



Week ending Friday, February 25, 2022

Water Cycle Surge

New research suggests that the movement of water between the clouds, land and ocean due to climate change has intensified at twice the rate earlier predicted. Writing in the journal *Nature*, scientists say that rising global temperatures have been making this process more extreme, with water moving away from dry regions toward wetter ones. This is driving more severe droughts in some areas while amplifying heavy rainfall and the resulting flood disasters in others. The study found that between two and four times more fresh water has shifted since 1970 than what climate models had projected. “Changes to the water cycle can have a critical impact on infrastructure, agriculture and biodiversity,” says lead author Taimoor Sohail.

Earthquakes

A magnitude 5.4 quake cracked buildings at the top of New Zealand’s South Island.

- Tremors were also felt in New Zealand’s Canterbury region, Guam and England’s West Midlands.

A Fiery Future

The likelihood of uncontrollable wildfires is predicted to increase globally by the end of this decade, and the U.N. warns that governments are not prepared to cope with the health and economic consequences. A new United Nations Environment Program report warns that global heating is bringing more drought and higher temperatures, making it easy for fires to be sparked and spread in areas that had rarely or never burned before. It says that even with deep cuts in greenhouse gas emissions, the risk of extreme wildfires will rise 14% by 2030 and 30% by 2050. As seen in recent years from California to Argentina and parts of Europe, such fires are burning longer and hotter, making them difficult or impossible to control.

Eruptions

Sicily's Mount Etna produced another in a series of eruptions that was accompanied by huge, colorful fountains of lava.

A nearby airport was temporarily closed due to airborne volcanic debris.

- Guatemala's Volcán de Fuego rumbled violently as it erupted as many as six times an hour, with lava shooting up more than 300 feet into the sky. Nearby residents said their roofs and windows were soundly shaken by the eruptions.

Dual 'Harvest'

A new solar power technique being launched in Kenya shows how the sun's energy can be harvested twice by placing solar panels above rows of crops. Known as agrivoltaics, the arrangement generates electricity while providing the partial shade some types of crops need. It also helps the soil to retain moisture. Cabbages grown under the well-placed solar panels were a third larger and appeared healthier than those in control plots with the same amount of fertilizer and water. The agrivoltaics configuration also allows the panels to collect rainwater to be stored for later use.

Historic Rise

An international team of researchers has determined that the modern trend of sea level rise began globally as early as 1863, when the Industrial Age began to produce the first surge in greenhouse gas emissions. Writing in the journal *Nature Communications*, the scientists say they examined tide records from 36 different regions around the world to find when and where the seas began to rise. They found it first started in the mid-Atlantic region of the United States between 1872 and 1894, and later in Canada and Europe. Sea level rise has mainly been driven by the thermal expansion of the oceans as the world warmed, as well as runoff from melting glaciers and ice sheets.

Tropical Cyclone

Cyclone Emnati spared Madagascar significant damage as the fourth such storm to strike the Indian Ocean island within a month. Cyclone Batsiri killed at least 124 people and left thousands homeless there when it hit on Feb. 5.

Earthweek: Diary of a Changing World

Written by Gallupsun Staff
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