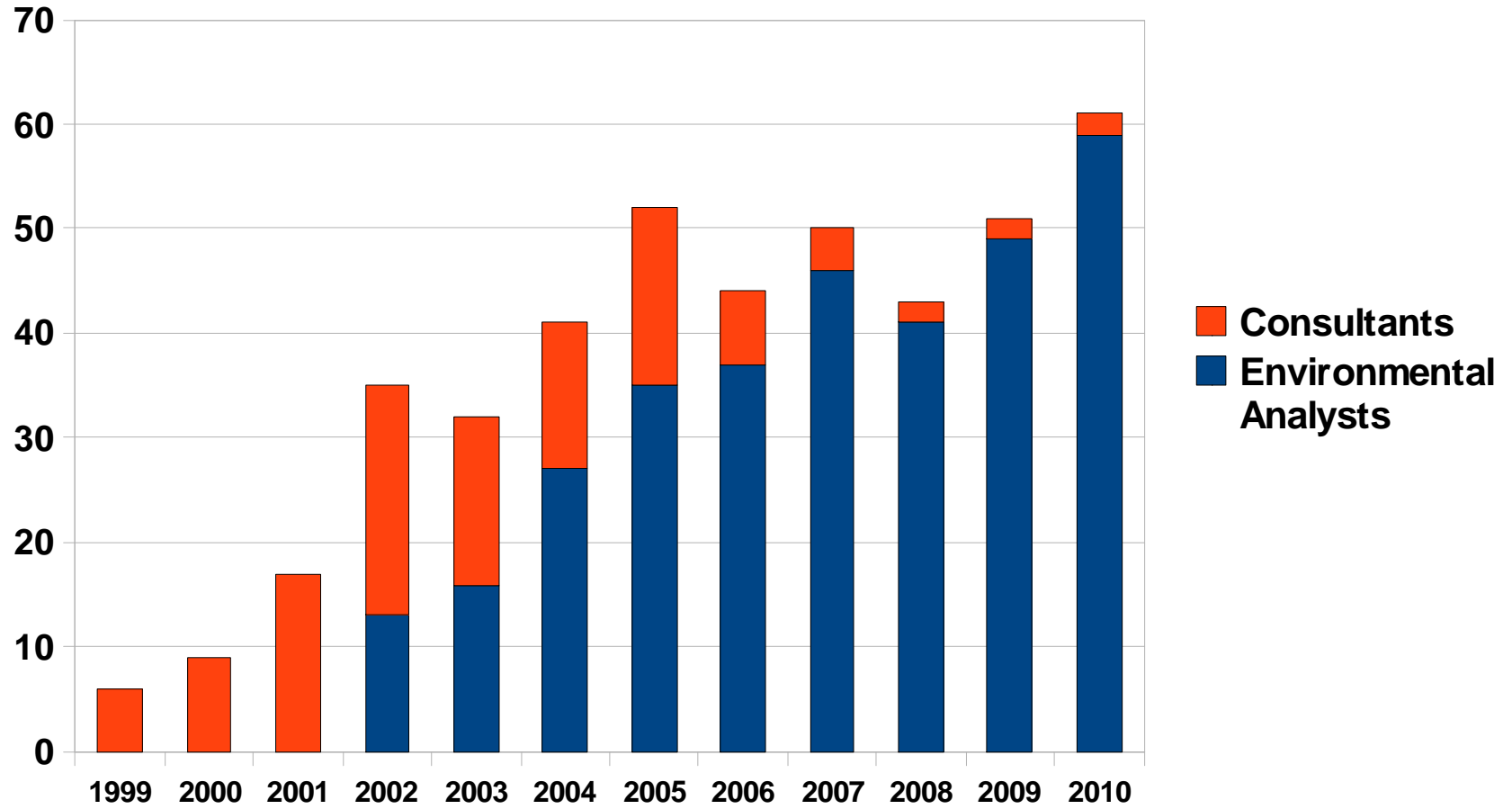
Brazilian Context – Infraestructure Aspects

- Prominp (Oil and Gas Industry Mobilisation Program) established a Thematic Environmental Committee in 2008 and is debating 8 priority projects some of them related to the environmental regulatory framework. Last December (2010) two projects were concluded in the working groups and are in analysis in the government.
- The example of Prominp was adopted for other sectors (roads, waterways, transmission lines, ports).

