

ARGENTINA V. URUGUAY

**DISPUTE REGARDING
THE CONSTRUCTION OF
TWO PULP PAPER MILLS IN FRAY BENTOS,
URUGUAY**

Introduction to the Dispute¹

¹ Cited from a paper written by Sueena Francisco.

SECTION I: INTRODUCTION²

a) BACKGROUND TO THE CONFLICT

1. The history of Uruguay is troubled by economic, political and social struggles.
After Julio Maria Sanguetti won the presidential elections in 1984 and closed the “era” of the military regime, economic reforms were introduced. The reforms stabilized the economy, which is mainly focused on agriculture. In 2003 Uruguay suffered from a severe economical crisis and has been recovering gradually.
2. In 1988 large-scale eucalyptus plantations were introduced in Uruguay. They were promoted mainly by the World Bank and the Inter-American Development Bank (IDB) and are run by international corporations. In addition, these plantations are fertilized by tax subsidies from the federal government. Several corporations, including ENCE, have been acquiring these lands, to produce wood chips in order to deport them out of the borders of Uruguay, mainly to Europe. This practice has been contributing to the economic development of Uruguay.
3. Presently, in the tourism driven region of Fray Bentos, a region that lies beside the Rio Uruguay, which derives from the Serra do Mar range in Brazil in Uruguay, two paper mill plants are pending construction; the Orion project undertaken by Finland’s multinational Oy Metsä-Botnia Ab (IFC project number 23817), (“the Botnia project”) and the Celulosas de M’Bopicua project undertaken by Spanish multinational ENCE (IFC project number 23681) (“the ENCE project”). Both plants will utilize Elemental Chlorine Free technology. Current European legislation is phasing out the Elemental Chlorine Free technology by 2007 and, thus, new “land” sources for processing technology were needed. The area in Uruguay, existing out of fertile land in which these mills are being constructed, appears to be ideal for the fast growing eucalyptus trees that make the pulp flourish.
4. Both companies own large-scale plantations in the region and planted Eucalyptus trees on 60.000 respectively 50.000 hectares of land beside the Uruguay River. The paper mill of Botnia is located 5 kilometers upstream of Fray Bentos bordering on the international highway bridge over the Rio Uruguay between Uruguay and Argentina and has a capacity of 1,000,000 of pulp per

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acre. ENCE has its construction located 12 kilometers of Fray Bentos (on a land where it owns a wood chipping plant and port facilities) with a capacity of 400,000 of pulp per acre. Approaching US\$ 2 billion of foreign direct investment, the projects combined comprise the largest foreign private investment in Uruguayan history; together the plants will use an estimated 4 million tons of wood to produce 1.5 million tons of pulp a year. They will create 3000 short-term jobs during construction and 300 permanent lowly paid jobs.

5. Both project sponsors have turned to the International Finance Corporation (IFC) as inherent part of the World Bank, the Multilateral Investment Guarantee Agency (MIGA) and several European banks for nearly 20% of the total investment. They have submitted their project proposals and environmental assessments. Based on the supplemented information the IFC, according to paragraph 8 sub a of the IFC operational Policies 4.01, labeled the projects as Environmental and Social Review Category A projects, because of the environmental and social risks indistinguishable from the pulp paper production.
6. Since 2003, local communities started opposing to these projects due to the site location and negative environmental, social and economic impact of the plants. To strengthen the expression of concern regarding the mills the people of Gualeguaychu (Argentina) created the social, non-governmental, non-political *Environmental Assembly* (Assembly), which lacks a central authority. Presently, the Assembly has 39.688 members. It meets on a regular basis and makes decision by consensus or popular vote.
7. As a result of the physical construction of the plants in April 2005, the members of the Assembly and other opponents protested against the construction of the mills by taking the international highway bridge. This was followed by political and diplomatic actions towards Uruguay taken by the Governor of Entre Rios Argentina, the Argentine Foreign Minister and the Argentine President.
8. In addition, a Bi-national Commission, established by the Rio Uruguay Treaty, a bilateral treaty between Argentina and Uruguay covering the River Uruguay, tried to reach a compromise between Uruguay and Argentina. The final reports were published January 2006; the Commission did not manage to reach understanding and consensus.

b) BACKGROUND ON THE NOTION “PAPER PULP”

