

BASELINE BIODIVERSITY STUDY TO DEVELOP A BIODIVERSITY MANAGEMENT PLAN AT OPERATING QUARRY

TITAN CEMENT S.A.

Leros quarry, Leros Island, Greece



OBJECTIVE

In line with Titan Group sustainability targets, to implement a Biodiversity Management Plan (BMP) at sites of high biodiversity value, a biodiversity baseline study was made at Leros quarry, to investigate features of high biodiversity value, identify potential threats and determine actions to establish a BMP.

CONTEXT

The Leros limestone quarry operates on the Leros Island in SE Greece and lies within a Wildlife Refuge protection area, whereas it is also adjacent to a Special Protection Area (SPA) of Natura 2000 network. The Hellenic Ornithology Society (partner of BirdLife International) was assigned to conduct the baseline study that included field survey with spatial analysis of the wider area, recording of birds and habitats areas and evaluation of factors of natural degradation. Findings were used to develop a management plan for the preservation and if possible the enhancement of biodiversity.

SOLUTIONS

An area of approximately 2,75km² was studied with the use of a drone and a specialized software for the creation of the Digital Surface Model and the orthomosaic map. Following seasonal field surveys and recording of habitats, flora, fauna and birds gave the opportunity to identify features of high biodiversity value, including:

- Important habitats, typical of the Mediterranean area, included in Annex I of the EU Habitats Directive, like: *Sarcopoterium spinosum phryganas*, *Euphorbio-Verbascion phryganas*, *Large shallow inlets and bays*, and *Reefs*.
- Sensitive areas like a colony of gulls.
- Important bird species, like: the Bonelli's Eagle *Hieraetus fasciatus*, the Cretzschmar's bunting *Emberiza caesia*, the Shug *Phalacrocorax aristotelis* etc.

RESULT

Based on the findings of the baseline study and the assessment of risks from the mining activities, certain actions were determined to form a BMP with the target to:

- promote conservation of biodiversity on the site;
- provide data regarding the ecological quality of the site and its surroundings;
- deliver a tool that will enable objectives to be measurable;
- support the implementation of conservation actions.

The BMP that has started to be implemented on site among others contains the following actions:

- Adjustment of rehabilitation practices to use also endemic species for planting the depleted benches.
 - Creation of watering spots for wildlife.
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PARTNER

Hellenic Ornithological Society; Local Stakeholders (Regional Unit of Kalymnos, Municipality of Leros, Coast Guard; local community [shepherds, fishermen, farmers etc.]).

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