

# CONCEPT OF ENVIRONMENT, HEALTH AND ENERGY SYSTEMS IN TURKEY

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## ABSTRACT

Since the Chernobyl disaster in the Black Sea region, it has been understood that environmental problems are not restricted to the countries of their origin. Research has shown that international attention given to the Mediterranean Sea has generated a more positive impact on environmental protection, as compared to that of the Black Sea. Industrialization around the Black Sea during the Cold War, a lack of international attention for long decades, and the region's position since the Second World War as a crucial hub for the transport of the energy produced by Caucasian and Black Sea littoral countries to the energy consuming countries in Europe aggravated the environmental situation in the region. Pollutants created by chemical industries and oil leaking from tankers have caused a decrease in biological diversity. Thus, increased pollution in the sea entered the agendas of governmental and non-governmental international/regional organizations and individual states in the last two decades. Unfortunately, after the end of the Cold War and the collapse of the Soviet Union, the main priorities of the newly independent states included neither an increase of biological diversity nor a decrease in pollution. As the regional states put their efforts into competing in the international liberal market, they focused on increasing industrialization, trade and economic ties with the energy demanding countries. There are ten wind farms mainly on land clustered together in the west of the country and in the Aegean region, including in Çanakkale, close to the site of ancient Troy, Çeşme, Akhisar and on the island of Bozcaada. Wind power in Turkey is gradually expanding in capacity. In 2006, 19 MW of wind power was installed, and in 2007, installed wind capacity increased to almost 140 MW. Turkey is set to double the amount of its electricity supplied by wind power with the construction of a wind farm in southeast Turkey which will have an installed capacity of 135 megawatts (MW) when it is completed in 2009. This very important project will use 52 of the latest generation of turbines from GE Energy, each rated at 2.5 MW. Installed wind power is expected

to reach 808.81 MW by the end of 2008. Wind energy potential for Turkey is 58GW. The European Wind Energy Association stated that installed wind power capacity in Turkey at the end of 2009 was 801 MW. A total of 343 MW of capacity was installed in 2009. According to Official Transmission Reports, installed wind power capacity in Turkey at the end of 2010 has increased to 1265 MW. The installed capacity is specified as 1645,30 MW by October, 2011 by the same reports. At the end of 2012 there will be over 80 windfarms in Turkey. At the end of 2012 Turkey will have 2 GWs of installed capacity. The Turkish government has a target of a 20 times increase in wind capacity by 2020.