European Investment Bank

Luxembourg, 11.06.24

Public

Environmental and Social Data Sheet[1]

Overview

Project Name:	Oceanloop sustainable shrimp farm (IEU GT2)
Project Number:	2023-0639
Country:	Germany, Spain
Project Description:	Financing of (i) RDI in Germany for the period of 2024-2028, including animal welfare and use of artificial intelligence; and (ii) the construction and operation of a sustainable recirculate aquaculture system (RAS) and processing shrimp production unit in Canary Islands, Spain.

EIA required:	Yes
Invest EU sustainability proofing required	Yes
Project included in Carbon Footprint Exercise[2]:	Yes

Environmental and Social Assessment

The project aligns with the Promoter`s strategy to produce sustainable shrimps with a reduced carbon and environmental footprint compared to traditional farming and place them on the market. Additionally, this production method is adapted to climate change. The project includes activities leading to the development, construction, and operation of a first of its kind commercially viable and sustainable shrimp recirculation aquaculture system (RAS).

The project will be implemented on two sites, one in Germany and one in Spain. Both shrimp production facilities will be based on RAS and the Promoter undertakes to demonstrate sustainability by pursuing certification for the Aquaculture Stewardship Council (ASC) standard, when in operation.

The RDI development includes the construction of a demonstration scale production facility with capacity of 60 tonnes per annum (tpa) on the existing RDI site of the Promoter located in Strande (Rendsburg-Eckernförde, in Schleswig-Holstein, Germany at the Kiel Fjord), on the same site as the waste-water treatment plant (WWTP) Bülker Huk.

The project will also involve the realisation of the first commercially viable shrimp production RAS of its kind of 2 000 tpa capacity, which will take place in the industrial area of Arinaga, Gran Canaria, Spain.

[1] The information contained in the document reflects the requirement related to the environmental, social and climate information to be provided to Investment Committee as required by the Invest EU Regulation and it represents the equivalent of the information required in the template of the InvestEU sustainability proofing summary.

[2] Only projects that meet the scope of the Carbon Footprint Exercise, as defined in the EIB Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: 20,000 tonnes CO2e/year absolute (gross) or 20,000 tonnes CO2e/year relative (net) – both increases and savings.

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Environmental Assessment

The Kiel RDI facility does not fall under the EIA Directive 2011/92/EU amended by Directive 2014/52/EU. The construction permit has been granted on 30.11.2021. Sludges are discharged, after treatment, to the neighbouring WWTP. The Promoter is using the heat produced from the WWTP. Solar panels will be installed on the roof for electricity production.

The Spain, Gran Canaria, shrimp RAS production will be located in the industrial area of Arinaga and built in two phases of 1 000 tpa each. The project requires, based on the national legislation, an EIA; which is condition to the respective disbursement. The water will be tapped from a seawater well. Part of the residual sludges will be transformed in organic fertilizer and soil improver, the rest will be discharged, after treatment, to the neighbouring WWTP. The electricity will originate from the grid for approximately 20%, the rest being generated by renewable energy.

For the Kiel RDI facility, the regional competent authority confirmed in the building permit that the project is deemed to have low residual ECS risks and impacts, despite being in the vicinity of natura 2000 sites.

The facilities and the equipment have been assessed in terms of animal welfare and will allow the implementation of best international and sustainability practices, minimising the need for antibiotic, diseases, and eyestalk ablation for reproduction.

Climate Assessment

Climate change mitigation

- The in-land recirculating aquaculture system ensures optimal shrimp welfare by reducing mortality, diseases, and stress through controlled water quality parameters (temperature, oxygen, CO2, hydrogen sulfide, nitrite, parasite, etc.) as well as regulated luminosity which helps shorten production time. Combined with a moving bed bioreactor, use of beneficial bacteria in the water, genetic selection enabling fastest growth, and feed optimisation, the Promoter's production facility reduces its carbon footprint compared to traditional pond farming.
- The aquaculture stewardship council (ASC) certification will ensure the sustainability of the production and feed, ensuring a minimal fish meal content and a land use that avoids deforestation.

