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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE
AND NATURAL HABITATS

Standing Committee

43rd meeting

Strasbourg, 28 November - 1 December 2023

Complaint on stand-by: 2021/1

**Alleged threats to marine turtles due to a new coal-fired power
plant at Sugözü Beach (Türkiye)**

- GOVERNMENT REPORT -

*Document prepared by the
Ministry of Agriculture and Forestry, Türkiye*

REPUBLIC OF TURKEY**MINISTRY OF AGRICULTURE AND FORESTRY**

23.08.2022

5th Government Report on Complaint No. 2021/01: New Complaint: Turkey: Alleged threats to marine turtles due to a new coal-fired power plant at Sugözü Beach**Background Information:**

This complaint was submitted by Çevre ve Tüketicuyu Koruma Derneği (ÇETKO) and some other supporting organizations on 20.01.2021. Turkish government authorities (focal point for the Bern Convention) received the corresponding letter on 22.02.2021. The complainant claims that a new coal-fired power plant constructed at Sugözü Beach, next to the Yumurtalık Lagoon in Adana Province, is threatening the vulnerable nesting beaches of green turtles (*Chelonia mydas*) and loggerhead sea turtles (*Caretta caretta*).

The first report for the 1st Bureau meeting was presented on 31.03.2021. It was evaluated in the meeting on 14-15 April 2021. The Bureau requested further information on the mitigation measures to override the effects of heating water and sand. The Bureau also asked that the Turkish authorities consider the possible adverse effects of the power plant on other species, including birds, and report to the Bureau any assessment done in this respect. Further, the Bureau asked the authorities to clarify the power plant construction timeline and the envisaged operational phase start. The second report included additional information on those specific requests and should be evaluated with the measures presented in the 1st government report.

After the second Bureau meeting in September 2021, the Bureau noted the scarcity of data on nesting populations and emphasised the importance of ensuring the availability of sound scientific data for monitoring the nesting population in Sugözü Beach. In reference to the possible adverse effects of the power plant on other species, including birds, the Bureau noted that the new technologies would minimize the risk of air pollution and asked the authorities to clarify how the Environmental Impact Assessment (EIA) has taken in consideration the possible adverse effects of the development on marine turtles and other species. The Bureau was concerned that fossil-fuel energy development compromised this essential nesting site. The 3rd report included answers raised by the Bureau after the 2nd meeting last year.

The Bureau examined the 3rd report with the following views: The Bureau strongly encouraged the Turkish authorities to monitor the application of environmental standards and implement effective measures to limit the negative impact of the coal power plant on species and habitats. The Bureau further requested that the Turkish authorities present a comprehensive and timebound implementation plan of mitigation measures and report on new nesting data available in its following report. The requested data was presented in the fourth report. After the last meeting of the Bureau last year, it requested further

information on the current status of implementation of mitigation measures and updates on the monitoring of the various drivers (water and sand temperatures, morphology of the beach, beach erosion, light pollution, soil and air pollution) potentially affecting marine turtles.

This report comprises the data for the second meeting of the Bureau in 2023. It should be noted that it is a part of previous reports, and they should be evaluated together, as some questions were already answered in the earlier reports.

Additional Information Requested by the Bureau

The primary purpose of this study conducted by EMBA CPP is to monitor sea turtle activities in Akkum Beach. In this way, it will be ensured that the impacts related to sea turtles on the beach and near coastal zone within the project impact area will be evaluated. Akkum Beach is a registered nesting site located as a subsection beach of Sugözü Beaches. These beaches were identified as sea turtle nesting beaches in 2015 after long-term monitoring studies since 2002.

The scope of the study comprises mainly monitoring sea turtle activities on the beach. This includes daily monitoring of the Akkum beach on foot and recording all nesting and non-nesting emergences of adult females and natural predation by foxes. Following the end of the nesting activities, the hatching season is also being monitored. Finally, all the nests are excavated for their contents (empty egg shells, unhatched eggs, embryos etc.) and counted after the hatching has been completed. We follow each hatchling's track for whether they reach the sea or are disoriented due to a light source. In case of adverse impacts, we use international approaches such as avoiding or minimizing the impact.

