

Salty Port: Environmental Conflicts Resulting from the Açú Port, Rio de Janeiro state, Brazil

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Abstract: The aim of this article is to analyze the dynamics that marked the coexistence between different actors in the environmental conflict caused by the salinization of surface and underground waters during the implantation of the Açú Port, in the municipality of São João da Barra, which is located in the Northern Fluminense region. The work seeks to demonstrate the links between this particular conflict and the profile of the major projects established to expand Brazil's insertion in the world economy as an exporter of primary and semi-benefited products. From a methodological point of view, the work used a qualitative methodology based on a bibliographic and documentary survey related to the environmental impacts and conflicts caused by the Açú Port. The research results demonstrate the importance of having a transparent, participatory decision-making process guided by the sustainability of state actions in the planning and implementation of Large Investment Projects.

Keywords: Large enterprises; Environmental impacts; Environmental conflicts; Açú Port.

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Introduction

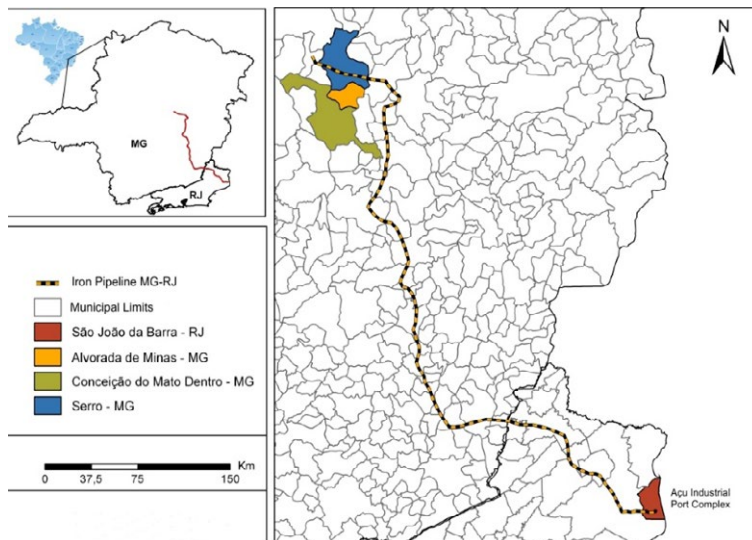
Large Investment Projects (GPIs, abbreviation in Portuguese) are linked to economic growth, despite the fact that such projects are invariably associated with significant social and environmental impacts and conflicts, particularly those relating to energy, mineral extraction, agribusiness, large industrial units and logistics infrastructure for transportation and movement of goods. The existence of conflicts is mostly caused by their size, area occupied, volume of infrastructure, and resources of all kinds required for implantation and operation (VAINER, 2007).

Because of their disruptive nature, GPIs fall under the guidelines dictated by the Resolution 001/1986 of the National Environmental Council (CONAMA, abbreviation in Portuguese) that requires the implementation of an Environmental Impact Study (EIA, abbreviation in Portuguese) and its respective Environmental Impact Report (RIMA, abbreviation in Portuguese) for the installation of ports, airports, ore extraction and fossil fuels.

Despite the environmental licensing requirements in Brazil, the implementation of GPIs is often characterized by practices that consistently disregard the social and environmental responsibilities associated to their implementation and operation. Recent examples in Brazil include the construction of large hydroelectric dams and large port units. Given the fragile nature of State institutions and environmental agencies, tragedies have occurred, such as the rupture of tailing dams in the state of Minas Gerais (MACHADO; VILANI, 2016; 2015; LACAZ et al., 2017).

The complexity of the analysis of social and environmental impacts under the current Brazilian development pattern is related to the dependent and passive integration in the global economy due to commodity exports (FILGUEIRAS, 2006). This pattern requires major investments in infrastructure required for energy production and movement of goods (i.e., road, rail, air, and port) and that is the reason this article examines the implementation of the Açu Port in the municipality of São João da Barra, in the northern part of Rio de Janeiro State, Brazil (Figure 1).

Figure 1 – The location of the Açú Industrial Port in São João da Barra and Minas-Rio pipeline



Source: SESMA/LEEA/UENF adapted from AGB, 2011.

The problems related to the poor conditions of Brazilian ports were back on the political agenda at the beginning of the 2000s, due to the commodities boom, with the Brazilian port system falling short of all demands (TOVAR; FERREIRA, 2006). As a result, a set of targets were established within the so-called Growth Acceleration Program (PAC, abbreviation in Portuguese) to overcome the perceived logistical bottlenecks hindering national economic growth.

