

Jordan, Aqaba-Amman Water Desalination and Conveyance Project (the Project) Environmental and Social Action Plan (ESAP)

N°	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (EBRD ESR, IFC PS, Legislative, Good Practice)	Responsibility Resources, Investment Needs,	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
ESR1, PS1: Assessment and Management of Environmental and Social Risks and Impacts							
1.1	The Company will prepare an ESAP Execution Plan which identifies all required actions, assign responsibilities, set timelines and resources, and compile these into a structured plan aligned with the requirements of this ESAP for the period from disclosure to the start of construction activities.	Integration of E&S Requirements into Design and construction plans	ESR1, PS1	NCPC	Prior to Project presentation to IFC or EBRD Boards, whichever is sooner	ESAP Execution Plan accepted by Lenders	
1.2	The Company (National Carrier Project Company - NCPC) will develop and maintain a permits register and obtain all permits and licences for construction and operation of the Project, prior to commencing the activities for which they are required to be in place. The register should allow for the inclusion of details such as permit/license status, date of receipt, expiration date and conditions of the permit. The required timing for obtaining the permit (i.e. Prior to FC, Prior to Construction) needs to be provided.	Legal compliance	ESR1, PS1 National permitting requirements	NCPC EPC and O&M contractors	Prior to construction and operation	Construction and operation permit register in place	
1.3	The Company will develop and implement a comprehensive Environmental and Social Management System (ESMS), including environmental and social policies, that aligns with the requirements of EBRD ESR1 and IFC PS1, good international practice and local E&S regulations and commensurate with the E&S risks and impacts of the project. The ESMS will (i) describe the process through which the Company will identify, evaluate, and mitigate E&S risks and impacts, (ii) include a list of Environmental and Social Management and Monitoring Plans (ESMMPs) applicable throughout the Project lifecycle; (iii) define E&S roles and responsibilities; training and	E&S risk and impact management	ESR1, PS1	NCPC	Construction ESMS: prior to first disbursement Operation ESMS: three months prior to operation Construction includes Project commissioning	<ul style="list-style-type: none"> • Project ESMS finalised and implemented. • Set of ESMMPs ¹ developed and implemented. 	

¹ Minimum list of ESMMPs: Stakeholder Engagement Plan (including Community Grievance Mechanism), Labour and Working Conditions Management Plan, Contractors Management Plan, Community Health and Safety Plan, Training and Development Procedure, Traffic and Road Safety Plan, Occupational Health and Safety Management Plan, Water Management Plan, Worker Grievance Mechanism; Waste Management Plan, Air Quality Management Plan, Supply Chain Management Plan, Noise Management Plan, Gender and GBVH Action Plan, Dredging Management Plan, Emergency Preparedness and Response Plan, Workers' Accommodation Management Plan, Environmental and Social Monitoring Plan, Vulnerable People Management Plan, Communities Development Plan, Security Management Plan, Responsible Sourcing Policy, Supplier Code of Conduct and Supply Chain Risk Management Procedure.

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	<p>communication; and monitoring, reporting and management review of E&S performance. The ESMS will enable the Project to comply with regulatory requirements and Lender E&S requirements.</p> <p>As part of the Project ESMS, and prior to work start, Construction-Environmental and Social Management Plans (ESMMPs) and Operation-ESMMPs including topic specific-management plans will be developed and contractually cascaded by NCPC to the EPC and O&M contractors.</p>						
1.4	<p>The Company will establish an appropriately resourced E&S team. This will include environmental, social (stakeholder engagement, land acquisition, etc), labour, and occupational health & safety functions. The team will include an E&S director.</p> <p>The E&S team will coordinate and oversee all E&S aspects of the project including implementation of the Project ESMS, contractor oversight and engagement, monitoring and reporting, implementation of this ESAP and engagement with the Lenders and their advisors. The E&S team may be supported by various consultants and other specialists as needed.</p>	E&S risk and impact management.	ESR1, PS1	NCPC	<p>Hiring plan before Project presentation to IFC or EBRD Board, whichever is sooner</p> <p>Company E&S team mobilisation prior to first disbursement as per Lenders pre-approved hiring plan</p>	<p>Company E&S team in place as per Lenders pre-approved hiring plan</p> <p>Organisational chart available</p>	
1.5	At EPC Contractor level, ensure that E&S resources are appointed to cover all aspects including Health and Safety, Environment, Labour, and working in collaboration with the NCPC E&S team, with appropriate degree of competency and language skills. The resources shall be familiar with local regulation and international E&S standards, if not adequate training shall be provided.	E&S risk and impact management.	ESR1, PS1	NCPC EPC and O&M contractors	EPC and O&M contractors, and Owners Engineer, prior to construction/operation	EPC and O&M contractors, and Owners Engineer, E&S teams in place. Organisational charts with positions filled.	
1.6	The Project EPC and O&M contractors will develop and implement their own ESMSs in line with the project ESMS and ESMMPs. These ESMSs will include the necessary resources, structures, policies, procedures, plans, monitoring and reporting requirements to deliver their responsibilities in line with the requirements of the Project ESMS and Project's E&S commitments. The EPC and O&M Contractors will ensure that the ESMS requirements extend to their contractors and subcontractors through contracting provisions, awareness raising and monitoring.	E&S risk and impact management	ESR1, PS1	NCPC, EPC and O&M contractors	Prior to start of construction and operation	<ul style="list-style-type: none"> EPC and O&M contractor ESMSs and ESMMPs in place appropriate to the Project. EPC and O&M contractors ESMS and ESMMPs will be approved by NCPC. 	

