Botnia and ENCE Pulp Paper Mills Uruguay

Social Environmental Disaster
Risks Derailing Uruguayan Pulp and Paper Mill Industry

a briefing paper for investors produced by
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Introduction

Flawed Impact Assessments and Illegitimate Consultations Bring Official Warning and Public Scrutiny

ENCE of Spain and Botnia of Finland, two of the largest paper pulp producers in the world, are slated to make the largest foreign direct investment in Uruguay's history, nearly 2 billion dollars, to create what would be the world’s largest existing pulp production enterprise. The plants are to be located on the coasts of the Uruguay River, an international waterway forming the natural border between Argentina and Uruguay. Local residents on both sides of the border fear paper pulp production will not only cause grave environmental degradation and health risks to local communities, but will undermine local economic activity, centered on tourism and recreational activity. Nearly 40,000 citizens of Gualeguaychu (Argentina) and Fray Bentos (Uruguay) have already taken to the streets, protesting against the imminent arrival of the mills, blocking a major transnational bridge spanning the Uruguay River between the two cities, and filing complaints to the IFC’s Compliance Advisory Ombudsman (CAO) and to the Inter-American Commission on Human Rights (IACHR). Additionally, a suit has been filed in Uruguay for corruption and irregularities of granting of operations permits and steps are being taken to bring suit in Argentine courts.

As European legislation has become more stringent in recent years with environmental contamination controls over pulp production growing, and as European courts are beginning to crack down its related social and environmental contamination, ENCE and Botnia are now looking south for transferring entire processes, including pulp production, to less strict environments. Project sponsors ENCE and BOTNIA as well as the IFC, have (in the opinion of Uruguay’s own environmental authorities), failed to do their environmental homework and have not provided clear and transparent answers to concerns over environmental and social impacts of these mills, failing for example in considering the combined impacts of pollution to local communities and leaving out Argentine stakeholders living just across the river, in public consultations. This oversight has generated enormous diplomatic tensions and concern in Argentina and amongst environmental and human rights groups on both sides of the border.

About the Projects

The first and largest investor of these companies is Metsa Botnia, owned by three Finnish companies, which are very significant companies in the European paper industry with 5 pulp mills in Finland. The total value of the Botnia project is approximately $US 1.2 billion of which $100 million is sought in the form of an “A” loan from the International Finance Corporation IFC as well as a further $US 100 million syndicated “B” loan.
The second investor is ENCE a Spanish company operating 3 paper mills in Spain and the second largest producer of eucalyptus pulp in the world. The total value of the ENCE project is approximately $US 660 million, including an IFC “A” loan of $US50 million and a syndicated “B” loan of $US150 million.

The combined investment of the projects would be the largest foreign direct investment in Uruguay’s history, although economists related to the project have indicated that only a small portion of this amount (less than 20%) would actually be spent in Uruguay as much of the investment is in machinery purchased outside of the country. Further, benefits resulting from the sale of the product (pulp) are largely reaped outside of Uruguay, as most of the product is slated for export; the companies have negotiated duty free status, so that even local taxes benefiting Uruguay are to be minimal compared to the magnitude to the investment.

The poor records of the project sponsors in their home countries, which include numerous fines and even prison sentences for company officials due to past contamination, raise considerable doubt in terms of the social, environmental and economic risks, as well as moral and professional guarantees they offer to local communities concerning the negative externalities that can be expected from the paper mills, as well as their ability to manage and mitigate these impacts.

The plants will use second-rate technology, currently phased out in Europe, applying chlorine that, combined with other toxins used in the milling process, results in discharges of carbon monoxide, sulfur dioxide, and chlorine dioxide (which in turn emit dioxins and absorbable halogen dioxins), into water and into the atmosphere. The production of pulp will also result in the accumulation of lead, cadmium, chrome, and arsenic in the soil, around the plant, all of which have been shown to produce numerous illnesses, including genetic defects, cancer, respiratory problems, and skin disease.

The two companies have a long history of local community opposition to their plants, and severe legal problems in their countries of operations. They are willfully and intentionally taking advantage of less stringent investment climate and conditions in Latin America to export this outdated contaminating technology to the developing world.