One of the key assumptions that supported the expansion of the Brazilian port network was the premise that the Brazilian ports had depleted and inappropriate operating conditions, with high operating costs and low storage capacity. Proponents of ports expansion also indicated that road and rail networks were insufficient to enable the efficient flux of agricultural and mineral commodity production to global markets (BARBOZA, 2014).

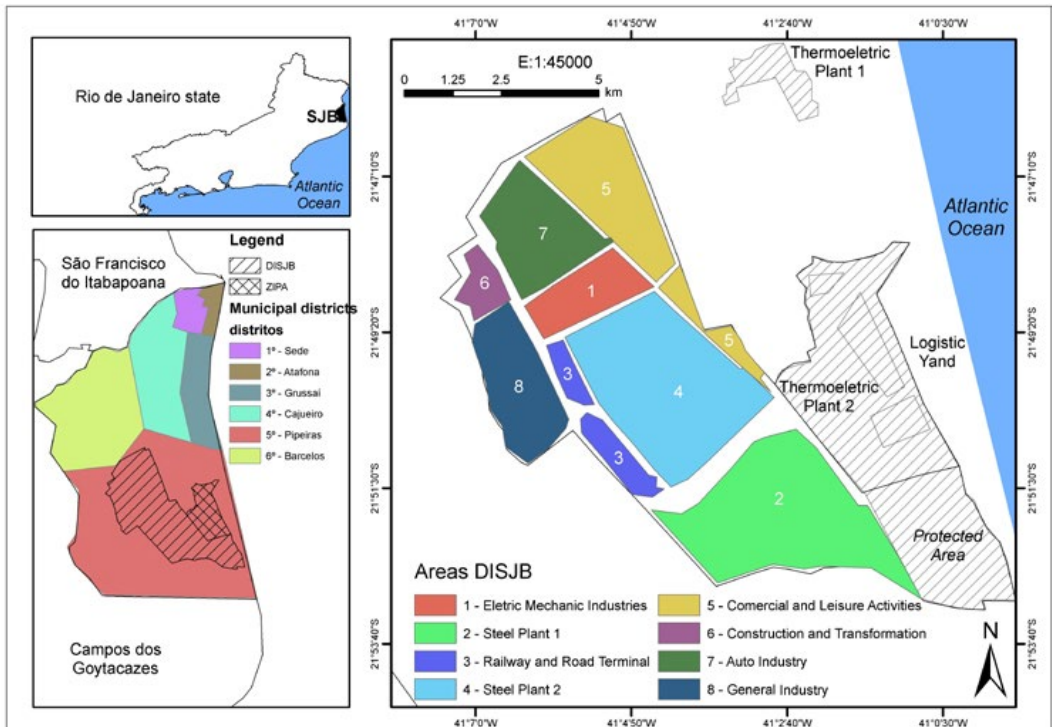
As a result, the Brazilian federal government acted to provide the investments in order to improve the transportation sector by eliminating the national logistics bottlenecks (CAMPOS NETO et al., 2009). This is the political and economic context in which the construction of the Açú Port occurred (PEDLOWSKI, 2013; COUTINHO et al., 2009). According to Cruz e Silva (2010) a GPI is a major enterprise capable of bringing growth and “progress” to the regions where they were installed and that is the reason the Açú Port is defined as a GPI (PIQUET; CRUZ; VILANI, 2013).

Currently, the Açú Port has terminals for loading ore; a terminal for fuel, oil and gas and offshore support; a multicargo terminal for loading containers; it has also built two thermal power plants, besides the construction of a refinery that has been announced.

The Açu Port total area covers approximately about 40% of the entire territory of São João da Barra; including the port's industrial area; an industrial district; an environmental protection area; and a resettlement area known as Vila da Terra, which received a tiny fraction of the small agricultural producers displaced from their land by the Rio de Janeiro government (ASSAD, 2019; PORTO DO AÇU, 2020).

The area expropriated for the construction of a municipal industrial district was transferred to the controllers of the Açu Port and after ten years, it remains mostly unproductive (Figure 2). In fact, the expropriated land is used by Prumo Logística Global S.A. as a source of revenues obtained from rents charged to companies interested in establishing plants in the port's industrial zone. Since the beginning of operations in 2014, the Açu Port became a hub for exporting iron ore and oil and gas-related activities (PRUMO, 2020; COSTA, 2018).

Figure 2 – The Port area with its facilities and equipment.



Source: SESMA/LEEA/UENF adapted from AGB, 2011.

