



**Ciências do Mar**



conservação e gestão de  
**commons**



## **IMPLICATIONS OF ENVIRONMENT AND DEVELOPMENT POLICIES ON COASTAL ARTISANAL FISHERY IN A MARINE PROTECTED AREA IN ILHA GRANDE BAY**

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## Context

The thesis investigates the implications of biodiversity conservation and development policies on artisanal fisheries at the Marine Protected Area (MPA) *Tamoios Ecologic Station* (ESEC).

An Ecological Station is the **most restrictive** category of protected area in Brazil, enabling only scientific research.

ESEC of Tamoios was designated in 1990 by compensatory measure due to construction of a Nuclear Plant (Angra II).



## Context

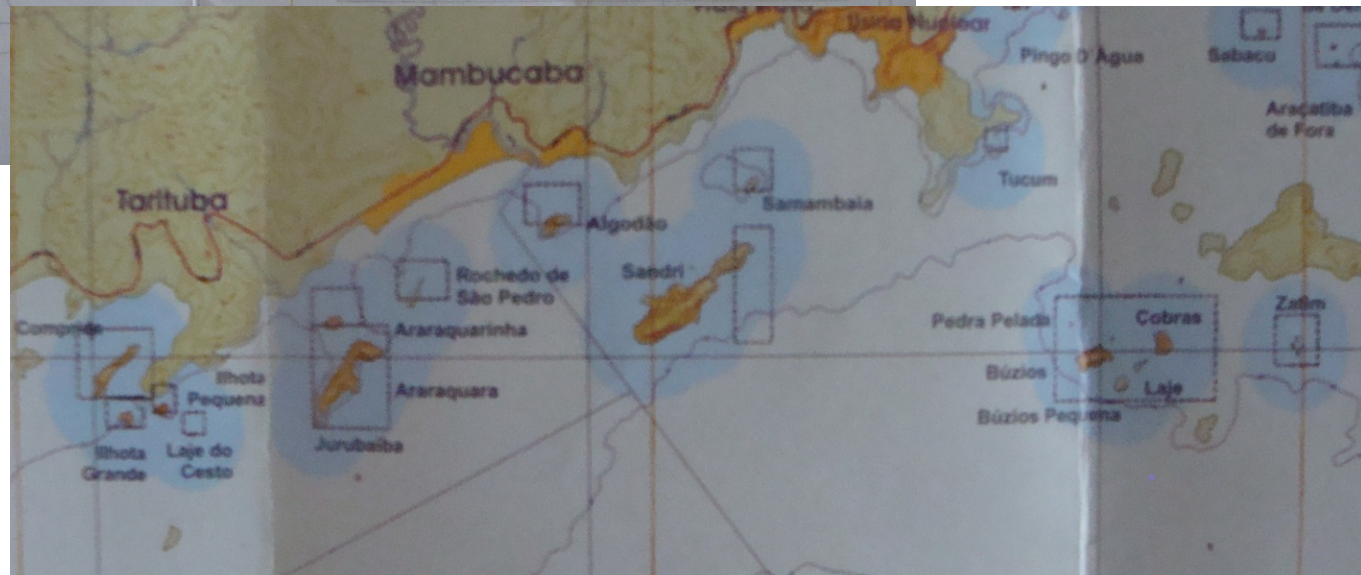
At the **local level**, we are investigating institutional change in coastal artisanal fisheries that occurred since 1960 in two communities directly affected by ESEC of Tamoios (Vila Histórica de Mambucaba and Tarituba). At a **regional level**, we are investigating the institutional trajectory of *Ilha Grande Bay* (BIG) socio-ecological system, as well as the opportunities and obstacles for Sustainable Territorial Development policies through interactions promoted by ESEC MPA.



