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## CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE AND NATURAL HABITATS

**Standing Committee** 

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**Complaints on stand-by** 

## Wind energy: Possible threats to an endangered natural habitat in Izmir (Turkey)

## - REPORT BY THE GOVERNMENT -

Document prepared by the Ministry of Forestry and Water Affairs, Turkey

## GOVERNMENT REPORT ON COMPLAINT NO: 2014/6 "WIND ENERGY: POSSIBLE THREATS TO AN ENDANGERED NATURAL HABITAT IN İZMİR (TURKEY)"

In July 2014, a complaint was submitted to the Bern Convention secretariat, claiming that the increase of wind energy installations in Çeşme Peninsula will have a negative impact on protected habitats and species. It is also claimed by the complainant that the wind turbines were built without EIA. Based on the report provided by the Turkish Government, the bureau decided to give the complainant a last chance to complete the file by providing a specific, sound and science based information about the negative effects of the wind farm projects in Çeşme Peninsula.

Firstly, it should be noted again that the legislation concerning the environmental impact assessments in Turkey is the Regulation on Environmental Impact Assessments, which was published in the official gazette numbered 29186 and dated 25.11.2014 (First issued in 1993, date of last revision 2014) According to this regulation, those projects which are greater than 50 MW are subject to Appendix I of the regulation, those projects that are less than 50 MW are subject to Appendix II of the regulation, with the participation of all the stakeholders, and Appendix II projects are evaluated in the appropriate local unit of the Ministry of Environment and Urbanization. After the evaluation period, projects that are allowed to be done are conducted only within the conditions specified in EIA reports.

During the environmental impact assessment process, based on the provisions of the 12th article of the regulation, the opinions of all the related institutions, mainly below mentioned but not limited to these are taken; Ministry of Energy and Natural Resource (General Directorate of Mine Works), Regional Directorates of Council for Conservation of Natural Assets, Ministry of Forestry and Water Affairs (General Directorate of Forestry, General Directorate of Nature Conservation and National Parks, General Directorate of State Hydrolic Works, General Directorate of Meteorology), Ministry of Environment and Urbanization (General Directorate for Conservation of Natural Assets, General Directorate of Spatial Planning), Institutions under Provincial Governments; Provincial Directorate of Ministry of Food, Agriculture and Livestock, Secretary General of Special Provincial Administration.

These institutions are gathered together in a special commission for inspection and survey. They all make their observations according to their own legislation and pass their opinions to the Ministry of Environment and Urbanization. According to the internal legislation of the Ministries, scientific information about the project sites are gathered during the preparation of environmental impact assessment report. Besides, all the necessary precautions are determined in these reports, including dust and noise prevention. These precautions include both the construction and operation phases of the projects. Regulation on Environmental Impact Assessment has an Appendix 5, which is about sensitive areas around the project site. It is obligatory to fill this form to assess the area about international conventions and globally or locally threatened species. Within the scope of this appendix, project site is evaluated based on the cumulative effects of all the projects in the same area, if there are any other projects in the area. Protected areas are especially highlighted in the EIA reports, if there are any.

During the environmental impact assessment procedure of Çeşme RES projects, all the species in Bern Convention's and other conventions appendices were assessed for the presence in the construction site. Please note that the species indicated in the complainant's letter are stated according to IUCN criteria, not taking into account the Bern Convention. In fact, the plant species indicated in complainant's letter are usually those occur in the whole Çeşme peninsula, not restricted to project area. Below, the plant species listed in the complainant's letter can be found. As it can be seen, none of the below plant species occur in Bern Convention Appendix 1.

