## IDBInvest

## 1. Environmental classification

This is a category III project according to the IIC's environmental and labor review procedure because specific impacts may result that can be avoided or mitigated by adhering to generally recognized performance standards, guidelines, and design criteria. During project evaluation, the following potential environmental and labor issues were analyzed: liquid effluents, air emissions, solid and dangerous waste management, occupational safety and hygiene, and other labor and social issues.

## 2. Principal environmental impacts

**Environmental management:** Management of environmental issues is improving at Dori. The company's Quality Unit is currently developing an Environmental Management System intended to govern Dori's environmental policy in all its industrial plants, while providing the company with clear environmental guidelines and specific procedures, consistent with the applicable law and regulations issued by the appropriate environmental authorities.

Dori's premises in Marilia are under the jurisdiction of Companhia de Tecnologia de Saneamento Ambiental (CETESB), which is part of São Paulo's Environment Department, whereas the plant in Rolândia is under the jurisdiction of Instituto Ambiental de Paraná (IAP). Both agencies are affiliated with Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (IBAMA), Brazil's highest-ranking environmental authority.

## Liquid effluents:

Main plant in Marilia: Most of the industrial discharge from Dori's main plant consists of water used to wash the equipment, which is discharged into the municipal sewage system without any prior treatment. Dori is in possession of a Certificate from Marilia's water and sewer authority permitting this practice and has applied for a license from CETESB in order to be able to continue doing so. At IIC's request, Dori will develop its own water treatment system. Some steps have already been taken in this direction, as Dori has engaged a consulting firm that is currently carrying out a feasibility study on the matter.

Dori's subsidiary company in Rolândia: The company has developed a project called "Final disposal of Dori's liquid effluents onto the ground," for the production plant in Rolândia. This is a fertirrigation project involving physicochemical treatment of the liquid effluent, followed by disposal on a plot of farmland located about 1.5 kilometers away from the production plant, where it is used for irrigation purposes. The plot, called "Ouro Verde," consists of 15 hectares of land purchased expressly for this purpose. At present about six thousand trees of at least 12 different varieties are planted there. The project has already been approved by Parana's Environment Agency, where a detailed project study was submitted. This study covered matters such as the nature of Dori's wastewater, an analysis of the biodegradability of the waste, a soil study, and a hydrogeologic study in order to locate the monitoring wells that will provide monthly samples to ensure proper functioning of the system. In addition to the clear and direct positive impact of this project upon the control of the surface and underground water pollution in the area, it has also proved useful for environmental education purposes: students from Londrina State University carry out their field training at the site. The system came into operation in December 2003, and the first lab analyses indicate that wastewater purification is adequate. Nevertheless, the IIC will monitor the system closely in order to ensure its effectiveness.

*Solid waste:* Solid waste from both plants, in terms of volume, consists mainly of (1) plant rejects, (2) faulty and waste packaging materials, (3) waste industrial towels, and (4)

ordinary domestic waste. Final product not meeting quality standards is recycled whenever possible. Otherwise, it undergoes pretreatment with activated carbon and is subsequently disposed of in containers. These are picked up by a company specializing in solid industrial organic waste composting. Faulty packaging, mainly consisting of small bags and candy wrappers, is collected and taken to a company specializing in environmental solutions, where all collected plastic is recycled. Waste industrial towels are collected in containers placed at strategic points within the production units. These are later picked up by a company specializing in recyclable industrial towels. This company, which holds ISO 9002 and ISO 14001 certification, treats (washes) the towels as appropriate and provides Dori with clean towels, ready for use. Finally, solid domestic waste is picked up by the municipality for disposal as appropriate.

*Air emissions:* Steam needed for the production process is provided by several boilers installed in Dori's industrial plants. These operate with xisto, a type of fuel oil used in Brazil. At this point the company does not have any information regarding the emissions caused by burning this fuel. Nevertheless, at IIC's request, Dori will start monitoring these emissions and ensuring they comply with the appropriate standards. The outcome will be reported to the IIC.

*Quality control:* Dori has strict quality control standards for its products. Thus, the company has implemented a program involving good manufacturing practices in all its production units: the Dori food safety system. In addition, the HACCP (Hazard Analysis of Critical Control Points) system for food quality control, which is mandatory for exports to the United States and the European Union, is being implemented in Dori's production lines and now is 80% in place.

Handling of Hazardous Materials: The only dangerous substances used by the company are the waste chemical reagents from the labs in Rolândia. These are collected in containers and taken to a third company for proper disposal. Reagents used in the Cerealista subsidiary are currently collected in containers and burned on a company lot, opposite the industrial premises. At IIC's request, Dori will implement a disposal system similar to the one used in its other production units.

*Drinking water:* Water for product processing and human consumption at Dori's two main plants (the main plant and the subsidiary Rolândia) is obtained from wells on the premises and is disinfected prior to its use. The company is in possession of all necessary permits to this effect. In addition, it constantly performs physicochemical and bacteriologic analyses in order to ensure the quality of the water. Results from these analyses were provided during evaluation. They proved to exceed local quality standards for drinking water.

*Pro-Amendoim Project (peanuts):* The company, along with nine (9) other companies in the food industry sector, all members of a Brazilian association of companies involved with chocolate, cocoa, peanuts, candy, and derivative products, started a project called Pro-Amendoim aimed at monitoring the presence of aflotoxin (a carcinogenic substance derived from fungus found in humid environments) in the peanuts used for the food industry. The project is currently researching different, new peanut varieties that are resistant to this fungus, as well as providing small industrial and individual producers with information on how to preserve the quality of the peanuts.

Occupational safety and hygiene: A unit specializing in work safety and hygiene deals with

all such matters, and risk prevention and occupational health programs are in place. The latter involves providing all employees with annual medical examinations. The results determine whether they are fit to continue performing their assigned tasks. Employees are trained in firefighting by the fire brigade, and a monthly accident log is kept.

*Community development:* Dori is a member of COPATI, a consortium of companies in the state of Paraná working to preserve the Tigabi river. This consortium organizes educational campaigns for the local communities in order to preserve the river and prevent it from becoming polluted.

Labor and social issues: Dori's labor policy excludes forced labor. Workers can join associations freely. There are two trade unions active within the company: one in the main plant, and another one in the subsidiary at Rolândia. Both are affiliated with the national trade unions for the food industry. The minimum age for working in any area of the company is 18. The benefits offered by the company to its workers include scholarships, subsidized meals on the premises, a monthly basic food basket, agreements with supermarkets, pharmacies and other businesses offering discounts to workers, legal advice, school supplies for the workers' children, personalized support in the form of home visits in the event of an accident or any other situation requiring assistance, medical and dental care, physical therapy, transportation to and from the plant with fixed stops and itinerary, and life and personal accident insurance.

Oversight and compliance: The company will implement an Environmental Management Plan acceptable to the IIC. This plan must include at least (1) a description of planned improvements for environmental protection, including regularization of licenses and environmental permits, and the effluent treatment plant to comply with IIC standards; (2) a schedule for implementing all of the environmental measures mentioned herein; and (3) the components that are subject to yearly oversight. Throughout the project, the IIC will ensure compliance with its own environmental and labor policies, review the monitoring reports that the company submits regularly, and make field visits as part of the project supervision process.