

MATARANI SOLAR PROJECT – PERÚ
Environmental and Social Action Plan (ESAP)

No.	Aspect	Action	Deliverable	Delivery date
PS 1: Assessment and Management of Environmental and Social Risks and Impacts				
1.1	Environmental and Social Management System	1. Update the Environmental and Social Management System (ESMS) for the Operation and Maintenance ("O&M") phase of the Matarani Photovoltaic Solar Power Plant (MPSPP).	1. Updated ESMS documents.	1. No later than 180 days after signing the loan agreement.
		2. Implement the ESMS for the O&M phase.	2. Evidence of Implementation.	2. As part of the Environmental and Social Compliance Report (ESCR).
1.2	Policy	1. Disseminate Project Policies (of Sustainability, of Health and Safety, of Community Relations) at all levels of the organization, including contractors and subcontractors.	1. Evidence of dissemination of the policies.	1. No later than 120 days after signing the loan agreement.
1.3	Identification of Risks and Impacts	1. Except as set forth in the Loan Agreement, keep current all environmental permits necessary for the O&M phase of the MPSPP.	1. Copies of the permits.	1. Prior to first disbursement.
		2. Identify and assess potential risks and impacts related to occupational safety and health for the O&M phase.	2. IPER matrices (OSH) for the O&M phase.	2. No later than 120 days after signing the loan agreement and then as part of ESCR.
		3. Identify and assess social risks and impacts on the community for the O&M phase.	1. IPER matrices (Social) for the O&M phase.	1. No later than 120 days after signing the loan agreement and then as part of the ESCR.
	Gender Risk	4. Develop a Zero Tolerance against Gender-Based Violence (GBV) Policy specific to the Project, including guidelines to minimize the risk of social conflict and GBV.	4. Zero Tolerance against Gender-Based Violence (GBV) Policy	4. No later than 120 days after signing the loan agreement.
		5. Identify gender risks and appropriate prevention and management measures to ensure the safety of female workers, considering isolated positions, night shifts, work environment, transportation, and access to gender-exclusive bathrooms.	5. Gender Risk Identification Document.	5. No later than 120 days after signing the loan agreement and then as part of ESCR.
		6. Implement measures to manage gender risks.	6. Evidence of implementation.	6. As part of the ESCR.
		7. Update the Local Employment Program to i) include indicators to measure results; ii) ensure employment without gender discrimination; and iii) ensure the incorporation of female workforce.	7. Updated Local Employment Program.	7. No later than 120 days after signing the loan agreement.
	Climate change exposure	8. Conduct a climate vulnerability study for the MPSPP; including: i) hydrogeological and hydrological studies; ii) analysis of discharge possibilities; iii) water balance of input and output; and iv) maximum hydraulic levels.	8. Climate vulnerability studies at the San Camilo Artificial Lagoon	8. No later than 365 days after signing the loan agreement.
1.4	Organizational Capacity and Competency	1. Appoint (or hire, if necessary) a responsible person for environmental and social management, who is also responsible for occupational health and safety management.	1. Copy of the designation or employment contract	1. Prior to signing the loan agreement.
		2. Adopt a general organizational system that regulates relationships between different management levels of the Client, EPC, and contractors and defines communication channels according to the general organization chart.	2. Document of the organizational structure with defined communication channels.	2. No later than 60 days after signing the loan agreement.

