

Public Information Summary

Host Country	Iraq
Name of Borrower	Pearl Petroleum Company Limited
Project Description	Expansion of the Borrower’s natural gas processing capacity in the Kurdistan Region of Iraq (“ KRI ”). The proceeds of the loan will be used to finance the development, construction and operation of a 250 million standard cubic feet per day natural gas processing facility and associated infrastructure and drilling of up to five (5) wells in the Khor Mor gas field (the “ Project ”). All processed gas will be provided to underutilized gas power plants in the KRI.
Proposed DFC Loan/Guaranty	Up to \$250,000,000
All-Source Funding Total	\$625,000,000
Policy Review	
Developmental Objectives	This Project is expected to have a highly developmental impact on Iraq, with support for the construction and operation of a natural gas processing facility that will supply power plants in the KRI. Despite ample capacity, the current lack of available natural gas has limited power production to half of the region’s potential. Though this Project will not directly produce power, the Project is expected to indirectly reduce the region’s frequent blackouts through an increased natural gas supply for power plants. In addition to providing a critical input for electric power generation, the Project will support the utilization of natural gas over diesel fuel and oil-fired generation. This switch will not only generate costs savings for power generation for KRI, but also lead to lower CO ₂ emissions and significant socio-economic benefits for the wider population.
Environment and Social Assessment	<p>Screening: The Project has been reviewed against DFC’s categorical prohibitions and determined to be eligible. The Project has been screened as Category A because it has the potential for significant, adverse environmental and social impacts on the areas surrounding the gas production wells and the gas processing plant. In addition, the Project has been screened as Category A because the project triggered the greenhouse gas emissions threshold of 100,000 tons of carbon dioxide equivalent (CO₂eq) per year. The Project has the potential to emit approximately 120,000 tons of CO₂e/year.</p> <p>Key environmental impacts include impacts due to process safety; air emissions and noise; and impacts on soil, surface water, groundwater, vegetation, and fauna present in the area (including reptiles, amphibians,</p>

birds, and mammals). In addition, there are potential social impacts which include worker safety and overall labor management; community health, safety, and security; access to land and potential economic displacement; impacts due to in-migration; and potential impacts related to cultural heritage.

Environmental and Social Standards: DFC's environmental and social due diligence indicates that the investment will have impacts which must be managed in a manner consistent with the following International Finance Corporation's (IFC) 2012 Performance Standards (PS):

- PS 1: Assessment and Management of Environmental and Social Risks and Impacts;
- PS 2: Labor and Working Conditions;
- PS 3: Resource Efficiency and Pollution Prevention;
- PS 4: Community Health, Safety, and Security; and
- PS 5: Land Acquisition and Involuntary Resettlement;
- PS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources;
- PS 8: Cultural Heritage.

No indigenous peoples have been identified at or near the Project site. Therefore, Performance Standard (PS) 7 (Indigenous Peoples) is not triggered by the Project at this time.

The World Bank Group's (WBG) Guidelines applicable to the Project identified under PS 3 include: General Environmental, Health, and Safety (EHS) (2007), Gas Distribution Systems (2007), Crude Oil and Petroleum Product Terminals (2007), and Onshore Oil and Gas Development (2007). EBRD/IFC's Guidance Note on the Workers Accommodation is also applicable.

Environmental and Social Risks with Mitigation Measures: The Project operator has an environmental and social management system, which has been designed to achieve consistency with the requirements of the 2012 IFC Performance Standards. The Project has put in place procedures consistent with internationally accepted good practices to address both occupational and community safety risks associated with the accidental release of methane and other Volatile Organic Compounds (VOC), fire, and explosion. The Project has developed a stakeholder engagement plan and external grievance mechanism appropriate for managing its relationships with its local and external stakeholders.

The Project is expected to follow internationally recognized best practices in process safety and properly manage hazardous materials

including methane. The Project will implement a comprehensive Environmental and Social Management Program (ESMP) which will address: process safety; accidental gas releases, fire and explosion; petroleum resource management; air emissions; wastewater treatment and sewage discharges; solid and hazardous waste disposal; emergency management; labor management and working conditions; occupational health and safety; spill response; monitoring; stakeholder engagement and information dissemination; land management, including any anticipated acquisition; community health, safety, and security management; cultural heritage management and chance finds procedure; and biodiversity management. In addition, the Project will be required to develop and implement a Livelihood Restoration Plan (LRP) for any potential economic displacement as a result of the installation of new flow lines.

The Project will implement its Emergency Response Plan (ERP) to ensure that appropriate emergency response measures are in place including its own emergency service vehicles and responders. The Project will also implement its Occupational Health and Safety Plan and Fire Prevention and Control Plan both of which are designed to ensure workplace and community safety. Employees will be comprehensively trained on emergency response measures in addition to being trained on safety and environmental and social impacts management.

The Project will drill wells and there will be a significant expansion of production facilities. Water will be sourced from groundwater bodies to meet the Project's water requirements. Electricity will be produced by generators that will be fueled by natural gas. Ambient air quality in the Project area complies with the local regulations.

