

Public Power Environmental Responsibility in Handling and Withdrawing Solid Refuse of Islands: The Superagüi National Park

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ABSTRACT

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This article has the scope of calling the attention to the refuse handling and withdrawing problem in islands of the Brazilian Coast Line, and to attribute to Public Power (Federal, State or Municipal) the environmental responsibility, under the Brazilian Environmental legislation for the absence of such handling and withdrawing.

ADDITIONAL INDEX WORDS: *Environmental Law, Islands, handling of solid refuse, Conservation Units.*

INTRODUCTION

The process of globalization shows the environment as an asset of international public interest, due to the awareness that ecosystems are responsible for the planet balance, as a result of a series of studies started in the late 40's. The protection of the environment became an issue continuously discussed by international organizations worldwide, as well as in international meetings related with life quality improvement.

As LANDES (1999) remarks, our concern is not limited to the disquietude on the exhaustion of one resource or another, as technology shall find its substitute. According to the author, the new knight of the apocalypse is the ecological disaster, a consequence of the serious progressive, and perhaps irremediable damage we are inflicting to the environment. The threaten to welfare is directly connected to the economic development, as refuse, pollution and environmental damages grow together with richness and production.

In this sense, handling, destination and elimination of domestic refuse are important issues of public health, and a severe problem for many developing countries, where in most cases the refuse handling process means piling the garbage at open air and its periodical incineration. Such a scenario is common in Brazil, where many communities are not served by an environmentally controlled refuse processing plant.

MILARÉ (2000) remarks that Brazil is still in need of a "National Policy of Solid Refuse", as to define the rules related to the control of refuse generation, its minimization, re-use, handling, packaging, collection, recycling, transportation, treatment and final disposal. The absence of such a policy, together with the continuous process of urbanization, as well as the incorporation of urban habits in rural areas, refuse considerably affects environmental assets connected to health, housing, leisure, and mainly to the aggression to the natural environment as well as landscape disfigurement.

The problem is considerably aggravated in the islands of the Brazilian Coastal Line - home of several low income families with urban consumption habits - due to the absence of Public programs for the collection of solid refuse, which is the case of Ilha de Superagüi, located in the coastal line of the State of Paraná (Brazil), declared NATIONAL PARK (1989) by the Brazilian Government, and BIOSPHERE RESERVE (1992) and NATURAL WORLD HERITAGE SITE (1999) by UNESCO.

With a population of approximately 800 (fishermen and their families) and a Guarani tribe (app. 25), the community cannot properly dispose its refuse. As Public actions are inefficient, refuse piling and incineration are compromising the very fragile

but rich island biodiversity, and menacing the health of islanders and tourists.

METHODS

The present research is phenomenological-hermeneutics. The data were collected on secondary sources. The information was collected at books, scientific works, periodicals and Internet.

ANALYSIS

The Brazilian Constitution of 1988 dedicates an entire chapter to the tutelage of the environment, considered as an asset of common use, essential for a healthy life quality, that imposes to Public Power as well as to the collectivity the duty of its preservation and defense for the present and the next generations. The general principles present in the Brazilian Constitution are complemented by a vast and advanced legislation (Federal, State and Municipal), founded in the criteria defining the rules of competence, as per the patterns established by the National Environmental Council (Conselho Nacional do Meio Ambiente CONAMA), together with the activities of control, monitoring ruling and inspection to be executed by the IBAMA (Brazilian Institute for the Environment and Natural Renewable Resources Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis).

However, such a complex and good quality legislation and the attempt to de-centralize the environment protection show a competence superposition (Federal, State and Municipal), as the constitutional fails in demarcating the competence granted to each entity of the Federation. SANTOS JUNIOR *et al.* (2002) remark that such a lack of delimitation causes a certain difficulty to the implementation of the National Policy for the Environment (Law 6,938/81), due to the absence of an uniform rule of administrative conveyance and also of harmony among the several entities granted with the competence for the tutelage of the environment. The issue of solid refuse is a clear example of the above related.

