



URUGUAY
7
MONTES DEL PLATA PROJECT
(UR-L1068)

ENVIRONMENTAL AND SOCIAL MANAGEMENT REPORT
(ESMR)

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ABBREVIATIONS

AAO	<i>Autorización Ambiental de Operación</i>
AAP	<i>Autorización ambiental Previa</i>
BAT	Best Available Techniques
CAP	Corrective Action Plans
CARP	<i>Comisión Administradora del Río de La Plata</i> (Rio de la Plata Administration Commission)
CDM	Clean Development Mechanism
CEPE	<i>Centro Público de Empleo</i>
CEPP	<i>Celulosa y Energía Punta Pereira</i>
DGF	<i>Dirección General Forestal</i>
DINAMA	<i>Dirección Nacional de Medio Ambiente</i>
EIA	Environmental Impact Assessment
EPC	Engineering, Procurement, and Construction
ESCR	Environmental and Social Compliance Report
ESDD	Environmental and Social Due Diligence
ESG	Environmental Safeguards Unit
ESHS-MS	Environment, Social, Health and Safety - Management System
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plans
ESMR	Environmental and Social Management Report
ESS	Environmental and Social Strategy
FTZ	Free Trade Zone
GHG	Greenhouse Gas
GOU	Government of Uruguay
IAR	<i>Informe Ambiental Resumen</i>
IDB	Inter-American Development Bank
IESM	Independent Environmental and Social Monitoring
IFC	International Finance Corporation
ILO	International Labor Organization
ISO	International Organization for Standardization
INEFOP	<i>Instituto Nacional de Empleo y Formación Profesional</i> (National Institute of Employment and Professional Training)
KPI	Key Performance Indicators
KV	Kilovolt
MEA	Multilateral Environmental Agreements
MTOP	<i>Ministerio de Transporte y Obras Públicas</i> (Ministry of Transportation and Public Works)
MVOTMA	<i>Ministerio de Vivienda, Ordenamiento Territorial y Medio Ambiente</i>
NGO	Non-Governmental Organization
OHSAS	Occupational Health and Safety Assessment
OP	Operational Policy
PIP	<i>Programa de Integración Productiva</i> (Integrated Production Program)
SCF	Structured and Corporate Finance Department

SIA	Social Impact Assessment
SNAP	<i>Servicio Nacional de Areas Protegidas</i>
SUNCA	<i>Sindicato Unico Nacional de Construcción</i> (National Union of Construction Workers)
UDELAR	<i>Universidad de la República Uruguay</i> (University of the Republic)
UNFCCC	United Nations Framework Convention on Climate Change
UTU	<i>Universidad del Trabajo del Uruguay</i> (Technical University of Work)
UTE	<i>Administracion Nacional De Usinas y Trasmisiones Electricas</i>
ZFPP	<i>Zona Franca Punta Pereira</i>

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I. INTRODUCTION

- 1.1 Montes del Plata (the “Project”) is a project owned by a joint venture (50/50) between Stora Enso Amsterdam B.V. (a subsidiary of Stora Enso Oyj) and Celulosa Arauco y Constitución S.A. (Arauco, through its subsidiary Arauco Internacional S.A.), jointly the “Sponsors”. The Project includes the construction and operation of a pulp mill, including, a 160MW bio-mass electricity generation plant, and infrastructure such as a fluvial port terminal and barge terminals with a wood yard and chipping plant (the “Industrial Facilities”) and forest plantations. IDB will provide financing to the Project’s Industrial Facilities. The latter are assets of Celulosa y Energía Punta Pereira S.A. for the pulp mill (“CEPP”); and Zona Franca Punta Pereira S.A. for the fluvial port terminal and free-trade zone related facilities (“ZFPP”, and together with CEPP, the “Borrowers” or the “Companies”). CEPP and ZFPP are part of the Montes del Plata Group^[1]. The Industrial Facilities will be located in a free trade zone established in Punta Pereira, 190 km. west of Montevideo. The forest plantations are located throughout Uruguay. In 2009 the Sponsors acquired the majority of Spanish pulp producer ENCE’s operations in Uruguay. The joint venture therefore comprises the pre-existing Uruguayan assets of both companies and the assets of the former ENCE project.
- 1.2 The Project’s objective is to add value to renewable forestry assets in Uruguay by producing pulp with high environmental and social sustainability standards. Given its size, Montes del Plata is of strategic importance for the development and positioning of Uruguay’s forestry sector at the international level and is one of the largest foreign direct investments in the country’s history. The Project will also have a significant effect on the country’s GDP, balance of payments, job creation, and sustainability practices. During operation, the Project is expected to contribute around US\$747 million a year to Uruguay’s GDP (2.4% of 2009 GDP). Montes del Plata exports will reach US\$697 million p.a., or approximately 11% of the country’s total in 2009. It is estimated that the Project will generate around 5,800 new jobs during construction and approximately 5,350 jobs in the process of becoming operational¹. It will also produce 160 MW of renewable energy through a biomass power plant, a significant part of which (up to 70 MW) will be supplied to the national grid² or to another industrial user. IDB is considered a key financing participant by the Sponsors of the Project due to its presence in Uruguay and its relationship with other Project stakeholders.
- 1.3 This Environmental and Social Management Report (ESMR) presents a summary of the environmental, social, and health and safety due-diligence (ESDD) findings (information review, site visit, interviews, technical opinions from IDB’s independent consultants) performed for all the components of the Montes del Plata Project and the proposed

^[1] Aside from CEPP and ZFPP the Montes del Plata Group also encompasses: (i) Eufores S.A. (“Eufores”); (ii) Forestal Cono Sur S.A., (“Forestal Cono Sur”); (iii) Stora Enso Uruguay S.A. (“Stora Uruguay”); (iv) El Esparragal Asociación Agraria de Responsabilidad Limitada (“El Esparragal”), and, (v) Terminal Logística e Industrial M’Bopicuá S.A. (“TLM”) Companies (i) through (iv) above are forest companies, while TLM is a logistics company. These five companies are part of the Project and will provide wood and logistical services.

¹ 3,200 direct, 1,600 indirect and 1,000 induced jobs. Operations: 350 direct, 3,200 indirect 1,800 induced jobs.

² Subject to an agreement with UTE, Uruguay’s public utility.

environmental, social and health and safety requirements in accordance with applicable IDB policies. The ESMR also provides a summary of the assessment of potential environmental and social risks associated with the Project. This ESMR is only a summary and does not attempt to provide all the details from the numerous existing project-related sources of information and documentation. The ESMR consists of the following sections: **Section I:** Introduction; **Section II:** The Project: Description, Alternative Analysis and Context; **Section III:** Project Compliance Status with Uruguayan legislation and IDB policies; **Section IV:** Environmental and Social Impacts of the Project; **Section V:** Environmental, Social, Health and Safety management systems (ESHS-MS) and plans to control, mitigate, compensate and monitor the Project related ESHS potential impacts and risks; **Section VI:** Consultation and Information Disclosure for the Project; and **Section VII:** Framework for environmental, social and health and safety requirements for the loan documents of the Montes del Plata Project.

- 1.4 During the ESDD the Project Team, with the assistance of independent environmental, social, and health and safety specialists reviewed the environmental, social, health and safety, and labor aspects of the Project components: Pulp Mill Plant; Port Terminal; and Plantations. This process consisted of reviewing all Project documents, including the Environmental and Social Impact Assessments (ESIAs) for each component³; ESIA complementary information and amendments; supplementary information packages (SLIPs) developed by Montes del Plata in response to IDB's comments; existing and preliminary draft versions of new ESHS management plans and their amendments in response to Lenders' comments and suggestions; discussions with Montes del Plata personnel; and site visits by IDB staff and staff consultants to the Montes del Plata Project area, which included existing and associated facilities in October 2010, March 2011, and April-May 2011.
- 1.5 During the due diligence site visit the IDB and the independent consultants also visited the UPM Plant (formerly known as Botnia) located in the Fray Bentos municipality, as well as interviewed the *Intendente* of the Municipality of Rio Negro in order to learn from their experience with the UPM plant, the impacts and concerns and how they were addressed.

II. THE PROJECT: DESCRIPTION, ALTERNATIVE ANALYSIS, AND CONTEXT

- 2.1 This Section includes a description of the Project and its individual components, the alternative analyses conducted for each component, and a brief description of the environmental and social context for each component. In addition, this Section also presents a brief introduction to other facilities that are related to the Montes del Plata Project.

³ Available at: <http://www.iadb.org/en/projects/project.1303.html?id=UR-L1068>

A. Project Description

- 2.2 The Montes del Plata Project is located within the Punta Pereira Free Trade Zone (FTZ) or Zona Franca Punta Pereira (ZFPP) – a designated free-trade zone – and includes a bleached Eucalyptus Kraft pulp mill (the mill), energy plant and port terminal (Fig. 2-1). The design capacities for the mill and energy plant are approximately 1,300,000 ADt/year of pulp and 160 MW of electricity. The Project also includes infrastructure for the supply of raw materials, water and energy, safe disposal of waste materials, and for transport of the finished product. It includes: the construction of a 12 km road to connect the Project with the existing system of roads; the dredging of a canal to connect the port terminal with the Canal Martín García on the Río de la Plata; construction of power transmission lines to connect the Project to the national power grid; construction of an on-land confined disposal facility for dredged materials; and the construction of an on-site landfill to serve as a final disposal site for non-hazardous solid waste materials.

Bleached Eucalyptus Kraft Pulp Mill

- 2.3 Wood pulp manufactured by the Kraft process is the dominant raw material for papermaking. It is used to manufacture most types of white paper. The Kraft process involves the use of a mixture of sodium hydroxide and sodium sulphide generated within the process (called white liquor) to extract the lignin from the wood fiber in large pressure vessels called digesters: these are the process inputs. The unbleached pulp is washed and the separated spent pulping liquor (called black liquor) is concentrated by evaporation and burned in the recovery boiler to generate high pressure steam for the mill processes: these are the process outputs. The inorganic portion of the black liquor is then treated to regenerate the sodium hydroxide and sodium sulphide needed for pulping. The pulp is bleached and dried for shipping to market.

Energy Plant

- 2.4 The energy plant will generate electricity from the steam produced in the recovery boiler in the chemical recovery system and the biomass boiler. The plant will produce approximately 160 MW of electricity. The pulp manufacturing process will utilize approximately 90 MW and Montes del Plata will supply the remaining 70 MW to the national grid or to an industrial user. The electricity supplied to the national grid is produced using renewable fuel (black liquor and wood wastes) and will reduce the environmental impacts associated with production of electricity by fossil-fuelled power plants in Uruguay, Brazil or Argentina.
- 2.5 The Project is pursuing a CDM project under the UNFCCC carbon credit scheme, known as the “Punta Pereira Power Plant CDM”. The validation process with an accredited consulting firm is underway. It is estimated that the range of reductions of CO₂ emissions due to the implementation of the MDL project will be between 100,000 and 200,000 tons of CO₂-equivalent reduction per year. At the national level, the process is in the stage of information preparation to obtain the mandatory National Approval Card with the “*Unidad de Cambio Climático*” (Climate Change Unit) of the MVOTMA

(*Dirección Nacional de Acreditación*). Two public audiences have been already held as part of the Public Consulting Process required by the DNA and the UNFCCC

Port Terminal and Dredging

- 2.6 The port terminal will have two wharves extending into the Río de la Plata. The inner wharf will serve ships and river barges and the outer wharf will serve overseas vessels. Each wharf will consist of a pier, an operational area behind the dock and land access. Each wharf will also have separate buildings and facilities. Water access to the port facilities will be assured through a navigational route consisting of an access canal to the Canal Martín García, a maneuvering area and docking areas.
- 2.7 The port terminal requires dredging to attain and maintain the required depths within the navigation area. The estimated volume of material to be dredged during construction is approximately 2 million m³; the dredging will take 11 to 18 weeks to complete. The dredged materials, solids and carrier water, will be pumped through a series of submerged, floating and terrestrial pipelines to an authorized on-land confined disposal facility. The confined disposal facility will be situated along the coast between the Project site and Puerto Inglés within Project property. The 80 ha disposal facility will retain the dredged material solids while releasing the carrier water. The design of the facility does not currently include lining. However, this may be necessary pending the results of a further risk assessment on metal contents of sediments to be carried out by the Project prior to start of dredging in the water.
- 2.8 **Barge port.** Located at the Terminal Logística de M'Bopícuá, Fray Bentos, in the Municipality of Río Negro, the port will be used to supply the industrial plant at Punta Pereira with Eucalyptus logs. In 2009 Montes del Plata purchased this facility, which is already constructed and operational, from the Spanish pulp producer ENCE when the latter changed its strategy in Uruguay. It is expected to supply 50% of the logs processed at Punta Pereira, the other 50% being transported by trucks.

Wood Supply

- 2.9 Supply of raw materials, specifically wood, will be mainly from plantations owned by Montes del Plata and third party suppliers in Uruguay. The mill estimates an annual wood consumption of approximately 4,600,000 solid cubic meters per year (m³/year). The wood from the western regions will be transported along the Río Uruguay basin from the port of M'Bopícuá, and wood from the eastern regions may be transported through the port of la Paloma and along the coast of Uruguay and the Río de la Plata. It is expected that approximately 50% of the wood will be transported to the Project site by waterways and approximately 50% by road.
- 2.10 Most of the plantations are situated in the Littoral Region (Paysandú, Río Negro and Soriano), the Center-East Region (Durazno and Flores), and the north (Tacuarembó and Rivera). The existing plantations can supply approximately 65% of the mill's needs during the first year of operation, rising to 100% by 2022. The remaining wood supply will be sourced from secured contracts (25%) and the spot market (10%) as required.

Montes del Plata is also investigating the establishment of additional plantations within a radius of 200 km from the mill (particularly in Soriano, Flores, and Florida) to ensure economic sustainability of the mill and wood supply. As of December 2009, Montes del Plata owned 237,910 ha of plantation lands and rented another 15,642 ha. Additional planting is expected to increase the total area planted with Eucalyptus to approximately 150,000 ha by 2014.

Associated Facilities

- 2.11 There is additional infrastructure that is not part of the proposed IDB financed Project and as such has not been assessed as part of the Project's EIA. It will be herein referred to as Associated Facilities. They are as follows:
- 2.12 **Transmission lines.** Two electric transmission lines are required, one of 15 KV for the construction phase and the other of 150 KV for the operation of the plant. The permitting, construction and operation of these lines are the responsibility of the Uruguayan Electricity Utility - UTE (*Administración Nacional de Usinas y Transmisiones Eléctricas*), with Montes del Plata covering the costs. The 15 KV line has already been constructed and has all the permits to be operational. The permitting process has started for the 150 KV line, however the IDB's due diligence has not reviewed the corresponding impact assessment. Nevertheless, it is understood that the 150 KV Transmission Line will not require any involuntary resettlement, and that landowners could eventually be financially compensated for the easements in accordance with Uruguayan law. UTE handles all negotiations with owners to secure voluntary agreement for the right-of-way and installation of the transmission towers. The transmission line will run across mostly large properties and it is considered unlikely that these owners will object to the transmission line crossing their properties. Nevertheless, UTE must comply with all formal steps. There will be no expropriation of land. Under Law 3598 compensation is paid for damage to standing crops, trees or structures due to the construction of towers. A Presidential Decree has already been issued to this end.
- 2.13 **Extension of Route 55.** In order to facilitate access to the site and to divert traffic away from Conchillas, a new 12.4 km access road will be built to connect the site to the existing Route 55 at the point where it joins Route 21. This requires the acquisition of a 60 m right of way that crosses land belonging to 35 landowners. This extension of Highway 55 is required by the Government of Colonia to protect the National Historic Site of Conchillas from heavy truck traffic during the construction and operation of the plant. Acquisition of the RoW will also require the resettlement and compensation of two properties that are located at the interchange with Route 21, including houses and buildings for farm equipment.
- 2.14 The road will be a national route property of the *Dirección Nacional de Vialidad-DNV*, this direction will also be responsible for the land acquisition. Montes del Plata will pay the cost of the construction and the land purchase and build the road through a subcontractor as per the signed agreement. Until the access road is completed, a provisional road will be used to ensure that traffic is diverted from the center of Conchillas. The DNV has already presented an EIA to DINAMA.

- 2.15 The extension of Route 55 will affect predominantly already existing agricultural plots, and as such no significant environmental impacts are expected – such as conversion of natural habitats or interference with water courses.
- 2.16 Lastly, the Project will undertake best efforts in order for the Associated Facilities to be constructed and implemented following the applicable IDB policies. The Project will inform about the status of the Facilities as part of its compliance reports.

B. Project Workforce

Construction Phase

- 2.17 During construction, the transient population, including both skilled and unskilled workers, will increase substantially. It is estimated that the Project for the duration of the construction will generate around 5,800 new jobs⁴ when measured at the peak of construction adding those at the site, and those in construction of the associated facilities, including the quarries, access road and transmission lines.

Operation Phase

- 2.18 During operations a separate set of 5,350 jobs will be created⁵.

