
SMART SOLAR TECHNOLOGIES

Aliğa Solar Cell & Solar Module Integrated Production Factory

ENVIRONMENTAL AND SOCIAL ACTION PLAN (ESAP)

JANUARY 2024

ANKARA



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Environmental and Social Action Plan (ESAP)

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LIST OF ABBREVIATIONS

AIIB	Asian Infrastructure Investment Bank
AoI	Area of Influence
CCRA	Climate Change Risk Assessment
CHS	Community Health and Safety
EHS	Environment, Health, and Safety
EIA	Environmental Impact Assessment
ESAP	Environmental and Social Action Plan
ESDD	Environmental and Social Due Diligence
ESMP	Environmental and Social Management and Monitoring Plan
ESS	Environmental Social Standard
GBV	Gender Based Violence
HR	Human Resources
ISO	International Organization for Standardization
NTS	Non-Technical Summary
OHS	Occupational Health and Safety
SEA/SH	Sexual Exploitation and Abuse/Sexual Harassment
SEP	Stakeholder Engagement Plan
WB	World Bank
GM	Grievance Mechanism

1. ENVIRONMENTAL AND SOCIAL ACTION PLAN

The necessary actions/improvements resulting from the ESDD study are provided in Table 1-1. The relevant personnel assigned by the Project Company will take the necessary corrective actions within the time frame specified below.

Table 1-1. Environmental and Social Action Plan

No	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, AIIB ESS, GIIP)	Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
1 Assessment and Management of Environmental and Social Impacts							
1.1	<p>Continue implementing the operation activities in compliance with ISO 14001:2015 (Environmental Management System), ISO 9001:2015 (Quality Management System) and ISO 45001:2018.</p> <p>Develop and implement an Environmental and Social Management Plan for both construction and operation.</p> <p>Develop and implement a Contractor Management Plan to manage environmental and social performance of the contractors.</p> <p>Develop and implement a Supply Chain Management Plan for construction and operation.</p>	<p>An effective Environmental and Social Management System</p> <p>Management of environmental and social risks</p>	<p>AIIB ESS 1</p> <p>Regulatory Requirements</p>	<p>Project Company& PIU</p>	<p>March 2024</p>	<p>Environmental and Social Management Plan for construction and operation.</p> <p>Contractor Management Plan</p> <p>Supply Chain Management Plan</p>	<p>Complete</p> <p>In progress</p> <p>In progress</p>
1.2	<p>Ensure appointment of key responsibilities for management of environmental and social risks due to construction and operation activities.</p>	<p>An effective Environmental and Social Management System</p>	<p>AIIB ESS 1</p> <p>Regulatory Requirements</p>	<p>Project Company& PIU</p>	<p>November 2023</p>	<p>Environmental and Social Management Plan for construction and operation.</p> <p>Appointment of responsible staff for EHS</p>	<p>Complete</p> <p>Complete</p>

No	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, AIIB ESS, GIIP)	Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
		Management of environmental and social risks					
1.3	Ensure monitoring of environmental and social performance of Project activities in line with ISO 14001 and ISO 45001.	An effective Environmental and Social Management System Management of environmental and social risks	AIIB ESS 1 Regulatory Requirements	Project Company& PIU	March 2024	Annual audit reports Non-compliance records Monitoring reports	In progress
1.4	Ensure all permits are in place for construction and operation (Construction permit and building use permit)	Compliance with legislation	AIIB ESS 1 Regulatory Requirements	Project Company& PIU	November 2023	(Construction permit and building use permit)	Complete
2	Pollution Prevention						
2.1	Develop and implement Waste Management Plan for construction	Mitigation of environmental pollution risks due to generated wastes	AIIB ESS 1 Regulatory Requirements Best practice	Project Company& PIU	November 2023	Waste Management Plan	Complete
3	Resource Efficiency						
3.1	Develop a monitoring plan water, energy and fuel consumption during both construction and operation.	Resource efficiency	AIIB ESS 1 Regulatory Requirements Best practice	Project Company& PIU	January 2024	Consumption records	Complete

