# News Links on Water Sector

(22ND JULY 2024)



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GOVERNMENT OF INDIA

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT &

GANGA REJUVENATION

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### Mysterious Voyagers: Are We Drinking Water Delivered by Dark Comets?

Date: 16/07/2024

A University of Michigan study reveals that up to 60% of near-Earth objects may be dark comets, containing ice that might have contributed to Earth's water supply.

These objects, combining characteristics of both asteroids and comets, likely originated from the asteroid belt between Jupiter and Mars. The research highlights the possibility of ice subsurface within asteroids and suggests that these objects could play a role in transferring ice to the inner solar system.

Up to 60% of near-Earth objects could be dark comets, mysterious asteroids that orbit the sun in our solar system that likely contain or previously contained ice and could have been one route for delivering water to Earth, according to a University of Michigan study.



Source: <a href="https://scitechdaily.com/mysterious-voyagers-are-we-drinking-water-delivered-by-dark-comets/">https://scitechdaily.com/mysterious-voyagers-are-we-drinking-water-delivered-by-dark-comets/</a>

## Development banks seek to revive world's biggest power project

By Bloomberg

Date: 16/07/2024

Five development finance institutions have banded together to find a way to develop the world's biggest electricity-generation project, the planned Grand Inga hydropower complex in the Democratic Republic of Congo that's been stalled for decades.

The Development Bank of Southern Africa (DBSA) and the Industrial Development Corporation, both South African State banks, are working with pan-African institutions — the African Development Bank and African Export-Import Bank — as well as the New Development Bank, the finance arm of the BRICS groups of nations.

These five parties have taken the initiative to say 'let's come together, let's look at what we can do in terms of getting this goal off the ground'," **Mpho Kubelo**, the DBSA's chief risk officer, said in an interview. "How do we get it going and who do we need to bring in in terms of actual development?"

If built to full capacity of as much as 40 GW, the complex on the Congo river, the world's third-biggest river by volume, would supplant China's Three Gorges Dam as the world's largest electricity plant.

Source: <a href="https://www.engineeringnews.co.za/article/development-banks-seek-to-revive-worlds-biggest-power-project-2024-07-16">https://www.engineeringnews.co.za/article/development-banks-seek-to-revive-worlds-biggest-power-project-2024-07-16</a>

#### Water resilience can't be ignored, 21 member states warn EU executive

By Marta Pacheco

Date: 17/07/2024

Most EU member states have asked the European Commission to boost water security and resilience across the bloc, saying the strategic and vital natural resource ought to be treated as a "top priority" in the upcoming EU agenda, in a joint letter sent today (July 17).

Led by Portugal, the joint warning raises the alarm on the high level of droughts, water scarcity and floods across the bloc, which the signatories state to "no longer be an anomaly in Europe".

Austria, Belgium, Bulgaria, Croatia, Cyprus, Denmark, Estonia, France, Germany, Greece, Italy, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia and Spain all voiced their concerns during this week's informal gathering of environment ministers, under the Hungarian Presidency, and called on the EU executive to come up with concrete measures to develop a "comprehensive approach" in line with the Strategic Agenda, the Council's policy guidance document, approved on June 27.



Source: https://www.euronews.com/green/2024/07/17/water-resilience-cant-be-ignored-21-member-states-warn-eu-executive

## Colorado River officials vote to explore water conservation "credits" to protect against worst drought years

By Shannon Mullane Date: 17/07/2024

Four states in the drought-stricken Colorado River Basin, including Colorado, want credit for conserving water, but water users and officials have big questions about how to make it happen.

Last year, taxpayers paid farmers and ranchers \$16 million to cut their water use in the Colorado River Basin, but the water saved on one farm simply reentered streams, where it could be used by anyone downstream. For years, officials in Colorado, New Mexico, Utah and Wyoming have been considering ways to get credit for that conserved water — to track it, store it in a reservoir, and save it to help the states in the future. Representatives from the four states voted in June to develop a proposal exploring the idea by mid-August.

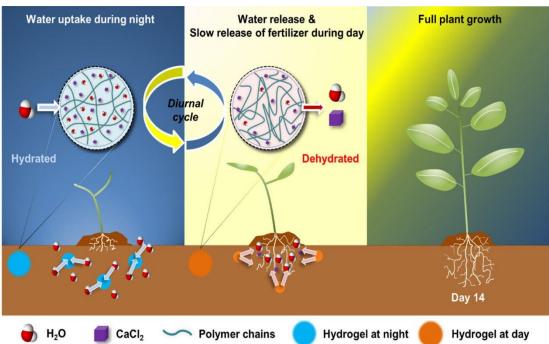
Source: <a href="https://coloradosun.com/2024/07/17/colorado-river-officials-explore-water-conservation-credit-account/">https://coloradosun.com/2024/07/17/colorado-river-officials-explore-water-conservation-credit-account/</a>

#### Smart soil can water and feed itself

By University of Texas at Austin

Date: 17/07/ 2024





A newly engineered type of soil can capture water out of thin air to keep plants hydrated and manage controlled release of fertilizer for a constant supply of nutrients.

Underpinning this exciting smart soil system is a hydrogel material developed by researchers at The University of Texas at Austin. In experiments, the hydrogel-infused soil led to the growth of larger, healthier plants, compared to regular soil, all while using less water and fertilizer.

"This new gel technology can reduce the burden on farmers by decreasing the need for frequent irrigation and fertilization," said Jungjoon Park, a graduate student in the Walker Department of Mechanical Engineering and who led the research. "The technology is also versatile enough to be adopted across a wide range of climates, from arid regions to temperate areas."