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1.7	As part of the Project ESMS, the Company will develop a supply chain management system which will include environmental and social risk assessment and selection criteria, and processes for taking action to address environmental and social risks identified in Project supply chains. Selection criteria will consider the past performance of suppliers, contractors, or intermediaries with regard to labour management (i.e., child labour, forced labour, etc.) and occupational safety and health; and their capacity to implement the requirements of EBRD's ESR2 and ESR4, and IFC's PS2. Process documentation will include a position statement on avoiding supply chain risks (forced labour, child labour, risk of material harm to workers) and requirements for supplier risk screening, legal covenants for tenders and contracts, supplier verification and auditing on a case by case basis as agreed with the Lenders, and supply chain traceability where risks are identified. Supply Chain requirements will be cascaded down to EPC Contractors.	Supply chain risk assessment	ESR1, ESR2 PS1, PS2	NCPC	Prior to selection of contractors and suppliers	Supply chain management system is in place, including relevant policies, procedures, roles and responsibilities, monitoring, etc. Records of E&S risk analysis, controls and monitoring.	
1.8	The Company will establish Project E&S Standards to formally integrate E&S considerations into both the design process and the planning of construction methods. These Standards will take into account (i) the most stringent requirements among Jordanian regulations and Lenders' E&S requirements for issues such as emissions (liquid discharges, solid waste, air emissions, noise, and vibration) and ambient water and air quality standards; and (ii) findings of the 2025 ESIA and subsequent update, including seawater effluent discharge parameters (such as end of pipe specifications, mixing zone dimensions, characteristics), seawater intake velocity.	E&S risk and impact management	ESR1, PS1	NCPC	Prior to loan signing	Project E&S Standards accepted by Lenders Integral part of the EPC Contracts	
1.9	The Company will demonstrate and document that the avoidance measures associated with pipeline routing and construction have been effectively integrated into the design and construction methods.	E&S risk and impact management	ESR1, PS1	NCPC	2 months prior to construction of the pipeline	EPC E&S Specifications C-ESMP from the EPC	
1.10	The Company will develop and agree contract documentation for the EPC and O&M contractors to include environmental, health, safety and social requirements/specifications. These will include as a minimum:	E&S risk and impact management	ESR1, PS1	NCPC	Prior to first disbursement	Contract documentation includes environmental, health, safety, social and labour, including supply chain requirements - evidenced by relevant and	

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	<ul style="list-style-type: none"> Complying with all of the conditions listed in the environmental permits, Project ESIA (2025) and above-mentioned Project E&S standards. Detailed specification/measures for impact mitigation drawing on the ESIA and ESMMPs. Complying with Project's ESMS Ensuring sufficient E&S, safety and labour management personnel are present onsite Environmental, health, safety and social reporting requirements Right of site access of the Company, the Lenders and their advisors. Ensuring all of the above minimum requirements apply to all subcontractors. 					validated clauses in documentation.	
1.11	The Company will develop and implement a Contractor Management Plan that guides monitoring for ongoing compliance with Lender E&S requirements as per ESAP Item 1.3. The Contractor Management Plans shall include a risk assessment of the EPC contractors and their sub-contractors to identify the risk of any potential human rights risks and issues.	Contractor risk assessment	ESR1, ESR2 PS1, PS2	NCPC EPC Contractors	Prior to first disbursement	<ul style="list-style-type: none"> EPC contractor risk assessment accepted by Lenders Contractor Management Plan accepted by Lenders 	
1.12	The Company will contractually require the solar power plant EPC contractor/O&M contractor to commit to implementing a robust supplier management and traceability system, securing a bill of materials that has been appropriately screened and agreed with the Lenders, cascading requirements to the solar panel supplier and reporting on its implementation of such requirements so as to avoid labour risks in the solar panel supply chain.	Supply chain management	ESR2, PS2 Good International Practices ILO labour standards	NCPC	Prior to loan signing	Appropriate requirements in EPC and O&M contractor, and solar panel supplier contracts to avoid labour risks.	
1.13	The Company will adopt an inshore lagoon-based inlet solution as the base case for the desalination plant water intake. This can be subject to further design optimisation subjected to lenders' agreement.	E&S risk management – avoidance of coral larvae entrainment	ESR1, PS1	NCPC	Prior to loan signing	Inshore lagoon-based seawater inlet included in LNTP Design	
1.14	The Company will ensure that the EPC Contractors together with Project ESIA experts undertake current and hydrodynamic modelling on the selected solution to validate that the design of the sea water intake and associated mitigation structures does not exceed the predicted level of impacts on marine biodiversity as	E&S risk management – avoidance of coral larvae entrainment	ESR1, PS1 ESR6 PS6	NCPC and specialist contractors	Prior to finalisation of the intake design	Seawater Intake Assessment Study	