The appropriation of large land areas, particularly in peripheral southern countries, promotes land grabbing that has been associated with the new imperialist dynamics, which among other impacts, foster the exclusion of traditional populations, through a forced and violent displacement, with the direct or indirect participation of the State (BORRAS

JR. et al, 2012; PEDLOWSKI, 2013). Land grabbing is part of a new cycle of peripheral development (SAMPAIO JR., 2012), known for effectively promoting “deindustrialization [...]”; reprimarization of exports; greater technological dependence; greater denationalization; loss of international competitiveness [...]”; greater concentration of capital; and growing financial dominance [...]” (GONÇALVES, 2012, p. 638).

In this article, we choose to analyze the socioenvironmental conflicts caused by the implantation and operation of the Açú Port as a representative of the GPI model. To this end, we consider the official version that, as part of a federal effort to increase national port efficiency, and having obtained the respective environmental licenses, the existence of the Açú Port is not only necessary, but also environmentally viable, from the corporate point of view and from the Brazilian State strategic necessities. We also highlight that, in this process, the State has been an environmental licensing signer and a promoter of the socio-spatial exclusion of traditional inhabitants of areas selected to harbor GPIs (PEDLOWSKI, 2013).

Accordingly, this study examines the actions of the actors in the environmental conflict regarding the salinization of surface and underground waters resulting from the construction of Açú Port. We aim to understand the role of different actors in the new international insertion standard of Brazil in the global economy, and if the norms about the sustainable development model established in the Federal Constitution (CRUZ, 2016) have been observed. To this end, the article adopts the perspective that there is an equivalence between social and environmental struggles because “their goals are to obtain the ecological needs for life: energy (including food calories), water, a place to shelter” (ALIER, 1998, p. 281).

In the context of the disputes that mark the existence of the Açú Port, the actors were divided into three groups: i. State authorities, ii. Private initiative, and iii. Local population. The first two actors were determined by their inclusion in Public Civil Action No. 0000133-13.2013.4.02.5103 filed, in 2013, by the Federal Public Prosecutor’s Office (MPF, abbreviation in Portuguese) in the Federal Regional Court – 2nd Region (TRF, abbreviation in Portuguese), located at the municipality of Campos dos Goytacazes, Rio de Janeiro state. The first group comprises the MPF, TRF, the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA, abbreviation in Portuguese), the Universidade Estadual do Norte Fluminense Darcy Ribeiro (UENF), and State Environmental Institute (INEA) included in the so-called State pole. The second group is composed by Prumo Logística Global S.A., herein named Prumo. Finally, the third group includes family farmers affected by the salinization process of surface and underground water in the 5th District of São João da Barra.

A theoretical articulation between the works of Alier (1990; 1998; 2011) and Acselrad (1999; 2004) guides the analysis of the conflicts related to the environmental impacts of the Açú Port. In the literature review, we adopted the prescriptions suggested by Galvan (2006) as follows: a) select the articles from an overview of the texts; b) group the articles into categories; c) organize the process of reading the articles; d) format the notes of the articles; e) identify definitions and keywords; f) seek appropriate methodolo-

gies for the study in question; g) distinguish evidence statements; h) identify gaps; and i) establish connections among different articles and their relationship to the proposed study.

We used the CAPES journals database to conduct a thorough literature review. The compound search term ‘port’ + ‘açú’ for any field resulted in 570 peer-reviewed articles over the period 2010 to 2020. The search was narrowed to the field ‘on subject’, keeping the other parameters, which led to 11 articles. On Google Scholar, there were 820 results for the general search and 262 from 2016 on. The relationship with the theme ‘environmental conflict’ was the selection criterion applied.

Meanwhile, Cunha (2006) stresses that environmental conflicts relating to port activities involve a wide range of actors, including different government agencies, local governments, and the population affected in their means of using environmental resources. In this way, the conflict was discussed from the application of the national legal framework, especially the constitutional norms and principles and of existing environmental laws.

Documents and newspaper articles were collected using Google and on the website of the company controlling the Açú Port. We evaluated the selected material according to the four criteria indicated by May (2004, p. 219-220): authenticity; credibility; representativeness; significance. In view of the theoretical complexity to characterize environmental conflicts, the guiding principle of the analysis of the role of the State in the interrelationship between the symbolic, identified by the environment as an element of common use by everyone, and nature, privatized for the production of goods and services, was based on the proposal of Acserald (2004).

The Açú Port and its environmental impacts

The implementation of the Açú Port created great expectations in terms of jobs and income generation for a region historically affected by a discrepancy between the regional and the national business framework caused by the dependency on the revenues of the sugarcane monoculture. Regarding the growth of regional oil and gas extraction complex, which began in 1978, Piquet and Oliveira (2005) highlighted the small participation of regional companies in the oil industry, even though forty years have passed since the beginning of oil exploitation in the Campos Basin (PIQUET; OLIVEIRA, 2005; CRUZ, 2016).

