

# Dust storms threaten health of Green Mazandaran Province

## Social Desk

Mazandaran, a province in central-northern Iran, is renowned for its lush environment which consists of many verdant valleys and forests. Situated along the southern coasts of the Caspian Sea, its sandy beaches attract both local and international tourists. However, even this picturesque region has been affected by an unexpected phenomenon: dust storms.

On August 26, 2023, IRNA reported that Ebrahim Takami, a weather expert from the Mazandaran General Meteorological Department, revealed that the province's eastern areas experienced reduced visibility due to air pollution caused by the arrival of fine dust from Turkmenistan. Just under two weeks later, on September 11, 2023, dust storms affected not only the eastern parts but also some central areas of Mazandaran.

Curiosity arises as to the origin of this dust. While some speculate that the Miankaleh wetlands within the province could be re-

sponsible for the inconvenience faced by the residents, investigations conducted by the province's Meteorological Department and the Department of the Environment point to a different source: the Karakum Desert in Turkmenistan.

Mohammadreza Razavi, the head of the province's Meteorological Department, explained to IRNA that meteorological maps and satellite images clearly indicate that the dust observed in Mazandaran originates from the Karakum Desert. The investigations further reveal that the fine dust is propelled by eastern winds, originating in the desert and making its way to Iran, eventually blanketing the skies of Mazandaran.

One of the most concerning aspects of this situation is the forecast that the dust storms are expected to persist in the future. Iran faces significant challenges in preventing the dust originating in neighboring countries from reaching its mainland due to limited technological capabilities and the overall impact of climate change, as

pointed out by Razavi. The combination of these factors hinders the country's ability to mitigate the arrival of dust particles in Mazandaran and other affected regions.

For several years now, the infiltration of dust has become deeply ingrained in the ecological and health culture of our country. Despite the officials' continuous efforts to combat this phenomenon through various means, ranging from diplomatic initiatives to solutions such as desert mulching, these unwelcome guests still find their way into our skies. This predicament is particularly unsettling considering the lush greenery that characterizes provinces like Mazandaran.

The dust crisis has plagued the southern and western provinces of Iran for years, and now it has extended its reach to the once pristine Mazandaran. In recent years, this crisis has manifested in the form of fine dust, a souvenir from neighboring desert regions such as Syria, Saudi Arabia, Iraq, and now Turkmenistan. The severe weather conditions exacerbate

the pollution, leading to repeated closures of offices and schools. The micro dust particles, measuring between 2 to 5.5 microns, result from the combination of dust with urban pollutants. They form a dense cloud that severely impairs visibility, resembling a thick fog that extends only a few meters. Provinces such as Khuzestan, Kurdistan, Ilam, Kermanshah, Lorestan, and Bushehr bear the brunt of this phenomenon. Unfortunately, even the verdant Mazandaran has experienced its presence on certain days over the past few years.

In most affected provinces, people cannot navigate the cities without wearing masks. They have become accustomed to frequent closures due to the hazardous air pollution. In such circumstances the vulnerable individuals, such as the sick, elderly, pregnant women, infants, and minors, are exposed to significant risks. The invisible micro dust, carrying a multitude of bacteria, can enter the bloodstream through inhalation.



## China to cooperate with Iran over dust and sand

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Head of the Chinese Academy of Forestry stated that the Chinese government is eager to closely collaborate with Iran in curbing dust and sand storms.

China is considering the establishment of a multinational center to tackle the problem of dust and sand storms with the participation of Arab countries in the Middle East, ISNA reported.

"We hope that after the establishment of this center, we could closely cooperate with the Iranian government to counter dust and sand storms," Sun Tao said.

Speaking on the sidelines of the International Conference on Dealing with Sand and Dust Storms, Tao referenced the notable project of the Great Green Wall which is currently the largest ongoing reforestation project worldwide. Initiated in 1978 and planned

for completion around 2050, the project aims to combat the encroachment of the Gobi Desert. Despite some setbacks and failures, it has been largely successful.

The Great Green Wall project primarily focuses on planting trees and shrubs to create a living barrier in the main dust sources of China, including the Gobi and Shapato deserts. Over 32 million hectares of living windbreaks have been established so far, stabilizing the soil in northern China's primary dust sources.