9. Pulp and paper are made from wood chips, which contain cellulose fibers. These fibers are the primary components of the plant and are not digestible by humans. The pulp will develop by subjecting the wood chips to the use of chemical and mechanical means. Since the project sponsors will use chemical methods for the production of pulp, mechanical means will not be discussed. There are three sorts of chemical technologies, i.e. Chlorine Based, Elemental Chlorine Free (kraft), and total Chlorine Free.
10. In the present case pulp will be created by treating the raw materials with the ECF method. In this procedure the woodchips are cooked with caustic soda to produce brownstock. This brownstock is then cleared from the cooking black liquor by water for the recovery of energy and chemicals. Subsequently, the pulp is bleached in order to remove the remained lignin, which is an amorphous polymeric substance that binds to cellulose fibers and hardens and strengthens the cell walls of plants. This bleaching process coincides with the use of *primarily* the following chemicals: oxygen, hydrogen peroxide, ozone, peracetic acid, sodium hypochlorite, chlorine dioxide, and chlorine.
11. EFC is a secondary treatment that is supposed to capture more contaminants in the effluent before it reaches the water. Nevertheless, it still involves the use of chlorine products that create the dioxins and furans. In the present case the pulp is immediately used for manufacturing of paper on site. Paper, then, is made *“from pulp by deposition of fibers and fillers from a fluid suspension onto a moving forming device that also removes water from the pulp”*. Eventually, the admission of chemical additives is necessary to disclose special properties to the paper.

SECTION II: THE PAPER PULP MILLS IN URUGUAY AND THE CUMULATIVE EFFECTS

12. Together both companies will increase their capacity with 50% compared to their separate capacities in the home countries; they have equal production processes, characteristics and objectives; both investments are complimentary in nature; both investments will be located in Fray Bentos; and the plants will use similar technology.
13. These investments, representing 10% of the gross domestic product (GDP) are the biggest ever in the history of Uruguay, which is still recovering from an economical crisis. Last but not least, the paper mills might also have a contaminating effect.

b) CONSEQUENCES FOR THE PROJECT SPONSORS

14. These projects will comprise the largest foreign private investment in Uruguay. The pulp produced by the plants is for export to markets outside of Uruguay. Besides profiting from the largest foreign investment in this field, the project sponsors have negotiated a “duty free status” with the Uruguayan government.
15. Subsequently, by choosing this specific location for the projects, the project sponsors are not subject to the legal measurements taken in the European Union, concerning the EFC method used for the production of pulp and paper.

c) CONSEQUENCES FOR THE ECONOMY OF URUGUAY

16. Currently, Uruguay is still recovering from the economical crisis it suffered in 2003. Foreign investments in the country will certainly contribute to the stabilization of the domestic economy. According to IFC’s Cumulative Impact Study (CIS) the cumulative economic impact of the projects will be equal to 3.2% of Uruguay’s 2004 GDP over the construction phase, which is three years, and approximately 2.5% for over their capacity lifetime. Uruguay’s GNP will be increased by 2.8% during the construction period and 1.5% for the capacity lifetime of the plants. The plants will create 3000 short-term jobs during construction and 300 permanent lowly paid jobs. Supposedly, this employment impact will increase the 2004 national labor force with 1.3% over the construction period. During the lifetime of the plants the 2004 national labor force will increase less than 1% on a yearly basis.
17. In addition, the project sponsors expect a labor influx from throughout the region, including Argentina and Brazil, because of the insufficient working age population feasible for working on the plants in Fray Bentos and the near region. The apparent increase in population will cause an increase in social services.

d) CONSEQUENCES FOR THE ENVIRONMENT IN THE SURROUNDING TERRITORY OF
URUGUAY AND ARGENTINA

18. In essence, the projects will have negative environmental impacts that will be cumulative and irreparable to a number of residents living in Fray Bentos, Gualeguaychu, Las Cañas, and numerous islands located in the Uruguay River further downstream. Subsequently, the project will affect 300,000 people who live within a 50-kilometer radius of a point between the two

plants, and around 400,000 people who live downstream from the projects and are provided with water from the Uruguay River.