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	quantitatively set out in the ESIA and updated assessments as per this ESAP.						
1.15	The Company will update or amend the disclosed ESIA documentation in a timely manner, as and when required by a change in design and/or availability of more detailed Project information. This will apply to, but not limited to, availability of information on desalination plant seawater inlet and outfall design, method and approach for hydrotesting, location and design of temporary worker accommodation camps, construction work logistics, pipeline and transmission line routing, siting of booster pumping stations.	E&S change and risk management	ESR1, PS1	NCPC	Prior to implementation (construction, undertaking, mobilisation, etc.) of Project design change/Project design component for which more detailed information is available.	Amendments/Additions to ESIA documentation accepted by Lenders	
1.16	The Company will ensure that detailed brine discharge plume modelling studies are carried out to refine the rapid modelling study already performed. The detailed modelling will take into account the LNTP design of the discharge outfall, variations of relevant physical-chemical characteristics of seawater and currents with depth and use of higher resolution bathymetry data: Discharge scenarios to be modelled: <ul style="list-style-type: none"> • Normal operation - brine discharge characteristics of the final detailed design. • Worst case accidental events, for example malfunction of chlorine gas dosing system, abatement systems and unavailability of safety systems. 	E&S risk management	ESR1, PS1 ESR 3, PS3	NCPC, EPC Contractor, specialist consultants	<ul style="list-style-type: none"> • Draft plume modelling study available prior to finalisation of LNTP design • Final plume modelling study, completed prior to start of drinking water supply operation. 	Detailed brine discharge modelling study accepted by Lenders	
ESR2, PS2: Labour and Working Conditions							
2.1	The Company will adopt and implement a Human Resources (HR) policy and procedures developed in line with national law, EBRD ESR2, and IFC PS2. HR policy and requirements will apply to all Project contractors in line with ESR2/PS2. HR policy and associated procedures and plans to include a Local Employment Plan and training strategy. Implementation will be supported by the relevant EPC and O&M contractors. The HR Policy will cover the following: <ul style="list-style-type: none"> • Approach to managing the Project workforce, including third party and supply chain • Human rights • Local recruitment strategy 	Labour and working conditions risk management	ESR2, PS2	NCPC, EPC and O&M contractors	Company: Prior to first disbursement Company: Prior to construction/operation commencing	<ul style="list-style-type: none"> • HR policies, procedures and plans satisfactory to lenders • Grievance mechanism available to all workers including sub-contractors. • Cascade of HR requirements to contractors. • Local Employment Plan and training matrix. 	

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	<ul style="list-style-type: none"> Working conditions and terms of employment Freedom of association / collective bargaining Child labour and forced labour Equal opportunities and non-discrimination Prevention of and adequate response to Gender Based Violence and Harassment (GBVH) Oversight provided of contractor policies/procedures Effective worker grievance mechanism, including channel to report grievances anonymously <p>The Company will ensure that the labour requirements are cascaded to all contractors and that EPC and O&M contractor develop and implement aligned policies and procedures.</p> <p>The worker grievance mechanism to be available to all workers, including contractor workers. Consideration to be given to the handling of sensitive grievances.</p> <p>The worker grievance mechanism will include specific provision for cases of GBVH, including appropriate resources, training, mechanisms and controls</p>					<ul style="list-style-type: none"> Documented information on the policies and procedures provided to onboarded workers, including clearly communicating their rights – evidenced within an onboarding procedure. 	
2.2	The Company will develop a Labour and Working Conditions Management Plan to ensure that the EPC contractors and their sub-contractors comply with ESR2 and PS2, as well as ESR4 for occupational health and safety aspects.	Labour and working conditions risk management	ESR2, PS2	NCPC	Company: Prior to first disbursement	Labour and Working Conditions Management Plan	
2.3	<p>The Company will ensure that the EPC contractors establish worker accommodation in line with EBRD/ IFC guidelines on Workers' Accommodation: Processes and Standards and maintains an appropriate worker accommodation management plan approved by the Company.</p> <p>The Company will undertake an audit of the project-provided worker accommodation facilities prior to occupancy, followed by quarterly audits thereafter.</p>	Worker accommodation risk management	ESR2, PS2	NCPC, EPC	Prior to start of construction and ongoing during implementation	<ul style="list-style-type: none"> Worker accommodation plan(s) in place satisfactory to Lenders. Worker accommodation in line with EBRD/IFC guidelines. Regular monitoring and audits of worker accommodation by Company. 	
2.4	<p>The Company will ensure that labour and working conditions compliance monitoring is undertaken during construction and which is to include the following:</p> <ul style="list-style-type: none"> Quarterly labour and working condition audits conducted by a third-party labour consultant and inspecting aspects including labour contracts, safety 	Labour and working conditions risk management	ESR2, PS2	NCPC, EPC and O&M contractors	During construction	<p>Weekly inspection records</p> <p>Monthly reports</p> <p>Identification of migrant workers.</p>	

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	<p>inspections, records of incidents, grievance records etc., to ensure compliance with national law and Lender E&S requirements. The first labour audit needs to be completed as soon as workforce starts mobilising to the project site;</p> <ul style="list-style-type: none"> Weekly monitoring of workers of all contractors through random spot checks of workers contracts, payroll, overtime, awareness, and use of project grievance mechanism; through interviews and review of workers files; Weekly review of worker grievance logs (including contractors and subcontractors on site); Weekly review of training records; and Monthly reporting on compliance against project HR policies and procedures. <p>The Company, together with EPC contractors as necessary, will undertake regular training of workers on key HR procedures, including grievance mechanism, GBVH procedures, working conditions (minimum wage, working hours, over time requirement) and health and safety</p> <p>Migrant workers will need to be identified to ensure that their conditions of employment are equivalent to that of non-migrant workers.</p> <p>Changes to the frequency/extent of third-party labour and working condition audits will be agreed with the Lenders.</p>					<p>Copy of contractor worker training material and training calendar</p> <p>Quarterly external labour and working conditions audits and reports in compliance with local law and ESR2/PS2. Scope of audits to include review of risks related to migrant workers.</p> <p>ToR and labour consultant approved by Lenders</p>	

