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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE  
AND NATURAL HABITATS

**Standing Committee**

42<sup>nd</sup> meeting

Strasbourg, 28 November – 2 December 2022

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**Complaint on Stand-by: 2021/01**

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

**- REPORT BY THE GOVERNMENT -**

*Document prepared by the  
Ministry of Agriculture and Forestry & Ministry of Environment, Urbanization and  
Climate Change, Turkey*

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

23.08.2022

**4<sup>th</sup> 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 Tüketiciyi 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 of water and sand. The Bureau also requested 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 timeline for the power plant construction and the envisaged start of the operational phase. 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 available on nesting populations and noted 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 deeply concerned that a fossil-fuel energy development was compromising this important 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 to report on new nesting data available in its next report.

This report comprises of the data as a response to the first meeting of the Bureau in 2022. 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 previous reports.

**Additional Information Requested by the Bureau**

The main 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 as a part of Sugözü Beaches and annual nest numbers are known. The same methodology will be used on the beach.

The scope of the study comprises mainly monitoring and recording the marine turtles' nesting and non-nesting activities, moreover, to determine the number of the hatchlings reach to sea. With the data obtained from the monitoring studies, it will be possible to determine the possible effects of the project activities on sea turtles. In case of detection of negative impacts, firstly it will be planned to eliminate these impacts and then to minimize and/or reduce the ones that if cannot be eliminated.

Akkum Beach is 1.3 km in length. The northeast and southwest parts of the beach are rocky. There is a resort site approximately 2 km far from Akkum in southeast direction. As compared to the other beaches, Akkum Beach remained fairly artless but temporary vehicle usage can be seen. Before the 2019 nesting season construction of EMBA CPP was started. The construction of this facility is still going on. The beach has been regularly monitored on behalf of EMBA since 2020. The research team consists of experienced sea turtle biologists. The team is experienced on both the Akkum Beach and the Marine Turtles.

There were totally 247 adult emergences observed in the field survey up until 15th of August 2022. Among these emergences, 65 of the 247 were resulted as nesting, 182 of them were resulted as non-nesting emergences. There is only one nesting emergence for the loggerhead and the rest of all nesting emergences belong to green turtles. The beach was patrolled in daily basis. The nests (80%) found on beaches were caged against predation.

In the last three nesting seasons the nest numbers of Akkum subsection have been fluctuating among seasons like whole Sugözü nesting beaches. According to the results of the monitoring study carried out continuously from 2002 to 2021 for Sugözü Beaches, there are serious fluctuations in the number of nests. There is no clear result in the direction of increase or decrease in the nest numbers. The average nest numbers of consecutive years (n=20) were calculated as 109.8 nests per season.

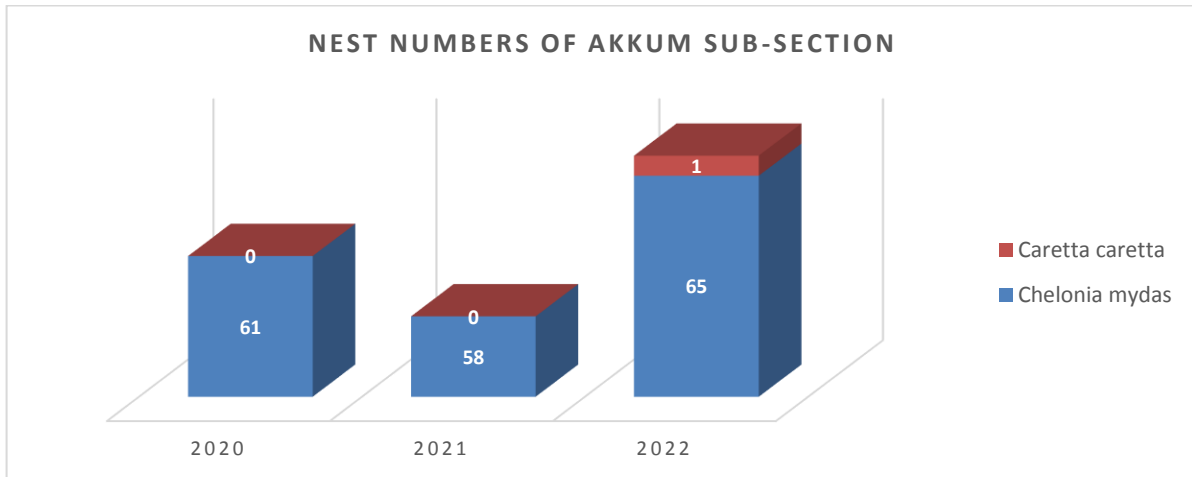


Figure 1. Nest numbers of Akkum subsection 2020-2022 (blue: green turtle; orange: loggerhead turtle)