The monitoring activity of the beach is more comprehensive than the sea turtle nesting season. The experts visit the beach throughout the year at least once a month. Therefore, the changes or erosion on the beach are closely monitored. So far, no changes have been reported. For monitoring long-term changes on the coast, a 3D topographic map of the beach by a multispectral drone at 1 cm accuracy is on the future agenda of the monitoring.

For the 2023 nesting season, a total 199 green turtle emergences were recorded with 53 resulting in nests (26.6%) so far (as of 14th of August). The nesting success of Akkum Beach is comparable with Northern Cyprus nesting beaches (25%), the second most important green turtle nesting ground where there is no development. As for the mitigation measures, EMBA used turtle-friendly lighting (over 580 nm) for the places where the turtles may be affected. Furthermore, during the discharge of the coal from the ship, as a precaution, prebooming is carried out, which surrounds the ship and prevents the dispersal of any leak from the ship. To prevent further dispersal of any leak, the bottom of the pier was covered with barriers. So the ship stays in a loop. EMBA conducts regular practices every year in case of any environmental leakage (Figure 2). The experts also participate in these practices as an observer. Currently, the turtles are still nesting on the beach as they have been doing in the past and the nest numbers are fluctuating between its natural interval (Figure 1). As presented in the previous report, the annual fluctuation of nests on Akkum beach follows the natural fluctuations of overall Sugözü Beaches.

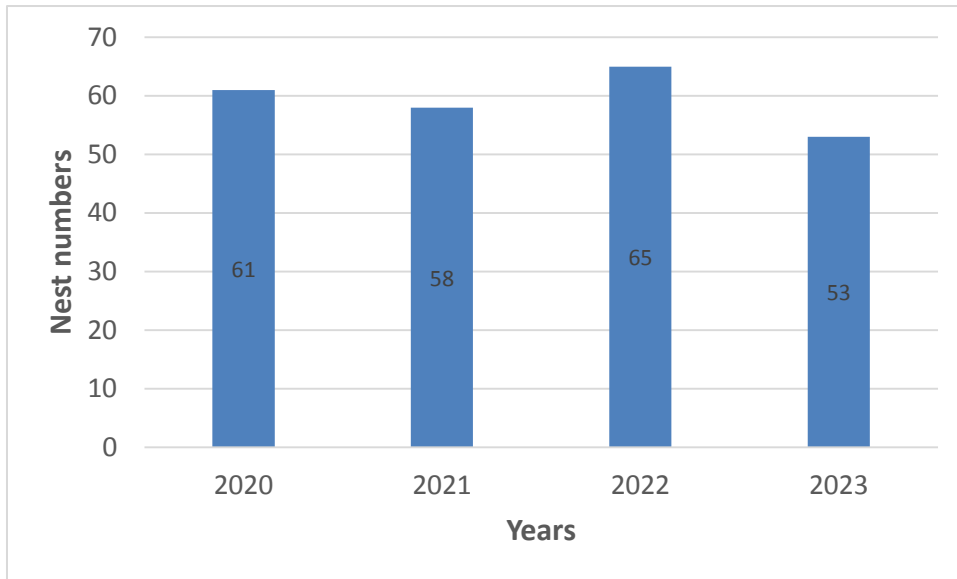


Figure 1. Nest numbers of green turtles, *Chelonia mydas*, on Akkum subsection 2020-2023

A company measures the seawater temperature and reported the current seawater temperature as 32°C at a 7-meter depth. Starting from January 2014, the seawater temperatures will be measured by a certified laboratory and can be presented regularly as a report. The beach temperature is measured within the nests and used for temperature-dependent sex determination studies. However, since we were asked here, we will start to measure the sand temperature at different distances from the sealine and provide a beach thermal profile by using temperature data loggers for future reports.



Figure 2. Prebooming during the practice