

**BSI- Environmental and Social Action Plan (ESAP)**

Task Title/Description	Anticipated Completion Date	Indicator of Completion
<p>Identification of Risks and Impacts: Update its corporate risk management process to: (a) develop risk assessment procedures to consider the gender composite of its workforce; b) update its risk assessment for identifying communities that may potentially be affected by transport of sugar cane lorries; and, c) incorporate a risk evaluation procedure to measure risks of use of government force.</p>	<p>a) and b) Loan signature + 12 months c) Loan signature + 6 months</p>	<p>a) Gender risk assessment reviewed b) Upgraded management procedure addressing transport of sugar cane lorries c) risk evaluation procedure for use of government security forces</p>
<p>Emergency Preparedness and Response: a) update its corporate emergency preparedness and response management system procedures to engage farmer organizations and its communities in emergency planning; and b) implement a procedure for regular review of the training programmes to staff on Emergency Preparedness and Response</p>	<p>a) and b) Loan signature + 12 months</p>	<p>a) Emergency planning procedure to engage communities b) Procedure for the regular review of training to staff on Emergency Preparedness and Response</p>
<p>Stakeholder Engagement: Enhance its existing website to keep external parties informed and include the name of the contact person at BSI for accessing the external grievance mechanism</p>	<p>Loan signature + 6 months</p>	<p>Website updated with name of BSI contact person and information on accessing grievance mechanism</p>
<p>PS 1 ESMS Compliant: The company is required to demonstrate a 2012 PS1 compliant Corporate Environmental and Social Management System (ESMS).</p>	<p>Loan signature + 24 months</p>	<p>a) Procedures manual for the ESMS b) PS1 ESMS Compliant</p>
<p>Chronic Kidney Disease (CKD): a) Implement an Integrated Programme for Prevention of Chronic Kidney Disease (CKD) at BSI for cane cutters and all employees under its control. b) Through a phase approach BSI will pass on the CKD prevention programme elements to farmer organization's governance, that in turn will communicate internally the prevention programme to its constituencies for further implementation. Procedures shall</p>	<p>a) Loan signature + 6 months b) Loan signature + 12 months c) Loan signature + 9 months</p>	<p>a) Integrated Programme for Prevention of Chronic Kidney Disease (CKD) implemented at BSI operations in the forthcoming 2018-2019 harvest and onwards in all cropping seasons b) Plan for phase implementation in farmer organization's governance</p>

<p>indicate that awareness training will be increased by farmer organization governance if some of their members are delaying implementation of the CKD Programme.</p> <p>c) CKD Programme requirements will be disseminated for implementation to all contractors managing cutters and field workers</p>		<p>c) Documentary evidence of dissemination of the CKD Programme requirements to harvest contractor groups</p>
<p>Occupational Health and Safety:</p> <p>a) Conduct an OHS risk assessment in the mill and provide a corrective action plan of the risks identified in the order of priority. The company will submit a final report to IDB Invest</p> <p>b) Certification from BSI OHS task manager that all observed deficiencies have been corrected</p>	<p>a) and b) Loan signature + 9 months</p>	<p>a) Results of OHS gap analysis</p> <p>b) OHS task manager certification that all observed deficiencies have been corrected</p>
<p>Stack emissions:</p> <p>a) Conduct particulate stack emissions measurements and compare to WBG General EHS Guidelines for stack emissions concentrations (particulate matter limit (PM10) of 50 mg/Nm<sup>3</sup>; NO<sub>x</sub> of 460 mg/Nm<sup>3</sup>; SO<sub>x</sub> of 2000 mg/Nm<sup>3</sup>), and submit report to IDB Invest</p> <p>b) If measurements exceed guideline limits, BSI will conduct dispersion modeling scenarios of stack emissions of particulate (PM10) considering varying stack emissions scenarios of 50, 100, 150, 200, 250 and 350 mg/Nm<sup>3</sup>. Reports and associated results to be presented to IDB Invest shall illustrate in tables and drawings the concentration of PM10, in ambient air in µg/m<sup>3</sup> at sensitive receptors downwind of the boiler stack. The resulting isopleths must illustrate the on-the-ground concentrations in µg/m<sup>3</sup> of PM10, in ambient air throughout the year at these receptors.</p>	<p>a), b) and c) Loan signature + 18 months</p>	<p>a) Results of stack emissions measurements to IDB Invest</p> <p>b) Reports and associated results of dispersion modeling scenarios to IDB Invest</p> <p>c) Plan and schedule to meet national regulations and WBG EHS guideline limits to IDB Invest</p>