C. Project Schedule and Cost

- 2.19 Construction of the Project is expected to take approximately two years to complete. Some preparatory work began in June 2011, with DINAMA's approvals. Provisional facilities are in place and onshore earth works have been completed in preparation for construction of the port terminal facilities. Work has not yet started noticeable on the construction site except for the excavation for foundation preparations.
- 2.20 Once built and upon final authorization from DINAMA, the mill is expected to begin operation in 2013. During the initial period of operation, production may be periodically interrupted to facilitate process changes to improve the plant's operational efficiency and performance. Based on experience with other new modern mills, this initial period may continue for two years following commissioning. After this initial period, the mill should operate at full capacity with few interruptions other than scheduled annual maintenance. The Project schedule is outlined in Figure 2.2. Construction of the extension to Route 55 has not yet begun. The easement negotiation process is under progress.

⁴ 3,200 direct, 1,600 indirect and 1,000 induced jobs..

⁵ 350 direct, 3,200 indirect 1,800 induced jobs

D. Alternative Location Analysis

Punta Pereira Pulp Mill Plant and Port Site

- 2.21 Originally ENCE was planning to develop a pulp mill project 11 km east of the city of Fray Bentos, in the Municipality of Rio Negro (western region of the country), at a site that contained a wood chipping plant and port facilities. The original project would have been sited about 6 km from another pulp mill project that was being developed by Oy Metsa-Botnia Ab from Finland (Botnia). Both mills were to be located on the Uruguay River near the Uruguayan town of Fray Bentos, opposite the city of Gualaleygauychu (which is 37 kms away on a straight line basis from Fray Bentos) in Argentina. The two projects became the subject of intense public interest from local and mostly international civil society (especially Argentina and focused within it in Entre Rios and the city of Gualeychgauychu) and generated significant press coverage. The opposition to the plants centered on the potential environmental impacts and a perceived lack of transparency. As a result, the ENCE project was put on hold for this and other reasons while Botnia continued to construct its pulp mill and began operating in 2007.
- 2.22 As detailed in the ESIA and its section on the assessment of alternative sites (*Viabilidad Ambiental de Localización*) a study of 80 potential locations was undertaken. These were considered within areas near plantation holdings and along major waterways. Most of these sites were rejected early in the process for various reasons. Four sites were carried through to a more comprehensive assessment: Palmar, Baygorria, M'Bopicua and Punta Pereira. Palmar and Baygorria provided access to the plantations but poor access to other raw materials, services and labor, and inconsistent water supply. M'Bopicua provided access to plantations, other raw materials, services, labor and water supply but, as noted above, faced opposition because of its proximity to the mill at Fray Bentos and in September 2006 ENCE decided to forego the option of using this site.
- 2.23 Punta Pereira in the Municipality of Colonia was selected as the preferred site after a comprehensive analysis based on the following criteria: i) availability of land; ii) transportation and access to navigable waterways; iii) proximity to a large water body; iv) access to raw materials; v) access to services and labor; and vi) favorable environmental and social considerations (such as a brown field site distant from social receptors).

Alternative Technologies

- 2.24 The environmental analysis for the project at Punta Pereira does not discuss the choice of alternative technologies, specifically the choice between the Elemental-Chlorine-Free Light (ECF-Light) bleaching process and the Total-Chlorine-Free (TCF) bleaching process. Nevertheless, these technologies were extensively discussed in the Environmental Impact Assessment Studies that were developed for the proposed plant at Fray Bentos and are also discussed in detail in the Cumulative Impact Study (CIS) for the Botnia and ENCE Paper Mills that was commissioned by the IFC in September 2006 (on the assumption that ENCE was also going to be located in Fray Bentos). Montes del Plata has selected the ECF-Light bleaching technology because this technology has the main advantages of allowing maximum system closure, requiring low water and chemical

consumption, and allowing for dissolved organic material to be recycled (particularly the highly colored filtrates produced in bleaching). Additionally, end-of-pipe treatments are also used in combination with conventional biological treatment systems to control discharges to receiving waters, thereby keeping potential pollution to a minimum.

E. Environmental and Social Conditions Surrounding the Project

Environmental Setting

- 2.25 The Project ESIA provides a detailed description of the environmental baseline conditions in the project's areas of influence. Extensive fieldwork was undertaken to obtain the primary data and at least 42 specialists participated in the development of the EIA. The Project involves facilities in several different geographical regions: i) the pulp mill, power plant, port facility and quarry in and near the ZFPP, in the coastal zone of Rio de La Plata; ii) the TLM wood chip port at Fray Bentos, on the Rio Uruguay; and iii) forest plantations scattered across at least seven departments of Uruguay.
- 2.26 The Project is located on the coast of the Río de la Plata estuary, near the border between Argentina and Uruguay. The Rio de la Plata estuary is located at the confluence of the Parana and Uruguay rivers (the two main tributaries of the Rio de la Plata). The estuary is 48 km wide where the rivers join and 220 km wide at the point where the estuary opens into the Atlantic Ocean. The major ports on the estuary are Buenos Aires and the city of La Plata in the southwest and Montevideo in the northeast. The estuary receives the sewage and industrial effluents from the metropolitan area of Buenos Aires and La Plata in Argentina and also the sediments and potential contaminants swept down by the Parana and Uruguay rivers. A bi-national organization formed by Argentina and Uruguay known as the Rio de la Plata Administration Commission (CARP or *Comision Administrativa del Rio de la Plata*) was created in the 1970s to oversee activities that affect the river (see Section III, subsection E).
- 2.27 The area of influence of each facility is established in its corresponding ESIA. Given that these areas of influence for each component extend through different geographic areas and exhibit varied environmental and social contexts, the impact assessments and mitigation strategies are designed to take this variation into account. A brief description of the environmental and social context for each Project component is provided below.

F. Pulp Mill Plant and Port Facility

- 2.28 The main project area (pulp mill, port facility and quarry) is characterized by a gently rolling topography of sand and rocks. The area was previously used for quarrying rock, sand and conchilla (small shells), and is adjacent to agricultural land. The terrain contains some abandoned quarries and the remains of the abandoned infrastructure (jetty, silo, equipment, etc.). From 1887 to 1950 the sand and shells were quarried by the British company Walker & Co., and since 1957 by Roselli, a national company.
- 2.29 Since there is no existing industrial activity beyond quarrying that has now ceased in the area of the pulp mill, the pre-construction environmental air and noise baselines for the area are considered good: the primary noise in the area is from intermittent rural transport

and the only air quality issues of note relate to pollen and the seasonal blossoming of some plant species.

- 2.30 The area contains interspersed fragments of Eucalyptus, pines and natural vegetation (secondary regrowth), with two remnants of hydrophilic vegetation over beach dunes located at the southern tip, and most of the vegetation that was removed for the Project construction was of non-native origin. Notwithstanding this, DGF (Dirección General Forestal) mandated Montes del Plata to protect fragments of native vegetation and the Project has set them aside as a protected reserve within its property. The EIA did not identify any threatened or endangered plant species in the project area.
- 2.31 The topography of the Punta Pereira area has been significantly influenced by the historical uses of the property, changing from a topography dominated by the presence of dunes and sandy plains to a relief characterized by the presence of wetlands and ponds that have formed following the extraction of materials.
- 2.32 The study of the *terrestrial fauna* of the project area concentrated on the birds, reptiles, amphibians and mammals. In terms of mammals, the EIA mentions the possible presence of *Leopardus geoffroyi* (or *Oncifelis geoffroyi*), Geoffrey's cat or 'gato montes', which is considered Near Threatened. None of the other species identified are of concern for conservation. None of the reptile or amphibian species that were found are considered threatened according to the IUCN Red List of Species. Of the 62 bird species identified, the majority (51) are considered resident (i.e. non migratory). Nine species are considered 'summer residents' (i.e. reproduce in Uruguay between September and March). These include the glittering-bellied emerald, great kiskadee, and the scissor-tailed nightjar. One species (sand martin) is considered as a 'summer migrant' (i.e. pass through during September-November and March-May). All of these are considered as Least Concern by the IUCN. One species is considered introduced (*Chloris chloris*, or 'verderon').
- 2.33 The Project's port facility is located on the Río de la Plata. The Río de la Plata originates at the confluence of the Paraná and Uruguay Rivers, and extends southeast to the Atlantic Ocean. The river forms a funnel shape, ranging in width from 32 km near Colonia del Sacramento to 230 km near Punta del Este. The shoal, Barra del Indio, divides the river into upper and lower regions. Punta Pereira is located in the upper region, which is characterized by shallow depths, freshwater and tidal dynamics.
- 2.34 The water quality of the upper Río de la Plata near Punta Pereira is considered good for most parameters, but the elevated levels of phosphorus, ammonia, some organics and fecal coliforms provide evidence of pollution from sanitary wastewater, urban and agricultural runoff, and wastewater from maritime transport. The Río de la Plata carries a high load of suspended sediment. These fine sediments originate primarily from the Río Paraná. The concentration of suspended sediment within the Río de la Plata varies from 25 mg/l to 500 mg/l. Over half of the total annual load of suspended sediment is transported during the period from December to May. The distribution of sediments in the Río de la Plata near Punta Pereira show a preponderance of fine sand over the entire coastal sector and especially at the depths of less than 3 m as found in the area between

Punta Pereira and Punta Conchillas and at depths of less than 5 m as found in the area between Punta Pereira and Punta Francesa. Coarser sand is observed farther offshore

- 2.35 Both phyto- and zooplankton species identified are cosmopolitan and of wide distribution range. Algal blooms are common during the spring and summer on both the Argentine and Uruguayan coasts of the Río de la Plata. Toxic dinoflagellate blooms affect the lower Río de la Plata while cyanophyte blooms predominate in the upper Río de la Plata. Cyanobacteria are persistent during the summer, especially along the coasts of Montevideo and Colonia where blooms produce extensive green stains.
- 2.36 Sediment quality of the upper Río de la Plata near Punta Pereira is considered good for most indicator parameters, although metals in sediments (such as cadmium, mercury and arsenic) are present naturally.
- 2.37 Uruguay in general, and Río de la Plata specifically, is not prone to natural disasters. The waves within the Río de la Plata are moderate. Calm conditions prevail 49% of the time, and waves in excess of 1.2 m occur less than 1% of the time (tides at Colonia del Sacramento are semi-diurnal and have a typical and extreme range of 0.43 m and 0.86 m respectively). An extreme wave of 2.5 m is predicted to occur once every 50 years on average⁶ originating from the southwest, and this is an important factor in the design of port safety structures for operation.
- 2.38 The upper waters of the Río de la Plata provide a habitat for large numbers of fish and supports artisanal and recreational fisheries. The fish in the Río de la Plata are of both freshwater and marine origin. The most common fish species belong to the Caraciform and Siluriform families. Some species of the latter are commercially important (e.g. surubi - *Pseudoplatystoma* sp. and pati – *Luciopimelodus pati*). The freshwater environment of the upper region of Río de la Plata is not optimal for spawning. Reproduction generally occurs in the upper reaches of the Río Paraná and Río Uruguay rather than the Río de la Plata, although the Río de la Plata provides important habitat for juvenile fish. Fish tissue shows signatures of dioxins, furans and PCBs, although at levels generally not harmful for human consumption.

Forest Plantations

- 2.39 The Project's plantations are located in the 'Pastizales del Plata' ecoregion of the southern cone of South America, an area characterized by natural grasslands that originally spanned over 100 million hectares covering areas of Argentina, Brazil, Paraguay and Uruguay. Over the last two centuries some 50% of this ecosystem has been converted to agriculture – mainly for the mono-crop cultivation of sorghum, wheat and soybeans – and also for urban expansion. The other half is used for extensive cattle ranching. 2% of the original grassland ecosystem is held by MDP as a "protected area", as per DGF (Dirección General Forestal) mandate, although in Uruguay the *Servicio Nacional de Areas Protegidas* – SNAP doesn't have formal protected areas for grassland ecosystems

⁶ CSI Ingenieros 2008

- 2.40 Most of the Project's plantations are situated in the Littoral Region (Paysandú, Río Negro and Soriano), the Center-East Region (Durazno and Flores), and the north (Tacuarembó and Rivera). Montes del Plata is also investigating the establishment of additional plantations within a radius of 200 km from the mill, particularly in Soriano, Flores and Florida. Census data show that the local populations have increased since the plantations have been developed.
- 2.41 The region where the new plantations are planned has adequate environmental conditions for plantation development. Annual rainfall varies between 1,150 mm and 1,500 mm. The aquifers most sensitive to plantation impacts were identified as the Salto, Raigón and Basalto aquifers, however the EcoMetrix ESIA reported that detailed studies undertaken at the University of the Republic indicate that Eucalyptus species do not affect groundwater levels below 40 cm in depth. Three of Montes del Plata's plantations in north-central Uruguay, in the Municipalities of Durazno and Tacuarembó, have conservation and monitoring programs to maintain a significant diversity of mammal species.
- 2.42 Uruguay has developed a soil classification mapping for the entire country. Based on the physical-chemical properties of the soil, climate and topography the so-called 'Coneat system' provides the basis for a broad prioritization of the regions and sub-regions where forest plantations should be encouraged (i.e. in the more marginal soils that are not suitable either for crops or extensive cattle ranching)⁷. The Project plantations are currently located in these encouraged areas.

Social Setting

Pulp Mill Plant and Port Facility

- 2.43 The Project area, described above, is located in the Municipality of Colonia's western sub-region, near the towns of Puerto Inglés, Conchillas, Colonia, Carmelo, Nueva Palmira, Ombues de Lavalle and Tarariras. The census data indicate that the Municipality of Colonia's current population is approximately 120,000 with an ethnic composition of predominantly European ancestry. The Municipality's population registers lower unemployment and underemployment rates than the national average, at 9.8% and 10.8% respectively, and average monthly income is reported as US\$625. In the western sub-region of the Municipality, economic activity has focused on tourism, based on proximity to river beaches and historical and cultural attractions including wineries, vineyards and aquatic sports. The small urban centers that make up the Municipality, account for 86% of the population, and are surrounded by sparsely populated rural areas characterized by small-scale, family-run farms, agri-business and wage-earners than depend agriculture, cattle-raising, dairy production, cereals, apiculture, viticulture and some artisanal fisheries. The Municipality also has industrial experience including dairy and meat processing as well as manufacturing (concentrates for soft drinks, bicycle and motorbike assembly) and a very strong logistic pole in Nueva Palmira serving the country needs and those coming from the Rio Parana.

⁷ Coneat (DGRNR, 1994)

- 2.44 In terms of historical origins and local identity, the area has traditionally been associated with foreign-owned, extractive industry companies. From 1887 to 1950 the British stone and sand company Walker and Co. was the largest employer in the area, building “Company Town” housing and providing services for approximately 2500 workers in Conchillas. Later the Roselli Company played a similar role. Since the company closed in 2002 the town’s economy has seen an economic downturn followed by the reinvention of the area as a tourist destination based on its tranquility and small-scale hospitality industry.
- 2.45 The Project will require around 5,800 workers during the peak of construction. The demand will exceed the supply of labor available in the Municipality of Colonia, and outside workers will have to be hired and lodged in the project area. In terms of the expected demographic composition of the workforce, the free trade zone “user agreement” obliges the Project Sponsor to hire at least 75% Uruguayan workers unless specifically authorized by the Ministry of Finance & Economy (*Ministerio de Finanzas y Economía*)
- 2.46 Regarding cultural heritage, in 2007 the original project Sponsors (ENCE) contracted a multidisciplinary team from the National University’s Humanities and Science Department to investigate the archeological and cultural heritage in the project area. The 11-month study found 35,161 archaeological artifacts, of which some could be exhibited while others were of interest for archeological research. The finds included artifacts belonging to prehistoric populations that lived in Punta Pereira, Puerto Inglés, Conchillas, Pueblo Gil and Route 21 up to 7,000 years ago. A similar mapping was also done for the aquatic environment, and small remains of old shipwrecks were found piled up at the site of an old, submerged wooden pier close to where the future port will be located. (see paragraphs 4.47 and 4.48, below).

Forest Plantations

- 2.47 Of the total of 238,632 ha owned by Montes del Plata in nine departments, approximately some 91,260 ha are planted to date with Eucalyptus species for a total planted of approximately 101,360 ha of Eucalyptus plantations when including long term renting agreements. Some 16,000 ha of land suitable for tree production have been rented from small-scale forest producers (56 producers, average holding 249 ha) who will sell their timber to Montes del Plata. A further 95,450 ha of the total patrimony are not apt for forestry. A portion of these lands have been set aside for habitat conservation and watershed protection. The remainder is rented to farmers, ranchers, and beekeepers through the Integrated Production Program (PIP) created by the Project to share development benefits with local communities.
- 2.48 The land in the vicinity of the Project’s forest plantations is predominantly used for large-scale beef cattle and grain production (soya, sorghum, wheat) by enterprises that are operated by Uruguayan families or corporations as well as to forest plantations of other pulp producers. The owners of the agribusinesses are generally absentees and there are few resident workers on the land. There are few opportunities for employment on the

cattle and agribusiness estates, so the surrounding settlements are generally small, and the agribusinesses depend on migrant labor for the planting and harvest seasons.