FAMILY	SPECIES NAME	HABITAT	ABUNDANCE	IUCN
ASTERACEA	Centaurea cyanus	Forest, rocky areas	2	
	Helichrysum stoechas	Maquis, rocky areas	2	
	Jurinea mollis	Forest, maquis, shrub	3	
	Leontodon tuberosus L.	Forest, dunes, shrub	2	
	Senecio aquaticus ssp erraticus	Forest,maquis,wet lands	3	
ARISTOLOCHIACEAE	Aristolochia hirta (FNDEMIC)	Forest floor, vin-yards	2	LC
BORAGINACEAE	Alkanna tinctoria anatolica	Forest, shrub	2	DD
	Alkanna tinctoria subleicorpa	Forest, shrub	2	DD
	Alkanna tubulosa	Forest, shrub	2	LC
	Minurata anatolica	Rocky slopes	-	
	var.anatolica (ENDEMIC)			
CAMPANULACEAE	Campanula lyrata spp.	Garrulous fields, steep		LC
	Lyrata (ENDEMIC)	slopes		
CYPERACEA	Carex pendula	Forest, coastal lne	3	
ERICACEAE	Arbutus andrachne	Forest, maquis	3	
	Arbutus unedo	Forest, maquis	3	
FABACEAE	Anyllis hermanniae	Maquis, shrub	3	
	Calicotome villosa	Forest, maquis	3	
	Colutea melanocalyx	Forest, rocky slopes,		LC
	spp.davisiana (ENDEMIC)	shrub		
	Dorycnium hirsitum	Forest, maquis, slopes	3	
	Genista accanthoclada	Forest, maquis	2	
	Calicotome villosa	Forest, maquis	3	
	Lathyrus setifolius	Forest,maquis,shrub,slope s	3	
	Medicago coronata	Forest, maquis	2	
	Ononis pubescens	Forest, maquis	3	
	Trifolium boisseti	Forest, maquis	2	
	Trifolium glandiniferum	Forest, maquis	2	
	Trifolium boissieri	Forest, maquis	2	
	Trifolium latinum	Forest, maquis	2	
	Trigonella smyrnea (ENDEMIC)	Sotney slopes, calcereous rock formations		DD
GERANIACEAE	Erodium absinthoides			DD
	spp.absinthoides(ENDEMIC)			
GUTTIFERAE	Heypericum empetrifolium	Maquis	2	
LAMIACEAE	Lavandula stoechas	Forest, maquis, shrub	4	
	Micromeira myrtilifolia	Forest,maquis,shrub,slope	4	
	Sideritis sinvlea (ENDEMIC)	Pinus brutia nigra		NT
		forest.calcerous slopes		
LILIACEAE	Colchicum boissieri	Forest, stoney fields	2	
ORCHIDACEAE	Ophyrs fusca	Forest, maguis, slopes	2	CR
	Orchis moria ssp.picta	Grassland	3	
	Orchis provincialis	Forest,shrub		CR
PAPAVERACEAE	Papaver	Roadsides, open fields		
	purpureomarginatum (ENDEMIC)			
POACEAE	Aegilops umbellata spp.	Shrub, woodlands,	3	
	umbellata	calcareous Jsoil		
	Anthoxantum odoratum	Dry and loose sand dunes	3	
	Pipthatherum miliaceum	Forest, maquis, crop fields	3	
RAFFLESIACEAE	Cytinus hypocistis	Shrub, maquis		
RUBIACEAE	Crucianella angustifolia	Forest, maquis, slopes	3	
SCROPHULARIACEAE	Verbascum splendidum	shrub	2	
SOLANACEAE	Mandroga autumnalis	Historic heritage sites	3	
HYMELAECEAE	Thymelaea tatonaira argentea	Shrub, grassland, coast	3	
	var.angustifolia	line		

Based on the above information, currently there are 6 wind energy facilities around Çeşme peninsula region, all of which has passed through the detailed Environmental Impact Assessment process. Furthermore, there is a cumulative evaluation report about the Çeşme basin.



Figure-1 Location of the wind energy projects in Cesme Peninsula.

Çeşme RES (Çeşme Wind Energy Central): Çeşme RES is located in Çeşme district of İzmir province, to the South of Çeşme district city center. It involves 6 wind turbines, each has a power of 3,0 MW. Each turbine will cover an area of about 314,15 m<sup>2</sup>, with a platform of 40\*25 m, the total area will be around 6000 m<sup>2</sup>. The position of the turbines is given in Figure-2.



Figure-2 Position of 6 wind turbines in Çeşme RES.

Other wind energy projects in operation around Çeşme RES are within 25 km radius. First of them, ARES RES is located 6,3 km to the east of Çeşme RES and is composed of 12 wind turbines with a total power of 7,2 MW. Maz1-3 RES is locates 12 km to the southeast of Çeşme RES. Another wind project is located 12 km to the east of Çeşme RES. Maz1-1 RES is located 14 km to the east of Çeşme RES, and KORES is located 24 km to the East of Çeşme RES. All the projects are given in Figure-3.



Figure 3 - Wind energy projects in operation in Çeşme peninsula.

When it comes to assessing the fauna list of the complainant, it can again be seen that the fauna list provided is not a site specific list, but rather a whole fauna list of Karaburun peninsula. With this in mind, it is also not possible to understand what complainant meant by referring to Appendix 6 of the Bern Convention. In the list of the birds, the complainant is giving some misinformation by stating some raptor species are in Appendix 3 of the convention, although all the raptor species are in Appendix II. This means that the complainant only has some little information about the protected species under Bern Convention.

Besides, it cannot be understood by the authorities that giving the name of an aquatic mammal species like Mediterranean monk seal, in a wind energy facility to be constructed on top of the hills. Apparently, species like lutra lutra and monk seal, although in Appendix II of the convention, has no direct relationship with wind energy construction.

The only reasonable list in the complainant's letter is the list of birds. Actually, the coastal and wetland habitats around the project site and Çeşme basin is important for coastal and wetland birds, which may pose an important problem for them in case they are not planned wisely. Alaçatı coastal ecosystem which is 5,7 km to the southeast of Çeşme RES, and Kutlu Aktaş Dam, which is 7 km to the east of Çeşme RES are important areas used by waders. (Figure -4)



Figure -4 Important Coastal and wetland ecosystems around Çeşme RES project area.

However, when the bird migration route is observed through this project area, it can be seen that the route passes between the wind energy projects, not crossing each other. The migrants around this region are mostly cormorants, egrets, storks and plovers, all of which use migration corridors through valleys along the hills, on top of which the wind turbines are located.

When it is looked in the light of the information presented above, passing of birds through the wind turbine area is mainly by birds which pass from the opposing coasts of the peninsula (Figure -5).



Figure-5 Passageways of cormorants, gulls, egrets, herons and shelducks through the wind turbine area

No energy producing method is completely harmless for the nature. However, managing them wisely reduces the level of conflict between technology and the wildlife. In the environmental impact assessment of the above mentioned facilities, the companies willing to produce energy make official commitments to the government, not only to protect biodiversity but also to support monitoring of biodiversity. New technological turbines have all radar systems to shut down the blades of the turbines in case of an encounter with a bird migration.

Wind energy is one of the most clean energy sources in the world, using them on sound scientific information is necessary to protect biodiversity.