**Project Location**

The plants are to be built on the shores of the Uruguay River, a major international waterway forming the border between Uruguay and Argentina. The site location is dangerously ill-placed, just a few kilometers upstream from two important populations; Gualeguaychu in Argentina and Fray Bentos in Uruguay, comprising over 300,000 persons in the zone of influence of the industry.

In the case of Fray Bentos, the municipality takes its drinking water directly from the Uruguay River, just downstream from where environmentally contaminated water from the plants will flow into the river. This ill-choice of site is apparently due to the fact that project sponsors already owned land at these locations, and had already constructed a pier adjacent to these lands to export wood chips for production of pulp in Europe. When the decision was made to transfer the production process to Uruguay (due to growing opposition and judicial problems of production in Europe) it was more economically convenient for the project sponsors to consider location at this site, despite the many environmental and social risks this site clearly poses for local populations.
Both the Uruguayan and Argentine territories in the immediate influence zone of the proposed plants are dependent on tourism, water sports, commercial and sport fishing, and gain their reputation as highly livable and natural resource rich enclaves in Argentina and Uruguay. Evidence shows from other paper mill plant investments, that the arrival of paper mill industries (including communities where both project sponsors have invested), radically transforms communities into industry-associated sites with the common characteristics of such communities, including visual, odorous (rotten egg smell), and health-related impacts and risks caused by environmental degradation.

Negative Environmental and Social Impacts

The environmental impacts of the projects include:

- the extraction of extremely large quantities of water from the Uruguay River;
- the generation and spillage of waste products from the pulping and bleaching stages of paper production;
- the contamination of waters used for drinking;
- the death of and risk to the sustainability of fish populations of the Uruguay River critical to the local environment and to the livelihoods of a great many fisherman of the region;
- the emission of odorous gases;
- noise pollution from the construction and operation of the plant and from vehicle movements;
- the high risks of spillage or explosion of chlorine products for use in the paper making process;
- great risks to the tourism industry, central to the identity and livelihoods of local populations.
The Botnia project alone will draw an average of 86 million cubic meters of water per day from the Uruguay River, which is equivalent to the monthly consumption of the town of Fray Bentos. The ENCE project will draw about one third this amount, or 26 million cubic meters.¹

Both mills propose to use the **Elemental Chlorine Free (ECF) method (a “second tier” environmental quality of available technology)** of bleaching pulp, which is not the method of paper bleaching recommended by the World Bank. ²

The Botnia project will process between 500,000 and 1,000,000 tons of pulp per year and the ENCE project a further 400,000 tons per year. The plants will dispose of their waste liquids (around 80% of the volume drawn from the river, and including the wastes of chemicals added during the production process) to the river upstream of the town of Fray Bentos.

The liquid wastes from the projects will contain **Absorbable Organic Halogens (AOX)**. AOX is a manner of expressing the collective quantity of organochlorines. AOX are known to biodegrade slowly and accumulate in the environment.

The high temperatures of the paper production processes will cause the **production of dioxins**. **Dioxins are extremely toxic**, persistent and carcinogenic and exposure to minute quantities can have the effects set out below. The known effects of dioxins on fish and mammals are wide-ranging and they are suspected of causing miscarriages, birth defects, liver damage, skin complaints and behavioral and neurological problems in humans. Certain of the substances to be discharged in waste water, are soluble so that they accumulate in the tissues of living creatures and pass through the food chain including through bioconcentration in fish.³ They are known to have effects on the nervous system as well as on immunological and reproductive functions, and are carcinogenic.⁴

Further, the increased emission of dioxins that is estimated for the pollution of just the ENCE plant (which will produce one third of Botnia’s production) will increase Uruguay’s emissions by more than 1%. This is contrary to Uruguay’s commitments under the Stockholm Convention on Persistent Organic Pollutants (POPs) which requires the reduction of annual emissions of POPs including dioxins and furans. Neither EA addresses this issue.