Crespo and collaborators (2010, p. 116) point out to the early 1980s as a milestone in the migration of the workforce towards the northern region of the Rio de Janeiro, known as Norte Fluminense (NF), caused by expectations surrounding the oil sector. Crespo et al. (2010) indicated the inevitability of “a new outbreak of migration, population growth and urban expansion” in the NF, as a direct result of the Açú Port construction. To counterbalance the negative impacts of the Açú Port, Crespo and collaborators offered a set of guidelines indicating that:

The public authority, in its role as the principal manager of the territory, is again convened to take action, elaborating an urban-

environmental planning that should be responsible and appropriate to the great demands that will occur. A coherent spatial planning strategy should be capable of: i) defining possible areas of occupation, protect floodplain areas, and other geomorphological risks; ii) restructuring the macro drainage system, making it compatible with the new demands; iii) promoting democratic land use planning, minimizing the possibility of socio-spatial segregation (CRESPO et al., 2010, p. 124) (free version).

It would be up to the state and municipal public authorities to adopt strategies to meet the demands arising from the population increase. The initial expectative around the economic impacts of the Açú Port suggested an increase of 400,000 residents in the municipalities of Campos dos Goytacazes and São João da Barra (RANGEL; QUINTO Jr. 2012) between 2000 and 2020, which added up to 434,671 inhabitants in 2000 (IBGE, 2000). The alternative recommended in the Strategic Environmental Assessment (SEA) of the Açú Port (ARCADIS, 2009, p. 51) for the “short-, medium-, and long-term regional transformation process” was the “permanent interaction between public agencies from different spheres of government, in order that strategic actions can be formulated in due course and with efficient and effective future consequences”.

Despite the expected population growth did not occur, São João da Barra is under pressure to manage growing infrastructure and low education problems of its population in the midst of a regional process of disorderly urbanization (COUTINHO et al., 2009). The demographic pressures arising from the Açú Port aggravate a precarious situation caused by the fact that São João da Barra was one of the most favored municipalities by the transfer of oil revenues.

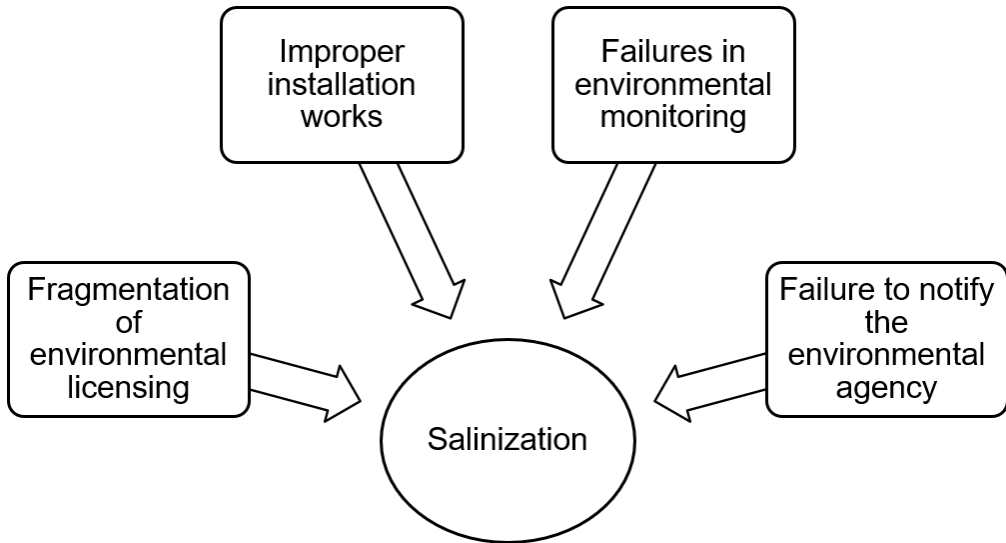
A number of studies stress the lack of public policies and actions of the Açú Port to meet local demands, as well as with regard to social and environmental impacts (PEREIRA, 2018; ASSAD, 2019; COSTA, 2018). The most evident environmental conflict caused by Açú Port was the salinization of the freshwater used by farmers living in adjacent areas, a process caused by the use of dredged sand in the ocean area to build a hydraulic fill (ALVES, 2013; BORLINA FILHO, 2013). The possible intrusion of salt water into areas used for agriculture and cattle raising foreseen by the Environmental Impact Study (EIA, abbreviation in Portuguese) which aimed to obtain the environmental licenses for the Industrial District of São João da Barra (ECOLOGUS, 2011) was confirmed by the Brazilian Association of Geographers (2011).

