

Fertil Pampa Urea Project Finance – ARGENTINA
Environmental and Social Action Plan (ESAP)

No.	Aspect	Action	Output	Delivery Date
ND 1: Assessment and Management of Environmental and Social Risks and Impacts				
1.1	Environmental and Social Management System	1. Develop, implement, and maintain an Environmental and Social Management System ("ESMS") that: i) will strengthen processes to identify and manage key environmental and social risks; ii) will include required management plans and procedures; iii) will define appropriate roles, staffing requirements, competencies, resources, and reporting lines, including oversight of contractors; and iv) contains procedures for (a) environmental, social, and occupational health and safety monitoring, (b) reporting, (c) incident management, (d) implementation of corrective actions, (e) management review of the system, and (f) continuous improvement.	1. ESMS Manual for the Construction Phase. 2. ESMS Manual for the O&M Phase.	1. Prior to the first disbursement and, in all cases, prior to the start of construction or mobilization to the site, and thereafter as part of the Environmental and Social Compliance Report ("ESCR") 2. At least 90 days prior to commissioning and before the start of operational staff training, and thereafter as part of the ESCR.
1.2	Direct and Indirect Impacts and Risks	1. Conduct a comprehensive Quantitative Risk Assessment ("QRA") to estimate the potential ranges of impact under scenarios associated with the storage and handling of ammonia and other hazardous materials, including loading operations. 2. Complete the relevant process safety studies in accordance with International Good Industry Practices ("IGIP"), including: i) a Hazard and Operability Analysis ("HAZOP"); ii) a Layers of Protection Analysis ("LOPA"); iii) a Safety Integrity Level ("SIL") assessment; iv) an identification of Safety-Critical Elements ("SCE") and their associated Performance Standards; v) a Hazardous Area Classification; vi) an Occupied Building Risk Assessment ("OBRA"); and viii) an Escape and Evacuation Risk Assessment ("EERA"). 3. Incorporate the findings and recommendations from these studies into the final design of the facilities, including the final configuration, the design of fire and explosion prevention, detection, protection, and mitigation systems; operating procedures; emergency preparedness and response measures; process safety management systems; and other measures necessary to further reduce risks to workers and surrounding communities, in accordance with IFC Performance Standards and International Industry Best Practices ("IIBP").	1. Comprehensive QRA. 2. HAZOP, LOPA, SILECS, Hazardous Area Classification, OBRA, and EERA. 3. A technical report demonstrating that the recommendations derived from the QRA and associated process safety studies have been incorporated into the final design, and confirming that residual risks and impact zones are contained within the Project site or are adequately managed through measures implemented for affected recipients and communities off-site, in accordance with the IFC Performance Standards and IIBP.	1. Within 390 days of the contract signing. 2. Within 390 days of the contract signing. 3. Prior to commissioning.
1.3	Cumulative impacts	1. Update the Cumulative Impact Analysis ("CIA") by: i) better selecting the Valued Environmental and Social Components ("VEC"); ii) a better selection of past projects, projects currently underway, and projects reasonably expected to be developed in the future that may generate cumulative impacts; iii) the inclusion of relevant affected parties; and iv) the development of a mitigation plan for cumulative environmental impacts that are material.	1. Updated CIA.	1. Prior to the first disbursement.
1.4	Exposure to Climate Change	1. Develop a comprehensive assessment of physical and transition climate risks, including climate scenarios, time horizons aligned with the	1. Climate risk assessment and associated action plan.	1. Within 180 days of contract signing.

