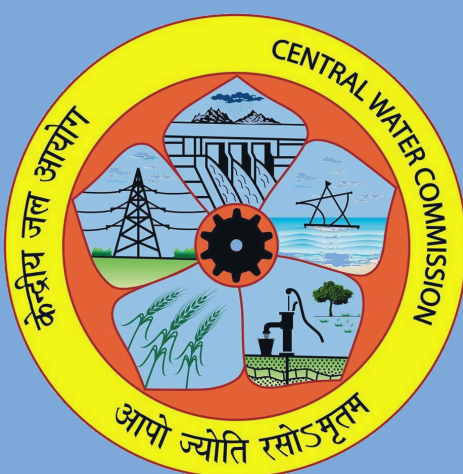


News Links on Water Sector

(09, DECEMBER 2024)



CENTRAL WATER COMMISSION

GOVERNMENT OF INDIA

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT &
GANGA REJUVENATION

MINISTRY OF JAL SHAKTI

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DRC on a mission to financing the world's largest hydropower dam

Date: 12/11/2024

The World Bank and other financial institutions are engaged in discussions about funding a mega hydro-power project in the Democratic Republic of Congo that has the potential of supplying electricity across the entire African continent.

The Grand Inga Dam is capable of producing 44,000 Megawatts of power and is estimated to cost 80 billion US dollars. Africa news correspondent Chris Ocamringa visited the dam.

The raging waters of the Congo River are raising hopes of ending the energy shortages in the Democratic Republic of Congo. The government plans to construct 6 hydropower stations near a waterfall in western DRC to add to the two that are already operational.

The Grand Inga Dam will be the world's largest hydropower dam once its completed.

The construction has stalled for over a decade because of disagreements between the former DRC government and the World Bank over issues of transparency. But the current government has revived talks with the World Bank to fund the project. The project has also faced opposition from activists for focusing more on the needs of investors in the mining sector rather than the goal of supplying electricity throughout the country.

A significant amount of the electricity generated will go to the DRC's mining heartland of Katanga. South Africa and Nigeria have also expressed interest in importing power from the Grand Inga Dam.

"The national electricity utility serves the population and companies. While it gives priority to the mining companies that have invested, there is nowhere that the contract says 100 percent of the power should go to the mining companies," Ben Munanga, the Chairman Board of Directors, KAMOA Copper S.A. said.



Source: <https://www.africanews.com/2024/11/12/drc-on-a-mission-to-financing-the-worlds-largest-hydropower-dam/>

'China's dam building in upstream Tibet ignores serious geological, environmental risks'

Date: 16/11/2024

China is accelerating dam building on the upper reaches of the Yellow River (Tibetan: Machu) in Tibet despite evidence from its own scientists of the risks of geological disasters and serious environmental problems, said London-based monitoring and research group *Tibet Watch* and a network of digitally connected specialists *Turquoise Roof* in a policy briefing Nov 14.

The briefing on *The Risks of China's Dangerous Dam-Building in Tibet* has found that entire villages were being displaced and ancient monasteries submerged to make way for the construction of such dams by state-owned corporations that are also building more coal-fired power stations in China, the world's biggest emitter of greenhouse gases.

The briefing revealed that at least three major new dams were under construction on the upper Machu, despite warnings from Chinese scientists that the area is seismically unstable with increasingly insecure weather conditions due to climate change and Tibet's melting glaciers and permafrost.

The briefing said the first of these major dams, the Yangkhil (Yangqu) hydropower station, had devastated an entire community. China removed the centuries-old Atsok Monastery from a protected heritage list before beginning its demolition to make way for a dam that Chinese engineers boast is constructed by AI-driven robots. Besides, accounts and images from eyewitnesses in this bulletin document how Tibetans had been compelled to dismantle their own homes.



Source: <https://www.tibetanreview.net/chinas-dam-building-in-upstream-tibet-ignores-serious-geological-environmental-risks/>

Scientists attribute devastating flood events to concerning pattern: 'No longer a distant threat'

Date: 21/11/2024

Nepal endured its worst flooding in decades during late September, torrential monsoon rains inundating entire neighborhoods in the country's capital city of Kathmandu. The deluge was another example of how our overheating planet is supercharging extreme weather events.