A window of opportunity - Recent evolution of offshore licensing procedures

- Process optimization, with ToR focused on decision-making
- Improving of screening/scoping processes, towards a more efficient and cost-effective environmental assessment
- New approach for the Pollution Control Measures (solid waste and effluent management control optimisation)
- Significant effort in developing guidelines and standards for mitigation and monitoring and the regionalisation of environmental mitigation and compensation programs
- Refinement of Risk Assessment Approach in the context of the licencing procedure.
- The evolution of Ibama Oil and Gas licencing team. In 2010, the Sergipe Oil and Gas Coordination in Sergipe (Ibama/CGPEG) became operational.

IBAMA Licensing Team



Some shortcomings at present

- Insufficient, “*ad hoc*” environmental assessment of bidding areas.
- Annual planning cycle of bidding areas.
- Licensing regulations blocking innovation.
- Environmental information being generated is not compiled into GIS databases.
- Lack of a tiered, multilevel Environmental Assessment approach for E&P activities.

Proposed new framework

- Debate within PROMINP initiative (Mining and Energy Ministry (MME), National Oil And Gas Agency (ANP), Brazilian Oil and Gas Institute (IBP), Ministry of Environment (MMA), Federal Environmental Agency (Ibama), Instituto Chico Mendes of Biodiversity (ICMBio))
- Two main themes:
 - 1. More Robust Environmental Assessment of Bidding Areas
 - 2. Improvement of Environmental Assessment and Licensing Process
 - Seismic surveys
 - Exploratory drilling
 - Production (includes marine pipelines)

1. Environmental Assessment of bidding areas

- The introduction of a formal regional assessment in the planning phase.
- Aims to:
 - define areas “available” or “closed” to ANP bids
 - propose areas for temporary closure (moratorium)
 - provide a regional overview on the environment, allowing assessment of individual projects to be more focused on relevant site-specific information (speeding up licencing)
 - establish seasonal or technological restrictions in advance for individual licensing processes (reduction of uncertainties)

1.Environmental Assessment of bidding areas

- Responsibility of study conduction, including wide consultation: Mining and Energy Ministry (MME).
- Environmental Ministry reviews the study and provide sectoral advice.
- Decision-making is responsibility of a broader ministerial arrangement (MME and MMA) .

2. Improvement of licensing process

- General issues
 - Need for a new regulatory landmark, as present regulatory framework is fragmented and blocks further evolution of procedures
 - Improve management of marine environmental information, from any reliable source, so that individual assessments can focus on site-specific issues
 - Licensing procedures, including study detail level, shall be compatible with impacts and risks involved (improve scoping phase)

2. Improvement of licensing process

- General issues
 - Improve the ability of companies to share monitoring and mitigation programs, or even the same company to develop regional programs
 - Intensify use of web-based resources, assuring availability of environmental databases, licensing guidelines, environmental studies, terms of reference, etc, improving process transparency and public participation

2. Improvement of licensing process

- Specific issues: **Seismic surveys**
 - To update CONAMA Directive no. 350/04 provisions, aiming to improve some aspects of the legal text, in order to better reflect actual procedures for offshore seismic activities.
 - To make possible to exempt specific seismic surveys from licensing requirements, depending of location, duration and technology used.

2. Improvement of licensing process

- Specific issues: **Seismic surveys**
 - Present scoping criteria:
 - 0 – 50 m: Environmental Impact Assessment (EIA)
 - 50 – 200 m: Seismic Environmental Study (EAS)
 - 200 - ... m: Seismic Environmental Study (EAS) or additional information for Seismic Environmental Control Plan (PCAS)
 - Main driver for the criteria: artisanal fisheries.
 - Areas of special environmental interest can shift process to a more detailed assessment, even in deeper waters.

