

Resources to Review

<https://podcasts.apple.com/us/podcast/what-about-water-with-jay-famiglietti/id1485919205>

<https://water.usask.ca/>

WATER IN THE BALANCE: OBSERVING GROUNDWATER DEPLETION FROM SPACE ABSTRACT:

In 2014, a drought of unprecedented proportions continued to unfold in California. Implications included freshwater availability is plummeting; water allocations were slashed all across the state; and several communities were projected to run out of water. Since 2003, Famiglietti and his research team have tracked this decline in freshwater storage in California and throughout the world. Using data from NASA's Gravity Recovery and Climate Experiment (GRACE) mission, along with other auxiliary datasets, Famiglietti and his team of researchers have identified that groundwater depletion is at the heart of this increasingly unsustainable situation. In times of drought, when surface water allocations are cut, groundwater is the safety net. But what will happen if the net disappears? Famiglietti emphasized the need for groundwater management and further discussed the next steps necessary for California to make it through this historical drought.

BIO:

As Founding Director of the UC Center for Hydrologic Modeling, Dr. Famiglietti and his research team use satellites to track water availability and groundwater depletion on land, and have been working for many years towards improving hydrological prediction in climate models like those used in the Intergovernmental Panel on Climate Change. Before joining UCI in 2001, Dr. Famiglietti was a faculty member in Geological Sciences at the University of Texas at Austin, where he helped launch the UT Environmental Science Institute. He is the past Chair of the Board of the Consortium of Universities for the Advancement of Hydrologic Science, Inc. (CUAHSI), the past Editor-in-Chief of Geophysical Research Letters, and he has been a Visiting Professor at Stanford University. Famiglietti, a Fellow of the American Geophysical Union, served as the 2012 Birdsall-Dreiss Lecturer of the Geological Society of America. He has briefed U. S. and world leaders on global water issues, and he appears as a featured expert in the water documentary 'Last Call at the Oasis.' He and his research group have published numerous papers and reports, and their work has been featured in major international news media.

<https://gracefo.jpl.nasa.gov/science/water-storage/>

"From 2002 to 2017, NASA's twin Gravity Recovery and Climate Experiment (GRACE) satellites monitored large-scale groundwater changes all over the globe.

Peru contributed less than 0.4 percent of the world's greenhouse gas emissions in 2019, yet it consistently ranks among the nations at high risk from climate damages. The country's glaciers have lost about half of their surface area in the last half century. Aug 28, 2022

Why are the glaciers in Peru melting?

(Thomson Reuters Foundation) - The melting of a glacier in the Peruvian Andes, which is raising the risk of flooding for about 120,000 nearby residents, is being caused by man-made global warming, scientists said on Thursday, providing new evidence for an ongoing climate lawsuit. Feb 4, 2021

<https://www.aboutamazon.com/news/aws/tracking-the-disappearing-glaciers-of-peru>

<https://www.reuters.com/article/us-climate-change-peru-lawsuit-trfn/human-made-warming-is-melting-peru-glacier-says-study-to-be-used-in-lawsuit-idUSKBN2A429Y>

https://youtu.be/XF_DcDnndzQ