The port project included the construction of a hydraulic landfill with sand and a drainage system to pump salty water back to the sea to prevent the salinization of superficial and underground aquatic systems. Nevertheless, after complaints and requests from farmers living near the Açú Port, different studies found significant signs of salinization associated to the intrusion of salty water to the water bodies used for irrigation, particularly by dredging sand (LATINI, 2016; PAES et al., 2018).

We identified four key elements that contributed to water salinization, the root cause of an unresolved environmental conflict between the local population and the Açú

Port (Figure 3).

Figure 3 – Structural elements of environmental conflict



Source: the authors, 2021.

Figure 3 indicates that the actions and omissions of the State were central to occurrence of the ongoing environmental conflict. Since the start of the salinization process, a strong resistance movement from local farmers has erupted because their means of social reproduction were directly affected.

The farmers' resistance against the controllers of the Açú Port and their allies in the state apparatus is according to the analysis of Alier (2011) regarding the environmentalism of the poor. We also associate the loss of water quality caused by the Açú Port as part of a power game played out to gain total control the territory and the existing natural resources (ACSELRAD, 1999). In this scenario, the struggle to reestablish the ecological processes to maintain the practices historically performed by local farmers goes against the interests of private corporations and global financial that control the Açú, under incentive and implicit authorization from the State.

Considering the categories of conflicts defined by Alier (2011) and Acsehrad (1999, 2004), the present environmental conflict can be described as the dispute for remedying the environmental and material damages caused by the implementation of a GPI. This environmental conflict involves the public authorities, the group of companies that carried out this process, and the farmers that experienced an interruption in their ways of using and appropriating local environmental resources and services (Table 1).

Table 1 – Main characteristics of the environmental conflict caused by water salinization in areas adjacent to hydraulic landfill of the Açú Port

Actors	Origin of conflict	Environmental impacts	Environmental conflicts
Public authorities	Impossibility of temporary use of the waters of the Quitungute Canal and the persisting effects on surface and underground waters because of salinization, in the 5th District of São João da Barra, Rio de Janeiro State, caused by dredging works and the installation of the hydraulic landfill. This process, which had an acute component at the time of the construction of the hydraulic landfill, went into chronic condition with the increase in the average conductivity of the waters used by farmers.	Damage to flora and fauna; Dramatic reduction in agricultural yield of soils; Restriction on access to water; Salinization of the lagoon system in areas adjacent to the hydraulic landfills of the Port of Açú.	Disruption of the appropriation, use, and significance modes of environmental resources and services performed by families and farmers in São João da Barra. Difficulty in maintaining traditional artisanal fishing activities.
State Environmental Institute Brazilian Institute of Environment and Renewable Natural Resources <i>Universidade Estadual do Norte Fluminense Darcy Ribeiro</i> Federal Public Prosecutor's Office Federal Regional Court – 2nd Region			
Private initiative			
<i>Prumo</i>			
Population			
Families and farmers from São João da Barra			

Source: the authors, 2021, based on data from Acsehrad (1999; 2004), Alier (1990; 1998; 2011), Latini (2016), Federal Regional Court [TRF] (2013), and Zappes et al. (2018).

The environmental conflict started with the real experience of the local population with the water salinization process. The perception of impact was confirmed by research conducted at the Universidade Estadual do Norte Fluminense Darcy Ribeiro (UENF) (LATINI, 2016). As a result, the Federal Public Prosecutor's Office in Campos dos Goytacazes filed a lawsuit against the group responsible for establishing the Açú Port, based on evidence that existed a process of “salinization in soils, of freshwater in canals and lagoons, and of water used for human consumption” (TRF, 2013).

The Açú Port is an enterprise with a “strong privatization bias and [had] nearly no participation of the public power and its regulatory role” (RIBEIRO, 2010, p. 63). The prevalence of this strong private ethos is characterized by a lack of information regarding

potential environmental impacts caused by the Açú Port, such as salinization and a potential compromise of other environmental services. A good example of lack of access to environmental services previously used by the local population is the isolation of a large maritime area surrounding the port to protect operations that enclosed highly productive fishing areas that precluded local fishermen of obtaining their sources of revenues (ZAPPES et al, 2018).

The results of the civil investigation led by the MPF indicated that an “increase of salinity in the soil and in freshwater implied in destruction of native vegetation and sandbanks, and left soils unusable for agriculture, and also turned water sources unsuitable for human and animal consumption” (PROCURADORIA DA REPÚBLICA NO ESTADO DO RIO DE JANEIRO, 2013).