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1.5	Emergency Preparedness and Response	1. Develop an Emergency Response Plan (ERP) for the O&M phase, mandatory compliance for contractors and subcontractors, including: i) administrative and operational actions to control and mitigate possible damages to direct and indirect workers, communities within the direct influence area of the Project, the environment, and infrastructure; and ii) relevant climate risk scenarios (natural disasters and climate change).	1. Emergency Response plan for the O&M phase.	1. No later than 120 days after signing the loan agreement.
		2. Implement the Emergency Response Plan for the O&M phase.	2. Evidence of implementation.	2. As part of the ESCR.
1.6	Monitoring and Review	1. Develop a procedure to evaluate the performance of the ESMS, including key environmental and social performance indicators ("KPIs"), for the O&M phase.	1. O&M phase ESMS evaluation procedures.	1. No later than 120 days after signing the loan agreement.
		2. Implement ESMS evaluation procedures.	2. Evidence of implementation.	2. As part of the ESCR.
		3. Develop and keep updated a compliance matrix that records national environmental, social, occupational health and safety regulatory requirements, as well as financing contractual obligations and requirements.	3. Updated legal and contractual compliance matrix	3. No later than 90 days after signing the loan agreement and then as part of ESCR.
		4. Develop an internal or external audit procedure to assess the Project's SGAS performance, including responsible parties, methodology, schedule, action plans, and organizational performance evaluation.	4. Internal or external audit procedure.	4. No later than 120 days after signing the loan agreement.
		5. Conduct internal or external audits as described in the procedure.	5. Evidence of implementation.	5. As part of the ESCR.
		6. Conduct an environmental and social audit at the end of the construction phase.	6. Audit Report on the Closure of the Construction Phase	6. No later than 60 days after the completion of the construction phase of the Project. The completion date of the project will be the date on the signed Provisional Acceptance Certificate referred to in the EPC Agreement for the Project"
1.7	Stakeholder engagement	1. Update the Community Relations Plan ("CRP") to include i) a map of all potentially affected direct, indirect, and vulnerable actors; ii) participation planning and communication procedures with stakeholders; iii) appropriate communication channels with each group; iv) participatory monitoring mechanisms; and v) a social investment program monitoring and evaluation plan.	1. Updated Community Relations Plan.	1. No later than 120 days after signing the loan agreement.
		2. Implement the CRP for the O&M phase.	2. Evidence of implementation.	2. As part of the ESCR.
	Disclosure of information	3. Develop a Project Information Disclosure Schedule.	3. Project Information Disclosure Schedule.	3. No later than 120 days after signing the loan agreement.
		4. Implement the Project Information Disclosure Schedule.	4. Evidence of implementation.	4. As part of the ESCR.
	External Communication and Grievance Mechanisms	5. Update the external grievance mechanism specific to the Project.	5. External grievance mechanism updated.	5. No later than 120 days after signing the loan agreement and then as part of ESCR.
		6. Disclose the external complaints and communication mechanism.	6. Evidence of disclosure.	6. As part of the ESCR.

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	Informed Consultation and Participation	7. Disclose information on the MPSPP containing i) Project progress; ii) status of community engagement activities; and iii) progress of productive projects.	7. Evidence of disclosure.	7. As part of the ESCR.
PS 2: Labor and Working Conditions				
2.1	Human Resources Policies and Procedures	1. Develop a Human Rights Policy for the Project, including the Project's commitment to equal opportunities and against discrimination.	1. Human Rights Policy.	1. No later than 60 days after signing the loan agreement.
		2. Disclose the Human Rights Policy for the O&M phase.	2. Evidence of disclosure.	2. No later than 90 days after signing the loan agreement and then as part of ESCR.
		3. Implement the Human Rights Policy for the O&M phase.	3. Evidence of implementation.	3. As part of the ESCR.
2.2	Working Conditions and Management of Worker Relationships	1. Develop an Internal Labor Regulation ("ILR"), establishing the conditions governing the employer-employee relationship.	1. Internal Labor Regulation (ILR).	1. No later than 60 days after signing the loan agreement.
		2. Disclose the RIT to all direct and contractor personnel.	2. Evidence of disclosure.	2. No later than 90 days after signing the loan agreement and then as part of ESCR.
2.3	Working Conditions and Terms of Employment	1. Inform workers about employment conditions and terms; deadlines, remuneration, statutory benefits, regular and overtime working hours, rights and obligations, and vacations.	1. Evidence of implementation.	1. As part of the ESCR.
2.4	Internal Grievance Mechanism	1. Update the internal grievance mechanism for direct and contractor personnel.	1. Update internal grievance mechanism.	1. No later than 120 days after signing the loan agreement.
		2. Disclose the internal grievance mechanism for direct and contractor personnel.	2. Evidence of disclosure.	2. No later than 120 days after signing the loan agreement.
		3. Implement the internal grievance mechanism for direct and contractor personnel.	3. Evidence of implementation.	3. As part of the ESCR.
2.5	Occupational Health and Safety	1. Develop an Occupational Health and Safety Plan to inspect and monitor safety and health at work for the O&M phase.	1. Occupational Health and Safety Plan.	1. No later than 120 days after signing the loan agreement.
		2. Implement the Occupational Health and Safety Plan for the O&M phase.	2. Evidence of implementation.	2. As part of the ESCR.
2.6	Workers Engaged by Third Parties	1. Develop a Contractor Management Plan for the O&M phase.	1. Contractor Management Plan	1. No later than 90 days after signing the loan agreement.
		2. Implement the Contractor Management Plan for the O&M phase.	2. Evidence of implementation.	2. As part of the ESCR.
2.7	Supply Chain	1. Require suppliers to provide an indicative map of the supply chain for solar components up to the polysilicon level.	1. Indicative supply chain map.	1. Before proceeding with the order.
PS 3: Resource Efficiency and Pollution Prevention				
3.1	Greenhouse Gases	1. Determine the amount of CO2 avoided through energy generation (kg of CO2 avoided/kWh generated).	1. Calculation of avoided GHG emissions.	1. No later than 270 days after signing the loan agreement.