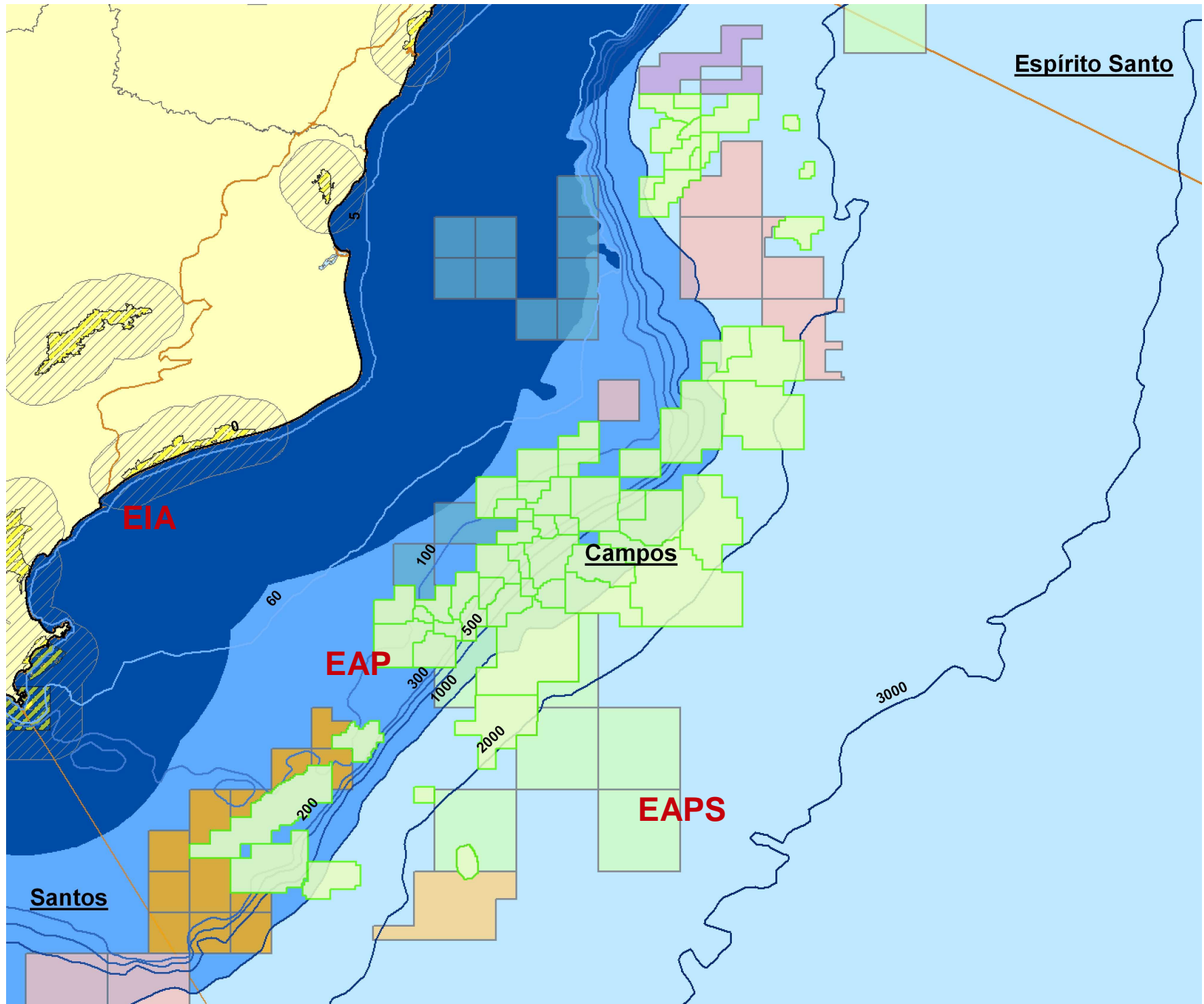
2. Improvement of licensing process

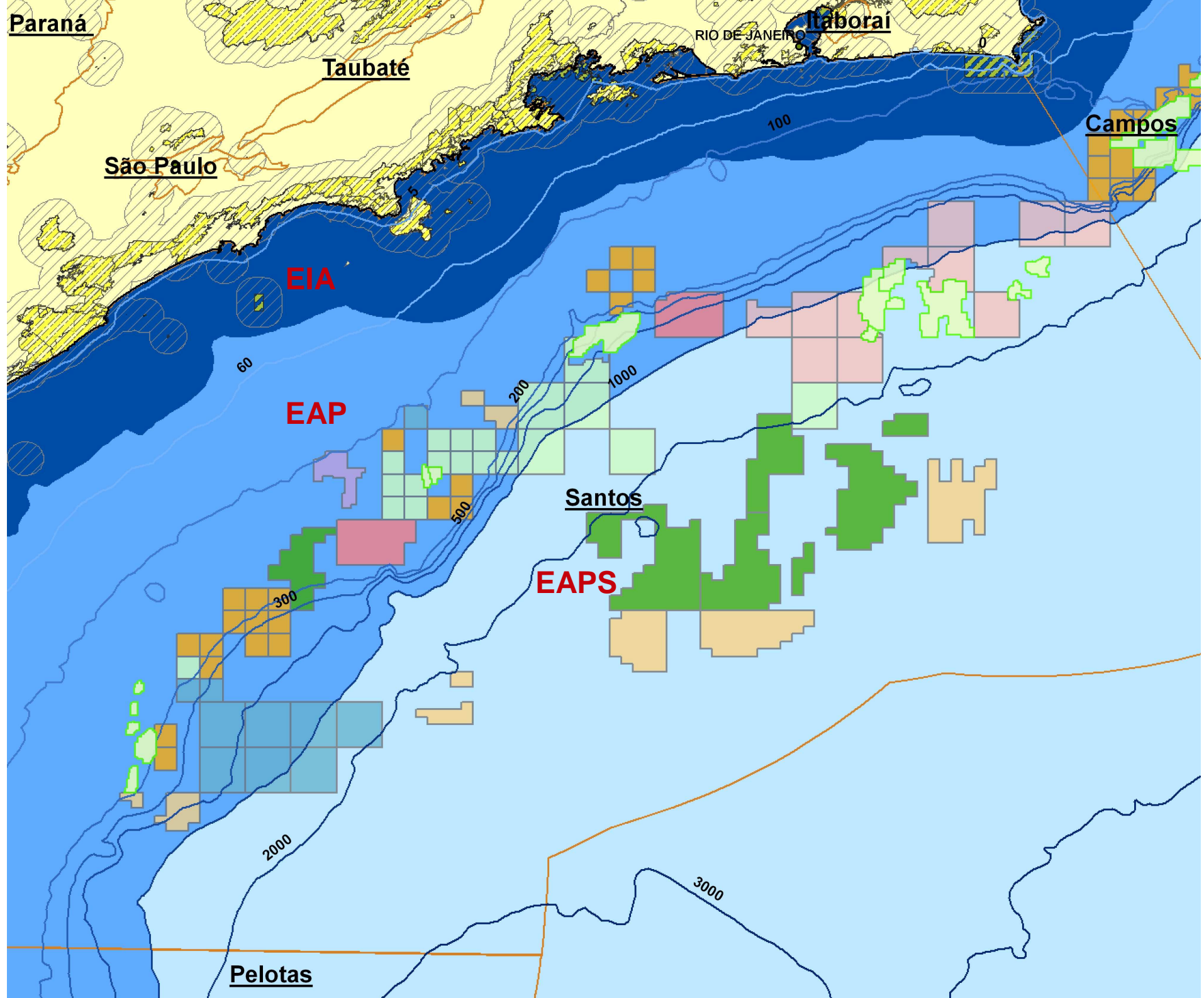
- Specific issues: **Exploratory drilling**

- To improve scoping phase, adopting 3 licensing classes.
Proposed scoping criteria:

- 0 – 50m depth or closer than 50 km from shoreline:
Environmental Impact Assessment
- 50 – 1000m depth and farther than 50 km from shoreline:
Drilling Environmental Assessment (EAP)
- 1000 - ...m depth and farther than 50 km from shoreline:
Simplified Drilling Environmental Assessment (EAPS)

- Main driver for the criteria: drilling impacts and risks
- Areas of special environmental interest can shift process to a more detailed assessment, even in deeper waters





Paraná

Taubaté

RIO DE JANEIRO

Itaboraí

São Paulo

Campos

EIA

EAP

Santos

EAPS

Pelotas

2. Improvement of licensing process

- **Specific issues: Exploratory drilling**

- Companies can apply for a regional drilling license (polygon license), depending on the extension of the acreage under concession and the number of wells planned. In this case EIA.
- IBAMA can develop specific registers (drilling rigs, drilling muds, etc), in order to optimize access by multiple companies.

2. Improvement of licensing process

- **Specific issues: Production**

- Integrated licensing of adjacent developments, with one Previous License (LP) and several Installation and Operation Licenses (LI and LO)
- Better understanding of cumulative and synergistic effects
- Highlighted case: Santos Basin Pre-Salt Cluster

Final Remarks

- Brazil has a unique window of opportunity for improving environmental assessment of oil and gas offshore activities.
- Better management of environmental information can lead to more focused, decision-making suited studies, reducing the time frame required for IBAMA analysis and improving its follow-up capabilities.
- Intensification of internet use can result in a more transparent environmental assessment process and permit better, informed public participation.
- Regional assessments can provide clear, transparent guidelines for individual projects, as well as baseline environmental information.

Thank You!!

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