Source: https://phys.org/news/2024-07-smart-soil.html

## Portugal powers open letter to Brussels on water scarcity

By Natasha Donn

Date: 18/07/2024

Most European Union (EU) countries have endorsed a Portuguese initiative calling on the European Commission to prioritise water due to a water scarcity affecting the EU bloc.

According to an open letter addressed by Portugal and 19 other countries, the minister for the environment and energy, Maria da Graça Carvalho, calls for water to be a priority during the next legislature and "for this commitment to be materialised through comprehensive actions at EU level, including adequate and effective funding, the promotion of innovation, evidence-based decision-making processes and the strengthening of international cooperation".

The Portuguese minister was the first signatory of the letter warning of the "increasing frequency and intensity of droughts, floods and water scarcity across Europe."



Source: <a href="https://www.portugalresident.com/portugal-powers-open-letter-to-brussels-on-water-scarcity/">https://www.portugalresident.com/portugal-powers-open-letter-to-brussels-on-water-scarcity/</a>

# Google launches AI-based agricultural information tool for India to provide insights on drought preparedness, irrigation

By Riya R Alex

Date: 18/07/2024

Google will introduce Agricultural Landscape Understanding (ALU) tool to provide agricultural information to farmers and boost crop yields. It is a limited availability tool aimed at making agricultural practices data-driven.

Google said that the new AI platform will provide information at a granular level, which is essential for the Indian agricultural landscape. It will use high-resolution satellite imagery, machine learning to draw boundaries between fields, information on drought preparedness, irrigation, market access etc.

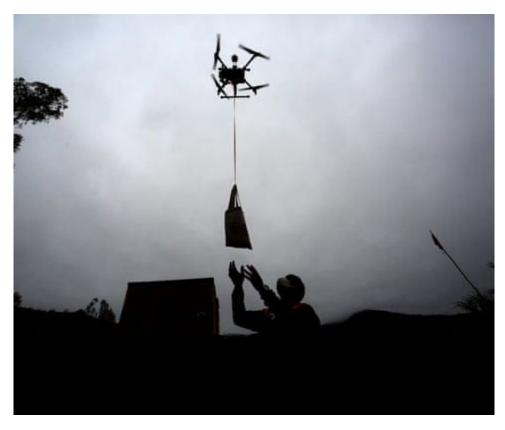


Source: <a href="https://www.livemint.com/companies/googles-ai-based-agricultural-information-tool-for-india-to-offer-information-on-drought-preparedness-irrigation-11721285446847.html">https://www.livemint.com/companies/googles-ai-based-agricultural-information-tool-for-india-to-offer-information-on-drought-preparedness-irrigation-11721285446847.html</a>

#### Food, water, wifi: is this the future of humanitarian aid?

#### By Jean-Martin Bauer

https://www.theguardian.com/news/article/2024/jul/18/food-water-wifi-is-this-the-future-of-humanitarian-aid



A drone delivers aid during a Covid lockdown in Chile in 2020.

While the potential of new technology in humanitarian settings is undeniable, its role in highly complex and fragile situations is never simple and is always fraught – not so much for the promoters of tech taking on financial risk, but for the people on the receiving end of the innovation, whose very lives may be put at risk.

## Researchers make compelling case for transforming existing dams with solar panel modifications: 'Floating solar field is growing quickly'

By Alyssa Ochs July 19, 2024

Researchers make compelling case for transforming existing dams with solar panel modifications: 'Floating solar field is growing quickly' (thecooldown.com)



As CleanTechnica<u>reported</u>, researchers in Italy recently published a study in the <u>journal Nature Energy titled</u> "Floating Photovoltaics May Reduce the Risk of Hydro-Dominated Energy Development in Africa."

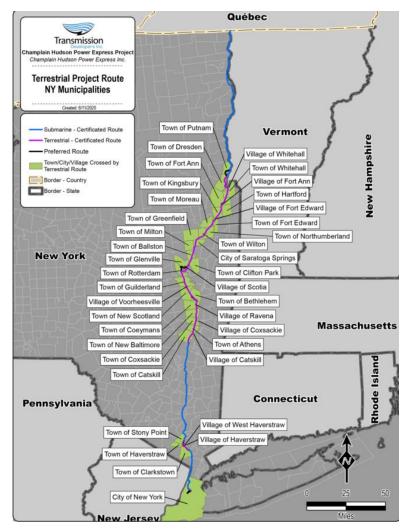
CleanTechnica <u>wrote</u>, "The floating solar field is growing quickly, and it could provide for additional grid benefits as well as ecosystem conservation, too."

The researchers found that floating solar panels (also known as floating photovoltaics or FPV) can help prevent the need to build new hydropower dams.

#### What to know about hydropower cable installation in the Hudson River

By Ben Foster, Legal Intern

What to know about hydropower cable installation in the Hudson River - Riverkeeper



CHPE Project Route [1]

Champlain Hudson Power Express project (CHPE) is an approved energy transmission development designed to bring 1,250 MW of hydropower generated in Canada to New York City. Construction on the line began in late 2022, and is scheduled to continue until mid-2026, when it is expected to go live.

The project involves laying two five-inch-diameter cables underground or underwater along a 339-mile route stretching south from the U.S.-Canada border down through Lake Champlain (for 96 miles), the Hudson River (for 89 miles), and the Harlem River (for 6.3 miles). The line will end at a converter station currently being built in Astoria, Queens.