No	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, AIIB ESS, GIIP)	Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
4 Climate Change							
4.1	Develop Climate Change Risk Report	Compliance with AIIB ESS, 1	AIIB ESS 1 Regulatory Requirements Best practice	Project Company& PIU	1st quarter of 2024	Climate Change Risk Report	Complete
5 OHS							
5.1	Existing OHS plan will be updated in order to include construction specific works) and will be implemented.A training plan will be prepared on these specific topics.	Non Compliance with AIIB ESS, 1	AIIB ESS 1 Regulatory Requirements Best practice	Project Company& PIU	March 2024	OHS Plan	In progress
5.2	Make measurements of the new equipment used in the facility in accordance with the standards in the Regulation on Health and Safety Conditions in the Use of Work Equipment.	Non Compliance with legal requirements	AIIB ESS 1 Regulatory Requirements Best practice	Project Company& PIU	January 2023	Machinery Equipment inspection report	Complete
5.3.	Implement Emergency Drills for employees. An emergency response plan specific to the construction period should be prepared.	Non Compliance with AIIB ESS, 1 Compliance with legal requirements	AIIB ESS 1 Regulatory Requirements Best practice	Project Company& PIU	December 2023	Emergency response teams should be identified. Emergency drills should be held once a year with all employees. Emergency Response Plan prepared for construction period	Complete

No	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, AIB ESS, GIIP)	Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
5.4	Conduct first aid training for project employees	Non Compliance with AIB ESS, 1 Compliance with legal requirements	AIB ESS 1 Regulatory Requirements Best practice	Project Company& PIU	Until the first exam date determined by the Ministry. (first quarter 2024)	First aid training will be provided by organizations authorized by the Ministry of Health.	In progress (Training completed ,certification will be completed.) (Considering the current staff of 390 employees, there is a need for 39 first aid workers. Currently, there are 32 first aid workers. As part of the plan, 18 employees have received theoretical training, and the examination and certification process are ongoing.)
5.5	Arrange for proper storage area for materials.	Lack of Storage	AIB ESS 1 Regulatory Requirements	Project Company& PIU	- November 2023	A warehouse is established.	Complete

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			Best practice				
5.6	Conduct staff training on construction related OHS risks; Working at Heights Electrical Hazards Heavy Machinery Chemical Exposure, Use of work-specific machinery and equipment	Non Compliance with AIB ESS, 1 Compliance with legal requirements	AIB ESS 1 Regulatory Requirements Best practice	Project Company& PIU	March 2024	In specific tasks, training is mandatory to ensure safety, and work should be regulated by work permits. Regular safety checks must adhere to legal and international construction standards, ensuring comprehensive control of all on-site activities.	In progress
6	Social Risks and Impacts						
6.1	Improve transportation services offered for the project employees and the Project activities	Non-compliance with national and international standards	AIB ESS 1 Regulatory Requirements	Project Company& PIU	February 2024	Revised contract including relevant technical specifications aimed at improving transportation services offered for the project employees and the Project activities. Grievance records	In progress
6.2	Female employees will be encouraged to become representatives, and they will receive the necessary training related to representation and participation in administrative processes.	Non-compliance with national and international standards	AIB ESS 1 Regulatory Requirements	Project Company& PIU	February 2024	Training records related to representation and participation of female workers in administrative processes Assess the completion rates of training programs related to representation and participation.	In progress

No	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, AIB ESS, GIIP)	Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
	<p>Equal opportunities for both male and female employees will be ensured to engage in administrative roles.</p> <p>An inclusive environment where decisions are made will be fostered collectively with diverse participation.</p>					<p>At least one employee representative will be a woman in the next working period.</p> <p>Updated HR policies and procedures to include equal opportunity and non-discrimination</p>	
6.4	<p>The existing code of conduct document will be updated to include detailed information and stringent measures addressing gender-based violence, harassment, and abuse. The Code of Conduct will be shared with employees as an annex to the contract and must be signed by them. Code of conduct training, including Gender Based Violence (GBV), Sexual Harassment (SH), Sexual Exploitation and Abuse (SEA) will be provided to all employees (including contractor staff and</p>	Non-compliance with national and international standards	AIB ESS 1 Regulatory Requirements	Project Company& PIU	March 2024	<p>Number of grievances</p> <p>Updated code of conduct</p> <p>Code of conduct is included in employee contracts.</p> <p>Training records</p>	In progress

