

# BIODIVERSITY

AS PART OF ITS [POLICY ON PROTECTING BIODIVERSITY](#) UNDER ITS ENVIRONMENT, OCCUPATIONAL HEALTH AND SAFETY AND SOCIAL RESPONSIBILITY POLICY, ENKA İNŞAAT UNDERTAKES ALL NECESSARY MEASURES TO PROTECT THE EXISTING FLORA AND FAUNA AND TO MANAGE ITS IMPACTS IN ALL OF ITS ACTIVITIES.

Foremost among these measures are the preparation of Environmental Impact Assessment (EIA) reports for the projects to be carried out and the identification of the flora and fauna within the impact area of the project that are in need of protection, together with the necessary measures.

The major activities undertaken for the protection of biodiversity in line with the Biodiversity Management and Action Plans at ENKA İnşaat projects in 2019 were as follows:

## MORAVA CORRIDOR MOTORWAY PROJECT (SERBIA)

EIA studies started in 2019 within the scope of IFC requirements for the Morava Corridor Motorway Project, the contract for which was signed in 2019 and will start in 2020.

In this context, field visits were organized on the project route with experts including botanists, hydrobiologists, mammalogists, herpetologists, ornithologists and entomologists.

Although nine Level 3 EUNIS habitat areas were identified during these visits, no endemic species were encountered. Among the flora and fauna identified, relocation of Yellow Iris (*Iris pseuacorus*) which is a species under protection, was decided during construction activities.

In addition, the breeding seasons and regions of the identified fish species and the migration routes of the birds have been identified and these data have been included in the planning of construction activities.

## NAMAKHVANI HYDROELECTRIC POWER PLANT PROJECT

The EIA studies carried out within the scope of the Namakhvani Hydroelectric Power Plant project which is planned to start in 2020 in Georgia, was completed in 2019. With respect to the protection of biodiversity, although no endemic species was encountered, studies were carried out on how to protect the fish populations in the river during the operation of the dam and it was decided to use Francis turbines to enable fish to move along in the flow path without harm.

In the analysis carried out, it was determined that with the use of Francis turbines that provides complex three-dimensional water flow, the mortality rate of fish coming into contact with the turbines due to the flow will be less than 5%.

Furthermore, as the upstream swimming of the fish during the breeding season will be prevented after the construction of the dam, ENKA has committed to raise fish species identified during the EIA studies outside of the river and to release them to their natural habitats on the upstream of the dam as well as to monitor the fish populations.

ENKA will also undertake the monitoring of the humidity, temperature, pressure and quality of the production at vineyards where endemic grapes species are grown within 100 meters diameter of the dam reservoir. A commitment has been made to find joint solutions with relevant people in line with expert advices if any negative outcomes are detected.

## TENGİZ PROJECTS

Within the projects carried out in the Tengiz region of Kazakhstan, biodiversity management works are being conducted in accordance with the regulations of the Republic of Kazakhstan and IFC requirements.

In the Tengiz region, which is located within the habitats of 34 mammalian, 350 invertebrates, 10 reptiles and 192 bird species, the Steppe Eagle (*Aquila Nipalensis*), an endangered species with an estimated worldwide population of approximately 150,000 has been observed. In this framework, it was decided and implemented that all power lines to be erected for activities in the Tengiz region would be specially designed to prevent birds from dying due to electrocution.

In addition, ENKA carries out weekly field inspections during the bird migration season to develop measures to reduce potential impacts by recording significant bird activities within or around the study area and Project HSE department provides training to employees to raise their awareness about this issue.

Within the scope of the studies in which bird nesting areas and breeding rates were determined, a total of 97 bird nests of the Barn Swallow in particular and the

White Wagtail were encountered and the successful breeding rate was recorded as 71%.

## DHI QAR AND SAMAWA COMBINED CYCLE POWER PLANT PROJECTS

Ecological baseline studies were carried out in 2019 at the Dhi Qar and Samawa Combined Cycle Power Plant projects in Iraq.

In the studies covering the natural habitat in and around the River Euphrates, it was attempted to observe the existence of three fish species (*Luciobarbus esocinus*, *Carasobarbus kosswigi*, *Capoeta barroisi*), one mammal (*Myotis capaccini*) species and one reptile (*Rafetus euphraticus*) species, all of which are endangered and on the protection lists of the International Union for Conservation of Nature (IUCN).

As a result of the studies carried out with the participation of environmental engineers, hydrobiologists and mammalogists, only the *Luciobarbus esocinus* was found to be present in the area.

As the water requirements of both projects are to be met partly by drawing water from the River Euphrates, great care needs to be taken not to harm the population of this species.

The points at which water will be drawn were identified based on the suggestions made by the experts, canals were built which will limit the rate of flow to a maximum of 0.15 m/s and wedge wire screens were installed to prevent fish from entering the water drawing system from the river.

## HİSARÖNÜ BAY CLEANING WORKS

Since 2011, ENKA has been supporting the efforts of the Turkish Marine Environment Protection Association (TURMEPA) / DenizTemiz Association to clean up Hisarönü Bay in the district of Marmaris in Muğla, Turkey. In 2019, ENKA continued to provide support for clean-up and flora protection activities in a region where 110 fish, 45 mammals, 123 birds, 27 reptiles, 167 terrestrial invertebrates and 4 amphibians species live in.