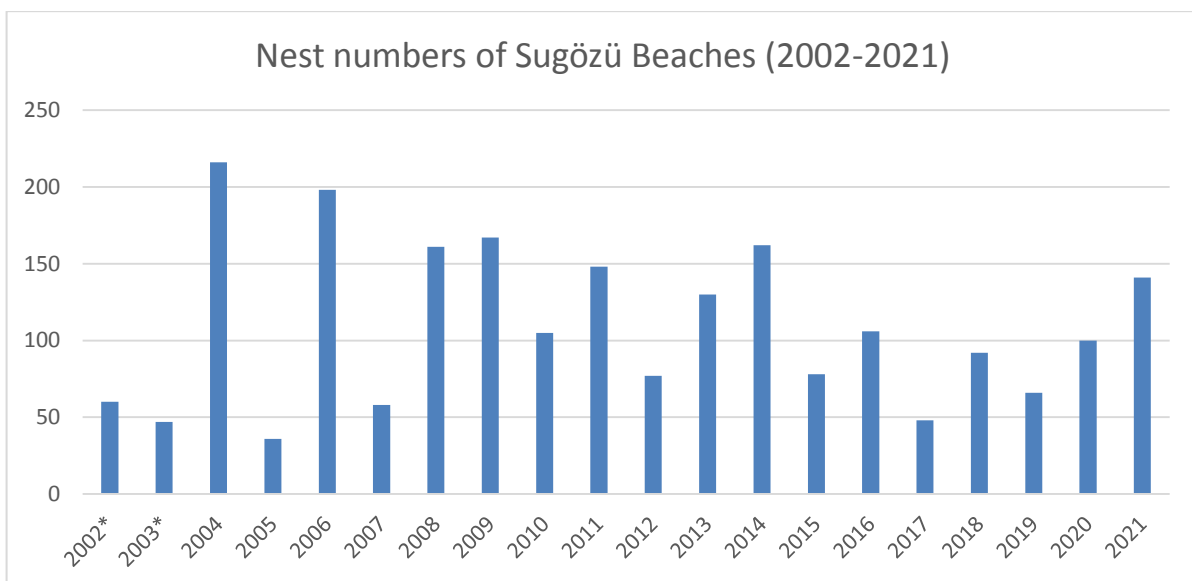


Figure 2. The nest numbers of Sugözü Beaches (2002-2021)

**REPUBLIC OF TURKEY****Ministry of Agriculture and Forestry & Ministry of Environment, Urbanization and Climate Change**

25.02.2022

**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:**

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After the second Bureau meeting in September 2021, the Bureau noted the scarcity of data available on nesting populations and noted 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 deeply concerned that a fossil-fuel energy development was compromising this important nesting site. This report includes answers raised by the Bureau after the 2nd meeting last year.