- 2.49 In comparison, the Montes del Plata forestry plantations will generate more opportunities for employment. The forestry plantations require around 11 workers for every 1,000 ha of trees, or four-times more workers than either beef cattle or agribusiness grain production enterprises. At present, the workers that are employed directly in the Project's forest plantations at the different stages in the production cycle (soil preparation, seedling production, weed control, fertilizing, pest control, harvest, debarking, and transport) are drawn mostly from the surrounding settlements and a much larger than average percentage are women. This pattern is expected to continue, eventually providing employment to some 5,350, mostly local people.

III. PROJECT COMPLIANCE STATUS

A. Legal and Institutional Framework

- 3.1 In general, Uruguay has a comprehensive legal and institutional framework for the environmental management of infrastructure projects, including a detailed and well-developed ESIA process and advanced regulations for public participation in the ESIA process. Decree 349/005 "*Reglamentacion de Impacto Ambiental*" that regulates Law 16466/94 "*Ley de Medio Ambiente*" sets out the requirements for obtaining environmental permits for large-scale projects. It starts with a location-specific environmental feasibility study (*Viabilidad Ambiental de Localizacion VAL*) which is needed to determine if a selected location is suitable for a project from an environmental point of view, after that an EIA is prepared. All projects must present the relevant environmental information (e.g. EIA, environmental management plans) to the National Environmental Authority (*Dirección Nacional de Medio Ambiente – DINAMA*), of the Ministry of Housing, Territorial Planning and Environment (*Ministerio de Vivienda, Ordenamiento Territorial y Medio Ambiente – MVOTMA*) prior to initiating any construction activity.
- 3.2 DINAMA is directly responsible for the administration and enforcement of the environmental laws and regulations of Uruguay. A number of other specialized agencies provide complementary regulation and supervision of social and environmental impacts. Adequate legal frameworks are also in place for labor issues, health and safety, indigenous peoples and archeological resources. DINAMA reviews the information on projects and classifies them in one of three classes: A, B⁸ and C⁹. Projects or activities that are classified as Class A do not need to present an EIA, only an environmental management plan, whereas projects classified as Class B or C require the preparation of an EIA, according to the scope and contents as defined by DINAMA.

⁸ Category B under Uruguayan regulation refers to "activities, constructions, with moderate significant environmental impacts, whose negative effects can be eliminated or minimized with well known and easily applicable mitigation measures."

⁹ Category C under Uruguayan regulation refers to project activities with significant negative environmental impacts that may or may not be subject to mitigation or prevention.

- 3.3 The specific laws and regulations are intended to ensure that industrial emissions do not cause unacceptable impacts on water, air and other environmental media. They require the proponent to prepare an EIA and a summary environmental report (*Informe Ambiental Resumen*, IAR), and to disclose the IAR over a 20-day public review period. As stated in the EcoMetrix ESIA (2010), Montes del Plata issued the IAR for the updated Project in October 2010 and a public hearing was held on December 9, 2010.
- 3.4 Following DINAMA's approval of the EIA, and after all conditions are met, MVOTMA has the authority to grant an initial environmental authorization (*Autorización Ambiental Previa*, AAP). The AAP imposes certain restrictions on the Project, specifically: to comply with all effluent limitations set forth in Decree 253/79; to comply with limits on other water quality parameters; and to comply with the commitments made in the EIA.
- 3.5 Montes del Plata requires a separate authorization before the mill can begin operations. The Environmental Authorization for the Operation (*Autorización Ambiental de Operación*, AAO) of the mill will only be issued once construction is complete and a Compliance Monitoring Plan has been submitted and approved. To ensure that operating standards and procedures continue to be compliant with best available techniques (BAT) and Uruguayan regulatory requirements, Montes del Plata must request a renewal of its AAO every three years. Furthermore, at every renewal, Decree 349/005 empowers DINAMA to impose additional protective conditions on the proponent if additional requirements and safeguards are considered necessary.
- 3.6 To date, MVOTMA has granted initial environmental authorization, by way of R.M. 546/2008, which was granted in June 2008 for the original Project design, and R.M. 1295/010 granted to Montes del Plata in December 2010 for the revised Project. MVOTMA has granted authorization to prepare the site for construction of the Project (R.M. 37/008, granted to FTZ) and the AAO for the free-trade zone was granted by DINAMA on 21 September 2010. The preparation of the site is now complete.
- 3.7 Montes del Plata has prepared an Environmental Management Plan (*Plan de Gestión Ambiental*, PGA) for the construction phase and must now prepare a plan for the operation phase. These plans identify the specific means by which negative environmental impacts will be avoided, including plans for: mitigation and compensation measures; monitoring and reporting; prevention of accidents; emergency response; and abandonment. Additional requirements and safeguards may be required by DINAMA at this time.

B. International Standards and Guidelines

- 3.8 In addition to national standards, the Project will also adhere to the following internationally recognized standards and guidelines:
- **Inter-American Development Bank**
 - Access to Information Policy (OP-102)
 - Environment and Safeguards Compliance Policy (OP-703)
 - Operational Policy on Involuntary Resettlement (OP-710)

- Operational Policy on Gender Equality (OP-270)
- Disaster Risk Management Policy (OP-704)
- **International Finance Corporation (IFC):**
 - IFC Performance Standards 1-8, effective (2006.)
 - General Environmental, Health and Safety (EHS) Guidelines (2007);
 - EHS Guidelines for Pulp and Paper Mills (2007);
 - EHS Guidelines for Thermal Power Plants (2008);
 - EHS Guidelines, Noise Management (2007);
 - EHS Guidelines for Ports, Harbors and Terminals (2007);
 - EHS Guidelines for Water and Sanitation (2007) and
 - EHS Guidelines for Forest Harvesting Operations
- **European Commission's Integrated Pollution Prevention and Control (IPPC) reference documents on:**
 - Best Available Techniques (BAT) in the pulp and paper industry (2001); and
 - the General Principles of Monitoring (2003).
- **Forest Stewardship Council (FSC) International Standard: Principles and Criteria for Forest Stewardship;**
- **ISO 14001 Standard for Environmental Management Systems; and**
- **OHSAS 18011 Occupational Health and Safety Management System Specification.**

C. Compliance with Country Regulations

- 3.9 As mentioned above, an ESIA has been developed for each of the Project components, as a requirement of both Uruguayan legislation and IDB policy. The ESIAs have complied with the national and IDB requirements for public participation.
- 3.10 In relation to the Project's compliance with Uruguayan regulations, the Project is currently in compliance with all the necessary permit requirements (i.e. environmental licenses and conditions therein) relevant to the current status of development of the Project, including the permit for construction of the Plant and port and dredging works.
- 3.11 A summary of the current status of the regulatory permits for the Montes del Plata Project presented in Tables 3-1 and 3-2 (for both construction and operations phase).

D. Compliance with IDB Policies

- 3.12 The Project was classified as Category A by the project team according to Directive B.3 on 11/18/2010 (ERM 46-10). An initial evaluation of the key overall environmental and

social impacts of the project had indicated that a category B would be warranted based on the magnitude of the impacts and the existence of readily available mitigation techniques. However, the project team opted to overrule this categorization based on the aggregate risks posed by a project of such scale for a relatively new sector in Uruguay when referring to large pulp mills (the first similar one has been in operation for over 3 years), relatively weak public institutional capacity, the complexity of Project construction and operational infrastructure, and the level of public and international scrutiny associated with past similar operations in the region.

- 3.13 Table 3-3 presents a summary Project compliance with the applicable requirements of the Environment and Safeguards Compliance Policy (OP-703), the Access to Information Policy (OP-102), the Disaster Risk Management Policy (OP-704), the Policy on Gender Equality (OP-270), and the Involuntary Resettlement Policy (OP-710). The environmental and social due diligence determined that the Montes del Plata Project is compliant with the applicable policy directives of OP-703 and with the relevant provisions of the other policies.
- 3.14 The Project complies with the the EIA requirements of Directive B.5 (see Section III.A above), and the consultation requirements of Directive B.6 (see Section VI). The Project also adheres to all applicable laws according to Directive B.2 (see Section III.A above). The Project includes provisions for Bank monitoring of compliance with all policy requirements (see Section VII.B) according to Directive B.7. Potential trans-boundary impacts to the shared waterway of the Rio de la Plata (Martín García canal) have been assessed as per Directive B.8 (see below). The Project does not significantly convert or degrade critical natural sites, affect protected areas or damage cultural sites as prescribed by Directive B.9. The Project has also included adequate procedures for management of archaeological and historical sites and artifacts. (see Section IV). Project waste management procedures and standards, and pollution and emissions limits are in compliance with Directives B.10 and B.11 (see Section IV). In accordance with the provisions of OP-710 the Project will apply the compensation principles that include fair and adequate livelihood and economic restoration with respect to compensation for temporary and/or permanent land-take for the extension of Route 55 (see Sections V and VI).
- 3.15 The Project complies with the disclosure requirements of the Access to Information Policy (see Section VI). Table 3-3 at the end of this document depicts the Project's compliance status with IDB Policies.

E. Compliance with Bilateral Treaties with Argentina

- 3.16 The Rio de la Plata Treaty is an agreement entered into between Uruguay and Argentina in 1973 to rule the administration, navigation and commercial use of the Rio de la Plata. The treaty basically incorporated zones that are exclusively managed by each country and common zones that should be coordinated for the common use of both parties.
- 3.17 The Treaty created the Rio de la Plata Administration Commission ("*Comisión Administradora del Río de la Plata*" or "CARP"), the administrative body with

representatives of both countries that coordinates the regular and extraordinary matters to the common administration of the river.

- 3.18 According to the Rio de la Plata Treaty with Argentina (Article 17), the party that intends to build a navigation channel, or significantly modify or amend the existing channels, or perform any other material work affecting the Rio de la Plata, should inform CARP.
- 3.19 On December 28, 2010 the Minister of Foreign Affairs signed and delivered a note addressed to the CEPP and ZFPP (the “Note”) stating that: i) the proposed access to the port facility Punta Pereira and its connection to Martin Garcia Canal system has been duly reported to the CARP; and, ii) that the CARP had expressed no objections to the Project, concluding that the works to be carried out would not affect the seaworthiness or the regime of the Río de la Plata. The Note indicates that the Uruguay Government fully complied with the notification process to the CARP and that the latter had no objections to the Project.
- 3.20 In addition, in the Investment Agreement signed between MdP and the Republic of Uruguay on January 18, 2011, the Government of Uruguay represented that the notification procedure through the CARP has been duly carried out.

IV. ENVIRONMENTAL AND SOCIOECONOMIC IMPACTS AND RISKS

- 4.1 This Section focuses on the key potential positive and negative impacts as determined through the due diligence and consultation process. Detailed information on all potential impacts is available in the ESIA (both in English and Spanish) are also available at: <http://www.iadb.org/en/projects/project,1303.html?id=UR-L1068>. This section summarizes the potential environmental, social, health and safety impacts during the construction and operational phases of the Project.

A. Positive Impacts and Project Additionality

- 4.2 The Montes del Plata Project represents one of the largest foreign direct investments ever made in Uruguay, of which an important portion will be invested in local goods and services. Since a large portion of the investment will be in the Municipality of Colonia, the Project will have important socio-economic impacts in the region most directly affected by the pulp mill.
- 4.3 The principal impacts of the main Project components (plant and port facility, quarry and development of the whole plantation chain) during construction and operation include the creation of jobs and increased revenues for local and regional governments from the payment of applicable taxes, the boost to the economy due to salaries and the provision of goods and services through local supply chains, as well as the improvement of existing infrastructure. In terms of employment, it is estimated that approximately 3,200 direct, 1,600 indirect and 1,000 induced jobs will be created during construction of the Project (2011~2013). At its peak of the construction phase, the project will generate 5.800 jobs. During operation it is estimated that the pulp mill will maintain a stable workforce of

approximately 350 direct, 3,200 indirect and 1,800 induced jobs (including all forestry operations).

- 4.4 Montes del Plata's biomass-based generation plant at Punta Pereira will produce more electricity than it can use in the pulp mill. The excess capacity, estimated at up to 70MW, will be sold to the national grid or to another industrial user. This will be an important source of alternative energy for the country, which to date has had to rely on limited sources of renewable energy.
- 4.5 Another positive impact will be the thousands of jobs generated in the forestry sector, these will be distributed in at least nine departments allowing workers to stay in their home places; with access to housing plans, education for their children and enhancement of their overall quality of life. Employment has increased by over 12% in the forestry sector since 2006 according to the National Official Statistics. Forestry is providing new year-round employment opportunities with the incorporation of new plants and increased silvicultural activities through afforestation, reforestation, forest management and harvesting operations. Forestry exports have risen from a low US\$100,000 in 2004 to US\$1.3 billion in 2010, and now represent Uruguay's second largest export. The sector contributes to a more balanced energy matrix and is an integral part in the evolution of the country's productive sector. The Project will be a key driver sustaining these trends.
- 4.6 The Project is also implementing a program of investment in community development in the Project's area of influence through the promotion of sustainable social and economic development: there will be opportunities for a growing number of small producers of timber, beef, milk, and honey through a networking program aimed at independent producers that are working on Project land. It is the aim of MDP to continue working in this area to maximize in a sustainable fashion these opportunities. Moreover, it is envisaged that new enterprises will be started or expanded to provide goods and services to the Project. The expected economic growth will be welcome, but in small communities people will also need to feel that the quality of life is being improved for most people not just a few. Public health and safety issues will play a large part of the perception of quality of life.
- 4.7 As such, the social issues entailed in the construction and operation of the facilities will also bring socioeconomic benefits to local communities. Simultaneously the construction of these facilities will introduce new and intensify existing social risks. Montes del Plata has identified opportunities and risks and is developing a series of plans to enhance the positive impacts and minimize or mitigate the potential social risks. As evidence of this, the Project's training program for the Plant construction focuses on developing the skills of community workers in order to reduce the need for foreign skilled workforce. Notably, the Project has started close collaboration with INEFOP (*Instituto Nacional de Empleo y Formacion Profesional*) for the coordination and provision of specialized training to bridge the gap needed to address the issue of availability of a skilled workforce (see paragraph 5.9 for the Construction Phase)

- 4.8 Finally, Montes del Plata is committed to support sustainable programs that will extend beyond the mitigation of impacts and help in the creation of job opportunities. The Project is committed to local purchasing and procurement to the extent possible.

B. IDB Environmental and Social Additionality

- 4.9 The Bank is committed to the enhancement of the environmental and social management system and plans of Montes del Plata, including the Environmental and Social Actions Plans that were developed as a result of the due-diligence carried out by the Bank.
- 4.10 The Bank is also looking for opportunities to develop socially relevant programs through the Multilateral Investment Fund (FOMIN) and has held discussions about a potential public-private partnership, coordinating with other lenders to maximize the developmental impacts of the financial institutions that will participate in the financing of Montes del Plata.

C. Potential Negative Risks and Impacts

- 4.11 According to the Project's ESIA and findings from the ESDD process, the more significant environmental aspects of the Project relate to production of effluents, dredged materials (sediments and slurry), atmospheric emissions from the mill, atmospheric emissions from transportation, stormwater, malodorous gases, solid waste and noise.
- 4.12 The impacts and risks associated with the project vary from the construction phase to the operational phase. The main construction impacts are related to the dredging activities and disposal of dredged materials used for construction of the port facilities and the navigation channel (potentially affecting water quality in the Rio de la Plata). For operations, the main potential impacts are related to air emissions and effluents from the pulp mill operation, atmospheric emissions from transportation of timber, water quality changes in the Rio de la Plata near the plant site as a result of maintenance dredging, as well as associated socioeconomic impacts resulting from implementation of the project in the area of Punta Pereira and from operation of the forest plantations.
- 4.13 Regarding Green House Gases (GHG), a calculation of the approximate GHG emissions of the different components of the Project for both construction and operation has not yet been done. Currently, the Project is working in the energy balances as a necessary prerequisite to calculate the CO2 emissions for the MDL Project.

POTENTIAL NEGATIVE IMPACTS OF THE CONSTRUCTION PHASE

- 4.14 The Environmental and Social Impact Assessment (ESIA) identifies most of the environmental impacts from the construction as those typically generated by large-scale construction works. The dredging and disposal of excavated material necessary for the construction of the port (e.g. wharfs, breakwater, loading bays) and warehouse installations will create some adverse direct impacts both on the aquatic and terrestrial environments. Clearing and preparation of the site for the pulp mill facilities and access roads have created localized impacts on an already modified (brown field) habitat. However as discussed below, most of the construction related environmental impacts will be localized within the Project area and limited to the duration of the construction phase. These impacts can be mitigated with standard and readily available environmental management systems and procedures and industry good practices.