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		Project's useful life, material risks, and adaptation and resilience measures.		
1.5	Management Programs	1. Develop and implement a consolidated Construction Environmental, Health, and Safety Management Plan ("EHSMP") that integrates the Environmental, Health, and Safety plans of the EPC contractors and subcontractors and establishes: i) uniform requirements; ii) roles and responsibilities; iii) performance indicators; iv) monitoring and reporting arrangements; v) oversight and assurance mechanisms; vi) corrective action processes; and vii) adaptive management procedures. 2. Develop and implement an O&M EHSMP that: i) reflects the final Project design; ii) includes applicable process safety and environmental studies; iii) identifies operational risks and impacts; and iv) defines monitoring requirements and emergency preparedness arrangements.	1. Consolidated Construction Phase Management Plan (EHSMP). 2. EHSMP for the O&M phase.	1. Prior to the first disbursement and, in all cases, prior to the start of construction or mobilization to the site, and subsequently as part of the ESCR. 2. At least 90 days prior to commissioning and before the start of operational staff training, and thereafter as part of the ESCR.
1.6	Organizational Capacities and Competencies	1. Establish and maintain, as part of the Project's environmental and social organizational structure, an adequate organizational capacity by designating a team with sufficient resources, qualifications, and competencies to oversee environmental and social performance during construction and operation, including, at a minimum: (i) an environmental manager; (ii) a social manager; and (iii) an occupational health and safety manager.	1. Evidence of appointment.	1. Prior to the start of construction.
1.7	Emergency Preparedness and Response	1. Adapt and implement a Project-specific Emergency Preparedness and Response Plan ("EPRP") that: i) is (a) finalized and operational prior to the start of operations, (b) aligned with the Company's corporate framework, applicable legal requirements, and BPIL, and (c) is based on the existing emergency preparedness and response arrangements for the Ingeniero White industrial and port complex; ii) establish interfaces between these two facilities, including APELL-based arrangements for surrounding communities; iii) address emergency scenarios identified through process safety studies and QRA analyses, including major accident scenarios involving ammonia and other hazardous materials; iv) define on-site and off-site response measures; v) establish roles and responsibilities; vi) contain procedures for notification and coordination with competent authorities, emergency services, port operators, and other relevant parties; vii) detail the required resources; and viii) establish arrangements for staff training, including the conduct of drills and the periodic review and update of the plan. 2. Based on the findings of the process safety studies, develop a detailed design of the fire and explosion prevention, detection, protection, and management systems.	1. Project-Specific Emergency Preparedness and Response Plan. 2. Detailed design of fire and explosion prevention, detection, protection, and mitigation systems.	1. At least 90 days prior to commissioning and before the start of training for operational personnel. 2. At least 90 days prior to commissioning and before the start of training for operational personnel.
1.8	Stakeholder Engagement	1. Develop and implement a Stakeholder Engagement Plan ("SEP") that includes, among other things: i) mapping and segmentation of stakeholders; ii) identification of vulnerable groups; iii) phase-specific engagement strategies, outreach methods, and meaningful consultation; iv) documentation and follow-up on stakeholder input; v) feedback and reporting to affected communities; vi) implementation responsibilities; and vii) timelines and monitoring indicators.	1. Stakeholder Engagement Plan.	1. Prior to the start of construction, and subsequently as part of the ESCR.

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1.9	Complaints Mechanism for Affected Communities	1. Develop and implement a Community Grievance Mechanism that: i) provides multiple accessible channels for communities and vulnerable groups; ii) establishes procedures for the receipt, registration, assessment, investigation, response, escalation, and closure of grievances; iii) defines response and resolution timelines; iv) maintains a record and performance indicators; v) includes procedures for confidentiality, the submission of anonymous complaints, and protection against retaliation; vi) establishes periodic monitoring and reporting to identify trends and implement corrective actions that minimize recurrence; and vii) provides feedback to stakeholders and affected communities in a culturally appropriate manner.	1. Community Grievance Mechanism disseminated.	1. Prior to the start of construction, and subsequently as part of the ESCR.
ND 2: Work and Labor Conditions				
2.1	Non-Discrimination and Equal Opportunity	1. Develop and implement a formal local employment program that: i) establishes objectives, eligibility and selection criteria, outreach measures, and recruitment procedures; and ii) uses monitoring indicators to promote transparent and equitable access by local communities to Project employment opportunities.	1. Local Employment Program.	1. Prior to the start of construction, and subsequently as part of the ESCR.
2.2	Complaint Handling Mechanism	1. Update the worker grievance mechanism at the project level to: (i) include specific provisions for complaints related to GBV and harassment, with a victim-centered approach; (ii) ensure that anonymous complaints are recorded and addressed; and (iii) ensure that (a) it is accessible and culturally appropriate for all workers, (b) it provides various channels for filing complaints, and (c) it is transparent and promotes accountability without retaliation.	1. Updated grievance mechanism.	1. Prior to the start of construction, and subsequently as part of the ESCR.
2.3	Occupational Health and Safety	1. Develop and implement an Occupational Health and Safety and Process Safety Management System integrated into the Project's EHSMP that addresses, at a minimum: i) process safety information requirements; (ii) protocols for process hazard identification, risk assessment, and risk management; (iii) operating procedures for routine, non-routine, startup, shutdown, and emergency activities; iv) change management guidelines; v) pre-startup and operational readiness safety requirements; vi) mechanical and asset integrity requirements, and requirements for the management of Critical Safety Elements; vii) contractor safety management processes; viii) competency, training, and authorization requirements; ix) emergency preparedness and response protocols; x) occupational health surveillance and exposure monitoring requirements; xi) incident reporting and investigation protocols and lessons learned; xii) process safety performance indicators; and xiii) audit, management review, and continuous improvement requirements.	1. Occupational Health and Safety and Process Safety Management System Manual for Construction.	1. Prior to the first disbursement and, in all cases, prior to the start of construction, and subsequently as part of the ESCR.
			2. Occupational Health and Safety and Process Safety Management System Manual for O&M.	2. At least 90 days prior to commissioning and before the start of operational staff training, and thereafter as part of the ESCR.
ND 3: Efficient Use of Resources and Pollution Prevention				
3.1	Pollution Prevention	1. Improve the technical design of pollution prevention measures to reduce ammonia emissions and ensure their alignment with the World Bank Group's MASS Guidelines for Nitrogen Fertilizer Production.	1. Technical design document demonstrating compliance with applicable air emissions standards.	1. At least 90 days prior to commissioning and before the start of training for operational personnel.
		2. Strengthen and implement the Air Quality Monitoring Program by: (i) defining the frequency of monitoring for gaseous emissions and air quality; and (ii) incorporating international standards	2. Updated Air Quality Monitoring Program.	2. At least 90 days prior to commissioning and before the start of training for operational personnel.