**Baía da Ilha Grande**  
ILHAS DA ESTAÇÃO ECOLÓGICA  
DE TÁMOIOS



**ESEC**  
encompasses  
29 islands  
and 1,000 m  
of its  
surrounding  
areas.





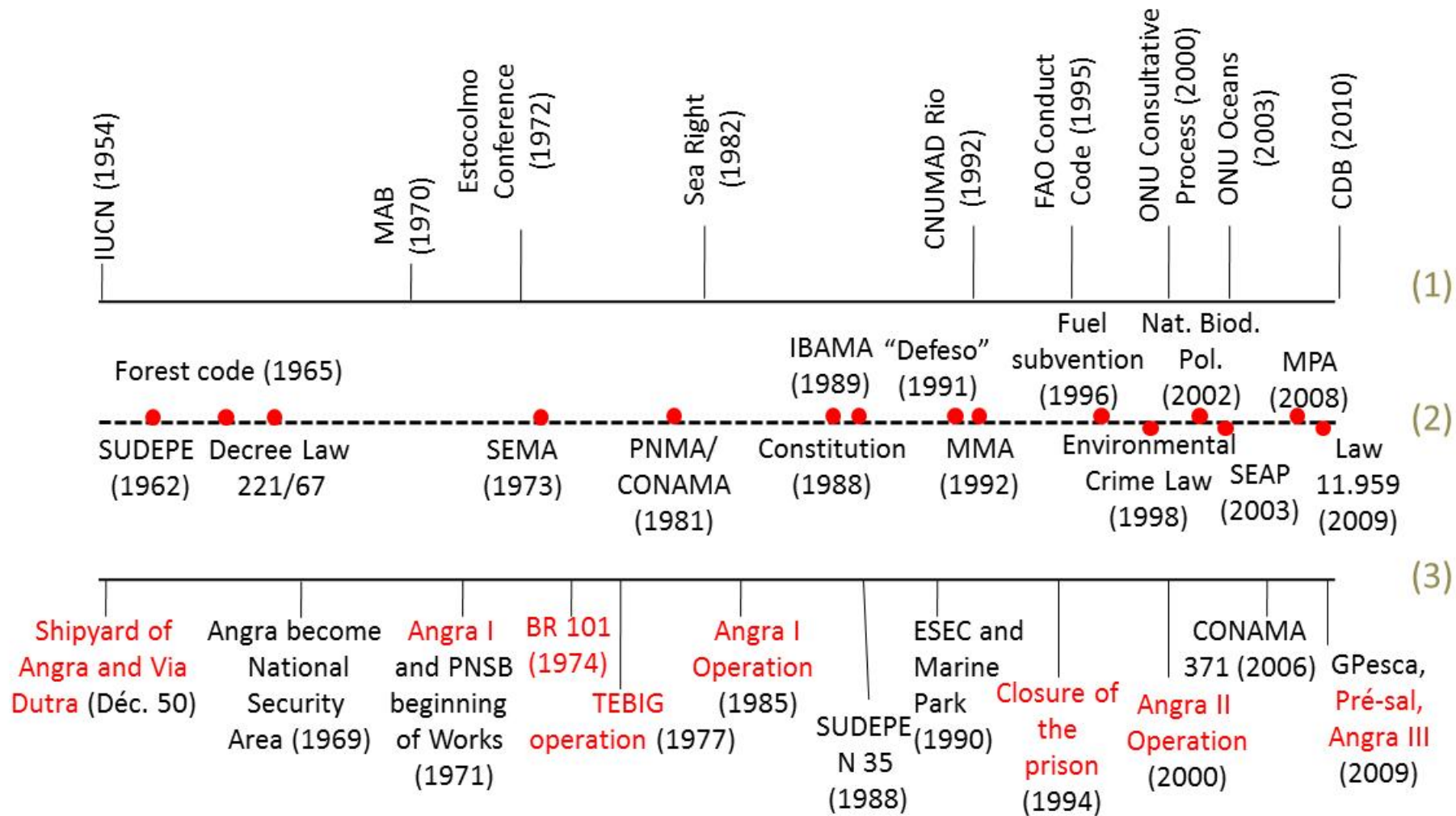


# Key Results (preliminary)

Initially it was made a bibliographic review of the main development and environmental policies in BIG. The field work was then planned and is just beginning to offer some preliminary results. The BIG development trajectory analyzed involves five periods:

- **before 1961** (tradition world);
- **1962 – 1973** (creation of SUDEPE: beginning of industrial fisheries and environmental concern);
- **1974 – 1988** (beginning of Angra I works);
- **1989 - 2002** (designation of Environmental and Renewable Resources Institute - IBAMA: the rise of environmental problematic) and;
- **2003 to current days** (designation of Extraordinary Aquaculture and Fishery Secretary – SEAP - and Aquaculture and Fishery Minister - MPA).





(1) International Level

(2) National Level

(3) State and Regional Level

**Red: Constructions**

**Timeline with main development and environmental policies with implications on coastal artisanal fisheries of BIG.**

Phase	Description	Property right
<b>B e f o r e 70's</b>	Traditional World: fisheries rules mainly local, with production directed to consumption and sale of surplus.	Communal
<b>70's and 80's</b>	Accumulation of Capital: beginning of deregulation in traditional management systems with increase in number of users, opening of markets and wide adoption of new fishing gears.	Open-access
<b>80's until 2007</b>	Modern World: Beginning of crisis in fishery systems imposition of external rules of marine fisheries reserves.	Open-access
<b>After 2008</b>	Mega enterprises planned and increase enforcement of the limitations of traditional fishing.	State





## Key results

- The creation of enforcement mechanisms with fisheries participation lead to results with less transactional costs.
- Lack of trust between ESEC of Tamoios and fisheries
- There is an attempt for further negotiation between fisheries organizations and government currently in process.

**Theory say:** There will be an effort to change the status quo rules if the perceived benefits by artisanal fisheries in alter the rules overcome the perceived costs (North, 1990; Ostrom, 1990).



Attribute	Status quo	Claim
<b>Geographic scope</b>	Include 29 islands and 1.000 m surrounding.	Relocation of the actual islands and radius reduction to 100 m.
<b>Kind of use</b>	Permission of Scientific research	Permission of artisanal fisheries, like wait net, line, “covo” and “espinhél”.
<b>Fiscal Approach</b>	Aggressive and truculent	Educational and efficient.
<b>Penalties</b>	Vessel and gears apprehension and fine.	Application of gradual sanctions, like provided by law, and without vessels and gears apprehension, because fine is paid with money provided by fishing work.
<b>Supervision</b>	Sporadically	Permanent and shared with fisheries.



## Suggestions

In order for a better engagement in territorial development dynamics, we believe it will be necessary recreate ESEC of Tamoios institutional arrangement.

Like others MPAs in Brazil, alternative deliberative instances could be used by ESEC of Tamoios to extend the discussions about Fishing Exclusion Areas being monitoring in a participatory way by fisheries.





## Suggestions

That could be a way of engaging other society sectors, like tourism which as a direct interest over the seascape. According to Brazilian legislation MPA are fishing management instrument.

To achieve that objective, ESEC of Tamoios needs to engage in legitimate discussion arenas of fisheries and tourism, like the fisheries co-management project (Fisheries Agreement).



**Thanks!**

**Obrigado!**