Environmental Impacts

Pulp mill Plant

- 4.15 The Montes del Plata Plant site is relatively distant from human receptors¹⁰, and offers good conditions for the dispersion of both atmospheric and effluent emissions. The main potential environmental impacts during construction include water pollution, increased noise and air emissions.
- 4.16 *Solid waste.* Types of solid waste will include: wood preparation waste, knots and fine rejects from brown stock, raw water treatment sludge, grits and dregs, sludge from effluent treatment, ashes, sands, municipal solid waste, and hazardous waste. In general, the organic waste will be incinerated in the recovery and biomass boilers, and inorganic waste will be disposed of in an on-site landfill to be constructed. Hazardous waste generated at the Plant will consist of a variety of materials including oils, solvents, detergents and other cleaning compounds, building/maintenance chemicals, used containers, spill collection waste, fluorescent light bulbs, laboratory wastes, etc. The environmental impacts associated with these materials are minimal and will be managed through the Waste Management Plan. Also, the Project is working with the Municipality of Colonia in order to construct an adequate landfill to manage MdP's waste.
- 4.17 However, there seems to be limited capacity in Uruguay for proper disposal of hazardous materials. Montes del Plata will contemplate in its Hazardous Materials Management Plan: i) quantities and types of expected wastes; ii) layouts for the location of temporary storage of wastes; iii) measures for the temporary storage of wastes; iv) content and periodicity of the waste register; and v) location and suitability of the infrastructure at the final destination site.
- 4.18 *Changes in air quality.* Changes in air quality will likely be typical of construction projects of this nature. These are considered to be of potentially low significance,

¹⁰ The closest receptors are the communities of Puerto Ingles and Conchillas/Puerto Gil, which are located approximately 2 km and 7 km, respectively from the Project site.

temporary and easy to mitigate with standard environmental management procedures. The *Plan de Gestión Ambiental Construcción de la Fábrica de Celulosa y Energía* (Montes del Plata, 2011) addresses the management and mitigation of air emissions during construction.

- 4.19 *Changes to noise levels.* Predicted noise levels will remain below both IFC noise guidelines and Municipality of Colonia limits throughout operations at all receptors. Noise levels will be higher during the construction phase, especially along Route 55, due to increased movement of vehicles and heavy equipment. This phase is considered short-term (approximately two years). The mitigation measures for this impact are described in the *Plan de Gestión Ambiental-PGA Construcción de la Fábrica de Celulosa y Energía*.

Port Facility

- 4.20 The port terminal will be constructed in two stages i.e. an initial structure consisting of one (inner) wharf and a final configuration containing two wharves, one inner and one outer. The outer wharf will be 225m long by 40m wide, and the inner wharf will be 145m long by 30m wide. The outer and inner wharves will be situated behind a rock breakwater that will extend 320m from the shore and 600m parallel to the shore.
- 4.21 Dredging will utilize a cutter suction dredger to remove materials in the form of liquid slurry. The estimated volume of material to be dredged during construction is approximately 2 million m³, which will take 11 to 18 weeks to complete. The dredged materials, solids and carrier water, will be pumped through a series of submerged, floating and terrestrial pipelines to an authorized on-land confined disposal facility. The confined disposal facility will be situated along the coast between the Project site and Puerto Inglés within company property. The 80 ha disposal facility will retain the dredged material solids while releasing the carrier water.
- 4.22 During the dredging phase the total direct area of aquatic impacts (the structural footprint), including the navigational channel, the wharves, the navigational safety restriction zone and the new rock breakwater is approximately 75 ha. The on-shore area of the port is approximately 14 ha.
- 4.23 A potential impact during the dredging required for the port facility construction is the re-suspension of sediments from the Rio de La Plata. Analyses for potential contaminants (particularly heavy metals including mercury, arsenic and cadmium) were made and included in a detailed baseline. The baseline indicates that these metals occur naturally in sediments, and in high enough concentrations (e.g as a result of re-suspension from dredging) they can cause impacts on aquatic flora and fauna, especially plankton and benthic invertebrate and fish communities. The specific extent and magnitude of this impact will be delineated further with additional analysis by way of a risk assessment that the Project has planned to carry out prior to initiating dredging works in the water, and appropriate mitigation measures will be finalized as required by the results of the assessment. These activities are being required by the Bank as conditions prior to commencement of port dredging works in the water (see Section VII).

- 4.24 Turbidity from the suspended solids can also affect aquatic habitats through smothering and the reduction of light for photosynthesis. According to the ESIA and independent expert opinion (Bank's independent consultants), the impacts are rated as moderate during the actual dredging activities. Because the sediments in the area are predominantly sand materials instead of fine sediments, the impacts on water quality from increased turbidity are likely to be limited and of short duration. No sensitive species were identified at the site to be dredged and there are no records that the area is used for the reproduction and/or nursery of aquatic fauna.
- 4.25 Eventual contamination from the dredging material (depending on levels to be verified), including again heavy metals can also be transported as slurry in the dredged spoil or as runoff. If not properly contained, this can runoff into surface water, but also could seep into groundwater and impact human consumption through the wells used by the nearby Puerto Ingles community. As pointed out above, the Project will update its dredging management plan in order to further assess the risk of these potential contaminants and if necessary include more mitigation measures.
- 4.26 There will be aesthetic impacts from the dredged re-suspended materials that will form a visible plume of sediments that may extend along the shore in either direction of the discharge. Such a visible plume will not be dissimilar to other natural turbidity events that occur in the area, but the concentration of total suspended solids may increase by as much as 125 mg/l on top of background levels ranging from 5mg/l to 170 mg/l. Thus the plume may travel 10 km or more before a dilution of 1:100 is achievable.
- 4.27 The potential environmental risks during construction of the marine facility also include water contamination from accidental hydrocarbon spills (e.g., fuel, grease and oils) or other substances from work barges and ships, equipment or the machinery used during port construction activities, as well as accidental release of ballast water, with the potential for introduction of exotic, invasive species. These impacts can be generally avoided by standard operating procedures, such as containment, collection and disposal measures, the use of biodegradable fuels, controlled off-site disposal of ballast water, and water quality monitoring.
- 4.28 Finally, the level of local groundwater may also be somewhat lowered as a result of the construction of a peripheral water collection system for the confined disposal facility, potentially affecting the availability of groundwater for wells at the neighboring community of Puerto Ingles. However, the modeling undertaken as part of the port management plan indicates that the population draws water from a separate (but adjacent) microwatershed to that of the confined land facility, and hence there is a low risk of water shortage.

Quarry

- 4.29 The quarry is an associated facility linked to the construction of the Plant, and is discussed as part of the Project construction impacts. Since the quarry is located in an isolated, predominantly agricultural area away from human receptors, the potential environmental and social impacts of its operation are limited, temporary, of low

significance and relate primarily to the increased levels of noise, particulates and dust (PM₁₀) in the immediate vicinity of the quarry site and the access road. Other typical impacts from quarry operations are noise and vibrations. However, in the case of the Montes del Plata quarry, due to its location far away from receptors, the impacts are likely to be minimal.

Forest Plantations

- 4.30 The impacts of the forest plantation areas are discussed here in the context of Project 'construction', since many plantations are currently owned and managed including the yearly expansion of planted areas as well as further purchasing and/or long term renting agreement of areas which are incorporated to consolidate the production system for the Plant. Most of the plantations are situated in the Littoral Region (Paysandú, Río Negro and Soriano), the Center-East Region (Durazno and Flores), and to a lesser extent in the north (Tacuarembó and Rivera). Figure 4.1 details the broad geographical distribution of the Project's plantations.
- 4.31 The aquifers that are most sensitive to plantation impacts were identified as the Salto, Raigón and Basalto aquifers. Montes del Plata has taken over a previous monitoring program implemented for ENCE by the Facultad de Ingeniería of the Universidad de la República. The monitoring program has been designed to evaluate the effects of forestry activity on soils and groundwater (quality, quantity) in similar micro-watersheds subjected to different land use management practices (e.g. cattle ranching and crops). The ESIA reports that these detailed studies indicate that Eucalyptus species do not affect groundwater levels below approximately 40 cm in depth.
- 4.32 Montes del Plata has a policy to achieve 100% certification of its Eucalyptus forest plantations through the Forest Stewardship Council scheme¹¹. As such, the Project have committed to abide by the FSC's principles and criteria through responsible forest management certification of its forest plantations. According to the last independent third party certification audit conducted in 2009, there were no major issues of non-compliance in the management of the plantations. Currently, the Project has approximately 75% (i.e. 75,000 ha) of its plantations FSC certified and a re-certification audit is planned for 2011 to cover all the Eucalyptus forest areas under the Project control (i.e. both owned and under the PIP program).
- 4.33 According to Uruguayan law (Law 16466 and Section 2 §30 of Decree N° 349/005, Article 2/30 as amended of Decree 178/009), an AAP is needed for any new forest plantation over 100 ha in size. Depending on the perceived magnitude of the impacts, DINAMA may require an EIA as a precondition for issuing the AAP. The EIA details all the environmental aspects in connection with the forestry activities, and forms the basis for elaboration of the forest management plan. As of early 2009, the Project was implementing a total of 62 EIAs and their associated monitoring (forest management) plans.

¹¹ www.fsc.org

- 4.34 The species of Eucalyptus used by the Project do not show invasiveness traits. Notwithstanding this, the Project has a monitoring program to verify that native forests are not interfered with by exotic species, including other wood species such as *Gleditsia triacanthos*, *Ligustrum spp.*, *Melia azedarach* and *Pinus sp.*
- 4.35 Protection of biodiversity is enshrined in the Project's sustainability policy, which goes beyond mitigation to address regional biodiversity priorities. In addition to the set-asides required by Forest Stewardship Council (FSC) certification, three of Montes del Plata's plantations in north-central Uruguay, in the Municipalities of Durazno and Tacuarembó, have conservation and monitoring programs to maintain a significant diversity of mammal species. Further, the Project's property adjacent to the TLM terminal in Fray Bentos (M'Bopicua Biosphere) has a wildlife sanctuary dedicated to the captive breeding and release of native species of Uruguay.
- 4.36 Given the above, the forestry operations at Montes del Plata comply with IDB policies. This means that Montes del Plata, as one of the leading world suppliers of sustainable low-cost pulp fiber, runs its operations efficiently and effectively from seedling/nursery, planting, tending, and harvesting. Application of cutting edge technology in Montes del Plata's planting and harvesting operations leads to a low impact on the soil and the environment. Harvesting operations are currently being redesigned and a fleet of new cutting edge machinery will be introduced to further reduce any residual environmental impacts.
- 4.37 The construction of the Project at the ZFPP – including the pulp mill plant and port sites – and the associated quarry area – will not significantly convert or degrade any critical natural habitats or natural habitats. None of the affected areas have been identified by national institutions or national or international conservation organizations as potential biodiversity conservation areas. The Project does not traverse or adjoin any identified Important Bird Areas (IBAs), and does not affect the routes of any migratory species. No existing natural habitats will be significantly degraded or converted. As indicated above, the plant site is a degraded natural habitat that has been modified by several decades of quarrying. In any case DGF has instructed Montes del Plata to protect the fragments of native vegetation that exist within the footprint of the ZFPP.

Roads

- 4.38 The transport of logs will have an impact on roads and bridges in the vicinity of the plant and in the areas where the plantations are located. The strategy of Montes del Plata is to maximize the use of river transport to reduce heavy truck traffic on the roads. About 50% of the logs will be brought to the plant by truck and 50% will be shipped by river barge from M'Bopicua, on the Uruguay River near the city of Fray Bentos, to Punta Pereira. This will help reduce increased traffic accidents, congestion at narrow bridges and intersections, and deterioration of already poor rural roads linking the terminal to the plantations. Nevertheless, the truck traffic between the plantations and M'Bopicua will contribute to the deterioration of already poor rural roads, since the barge port will receive about 200 trucks of logs per day, in addition to some 300 trucks per day that are already supplying the neighboring UPM pulp mill (ex-Botnia). In order to prevent overloading and subsequent damage to the rural roads, with present approved transport

configurations, Montes del Plata will pay a transport cost per ton and kilometer on 45 gross tons (load plus truck weight) to prevent transport companies loading trucks with excess weight. In addition, Montes del Plata will control truck weight with scales at the entrances to Punta Pereira and M'Bopicua, as will control the speed and driving standards through a specialized outsourced company. The MDP aim and plan is that all trucks will be GPS controlled in order to ensure travel on approved routes and at safe speeds.

Social Impacts

- 4.39 Socio-economic data pertaining to the Project has been generated by: i) a Project-level Social Impact Assessment (SIA); ii) an Economic Impact Assessment; and iii) the Environmental Impact Assessment. These three independent assessments were combined into a single integrated Environmental and Social Impact Assessment¹² (ESIA) dated December 2010.
- 4.40 As detailed in these documents and discussed below, the social risks and impacts will be in the zone of immediate influence of the Project in the Municipality of Colonia and the broader areas of influence in the Municipality of Rio Negro and the nine departments where the plantations are located. According to the independent social due-diligence assessment, the SIA is comprehensive and technically satisfactory. The social impacts are identified and the recommendations are sound in terms of mitigation of social impacts during construction, operation and decommissioning.
- 4.41 The main social impacts of the construction phase are related to potential conflicts between the construction workers and the communities in the Project's area of influence, induced migration, unrealistic employment expectations, and impacts caused by the transportation of materials and equipment. Regarding the Associated facilities, the main social impacts are related to the land acquisition for the extension of Route 55.

Pulp Mill Plant

- 4.42 *Land for the Industrial Plant at Punta Pereira.* Montes del Plata has purchased 510 hectares on the coast of Rio de la Plata for the pulp mill, power plant and port. This includes the 361 ha have been declared a Free Trade Zone by the Government of Uruguay. No physical resettlement of housing or economic activities was required. There are no competing claims to the site and the site was purchased from willing sellers (the Rolilla family from Argentina) after having been on the market for several decades. There was no threat of expropriation and the land acquisition did not affect any third parties.
- 4.43 *Lands for Cultural Heritage Preservation.* The area where the pulp mill, power plant and port facilities will be constructed contains several sites of some cultural interest. These have been identified and studied over the years and are the subject of preservation and conservation measures implemented by Montes del Plata. The archeological survey to identify indigenous pre-Columbian sites in the pulp mill area produced nothing of particular significance. The study concluded that the vast majority of artifacts of some

¹² Available as Annex E of the EIA: <http://www.iadb.org/en/projects/project.1303.html?id=UR-L1068>

historic value had been recovered, and that it would be unlikely that significant chance findings would occur. Independent archaeologists were also contracted to conduct surveys and preserve potential sites on the lands purchased for plantations.

- 4.44 *Land for Worker Housing and Service Centers.* Montes del Plata will construct two worker camps and service centers, one for approximately 1,500 workers on 22 ha of land in Carmelo provided by the municipality and one for 1,300 workers at the Punta Pereira industrial site, at another alternative site that is being considered in Colonia, or in another nearby town following DINAMA pre-orientation. The site itself will have to be approved by DINAMA. The service centers will comprise dormitories, cafeterias, recreation rooms, primary attention health clinics, shops, water treatment plants, sewerage treatment plants, sports facilities, etc. In addition, Montes del Plata will construct between 30 and 50 single family houses in Carmelo and 150 single family houses in Colonia del Sacramento on 6 ha of land (3 bedroom, 2 bath, kitchen, living room) for foreign workers. In addition, foreign workers may be accommodated – only if needed - in rented houses in Carmelo and Colonia del Sacramento.
- 4.45 The land for the worker camp and service center at Carmelo is owned by the municipality and is loaned on condition that it is returned with the infrastructure once construction is completed. It is envisaged that the land for the second worker camp and service center at Punta Pereira or elsewhere authorized by DINAMA will be purchased by Montes del Plata from willing sellers or loaned from the municipality. The urban land for the foreign worker family houses comprises vacant plots that were purchased on the open market by Montes del Plata. There are no competing claims to the sites or adverse impacts on any third parties.
- 4.46 *Land for the Transmission Line.* In order to supply the excess electricity to the national grid or another industrial user a 150 KV transmission line of 42 km length will be constructed by the National Administration of Energy Generation and Transmission (UTE - *Administración Nacional De Usinas y Trasmisiones Electricas*). UTE will handle the negotiations with landowners to secure voluntary agreements for the easement for the right-of-way and for installation of the towers. The properties that the line will cross are mostly large holdings; it is envisaged that most landowners are unlikely to object to the transmission line crossing their properties. No expropriation is expected to be necessary and the landowners will be compensated by UTE in accordance with Law 3598, which provides for compensation for damage to standing crops, trees and any structures due to the construction of towers, provided owners file a formal claim.

Port Facility

- 4.47 One of the potential impacts of the construction of the marine facility will be on the sites of historic interest, such as several partly sunken English vessels, the original wooden dock and the explosives storage bunkers built by the English in the late 19th century. The remains of old shipwrecks were found piled up at the site of an old, submerged wooden pier close to where the future port will be located. None of the remains were deemed to be of particular significant historical value. However, at the request of the Uruguayan government the Project has recuperated the most intact ones (such as an anchor and part

of its chain) and removed the shipwreck parts to a nearby location in the same area that will not be affected by the new port. As such, these remains are not considered as a critical cultural site as per Directive B.09 of the IDB's Environment Safeguards Policy.

