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Without Water There's Nothing Else

Water is important because it is one of the best solvent in nature. Living systems require solvents in order to mix various chemicals with one another, and water is the best substance for the job. According to Public Broadcasting Systems, living organisms need water because the biochemical processes of life must take place in a fluid.

Water's properties as a solvent allow it to promote life because rather than having to transport solid materials, organisms can dissolve metabolites and nutrients in water, allowing them to move more easily through the body. Many organisms use water to flush toxins and poisonous by-products from their bodies as well. Water also facilitates the bending of enzymes, allowing them to produce necessary chemical reactions within the body quickly.

Water is also an important component of temperature control for animals and it is useful for transporting dissolved substances,

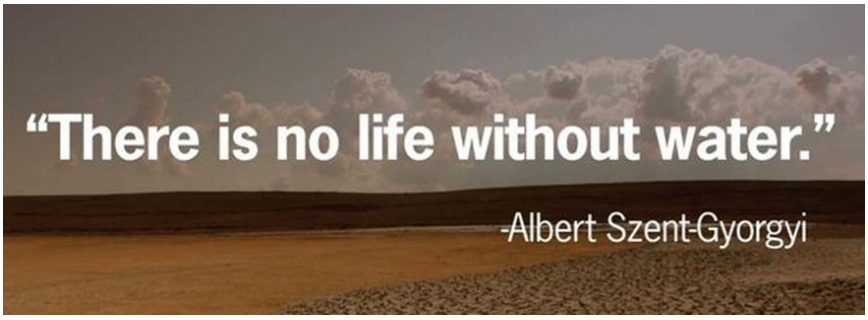
Moreover, water is necessary to sustain life on a larger scale as well. It allows humans to grow crops, raise livestock, travel and power factories. Because it exists in solid and gaseous forms as well as liquid, the environment is able to store water as ice and water vapor, making it readily available.

Metabolism is defined as the process that cells of living organisms execute to generate energy to carry out vital activities. This energy generated from metabolism is used for growth and maintaining daily processes. Water is the medium used by the human body to carry out various chemical reactions. It is essential for moving oxygen, nutrients and hormones through the blood stream. Water thus helps with the basic metabolism of the human body by facilitating the chemical reactions that take place in the human body.

Photosynthesis is a process that is employed by plants to produce food (sugar). This process uses sunlight, green pigment chlorophyll and water. The process produces oxygen, which forms the basis of life in this planet. Some forms of bacteria also exhibit photosynthesis, which utilizes water in the process.

Water provides habitat to a thousands of creatures. The oceans are home to fish, otters, turtles, sharks and dolphins. There are plenty of microorganisms that live in water. Ducks, beavers and frogs live in ponds.

In fact , without water there is nothing else



A big step forward : Kyrgyz-Uzbek state border agreement was accepted

The agreement, which foresees the solution of the border problem between Kyrgyzstan and Uzbekistan by mutual land exchange, was accepted.

10 October 2022

The agreement on certain parts of the Kyrgyz-Uzbek state border between Kyrgyzstan and Uzbekistan was discussed in the International Relations, Defense, Security and Migration Committee of the Assembly.
Kamchibek Tasiyev, Chairman of the National Security State Committee and Deputy Chairman of the Council of Ministers, presented the agreement at the committee meeting. Tasiyev argued that the agreement on certain parts of the Kyrgyz-Uzbek State border was concluded in favor of Kyrgyzstan. Touching on the discussions about the Kempirabad dam in the land exchange agreement between the two countries, Taşiyev gave the following information:
"The dam named Kempirabad, which is located on an area of 4,485 hectares in the Jalalabad region of Kyrgyzstan, will remain in Uzbekistan. However, the management of the water in the dam will be under the joint management of the two countries.
Citizens of Kyrgyzstan will access to water."
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In the negotiations on the border between Kyrgyzstan and Uzbekistan on the 200-kilometer part of the 1379-kilometer common border, held on March 23-25, 2021 in Tashkent, the capital of Uzbekistan

It was announced that the problem was resolved by the method of mutual land exchange.