No	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, AIB ESS, GIIP)	Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
	management unit) to manage workforce flow. Training will be provided to employees before their employment and will be repeated at regular intervals. After the effectiveness of the training is assessed by the Project Human Resources personnel, the training program may be modified, instructors may be changed, or the training may be repeated if necessary.						
6.5	The Project Company lacks explicit prohibitive clauses regarding the adherence to ILO standards and the prevention of gender-based violence, harassment, and abuse in its contracts with subcontractors and suppliers. The contracts made by the Project Company with its subcontractors and suppliers will be revised to include prohibitive clauses on GBV/SEAH.	Non-compliance with national and international standards	AIB ESS 1 Regulatory Requirements	Project Company & PIU	March 2024	<p>Updated contracts of subcontractors and suppliers</p> <p>Implement communication strategies to inform subcontractors and suppliers about the updated contracts.</p> <p>Assess the level of understanding through feedback or training sessions.</p> <p>Conduct periodic audits of subcontractors and suppliers to verify compliance</p>	In progress

No	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, AIIB ESS, GIIP)	Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
6.6	The Project Company will engage in consultations with employees regarding the quality and variety of food and take necessary corrective actions.	Non-compliance with national and international standards	AIIB ESS 1 Regulatory Requirements	Project Company& PIU	February 2024	Evidence of consultations conducted with employees Implement feedback mechanisms to measure satisfaction levels before and after corrective actions.	In progress
6.7	Worker accommodation containers will meet worker accommodation standards prepared by the International Finance Corporation (IFC) and the European Bank for Reconstruction and Development (EBRD) and approved by the World Bank. The Project Company will engage in discussions with the subcontractor company and ensure the implementation of these standards. Special training, such as organizational and waste	Non-compliance with national and international standards	AIIB ESS 1 Regulatory Requirements	Project Company& PIU	March 2024	Verify that accommodation containers adhere to specific standards outlined by IFC and EBRD. This should also be ensured in subcontractor agreements. Camp management plan is developed and implemented. Conduct regular inspections and audits to ensure ongoing compliance. Confirm that subcontractors are aware of and committed to implementing the prescribed standards.	In progress

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	<p>management training, will be given to employees in order to ensure that standards are maintained, and corrective actions taken are maintained. In addition, project implementation unit managers will be responsible for ensuring and implementing international standards in camp management.</p> <p>The camp management plan to be prepared within the scope of the ESMP will regulate the standards and living conditions in the camps to be established within the scope of the project in accordance with national and international regulations.</p>						
7	Information Disclosure and Stakeholder Engagement						
7.1	Comprehensive information on the stakeholder engagement is provided in SEP of the Project and the SEP will be updated, as necessary	Communication issues with the stakeholders	AIB ESS 1 Regulatory Requirements	Project Company & PIU	Stakeholder engagement will continue throughout the Project	Implementation records of SEP	Complete

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	and implemented throughout the Project.						
7.2	An efficient Grievance Redress Mechanism will be initiated to allow potentially affected internal and external stakeholders to voice their concerns on the Project. GRM will meet all of the AIB's ESS1 requirements, including anti-retaliation protection and monitoring system.	Grievance Issues	AIB ESS 1 Regulatory Requirements	Project Company & PIU	February 2024	Implementation records of Grievance Redress Mechanism Percentage of closed grievances within the target timeframe	In progress
9	Labor and Working Conditions (LWC)						
9.1	<p>The Code of Conduct will be shared with the employees as an attachment to the employment contract. Behavioral rules training, including GBV, SH, SEA, will be provided to all employees, including contractor personnel and the management unit, to manage the workforce effectively.</p> <p>The forthcoming development of 'Labor Management standards which will be specified in the Human</p>	Non-compliance with national and international standards	AIB ESS 1 Regulatory Requirements	Project Company & PIU	January 2024	<p>Human resources process established that is anti-discriminatory, which controls unethical practices such as child labor and forced labor, and creates equal opportunities for all employees also ensure joining any labor union will not be hindered or labor union members will not face any mistreatment.</p> <p>Code of conduct is included in employee contracts.</p> <p>Labor Management standards are developed and implemented.</p>	Complete