- 4.48 Montes del Plata has helped preserve the historic factory and residence buildings of the English firm in Conchillas, including the Montes del Plata office, which has been modernized, while maintaining the architectural integrity of the structures. An area of 14 ha is also being preserved as a native flora and fauna conservation area.

Quarry

- 4.49 The potential impacts of the quarry include the presence of a non-local workforce in local communities and potential in-migration. In this case, the impacts are considered of low magnitude and significance, given that the Project requires a small number of unskilled workers including operators, laborers and transportation personnel, of which the vast majority, if not all, are expected to be local. Local personnel will be hired directly by the Project contractors according to their requirements and the abilities of the applicants, and in accordance with a Local Hiring and Purchasing Plan. No camp facilities will be installed in the quarry operations area. Workers will leave the quarry site after work and any outside workers will be housed away from the site.

Forest Plantations

- 4.50 The Montes del Plata forestry plantations are in various stages of production, and include plantations purchased from earlier companies that are already fully mature and ready for harvesting and others that have been planted in the last few years by Montes del Plata also contracts through its Integrated Production Program (PIP) with independent (large, medium and small-scale) producers of timber and rents company land to other independent small-scale producers of milk, grain, and honey. The Project operates a 15 ha nursery (Vivero Celestino Mutis) near Paysandú, on land purchased from ENCE, and employs 56 local residents (46% women) who produce 5 million seedlings annually through seed germination and cloning. A new nursery is being constructed near Fray Bentos that will employ approximately 110 persons (a large percentage expected to be women) and will produce 20 million seedlings selected for different soils types mostly through cloning.
- 4.51 Some 95,450 ha of the total area owned by Montes del Plata is not apt for forestry. Some of this land has been set aside for habitat conservation and watershed protection. The remainder is rented to farmers, ranchers, and beekeepers under the Integrated Production Program (PIP). Montes del Plata has created the PIP to provide benefits to local communities. The PIP is designed to optimize the use of the land that has been acquired by the Project and to provide opportunities for small producers living in communities located near the forest plantations. Some 16,000 ha of land suitable for tree production have been rented from small and medium-scale forest producers (56 producers, average holding 249 ha) who will sell their timber to Montes del Plata (this is an ongoing process for MDP and Uruguay).

- 4.52 Under the PIP some 56,000 ha of natural grassland or mature forest plantations have been rented to 210 producers who pasture 60,000 cattle on it. A pilot beekeeping project involving 23 producers and 2 women's cooperatives has been started in 4 departments. Finally, there are approximately 2,600 ha of good agricultural land that should not be used for plantations. These areas have been rented as pasture through agreements with associations or cooperatives of small producers of milk (*ACIPROPADUR*: 10 producers; *Cooperativa Libertad*: 11 producers; *La Casilla*: 14 producers; *Asociación Productores Lecheros Tacuarembó*: 9 producers) on 11 month lease-contracts for milk production
- 4.53 *Land for Plantations.* Of the total of 238,632 ha owned by Montes del Plata about 60% of the land was purchased from forestry corporations that have partially left Uruguay (i.e ENCE which continues operating on a smaller scale under the name Sierras Calmas) and that had acquired their lands for plantations in previous decades. The remainder was incorporated from Stora Enso and Arauco when Montes del Plata was formed. The independent social consultant verified that the land transactions were between willing sellers and the firms that now constitute Montes del Plata. No threat of expropriation was used.
- 4.54 *Third party risk and impacts.* One potential adverse social impact was the involuntary economic and/or physical displacement of resident workers living on the estates acquired by Montes del Plata. The Project is mitigating these impacts by providing workers with different alternatives (a) continuing employment with the original owners on other, neighboring properties, (b) allowing workers to stay and work for the original owners on the remaining areas of the properties that were acquired, or (c) providing employment with the Montes del Plata contractors in the forestry industry. Each case was individually negotiated with the affected workers, the landowners that sold to Montes de Plata and the Project's Social Sustainability personnel. The transactions are recorded in a 2007 study of the social impacts of the land purchases that was prepared by the Social Sustainability Unit of Montes del Plata.
- 4.55 At present Montes del Plata employs 74 contractors in the 9 departments for land preparation, nursery production, seedling planting, fertilizing, weeding, pest control, harvest, and transport. The contractors' employees are drawn from local communities in the vicinity of the plantations. On average, 11 jobs are created in the forest plantation production process for each 1000 ha in production (four times more jobs than in the cattle industry). Interviews with workers in the field indicate that these jobs provide full time employment for 12 months of the year. Workers report that labor conditions on the plantations are superior to their previous conditions on the cattle estates and/or in agribusiness, during the planting and harvest seasons. At peak production Montes del Plata estimates it will provide employment for some 5,000 plantation workers in the 9 departments.
- 4.56 *Gender issues.* Women are excellent employees in both nursery and forestry plantation operations. In many cases, contractors and MDP staff believe women are better suited to the tasks entailing delicacy and detailed attention and "are more reliable" than men in this respect (i.e for the nursery). In plantations, women were observed working successfully

as team supervisors, quality control specialists, in planting crews, in pesticide application, etc. as well as in the nursery in various administrative and worker capacities.

Extension to Route 55

- 4.57 *Land for the Access Road* (Extension of Route 55). The access road that will extend Route 55 from the Punta Pereira plant site to the intersection with Route 21 requires the expropriation of a 12.4 km right-of-way, a 60 m strip of land belonging to 18 landowners, which is divided into 37 separate plots. The extension of Highway 55 is required by the Government of Colonia to protect the National Historic Site of Conchillas from heavy truck traffic during the construction and operation of the plant.
- 4.58 Montes del Plata recently contracted the necessary planning studies to determine the nature of socioeconomic impacts and compensation values for property that must be expropriated for the right of way by the *Dirección Nacional de Vialidad*. The socioeconomic impacts are of two kinds. Firstly, there are 10 parcels belonging to owners of various sizes, including smallholders that will be affected by the construction of the interchange at the intersection of Routes 55 and 21 most of whom will lose only a few square meters and who can be compensated in cash. However, two of these must be totally expropriated (100% loss) including two houses and farm equipment mechanical workshop buildings. The latter two cases require resettlement together with compensation concept.
- 4.59 Secondly, there are 27 relatively large parcels along the length of the new section of Route 55 that will lose a few hectares each and can be compensated in cash. But there is one owner with three parcels totaling 62 ha, which comprise a calf fattening operation that will be further bisected by the road (there is currently a bisection), cutting off the cultivated forage areas and the owner's residence from the cultivated pastures. In this case compensation may take the form of replacement pasture or the construction of a cattle crossing facility, depending on the option chosen by the affected family. Thus there are three cases that will require resettlement and/or re-establishment of socioeconomic production systems in addition to cash compensation. The other cases will require only cash compensation at replacement value.
- 4.60 In Uruguay, compensation rates for expropriated properties are determined by comparison with market sales records for similar properties elsewhere, with reference to (i) location in relation to urban markets, communication routes, etc.; (ii) soil type and productive potential; (iii) existing crops such as cultivated pasture, natural pasture, tree plantation, field crops like soy or wheat, etc.; (iv) and replacement value for houses, farm buildings, and other structures that are determined on the basis of the average cost per square meter needed to rebuild equivalent structures elsewhere. The method for determination of compensation rates is fair, just and transparent.
- 4.61 Montes del Plata and the Ministry of Transportation and Public Works (MTOP) have signed an agreement, which has been approved by the President of Uruguay, to build the road and maintain it for a period of 7 years. Under the terms of the agreement, Montes del Plata is authorized to carry out the field studies and contact with property owners, and

present the documentation and results to MTOP, whereupon MTOP will conduct the negotiations and execute the necessary legal instruments in accordance with Law 3958 governing expropriation. Construction of the road is to be carried out by Montes del Plata under the supervision of MTOP. The costs of all the foregoing are to be paid by Montes del Plata. The Social Sustainability Unit of Montes del Plata has proposed resettlement arrangements for the families that will be affected: one, an elderly couple, have chosen to move to a house placed in a nearby plot in the intersection of Routes 21 and 55; another, including the married child of the elderly couple, have decided to buy a nearby plot, where they will rebuild their farm equipment workshop and home. The third is the family of the farmer whose pasture will be cut off from their residence by the road.

- 4.62 To comply with IDB's resettlement policy (OP-710), the Bank will require the preparation of a brief feasibility-level proposal for the resettlement of the two families that will be affected by acquisition of their land, houses, and workshops at the intersection of Route 55 and Route 21 (Padrón 11754, Padrón 10976), based upon consultation carried out previously with the affected families. Also, Montes del Plata will prepare a brief feasibility-level analysis of the alternatives for re-establishing the production system of the property owner whose lands will be divided by the new road (Padrón 3947, Padrón 3948, Padrón 8351), avoiding resettlement if possible and ensuring they can continue production. In both cases the Project will establish a timetable for consultations with the affected people regarding the selection of alternatives, replacement site preparation and construction of replacement structures, transportation of families and their belongings to the new site, and the provision of social support, technical assistance, transitional support, and any other help needed to ensure they can re-establish their homes and livelihoods. Should the legally determined compensation amounts fail to cover the full costs of resettlement and/or re-establishment of production systems, the Project will provide the resources needed to reflect a fair and adequate compensation and rehabilitation according to Uruguayan law and OP-710.
- 4.63 *Land for Worker Housing and Service Centers.* Montes del Plata will construct two worker camps and service centers, one for approximately 1,500 workers on 22 ha of land in Carmelo provided by the municipality and one for 1,300 workers at the Punta Pereira industrial site or at another alternative site that is being considered in, Colonia, or in another nearby town following DINAMA pre-orientation. The site itself will have to be approved by DINAMA. The service centers will comprise dormitories, cafeterias, recreation rooms, primary attention health clinics, shops, water treatment plants, sewerage treatment plants, sports facilities, etc. In addition, Montes del Plata will construct between 30 and 50 single family houses in Carmelo and 150 single family houses in Colonia del Sacramento on 6 ha of land (3 bedroom, 2 bath, kitchen, living room) for foreign workers. In addition foreign workers may be accommodated – only if needed - in rented houses in Carmelo and Colonia del Sacramento.
- 4.64 The land for the worker camp and service center at Punta Pereira was purchased by Montes del Plata together with the Zona Franca from willing sellers. The land for the worker camp and service center at Carmelo is owned by the municipality and is loaned on condition that it is returned with the infrastructure once construction is completed. It is envisaged that the land for the second worker camp and service center at Punta Pereira

will be purchased by Montes del Plata from willing sellers or loaned from the municipality. The urban land for the foreign worker family houses comprises vacant plots that were purchased on the open market by Montes del Plata. There are no competing claims to the sites or adverse impacts on any third parties.. There are no competing claims to the sites, the sites were donated by local governments and/or purchased willingly, with no threat of expropriation, without adversely affecting any relevant third parties.

- 4.65 *Transportation of personnel, materials and heavy equipment.* The increment in traffic may lead to an increase in dust, noise, vibration, and accidents and will affect the population living in the settlements situated along the existing access road to Punta Pereira and along the right-of-way of the new road. Where the new section of Route 55 crosses agricultural land, the impact of dust on crop productivity may deserve attention. Additionally, prior to construction of the extension to Route 55, there are instances where the detour to be used to access the site uses narrow rural roads that traverse residential nuclei in proximity to schools and dwellings. Pedestrian traffic and roadside activities pose risks, as do unattended roaming animals. Montes del Plata requires that the contractor's Community Safety and Transport Plan address these issues with appropriate mitigation measures, in accordance with the provisions of the Transport Management Plan, the Community Health Guidance Document, and the Health and Safety Plan, all of which are described in Section V.
- 4.66 *Social Impacts of Influx of Temporary Workers.* During the two-year construction period the number of workers will be about 2,500 in the first 6 months, growing progressively to about 5,800 around month 12. The number of workers will remain at that level approximately through month 18, and will fall to a few hundred by month 24. The social impacts on the local population in Conchillas, Pueblo Gil, Puerto Ingles Carmelo, and Colonia del Sacramento could be potentially very significant unless properly managed. The potential impacts include overtaxing public services (transport, solid waste disposal, health care services, water and sanitation), the introduction of diseases, specifically including sexually transmitted diseases, increasing traffic hazards and accidents, and increasing levels of violence, alcoholism, drug use, and prostitution. For this reason, Montes del Plata has designed worker camps with service centers (including housing, restaurants, transport, energy, drinking water, effluent treatment, waste collection, communications, health care and recreation service for workers). It is believed that this is the best way to avoid overwhelming the small communities near Punta Pereira during the two-year construction period.
- 4.67 Concentration of outside workers in centralized camps with all services provided is the key mitigation measure planned by Montes del Plata to minimize social impacts on local populations. The possibility of renting existing housing in the small towns throughout the area of Project' influence exists and was studied, but scattering the temporary workforce over many localities would vitiate any effort to mitigate the social risks. It is thought that the risks can be best managed by concentrating workers in a few locations and providing all the essential services. While it is clear worker camps and service centers will help mitigate local population exposure to heightened disease risks, traffic hazards, and social pathologies, the influx of so many external worker with salaries to spend will

nevertheless attract spontaneous gambling enterprises, bars, shops, brothels, etc. that inevitably accompany such a workforce. This spontaneous settlement can be regulated but not be entirely avoided.

- 4.68 Montes del Plata is currently working on a Coexistence Code with a specialized firm that will manage the labor camps, also the Project is working on the development of a Community Health Plan together with different Units of the Health Ministry that will include a public awareness program related to pregnancy and sexually transmitted diseases throughout the area of influence of the Project.
- 4.69 Montes del Plata has the intention and stated policy to hire locally to reach its goal of contributing to local sustainable socioeconomic development. During construction there are many unskilled positions to be filled for the construction of the Mill and other facilities. To help achieve this goal Montes del Plata's contractors depend on upon national technical training and educational institutions, including INEFOP (National Institute of Employment and Professional Formation), SUNCA (National Union of Construction Workers), UTU (Technical University of Work), UDELAR (University of the Republic), and others to provide training for local people that wish to work for the Project or its contractors. Of these, INEFOP is best positioned to register interested people (through the *Centro público de Empleo*-CEPE nationwide register) and provide training in the short term (during the next 12-24 months). A general policy exists in INEFOP to make training courses available for young people, some of them particularly for women. See paragraphs 5.8, 5.9 and 5.10 for more detail on the INEFOP initiatives

Health and Safety

- 4.70 In relation to the Plant, the normal safety hazards associated with a construction project of this nature would include but not be limited to: hot work, working at heights, lifting and rigging of loads, handling hazardous materials, electrically energized situations, heavy equipment, machinery, working in confined spaces, and pressurized and hydraulic systems. The details of the hazard identification, risk assessment and controls to be implemented will be in the OH&S plans submitted to Montes del Plata by their contractors and sub-contractors. These plans must be approved by Montes del Plata before they are forwarded to the appropriate government authority. These documents of good intentions as they are implemented will then be subject to the "check and correct" and "act" requirements of the Montes del Plata OH&S Management System, which is consistent with the OHSAS 18001 Standard.

POTENTIAL NEGATIVE IMPACTS OF THE OPERATIONAL PHASE

Environment, Health and Safety

- 4.71 The environmental impacts during the operational phase of the Project will be limited, low in intensity, and related primarily to operational hazards. The main potential environmental and social negative impacts related to the operation phase will be associated with: (i) liquid effluents: these effluents will be treated via a wastewater treatment plant using an activated sludge process. The process will have a security system

with a spill pond of 75,000 m³. The outgoing treatment effluent will be channeled to the river via an emissary that is compliant with Uruguayan standards; (ii) atmospheric emissions: there will be a collection and treatment system in place for treatment of TRS11¹³ and volatile odorous gases, and electrostatic precipitation for dust abatement. Depending on the direction of the wind, after the first year and under normal operation conditions there will be only a slight likelihood of odor emissions and venting will be occasional. (iii) noise emissions at Port and mill facilities including the biomass power plant. The models show that the noise emissions will comply with World Bank noise standards. Some of the risks identified for the operational phase are: iv) increased risk of accidents related to road and marine transportation of the inputs and outputs of the mill (v) occupational and safety risks related to accidents involving port and mill workers; risk of soil and water contamination due to spills, leaks and discharges of products, (vi) induced urban growth associated with the port and mill activities.

Process Technology

- 4.72 The pulp mill process and technology will use Best Available Techniques- BAT. BAT is herein defined as per the EC (European Commission) Directive 96/61 as the most effective and advanced stage in the development of activities and their methods of operation which indicates the practicable suitability of particular techniques for providing the basis for emission limit values designed to prevent, and where that is not practicable, generally to reduce the emissions and the impact on the environment as a whole. As such the mill process and technology are considered state-of-the-art and comprise BAT or better.
- 4.73 Kraft plants used to draw active debates on particular potential contaminants, especially associated with the bleaching process. The presence of dioxin-like compounds has been detected in the atmospheric environment in the vicinity of pulp mills, and this has generated debate about the possible deleterious effects on human health. However, the ESIA indicates that scientific studies conducted with blood serum from community residents, high- and low exposure pulp mill workers found no significant differences between these groups. In addition, the measured levels of dioxins in blood serum were within the range measured in populations with no known exposure. Therefore, no significant impacts are expected regarding these compounds.
- 4.74 While there is a very low probability of release of gases during normal industry operations due to the safety systems that are in place, this still represents a hazard that must be properly managed through the management plan for operations.