The strict liability for environmental damage in Brazil, confirmed by the National Environmental Policy, and with constitutional support, requires the polluter to reimburse or repair the damage caused to the environment and to third parties affected by their activity (Law 6,938/1981). The Term for Adjustment of Conduct (TAC, abbreviation in Portuguese) is the legal instrument (extrajudicial enforcement order by art. 5, § 6 of Law 7,347/1985) used on a regular basis when there is mediation of the MP in actions for compensation of environmental damage.

We also observed how social actors are structured with regard to the impacts produced by simultaneous operational failures of the Public Power and the short-term interests of the private companies listed by the MPF. One aspect that explains the shortcomings of the efforts to remedy the damage caused by the Açú Port on the water quality of its adjacent areas is the actual lack of democratic institutions with the capacity to provide efficient solutions to environmental conflicts involving large corporations and often-disenfranchised communities.

The lack of a clear diagnosis for the elaboration of public policies, the inefficiency of bureaucracy, the lack of qualified technical staff, the political indications for technical bodies are some of the challenges inherent to this articulation (MAY, 1995; MACHADO, 2014). The situation is amplified by the fact that the environmental licensing, in the case of Açú Port was purposely fragmented (AGB, 2011; FIOCRUZ, 2013), to hamper the realization of existing linkages and the transversal nature of the impacts caused by the project in all its phases and dimensions.

A concrete result of this process is the demand for policies to improve social conditions and strengthen social capital for lower income segments (MAY, 1995; RIBEIRO, 2010). A secondary expectation is that such policies could be a mean to overcome the “ecologically unequal exchange” (ALIER, 2011, p. 81) such as the case in the NF region, with strong potential for a decrease in the cargo capacity caused by the existence of the Açú Port.

A pending question regards the possibility for increasing actions of resistance and empowerment as a way of strengthening the organization of the local population to counterbalance the prominence of external actors regarding their economic, energy and logistical interests. Environmental damage is probably better handled by raising awareness

about the conjunctural and structural elements of environmental conflict and performing a “strong emancipatory potential for vulnerable populations” (PORTO; PORTO, 2015, p. 173). According to the assumptions of Alier (2011), these actions could achieve two simultaneous goals: the protection of human life and of the natural ecosystems. Given the conflict in place, an articulation that builds channels of communication and decision-making seems more than necessary to overcome the imbalance.

(...) the salinization of soils, expropriations and the establishment of new territories (which prevent the interaction of the local population with natural resources) verify that the community of the 5th District, characterized as poor, elderly and politically weak, was left with the undesirable impacts of the installation of the [Port of Açú] (VILAÇA; LOPES, 2018, p. 357). (Free version)

Table 2 shows the distinct elements controlling the dynamics of the environmental conflict, and highlights the actions and positions taken regarding the Açú Port and its impacts. One possible alternative would be the extrajudicial mediation, centered in the MPF, through the TAC.

Table 2 – Dynamics of the environmental conflict

Actors	INEA IBAMA	UENF	MPF TRF2	<i>Prumo</i>	Families and farmers of São João da Barra
Actions	Authorization	Preparation of a technical opinion on salinization	Legality analysis	Installation and operation	Resistance and engagement
Position	Silent	Complainant	Neutral	Generator	Complainant
Possible alternative	Mediation (TAC)				
Difficulties	Lack of discipline on the part of environmental bodies, such as suspending the environmental license until the issue is resolved; Lack of transparency; Agreement on the recovery of the degraded area and, consequently, the conditions for agriculture and subsistence activities; Definition and payment of compensation to the families affected.				

Source: the authors, 2021, based on data from Nascimento and Bursztyn (2010); Vilani (2016); Vilaça and Lopes (2018).

Faced with its institutional prerogative and its neutrality in the conflict, the MPF emerges as a central actor in the mediation of the conflict through the TAC. The politicization of environmental licensing places environmental institutions at the core of the conflict while keeping a silent position with regard to the conflict itself. Research

institutions, such as UENF, work in the field of technical and scientific evidence that, in this case, provided an instrument for reporting and, ultimately, supporting the resistance of the families affected by the Açú Port. A TAC should be “built from negotiations with technicians and supported by universities and health and environment institutions, which enables the adoption of creative technical solutions regarding specific contexts” (VIÉGAS, 2007, p. 29). A TAC should also emphasize on the role of the affected communities and enforce a constant monitoring of the situation to minimize the possibility of non-compliance with the agreement. The application of the guidelines of a TAC would, as in the case of Açú, ensure the commitment to a perspective of synergy in the relationship among the impacts of the various stages and the diverse components of the Açú Port that were effectively hindered by the fragmented nature of its environmental licensing process.