What's happening?

Devastating flash floods struck Nepal in late September, killing at least 244 people and causing an estimated near 13 billion Nepalese rupees (\$95 million) in damage. Flood-induced landslides have contributed to more than \$2 billion (\$18.4 million) in damage to roads and bridges alone.

Researchers with World Weather Attribution have concluded that our warming world was a key driver of the impacts of Nepal's flooding. "To quantify the role of human-induced climate change we analyse climate models with high resolution that are in principle able to simulate the influence of the mountains on rainfall in the study region," according to the WWA analysis of the flooding event. "Overall, the available climate models indicate a 10% increase in intensity compared to a 1.3C cooler climate, and an increase in likelihood of about 70%."

WWA is made up of an international partnership that studies how climate change influences extreme weather events. The WWA analysis of Nepal's flooding included researchers from Nepal, India, Sweden, Australia, the United States, and the United Kingdom.



Source: <https://www.yahoo.com/news/scientists-attribute-devastating-flood-events-104509445.html?guccounter=1>

Scientists achieve breakthrough that may revolutionize access to clean water: 'A significant step toward providing new resources and possibilities'

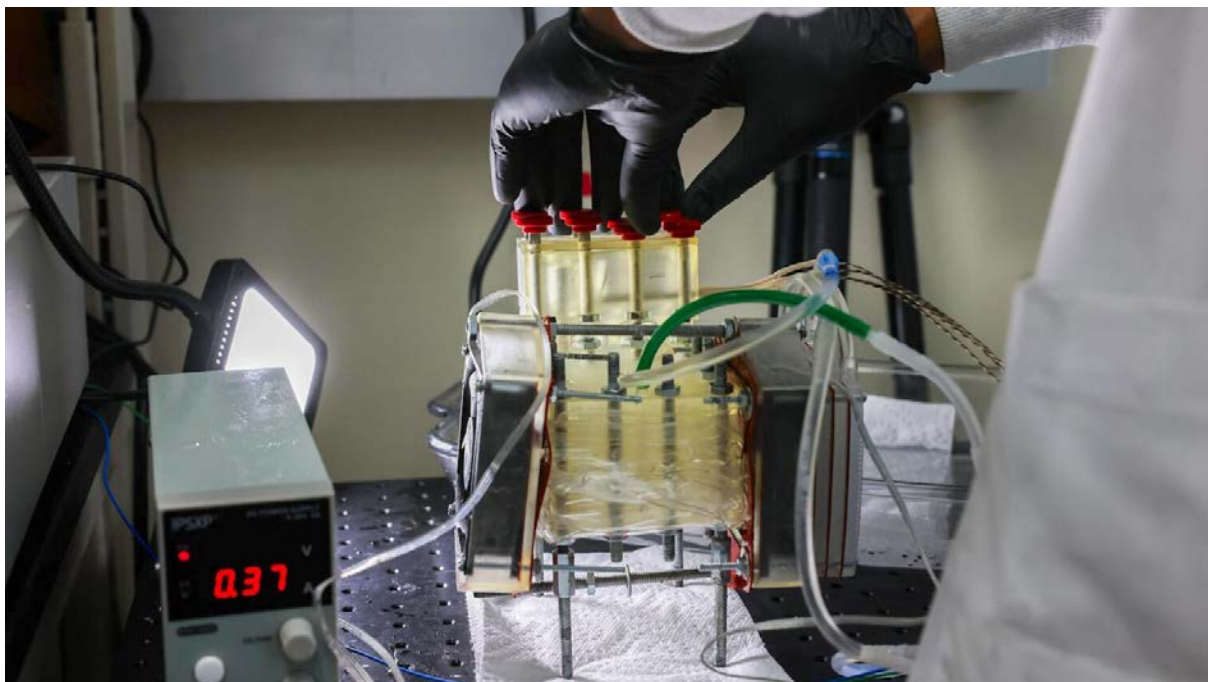
Date: 25/11/2024

Scientists recently achieved a breakthrough in atmospheric water harvesting that they say could generate a gallon of water per day from dry Las Vegas air using nothing more than a square meter — about 10.8 square feet — of space. In more humid places, they say they could create a remarkable three times more.

