



Imagem de satélite com a localização da Baía de Sepetiba.

The Industrial and Mercantile Company Ingá leaves environmental liabilities at Sepetiba Bay (RJ)

DATE

14/10/2011

DISTRICT

RJ - Itaguaí

LATITUDE

-

LONGITUDE

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SUMMARY

The Industrial and Mercantile Company Ingá, a zinc industry shut down in 1998, is among the most polluting industries at Sepetiba Bay, Rio de Janeiro. Its waste, accumulated for more than 30 years at the production site, threatens until today the social and environmental heritage of the Bay, causing several impacts to the environment and the population.

SAÚDE NO BRASIL, 2009).



Passivo ambiental deixado pela Ingá

CASE DESCRIPTION

Located 60 km from the metropolitan region of Rio de Janeiro (RIBEIRO, 2006), Sepetiba Bay provided, for centuries, the economic base of communities living along its banks and islands. Its fish was used not only for subsistence, but it was also sold to various markets in the metropolitan region (MAPA DA INJUSTIÇA AMBIENTAL E SAÚDE NO BRASIL, 2009).

However, in recent decades, Sepetiba Bay has gone through an intensive industrial development having about 400 industries, most of them steel mills. Such industries throw their waste and effluents, rich in heavy metals and other toxic substances, directly on the Bay or in the region's bodies of water, causing pollution and several environmental impacts (RIBEIRO, 2006) in the municipalities that make up the basin of Sepetiba Bay, among them: Itaguaí; Seropédica; Mangaratiba; Queimados; Japeri; and Paracambi (SEMADS, 2001).

Environmental degradation in the region not only harmed the fishing activity but also inhibited tourism. On the other hand, the modernization of some industries and the bankruptcy of others contributed to the precariousness of labor relations and to the reduction of employment opportunities and income, increasing the rates of violence and unemployment, among other social issues (MAPA DA INJUSTIÇA AMBIENTAL E

In this context we find the Industrial and Mercantile Company Ingá, a currently disabled (RIBEIRO, 2006) zinc industry, which lies about 85 km from Rio de Janeiro, on Madeira Island, in Itaguaí, municipality with 275,867 km² and 109,091 inhabitants (IBGE, 2010). The company facilities are considered to be the largest area of contamination by toxic waste in Brazil (MAGALHÃES, et al., 2000 apud PINTO, 2005) and represent one of the largest environmental liabilities in the State of Rio de Janeiro (BRASIL MINERAL, 2008).

The consequences of the contamination of Sepetiba Bay due to the activities of Industrial and Mercantile Company Ingá had direct impact in the local population, who, fearful, does not see the establishment of new enterprises in the region as a factor for improving their living conditions, unless there is efficient supervision (LINDOLFO, 2011).

Even after the company went bankrupt in 1998, several episodes of contamination continued occurring at Sepetiba Bay, due to leaking dams containing tailings, which lie in the area of the enterprise, whose main activity was calamine ore

processing for the production of high-purity zinc (RIBEIRO, 2006). Trace elements, such as cadmium, zinc, mercury and lead are still polluting the soil and water, compromising the biota, the livelihood and the health of the region's inhabitants (MAGALHÃES, et al., 2000 apud PINTO, 2005).

The Industrial and Mercantile Company Ingá settled in Itaguaí in 1962. Since then, its activities began to generate wastes that piled up and formed mountains of toxic material open air, in the company's courtyard (PINTO, 2005). During the period in which the company was operating, it polluted Sepetiba Bay routinely and also accidentally. Routine pollution was associated with the dammed liquid effluents and improper waste disposal that ended up being dragged into the Bay. Accidental pollution occurred due to rupture of the containment and waste disposal systems, causing extreme pollution (BREDARIOL, 2002).

With the bankruptcy of the company, the industry was abandoned and the control systems were disabled, which continued the process of contamination and risks of environmental accidents (BREDARIOL, 2002).

Due to all these factors, in the course of its history, the company was the target of two public civil lawsuits (one by the State Public Prosecutor's Office and the other by the Federal Public Prosecutor's Office) and dozens of fines were applied by the bodies responsible for environmental surveillance (CECA; FEEMA, 2004 apud VIÉGAS, 2006).

In 1965, the population residing in the vicinity of the company complained of symptoms of burning sensation due to inhaled air in the region. Residents also reported that the company launched a hot liquid into a ditch out in the mangrove forest, causing the destruction of native species (PINTO, 2005).



