

Marine Turtle Conservation in the Mediterranean

**Update Report on Green Turtle (*Chelonia mydas*) Conservation Monitoring  
in Kazanlı, Turkey**

Submitted to:  
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**MEDASSET - The Mediterranean Association to Save the Sea Turtles**

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The population of the green turtle, *Chelonia mydas*, is regarded as globally endangered, and Kazanlı in southern Turkey is one of the species' most important nesting beaches in the Mediterranean. The beach had been subject to gradual degradation since the 1980's, with only limited action by the Turkish authorities to stop the process.

### **EROSION**

Erosion continues at an appalling speed and represents a major threat to the nesting beach which can undermine other conservation efforts. It was first documented in the late 1980's<sup>1</sup> and has been an increasingly serious problem in Kazanlı since 2002 (T-PVS/Files (2004) 11).

Significant loss of beach by heavy erosion from the sea side, calls for urgent measures for the rehabilitation of the beach. The situation is especially bad in section K3, which was once the most important nesting area in Kazanlı; it seems that nests are declining in this section, as per the report submitted by the Turkish Government at the 2008 Standing Committee Meeting.

Recommendation No. 66 (adopted on 4 December 1998) called for the construction of an **eastern** breakwater or jetty. This was meant to minimize the impact of Soda Chrome Factory's jetty which was situated **in the west**. As the Turkish government did not take action to construct breakwaters in the **east**, the on-the-spot appraisal mission by the Bern Convention in 2002 came to the conclusion that it would be better to remove the jetty in the west, which was subsequently demolished by the factory in 2002. However, only those parts of the jetty above the surface of the water were removed and the foundations of the jetty remained for years, causing accelerated beach erosion. Only after intervention of MEDASSET through the Bern Convention (T-PVS/Files (2005) 10), the underwater parts of the jetty were removed in 2006.

Measures such as the construction of breakwaters in the **east** need to be implemented together with other actions, which have yet to be identified.

MEDASSET considers the shift of the greenhouses 5 metres inland from the beach, as an insufficient measure to deal with the accelerating erosion. Any further moving of the greenhouses, may temporarily prevent them from being threatened by the progressing erosion, but will not help stop erosion and is by no means regarded as a solution to the problem. The remaining green houses are now on pure soil and are no longer situated in the former sand dune area: moving or removing them would not gain additional sandy nesting ground for turtles.

### **More drastic measures need to be taken to combat coastal erosion.**

MEDASSET has not seen the Government of Turkey taking further action to stop beach erosion and it has ignored the role of an engineering study for finding sustainable solutions. As far as we understand, the Government has not even a concept of how to handle this issue. All MEDASSET's re-

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<sup>1</sup> Groombridge, B., 1988; 1988 survey by Baran and Kasparek (1989); Langeveld and Sarıgül (1990); Smart and Coley (1990)

ports to the Bern Convention clearly state that an overall engineering study is necessary to find appropriate solutions to halt beach erosion.

We must reiterate the need for coastal management measures especially in light of the devastating effects that climate change is projected to have on coastal areas, with more frequent coastal flooding and increased erosion, due to storminess and sea level rise (IPCC forecasts an 18 to 59 cm sea level rise by the end of the century).

## **TOXIC WASTE MANAGEMENT**

The chrome factory in Kazanli has deposited **1.5 million tons of chemical waste** directly onto the nesting beach. The waste has a high concentration of toxic chromium (Cr 3+/6+) compounds, and is a by-product of the factory's activities of the 1990s. MEDASSET considers the removal and management of the waste as an issue of highest priority, as it threatens wildlife, terrestrial and marine ecosystems, as well as human health.

In **2001**, after MEDASSET alerted authorities and drew significant attention to the release of toxic waste into the sea off the Kazanli nesting beach from the beachside soda-chrome factory, more efforts were spent for the preservation of this area. During the last years, the overall situation has improved under the leadership of a new local administration. Both the Bern Convention and MEDASSET have contributed significantly to trigger these improvements.

Concerns about adverse human effects on the green turtle population lead to an on-the-spot appraisal mission by the Convention in **2002**. The results are available in document T-PVS (2002) 2. In the same year the Standing Committee issued a specific Recommendation on the "Conservation of marine turtles in Kazanli beach (Turkey)" and opened a Case File to follow up the situation.

After some conservation problems had been addressed and better overall-protection of the area had been achieved, the Standing Committee at its 24th Meeting (29.11.-3.12.2004) decided to close the file for the time being, requesting that the Turkish Government continue reporting on the situation. However, the Turkish Government did not follow that request; it did not report on the conservation status of Kazanli at the **2005** Meeting, nor did a Turkish Delegation attend the meeting. In **2006**, the Turkish Government submitted a brief report, but did not send a delegate to the Standing Committee Meeting. The presentation of a PowerPoint on the situation at Kazanli by MEDASSET in 2006 with alarming visual content spurred the Delegate of Monaco to propose that the Kazanli Case File be re-opened.

In **2007**, information by the Government of Turkey was received too late for the Convention's Bureau to consider at its meeting in March 2007, so the Bureau agreed to include this issue in the Agenda of its September 2007 meeting as a "possible case file". At the 2007 Standing Committee Meeting the Turkish Delegation announced that an engineering study and an Environmental Impact Assessment (EIA) was completed. Agreement was reached to convert the hazardous toxic waste through a process by reducing the chromium 6 to insoluble non-toxic chromium 3 over a period of eight years. The facility for this operation would be built near the factory and the resulting non-hazardous waste would be moved to a landfill in the hills of the Taurus Mountain.