"This whole idea seemed like science fiction, but this is possible, and we're actually doing it," said UNLV mechanical engineering professor H. Jeremy Cho, the research team leader, in a news release.

The journal Proceedings of the National Academy of Sciences published the study. The researchers called it "a significant step toward providing new resources and possibilities to water-scarce regions."

The problem the researchers aim to address is an ongoing megadrought in the Southwest that threatens the water supply. Their goal was to create a system to transform water vapor in the air into a usable form of water even in low-humidity environments.



Source: <https://www.thecooldown.com/green-tech/atmospheric-water-harvesting-las-vegas/>

One Water Summit: EU supports renewed global commitment to water resilience

Date: 05/12/2024

Heads of state and government from across the world gathered this week at a high-level summit in Riyadh to find concrete solutions to address the global water crisis and enhance international cooperation on water.

The One Water Summit, which coincided with the UNCCD COP16 in Saudi Arabia, also saw international organisations, businesses, scientific experts, NGOs, and other stakeholders gather to advance global action on pressing water challenges, including Sustainable Development Goal 6 on water and sanitation, in preparation for the next UN Water Conference in 2026.

It is a priority for the EU to accelerate global action to address the water crisis, which is driven by overdemand, mismanagement, and the impacts of climate change, biodiversity loss, and pollution.

Water resilience is also key to preventing and addressing current and future threats to public health and ensuring food and energy security while promoting cross-sectoral cooperation on water resources.



Source: https://environment.ec.europa.eu/news/eu-supports-renewed-global-commitment-water-resilience-2024-12-05_en

Scientist 'concerned and surprised' after planet Earth 'tilted 31.5 inches'

Date: 26/11/2024

New research shows that pumping groundwater has resulted in a change to the planet's tilt and rotation, increasing sea levels too.

As Earth moves on a rotational pole, the distribution of water on the planet has a major impact on the distribution of mass. So much so, scientists have discovered a tilt of a whopping 31.5 inches in less than two decades, as well as a sea level rise of 0.24 inches.

This is a direct result of pumping groundwater according to a study published by Geophysical Research Letters. The lead expert and geophysicist at Seoul National University, Ki-Weon Seo, explained how "Earth's rotational pole actually changes a lot."

"Our study shows that among climate-related causes, the redistribution of groundwater actually has the largest impact on the drift of the rotational pole," says Seo. He adds how the Earth's pole is "like adding a tiny bit of weight to a spinning top, the Earth spins a little differently as water is moved around."



Source: <https://www.express.co.uk/news/world/1981188/scientist-concerned-surprised-after-earth-tilted-rotational-pole>

The West's role in solving Central Asia's water crisis

Date: 27/11/2024

The Caspian Sea, vital to Eurasia's economy and environment, is shrinking at an alarming rate. The declining water level in the sea is one visible consequence of a larger regional water crisis faced by the C5 nations of Central Asia—Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. This water crisis threatens the more than 82 million people who call the largely arid region home.

A forthcoming Atlantic Council report written by the authors, "Water insecurity in Central Asia: The need for collective action," explores the global resources that can be mobilized and to what ends they can be quickly directed. This report will provide a practical roadmap that regional and international actors can employ to solve problems in the near and medium terms without massively increasing investments.

Central Asia's imperilled water system is one of the most urgent regional issues requiring a rapid response from local governments, businesses, and their international partners. Built during the reign of the Soviet Union, the region's water infrastructure is well past its serviceable life, resulting in up to 40 percent water losses during irrigation and up to 55 percent losses when supplying drinking water. Improving water transit, processing, and irrigation in Central Asia would buy time to allow regional governments to develop sustainable solutions to meet their water needs.



Source: <https://www.atlanticcouncil.org/blogs/new-atlanticist/the-west-s-role-in-solving-central-asias-water-crisis/>

Strategies for safe and equitable access to water: A catalyst for global peace and security

Date: 29/11/2024

Water can be a catalyst for peace and security with a critical role in preventing conflicts and promoting cooperation among communities and nations—but only if managed equitably and sustainably, a study reveals.

Experts have devised a blueprint to ensure safe, equitable and sustainable global access to clean water. The seven-point strategy will allow water challenges to be governed effectively so they do not create conflict when access is restricted or usage unfairly shared.