**Chlorophenolics are probably the most hazardous chemical group in pulp and paper mill effluents.** The substitution of chlorine dioxide for elemental chlorine in some bleaching process stages significantly increases chlorophenolic production.⁵

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¹ Calculated by comparative percentage with available Botnia figure.
³ http://www.foe.co.uk/resource/briefings/consequence_pulp_paper.html
⁴ Medio Ambiente Y Calidad De Vida, Volume 2 No. 13, Jan-April 2005, Biblioteca Del Congreso Nacional, Departamento De Estudios, Extensión Y Publicaciones, Unidad De Extensión Y Publicaciones
⁵ The Technical and Economic Aspects of Measures to Reduce Water Pollution Caused by the Discharges From the Pulp and Paper Industry, Final Report, Commission of European Communities, November 1989, P.70
The choice of the project sponsors of a technology that is not the “least polluting” available option is contrary to the World Bank’s own guidelines, which recommend the usage of least contaminating technologies. Both Botnia and ENCE are already exposed to and accustomed to European Community regulations stipulating the requirement to “promote the environment as a whole”, “promote the use of ‘clean technology’, and “encourage innovation”, yet it is clear that in this case, when operating in a developing country with less stringent rules and regulations, they are not adhering to any of these critical best practice standards and are actively seeking to avoid the requirement that permits in Europe be based on Best Available Technology from 2007.

Independent scientists estimate that atmospheric discharges from the project will affect an area with a radius of up to 50 kilometres with carbon monoxide, sulphur dioxide and chlorine dioxide which produce dioxins.

Pulp plants produce extremely unpleasant odors which will severely reduce the amenity of the area, which is especially concerning given that the area is recognized as a tourist region, and thrives off of water related activities including commercial and game fishing, riverside and water sports and other water related recreation.

In addition to being unpleasant, sulphurous gases are toxic and increase the risk of acute respiratory infections, problems with vision and neuropsychological disorders. As for the emissions to waters, dioxins are acutely toxic persistent and carcinogenic.

The mixture of sulphurous gases and oxygen is also responsible for the production of acid rain which risks affecting the surrounding agricultural and livestock production areas including the bee-keeping and dairy industries, whose products face rejection local sanitation regulations for contamination with toxic substances.

Chemical bleaching agents including chlorine are reactive and dangerous to transport, and so will be produced on-site. Chlorine dioxide is extremely dangerous for workers and nearby residents due to its high explosive risk. Even low exposure to chlorine or chlorine dioxide can trigger the development of

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6 “The trend is to avoid the use of any kind of chlorine chemicals and employ “total chlorine free” (TCF) bleaching... TCF processes are preferred.” World Bank Pollution Prevention and Abatement Handbook, Pulp and Paper Mills, July 1998
7 see IPPC S6.01: Sector Guidance Pulp and Paper
8 European Integrated Pollution Prevention and Control Bureau http://eippcb.jrc.es/pages/FAActivities.htm
asthma and other respiratory problems that can persist for many years after exposure.

The construction and operation of the projects including the movement of trucks to provide wood inputs will entail significantly increased noise pollution and road congestion and deterioration.

The Guarani Aquifer is a transboundary aquifer with a surface area of over a million square kilometers and an important freshwater resource in South America. Neither of the projects’ environmental assessment reports deals with the risk of contamination of the Guarani Aquifer. The importance of the protection of the Guarani Aquifer is underlined by the current US$ 27.24 million Guarani Aquifer System Project which includes a US$ 13.4 Global Environment Facility grant to Argentina, Uruguay, Brazil and Paraguay to protect what has been identified by the World Bank as a critical natural resource for the Uruguay / Argentine region. An extensive study undertaken into the geology and hydrology of the region as well as the proposed production methods and discharges from the Botnia project, confirms that, despite the thick layer of basalt rock in the region, due to geological faults and other formations, permeable rocks have become saturated with surface waters from rivers and rainwaters, allowing the slow percolation of these liquids to recharge the aquifer. Accordingly the report concludes that impacts on the Guarani aquifer from the contamination of the surface waters are inevitable.

The experience in other parts of the world in which paper mills have been constructed using the proposed ECF technology, including plants constructed in Finland (the origin of the Botnia project sponsor) is that fish disappear due to the deoxygenation of the receiving waters resulting from the high pulp content of the mill’s wastes. The odors emitted by the plants changes the nature of the area from leisure based activities to industrial ones. The strong foul odors emitted from the Botnia plant in Aanekoski, Finland, discussed above, indicate that this is likely to be the case with the current project.