Sewage will be treated in an on-site wastewater treatment unit. The wastewaters generated from the Project's gas production process will be treated to acceptable levels in the process wastewater treatment units and disposed in a lined evaporation pond. Solid wastes will be treated to reduce the toxicity of contaminants present and disposed in a manner so as to prevent environmental releases. Drilling muds will also be disposed at authorized disposal sites which have been designed to prevent environmental releases of any contaminants that may be present.

The Project will follow acceptable industrial safety provisions. Past waste disposal practices did not result in any contamination of onsite soil, creeks, and sediments.

Standard industry practices will be followed to ensure that OHS impacts are properly managed in conformance with both the local regulations

and IFC Guidelines. Training will be provided to all workers on standard operating procedures to ensure their safety. Personal protective equipment will also be provided to all workers. The Borrower's current OHS record is consistent with the industry benchmarks.

The following presents a summary of mitigation measures for the identified major risks:

Process Safety. The major risks identified include the potential for fire and explosion and well blow-out. The Project will be designed and operated in accordance with the Good Internationally-recognized Industry Practices (GIIP) and IFC EHS Guidelines to ensure process safety. A comprehensive hazard operations (HAZOP) assessment was undertaken to identify all the major process safety risks and actions taken to implement all the recommendations of the HAZOP study. In addition, buffer zones have been established both near the gas extraction wells and the gas processing plant to ensure community safety. Plant personnel will be comprehensively trained to ensure their safety. In addition, there will be process controls such as well monitoring and blow-out prevention and control device and automatic shut-down systems and pressure relieving devices to minimize the risk of explosion and fire.

Air Emissions, Wastewater Discharges, Waste Disposal, and Hazardous Materials Management. The Project will be designed and operated to comply with the IFC's Guidelines for Onshore Oil and Gas Development and General EHS Guidelines. Air emissions, wastewater discharges, waste disposal, and hazardous materials storage and disposal will be properly managed in accordance with the GIIPs.

Greenhouse Gas Emissions. The Project has the potential to emit approximately 120,000 tons of CO₂e/year. The Project has committed to undertake all cost-effective measures to reduce methane losses and will employ energy-efficient equipment in power generation.

Community Health, Safety, and Security Impacts. The Project will develop and implement a Community Health, Safety, and Security Plan to ensure compliance with PS 4. A buffer zone has been established to ensure community safety and security and a perimeter fence has been established.

Biodiversity Impacts. Construction activities in the Project areas will result in habitat modification, and in some cases habitat loss. These ecosystems are important habitats for local, regional, and global biodiversity.

The Project has the potential to also impact sensitive habitat for several reptiles and plants of nationally recognized conservation status. In addition, the Project has the potential to also affect habitat for several mammals, including wild fox. While the Project does not affect critical habitats for these species, they are of particular stakeholder concern, and thus may warrant additional consideration in mitigation planning.

The Project is implementing the mitigation hierarchy to avoid and minimize impacts on sensitive ecosystems and species. Mitigation measures and management plans for these activities incorporate GIIPs.

A Biodiversity Management Plan (BMP) is being developed to properly manage the biodiversity impacts and monitor compliance with the IFC's PS6 requirements.

Cumulative Impacts. The Project operator has developed a plan to manage cumulative impacts. Some of the major cumulative impacts are related to biodiversity management, infrastructure impacts management, and social impacts management. The Biodiversity Management Plan, Environmental & Social Management Plan, and Community Impacts Management Plans have been designed to address the identified cumulative impacts. Other cumulative impacts related to the increase in road traffic are being addressed in the traffic management plan designed to specifically address this issue.

The Project will be required to: (i) submit annual reports on its environmental and social performance; (ii) develop and implement its Environmental and Social Management Plan; (iii) continue developing, implementing and improving their stakeholder engagement system, including the grievance redress mechanism; and (iv) conduct an independent audit of their environmental and social performance.

Community Consultations: Initial stakeholder engagement was carried out by the Project operator, starting in 2019. Public hearings were held in association with the ESIA development and disclosure during 2019. These public hearings were attended by representatives of the potentially impacted communities and local authorities. The Ministry of Environment has confirmed that the Project has met all the national requirements for public consultation and disclosure.

The Project's community relations team is continuing to work with the Project teams to coordinate its joint stakeholder engagement strategy and approach. The Project has in place a stakeholder engagement plan and grievance redressal procedures in line with the IFC 2012 Performance Standards.

Site Visit: DFC could not undertake an environmental and social due diligence site visit due to security concerns and travel restrictions to the region. DFC staff and the Lenders' Independent Engineer (IE) jointly undertook a virtual environmental and social due diligence site visit from May 19 through 20, 2020. DFC has reviewed the IE's Due Diligence Report provided in July 2020.

ESIA Disclosure: The Project ESIA was disclosed on April 9, 2020 and the comment period closed on June 9, 2020. No comments were received. DFC will draft responses to all comments received prior to presentation of the Project to the Board.