"Considering factors such as community action, indigenous knowledge, open science, and participatory approaches for sustainable water governance will help the world to achieve UN sustainable development goals and leverage water for peace."



Source: <https://phys.org/news/2024-11-strategies-safe-equitable-access-catalyst.html>

Commitment By the Multilateral Development Banks to Water Security

Date: 03/12/2024

Joint Statement by the Multilateral Development Banks (African Development Bank Group, Asian Development Bank, Asian Infrastructure Investment Bank, European Bank for Reconstruction and Development, European Investment Bank, Inter-American Development Bank Group, Islamic Development Bank, New Development Bank and World Bank Group).

Water is a key priority of the Multilateral Development Banks; in the last five years we jointly committed USD 50 billion of lending to the water sector, complemented by technical assistance, benefitting more than 400 million people globally.

At COP28 in December 2023, the Islamic Development Bank delivered a joint statement on behalf of the Multilateral Development Banks committing to increase the number of people benefiting from support for climate-resilient water systems, particularly in water-stressed regions. Building on that commitment and our on-going collaboration, we commit to work together to jointly significantly increase our support to the water sector in the five years between 2025 and 2030, both in terms of financing and technical assistance. In order to deliver on the Sustainable Development Goals, we aspire to accelerate universal access to safe drinking water and sanitation, scale up irrigation to increase food security and improve livelihoods, enhance flood management, and advance the sustainable management of water resources. Together, we commit to scale up finance for climate-resilient water, using a range of financial instruments. We will explore new and innovative financing that crowds in private and philanthropic resources. We will engage with market-based mechanisms and assist clients to tap relevant climate finance. We will work together to preserve scarce public financing for where it is needed most, prioritizing and leveraging private sector participation and scaling up private-sector financing and to facilitate guarantees and risk-sharing instruments. We will endeavor to ensure no-one is left behind, prioritizing the most vulnerable populations.



source: <https://www.isdb.org/news/commitment-by-the-multilateral-development-banks-to-water-security>

75% global population to be affected by drought in 25 years: UNCCD's 'Drought Atlas' provides adaptation guidelines

Date: 04/12/2024

Around 75 per cent of the population will be affected by drought by 2050, according to the World Drought Atlas launched by the United Nations Convention to Combat Desertification (UNCCD) and the European Commission Joint Research Centre on December 2, 2024.

This publication comes as the UNCCD parties gather for their 16th meeting at Riyadh to build resilience against the harsh droughts in the near future.

The atlas is co-produced with Cima Research Foundation (Italy), Vrije Universiteit Amsterdam (The Netherlands) and the UN University Institute for Environment and Human Security (Germany).

The atlas brings out the effect of droughts on energy, trade and agriculture. "Drought is not just a climate extreme. Human factors associated with the use and management of land and water can exacerbate and amplify droughts and their impacts," said Bernard Magenmann, Acting Director General of the European Commission Joint Research Centre. "Unsustainable water use, water competition among different sectors, poor land management and not properly accounting for water resources are some examples of these human factors."

Data, he added, is essential in building knowledge; managing risks relies upon



Source: <https://www.downtoearth.org.in/water/75-global-population-to-be-affected-by-drought-in-25-years-unccds-drought-atlas-provides-adaptation-guidelines>

India, ADB sign \$50 million loan for climate-resilient water security in Meghalaya

Date: 06/12/2024

New Delhi: The Government of India and the Asian Development Bank (ADB) on Wednesday

signed a \$50 million loan agreement to strengthen water security in Meghalaya by constructing climate- adaptive water-harvesting systems. The initiative aims to improve access to water, reduce community vulnerability to climate change, and promote sustainable development in the state.

The agreement for the Climate-Adaptative Community-Based Water- Harvesting Project was signed by Juhi Mukherjee, Joint Secretary, Department of Economic Affairs, Ministry of Finance, and Mio Oka, Country Director of ADB's India Resident Mission.

Mukherjee said, "The project aligns with the Meghalaya State Water Policy (MSWP) 2019, which seeks to achieve sustainable development, management, and utilisation of the state's water resources through a participatory approach, reduce vulnerability, and promote integrated water resource management."