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ESR3, PS3: Resource Efficiency and Pollution Prevention							
3.1	<p>The Company will require the EPC Contractor to prepare a detailed procedure for hydrotesting and flushing of tanks, piping and the water conveyance pipeline.</p> <p>The procedure will demonstrate how hydrotesting is undertaken to avoid affecting the use of groundwater resources by communities and that adverse environmental impact of discharges to receiving environment is avoided.</p>	Avoidance of the use of groundwater resources, minimisation of impact from the discharge to sea of hydrotest water and pipeline flush water.	ESR3, PS3	NCPC, EPC	<ul style="list-style-type: none"> Hydrotesting and pipeline flushing philosophy available for review by the Lenders 3 months prior to the start of pipeline trench excavations Procedure accepted by Lenders prior to the start of pipeline trench excavations. 	<p>Hydrotesting and pipeline flushing procedure available and accepted by Lenders. The following requirements are to be demonstrated:</p> <ul style="list-style-type: none"> Scheduling of pipeline and desalination plant construction works prioritizing avoidance of the use of groundwater subject to technical feasibility and regulatory approval for hydrotesting and flushing of all section of the pipeline. Execution plan for the reuse of hydrotest and flushing water to minimise the volumes discharged to sea. Chemicals added to the hydrotest/flushing water meet good international practice in terms of low toxicity and are non-bioaccumulating. Minimisation of quantities of chemical used and methods of control of chemical dosing. Control of hydrotest/flush water quality prior to discharge to sea and procedure for recording quantities discharged. 	

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3.2	Once the final design and construction execution plans are available from the EPC Contractor, the Company will refine and update the existing GHG assessment encompassing both construction and operation phases of the Project.	Assessment of GHG emissions	ESR3, PS3	NCPC	Within 3 months of availability of detailed design and construction execution plan	Issue of the refined and updated GHG assessment in alignment with the EBRD's Protocol for Assessment of Greenhouse Gas Emissions and accepted by Lenders	
3.3	The Company will ensure that the EPC Contractors map, describe and quantify emissions aligned with the design stages - including liquid discharges, solid waste, air emissions and noise - across construction, commissioning, start-up, and both routine and non-routine (such as maintenance or process upsets, where relevant) operations providing details on the source and location of emission points, the physical and chemical characteristics of emissions, their frequency (continuous or intermittent), and the discharge point(s).	Inventory of emissions	ESR3, PS3	NCPC	Before construction, aligned with the design stages Before commissioning and start-up Three months prior to operation	Emissions Inventory updated as per the design stages and approved by Lenders	
3.4	The Company will maintain an inventory of Project GHG emissions and report emissions to the Lenders on a yearly basis during construction and operation of the Project facilities	GHG emission reporting	ESR3, PS3	NCPC	Annual, starting at the end of the first year of construction	Annual GHG reports accepted by Lenders	
3.5	The Company will undertake a documented prior audit of Jordan's hazardous waste treatment and disposal facilities before use, to ensure they can handle extra project waste without harming groundwater or nearby areas.	Hazardous Waste Management	ESR3, PS3	NCPC	Prior to start of construction Prior to start of operation	Audit report accepted by Lenders	
3.6	The Company will prepare a Chemical Selection Strategy to define how chemicals used by the Project will be of low toxicity and non-bio-cumulating in alignment with EU regulations and international conventions.	Biocides	ESR3, PS3 AFD and EDFI exclusion lists	NCPC	Prior to start of operation	Chemical Selection Strategy	
3.7	The Company will require the EPC contractor to undertake noise modelling studies to predict noise emissions from all permanent facilities (desalination plant and booster pump stations). The purpose of the modelling will be to verify that predicted noise levels do not exceed national and Lender noise emission limit values and that noise reduction measures are integrated in the design where necessary.	Management of risk of non-compliance with noise regulations and standards	ESR3, PS3	NCPC, EPC and specialist consultants	3 months prior to the start of the construction of the permanent facilities at the desalination plant and pump stations	Noise modelling study accepted by Lenders	

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ESR4, PS4: Health, Safety and Security							
4.1	The Company will ensure that the EPC contractors undertake a Natural Hazard Risk Assessment in alignment with Good International Practice (GIP). The purpose of the assessment will be to assess the natural hazards at the sites of permanent and temporary facilities (including temporary worker accommodation camp(s) and final pipeline route). The siting and design of facilities shall be adapted or modified as necessary to ensure adjacent facilities and people are not exposed to intolerable levels of risk.	Management of natural hazard risks to ensure worker safety and asset integrity	ESR4, PS4	NCPC, EPC and specialist consultants	Risk assessment prior to loan signing Mitigation integrated into detailed design prior to finalisation of design of relevant component	Natural Hazards Risk Assessment accepted by Lenders Mitigation integrated into detailed design	
4.2	The Company will ensure that the EPC contractors develop and submit a community health, safety and security management plan and traffic and road safety management plan prior to the start of construction. This plan will identify and map the areas where specific measures need to be defined and implemented (including influx).	Management of Community Health & Safety risks	ESR4, PS4	NCPC, EPC	At least one month prior to construction	Community Health, Safety and Security Management Plan and Traffic and Road Safety Management Plan accepted by Lenders	
4.3	The Company will develop a Security Management Plan aligned with the IFC Good Practice Handbook on use of security forces. The Plan will include as a minimum the following elements: a) If and where Security Personnel be required, ensure that the activities of dedicated security personnel provided by a private contractor follow the commitments of the Company in relation to Human Rights and ensure that proper vetting for past offences is undertaken b) Ensure that the activities by the security personnel (provided by a private contractor) are guided by an appropriate Code of Conduct and that associated training be provided on a regular basis to all security personnel c) Provide adequate training in relation to the appropriate use of force and human rights.	Management of Community Health & Safety risks	ESR4, PS4	NCPC	Prior to recruitment of any field security personnel or use of any field security personnel provided by a third party.	Security Management plan (including detailed information on training content and frequency).	
4.4	The Company will ensure that a Water Safety Plan is prepared in alignment with World Health Organization (WHO) guidelines. The purpose of the Plan will be to define a comprehensive risk assessment and risk management approach to help ensure that the quality of the drinking water supplied by the Project is acceptable in the context of public health protection.	Management of public health risks	ESR4, PS4	NCPC and specialist consultants, O&M Contractor	<ul style="list-style-type: none"> Draft Water Safety Plan available 1 year prior to the start of operation Final Water Safety Plan completed prior to start of 	Project's Water Safety Plan accepted by Lenders.	