Mediation serves to minimize exclusion processes caused by major economic interests. In this way, actions to alleviate social and environmental damage caused by enterprises such as the Açú Port should encompass not only the historically excluded groups. The own nature of the GPIS requires that precautionary attention must be given to communities on the verge of being affected because of their location in areas of influence of large economic projects. The development of public policies and the use of available instruments (e. g. TAC) to enhance existing resources and produce new ones, to combine economic activities, social welfare, and environmental preservation must be on the agenda in any area selected for the installation of a GPI with high capacity for social and environmental impacts.

In Brazil, this is a slow process, given that it follows the democratic maturation to the transposition of a delegative democracy (FREY, 2000). Nonetheless, despite the sinuous path, there are elements in favor of an optimistic outlook. The NF is characterized by “the presence of a high density of networks of institutions geographically close to each other”, considered by Rodríguez-Pose and Crescenzi (2009, p. 21) as a “key condition for economic development”.

As a result, a proposal to review the parameters of government action, focusing on preventing situations of environmental conflict and strengthening basic social structures, is a *sine qua non* condition for any development model that aims to be sustainable.

Environmental conflicts and state permissiveness

This topic includes an analysis of the social and environmental injustice at Açú resulting from a land grabbing process of environmental privatization. The latest mechanisms for expropriation and appropriation of land (HARVEY, 2013; PEDLOWSKI, 2013; COSTA, 2018) from traditional producers in Latin America and the Caribbean comprise

(...) recent demands for resources from new global capital hubs. The characteristic of land grabbing in the region is its intraregional nature: the main investors are (trans-)Latin American companies, often in association with international capital and the state. Early evidence

suggests that recent land investments have consolidated the previous trend, distanced from Land (re) distributive policies in the majority of the countries of the region, and probably will result in widespread re-concentration of land and capital (BORRAS JR. et al., 2012, p. 846). (Free version)

Santos and Borinelli (2010, p. 11) corroborate our analysis on the basis that “maybe not by chance, the highlighting of issues such as [...] the environmental problem happens almost simultaneously as a severe criticism of the economic model that glorifies the market logic”. Alier (1990) gives an illustrative overview of the social and environmental issue by stating the reluctance of the rich to admit they are rich because poor people are poor. This cause and effect’ relationship in Brazil has an historical appeal and is supported by the public authorities. Acselrad, Mello and Bezerra (2009) emphasize, “since the 1930s, the construction of the bases of an industrial capitalism has demanded the Brazilian State to manage the natural conditions of the territory to favor the process of accumulation” (p. 124).

In this case, by managing a significant portion of the NF, first for sugarcane monoculture, later for the oil industry, and, recently, for a major port enterprise group at the time, the State contributed as a key actor to the emergence of conflicts related to the appropriation of natural resources.

We would be in a state of exception situation (AGAMBEN, 2004), in which laws, norms, and institutions are suspended in order that large investments can be made at the pace, extent, and intensity required by large international capital (COSTA, 2018; HARVEY, 2013). The implementation of GPIs focused on optimizing the primary-exporter standard, or reprimarization of exports in the capitalist periphery, fits into the so-called neo-developmentism paradigm. It restores the role of the State as an inducer of investments in infrastructure and economic activities, but contrary to strengthening national companies and preserving strategic sectors owned or controlled by the State, neo-developmentism submits the Nation-state to the dictates of the neoliberal standards of international macro-politics (COSTA, 2018; HARVEY, 2013; FILGUEIRAS, 2006).

Ultimately the concession to the neoliberal logic led to the decision-making process that resulted in the fragmentation of the environmental licenses needed for the installation and operation of the Açú Port, as well as guided the actions of the private parties involved. This concession to the market logic resulted in short-, medium- and long-term environmental impacts on the traditional inhabitants of the affected areas. The salinization of water resources by the implementation of the Açú Port place the health of the local population at risk and made its social reproduction almost impossible in a clear example of what Bocuhy (2004, p. 289) has called “ungovernability of industrialization”, which in this case is the association between industry and port.