Port Terminal

- 4.75 The port terminal requires maintenance dredging in order to attain and maintain the required depths within the navigation area (access channel, maneuvering area and port sheltered area). The volume of fine sediments accumulated annually in the port terminal that will require maintenance dredging works is estimated to be between 100,000 to 400,000 m³ per year. Dredged materials will be disposed in zones of the river already chosen for that purpose within the existing open channels, as well as in other areas

¹³ TRS: total reduced sulphur.

adequately prepared to receive these materials. An evaluation of impacts related to dredging maintenance was done applying a mathematical model of the evolution of the plume generated by the disposal of the products of the dredged materials, and no significant impact to the Martin Garcia channel were detected. Also, the marine facilities have been designed with an open wharf system and a parallel breakwater, with the intention on minimizing disruptions to natural near-shore sediment transfer patterns and coastal erosion, thus no long-term impacts are anticipated on the coastal morphology or sedimentation patterns that would affect either marine habitats or other physical coastal features. Monitoring will be carried out by Montes del Plata to ensure there are no unforeseen changes that would require additional measures.

- 4.76 Other potential Project hazards include fires or spills of imported materials used on the site (fuels, oils, etc.), and, in the case of the Port terminal, risks related to potential accidents involving chemical carriers during transportation or loading operations. Port design features, however, provide significantly enhanced safety through a built-in secondary containment. It should be noted that the Project will comply with all other applicable IMO (International Maritime Organization) guidelines and conventions.⁸
- 4.77 There are health and safety risks associated with the operation of a quarry. These typically arise from the use of large earth-moving vehicles and machines, the handling of explosives and heavy loads, ever-present airborne dust, and maintenance specific work. The quarry must be properly inspected and maintained to ensure the health and safety of all workers on site. Maintenance activities range from the maintenance of machines, equipment and vehicles to the keeping of roadways on site in good order, attending to such matters as providing edge protection and securing excavations. The EIA done for the quarry contains a management plan that should be adopted in case the quarry becomes operational.
- 4.78 The potential impacts due to traffic and noise on the quarry access road are unlikely, since there are no neighboring settlements. The closest inhabited community is located 7 km from the access road. As stated above, the controlled explosions will have a limited schedule and Montes del Plata Community Relations personnel will conduct intensive notification campaigns to inform residents whenever these explosions are scheduled.

Social

- 4.79 During operations, the social impacts are expected to be of lower intensity. The Plant will require a much smaller work force and will have less impact on road transportation and will add about 4 ships/day to the existing fluvial/marine traffic transporting the timber. This additional traffic is incremental to the existing ship traffic that passes through the

⁸Particularly the six IMO Prevention of Marine Pollution Conventions, including but not limited to, MARPOL 73/78; International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004; and the International Convention on the Control of Harmful Anti-fouling Systems on Ships, 2001; waste management plan, terrestrial traffic safety management procedures, and procedures for ensuring compliance with the IMO declarations regarding the prohibition of banned anti-fouling systems (such as tributyl (TBT) in all ships using the Terminal; solid and liquids waste management procedures in compliance with all the requirements from MARPOL.

Martín García canal. The visual impact of the Plant and Port terminal will become a permanent feature of the coastline.

- 4.80 For the operational phase, the Project will conduct its own training program (see paragraph 5.11). Similar programs have been successful at the UPM Plant in Fray Bentos (ex Botnia), where young people from the surrounding area have been trained as technicians. The intention of Montes del Plata is to recruit to the extent possible and towards a balanced experience profile within its area of influence (Conchillas, Ombues, Tarariras, J. Lacaze, Colonia) and to include basic teaching in applied sciences as well as English, health and safety, and team work, with a focus on the management of pulp mill plants.
- 4.81 Despite the limited nature of the actual risks present during the operation of a pulp mill plant, if communities are not well informed about the true characteristics of the operations and associated risks, they may have unrealistic fears regarding potential contamination of soil and water, and potential accidents linked to the Plant. The appropriate and well executed Communications Plan will be a key tool for the management of these issues.

Forestry Cumulative Impacts

- 4.82 Cumulative impacts of forestry can be classified into two primary areas: forest management and harvesting practices. In the case of MdP, management practices are simple and non-extractive. Trees are planted with very low impact practices and low soil disturbance as seedlings are established along very narrow sub soiled lines. Trees are then left to grow without interim intervention. Neighboring forests plots tend to be managed in the same fashion. At this stage the only cumulative impact would be that of increased evapotranspiration of tree communities, even though this is mitigated by the forests' contribution to precipitation interception.
- 4.83 During harvesting, the preferred regeneration procedure in MdP is that of clear-felling. This harvesting and replantation procedure has several merits, as it contributes to even-aged management and easier forest regulation. However, if not adequately planned and depending on the size and form of the clear felling, this procedure could impact elements of biodiversity within plantations that can also have benefits for stand productivity and the resilience of ecosystem processes. Montes del Plata conducts detailed planning of its operations so as to minimize these risks.
- 4.84 In the case of MdP, the FSC certification requests that the size of the clear felling areas include small patches between areas of clear felling. Clear felling must be a maximum of 450 contiguous ha, with small patches in between, therefore limiting any adverse effects of this practice. MdP will also purchase wood from small forest owners when MdP-owned plantations cannot meet demand. While small forest owner lots will be cleared completely in these instances, the limited size of their standing forests will not have noticeable cumulative impacts to forest ecosystems. Interim forest management practices, such as pruning, are not performed at MdP holdings; trees are grown and later felled. As

such, extraction of biomass or the alteration of the forest ecosystems during growth is not carried out, so no cumulative impacts from these practices will occur.

- 4.85 Water cycle in forestry is complex and depends on basically two factors: precipitation and forestry species (Zobel, 1987). Broadly, Eucalyptus is ranked among the water sucking species, but this is a generalization that requires clarification. Eucalyptus is a very efficient water user – in conditions of low water contribution it would rely in its own reserves, and when there is ample water availability it would make use of this extra water. In areas with precipitation over 1,000 mm, Eucalyptus uses water up to a balanced use-intake ratio. MdP forests are planted in areas with precipitation regimes that vary from an average of 1,000 mm close to Rio de la Plata up to 1,400 mm in the northern part of the country. These precipitation levels are very irregular, and as such the forests contribute to the hydric recharge of the aquifers. This is a positive contribution when compared to soil exposed to direct sunlight as in most agricultural areas.
- 4.86 In addition, forestry ecosystems contribute to improved water quality, as soils filter water. In general, those watersheds covered by forests show better quality water with low sediment content, low turbidity, low content of dangerous microorganisms and high dissolved oxygen content. Forests also capture water from precipitation and through their trunks guide it to the soil where very low evaporation occurs as a consequence of the relatively higher humidity under the crown, low solar radiation and relatively low air movement. This process compensates for the higher evapotranspiration of tree communities, since one of the main roles of forests in the water cycle is that of infiltration.
- 4.87 In conclusion, there are no significant cumulative negative environmental effects that would arise from forest plantations in connection to the Project.

Other Risks

- 4.88 The project team also considered other risks to the Project, such as transboundary issues that may occur as a result of, for instance, construction activities, operation of the port and mill and contingencies. These potential risks have been properly addressed during the site alternatives selection and the impact assessment of the Project. The ESIA has employed specialized techniques and methodologies for the analysis of air and water quality, including modelling of air and water dispersion plumes. As a result of these studies, no potential transboundary impacts have been detected. The same applies for social issues.

V. ENVIRONMENTAL, SOCIAL, HEALTH AND SAFETY MANAGEMENT

A. Management System and Plans

- 5.1 Montes del Plata has developed a preliminary ESHS-MS, including management plans, organizational systems and implementing documentation, which constitute the operational backbone of the environmental and social management plan for the Montes del Plata Project, as required by IDB policies. The policies, plans, and procedures described below were reviewed during the due diligence and were found to be

satisfactory for achieving compliance with Bank safeguards during project construction and operation. Montes del Plata will be fully responsible for all aspects of the implementation of these plans. All relevant plans and documents or procedures, including any necessary revisions or updates, will be submitted to the Bank for final approval as indicated in Section VII.

- 5.2 The Montes del Plata ESHS-MS includes policies, procedures, and industry standards for the construction phase. The ESHS-MS is consistent with ISO 14001, for environmental management standards and OHSAS 18001, for health and safety standards, and as such is based on the “Continuous Improvement Cycle” found in both international standards. The system and its components will be updated on a continuous basis to reflect new information, and once construction is completed to reflect the specific requirements of Project operations.
- 5.3 Since most construction is done under the EPC model the contractors are obliged to include in their own plans (see Figure 5.1) the criteria emerging from the MDP policies and plans. Each construction contractor is responsible for the correct execution of the environmental and health and safety plans that apply to their specific operations.
- 5.4 The Montes del Plata ESHS-MS includes corporate policies for Health and Safety, Environment and Community Relations, as well as a Corporate Sustainability Policy. This Policy provides the basic guidelines to help Project employees make legal and ethical decisions in relation to the Montes del Plata Project.
- 5.5 **Grievance Procedure.** The Project has a comprehensive Grievance Procedure. The Procedure is open to any person, group, community or local Project employee who considers himself/herself adversely affected by Project activities. The Grievance Procedure covers the pre-construction, construction and operational phases of the Project. The Procedure establishes specific objectives and indicators for participation, effectiveness, resolution and reduction of recurrences. It sets out the responsibilities of Montes del Plata and contractors’ personnel, defines types of complaint and specifies the detailed procedures, including items such as the mechanisms to identify and/or receive complaints, reception of complaints, the complaints centre and registry, centralization of complaints, and the analysis of complaints.
- 5.6 **Local Hiring and Purchasing Plan.** This Plan is designed to establish equitable and transparent hiring processes and purchasing programs for Montes del Plata and its contractors and to address any unrealistic expectations with regard to these benefits in the communities located in the Project’s area of influence.

Training

- 5.7 As part of the management system Mdp has defined training elements for the construction and operational phase of the project.
- 5.8 **Construction Phase,** MDP has worked with FOCAP, a fund for training workers and business owners to help them in the creation of courses required in the country and not readily available to complement those already normal in the FOCAP curricula. This

would complete competencies required (and viable to be acquired without extensive experience and continuous work) for the MDP construction phase as well as to add value to the sector as a whole for other endeavors in the country (the sector is today very active). After several months of work the following courses were consolidated: Sanitary Fitters; Construction Painters; Construction Electricians, and Scaffold Building. These courses will be dictated in collaboration with Senai (a specialized institution in Brazil) with a previous agreement to receive know-how and technical support for these courses.

- 5.9 Additionally FOCAP will continue at national level and in Colonia with other courses to increment the availability of workers for the sector. These courses are considered “entry level” into the sector and directed to common helpers where the target person is one with very little or no experience. For workers with some experience in the sector courses are planned for Bricklayers; Carpenters and Blacksmiths. These courses will be held mainly in UTU (Technical University of Work) and has the financial support of INEFOP.
- 5.10 It is estimated that some 4400 individuals will be trained during the following year. Of these, some 2200 for Masons, Carpenters, Blacksmiths (96 hours of training); some 1000 for entry into the Construction Sector (45 hours of training) and some 800 for Sanitary Fitters, Construction Painters, Electricians and Scaffold Builders (60 hours of training). Part of these courses will be held in Colonia due to the demand that will exist in the next 2 years - the number of those finally being trained in Colonia versus the rest of the country (mainly Montevideo – only 175 kms away from Colonia) depends on capacity of training places and availability and mobility of professors and will be determined in the next months.
- 5.11 **Operation Phase**, training is carried out by the Project directly in very clearly defined schedules (based on the successful experience of the owners – Stora Enso and Arauco). This is done in “cohorts” which are categorized as Mill Engineers; Mill Technicians-MT and Laboratory Technicians. The recruitment process is a key part of the future training since learning ability, flexibility, multi-tasking, teamwork and ethics are key to achieve desired results in training and in future operation. The program is also based on the successful experience of the Fray Bentos Mill run nearly since inception with Uruguayans with no previous experience in the industry.
 - Mill Engineers will be trained for some 6 weeks in pulp production and related issues in a carefully scheduled program either probably in Brazil or in Finland (place still to be defined). Then they go for some additional 6 weeks to a functional mill with an assigned mentor to do practical work in one or two mill areas. The training continues taking responsibility for the recruitment of the Mill Technicians; training them and finally working in the commissioning and start-up under an experienced mentor who will gradually turn over the work to him/her.
 - The Mill Technicians will be actually of two types (after the very successful experience of Fray Bentos). Some MT will be Young Talents-YT from the zone of influence of the Mill (different towns in Colonia) with great potential but little work experience nor having had opportunities for university or technical studies. This is also a very socially responsible program in the zone of influence. After careful recruiting, these YT are put through a rigorous “catch-up” program of basic

mathematics, chemistry, physics, IT, English courses and some soft skills (work ethics, team behavior, etc). These YT after some 3 months join the “normal” MT recruited from the market and then start formal training in all aspects of pulp production by the mill engineers, outside experts; equipment suppliers. They also go through pulp production in simulators and with computer based training as well as other IT training, teamwork and English as needed. Some months before commissioning they go into more specific training to the department where they will start working and then join the commissioning team in that area participating actively.

Project Monitoring

- 5.12 Montes del Plata has established several levels of internal monitoring. In compliance with IDB Policy Directive B.12, the Project Team, as part of the environmental and social, and health and safety and labor due-diligence, is also implementing an IESM of Montes del Plata (Montes del Plata mill, plantation and port facilities) in order to verify compliance with the environmental, social, health and safety and labor requirements and commitments assumed by Montes del Plata in its own ESHS-MS, including compliance with applicable Uruguayan legislation on environmental, social, health and safety, and labor matters. The IESM will assess the effectiveness of the ESHS-MS to ensure proper implementation of the environmental, social, health and safety and labor requirements and the commitments assumed by Montes del Plata.
- 5.13 The loan agreement will include standard provisions for IDB monitoring, which will continue for the duration of the loan, as well as the reporting requirements, which are set out in Section VII.

VI. CONSULTATION AND INFORMATION DISCLOSURE

A. Consultation for the Plant and Port Terminal

- 6.1 Uruguayan law requires consultation workshops in a project’s area of influence at the scoping phase, during preparation and during the review of the ESIA, and at least one public hearing. IDB policies OP-703, OP-710 and OP-102 require disclosure of ESIA information early in project preparation, in a comprehensible format and at accessible locations. They also require the consultation process be carried out in a manner that provides the affected communities with the opportunities to express their views on project benefits, risks, impacts, and mitigation measures, and to ensure that their views are integrated into the decision making process. The disclosure of information must be maintained on an ongoing basis and should include reasonable discussion of the design, development and implementation of the project-related environmental and associated social mitigation measures.
- 6.2 Uruguayan regulations require disclosure of the Environmental Impact Assessment and public hearings for all Category C projects, with the hearings announced in local newspapers. On February 7, 2008 a summary of the EIA was posted on DINAMA’s website. DINAMA has also posted other environmental information on its webpage, including notifications of public hearings, approval of the AAP and summaries of the

Environmental Impact Studies. On April 1st, 2008, a public hearing was held in the town of Conchillas to disclose the document (still under ENCE's sponsorship).

- 6.3 The updated EIA prepared by Montes del Plata was presented at another public hearing held in Conchillas on December 9, 2010 and was attended by members of the IDB Project Team. The event was organized by DINAMA and Montes del Plata acted as facilitator, presenting background on the companies, a description of the industrial process that will be used at the plant, the Project's forestry programs, the potential social and economic impacts of the Project and the proposed mitigation measures. The participants at the meeting identified the following issues as priority concerns: recruitment, compensation processes, community investment, communication with Montes del Plata, and construction concerns related to erosion control, revegetation, river crossings, accidents, spills, and waste management.
- 6.4 The consultation process conducted by Montes del Plata for the plant and port terminal has complied with applicable Uruguayan regulations and IDB policies. It has been a continuous and thorough process that started early in the project cycle and was supported by meetings and by press, radio and printed media. Montes del Plata has also provided transportation so that people from surrounding communities could attend the workshops, given the wide geographic scope of the Project and the dispersion of the rural communities. Review of the ongoing process indicates that, even though a formal grievance procedure has only recently been put into place, local people have had the opportunity to express their views and concerns and have had them answered by representatives of the Project. As a result of this process, some modifications to the original project have been made, as presented in the amendment to the EIA for the Plant, and additional community engagement activities have been developed.
- 6.5 Consultations were carried out with regard to communities' cultural preferences, at their own location, and making maximum use of communication tools such as illustrated pamphlets.
- 6.6 Montes del Plata is committed to continuous community engagement during construction and operations. To this end Montes del Plata has developed a plan that incorporates sustainable operational commitments, such as timetable, resources and responsibilities, as well as the details of the monitoring and reporting system. The plan is continuously revised to incorporate new data and reflect the needs identified.