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					drinking water supply operation.		
4.5	The Company will use best efforts to ensure that the operator of the Abu Alanda and Al Muntazah water storage reservoirs in Amman has undertaken a Risk Assessments for Reservoir Safety Management in alignment with GIP – and if not, will undertake such a study. The purpose of the studies will be to ensure the safety of communities from accidental loss of containment of stored water. International risk tolerability criteria will be used in the assessment. The risk assessment shall include assessment and management of risks related to Project-related modifications to the reservoirs.	Management of public safety risks	ESR4	MWI, with support from NCPC and specialist consultants	<ul style="list-style-type: none"> Draft Reservoir Risk Assessments available 1 year prior to the start of operation Final Reservoir Risk Assessments completed prior to start of drinking water supply operation. 	Reservoir Risk Assessments performed by MWI for Abu Alanda and Al Muntazah reservoirs.	
4.6	The Company will ensure that the EPC contractor undertakes a Pipeline Risk Assessment in alignment with GIP to identify, analyse and mitigate risks associated with the water conveyance pipeline operation to ensure public safety and compliance with ESR4 and PS4 risk standards. The scope of the risk assessment will include the interface with operational control systems and safety management systems of the Abu Alanda and Al Muntazah water storage reservoirs in Amman.	Management of public safety risks	ESR4 (infrastructure safety)	NCPC and specialist consultants, O&M Contractor	<ul style="list-style-type: none"> Draft Pipeline Risk Assessments available 1 year prior to the start of operation Final Pipeline Risk Assessments completed prior to start of drinking water supply operation. 	Pipeline Risk Assessments accepted by Lenders.	
4.7	The Company will ensure that the EPC contractor prepares a Safety Study for the desalination plant in alignment with ESR4 and PS4. The purpose of the Safety Study is to identify and control to a tolerable level the accident hazards on the site with the potential to cause offsite consequences to people and the environment (e.g. accidental release of chlorine gas).	Management of public safety risks	ESR4	NCPC and specialist consultants and contractors	<ul style="list-style-type: none"> Draft desalination plant safety study available 1 year prior to the start of operation Final desalination plant safety completed prior to start of drinking water supply operation. 	Desalination plant safety study accepted by Lenders.	
4.8	The Company will prepare operation phase Emergency Preparedness and Response Plans for all project facilities in alignment with ESR4 and PS4 and in coordination with relevant local authorities and public emergency response services.	Management of public safety risks	ESR4	NCPC and specialist consultants and contractors	<ul style="list-style-type: none"> Draft emergency response plans available 1 year prior to the start of operation Final emergency response plans 	Emergency response plans accepted by Lenders.	

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					completed prior to start of drinking water supply operation.		
ESR 5, PS5: Land Acquisition and Involuntary Resettlement							
5.1	The Company will take the necessary actions in order that the MWI policy for the AAWDCP is enacted through a formal Cabinet Approval, and the Resettlement Policy Framework covering all land needs of the Project and Associated Facilities (overhead power lines, extension of the reservoirs) is approved by MWI	Land Acquisition and involuntary resettlement	ESR5, PS5 Legislative	NCPC, MWI	Prior to Project presentation to IFC or EBRD's Boards, whichever is sooner.	Cabinet Approval enacting the MWI policy for the Project, covering all land needs of the Project and Associated Facilities.	
5.2	Prior to the start of the RAP activities, the Company will prepare and share with the Lenders a RAP (including LRP) workplan, detailing a schedule of all RAP activities to be done, including phasing the land acquisition process into several RAPs if needed, how the cut-off date will be defined and communicated, the census and RAP surveys, the application of the mitigation hierarchy with regards to grazing areas and water points used by nomadic and semi-nomadic herders (including route adjustments).	Land Acquisition and involuntary resettlement	ESR5, PS5	NCPC	Prior to Project presentation EBRD Board	RAP (including LRP) workplan accepted by Lenders	
5.3	The Company will sign a Memorandum of Understanding with MWI in order to: <ul style="list-style-type: none"> Define the cost breakdown for RAP implementation between MWI and The Project Clarify the legal MWI's process and modalities to approve and secure public funds for RAP implementation in a timely manner. Define the modalities for the RAP implementation and payment compensation for the associated facilities under the responsibility of a third stakeholder 	Land Acquisition and involuntary resettlement	ESR5 and PS5	NCPC and MWI	Prior to loan signing	MoU signed between the Project and MWI	
5.4	The Company will commission a qualified resettlement consultant and a team of experts to develop and implement one or more Resettlement Action Plans (RAPs), including Livelihood Restoration Plans (LRPs) in line with the principles identified in the Project RPF and ESR5 and PS5.	Land Acquisition and involuntary resettlement	ESR5, PS5	NCPC	Prior to start of construction	Resettlement Consultant contract executed	
5.5	The Company will develop one or more RAPs (including LRPs) that cover all the Project land needs (including the land acquisition requirements for the solar power plant), Associated Facilities and all other Project components.	Land Acquisition and involuntary resettlement	ESR5, PS5	NCPC	Prior to start of construction for each of the Project components and/or	RAP(s), including LRP(s) and Vulnerable Assistance, accepted by Lenders	

