

Nasty drought in Syria, Iraq and Iran wouldn't have happened without climate change, study finds

November 8 2023, by Seth Borenstein



A fisherman walks across a dry patch of land in the marshes in Dhi Qar province, Iraq, Sept. 2, 2022. The three-year drought that has left millions of people in Syria, Iraq and Iran with little water wouldn't have happened without human-caused climate change, according to a new study on Wednesday, Nov. 8, 2023. Credit: AP Photo/Anmar Khalil, File

A three-year drought that has left millions of people in Syria, Iraq and Iran with little water wouldn't have happened without human-caused climate change, a new study found.

The west Asian drought, which started in July 2020, is mostly because hotter-than-normal temperatures are evaporating the little rainfall that fell, according to a flash study Wednesday by a team of international climate scientists at [World Weather Attribution](#).

Without the world warming 1.2 [degrees](#) Celsius (2.2 degrees Fahrenheit) since the mid-19th century, "it would not be a drought at all," said lead author Friederike Otto, an Imperial College of London climate scientist.

It's a case of climate change unnaturally intensifying naturally [dry conditions](#) into a humanitarian crisis that has left people thirsty, hungry and displaced, concluded the research, which has not yet undergone [peer review](#) but follows scientifically valid techniques to look for the fingerprints of global warming.

The team looked at temperatures, rainfall and [moisture levels](#) and compared what happened in the last three years to multiple [computer simulations](#) of the conditions in a world without human-caused climate change.

"Human-caused global climate change is already making life considerably harder for tens of millions of people in West Asia," said study co-author Mohammed Rahimi, a professor of climatology at Semnan University in Iran. "With every degree of warming Syria, Iraq and Iran will become even harder places to live."

Computer simulations didn't find significant climate change fingerprints in the reduced rainfall, which was low but not too rare, Otto said. But evaporation of water in lakes, rivers, wetlands and soil "was much higher

than it would have been" without climate change-spiked temperatures, she said.

In addition to making near-normal water conditions into an extreme drought, study authors calculated that the [drought conditions](#) in Syria and Iraq are 25 times more likely because of climate change, and in Iran, 16 times more likely.



Fishing boats sit in the Shatt al-Arab waterway in Basra, Iraq on July 13, 2020. The three-year drought that has left millions of people in Syria, Iraq and Iran with little water wouldn't have happened without human-caused climate change, according to a new study on Wednesday, Nov. 8, 2023. Credit: AP Photo/Nabil al-Jurani, File

Kelly Smith, assistant director of the U.S. National Drought Mitigation Center in Nebraska, who was not part of the study, said the research made sense.

Drought is not unusual to the Middle East region and conflict, including Syria's civil war, makes the area even more vulnerable to drought because of degraded infrastructure and weakened [water management](#), said study co-author Rana El Hajj of the Red Cross Red Crescent Climate Centre in Lebanon.

"This is already touching the limits of what some people are able to adapt to," Otto said. "As long as we keep burning [fossil fuels](#) or even give out new licenses to explore new oil and gas fields these kinds of events will only get worse and keep on destroying livelihoods and keeping food prices high. And this is not just a problem for some parts of the world, but really a problem for everyone."

© 2023 The Associated Press. All rights reserved. This material may not be published, broadcast, rewritten or redistributed without permission.

Citation: Nasty drought in Syria, Iraq and Iran wouldn't have happened without climate change, study finds (2023, November 8) retrieved 6 May 2024 from <https://phys.org/news/2023-11-nasty-drought-syria-iraq-iran.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--