Climate change adaptation*:*

The Promoter's production system is designed to adapt shrimp production to the effects of climate change and the RDI efforts to support it are essential enabling activities.

Traditional shrimp farming in some regions of the world is highly vulnerable to climate change as it occurs in open ponds located on the coast[3]. Shrimps are indeed very sensitive to change of water quality and storms/raising sea level can wipe out entire farms.
Although the production facility is situated near the sea, it is not located in the area prone to sea-level rise. The production process takes place on-land within a building, using water recirculation after filtration, and rigorously controls water quality.

Paris Alignment of projects*:* The project has been assessed for Paris alignment and is aligned both against low carbon and resilience goals against the policies set out in the Climate Bank Roadmap, in particular Table E, Bioeconomy, activities along the value chain focusing on protein production from sustainable and innovative sources, with a low carbon footprint and a focus on animal welfare.

EIB Carbon Footprint Exercise

[3] Shrimp farming in a changing climate | Stories | Monterey Bay Aquarium ; Climate change adaptation strategies and shrimp aquaculture: Empirical evidence from the Mekong Delta of Vietnam - ScienceDirect ; etc.

The FAO tool fish-e was used to estimate the annual emissions of the project in a standard year of operation, based on the data provided by the Promoter and verified during the due diligence. The emissions of the project at farm gate are estimated at 4.71 kT CO2-e/year.

Using the data of the WWF publication on measuring and mitigating GHG in shrimp production[4], an average shrimp production unit of same capacity would represent an estimated emission of 20.25 kT CO_2-e/year.

Therefore, the project allows the saving of 15.54 kT CO_2-e/year.

For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost.

Social Assessment

The project complies with the labour and social legislation and with international conventions and charters. The Company undertakes to implement and to be certified for ISO 45 001 (occupational health and safety standard).

The project does not cause any economic or physical displacement.

Due to its small size, no gender impact is expected.

Once the Company develops its Corporate Social Responsibility policy, it will be communicated to the EIB.

Public Consultation and Stakeholder Engagement

The required public consultations will be carried out as part of the EIA process.

Other Environmental and Social Aspects

The Promoter will implement the ASC standards for sustainable aquaculture and required food safety related standards, including for commercial purposes.

The Promoter will communicate, to the satisfaction of the Bank, the fish welfare procedure established, including the contingency planning in case of incidents.

The Company undertakes to establish, operate, and certify an integrated quality, environmental and social management system in accordance with ISO 9 001, ISO 14 001 and ISO 45 001.

Conclusions and Recommendations

Sustainability proofing conclusion:
For the RDI Kiel, the project is carried out in compliance with the regional, national and EU environmental and social legislation. Based on the environment, climate and social (ECS) information, the project is deemed to have low residual ECS risks and impacts. No further sustainability proofing is required.
For the Spain - Gran Canaria facility, located in the Arinaga industrial area: considering the on-going permitting process, and based on the available information and location of the project, the facility is expected to have a low residual ECS risks and impacts, and the Promoter is required to provide the EIA documents and decisions before disbursement.

Given the Promotor`s capacity and the established systems to manage environmental and social impacts and issues, the project is deemed acceptable for the Bank if the following undertakings of the Promoter are respected:
- Inform the Bank about EIA permitting process, following EIA directive 2014/52/EU, amending 2011/92/EU and IED directive 2010/75/EU (if applicable) and submit the relevant assessment reports and permits to the Bank as soon as available.
- Set-up, operate, and to be certified for: ASC and ISO standards 9 001, 14 001, and 45 001.

[4] 71vuudovqd_MOBERG_GHG_Brief_SHRIMP_08_22_v4.pdf (worldwildlife.org)

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- Implement and communicate to the Bank its environmental and social management plan, including the biodiversity management plan.
- Elaborate, validate, monitor, and communicate to the Bank its animal welfare procedures and its contingency plan.
- Elaborate and communicate to the Bank its Corporate and Social Responsibility Policy.