The Standing Committee Meeting decided not to open a file but to request Turkey to submit a report in 2008 on the progress in implementing the 2002 Recommendations. Help was offered by the Delegate of the Barcelona Convention, provided that Turkey declared Kazanli a Hotspot area under the Barcelona Convention (MED POL). The Turkish Government has not taken up this offer.

At the **2008** Standing Committee Meeting, the Turkish Government reported that an unsuccessful initiative to set-up a central waste storage facility had subsequently delayed the Soda Chrome Factory's plan to set up its own landfill site, causing further postponement of the project start-up. July 2009 had been set as the time the solid waste treatment would commence, while the operation of the landfill was set to begin in November 2009. Surprisingly, the Turkish Government's progress report on Kazanli submitted to the Meeting (T-PVS/Files (2008) 10) was a "*document prepared by the Kromsan Factory within the coordination of the Turkish Ministry of Environment and Forestry*".

At the Standing Committee Meeting, MEDASSET called on the Government of Turkey and the Soda Chrome Factory, as well as through a letter to the Turkish General Directorate of National Parks and Game-Wildlife (05/01/2009), to start implementing without delay plans to put the hazardous waste in a safe location, far from the green turtle nesting beach and the sea.

According to the Bureau Meeting Report, in **March 2009**, the Turkish authorities reaffirmed their intention to remove the hazardous waste from Kazanli Beach, but notified that “*it would take some time*”, as the main problem was “*the hazardous wastes of old technology still standing there*”. At the meeting of experts of the Turkish Nature Protection and Environmental Management Department the final decision was that the draft project plan would be revised and the problems of the dumping site “*will be solved as soon as possible*”. The authorities reported it was impossible to carry out field activities on the beach during the winter, but new projects on rehabilitation and monitoring would be carried out in spring/summer 2009. They also informed that experts from the provincial office of the Ministry had visited the factory for inspection of the removal of the hazardous waste, on 23 January 2009. They confirmed the construction of the waste neutralising facility was underway and expected to be completed by June 2009; EIA studies were being carried out for the waste storage site; and “*all hazardous waste could be neutralised to a safer compound*”.

To this date, the Government of Turkey has made progress in implementing the 14 points of the 2002 Recommendations: plastic rubbish is collected on a more or less regular basis; the underwater part of the Soda Chrome Factory jetty, some illegal buildings and a parking lot next to the beach were removed. However, significant issues still remain unsolved.

## REFERENCES

In the past, the following Recommendations of the Standing Committee dealt with the situation at Kazanli:

- No. 7 (1987) On the protection of marine turtles and their habitat;
- No. 8 (1987) On the protection of marine turtles in Dalyan and other important areas in Turkey;
- No. 12 (1988) Concerning the protection of important turtle nesting beaches in Turkey;
- No. 13 (1988) Concerning measures for the protection of critical biotopes of endangered amphibians and reptiles;
- No. 24 (1991) On the protection of some beaches in Turkey of particular importance to marine turtles;
- No. 66 (1998) On the conservation status of some nesting beaches for marine turtles in Turkey;
- No. 95 (2002) On the conservation of marine turtles in Kazanli beach (Turkey).

A number of other reports describe the situation at Kazanli in detail. These include:

- T-PVS (1999) 74 Report by the NGO: MEDASSET.
- T-PVS (2000) 56 Report by MEDASSET.
- T-PVS (2000) 73 Report by Turkish Government.
- T-PVS (2001) 39 Report by the Secretariat of the Bern Convention.
- T-PVS (2001) 70 Report by the NGO (MEDASSET).
- T-PVS/Files (2002) 2 Report by the Secretariat of on-the-spot appraisal undertaken for the Council of Europe by M. Kasperek.
- T-PVS/Files (2002) 17 Report by Turkish Government.
- T-PVS/Files (2002) 20 Report by the Secretariat of the Bern Convention.
- T-PVS/Files (2003) 14 Report by the NGO: MEDASSET.
- T-PVS/Files (2004) 10 Meeting of the Bureau. Meeting Report.
- T-PVS/Files (2004) 11 Report by the NGO: MEDASSET.
- T-PVS/Files (2004) 16 Report by the Secretariat.
- T-PVS/Files (2005) 10 Report by the NGO (MEDASSET).
- T-PVS/Files (2006) 3 Report by the Government.
- T-PVS/Files (2006) 13 Report by the NGO (MEDASSET).

T-PVS/Files (2007) 29 Report by the Government.  
T-PVS/Files (2007) 16 Report by the NGO (MEDASSET).  
T-PVS/Files (2008) 10 Report from the Government  
(2008) Published without a T-PVS reference: Update on Green Turtle (*Chelonia Mydas*) Conservation Monitoring in Kazanli, Turkey

For detailed background information, reference should be made to these Bern Convention Kazanli documents; most of which are available at the Bern Convention website and at :

[http://medasset.org/cms/index.php?option=com\\_docman&task=cat\\_view&gid=11&Itemid=3&lang=en](http://medasset.org/cms/index.php?option=com_docman&task=cat_view&gid=11&Itemid=3&lang=en)