Further, the continued operation of the paper mill will require the development of further eucalyptus plantations in the area of the mill. To create 1,500,000 tons of pulp requires more than 4,000,000 tons of wood and the eucalyptus trees require around 10 years to reach maturity. Already, new announcements involving hundreds of thousands of acres of land committed to eucalyptus trees are circulating from private investments. Neither environmental assessment report has taken into account further possible social effects of the expansion of eucalyptus groves to meet the plants’ needs. These will include the large scale clearance of native vegetation, loss of wildlife habitat, and resettlement of local communities

Inadequate Environmental and Social Impact Assessments

The systematic presentation by these companies of doubtful, narrow, non-integral, superficial and sometimes false analysis of the social, economic, and

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10 Head of the Departments of Environmental Engineering and Hydrology, National University of Cordoba, 12 September 2005 "Paper mills on the Uruguay River".
environmental impacts that these mills will cause for local communities (which is officially commented on by the Uruguayan environmental agency’s comments to the EIAs of the projects), and the withholding of environmental and health risk-related information relevant to potential victims and stakeholders, suggests that a highly precautionary approach much be employed to review the processes and information presented by these project sponsors.

While the assessments presented often times indicate that contamination will exceed industry standards, no reasonable explanation is offered as to why and to what extent such excess is tolerable.

In terms of requisites for Category A projects, the project sponsors have failed to provide sufficient evidence that social and economic impacts have been thoroughly studied on in Uruguay, while no or little information is available on impacts to Argentine stakeholders. Furthermore, NO cumulative impacts have been made taking into consideration the overall impacts of the two projects on the local environment, and on social and economic dimensions.

Perhaps one of the largest concerns stakeholders, especially on the argentine side of the river are claiming, is the failure to consider the impacts on the lifestyles and baseline economic/business environments already existing in Gualeguaychu and in Fray Bentos, communities that live and thrive off of tourist and recreational related activities.

The project also presents considerable risks to factory pulp workers in Uruguay who will handle highly toxic substances, will be exposed to considerable health risks, and handle highly volatile substances.

Numerous local fish species, birds, and plants found in the Fray Bentos area have also been identified and will be at risk of elimination due to acid rain, air pollution and water contamination, yet no plans for protection or relocation of such species is offered by the assessments or plan of action.

Another grave risk of the projects is the accumulation of hazardous solid waste substances which will be buried at the project sites in deep holes carved out of the earth, with no consideration of risks to the Guarani Aquifer, one of the world’s most important source of fresh water sitting immediately below the Fray Bentos area.

The projects do not consider creating contingency funds or viable or sufficient mitigation action plans addressing environmental degradation, social and economic impact and potential emergencies or disastrous contamination by accidents at the plant site.

Finally, the project sponsors have failed to take into account and report on the projects impacts on the obligations of Uruguay before its bilateral treaty obligations with Argentina under the Uruguay River Treaty, which governs country relations on the joint management and pollution protection of the river resource. Already violations of obligations have been claimed by argentina on this count, and threats have been made to take Uruguay to the International Court of Justice on such counts.

Empty Promises of Economic Development Spell Disaster and Contamination to Weary Residents

The paper mills promise economic growth and development for the locality of Fray Bentos and for Uruguay. This is the same argument that the residents and
authorities in Pontevedra in Spain (home ENCE’s paper mill plants in Spain) once believed but which did not stop local demands for closure of the plants. Nonetheless many of the projects’ own economists suggest to the contrary – that the majority of the investment will be spent on the purchase of equipment in Europe and that the pulp production will not produce significant profits for local populations or for government revenues, since the sell most of their product abroad, purchase a great portion of their capital in Europe and that they have also negotiated a tax free zone to avoid paying local Uruguayan taxes.

All that will remain in the country of the supposed vast investment will be the local expenses for construction of the plant, the 300 cheap laborers that will operate the plant, the expected losses to the local economy in the tourism and fishing industries, the illnesses of the local population following exposure to the contaminated air and water, and the strong stench of rotten eggs.