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3.2	Water Consumption	1. Develop a Water Resources Management Plan for the O&M phase.	1. Water Resources Management Plan	1. No later than 270 days after signing the loan agreement.
		2. Implement the Water Resources Management Plan.	2. Evidence of implementation.	2. As part of the ESCR.
		3. Record industrial water consumption in the O&M phase.	3. Industrial water consumption record.	3. As part of the ESCR.
		4. Provide certificates from industrial and human consumption water suppliers.	4. Water suppliers' certificates or authorizations.	4. No later than 90 days after signing the loan agreement and then as part of ESCR.
3.3	Waste	1. Maintain a traceability record of final disposal for generated solid waste in the O&M phase.	1. Traceability record of solid waste final disposal.	1. As part of the ESCR.
		2. Develop a management program for handling electronic and electrical equipment (batteries, panels, electrical and electronic equipment) at the end of their useful life, including traceability from collection to final disposal.	2. Management program for electronic and electrical equipment.	2. No later than 365 days after signing the loan agreement.
		3. Implement the program for handling electronic and electrical equipment	3. Evidence of implementation.	3. When applicable.
	Hazardous Materials Management	1. Develop a procedure for handling hazardous materials and substances.	1. Handling hazardous materials and substances procedure.	1. No later than 90 days after signing the loan agreement.
		2. Implement a procedure for handling hazardous materials and substances.	2. Evidence of implementation.	2. As part of the ESCR.
PS 4: Community Health, Safety, and Security				
4.1	Community Health and Safety	1. Based on a comprehensive evaluation of vehicular traffic in the Project area, implement a safe entrance to the MPSPP that includes horizontal and vertical signage to induce drivers to reduce speed.	1. Safe entrance report.	1. No later than 180 days after signing the loan agreement.
		2. Prepare a disclosure schedule of the ERP to local authorities and communities.	2. Evidence of disclosure.	2. As part of the ESCR.
4.2	Infrastructure and Equipment Design and Safety	1. Present a certificate issued by qualified life and fire safety (L&FS) professionals indicating: (i) that all Project facilities and buildings were constructed in accordance with the approved L&FS designs; (ii) that all equipment was installed according to the L&FS design; and (iii) that all L&FS equipment was tested in accordance with international requirements.	1. L&FS certification.	1. No later than 60 days after signing the loan agreement.
4.3	Security Personnel	1. Develop a Security Management Plan that includes, among other things, training for security personnel on human rights and the progressive use of force.	1. Security Forces Management Plan.	1. No later than 120 days after signing the loan agreement
		2. Implement the Security Forces Management Plan.	2. Evidence of implementation.	2. As part of the ESCR.
PS 5: Land Acquisition and Involuntary Resettlement				
5.1	Land Acquisition	1. Maintain a printed copy at the MPSPP of the record of the easement imposition process and the social agreements reached for the occupation and access to the properties where the MPSPP is located.	1. Copies of the social agreements reached and easement record.	1. As part of the ESCR.