

ENVIRONMENTAL AND SOCIAL ACTION PLAN (ESAP)

Vale do Parana - 25008

July 2006

#	Action	Responsible	Deadline
1.	<u>Develop and Implement an Integrated Management System for Social and Environmental Affairs, Quality, and Occupational Health and Safety Management.</u> This integrated management system will incorporate the following elements: (i) environmental and social assessment; (ii) management program; (iii) organizational capacity; (iv) training; (v) community engagement; (vi) internal auditing and monitoring; and (vii) reporting. The systematic management program will be based upon internationally recognized management systems such as ISO 9001 and 14001, and OHSAS 18001. Design the system to ensure compliance with São Paulo state and Brazilian federal regulations and IFC policies and guidelines requirements. The system must also include a detailed monitoring program and emergency response program. Specific aspects of the management system will include: a) develop an environmental and social mission statement, signed by senior management; b) assign environmental and OHS managers to lead in developing and implementing the system; c) develop environmental and social requirements to be applied during construction, and ensure that these are incorporated into construction contracts; d) develop a grievance mechanism to ensure that the company can address community concerns related to the Project; e) develop a community engagement plan; f) develop and implement an integrated environmental and OHS management system, to a standard agreed with IFC, and achieve ISO 14001 and ISO 18001 certifications.	Vale do Parana senior management	By commitment By commitment Prior to first disbursement Prior to first disbursement Prior to first disbursement Condition of Project Completion
2.	<u>Develop an Integrated Pest Management (IPM) System.</u> This system will be based on international best practices and in accordance to IFC's policies and guidelines. The IPM system will promote the use of non-chemical and biological approaches consistent with integrated pest management, such as use of biological control and crop rotation during the re-planting of cane. The system also will include pest mapping exercises.	Vale do Parana	August 2007
3.	<u>a) Conduct a cost benefit analysis for a compact and streamlined ash recycling system.</u> <u>b) Implement the most efficient ash water recycling system.</u> Based on the cost benefit analysis, the Company will implement the most efficient process.	Vale do Parana	December 2006 Condition of Project Completion

4. <u>a) Conduct a cost benefit analysis of a vinasse digesting system and energy generation.</u> Vale do Parana proposes to discharge the vinasse to the neighboring crops. This analysis will determine the feasibility of digesting the vinasse and wash waters, capturing the methane and generating energy for mill use, and discharging the remaining effluent to the fields. Vinasse digestion is a proven technology that is widely available. <u>b) Implement the most efficient vinasse digesting system.</u> If the assessment proves this technology feasible and cost effective, Vale do Parana will install it and generate energy for mill consumption.	Vale do Parana	December 2006 Condition of Project Completion
--	-----------------------	---