VII. FRAMEWORK FOR THE ENVIRONMENTAL AND SOCIAL REQUIREMENTS

- 7.1 This section presents a summary of the proposed environmental and social requirements that would be incorporated into the loan agreement for the Montes del Plata Project (Section A) and the IDB plan for supervising the environmental, social and health and safety aspects of the Montes del Plata Project (section B)
- 7.2 The standard mechanism used by the IDB to ensure that all Project environmental, social, and health and safety impacts and risks are adequately prevented, mitigated, compensated, monitored and controlled is to require that the Project develops an

adequate ESHS-MS for the construction and the operational phases of the Project, consistent with ISO 14001 for environmental and with OSHAS 18001 for health and safety, including without limitation policies, procedures, performance indicators, responsibilities, training and periodic audits and inspections. As part of the ESHS-MS, the Project must develop environmental, social, health and safety and contingency and emergency response plans, specific for the construction and the operational phases of the Project. These plans and the ESHS-MS must be in content and format acceptable to IDB. In addition, the IDB, with the assistance of independent consultants, will perform its own supervision of the Project, to assess and monitor Project compliance with the environmental and social requirements established in the loan documents.

- 7.3 The Project has begun developing the ESHS-MS for the construction phase, that it is currently composed of specific environmental social, and health and safety management plans, as described in Section V, and similar systems and plans will be developed for the operational phase. The IDB Project-specific environmental and social requirements proposed for the Montes del Plata project are listed below.

A. Environmental and Social Requirements for Montes del Plata Project

- 7.4 Montes del Plata will provide, in form and content acceptable to IDB:

1. General

The Bank will require as part of the Loan Agreement that the Project and all portions of the Project shall, at all times during the life of the Loan Agreement, comply with each of the following:

1. All applicable environmental, health and safety, social and labor regulatory requirements of Uruguay.
2. All applicable IDB's environmental and social safeguard policies, including OP-703 Environment and Safeguards Compliance Policy, OP-102 Disclosure of Information Policy, Involuntary Resettlement Policy OP-710 and Gender Equality in Development Policy– OP-270
3. All requirements associated with any environmental, health and safety, social and labor related permits, authorizations, or licenses that apply to the Project.
4. All environmental, health and safety, social, and labor requirements of the Project contracts, and any subsequent modifications.
5. All aspects and components of all of the Project's environmental, health and safety, social and labor document, including those management plans still to be developed.
6. Consult with IDB before approving or implementing any and all substantive changes to the Project or its timetable which could potentially have negative environmental, social, labor, or health and safety effects.
7. Send written notice of any and all noncompliance with any environmental, health and safety, social and labor requirement of the loan agreement and any significant environmental, social, labor, health and safety accident, impact, event, claim or material complaint.

8. Ensure that all parties contracted for construction and operation activities of the Project comply with the applicable environmental, labor, social and health and safety requirements of the loan agreement.

2. ESHS-MS for the construction phase

7.5 Provide updated Montes del Plata ESHS-MS plans, particularly:

- The Integrated Monitoring Plan (pulp mill, port, dredging, extension of route 55, transmission lines and the quarry) including the parameters to be monitored, the frequency and points for sampling, the methodology to be applied, the standards adopted by the project and the indicators that will measure the compliance.
- Corporate (i.e. Internal) Grievance Procedure for workers under direct and indirect contracts with the Montes del Plata Project, as well as the External Grievance Mechanism, in compliance with the Uruguayan legislation, IDB Policies, ILO Declaration of Fundamental Principles and Rights at Work, and IFC Performance Standard 2.
- The updated Plan for Monitoring of Social Indicators including the performance of Montes del Plata social management and social mitigation initiatives, activities, and programs.
- Prior to commencement of the port construction works in the water, the updated Port Waste Management Plan so that it includes among other elements: i) quantities and types of expected wastes; ii) layouts for the location of temporary storage of waste; iii) measures for the temporary storage of waste; and iv) contents and periodicity of the waste register
- Prior to commencement of port dredging works, an Updated Dredging Environmental Management Plan, including a risk assessment and a control system with provisions to ensure early detection of the occurrence of potential impacts and appropriate mitigation measures.
- A monitoring plan to address potential changes in the coastline due to the construction of port infrastructure in the water.

3. ESHS-MS for the operations phase (Plant, Port Facility and Plantations)

7.6 No later than 60 days prior to start of operations, Montes del Plata must provide, in form and content acceptable to IDB, for all the components of the Montes del Plata Project (Plant, Port Facility and Plantations)

- The specific and individual Contingency Plans⁵⁰ for the operational phase, including: (i) a description of the potential Project risks, hazards and emergencies during the operational phase (including disaster risk); (ii) the measures, procedures, community disclosure and warning requirements, equipment, training, responsibilities, schedules and resources (including monetary and manpower resources) required to adequately prevent, control, respond to, and remedy such potential Project risks, hazards and emergencies; (iii) protocols to carry out periodic safety evaluations in accordance with

⁵⁰

Montes del Plata Contingency Plans include emergency response procedures.

generally accepted industry norms under similar circumstances; (iv) the estimated cost and implementation time schedule; and (iv) a description of the reporting procedures to be implemented upon the occurrence of any such event.

- A monitoring plan to address: a) potential changes in the coastline due to the existence of the port infrastructure, and b) potential changes in nektonic and benthic communities; c) greenhouse gas monitoring and reporting.
- The individual and specifically applicable ESHS-MS for the operational phase, consistent with ISO 14001 for environmental and with OSHAS 18001 for health and safety, including policies, documentation management, procedures, performance indicators, responsibilities, human and operational resources, training, and provisions for audits and inspections

- 7.7 Prior to the date of Financial Closure, the Project must develop and present in form and substance satisfactory to the Bank an Environmental and Social Action Plan (ESAP) which clearly establishes environmental and social actions still to be carried out, expected outcomes, due dates and organizational arrangements (including responsibility and anticipated costs).
- 7.8 Prior to each disbursement, the Project shall certify compliance with all environmental social, and health and safety requirements in the loan agreement, including the Project's environmental and social requirements and the ESAP.
- 7.9 Prior to start up of Operations Phase, an external, independent environmental, health and safety and social and labor compliance audit shall be carried out to confirm compliance with the agreed standards and indicators and the implementation of the mitigation measures of the impacts/risks of the construction phase of the project.

B. IDB plan for supervising the environmental, social and health and safety aspects of the Montes del Plata Project

- 7.10 The IDB plan for supervising the environmental, social and health and safety requirements of the Montes del Plata Project (all components) includes:⁵²
- a. Use of external independent environmental, social and health and safety consultants to assist in supervising the environmental, social, and health and safety aspects of all components of the Montes del Plata Project, throughout the life of the Loan. The independent consultants will perform supervision, including report and data reviews and/or field inspections at a maximum on a quarterly basis through the commissioning phase. Subsequently, the independent consultant will perform semi-annual site visits for the following two years, and annual site visits thereafter for the life of the IDB loan agreement. The consultant will be managed by the IDB, and will report solely to the IDB, using funds provided by Montes del Plata.

⁵²

The IDB supervision is in addition to the existing supervision activities by the Montes del Plata Project Company and the government supervision by DINAMA.

- b. The IDB will also perform direct supervision actions (e.g., site visits, review of documentation, etc.) and will take the necessary measures to ensure adequate resources are available for this activity.
- c. The IDB will have the right, subject to the Terms to be mutually agreed as part of the legal agreement, to have an independent environmental, health, and safety audit performed as warranted.
- d. The IDB will coordinate with other lenders of the Montes del Plata Project with respect to supervision of the Montes del Plata Project.

ANNEXES

Figure-2.1 Project Location



Figure -2.2 Project Schedule

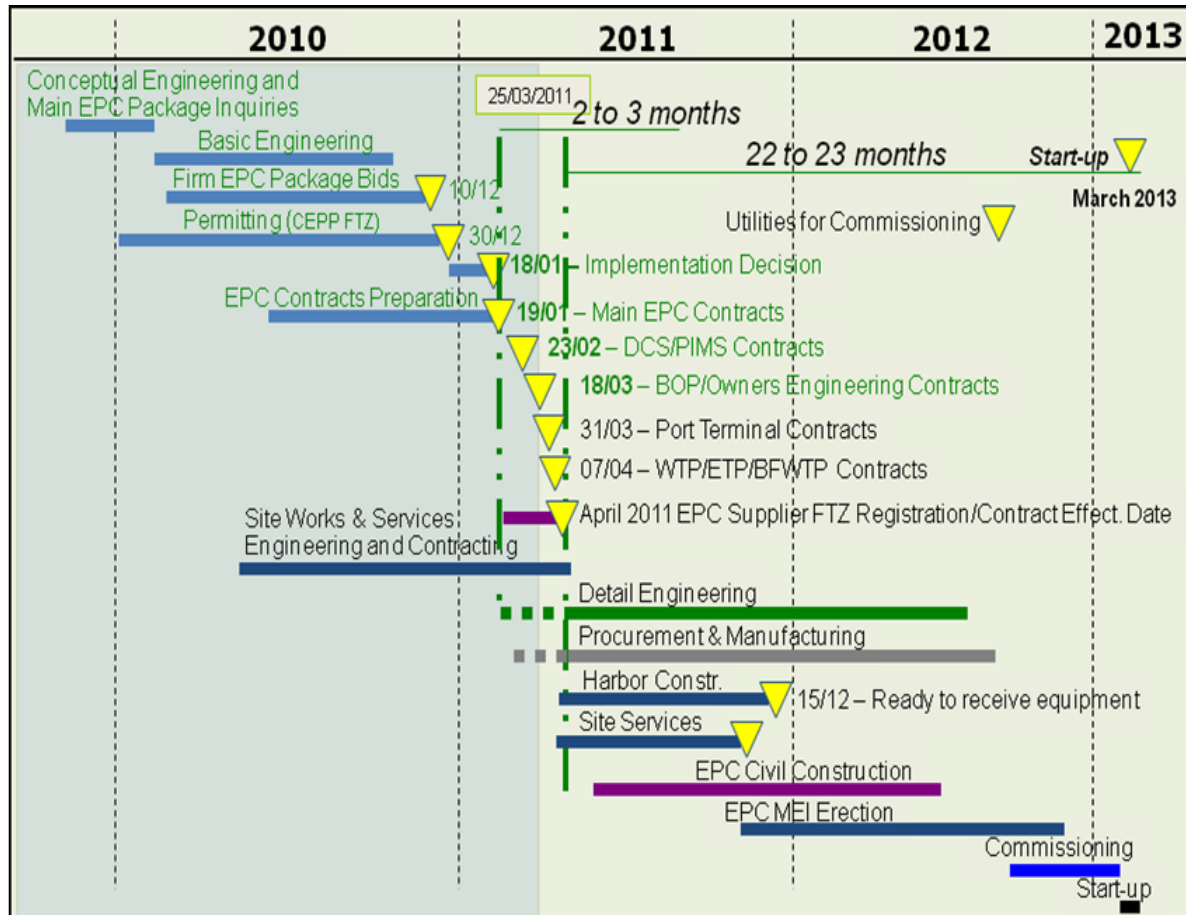


Table 3-1. Project permits and their status as of April, 2011

Permit Type/Reference	Issuing Body	Date of Issuance of Permit or Status
Autorización Ambiental Previa (AAP) – Initial Environmental Authorization, R.M. 546/2008	MVOTMA	Issued (June 2008) for original project design
Autorización Ambiental Previa (AAP) – Initial Environmental Authorization, R.M. 1295/010	MVOTMA	Issued (December 2010) for revised project
Authorization to prepare for site preparation, R.M. 37/2008 (granted to FTZ)	MVOTMA	Issued (2008), followed by the corresponding AAO (below)
Autorización Ambiental de Operación (AAO) – Environmental Authorization of Operation	DINAMA	This document will be issued after construction is completed and a compliance monitoring plan has been submitted and approved.
Forestry Projects Approval	Dirección General Forestal	Issued each time an application for a parcel or property is submitted for approval as a forestry project. Includes afforestation, reforestation, intermediate interventions and harvesting procedures.
Afforestation Approval	RENARE	Issued each time an application for a parcel or property is submitted for approval as a forestry project.
Sustainable Forest Management Certification	Forest Stewardship Council FSC	Internationally recognized environmental body for sustainable forestry operations.

Figure 3.2
Status Projects Permits as of June 20, 2011

Permit	Submission Date	Status	Granted by
Punta Prieta Free Trade Zone			
Environmental Authorization for FTZ Construction	1/31/2008	Done	✓ M/OTMA
Free Trade Zone Authorization	1/31/2008	Done	✓ SP / MEF
Approval of National Heritage Conclusion	4/24/2008	Done	✓ MGC
Declaration of Interest on FTZ	6/24/2008	Done	✓ SP / MEF
Authorization for Water Intake for Construction phase	7/16/2008	Done	✓ DINAGUA
Annual Declaration of Water Consumption	6/9/2011	Done	✓ DINAGUA
Feasibility of Location Authorization	8/17/2007	Done	✓ IMC / MYOTMA
Authorizations to Operation of FTZ (Environmental)	9/21/2010	Done	✓ DINAMA
Firefighter Authorizations for Operation	9/24/2010	Done	✓ DNB
Authorization for Harvest native Forest	12/28/2007	Done	✓ DGF / MAGAP
150KV Line Electricity Supply	Done	Done	✓ UTE
Effluent Discharge Authorization for Construction phase (SADH)	5/31/2011	Waiting for approval	○ DINAMA
Municipality Construction Permit	-	-	-
Temporary Buildings	Done	Done	✓
Construction Permit for Access Control Buildings	4/12/2011	Ongoing	○ IMC
Construction Permit for the Industrial Buildings	4/29/2011	Done	✓ IMC
New Gate ADP	6/24/2011	Ongoing	○ A2S/DNA
Construction Starting			
Industrial Buildings	6/17/2011	Ongoing	○ A2S
Non Process Buildings	6/21/2011	Ongoing	○ A2S
Temporary Buildings		done	✓ A2S
Punta Prieta Polp Mill and Port			
Consensus for Construction of Punta Prieta Port	8/28/2008	Done	✓ MTOP
Feasibility of Location Authorization	8/17/2007	Done	✓ IMC / MYOTMA
Environmental Authorization for Mill and Port Construction	12/30/2010	Done	✓ M/OTMA
Environmental Management Plans for Dredging	5/13/2011	critical	○ DINAMA
Environmental Management Plans for Construction	-	-	-
Environmental Management Plans for the Polp Mill Construction	5/25/2011	done	✓ DINAMA
Environmental Management Plans for the Port Construction	6/15/2011	Waiting for approval	○ DINAMA
ISPP Executive project approval	5/9/2011	Waiting for approval	○ DNA/MTOP
Complementary Information Submission	6/24/2011	critical	○
Communication with naval prefecture	7/14/2011	Not yet started	○ PNN
Landfill for operation phase	9/14/2010	Waiting for approval	○ DINAMA
Consensus for effluent discharge pipeline and effluar	6/30/2011	Ongoing	○ DNH
Energy Generation Authorization	9/30/2011	Not yet started	○ URGIA
Radioactive equipment authorization	6/12/2012	Not yet started	○ DNSTN
External loan approval DINAMA	6/14/2011	deadline overran	○ DINAMA / DINAMIGE
AAP Chemical Plant	4/1/2011	Waiting for approval	○ DINAMA
Clean Development Mechanism (CDM)	7/15/2011	Ongoing	○ DINAMA / ONU
Water Intake for the Mill		Not yet started	○ DINAGUA
Access Road - Extension Route 55			
Environmental Management Plan for construction	2/7/2011	Waiting for approval	○ DINAMA
Executive project approval	5/12/2011	Waiting for approval	○ DNH / MTOP
Signature of Agreement	6/17/2011	Done	✓ MTOP / MUP
Right of way	6/30/2011	Waiting for approval	○ IC
Expropriation	6/30/2011	Waiting for approval	○ MTOP/IC
150KV Line Electricity Supply			
Environmental Authorization for construction	-	-	-
Signature of the Contract	5/15/2011	Waiting for approval	○ UTE/MAP
Engineering Project Hiring		Not yet started	○ MSP
Environmental Impact Assessment	8/15/2011	Ongoing	○ UTE/DINAMA
Quarry			
Mineral rights	3/22/2011	Done	✓ DINAMIGA
Environmental Authorization for use	4/8/2011	Done	✓ DINAMA
Transfer of mineral rights to SUPONES SA	6/21/2011	Ongoing	○ DINAMIGE
Labor camps			
PSA for PP labor camp	6/16/2011	done	✓ DINAMA
PSA for Colombia and Camelia labor camps	5/15/2011	critical	○ DINAMA
Construction Permit for Camelia's Labor Camp	6/20/2011	done	✓ IC
Water Intake	5/20/2011	Waiting for approval	○ OSI
Effluent discharge authorization ; SADH/ sanitary effluent treatment	5/20/2011	Waiting for approval	○ OSI / DINAMA / IC
Firefighters permit for labor camps (operation)		Not yet started	○ DNB
Bronze/legale - MSP (operation)		Not yet started	○ MSP
Change in land use	5/20/2011	Waiting for approval	○ IC
Housing			
Colonia Houses Construction	5/27/2011	Waiting for approval	○ IC
Camelia Houses Construction		Not yet started	○ IC