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	The RAP will also assess the possible livelihood impact of the state-owned lands allocated to Project and Associated Facilities for the herders and/or other users and develop necessary measures in line with IFC PS5 and EBRD ESR5 requirements and these measures will be integrated into the RAP, including LRP. As part of the RAP, the Project will develop (i) Vulnerable Assistance measures for vulnerable Affected People and (ii) processes to manage additional land needs during construction.				each of the land acquisition areas	RAP and LRP publicly disclosed.	
5.6	All RAP(s) data from the preparation to the implementation and monitoring should be integrated into a unique informatic database.	Land Acquisition and involuntary resettlement	ESR5 and PS5	NCPC	Preparation of the database structure prior to the RAP implementation Completion during the whole land acquisition and involuntary resettlement process	Complete database	
5.7	The Company will work with MWI to monitor and report on land acquisition and compensation process and will bridge and/or fund any gaps to comply with Lenders' requirements	Land Acquisition and involuntary resettlement	ESR5, PS5	NCPC	Throughout land acquisition/access, permanent or temporary	RAP implementation reports	
5.8	The Company will arrange for a PS5/ESR5 external auditor to be mobilised to perform a completion audit to assess achievement of the RAP objectives and assess livelihood restoration, to ensure that at completion the livelihoods of the affected persons are restored, as per the requirements of ESR5 and PS5. In case of any gap, the Project will implement corrective actions until there are closed.	Land Acquisition and involuntary resettlement	ESR5, PS5	NCPC	Completion Audit performed two years after compensations are paid.	ToR and auditor accepted by the Lenders Completion Audit Report accepted by Lenders	
ESR6, PS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources							
6.1	The Company will develop the framework Biodiversity Action Plan (BAP) into a BAP based on the Critical Habitats Assessments (CHA) and residual impact assessment. The BAP will be commensurate with the residual impacts resulting from the project. It will detail the mitigation approach for the Project, and associated overhead transmission lines to ensure No Net Loss of Priority Biodiversity Features and Natural Habitat and Net Gain for Critical Habitat. The BAP will include a loss/gain assessment and define habitat and species-specific actions to address residual impacts on Priority	Biodiversity impact Management	ESR6, PS6, AFD Group exclusion list, EDFI exclusion list	NCPC and specialist consultants and contractors	<ul style="list-style-type: none"> BAP in draft form prior to Project presentation to IFC or EBRD's Boards, whichever is sooner. BAP finalised prior to first disbursement Implemented during life of Project. 	BAP developed, costed, budget confirmed, implemented, monitored and reported. BAP acceptable to lenders BAP updated as necessary. Implementation reported to the Lenders and data	

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	<p>Biodiversity Features, Natural Habitat and Critical Habitat.</p> <p>The Company will refine the Residual impact assessment on marine critical habitats in order to develop a rationale for triggering (or not) of the lenders' exclusion lists.</p> <p>In line with ESR 6 and PS6, the BAP will also define the offset strategy and additional conservation actions to achieve Net Gain objectives.</p> <p>The Project will continue the consultation process with UNESCO, ASEZA, Royal Society for the Conservation of Nature (RSCN) and other relevant stakeholders, incorporate the outcomes into related assessments and further document the engagement processes within the scope of the BAP. The BAP will also make provisions for additional conservation programs for the Aqaba Coast and Mountains KBA and Hisma Basin Rum KBA (and the Aqaba Marine Reserve and Wadi Rum Protected Area, if applicable). Additional conservation programs will be developed and implemented in coordination with stakeholders (i.e. UNESCO, ASEZA, RSCN) to enhance the conservation objectives and effective management of any affected designated areas.</p>					tracked on implementation progress and success	
6.2	<p>The Company will ensure that additional baseline biodiversity surveys are undertaken prior to the start of construction. Surveys will include as a minimum (i) additional ROV surveys within the brine plume mixing zone and area of influence for impacts from sea water intake; and (ii) spring surveys for terrestrial flora and avifauna. Survey outcomes together with, stakeholder engagement and additional EPC surveys and modelling, will allow refinement and updates to the following (i) terrestrial and marine Critical Habitat Assessment (CHA), (ii) identification and mapping of priority biodiversity values including those associated with Legally Protected and Internationally Recognized Areas, (iii) areas of Natural and Critical Habitat, and Priority Biodiversity Features, including quantification and mapping, (iv) residual impacts assessment and quantification, (v) an Ecosystem Services Review, and (vi) the mitigation strategy for the Project that includes avoidance, minimization and restoration measures.</p>	Biodiversity impact management	ESR6, PS6, AFD Group exclusion list, EDFI exclusion list	NCPC and biodiversity contractors	<ul style="list-style-type: none"> • Surveys prior to construction and mitigation actions during construction • Survey outcomes and assessment/quantification of residual impacts to be obtained 1 month prior to start of construction of the relevant project component 	<p>Surveys undertaken.</p> <p>Refinement and update of biodiversity baseline, impact assessment and mitigation/management measures.</p> <p>Quantification of predicted residual loss of natural and critical habitat.</p> <p>Biodiversity reporting to the Lenders and data available</p>	