19. The pulp and paper industry generates a high profile of types of chemicals in the air, water and land. According to the Toxic Release Inventory (TRI) the total poundage of TRI releases in percentages are respectively 66%, 22% and 9%.

e) CUMULATIVE EFFECT TO WATER

i) *The Rio Uruguay*

20. The Rio Uruguay derives from the Serra do Mar range in Brazil. The part of the Rio that borders the project area and is between Fray Bentos (Uruguay) and Gualeguaychu (Argentina), moves towards sea level and has a relatively low velocity. The water area exists out of low-lying islands and sand bars. The deepest part of the river arises upstream of Fray Bentos. In the project area the river has a wide of approximately 1.6 kilometers. The average weekly minimum flow of the river is 519 m³/sec. On a monthly basis the flows vary between a minimum of 3.900 m³/sec in low seasons to a maximum of 22.504 m³/sec. The river is the outtake of water for the inhabitants in the affected area and supports aquatic species and fisheries and sources reveal that certain threatened species exist in the area. Many fishermen in the region have their commercial fishing activity on the Rio de la Plata; a river formed by the combination of the Rio Uruguay and the Rio Paraná.

ii) *Extraction of water from the Rio Uruguay*

21. Cumulatively, the projects will bring about the extraction of extremely large quantities of water from the Uruguay River. An average of 86 million cubic meters of water per day is needed to nourish only the Botnia Plant. In addition the ENCE plant needs approximately 54.600 cubic meters on a daily basis. Furthermore, additional quantities of water are needed to nurture and increase the growth of the trees for the mills.

iii) *The contamination of water from the Rio Uruguay by discharge of waste liquids from Pulp and Bleaching*

22. The plants will use the Elemental Chlorine Free method (hereinafter EFC) in order to bleach the pulp. This method is a second TIER method. The waste liquids of the plants will be discharged upstream of Fray Bentos to the Rio Uruguay and contaminate the water. These waste liquids

include Absorbable Organic Halogens (AOX); this collective quantity of organ chlorines is known by its slow biodegradation and bioaccumulation.

23. Combined the two plants will release an average of 814 kilograms each 24 hours. Secondly, polychlorinated dibenzo-p-dioxins (dioxins), which are notable "*toxic, persistent and carcinogenic*" chemicals, will be produced by the high temperatures of the paper production processes. Uruguay's emissions of dioxins will be increased with more than 1% by the emissions of pollutants by ENCE alone. The contribution of Botnia will only increase the impact.
24. The consequences of exposure to dioxins include, amongst other effects, "*causing miscarriage, birth defects, liver damage, cancer, skin complaints and behavioral and neuro-logical problems in humans*". In addition, research has indicated that the use of EFC "*produces substances in waterways that affect fish stock due to its impact on their metabolism affecting their reproductive capacity*". Besides that, the project sponsors are planning to discharge their heavy metals at premises near the river.
25. The Sabalo, who live in the River Uruguay, feed themselves with suspended solids in the river. People in the region who eat the Sabalo will be subjects to an accumulation in the food chain. The exposure to these chemicals is a serious risk and will cause a severe threat to the health and wellbeing of the inhabitants of *both* Fray Bentos and Gualeguaychu, since the contamination takes place in waters that both regions have immediate access to.

f) CUMULATIVE IMPACT TO LAND

i) *Conversion of additional land*

26. The projects will not be able to succeed without plantations of Eucalyptus trees. These plantations are an inherent part of the paper production. Together, the projects plants will need 5.2 million m³ of wood per year.
27. Uruguay has 17.3 million hectares of land, of which 6.326.000 hectares is in the region of the project. Under the mandate of the Forestry Act of 1988 the Direccion Forestal, an entity connected to the Ministry of Agriculture and Fishery, has labeled 3.57 million of land as "Forest Priority Soils". The Fray Bentos region has a total of 847.588 hectares of "Forest Priority Soils".

28. Currently Uruguay has an estimated 670.000 hectares of forest plantations of exotic species, from which 70% is Eucalyptus plantation. A majority of the forest plantations consist of “*flat to gently rolling grasslands*”. It is not allowed to establish plantations in areas of natural forest nor is it allowed to set down a plantation on soil befitting agriculture. According to Annex B of the CIS of the IFC, nearly 210.000 hectares of Eucalyptus plantations will be needed in order for the two paper mills to function properly. Presently, the project sponsors already have a large share of the 172.000 hectares of plantations in the area near the Rio Uruguay.
29. However, the project sponsors want an additional 65.000 hectares of land. This will lead to a total of 237.000 hectares in that region and will supersede the estimation of the IFC by 27.000 hectares. The CIS concludes that this cumulative impact is not significant since the plantations will only cover 3.7% of the total land area. If the percentage of suitable land were the only factor, this cumulative impact would not be significant.
30. Around 86 million m³ of water will be extracted from the river on a daily basis. It is said that this amount is equal to the combined use of water on a monthly basis by the inhabitants of Fray Bentos. The use of additional land for Eucalyptus plantations will reduce stream flows and water tables. In addition, studies have shown that “*Eucalyptus changes the climate by reducing rainfall, degrades the soil, drains the soil of moisture and reduces biodiversity*”. Subsequently, the Eucalyptus plantations will create a shortage of water for the inhabitants of the project area.
31. The most fishing activity on the Rio Uruguay is between Fray Bentos and Rio de la Plata, precisely in the vicinity of the plants. Thus, the extra shortage of water will decrease the possibility of adequate fishing in the region and therefore decrease the economic welfare and the livelihood of the fishermen. The Additional plantation could also be a threat for smallholders in the agriculture industry. Most of the land owned by project sponsors was purchased from smallholder who primarily raised cattle. The need of additional lands might be fulfilled by out-buying smallholders of their agricultural lands.
- i) Biodiversity and Natural Habitats*
32. Fray Bentos is an agricultural region. The main sources of agriculture are meat, wool, rice, wheat, milk, soya, sunflowers and citrus fruits. Approximately, 70% of the land in the region of Fray Bentos is used for dairy, beef, cattle and sheep ranching. In Gualequaychu a total of 30% of the land is used for agriculture and raising cattle is the dominating agricultural industry.

