European Investment Bank

Luxembourg, 29.03.23

Environmental and Social Data Sheet

Overview

Project Name:	*PLATY IRRIGATION INFRA AND FLOOD PROTECTION*
Project Number:	*2019-0801*
Country:	*Greece*
Project Description:	*Construction of a new artificial reservoir in the Platy River in Crete to improve irrigated agriculture and flood protection in surrounding areas.*
EIA required:	*yes*

Project included in Carbon Footprint Exercise[1]: *yes*

Environmental and Social Assessment

The Project consists of the construction of a new artificial reservoir in the Platy river basin in Crete to secure and improve irrigated agriculture and flood protection in surrounding areas. The Promoter, responsible for the implementation, will be the Ministry of Infrastructure and Transport of Greece. The Project future Operator will be OAK (Organisation for the Development of Crete, participated at 50% by the Ministry of Infrastructure and Transport).

The main components of the Project are:

1. Construction of the Platy new artificial reservoir (21 Mm^3).
2. Transfer through water mains from the dam to current overexploited aquifer in the Messara plain.
3. New irrigation scheme, up to 4 350 ha, in the surroundings of the Platy reservoir, Rethymno area.
4. Other (engineering, supervision, land acquisition, contingencies).

The runoff from the Platy river basin will be accumulated in the new reservoir, and part of the water will be transferred to the Messara irrigation plain within the same river basin (EL1340), which aquifer is poor in quantity and chemical status, in terms of the Water Framework Directive (WFD).

Environmental Assessment

The Project falls in Annex I of the EIA Directive 2014/52/EU *(Dams and other installations designed for the holding back or permanent storage of water, where a new or additional amount of water held back or stored exceeds 10 million cubic metres)* which corresponds to the Category A1 Group 2 in the applicable national legislation (Joint Ministerial Decision-JMD-37674/2016 for EIA).

[1] 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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National legislation is harmonised with EU directives in terms of EIA and also with the relevant environmental framework (Birds, Habitats, Nitrates, Floods and Water Framework Directives). The main national environmental legislation are: Law N.3199/2003 on the protection and management of water, JMD 107017/2006 on Environmental Impact Assessment for plans and programs and JMD 33318/3028/1998 on definition of measures and the procedure for the conservation of the natural ecosystems.

In Greece, the competent authority for Strategic Environmental Assessment (SEA), and Environmental Impact Assessment (EIA) procedures is YPEN (Special Secretariat for Natural Environment and Water of the Ministry of Environment and Energy), represented by the Directorate of Environmental Licensing.

The SEA for the River Basin Management Plan (RBMP) for Crete was approved by Joint Ministerial Decision No 147641/30-3-2015, which included the project. The Project is also included in the approved 1st Revision of the River Basin Management Plan (2017) and compliant with the WFD.

The EIA (2012) identified that the impact of the Project, all components included, during construction and operation on the river waters of the project area is expected to be negative, insignificant and partially reversible, subject to implementation of relevant remedial measures. On habitats and flora, negative impacts are expected initially on the vegetation of the intervention area that will be flooded. However, they are characterized as partially reversible and will partially be mitigated due to the establishment of new vegetation within the Project area. With regards to historical and cultural environment, the potential affected sites were identified and the Project design will be adapted in order to avoid negative impact on site of cultural significance. No significant impacts were found in relation to the air quality, noise, land uses, buildings, fauna, groundwater, geology, soil, landscape or climate.

Mitigation measures, described in the EIA, include preparation of special technical study for the disposal areas for the excavated debris, adoption of best practices in the design of roads, reservoir and irrigation networks (specifically reservoir failure study, contingency and operational plan), maintenance of a continuous flow downstream, water quality monitoring, implementation of preventive practices for dust, waste and noise reduction, restoration of riparian habitats and withdrawn vegetation, as well as archaeological supervision by relevant regional/ national services.

Therefore, the main impacts identified in the EIA and their mitigations, usual in this type of assets (withdrawn vegetation, change in habitats and intervention in the river bed and stream) are considered to be non-significant and well mitigated. In addition, they will be positively off-set during the operational phase, due to the overall positive environmental contribution of the Project.

The proposed Project (all the components included) obtained the Environmental Permit in 2016 on the basis of above mentioned EIA. The permit is valid for ten years, for the proposed scope and can be reconducted at the demand of the Promoter, as long as the scope and conditions are respected and the request comes well in advance (not less than three months before expiring). The Environmental Permit is available under the web site of the Ministry of Digital Governance (https://diavgeia.gov.gr/).

The proposed project is in line with the National and Regional Spatial Planning. The area of the proposed Project has not been classified as highly productive land. A part of the proposed irrigation zones in Rethymno, (77.6 ha), has been withdrawn from the Project because of the designated NATURA 2000 site, SAC-Oros Kedros (code GR4330002).