As part of these activities, 220,000 m<sup>3</sup> of wastewater was collected from private yachts and boats and it was disposed properly to prevent it from spreading within the sea. In addition, with the regular visits made to the boats and yachts and environmental awareness efforts, the disposal of solid wastes from these boats and yachts was prevented contributing to the protection of the flora in the region.

## WWF NATURE PIONEERS PROGRAMME SPONSORSHIP

The World Wide Fund for Nature (WWF) is the largest international nature protection organisation in the world operating in more than 100 countries. ENKA Foundation has become the sponsor of the WWF-Turkey Nature Pioneers Programme that will be carried out by the WWF in the 2019-2020 academic year. Schools which have participated in the programme so far have developed projects for the protection of species such as ophisaurus apodus and indian porcupine. By supporting this project, ENKA Foundation aims to ensure that students and teachers to receive trainings on the protection of nature and existing species and this way to create positive change by students in their environments and society.

## ENKA SCHOOLS KOCAELİ AND THE SEA TURTLE RESEARCH, RESCUE AND REHABILITATION CENTER (DEKAMER)

Cooperation between the Sea Turtle Research Rescue and Rehabilitation Center (DEKAMER) operated by Pamukkale University on İztuzu Beach and ENKA Schools Kocaeli enabled students and teachers at the school to take part in an educational programme in which they learned about sea turtles and the treatment of wounded turtles and went on to take part in observation and caging work at the night-time egg-laying beach.







**ENKA IS AN EXEMPLARY ORGANISATION WHICH IS HIGHLY SENSITIVE ABOUT THE ENVIRONMENT AND WHICH HAS BEEN SUPPORTING THE TURMEPA'S EFFORTS TO PRESERVE OUR MARINE AND WATER RESOURCES FOR YEARS.**

Our seas provide one of every two breaths we take. In other words, we owe one of those breaths to the forests on land and the other one to the sea grass and the plankton. This is what makes the activities of the Turkish Marine Environment Protection Association (TURMEPA) so vital. TURMEPA is a leading non-governmental organisation established in conjunction with the Chamber of Shipping in 1994 with Rahmi M. Koç as its founding chairperson in order to make the protection of Turkey's coasts and seas a national priority and to leave a liveable Turkey embraced by clean seas to future generations. Since its foundation, it has been generating projects that have been taken as a model by the public and private sectors, preparing EU projects and carrying them out arm in arm with its partners, drawing up sample projects for the relevant government ministries, developing environmental awards and gathering all stakeholders together through its international conferences. It has also become a key point of reference on marine and water assets.

ENKA is an exemplary organisation which is highly sensitive about the environment and which has been supporting the TURMEPA's efforts to preserve our marine and water resources for years. As TURMEPA, we have been cooperating with ENKA Schools on the education of students since 2016 and raising the awareness of students of different age groups studying at the ENKA schools in İstanbul and Adapazarı about the conservation of the seas and marine ecosystems, the importance and proper use of water resources, carbon and water footprints, zero waste philosophy and personal responsibilities for a sustainable environment. In addition to trainings, mentoring also provided based on the students' requests for the projects carried out by the students of the ENKA Schools through the academic year.

ENKA is also exemplary company with its projects on reducing its environmental impact. It sets an exemplary behavior on the subject that draws attention to the importance of the environment with both the environment-friendly equipment, green building applications in workplaces and with the meetings and workshops it organizes to draw attention to environmental sustainability. Apart from the training activities carried out by TURMEPA in cooperation with ENKA, the waste collection activities of the Association have been supported with donations from the ENKA Foundation for

many years. With its waste-collection boats, TURMEPA offers a mobile service in the bays that are regularly visited by yachts and tourist boats and contributes to reduce the environmental footprint of marine tourism by collecting millions of liters of wastewater for over 10 years. The support of the ENKA Foundation to our association contributes to the prevention of pollution efforts in the open seas of the TURMEPA waste-collection fleet consisting of six boats. Biodiversity in the unique bays of our country is at risk due to the increasing tourism pressure. Thanks to the services provided by the TURMEPA fleet, the liquid waste generated by the yachts and tourist boats in Çeşme, Göcek, Marmaris and Hisarönü bays are prevented from being discharged into the sea.

I regard our ongoing cooperation with ENKA as a very important example for the private sector. In every endeavour to transform society, it has become essential to form partnerships with non-governmental organisations (NGOs) and to increase support for their work. The longer these collaborations last, of course, the more beneficial they become. In this respect, our cooperation with ENKA is even more significant. Because as time goes by, the institution concerned becomes more familiar with what is required in the area in which it invests, and is able to augment its positive influence through investments in forms such as expertise, human resources and technology transfer, over and above the financial resources it provides. In consequence, we feel stronger in terms of solving the problem.

**■ Şadan Kaptanoğlu**

*Chairwoman of the Board  
DenizTemiz Association TURMEPA*

**#GrowingBetterTogether**



**STAKEHOLDER  
ASPECT**