33. Furthermore there are two natural habitats in the area of Fray Bentos and in the vicinity of the plants; Rincon de las Gallinas, which is approximately 12 km southwest of Fray Bentos, and Bosque Nacional Islas Del Rio Negro, which is south of Fray Bentos. According to the bi-national commission established by the Rio Uruguay Treaty, the river “*constitutes a critical natural habitat*”.
34. In addition, crops (i.e. rice, wheat and citrus fruits) and livestock are the main providers of food for humans and their reproduction depends on “*the maintenance of high genetic diversity*”. The change of additional land, the contamination of the water and the emission of odorous gases (later discussed) will simplify the habitats and cause loss of diversity for the ecosystem. As such, the existence of the plants might threaten the livelihood of the inhabitants in the region.

g) CUMULATIVE EFFECT TO AIR:

i) *The emission of odorous gases*

35. A characteristic of pulp plants is the emission of immense malodorous chemicals. The emission will exist out of carbon monoxide, sulphur dioxide and chlorine dioxide, the latter is the producer of dioxins. Subsequently the use of the ECF technology will most likely create chlorine gas. The threats of sulphurous gases are their toxic ness and their contribution to the increased risk of acute respiratory infections, vision problems and neuropsychological disorders. When combined with oxygen, sulphurous gases create acid rain. Acid rain is likely to affect surrounding areas used for the production of agriculture and livestock. Consequently, this will affect the inhabitants of the regions.
36. As for dioxins, they are acutely toxic, persistent and carcinogenic when discharged to water. Furthermore, dioxins have a high explosive risk and can trigger the development of several respiratory problems. According to experts dioxins can remain in water and soil for up to 50 years. Thus, dioxins are a serious threat to people in the vicinity of the plants. In addition, the most disturbing problem is the production of extremely unpleasant odors, which can even cause difficulties with breathing.
37. The Cumulative Impact Assessment of the IFC predicts that the unpleasant odors will reach a scope of 10 kilometers at a maximum for a period of 3 to 4 month during the start up, while

scientists have reported that the emission of odorous gasses will reach a distance from up to 50 kilometers.

SECTION III: THE LEGAL ISSUE

The construction of the paper mills in Fray Bentos has created several tensions between Argentina and Uruguay. The dispute has been raised in several international mechanisms including the Inter-American Commission of Human Rights, the International Finance Corporation (IFC) as inherent part of the World Bank, the Multilateral Investment Guarantee Agency, the Organization for Economic Co-operation and Development, and the International Court of Justice. In addition, the parties have raised the issue in domestic courts for transnational litigation. Furthermore, some parties are considering the feasibility to raise issues in the European Court of Human Rights and the European Commission of the European Union.

As such, the case raises questions for the following areas of law:

- International environmental law;
- Transboundary air and water pollution;
- International investment law;
- Trade and sustainable development;
- Finance and sustainable development;
- Transnational litigation and jurisdiction;
- Human rights, sustainable development and environment;
- Provisional measures under the International Court of Justice;
- Use of novel strategies in international disputes.

You shall serve as a member in **one** of the abovementioned international mechanisms and provide a resolution based on an analysis of arguments for both Argentina and Uruguay dealing with the abovementioned areas of law relevant for the mechanism of your choice. The authors of the three best resolutions must orally defend their resolution before a panel of judges. The panel of judges will decide who will receive the scholarship.

Best of luck to all participants!

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