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6.3	The Company will develop and implement terrestrial and marine construction-phase Biodiversity Management Plans (BMPs) to set forth mitigation measures to avoid and minimize impacts on Natural Habitat, Critical Habitat and priority biodiversity values that overlap with the terrestrial and marine components of the Project. The construction-phase BMPs will incorporate all related procedures that will be implemented during the project's terrestrial and marine activities, which at the minimum, will include procedures for pre-construction checks, vegetation removal, topsoil management, sediment management, and invasive alien species management.	Biodiversity impact management	ESR6, PS6	NCPC and biodiversity contractors	<ul style="list-style-type: none"> BMPs finalised prior to first disbursement Mitigation actions during construction 	The construction-phase BMPs and related procedures developed and acceptable to Lenders. Biodiversity reporting to the Lenders and data available.	
6.4	The Company will develop and implement operations-phase BMPs including terrestrial and marine Habitat Restoration Programs, which will be informed by the residual impact assessment. The programs will include recommendations for restoration measures in areas of Natural and Critical Habitat, and Priority Biodiversity Features, and monitoring requirements. The marine operations-phase BMP will be aligned with the Project's brine management strategies, which will be developed to mitigate impacts on biodiversity values through implementing relevant measures for volume reduction, treatment and discharge minimization. The Project will contract qualified specialists with international experience to develop and implement terrestrial and marine operations-phase BMPs including restoration monitoring.	Biodiversity impact management	ESR6, PS6, AFD Group exclusion list, EDFI exclusion list	NCPC and biodiversity contractors	<ul style="list-style-type: none"> Operations phase BMPs finalised prior to operation 	The operations-phase BMPs and related procedures developed and acceptable to Lenders. Biodiversity reporting to the lenders and data available.	
6.5	The Company will develop a Biodiversity Offset Management Plan (BOMP), to be commensurate with the residual impacts resulting from the project. The BOMP will utilise qualified experts with international experience on offsets to: (i) quantify residual impacts on critical habitats; (ii) define offset criteria and options; and (iii) conduct an offset feasibility study; (iv) develop and monitor implementation of offsets aiming to deliver measurable conservation outcomes to include indicators and thresholds for adaptive management; and (v) budgets for implementation and monitoring	Biodiversity offset	ESR6, PS6,	NCPC and specialist consultants and contractors	<ul style="list-style-type: none"> ToR for the BOMP prior to signing of the loan agreement Selection and approval of the consultants by lenders 1 month after signing of the loan agreement BOMP in draft form 6 months from loan agreement BOMP finalised within 1 year of signing of loan agreement 	BOMP developed, costed, budget confirmed, implemented, monitored and reported. BOMP acceptable to lenders BOMP updated as necessary. Implementation reported to the Lenders and data tracked on implementation progress and success	

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					<ul style="list-style-type: none"> Implemented during life of Project. 		
6.6	<p>Develop a Biodiversity Monitoring and Evaluation Plan (BMEP), to be commensurate with the residual impacts resulting from the project. This should include (i) monitoring and evaluation plans, indicators and thresholds for adaptive management, and include a separate budget; (ii) indicators according to biodiversity pressures, status, trends and response, as applicable, to monitor project impacts on PBFs, Natural and Critical Habitat. Included but not limited to potential entrainment of; seagrass pollen or seeds, coral planula larvae, giant clam gametes (eggs and sperm), fish larvae and other marine fauna and the effectiveness of the proposed mitigation measures.; (iii) targeted methodologies and monitoring locations, at a level that can be implemented by specialists conducting the monitoring.; and (iv) adaptive management thresholds should be developed and actions defined where thresholds are exceeded.</p> <p>The monitoring program will be undertaken over a minimum of 2 years but may be extended based on the findings</p>	Biodiversity monitoring	ESR6, PS6, AFD Group exclusion list, EDFI exclusion list	NCPC and biodiversity contractors	<p>BMEP in draft form 3 months prior to operation</p> <p>BMEP finalised 1 month prior to operation</p> <p>Monitoring during operation</p>	<p>BMEP developed, costed, budget confirmed, implemented, monitored and reported.</p> <p>BMEP acceptable to lenders</p> <p>BMEP updated as necessary.</p> <p>Implementation reported to the Lenders and data tracked on implementation progress and success</p>	
6.7	<p>The Company will use best efforts to ensure that Bird Flight Diverters (BFD) are installed along the entire length of the main overhead transmission line (OHTL) on the shield wire, as per the ESIA. All BFDs will be dynamic (i.e. move in the wind) to increase visibility. Insulators and anti-perching devices to prevent electrocution from birds touching both energized and grounded components should be installed.</p> <p>The installation of BFDs and insulators will be supervised by appropriate experts.</p>	Biodiversity Risk Management	ESR6, PS6	NCPC with NEPCO	<ul style="list-style-type: none"> Design agreed four months prior to start of construction. Installed during construction 	<p>BFDs agreed with the Lenders</p> <p>BFDs installed with reporting to the Lenders</p>	
6.8	The Company will implement a Post-Construction Fatality Monitoring (PCFM) program, based on GIP, along high-risk areas of the main OHTL to monitor bird flight activity, assess effectiveness of mitigation, and identify any further measures to be taken in line with an adaptive management approach. The Company will contract an internationally recognized and specialised consultancy to design and develop the PCFM program in collaboration with a local consultancy. The PCFM program will take place for at least a two-year period, but	Biodiversity Risk Management	ESR6, PS6	Project and biodiversity contractors	<ul style="list-style-type: none"> PCFM program finalised 3 months prior to operation Implemented during operation for at least two years 	<p>ToR for specialized wind-wildlife consultancy submitted and acceptable to Lenders.</p> <p>Selection of consultancy agreed with lenders.</p> <p>PCFM program accepted by the Lenders.</p>	