Concluding remarks

Our analytical approach unveils the role of the federal and state government of Rio de Janeiro as facilitating actors for the installation of a large port and its private handlers. These handlers are responsible for severe environmental, social, and economic impacts that remains unresolved. The Açú Port is a showcase for the problems emerging from the association between the State and private corporations. Moreover, the case of the Açú Port illustrates the frustration caused by unfulfilled expectations related to the resumption of the economic development process, and the emergence of conflicts and resistance by groups that traditionally inhabited areas targeted for the installation of large developments projects, which goes back to the deep restructuring movement of the world economy, from the 1970's onwards (MONIÉ, 2016). A decade after the beginning of the installation, the Açú Port, which has become a geographical enclave, has generated a much smaller number of steady jobs than initially promised. The failed expectations are aggravated by the expropriation of land, which affected about 1,500 rural farmers families (RANGEL, 2020). Up to the present moment, most of the land expropriated by the State is unproductive and used to earn an income.

The social and economic liabilities arising from the Açú Port are worsened by its environmental passive. Our analysis prioritizes the salinization of surface waters and its impacts that extends to areas that have been left out of the expropriation process, in which an ecologically adapted form of family farming remains active. We also observe that local artisanal fishermen have lost their access to a rich lagoon system from where they traditionally obtained their sources of income, but nowadays, it became practically impossible to use.

The strategy used by the state government of fragmenting the environmental licensing procedures prevented a general understanding of the connections and synergies between the impacts deriving from the different enterprises that are being or were built within the territorial enclave formed by Açú Port. The fragmented nature of the environmental licensing process not only made it impossible to know the extent and severity of the ecological damage, but also was amplified by the removal of all the environmental obligations determined during environmental licensing process, which was determined by the State Commission for Environmental Control (CECA, abbreviation in Portuguese). As a result, based on a strategy with a legal aspect, there are no longer any required repairs to the impacts predicted during the environmental licensing process and later confirmed by scientific studies that are monitoring the social and environmental repercussions of the Açú Port. A partnership between the ports of Açú and Antwerp seems to be part of a corporate strategy to obtain a seal of corporate responsibility that overrides the actual damages caused in São João da Barra, given the long experience of the Belgian corporation in handling environmental problems.

In conclusion, the analysis of the social and environmental conflict caused by the Açú Port enables a reflection on the demands, challenges, and opportunities arising from strengthening of a primary export model and the construction of large port structures. At the same time, this case illustrates the need to discuss the value traditional production

systems of appropriation of resources and environmental services. Against common wisdom, these traditional production systems have a greater social and economic potential to allow the development of ecologically adapted production systems such as the ones practiced by the traditional inhabitants of the territory where the Açú Port was installed.

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O sal do porto: conflitos ambientais no Porto do Açú, Rio de Janeiro, Brasil

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Artigo Original

Resumo: O presente artigo tem por objetivo analisar a dinâmica que marcou a convivência entre diferentes atores no conflito ambiental causado pela salinização de águas superficiais e subterrâneas durante a implantação do Porto do Açú, no município de São João da Barra, que fica localizado na região Norte Fluminense. O trabalho procura demonstrar os vínculos entre este conflito em particular e o perfil dos grandes projetos estabelecidos para ampliar a inserção do Brasil na economia mundial enquanto exportador de produtos primários e semi beneficiados. Do ponto de vista metodológico, o trabalho recorreu a uma metodologia qualitativa baseada em levantamento bibliográfico e documental relativo aos impactos e conflitos ambientais causados pela implantação do Porto do Açú. Os resultados da pesquisa demonstram a importância de que haja um processo decisório transparente, participativo e pautado pela sustentabilidade das ações estatais no planejamento e na implantação de Grandes Projetos de Investimento.

Palavras-chave: Grandes Empreendimentos; Impactos ambientais; Conflitos ambientais; Porto do Açú.

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La sal del puerto: conflictos ambientales derivados del Puerto de Açú, estado de Rio de Janeiro, Brasil

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Artículo original

Resumen: Este artículo tiene como objetivo analizar la dinámica que marcó la convivencia entre diferentes actores en el conflicto ambiental provocado por la salinización de aguas superficiales y subterráneas durante la implantación del Puerto de Açú, en el municipio de São João da Barra, que se ubica en la región Fluminense Norte. El trabajo busca enfatizar los vínculos entre este conflicto particular y el perfil de los grandes proyectos establecidos para expandir la inserción de Brasil en la economía mundial como exportador de productos primarios y semi beneficiados. El trabajo utilizó una metodología cualitativa basada en un relevamiento bibliográfico y documental relacionado con los impactos y conflictos ambientales provocados por la implantación del Puerto de Açú. Los resultados demuestran la importancia de contar con un proceso de toma de decisiones transparente, participativo y guiado por la sostenibilidad de las acciones estatales en la planificación e implementación de Grandes Proyectos de Inversión.

Palabras-clave: Grandes Proyectos de Inversión; Impactos ambientales; Conflictos ambientales; Puerto de Açú.

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