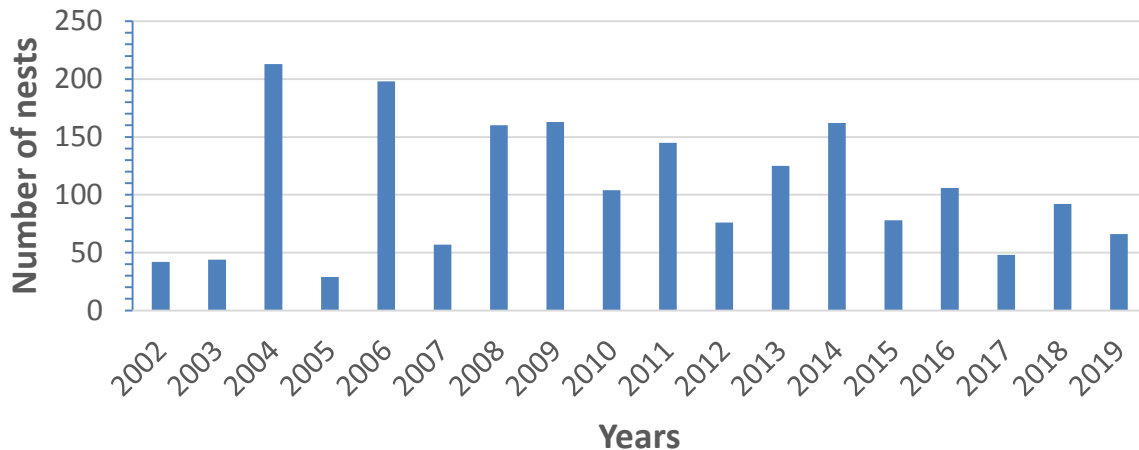
**Additional Information Requested by the Bureau**

The nesting on Sugözü beach has been monitored since 2002 regularly. As it was also reported at the second Bureau meeting, there is a data matrix that involves close to 20 years now. Therefore, the Bureau's evaluation of the second report mentioning the scarcity of data on nesting populations should be explained more clearly in this report. Sea turtle experts have monitored Sugözü beaches, and the nest numbers and other population parameters have also been recorded regularly. These reports are submitted to the Ministry annually.

Although the figure below shows apparent fluctuations in the number of nests throughout the years and did not present any clear increasing or decreasing pattern so far, a decreasing pattern could have easily been understood if that was the case. Furthermore, there is no proof of an adverse effect on the sea turtle population

on the Akkum beach subsection so far since annual nest numbers and hatching success are within the range of 20 years of data. Further information can be found in published papers<sup>1</sup> which reveal the effects of coal-fired power plants on sea turtles.

The number of nests in each nesting area in Turkey is evaluated by the Scientific Committee for Marine Turtles in Turkey. Besides, based on the agreement between Ministry and the investors, the sea turtle monitoring and conservation program will be continued by sea turtle experts at least five years after the operational phase.



**Figure 1.** Numbers of nests recorded on Sugözü nesting beaches (Nest numbers covers overall subsections, including Akkum subsection where the power plant was constructed at the hinterland)

As a response to Bureau’s concerns about the bird and other species around the facility, the EIA of the project was carried out comprehensively. As stated in the previous reports, since the facility will have no regular chimney, there will be no air pollution that will affect the surrounding fauna elements.

The preventive measures comprise an essential part of the EIA report. This part includes the steps under two headings; flora and fauna. For fauna species, firstly, field studies were undertaken. Mammals, birds, reptilians, and amphibian species living near the facility were listed. Most of the faunistic structures, that is, 74% of the species in the area, are bird species. This is followed by 13 % mammals, 11 % reptiles, and 2 % amphibians.

Of these, only one species, namely *Falco naumanni*, lesser kestrel, is classified as VU in the IUCN list. Hence, the EIA report suggested some measures to protect this species. The leading cause reducing this species in its breeding areas is habitat loss and degradation. Among the reasons are; agriculture started to be done more intensively, steppes were forested, and urbanization became a severe problem. Pesticide use and the demolition of old buildings where nests were built are among the other causes of decline. Pesticides can accumulate in Lesser kestrels’ bodies, which may cause direct death, and pesticide use causes the extinction of insects and may cause a lack of food for kestrels. There will be no immediate effect of the construction of this power plant on the population of kestrels. However, extermination of these insects by biological control makes the Lesser Kestrel population sensitive to other threats. Hence doing organic farming practices that will ensure the presence of giant insects will provide food for kestrels as well. This species remains in the VU category

<sup>1</sup> DOI: <https://doi.org/10.3354/meps13940>;  
DOI: <https://doi.org/10.3354/meps11696>

primarily because of bad implementations on agricultural lands. For this reason, during the excavation works, there will be no damage to agricultural lands.

As there are no other species in danger of extinction in the area, the EIA report does include some measures about general environmental protection required by the legislation, but not on the species solely.