The efforts to combat desertification extend beyond tree planting, with various initiatives aimed at rejuvenating damaged plants in the country's forests and pastures.

China is at the forefront of addressing desertification and dust storms. The Chinese government is ready to assist both Iran and Arab countries in the Middle East in reducing the destructive impact of sand storms in their respective regions.

In addition, China aspires to plant around 70 billion trees across different areas of the country as part of the global initiative of planting one trillion trees.



## UNDP: Japan constantly contributes to CIWP

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In recent decades, the United Nations Development Programme (UNDP) has collaborated with Iran on various environmental projects, including the Conservation of Iranian Wetlands Project (CIWP) with a particular focus on saving Lake Urmia, supported by Japan's financial assistance.

The Conservation of Asiatic Cheetah Project is also one of these collaborations, initiated in 2002 with UNDP's assistance and funding from the Global Environment Fund, ILNA reported.

However, in 2018, the project was halted, coincid-

ed with the United States' withdrawal from the Joint Comprehensive Plan of Action (JCPOA) and the escalation of unilateral and multilateral sanctions against Iran.

The severe banking sanctions have made it more challenging to secure international financial aid for environmental projects in Iran. Nevertheless, the UN Resident Coordinator for Iran Stefan Priesner has emphasized that "the implementation of the global

program for wetland protection in Iran has never been halted, and the United

Nations remains committed to supporting all initiatives related to the revival of Lake Urmia."

However, he acknowledged that "sanctions have made it more challenging to secure the necessary financial resources for international assistance to Iran."

### Limited assistance vs adverse effects of climate change

There are limitations to the international assistance to address climate change-related challenges in Iran. But the resident coordinator of the United Nations believes that Iran, like many other countries, has been able to receive global financial aid, albeit with difficulties.

"Sanctions can affect any country and can make financial conditions difficult for environmental protection. In recent years, Iran, like many other countries, has managed to receive global financial aid. However, sanctions have undoubtedly made it harder for Iran to receive these aids and have led to a

reduction in the amount of international assistance received over the past few years," the envoy said.

According to Priesner, in countries severely affected by climate change, like Iran, the amount of global financial assistance for coping with climate change's consequences may be minimal, given the numerous challenges posed by this phenomenon. Although Iran has the capacity to implement essential projects to address climate change's adverse effects, attracting more financial aid is crucial for their execution.

Combating lake shrinkage Reviving Lake Urmia is another international challenge that has faced failure so far. Recent images capturing the last gasps of the lake depict a stark portrayal of its complete extinction and the severe environmental repercussions in the region. Located between the provinces of East Azarbaijan and West Azarbaijan in northwestern Iran, the lake was the largest in the Middle East and the sixth-largest saltwater lake on Earth

with an original surface area of 5,200 square kilometers in the 1970s. It had shrunk to 700 sq km by 2013. The lake began shrinking in the 1980s due to water mismanagement and climate change.

The UN envoy believes that the sanctions have not had any impact on the provision of financial assistance for the CIWP and especially saving Lake Urmia. He said that the project is supported financially by the Japanese government. Priesner noted that over the past ten years, the Japanese government has generously contributed to the project in Iran, providing one million dollars annually to support it.

He also said that during the past five years, the Iranian government has been exploring various solutions for restoring the lake. However, it's important to note that the Japanese government's financial support for the protection of Iran's wetlands, including Lake Urmia, has continued throughout this period. He emphasized that Japan's contributions have been

consistent and beneficial to the project.

The UN coordinator also highlighted the importance of adopting smart agricultural practices and changing crop choices in the regions surrounding Lake Urmia to reduce water consumption, which plays a crucial role in saving the lake.

### Exact numbers of Asiatic cheetah unknown

The UNDP has also collaborated with Iran on the Conservation of Asiatic Cheetah Project that was halted in 2018. Referring to this issue, the envoy emphasized that various factors have contributed to the declining population of Asiatic Cheetahs, with road accidents now playing a significant role alongside hunting. He said the conservation project was terminated due to a natural process and the international financial aid related to this project came to an end.

He concluded that the UNDP does not plan to stop the implementation of this project or any other environmental projects in Iran.