Testimony of other communities around the world and in the region that have previously been affected by similar paper mill industries, (or by the very same companies that are sponsoring these projects), has alerted the community as to the false promises of these companies which suggest that the paper mills will bring sustainable and progressive economic development, but which in fact bring little in the way of cash injections into the local economy (since most of the expenses in machinery and profits from production take place abroad). Instead such investments, everywhere they have taken place, have caused tragic environmental degradation, health problems and collapse of local industries, tourism and deterioration of quality of life.

**Mounting Local and International Public Opposition**

Despite skewed claims by project sponsors to the IFC they enjoy “wide public support”, in fact, the projects have raised fear and mounting and aggressive opposition from a great majority of the population on both sides of the Uruguay River mobilizing at one point nearly 40,000 persons to block the international bridge linking Fray Bentos and Gualeguaychu. In Argentina, the nearly 100,000 residents of Gualeguaychu unanimously oppose the installation of the paper mills, displaying signs in most commercial outlets voicing their “NO TO THE PAPER MILLS” prominently on storefront windows. Street protests and road blockages, as well as persistent press campaigns have followed and been repeated since the projects onset.

In Uruguay, while public outcry has been less noticeable in local media, informal polls indicate that most of the Fray Bentos population is NOT explicitly in favor of the mills, support coming mostly from select persons that have been promised employment during the construction phase or for one of the permanent 300 or so posts the companies will offer to local residents and some support from local service suppliers that have seen an increase in traffic of their commerce as they supply the paper mill executives and other employees that are coming to the Fray Bentos area to work on related activities. A few other local residents have expressed support for the paper mills following aggressive campaigning by the mills to win over residents, with such tactics as giving lucrative gifts to local children and their families. The local press however, coopted by pro-mill interests in local government and select economic circles, fails to cover anti-mill campaigns, nor do they provide objective opinions about the mills impacts on the local economy, the environment or health.
Nevertheless, opposition to the mills is rapidly growing, especially as the projects come closer to fruition, and as grounds preparations have begun at the plant sites awaiting international financing. The international complaints have served to escalate the conflict into the international arena bringing attention to the grave consequences the mills will have to environmental and human rights advocacy groups in North America, Europe, and other parts of Latin America.

A project of this scale and with such environmental and social impact requires from the IFC’s standpoint, a thorough consultation of local stakeholders as part of the environmental impact assessment. Unfortunately, the project has been largely imposed on the local communities in both Uruguay and Argentina with only superficial consultations occurring in Uruguay, and no consultations taking place in the impact zones in Argentine territories affected by the contamination. Neither community has been allowed to express its objective opinion regarding the installation of the paper mills in a meaningful way, nor have their concerns been sufficiently addressed by the project sponsors, or by the IFC.

In fact, as the evidence shows, their opinion has been purposefully skewed and misrepresented.

Nearly 40,000 signatures were presented in support of the complaint filed to the IFC’s CAO, while numerous others have also supported the filing against at the Inter-American Human Rights tribunal. Collected. Not surprisingly, this opposition is not only from community groups and civil society, but also from unorganized local residents, public officials in Argentina, the Uruguayan Federal Prosecutor, (ranging from local officials on up to the president of Argentina), and other environmental and human rights groups nationwide and regionally which have a vested stake in the sustainable development of the region and that work to protect the lives of local communities.

The Argentine Province of Entre Ríos ratified a new provincial law, declaring the province “free of pulp cellulose production” and all of the types of contamination this sort of production causes to the air, local environment, to waterways, ecosystems, and tourist industry. The opposition to the installation of these paper mills has even resulted in the government of Argentina communicating official opposition to the projects, to the Government of Uruguay and to the World Bank.

Finally, the governor of Entre Ríos has come out to say that he will do everything in his power to ensure that if these plants are constructed, they will not be able to operate, threatening among other things, blocking ship traffic on the Uruguay
River, blocking provisions of natural gas to Uruguay, and blocking traffic of supplies across the international bridge.

**Legal Action Against the Project**

In two simultaneous filings affected stakeholders from the localities of Fray Bentos Uruguay and from Gualeguaychu Argentina, including Community Groups, NGOs, Self Convened Assemblies, public officials and other concerned citizens including nearly 40,000 petition signers, contested the installation of the two contaminating pulp paper mill which place the lives and health of over 300,000 persons living near or in the vicinity of the plants at great risk.