<p>Sensitive receptors shall include residential housing, schools, health care facilities and the like. All these must be illustrated on dispersion maps.</p> <p>c) If dispersion analysis shows impacts to sensitive receptors, BSI will agree with IDB Invest a plan and schedule to apply corrective measures and ensure that these emissions meet national regulations and WBG EHS guideline limits. Plan timeline for compliance not to exceed 48 months</p>		
<p>Greenhouse gases (GHG): Implement a Management System procedure for reporting Emissions Inventory of Greenhouse Gases to IDB INVEST</p>	<p>Loan signature + 12 months</p>	<p>Report annually to IDB INVEST using the GHG 2012 as baseline and show GHG footprint annually</p>
<p>Effluent Treatment:</p> <p>a) Conduct a full assessment of effluent quality at the point of discharge of the ponds and compare against regulatory standards for Belize and applicable WBG EHS guideline limits (BOD 50mg/l; COD 250 mg/l; pH 6-9; Total nitrogen 10 mg/l; Total Phosphorus 2 mg/l; Oil and grease 10 mg/l; Total suspended solids 50 mg/l ; Temperature increase &lt;3C ; Total coliform bacteria MPN/100ml, 400 ). If the wastewater assessment indicates no compliance</p> <p>b) BSI will implement a Clean Production Audit with emphasis in water recycling, reduction of BOD, and improving effluent quality at point of discharge into the river.</p> <p>c) The Clean Production Audit will help BSI develop and implement with IDB Invest a plan and schedule to present to IDB Invest to ensure that the effluent</p>	<p>a) Loan signature + 12 months b) Loan signature + 18 months c) Loan signature + 18 months</p>	<p>a) Results of effluent quality assessment to IDB Invest b) Results of Clean Production Audit to IDB Invest b) Plan and schedule to meet national regulations and WBG EHS guideline limits to IDB Invest</p>

<p>quality meets national regulations and WBG EHS guideline limits. Plan timeline for compliance not to exceed 48 months.</p>		
<p>Community Health, Safety and Security:</p> <ul style="list-style-type: none"> <li>a) Develop and implement ESMS procedures and training through awareness to ensure transport minimizes community health and safety risks, including accident prevention measures, such as appropriate speed limits and safe driving practices, and provision of this procedure in transport contractual arrangements.</li> <li>b) BSI will demonstrate full implementation of the procedure and update in the BSI Website</li> </ul>	<ul style="list-style-type: none"> <li>a) and b) Loan signature + 9 months</li> </ul>	<ul style="list-style-type: none"> <li>a) ESMS procedures for safe transport communicated to all staff, contractors, suppliers.</li> <li>b) Documentary evidence of implementation and update in the BSI Website</li> </ul>
<p>Community Grievance Mechanism (GM):</p> <ul style="list-style-type: none"> <li>a) Expand the Community Grievance Mechanism procedure to communicate in the BSI Website how individuals may register grievances publicly or anonymously with BSI.</li> <li>b) BSI will categorize grievance events and will report to IDB Invest in the Annual Report.</li> </ul>	<ul style="list-style-type: none"> <li>a) Loan signature + 12 months</li> <li>b) At the time of Annual Report to IDB Invest</li> </ul>	<ul style="list-style-type: none"> <li>a) Corporate Community Grievance Mechanism communication in BSI Website</li> <li>b) GM event categories reported in the Annual Report to IDB Invest</li> </ul>
<p>Security Personnel:</p> <ul style="list-style-type: none"> <li>a) All security personnel at BSI must have a background check of no record of human rights abuse.</li> <li>b) BSI will provide to IDB Invest documentary certification from the company legal department regarding the event in 2009 involving the farmer community and government security forces. Such certification to include that there remains no contested or uncontested settlement of claims pending</li> </ul>	<ul style="list-style-type: none"> <li>a) and b) Loan signature + 9 months</li> </ul>	<ul style="list-style-type: none"> <li>a) Background check on security personnel enhanced and implemented</li> <li>b) Official letter head certification from the company legal department concerning the 2009 event involving the farmer community and government security forces</li> </ul>
<p>Cultural Heritage:</p> <p>Develop an ESMS Chance Find Procedure as described in PS8, which will be applied if cultural heritage is discovered</p>	<p>Loan signature + 18 months</p>	<p>Chance Find Procedure as described in PS8</p>