No	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, AIB ESS, GIIP)	Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
	Resources Plan ' as part of the Environmental and Social Management Plan (ESMP) aims to enhance the systematic delineation of rights, working conditions, and mutual relations between employees and employers.					Percentage of closed grievances within the target timeframe. Training records Internal/external audits	
9.2	<p>HR policies and procedures including labour management procedures will ensure:</p> <ul style="list-style-type: none"> Not employing children under the age of 18; There should be no discrimination of language, race, gender, political thought, philosophical belief and religion in business relations; Ensuring workers have access to the right to collective bargaining (Trade Unions and Collective Labor Agreement Law No. 6356 and Labor Law No. 4857) and,Ensuring access 	Non-compliance with national and international standards	AIB ESS 1 Regulatory Requirements	Project Company& PIU	March 2024	HR policies and procedures communicated to employees and subcontractors Grievance Redress Mechanism records Training records	In progress

No	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, AIB ESS, GIIP)	Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
	to an effectively functional worker grievance redressal mechanism.						
9.3	<p><u>Worker Grievance Redress Mechanism</u></p> <p>A specific authority will be designated for the Worker Grievance Redress Mechanism. This designated personnel will impartially handle and assess complaints. The Worker Grievance Redress Mechanism will be established and communicated to all Project employees (including both direct and indirect employees) through written and verbal communication. All project workers will be trained on the scope and use of the GRM and Company will encourage employees to use GRM.</p> <p>Grievance and suggestion boxes will be set in places that cover all workplaces and are easily accessible to employees. Immediate requests shall be responded to within the same day. All remaining complaints/claims</p>	Non-compliance with national and international standards	AIB ESS 1 Regulatory Requirements	Project Company & PIU	March 2024	<p>Implementation records of Grievance Redress Mechanism</p> <p>An officer is assigned for Workers' Grievance Redress Mechanism</p> <p>Grievance and suggestion boxes are provided</p>	In progress

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	<p>will be approved within 2 business days, replied to within 3 business days, and finalized within 7 business days at the latest.</p> <p>. If subcontractor personnel do not have their own grievance mechanism or choose to do so, they can approach the Project Company's mechanism. Detailed information about the usage and scope of the mechanism will be introduced to stakeholders through training sessions, brochures, and announcements.</p>						
10	Community Health and Safety (including Road Safety and Use of Security Forces)						
10.1	A Traffic Management Plan should be developed, taking into consideration the operations and construction activities. Currently, there is no existing Traffic Management Plan in place.	Community health and safety risks	AIIB ESS 1 Regulatory Requirements	Project Company & PIU	February 2024	Traffic Management Plan Incident records, Grievance redress mechanism implementation records	In progress
10.2	<u>Public Grievance Redress Mechanism</u> A specific authority will be assigned for the Public Grievance Redress Mechanism. These	Community health and safety risks	AIIB ESS 1 Regulatory Requirements	Project Company & PIU	February 2024	Implementation records of Grievance Redress Mechanism An officer is assigned for Public Grievance Redress Mechanism	In progress

No	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, AIB ESS, GIIP)	Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
	designated personnel will impartially address and evaluate complaints. A dedicated contact information for the public grievance mechanism will be announced on the facility's website, where the project will be introduced. The project's SEP document will be published on the Project Company's website for stakeholders to access. The Project Company will also incorporate a complaint and suggestion section specific to the facility on its website, allowing stakeholders to submit complaints and suggestions. All grievances, including verbal ones, should be recorded. Grievances requiring urgent intervention should be identified and Stakeholders should be given information and contact numbers about emergencies.						