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3.2	Waste	1. Characterize the various wastewater streams in greater detail.	1. Characterization of the various wastewater streams.	1. At least 90 days prior to commissioning and before the start of training for operational personnel.
		2. Review the design of the wastewater management system	2. Evaluation of the wastewater management system.	2. At least 90 days prior to commissioning and before the start of training for operational personnel.
		3. If necessary, optimize treatment and discharge processes to ensure compliance with the values required by international standards.	3. Evidence of optimization.	3. At least 90 days prior to commissioning and before the start of training for operational personnel.
		4. Assess the potential impacts of brine discharge on the receiving marine/estuary environment, including potential effects on: i) water quality; ii) aquatic communities; iii) fishery resources; iv) ecosystem services; and v) artisanal and recreational fishermen, as applicable.	4. Impact assessment using a brine discharge model.	4. At least 90 days prior to commissioning and before the start of training for operational personnel.
		5. If necessary, implement measures to prevent or minimize such impacts.	5. Evidence of Implementation.	5. At least 90 days prior to commissioning and before the start of training for operational personnel.
		6. Develop and implement a Quality Monitoring Program for the Final Discharged Liquid Effluent.	6. Final Discharged Liquid Effluent Quality Monitoring Program.	6. At least 90 days prior to commissioning and before the start of operational staff training, and thereafter as part of the ESCR.
ND 4: Community Health and Safety				
1.	Community Health and Safety	1. Develop and implement a Community Health and Safety Management Plan that includes: i) protocols for the prevention of communicable diseases; ii) measures to manage risks associated with road safety; iii) provisions for the enforcement of worker codes of conduct, as well as workforce orientation and training; iv) health programs for workers; v) protocols for managing worker housing, where applicable; vi) access to health services, awareness-raising, and prevention activities; vii) a traffic management program; and viii) a stakeholder engagement program.	1. Community Health and Safety Management Plan.	1. Prior to the start of construction, and subsequently as part of the ESCR.
ND 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources				
6.1	General Requirements	1. Conduct additional specific studies within the Project's direct area of influence to document the presence of biodiversity values.	1. Additional studies to document the presence of biodiversity values.	1. (a) for terrestrial fauna, one month before construction begins; and (b) for aquatic fauna, four months before construction begins in the marine environment.
6.2	Critical Habitat	1. Complete the Critical Habitat Assessment.	1. Critical Habitat Assessment.	1. Prior to the first disbursement.
		2. With the support of an independent consultant, prepare a Biodiversity Action Plan ("BAP") that includes a Biodiversity Monitoring and Assessment Plan ("BMAP"), to ensure, once implemented, a Net Gain in Critical Habitat.	2. BAP.	2. (a) for terrestrial fauna, three months prior to major earthworks and within 180 days after the contract is signed; and (b) for aquatic fauna, within 360 days after the contract is signed and two months before construction begins in the marine environment.
6.3		1. As part of the BAP, identify and implement additional actions to support the conservation objectives of the Bahía Blanca, Bahía Falsa, and	1. Evidence of engagement with sponsors and key stakeholders (e.g., meeting	1. Within 60 days of the contract signing.

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	Legally Protected and Internationally Recognized Areas	Bahía Verde Key Biodiversity Area ("KBA") and Important Bird Area ("IBA").	details and minutes), including plans to implement additional conservation actions.	
			2. Plan for additional conservation actions to be implemented in the KBA/IBA.	2. Within 270 days of the contract signing.