Project highlights

The project includes the construction of 532 small water-storage facilities across 12 districts, designed to manage heavy rainfall during the monsoon and ensure water security in the dry season. It will develop 3,000 hectares of command area for reliable irrigation and establish 50 weather stations for climate data monitoring. Micro-irrigation systems will be implemented in Garo, Jaintia, and Khasi regions, and renewable energy micro-hydropower will be pilot-tested in three water-harvesting systems.



Source: <https://energy.economictimes.indiatimes.com/news/renewable/india-adb-sign-50-million-loan-for-climate-resilient-water-security-in-meghalaya/116026548>

The Price of Thirst: Water Scarcity and Global Conflict

Date: 06/12/2024

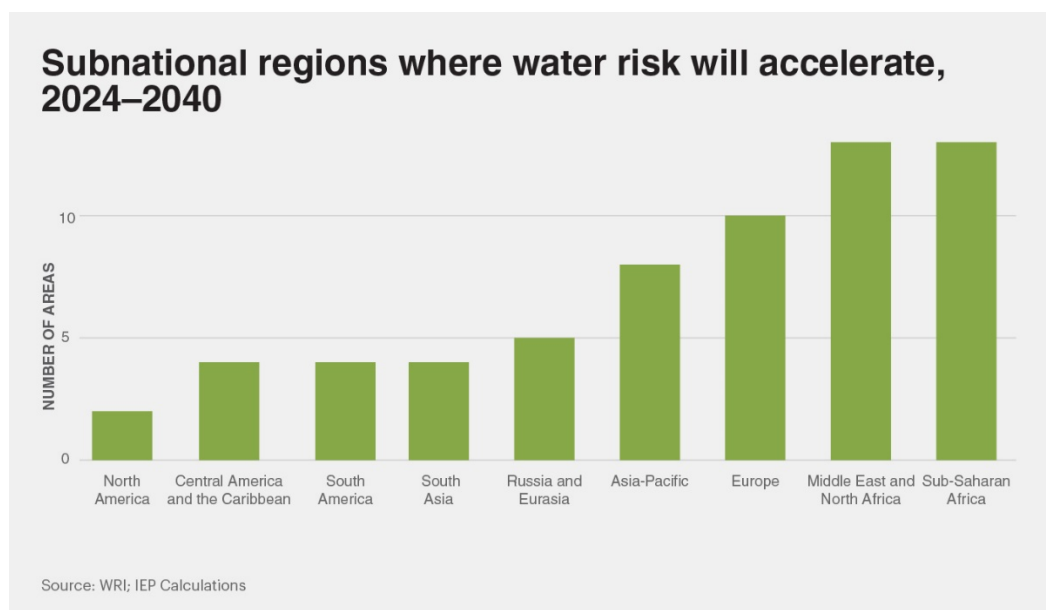
Ineffective water management of nation-states has led to the increased potential of inter-group conflict.

In the latest Ecological Threat Report, IEP research explores the correlation between conflict dynamics and historical ethnic borders, an issue that has been exacerbated by rising ecological threats, particularly water scarcity. Heightened water scarcity has led to greater competition for resources, increasing potential intergroup conflict. Strong governance and effective infrastructure development is greatly needed for the mitigation of water-related risks, allowing for the effective management of the available water supply. Effective water management is a key factor towards a reduced risk in conflict, promoting a sustainable development within regions prone to water scarcity and ethnic tensions.

Water scarcity, intensified by climate change, has been a major factor towards conflict between regions. Arid and semi-arid areas are extremely prone to these drastic environmental changes, often leading to violent disputes regarding resources.

Water use and management practices

There is a large global dependency on water for agricultural management. Estimates by the World Resources Institute state that currently, amongst 25 countries, over 80% of their renewable water supply is used for livestock, irrigation, domestic and industry needs. An example of this is Europe, where water supplies depends upon rivers, reservoirs and groundwater extraction. However, high demands from tourism, public water supply and agriculture has limited the quality and availability of water, particularly amongst Southern and South-western countries. This effect is shown in the chart below, with Europe being the third highest region to face increased water-related challenges.



Source: <https://www.visionofhumanity.org/the-price-for-thirst/>