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	the actual timeframe of the program may need to be revised depending on the fatality results					PCFM reports to Lenders Strategic review of PCFM results.	
ESR7, PS7: Indigenous Peoples							
7.1	ESR7/PS7 is not applicable for all Lenders. GCF have criteria that may be met. As part of the RAP(s) surveys, identify potential impacts on land used for nomadic / semi-nomadic pastoralists activities and define appropriate measures as needed to allow GCF to assess the non-applicability of their standards.	Indigenous Peoples	GCF standards on IP	NCPC and RAP Consultant	During RAP(s) preparation	Relevant sections of the RAP(s)	
ESR8, PS8: Cultural Heritage							
8.1	In alignment with official procedures and protocol, the Company will coordinate with the ASEZA UNESCO representative to obtain a "No Objection", or similar, to the Project's conveyance component.	Cultural heritage risk management	ESR8, PS8	NCPC	Prior to Project presentation to IFC or EBRD's Boards, whichever is sooner	ASEZA UNESCO representative no objection or other form of official communication allowing the project	
8.2	The Company will undertake and complete a full archaeological and tangible and intangible cultural heritage baseline prior to construction. This includes a systematic walkover survey of the pipeline alignment and all ancillary areas, supported by specialist analysis of LiDAR, aerial imagery, and any available subsurface datasets. Ground-truthing will be undertaken where anomalies or potential heritage features are identified	Cultural heritage risk management	ESR8, PS8	NCPC	Prior to first disbursement	Archaeological and tangible and intangible cultural heritage baseline survey report	
8.3	The company will develop and implement a Cultural Heritage Management Plan.	Cultural heritage risk management	ESR8, PS8	NCPC	Prior to first disbursement	Cultural Heritage Management Plan	
8.4	The Company will ensure that the EPC Contractor responsible for civil works will prepare and implement a Chance Finds Procedure for the Project. This procedure will be designed to address any potential discoveries of new cultural heritage elements during the construction phase and ensure appropriate measures are taken in response.	Cultural heritage risk management	ESR8, PS8	NCPC	Prior to and during construction of any Project component.	Chance finds procedure	
8.5	The Company will ensure that all consultations on cultural heritage (tangible & intangible) are documented in subsequent updates of the Project SEP to account for any unforeseen impacts throughout the lifetime of the Project.	Cultural heritage risk management	ESR8, PS8	NCPC	Prior to construction.	Coverage of cultural heritage-specific consultations in updated SEP.	

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ESR10, PS1: Information Disclosure and Stakeholder Engagement							
10.1	The Company will implement and maintain the Project Stakeholder Engagement Plan (SEP), as well as the public grievance mechanism. Ensure that priority is given, and resources allocated, to implement stakeholder engagement and communication activities during the construction phase. The SEP will be gender responsive and inclusive of all relevant stakeholders, including vulnerable people and underrepresented groups.	Stakeholder engagement and information disclosure	ESR10, PS1	NCPC	During all project phases	Stakeholder Engagement Plan and public grievance mechanism implemented, and records maintained. Yearly updates of the SEP	
10.2	The Company will prepare an ESIA consultation report that documents the actions undertaken during the ESIA disclosure period including the implementation of the SEP, consultation with stakeholders and responses provided. The Consultation report will be disclosed.	Stakeholder engagement and information disclosure	ESR10, PS1	NCPC	Prior to loan signing	Disclosure report produced and acceptable to the Lenders. Report disclosed	
10.3	The Company will ensure that the ESIA and associated documents and plans remain available for consultation in the public domain for the life of the Project, including any supplements, additions and updates to the ESIA disclosure package, for example the RAP, BAP, assessments of worker camps, etc.	Stakeholder engagement and information disclosure	ESR10, PS1	NCPC	Life of the Project	ESIA and ESMMP documentation disclosed.	
10.4	The Company will disclose pictures and schematics of the Project facilities and desalination processes to complete information sharing.	Information disclosure	ESR10, PS1	NCPC	Prior to loan signing	Visuals available on Project's website and information brochures in public spaces	
10.5	The Company will disclose quarterly update reports on Project progress and E&S performance during the construction phase and first two years of operation. The information will be publicly disclosed on the Project's website and through newsletters to communities.	Stakeholder engagement and information disclosure	ESR10, PS1	NCPC	During construction and first two years of operation	Project update and E&S performance reports disclosed.	
10.6	The Company will arrange the following: Risk assessments, safety studies and emergency response plans will be shared with local authorities and non-technical summaries disclosed to communities potentially affected by the consequences of accident events: <ul style="list-style-type: none"> Risk Assessments for Reservoir Safety Management - Abu Alanda and Al Muntazah water storage reservoirs in Amman to be developed by MWI 	Stakeholder engagement and information disclosure	ESR10, PS1	NCPC, MWI, O&M Contractor	6 months prior to the start of operations	Safety studies, risk assessment and emergency response plans provided to local authorities Non-technical summaries of safety studies, risk assessment and emergency response plans disclosed to	

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	<ul style="list-style-type: none"> • Risk Assessment of the water conveyance pipeline • Safety study for the desalination plant • Emergency response plans for events with potential consequences affecting communities, in collaboration with MWI 					potentially affected communities	