Two international tribunal filings were presented in late September 2005 before the Inter-American Commission on Human Rights (IACHR) as well as at the IFC Compliance Advisory Ombudsman (CAO) which reviews policy compliance of IFC projects. They enumerate a long list of human rights violations protected by the Inter-American Convention on Human Rights, as well as environmental and social safeguard, transparency and access to information policy violations by the IFC in the preparation of the project as well as violations of international and bilateral treaties, such as the Rio Uruguay Treaty, which protects the international waterway to be polluted by the paper mill plants.

In both legal filings, the IACHR and the CAO have unusually rapidly decided not only to accept the claims, but have also found merit and sufficient concern to initiate an investigation on the allegations made by the claimants. The CAO has already made visits to the project sites and to meet with stakeholder communities in Argentina and Uruguay and is still in its investigative process in the case. The IACHR, meanwhile, has requested further information from the government of Uruguay, which is in the uncomfortable position of having to answer human rights inquiries on a World Bank project, a rare occurrence in the international development arena.

The complainants also stress the failure of the sponsors to consider better and less contaminating technology, as well as and most importantly, the failure to consider alternative sites for the plants which could have easily been situated in less controversial areas, which would have likely produced little or no public opposition.

Legal action is also underway in Uruguay and in Argentina regarding this project, largely grounded on the violation of national and constitutional law regarding rights of access to information, grave potential health and economic risks to local populations and obligations under bilateral and international law. Concerned Argentine citizens are mounting pressure on the national government to trigger a complaint before the International Court of Justice. Also under pressure from concerned citizens, Argentina is considering recalling its Ambassador to Montevideo, in protest over Uruguay’s unilateral advancement on the mills.

Further, Argentina has complained to Uruguay due to violations of the Rio Uruguay Treaty, which was evoked to protect the transboundary waters at risk due to the plants expected waste effluents directly into the Uruguay River. Argentina has threatened Uruguay to take their complaint to the International Court of Justice in the Hague, if Uruguay fails to respect its obligations as stipulated in the treaty.

The president of Argentina has also, himself, approached the President of the World Bank, requesting that ALL consideration of financing by the IFC of these
projects, be halted until a proper environmental and social impact assessment be conducted.

International Campaign Growing Against the Projects

Since the case reached the Inter-American Commission on Human Rights and the IFC’s CAO Ombudsman, there is mounting international pressure and a campaign against the paper mills, from groups in Uruguay, Argentine, European groups and US based public interest groups. International watchdogs such as Bank Track, the International Rivers Network, the Washington Office on Latin America (WOLA), the Center for International Environmental Law (CEIL), the Center for Justice and International Law (CEJIL), IFI-Watchnet, the Bretton Woods Project, Amnesty International, the Bank Information Center, the Indian Law Resource Center, the Inter-American Association for the Defense of the Environment, and dozens of other groups have expressed their concern over developments in these projects, are offering their solidarity, and circulating to their own networks, the alarming information that is becoming available to the global community about these investments.

Contamination, Health Risks to local Populations, Growing Public Opposition and Poor Economic Business translate to Risky Business!

Investors considering involvement in the projects are well advised to take note of the problems described in this briefing. Prior to their possible engagement they should seek for themselves an independent assessment of the situation by contacting local and international organizations familiar with this project.

In the case of the Equator banks, and any other financial institutions that use the IFC’s policies and Equator Banks commitments to environmental and social safeguards as backdrops for their investments, should consider that these projects are presently under investigation with the IFC Ombudsman for allegations of severe violations of Environmental and Social Safeguard policies, violations of Disclosure Policy, violations of International Waterway Policy, violations of international and environmental law as well as failure to even abide by local law in Uruguay. The projects are riddled with accusations of poor technical assessments and even corruption by public officials in the skewing of information and irregularities in the permit granting process. These allegations and investigative steps by the CAO and by international tribunals alone, should be more than sufficient grounds for postponing any consideration to support any part of these projects, financially or otherwise.

For more information please contact

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