Main conditions, measures and restrictions to be taken to minimise and address potential environmental impacts are included in the Environmental Permit and aligned to common best practices for this kind of assets (artificial reservoirs and water pipes). Both the Promoter and

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Operator are responsible for the implementation of conditions, as well as compliance with the legislation. Obligations arisen from the permit include General Arrangements, Construction phase and Operational phase, in addition to those identified in the EIA. The main additional requirements are: monitoring by the Promoter of the compliance with the conditions set in the environmental permit, a specific reforestation study, a downstream study for the Platy river and a complete and recorded water balance of the Project and soil quality of the irrigated areas. The Operator must assure, by providing the new surface waters, that the aquifer in Messara plains will be enriched, with relation to its current situation.

The necessary archaeological undertakings are also considered in the Environmental Permit.

With regards to Climate Change, the Project will contribute significantly in terms of Mitigation and Adaptation, mainly saving emissions linked to electricity consumption in the Messara aquifer and sequestering carbon through the olive trees in the Rethymno area.

The Climate Risk Vulnerability Assessment shows that the Project is adapted to the main Climate risks (flood, drought, rising temperatures, heat waves, landslides, decrease in rainfalls and soil changes). The future operational manuals will include the measures outlined in this assessment.

The Project is aligned with the Regional Plan for Adaptation to Climate Change (PEPSKA) of Crete.

The Project is Paris aligned according to the EIB Climate Bank Roadmap (Rural infrastructure reducing the GHG footprint).

EIB Carbon Footprint Exercise

The Project will contribute to relative and absolute reduction in GHG emissions. Estimated annual emissions of project in a standard year of operation would result in estimated savings of 20 300 tonnes of CO_2 equivalent per year[2]. Those will come mainly from electricity reduction, carbon sequestration in olive trees and will compensate largely the net positive emissions of the increase in fertilizers use and the natural emissions in the surface of the reservoir.

The Promoter (Ministry of Infrastructure and Transport) is not in scope for the PATH Framework (Sovereigns and Sub-sovereign Public Authorities), as per EIB procedures.

Social Assessment

The Project contributes to Cohesion, as Crete is a less-developed region, in terms of EU Cohesion 2021-2027 (less than 75% of the EU-27 average).

The Project will have positive social benefits, increasing rural livelihood for the population in Rethymno because of more resilient olive oil production and assuring the current livelihoods of the farmers in the Messara plain.

There are no vulnerable groups to be impacted by the project.

[2] 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.

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The Project will require land expropriations and servitudes within the described scope. An updated Cadastral study has been completed in October 2022 and approved by the Directorate of Expropriations. According to this study, identified economic activities within the artificial reservoir scope (farmers and chicken production) will be compensated. The works will not start until the owners expropriated are paid. No physical displacement will be triggered. The Project will have to be implemented following the process described above, as foreseen in the national legislation.

No significant positive social impact is foreseen in terms of gender.

Public Consultation and Stakeholder Engagement

The Project undertook public consultation during the environmental authorisation of Category A projects and activities, following national legislation (Joint Ministerial Decision No 1649/45/14.1.2014).

The Bank will request an update of the socio-economic study from the EIA, including the level of stakeholder engagement and an assessment of the potential level of subscription by the farmers in the new irrigation scheme.

Conclusions and Recommendations

In order to ensure the Project compliance with the EIB Environmental and Social Standards, the following conditions will be included in the Finance Contract:

Undertakings:

Before the expire of the Environmental Permit:

- The Promoter/ Operator undertakes to request in due time and conditions, the extension of the Environmental Permit.

Before the start of the works in Component 1:

- The Promoter will share, if requested by the Bank, the future Detailed Designs, compliant i.a. with the Climate Risks Vulnerability Assessment as in the current available Final Designs.

Before the start of Component 3:

- The Promoter/ Operator will provide, to the satisfaction of the Bank, an update of the socio-economic study from the EIA, including the level of stakeholder engagement and an assessment of the potential level of subscription by the farmers in the new irrigation scheme.

Before the last disbursement:

- The Promoter will share the new version of the RBMP once approved. In particular, the quality and quantity status of the water bodies within the Project scope.

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- The Promoter will share with EIB the reports stated as obligations for the Promoter/Operator in the Environmental Permit, especially those related to water quality, quantity, soil conditions and agriculture activity.

After first year of Operation:

- The Promoter/ Operator will share annual reports on the water balance within the scope of the Project, including specially the surface water delivered to the Messara plain and the equivalent volume of groundwater abstractions stopped by the regional water authorities.

The overall anticipated environmental and social impacts of the operation are deemed positive. Minor negative (temporary) impacts during the construction will be compensated by considerable social and environmental benefits during the life cycle of the Project.

Under these conditions, the project is acceptable for EIB financing in Environmental and Social terms.