Po Delta - gas extraction, environmental impacts and biodiversity

Factsheet - April 2023

Background

The Park of the Po Delta is rich in biodiversity. Since 2015, UNESCO has designated the Po Delta Natural Park as a UNESCO Biosphere Reserve. Bottlenose dolphins and sea turtles live in the marine area just offshore from the delta – which is a Site of Community Importance (SCI) under the European Habitats Directive.

However, the delta and offshore area face multiple threats: overfishing, marine traffic, extraction of fossil fuels, and pollution. The Teodorico offshore concession, a fossil gas drilling project by Australian company ‘Po Valley Operations’, planned right next to the Po Delta park, is endangering marine fauna. The Po Delta area already suffers from subsidence – the sinking of soil – and erosion, which the local population claims will be exacerbated by the project.

The Italian Ministry of Ecological Transition gave the go-ahead to drill the gas field off the coasts of the Veneto and Emilia-Romagna regions in 2022.

Gianni Padovani, the mayor of the town of Mesola, told Repubblica: "We have staked everything on environmental and slow tourism. Ours is a little urbanised area and the sea is where we fish and collect clams. For us even one drill is already one too many [...] The point is this: you cannot be a natural park, with an economy based on fishing and tourism, and at the same time a place where you drill for fossil fuels."

Subsidence

The area is already suffering from subsidence: the gradual caving in or sinking of an area of land, which, in this case, is slowly sliding into the sea. The local population claims that the drilling will exacerbate this problem. Diego Viviani, the mayor of the town of Goro, told la Repubblica: "One centimetre a year. From Goro to Tresigallo, over 50 kilometres we are already below sea level [...] These drilling rigs are extremely negative, they steal material from the subsoil. The impact is there."

History of gas extraction in the Adriatic

Subsidence has already occurred in this area. This phenomenon was observed between the 1950s and 1970s, a period of intense extractive activity, when the soil dropped by up to 3.5 metres in the Po Delta, with an average drop of about two metres. Two studies, one in the journal Science of the Total Environment in 2018 and another in the Journal of Geophysical Research in 2011 attributed soil subsidence in the Po delta to gas extraction.
Impact of noise on marine biodiversity

Research on acoustic data suggests that, particularly in the area between the park and the Teodorico project, noise produced by the drilling could have a serious impact on the dolphin population living in the area. The noise produced by marine traffic in the vicinity of the animals has already been shown to cause disturbance.

The marine ecosystem of the Northern Adriatic is unique, with key habitats and species that must be protected. Fossil fuel extraction projects could threaten the balance of these fragile ecosystems.

A threat for people and marine life

The Teodorico fossil gas extraction project is a risk for local communities and marine life around the Park of the Po Delta. The risk to communities lies in the project potentially exacerbating the risk of subsidence, which has already taken place during previous periods of intense extraction. In addition, the noise from the project presents a potential risk to biodiversity in the sea surrounding the park.

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Further reading

Greenpeace Italy 24 August 2022
La Repubblica 21 May 2021
La Stampa 5 November 2022
Corriere del Veneto 5 November 2022
Corriere del Veneto 27 May 2021
Greenpeace Italy video