Status	
not yet started	○
Pending	●
ongoing	○
critical	●
stand by	○
update in process	○
deadline overran	●
OK (update approval)	✓
Waiting for approval	○
OK	✓
Done	✓

Table 3-3 Project Compliance Status with IDB Policies

IDB Policies	Comments
Social Issues and Risks	
Operational Policy on Environment and Safeguards Compliance (OP- 703) March 2006	
Precautionary approach to social risks	Social risks have been identified and measures taken to avoid them where possible, such as a bypass road to avoid social impacts of heavy truck traffic through small communities and historic sites and the transport of 50% of logs on river barges to reduce heavy truck traffic in the project's area of influence
Compliance with laws and regulation of the country	Project ESIA and independent SIA reviewed and granted Preliminary Environmental Authorization by DINAMA (Ministerial Resolution 1295/010). Authorization for site preparation (construction) pending review and clearance of Montes del Plata documents required by the preliminary authorization: (i) Study of Social, Cultural, and Economic Characteristics of the Area of Influence and Analysis of Potential Social Impacts, (ii) Community Relations Plan, (iii) Plan for Demobilizing and Dispersing Workers at Close of Construction, (iv) Plan for Management of Social Impacts of Temporary Worker Housing, (v) and Environmental Management Plan for the Construction Phase.
Advisory Panel of Experts	The Project has not established an advisory panel of experts to provide guidance for the design and operation of the Project on issues relevant to the ESIA. The scale and complexity of social impacts does not warrant an advisory panel.
ESIA conforms to Bank requirements for screening and scoping, consultation and information dissemination, etc.	The Social Impact Assessment by PricewaterhouseCoopers (Chile), the Economic Impact Assessment by Deloitte (Uruguay), and the Environmental Impact Assessment by EcoMetrix (Canada) were combined into a single Environmental and Social Impact Assessment (ESIA) by EcoMetrix (December, 2010). The ESIA complies with IDB requirements for screening and scoping of impacts, timely and adequate consultation with stakeholders, consideration of alternatives, establishment of baseline conditions, risk assessment, and identification/design of avoidance, minimization, and mitigation measures.
Both direct and indirect and risks impacts are identified and suitable measures to avoid, minimize, or compensate and/or mitigate are designed.	The SIA identified almost all direct and indirect social risks and proposed suitable measures to minimize, mitigate, or compensate them. The one exception was the indirect economic displacement of cattle ranch employees resident on land purchase by the Project for plantations, but this was corrected by Montes del Plata Social Sustainability staff and adequate arrangements were put in place to provide continuing, sustainable employment for these affected workers.
Consultations on social issues and risks with stakeholders and affected populations	A key element of the Social Impact Assessment process was the public consultation. From 2008 to 2010 the assessment team conducted a survey of 1,260 persons living in the area of project influence to identify social issues, conducted structured interviews with representatives of 22 organizations including trade unions, non-governmental environmental organizations and local authorities, and conducted focus group discussions. Formal public audiences on the ESIA were held in Montevideo (Nov. 4, 2010), Conchillas (December 4, 2010) and Colonia del Sacramento (January 18, 2011) at which the attendance was 42, 55,

Table 3-3 Project Compliance Status with IDB Policies

IDB Policies	Comments
	and 100 persons respectively.
Safeguard indicators, as appropriate, clearly defined in the logical/results framework, followed up in project monitoring reports and reviewed in mid-term reviews and project completion reports	<p>Montes del Plata recognizes that the development of its forestry and pulp mill enterprise depend on good working relationships with various interest groups. The Project has developed a Stakeholder Engagement Strategy that identified 22 stakeholders and consulted them, incorporating their views, opinions, and expectations into the management plans for the project.</p> <p>Montes del Plata has established a monitoring system that will track key demographic indicators to identify any changes in local communities compared to the social baseline conditions. It has also established Project offices in Conchillas and Colonia del Sacramento to which the affected populations have ready access and has accepted responsibility for responding to stakeholder issues as they arise in project implementation through a formal Grievance Management System.</p> <p>The Bank also requires that the monitoring system track performance of the social mitigation and management measures being implemented by Montes del Plata and that these are reported systematically to Project management for action, if needed, and to the Bank in periodic reviews and reports.</p>
The environmental assessment process identified and addressed, early in the project cycle, Transboundary issues associated with the Project.	Unlike the UPM (ex-Botnia) pulp mill, the Montes del Plata project is not expected to raise social issues that have trans-boundary implications.
Project operations do not significantly convert or degrade critical cultural heritage sites	Cultural sites encountered at Punta Pereira and M'Bopicua will not be affected by Montes del Plata activity and are being preserved as cultural heritage sites. The historic town of Conchillas will be protected by construction of a new access road (extension of Highway 55) designed to bypass the town and therefore protect it from heavy truck traffic during construction and operations phases.
The SIA process identifies and assesses the impacts on critical cultural sites and proposes measures to protect their integrity and function.	SIA identified cultural sites at Punta Pereira, consisting of structures built by an English mining and quarrying company in the 19 th century, which were studied by cultural historians and are being preserved in situ and will not be moved or affected by Montes del Plata activities. The 19 th century structures at M'Bopicua include an estate house and gardens that originally belonged to the English mining company. They have been preserved and made into a Wildlife Preserve operated by an internationally recognized wildlife management expert employed by Montes del Plata.
A Chance Find Procedure based on internationally accepted practices prepared and	The chance find procedures employed by the Project entail archeological and/or cultural heritage professionals who will be contracted to conduct field research of construction sites prior to any disturbance and to conduct field surveys, excavation,

Table 3-3 Project Compliance Status with IDB Policies

IDB Policies	Comments
implemented by the Borrower	salvage and preservation of finds as warranted when the finds occur.
Operational Policy on Involuntary Resettlement (OP-710) July 1998	
Every effort will be made to avoid or minimize the need for involuntary resettlement	<p>Land acquisition for the industrial plant at Punta Pereira and for forestry plantations was through purchase from willing sellers with no threat of expropriation. No competing claims to the sites were discovered.</p> <p>A 60 meter strip 12.4 kilometers long must be expropriated from 18 land owners for the right-of-way for the extension of national highway Route 55. The expropriation and construction of the road is the responsibility of the Ministry of Transport and Public Works, which will carry out all legal requirements related to acquisition of the right of way, but the work will be supported with full engagement by, and will be paid for, by Montes del Plata under the supervision of the MTOP. Most of the land holdings are large ranches or plantations whose owners will not be significantly affected by the loss of a small strip of land and who will receive fair and just monetary compensation. Three families will loose houses or economic production units and must be compensated and resettled and/or socioeconomically re-established, the plans for which are being developed and consulted with the affected families. Such plans will conform to IDB policies and if and/or where statutory provisions of the Government of Uruguay fall short of providing sufficient resources, the Project will provide the resources needed to reflect a fair and adequate compensation and rehabilitation according to Uruguayan law and OP-710.</p> <p>An easement for a 43 km electricity transmission line permitting the Project to sell excess biomass-generated electricity to the national grid must be established by the government. The affected properties are large expanses of land devoted to beef, dairy, and grain production, which will not be significantly affected by the construction of the towers or restrictions on use in the right of way of the transmission line. The owners will be compensated for any damages caused due to the imposition of the easement as required by Uruguayan law.</p>
A thorough analysis of project alternatives must be carried out in order to identify solutions that are economically and technically feasible while eliminating or minimizing the need for involuntary resettlement. In examining the trade-offs between alternatives, it is important to have a	Less than 12 people will be affected by the extension of Route 55. Three families will be significantly affected and will have to be relocated. The right of way that will be established overlays an existing unpaved rural road and entails acquisition of a 60 meter strip. An elaborate analysis of alternatives is unwarranted, since the road will ensure that heavy truck traffic will avoid the town of Conchillas. The planning documents for this operation involving three families are satisfactory and comply with IDB policies.

Table 3-3 Project Compliance Status with IDB Policies

IDB Policies	Comments
reasonable estimate of the numbers of people likely to be affected, and an estimate of the costs of resettlement	
Particular attention must be given to socio-cultural considerations, such as the cultural or religious significance of the land, the vulnerability of the affected population, or the availability of in-kind replacement for assets, especially when they have important intangible implications	<p>Purchase of parcels for forestry plantations displaced foremen and workers who resided on those lands and worked for the previous owner. Montes del Plata's Social Sustainability Unit initiated a program to mitigate this negative economic impact in a way that is compatible with the culture, life style, and skills of the affected workers. They were provided one of three options: (a) continued employment with the owner on the land remaining, (b) move to other parcels belonging to the same owners and continued employment, or (c) continue residing on the land or move to a property owned by Montes del Plata where they would be given employment with Montes del Plata or one of its contractors.</p>
<p>When displacement is unavoidable, a resettlement plan must be prepared to ensure that the affected people receive fair and adequate compensation and rehabilitation as described in Paragraph 2 of the Principles section</p> <p>And</p> <p>When the number of people to be resettled is very small (a determination that depends on the particular frame of reference and the level of disruption to the</p>	<p>A 60 meter strip of land about 12.4 kilometers long must be expropriated from 18 property owners for the right-of-way for the extension of national highway Route 55 to avoid negative social impacts of heavy truck traffic to and from the Montes del Plata industrial plant passing through small communities of Conchillas, Puerto Ingles, Pueblo Gil. Radial Hernandez, and Los Cerros de San Juan.</p> <p>A elaborate resettlement planning exercise is not needed because the number of people to be resettled is very small (three families) so the compensation and resettlement arrangements will be made through mutually agreed contractual arrangements negotiated by officials directly with affected families in compliance with the Bank's policy on involuntary resettlement. Montes del Plata and the IDB will accompany this process during implementation to ensure compliance with the policy.</p>

Table 3-3 Project Compliance Status with IDB Policies

IDB Policies	Comments
community)...a resettlement plan...may not need to be prepared. In such cases, it may be possible to address relocation prior to project advancement through mutually agreed contractual covenants	
Once a conclusion has been reached that: (a) a project alternative that includes a resettlement component is the most desirable means to achieve project objectives; and (b) a full resettlement plan is required,	Compensation planned for the 18 property owners affected by the expropriation of the right-of-way for the extension of Route 55 is fair and just. The three families who must be resettled will be given the choice of either (a) being compensated at replacement value sufficient to purchase replacement property of their own choice elsewhere to which they will be assisted to move by Montes del Plata or (b) being provided a replacement property by Montes del Plata acceptable to them to which they will be assisted to move by the Project. The full costs will be paid by Montes del Plata.
Operational Policy on Indigenous Peoples (OP-765) February 2006	
Not applicable.	There are no indigenous peoples in or near the area of project influence.
Operational Policy on Gender Equality in Development (OP-270) November 2010	
Activities are designed to generate employment for women, improve the productivity of women and amplify access to productive employment or other salaried work.	It is expected that an important percentage of the workforce in forestry plantations will be women from neighboring communities and a large percentage in the nursery seedling production
Special consideration is given to capacity building programs that enhance and facilitate participation of women, increase women's skills and	Montes del Plata facilitated an agreement with National Institute of Employment and Professional Formation (INEFOP) to provide capacity building program for the construction phase for which women as well as men from local communities will be encouraged to participate. For the operational phase the Project will institute a recruitment and training program targeting youth from local communities designed and operated by its own engineers, assisted as needed by specialized consultants, which will replicate a successful similar program at UPM in Fray Bentos.

Table 3-3 Project Compliance Status with IDB Policies

IDB Policies	Comments
develop their productive potential.	
Special attention given to mechanisms that facilitate women's access to credit and to improving administrative and entrepreneurial skills of women.	INEFOP as the responsible Uruguayan institution for that effect has stated that it will have new program to be initiated in 2012 that provides training to women plus either (a) credit guarantee to start small business or (b) a subsidized internship with existing firms that may be reluctant to hire women. Montes del Plata has requested that this program be piloted in the area of project influence.
Track data disaggregated by gender and qualitative information on the role of women in the project, especially concerning women's actual or potential participation in productive activities, in decision making, in social activities, and mechanisms that intensify women's contributions.	Montes del Plata monitoring system for social migration and management measures being executed will collect gender disaggregated data on employment by the project and its contractors and the roles of women in unskilled as well as in skilled supervisory, technical, and administrative posts.
Environmental Issues and Risks	
Assessment of compliance with any applicable Bank environmental and social policy and guidelines, in particular the directives [below].	<p>FORESTRY: Forestry operations at Montes del Plata comply with IDB policies. Montes del Plata Eucalyptus plantations will be fully FSC (Forest Stewardship Council) certified – last certification obtained in 2009 and a re-certification planned for expansion for August/September 2011 to complete the task. The Project has defined itself as a leading worldwide low cost pulp fiber producer, and this implies that their operations are fairly simple and straightforward, planting, tending, and harvesting. These consistent objectives in forestry production lead to the use of cutting edge technology in their planting and harvesting operations, with very low impact in the soil and the environment.</p> <p>Harvesting operations are being redesigned and a fleet of new cutting machines will be introduced with low environmental impacts, in agreement with the Project contractors.</p>

Table 3-3 Project Compliance Status with IDB Policies

IDB Policies	Comments
B.4 (other risks including Associated Facilities)	The process for permitting and construction of the associated facilities necessary for the project will be accompanied by the Montes del plata tema, in order to ensure that the IDB policies are taken into account
B.8 (Transboundary Impacts)	<p>DREDGING AND PORT. Transboundary impacts have been properly addressed. Special attention was paid during the alternative selection and the impact assessment.</p> <p>The Project is in compliance with the provisions of the CARP bilateral treaty for the La Plata river. A note ratifying the completion of the CARP Consultation Process (and thus, in accordance to the CARP statute, the no objection from Argentina) was sent by Uruguayan Foreign Minister to the Project. IDB's legal due diligence has also confirmed that CARP due process has been followed.</p>
B.10 (Hazardous Materials)	<p>FORESTRY. In forestry hazardous Materials, such as herbicides, fuel, lubricants and fertilizers in the field and in the workshop are carefully managed, contained and disposed in accordance with the regulations established in the FSC Certification procedures.</p> <p>DREDGING AND PORT. The project is updating their dredging management plan in order to address the potential for sediments with high levels of metals (specifically arsenic, cadmium and mercury).</p>
B.11 (Pollution Prevention and Abatement)	<p>AIR. The pulp mill will employ BAT to control gas and odor emissions.</p> <p>DREDGING AND PORT. Pollution prevention practices will be implemented.</p>
B.5 (Environmental Assessment Requirements)	The EcoMetrix ESIA (2010) and Deloitte Economic Impact Study (2010) generally adhere to the IDB's requirements for environmental assessment, including screening and scoping for impacts, consultation, economic assessment, legal requirements, cumulative impacts, impact mitigation and management, incorporation of EA findings into project design, and follow-up monitoring.

Table 3-3 Project Compliance Status with IDB Policies

IDB Policies	Comments
B.6 (Consultations)	Montes del Plata has undertaken extensive consultations with stakeholders, and has been gathering public responses to the Project since 2007. The consultation activities are compliant with IDB standards.
B. 9 (Natural Habitats and Cultural Sites) of the Environmental and Safeguard Compliance Policy	<p>NATURAL HABITATS</p> <p>Forestry. Exotic species of Eucalyptus are the core of the forestry component of the Project, with all the impacts usually associated with these species. However, the Eucalyptus plantations will be managed so as to maintain and conserve regional biological corridors. Unwanted invasive species will be monitored and removed. As such, no significant impact has been identified, and the Project complies with FSC principles (certification) and IDB guidelines.</p> <p>CULTURAL SITES</p> <p>General. The cultural heritage, especially the colonial architecture of Conchillas, will not be affected, as a new access road will be constructed to divert heavy traffic away from the town. The ESIA makes no mention of potential archaeological sites in the project area, though this appears to be covered in ESIA (Enviro-EBA, 2007), briefly in the EIA update from CSI Ingenieros (2010), and in the documents relating to the quarry. An extensive Archeological and Cultural study of the Project Area was done in agreement with the Faculty of Humanities of the Universidad de la República with a duration of 11 months during 2007.</p> <p>Dredging and Port. Technically sound mitigation measures have been implemented to preserve cultural artifacts found on-site.</p>
Access to Information Policy (following OP-102)	Montes del Plata has conducted Public Hearings and a Confirmation process and these events have been extensively covered in the press. These hearings were compliant with IDB standards.
Disaster Risk Management Policy (OP-704)	OH&S. While the Montes del Plata Management Policy does not use the IDB wording, the Montes del Plata has the commitment to be consistent with the requirements of OHSAS 18001 in addresssing disaster risk management as a policy issue.

Fig. 4.1 Location of Montes del Plata forest plantations in Uruguay.



Figure 5.1 Project Management System