In 1984, on the recommendation of the State Foundation of Environmental Engineering (Feema) (VIÉGAS, 2006), the company built a containment dam in its waste deposition area. It also installed water accumulation tanks and a treatment plant for waste and wastewater treatment. Such measures should minimize toxic waste dump at Sepetiba Bay (BREDARIOL, 2002), but in-situ geotechnical surveys revealed that the construction of the dam had been sloppy

because it was very close to the sea and on a low ground, which left it vulnerable to disruptions (VIÉGAS, 2006).

In February 1996, as a result of heavy rains, the company's containment dam broke, contaminating Sepetiba Bay with heavy metals and causing one of Rio de Janeiro's biggest environmental disasters. Therefore, environmental agencies, residents and the Municipality of Itaguaí asked the State Department for Environment (Sema-RJ) an analysis of the water. The body stated that the problem was not serious; however, the laboratory of Biophysics from the Federal University of Rio de Janeiro (UFRJ) found on the site contents of cadmium and zinc in seafood up to 60 times higher than those allowed by the Ministry of Health (O GLOBO, 1996 apud PINTO, 2005).

In 1998, the industry's bankruptcy was declared, leaving environmental liabilities valued at R\$ 20 million at that time (PINTO, 2005). In 2002, heavy rains caused the overflowing of chemical waste from the company's dam towards Sepetiba Bay. An inspection, carried out by technicians from the Brazilian Institute of Environment and Renewable Natural Resources (Ibama), by representatives of the State Public Prosecutor's Office and by leaders of the Permanent Assembly of Entities for Environmental Defense (Apedema), detected that the region's groundwater and artesian wells had been contaminated (VIÉGAS, 2006).

In 2003, the dam broke again and toxic water as well as mud seeped into the mangroves of the Bay, repeating the ecological disaster of 1996. About 6,000 m² of mangroves were hit. At some points, the vegetation was buried (VIÉGAS, 2006).

In 2003, due to the collapse of the safety conditions in the dam of the Mercantile Company Ingá (VIÉGAS, 2006), and the fact that nothing had been done to solve the problems that had been occurring since 1997 (PORTAL ECODEBATE, 2009), the Federal Prosecutor's Office determined that the State of Rio de Janeiro should take the commitment to carry out works to prevent the company's containment dam structure from breaking (LOPES, 2004 apud LINDOLFO, 2011). The State Department for the Environment thus authorized resources for the beginning of the works, which were coordinated by the Alberto Luiz Coimbra Institute - Graduate School and Research in Engineering from the Federal University of Rio de Janeiro (COPPE/UFRJ) (VIÉGAS, 2006).

In 2004, an injunction granted by the Public Prosecutor's Office determined compensation of one minimum wage per week to every fisherman in the region. The compensation referred to the period from February 1996 - date of the first great disaster caused by Company Ingá - until the day Sepetiba Bay was recovered. In the same year, the State Government of Rio released funds for the completion of the works of the company's reservoir. The goal was to lift and strengthen the containment dam of the stored chemical waste, thus decreasing the risk of overflow. It was also created a Commission with representatives from the Federal and State

Governments and the City Hall so that it was presented a project for the company and for all the liability it represented (PINNA et al., 2004; WAMBIER, 2004 apud PINTO, 2005).

"In January 2005, the former directors of the company were convicted of environmental crime, for the pollution of Sepetiba Bay" (VIÉGAS, 2006, p. 4) and in 2007, the State Government along with the administrator and representative of the bankrupt company began decontaminating the land of the Industrial and Mercantile Company Ingá (PORTAL ECODEBATE, 2009).



In June 2008, the company's land was purchased at an auction by Usiminas (PORTAL ECODEBATE, 2009) which, in 2009, restarted the decontamination process in partnership with the State Government of Rio de Janeiro (AGÊNCIA RIO DE NOTÍCIAS, 2009). From May 2011 to November 2012, the company intended to invest R\$ 92 million in the environmental recovery of the land. The project foresaw not only the encapsulation but also the treatment and renovation of underground water, which was also contaminated. Usiminas estimates that for total elimination of toxic products, the water will have to be pumped for about 20 years (GONÇALVES, 2011).

The environmental recovery initiative comprises, among other actions, the installation of a hydraulic barrier for containment of the groundwater flow; the treatment of the liquid effluents removed; the implementation of a monitoring system of the area; and safe packaging of the contaminated water from the reservoir of the Industrial and Mercantile Company Ingá (PORTAL ECODEBATE, 2009).

On the land bought at the auction, Usiminas intends to build a port for iron ore flow (ALECRIM, 2010). While the company does not complete the project, it has signed a contract for port operation that will allow the flow of ore through the Southeast Port – of LLX, a logistics company from the EBX Group. The agreement forecasts the shipment of 3 million tons in the first year, reaching up to 12 million tons per year in 2016 (VALOR ONLINE, 2011).

GEOGRAPHIC LOCATION

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