The Brazilian legislation makes no distinction between refuse and residue. Pursuant Law 6,938/81, establishing the National Policy for the Environment, pollutant is any and all form of substance or energy that directly or indirectly may cause pollution. Thus, pursuant the Brazilian legislation refuse and residue are both pollutants.

As per article 24, XII, of the Brazilian Constitution, the

competence for general ruling regarding the protection of health lie with the Union, States and the Federal District, while public cleansing is attributed to the municipalities (article 30, I).

According to FIORILLO (2002), in Portuguese, refuse, garbage and residue tend to have a similar meaning, representing any substance resulting from the lack of inter-action between the environment and its inhabitants, determining a stream of discontrol in certain elements of an ecological system. However, the word residue has a more extended meaning, as according to the author, garbage is rest with no value and refuse or residue means simply rest. COSTA (2001) affirms that garbage is any and all solid residue resulting from human activities or of natural processes (dust, leaves, dead branches, animal corpses, and so on).

As mentioned in the introduction to this paper, despite the completion of the environmental legislation, Brazil is still in need of a "National Policy of Solid Refuse" (MILARÉ, 2000). Meanwhile, important issues like handling, destination and elimination of solid domestic refuse lie unsolved in most communities, once the model of consumption adopted by modern society increases the amount of garbage improperly resulting from human activities. As remarked by COSTA (2001) a single person produces 750g of garbage daily. In most Brazilian communities, the common method of handling solid refuse consists in piling the garbage in the so called "lixões", a lot where garbage is piled directly in the terrain with no environmental or sanitary protective measures. The method of refuse handling and storage shows a high contamination potential for air, soil and watertables. Furthermore, the open air piling causes landscape disfigurement and unpleasant smells, attracting potential disease vectors such as mosquitoes, rats and cockroaches. Additionally, it is important to point out the absence of control regarding the type of residues stocked in those spaces, that in most cases include even the refuse of health services and industries.

Solid refuse or residue is defined by CONAMA Resolution 5/93 as residues in the solid or semi-solid state resulting from the activities of a community of origin, being industrial, domestic, hospital, commercial, agricultural, of services and those resulting from sweeping. The Resolution includes also as residue the mud resulting from water treatment and/or the mud generated by pollution control equipment, as well as any liquid whose characteristics do not allow its launching in the sewer network or rivers or any substances demanding technically and economically infeasible solutions in face of the best available technology.

Shortly, as remarked by FIORILLO (2003), refuse is considered to be any garbage, scrap, mud, mire, sediment resulting from human activities, being domestic, professional, agricultural, industrial, of services, and generically designated as garbage.

According with the National Policy for the Environment (Law 6,938/81), urban refuse has a pollutant legal nature, as from its very production it shows a potential for the environment quality degradation, as harms health, risks the economic and social activities, affects ecosystems, sanitary conditions and landscape aesthetics.

Due to the mentioned competence problem and to the absence of Public programs for its collection the refuse problem is considerably aggravated in the islands of the Brazilian Coastal Line one of the five constitutionally protected macro ecosystem (as per paragraph 4 of article 225) in most cases home of several low income families with urban consumption habits - which is the case of Ilha de Superagüi, object of this study.

THE SUPERAGÜI ISLAND

The Superagüi Island is located in Southern Brazil, at the northern coastline of the State of Paraná, close to the border of the State of São Paulo. In 1989, the Superagüi National Park was created, pursuant Federal Decree 97,688 and further enlarged by Federal Decree 9,513 of 1997. The National Park

includes the Islands of Superagüi, Peças, Pinheiro and Pinheirinho, and in the continent the Rio dos Patos Valley and the Varadouro Canal (NIEFER *et al.*, 2002) with an area of 33,988 ha. and a 339 kilometer perimeter, integrating the lagoon shaped estuary of Cananéia, Iguape and Paranaguá, known as Lagamar, being one of the world's most important coastal ecosystems. The climate is tropical and super humid, with no dry season and the landscape is formed by Atlantic Rain Forest vegetation, bays, red and white mangroves, large areas of deserted beaches, coastal lowlands, sandbanks and salt marshes (*restingas*). The Park provides habitat for a good number of extinction threatened species like the chaurá parrot (*Amazonia Brasiliensis*), the black faced lion tamarin (*Leontopithecus caissara*) and the yellow crop alligator. As remarked by the authors, the Park is also cradle of many maritime animal species. Due to its importance in terms of bio diversity, UNESCO declared the area as Biosphere Reserve (1992) and a Natural World Heritage Site (1999).

