Dead Sea needs world help to stay alive

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A picture shows the drying shores of the Dead Sea, south of the Jordanian capital Amman, on November 9. The Dead Sea may soon shrink to a lifeless pond as Middle East political strife blocks vital measures needed to halt the decay of the world's lowest and saltiest body of water, experts say.

The Dead Sea may soon shrink to a lifeless pond as Middle East political strife blocks vital measures needed to halt the decay of the world's lowest and saltiest body of water, experts say.

The surface level is plunging by a metre (three feet) a year and nothing has yet been done to reverse the decline because of a lack of political cooperation as a result of the Arab-Israeli conflict.

The shoreline has receded by more than a kilometre (around a mile) in some places and the world-famous lake, a key tourism destination renowned for the beneficial effect of its minerals, could dry out by 2050, according to some calculations.

"It might be confined into a small pond. It is likely to happen and this is extremely serious. Nobody is doing anything now to save it," said water expert Dureid Mahasneh, a former Jordan Valley Authority chief.

"Saving the Dead Sea is a regional issue, and if you take the heritage, environmental and historical importance, or even the geographical importance, it is an international issue."

Landlocked between Jordan, Israel and the West Bank, the Dead Sea is rapidly vanishing because water which previously flowed into the lake is being diverted and also extracted to service industry and agriculture.

Jordan decided in September to go it alone and build a two-billion-dollar pipeline from the Red Sea to start refilling the Dead Sea without help from proposed partners Israel and the Palestinian Authority.

However, that project is controversial and Mahasneh stressed that Jordan alone is not capable of solving the Dead Sea's problems.

The degradation began in the 1960s when Israel, Jordan and Syria began to divert water from the Jordan River, the Dead Sea's main supplier.

For decades, the three neighbouring countries have taken around 95 percent of the river's flow for agricultural and industrial use. Israel alone diverts more than 60 percent of the river.

The impact on the Dead Sea has been compounded by a drop in groundwater levels as rain water from surrounding mountains dissolved salt deposits that had previously plugged access to underground caverns.

Industrial operations around the shores of the lake also contribute to its problems.

Both Israel and Jordan have set up massive evaporation pools to vaporise Dead Sea water for the production of phosphate, while five-star hotels have sprung up along its shores, where tourists flock for the curative powers of the sea mud and minerals.

The salty lake is currently 67 kilometres (42 miles) long and 18 kilometres (11 miles) wide.

The top of the water was already 395 metres (1,303 feet) under global sea level in the 1960s but the drying out has lowered the surface further to minus 422 metres (1,392 feet), according to Friends of the Earth Middle East (FoEME).

Mahasneh says climate change is aggravating the crisis. "Climate change affected everything," he said. "It's an umbrella for many problems, including short rainfall.

"Nothing is being seriously done to tackle climate change. Sustainable and integrated solutions are needed."

The World Bank has funded a two-year study of the plan for a pipeline from the Red Sea to replenish the Dead Sea.

The project, agreed in outline by Israel, the Palestinian Authority and Jordan in 2005, aims to channel two billion cubic metres (70 billion cubic feet) of water a year via a 200-kilometre (120-mile) canal to produce fresh water and generate electricity as well as raise the Dead Sea.

But some environmentalists say the scheme could harm the Dead Sea further by changing its unique chemistry by introducing Red Sea water.

"We are dealing with at least two sensitive and different ecosystems: the

Dead Sea and the Red Sea. We also need to keep an open mind about other possible alternatives," said Munqeth Mehyar, FoEME chair.

Mahasneh supports the plan, saying: "The Dead-Red project is like a salvage plan -- there is no other option. But it won't be an easy task for political and economic reasons."

Jordan's Environment Minister Khaled Irani said: "Let's wait and see the results of the study of the environmental impact."

"We might not go ahead with the project if it is going to create a major mess with the ecosystem, but if we can bring water to the Dead Sea and maintain the same ecological quality of the Dead Sea, why not?"

Friends of the Earth's Mehyar believes saving the Jordan River is key to the Dead Sea.

The waterway is under severe ecological strain because large amounts of raw sewage gush untreated at various locations into the relative trickle left after the diversion of most of the Jordan River.

During the past 50 years, the river's annual flow has dropped from more than 1.3 billion cubic metres (46 billion cubic feet) to around 70 million cubic metres (around 2.5 billion cubic feet), according to FoEME.

"We are working hard to push for rehabilitating the Jordan River by increasing and maintaining its flow in order to save it and save the Dead Sea," Mehyar said.

"The Dead Sea is in danger and that's for sure. I can't claim that we can prevent the level of the Dead Sea from dropping more, but I think we can control the problem and cooperation from all sides is a must."

Most of the springs in the Jordan Valley which flow directly into the Dead Sea are currently dammed, according to water experts.

Jordan, where the population of around six million is expanding by 3.5 percent a year, is a largely desert country that depends greatly on rainfall. It needs every drop of water to meet domestic, agricultural and industrial requirements.

The tiny kingdom, which forecasts it will need 1.6 billion cubic metres (56 billion cubic metres) of water a year by 2015, is one of the 10 driest countries in the world, with desert covering 92 percent of its territory.

"We need to make sure that there is always running water flowing into the Dead Sea," Irani said.

"The Dead Sea is unique in many aspects, not only for Jordan, but also for the Israelis and Palestinians."

One side effect of the lake's falling water volumes is the appearance of large sinkholes along its shores, creating serious problems for farmers and businesses.

"A sinkhole destroyed my farm 10 years ago and forced me to move and work for other farmers," said Izzat Khanazreh, 42, as he puffed on a cigarette, his face tanned by working long hours under a hot sun.

He used to grow vegetables in his farm in Ghor Haditha in the southern Jordan Valley, a bare and sun-baked area around the Dead Sea.

"Nobody compensated me for my loss. My land was full of cracks and it was impossible to do anything about it," said Khanazreh, standing beside a sinkhole about 20 metres (65 feet) wide and 40 metres (130 feet) deep.

There are an estimated 100 sinkholes in Ghor Haditha alone. They can open up at any time and swallow up everything above ground like a devastating earthquake.

"These sinkholes are time bombs. They can appear any time and eat everything up," said Fathi Huweimer, a field researcher with FoEME.

"Farmers do not feel secure and are anticipating more trouble. This problem is because of the degradation of the Dead Sea."

A factory for Dead Sea products in the area has had to relocate after a large sinkhole appeared beneath it, threatening the lives of more than 60 workers, Huweimer said.

Irani said Jordan will highlight the Dead Sea's problems at the Copenhagen summit on climate change next month.

"We will raise those issues in Copenhagen and say that Jordan is heavily affected and urge developed countries to allocate more resources to contribute to saving the Dead Sea," he said.

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