The population of Superagüi Island is formed by a low income community of fishermen and their families (app. 800) living sparsely and in a small village located at Barra de Superagüi, and a by a Guarani tribe (app 40) located far from the village. A still low demand but non-restricted daily number of tourists visit the island that has no organized infrastructure and no management plan. According to NIEFER *et al.* (2002), four inns, one campground and a restaurant provide accommodation and food for the visitors. No regular transport service is available.

Such an important and fragile ecosystem is threatened by the refuse generated by the islanders, as they have incorporated a number of urban habits, as per example, the use of plastic and metal packages and bottles. Tourists also contribute to the production of solid refuse. Management plan and Public actions for the handling and withdrawing are both absent, resulting in the piling of refuse at open air, as per figure 1.

As a National Park, the area is considered as a Full Protection Conservation Unit, pursuant Law 9,985/2000, a territorial space, its environmental resources, including jurisdictional waters with relevant natural aspects with the following objectives of preservation:

- to keep natural diversity;
- to preserve genetical resources;
- to provide environmental education;
- to preserve hydric resources;
- to handle wooden resources;
- to protect historical and cultural sites;
- to provide recreation;
- to protect investments;
- to preserve scenic view;
- to keep and product fauna;
- to provide technology flexibility;
- to assure environmental quality;
- to assure regional economic growth;

As a Federal Conservation Unit the Superagüi National Park is under the federal government supervision, through the IBAMA (Brazilian Institute for the Environment and Natural Renewable Resources Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis). However, the entity does not handle with the solid refuse produced at the island. The Government of the State of Paraná declares the existence of a program for weekly collection of refuse in the islands, but the local population does not confirm the program. Community members affirm the infrequent presence of a garbage boat (once around every three months), but as refuse is not properly packed they are not sure of what kind of refuse is collected at the island, or its destination. Moreover, the island beaches receive refuse (plastic, metal and glass) from other locations through the artificial Galheta Canal, that is added to the island refuse.

Thus, the refuse piling increases, risking the environmental integrity of the island, and the health of islanders and tourists. As mentioned, the community is poor and cannot handle with the problem. As the competence for the handling and



Figure 1. Refuse at Island of Superagüi. Photo by Clezio Amorim.

withdrawal of solid refuse in the island is not clear, the threaten persists. Despite the fact that pursuant article 225 of the Brazilian Constitution there is a dual responsibility in environmental preservation (collectivity and Public Power), the lack of economic resources of the community of Superagüi Island as in many other islands of the Brazilian Coast Line imposes the creation of Public Programs for the handling and withdrawal and proper destination of solid refuse, as their absence may attribute responsibility to Public Power, for failure to accomplish the environmental legislation.

CONCLUSIONS

The number of studies related with the handling of solid refuse produced by the populations of islands in the Brazilian Coast Line and the responsibility in such handling, withdrawal and destination is inexpressive, but the consequences of the growth of solid refuse in such areas show a perverse reality. The communities in those islands lack the resources for its appropriate handling. Besides, the lack of information regarding the diseases potentially present in the "lixões" expose those communities to dangers the environmental legislation was designed to protect. The absence of official programs regarding this issue, together with the lack of action from the Public Power in all levels, as to properly deal with the problem, mainly due to the uncertainty regarding the competence related

with the handling, withdrawal, destination and elimination of solid refuse from islands of the Brazilian Coastal Line turn the Public Power responsible for the damages this refuse may cause to the environment and to islanders health, pursuant all principles of the Brazilian environmental legislation, specially and inclusive the polluter payer principle, as a result of omission and failure to act in its role as one of the preservation actors granted by diffuse character of the environment.

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