The protocol, which envisages the initiation of the procedure for agreeing on a

new draft between the governments of the two countries on certain parts of the Kyrgyz-Uzbek state border, was signed on September 26.

Source : https://www.trtavaz.com.tr/haber/tur/avrasyadan/kirgiz-ozbek-sinirina-iliskin-anlasma-kirgizistan-meclisinin-ilgili-komitesinde/634472d601a30a0228394ccb

UN Climate Change Conference 2022 (UNFCCC COP 27)

The 27th session of the Conference of the Parties (COP 27) to the UNFCCC will take place in Sharm El-Sheikh, Egypt.

COP 27 was originally expected to take place from 8-20 November 2021. Due to the COVID-19 pandemic, COP 26 was rescheduled from November 2020 to November 2021. As a result, COP 27 will take place from 7-18 November 2022.

Uzbekistan commits to buying electricty from Tajikistan's Roghun HEPP

A sales agreement should be drawn up and signed by the end of the year.

June 3, 2022

Rahmon and Mirziyoyev have pledged to "strengthen the friendship and alliance" between their nations. Uzbekistan has committed tentatively to buy electricity produced at a hydropower facility in neighboring Tajikistan in a marked change of posture from the days when Tashkent staunchly opposed the very construction of the plant.

Under the terms of the memorandum of understanding, which was signed on June 2, on the first day of Tajik President Emomali Rahmon's visit to Uzbekistan, the electricity would be delivered from the Roghun plant over the summer months, when hydroelectric power generation peaks.

Details on the volume of electricity and prices are to be considered in a separate sales agreement which is expected to be signed before the end of the year. Officials have said a 10-year contract is envisioned.

Uzbekistan already buys electricity from Tajikistan, which exported 2.5 billion kilowatts hours of power total in 2021. Of those exports, Afghanistan bought around 1.3 billion kilowatt hours and paid $55 million. Uzbekistan was given more preferential rates, having paid Tajikistan $23 million for 1.1 billion kilowatt hours of electricity.

Under the rule of the late President Islam Karimov, who died in 2016, Uzbekistan was adamantly opposed to construction of the Roghun hydroelectric dam. Tashkent objected that the dam would compromise flows of irrigation waters and could pose an existential threat in the event of an earthquake. The Tajiks insisted that the dam was designed to be resistant to seismic activity.

A safety study of the projected 335-meter dam published by the World Bank in 2014 appeared to take Tajikistan's side in finding that the construction would not pose risks of the order indicated by Uzbekistan.

The report also dwelled, however, on the need to mitigate the fallout of a reduction of summer river flows to Uzbekistan and Turkmenistan. The rapidly changing demography of Uzbekistan has made the need to address the question of food security and the ability to reliably grow adequate volumes of crops only more pressing. The country's population was around 27 million in 2007, when Tajikistan revived the Soviet-devised Roghun project in earnest, but that number has since grown to around 35 million.

Indeed, it is likely that same trend that has forced a rethink from Uzbekistan, since demand for electricity is also increasing rapidly. If Roghun is ever completed as intended, it will produce up 3.6 million kilowatt-hours of electricity per year. That would be enough to provide for Tajikistan's own needs and leave vast amounts more for export.

Construction on the hydroelectric plant began in October 2016 and at least two of the six projected generating units are up and running. Progress on the project appears to have slowed down, however, amid limited cash flows. The Tajik government, which fully owns the plant, is typically highly secretive about how much progress it is making on construction.

The stakes for creating a reliable regional system for sharing power resources was illustrated in dramatic fashion in late January, when entire swathes of Kazakhstan, Kyrgyzstan and Uzbekistan experienced power failures lasting up to several days in some areas. Uzbek energy officials attributed the blackout to a technical fault on Kazakhstan's grid, which is linked in a Soviet-vintage energy grid to its neighbors to the south.

This power agreement only serves to underline the extent to which relations between Uzbekistan and Tajikistan have improved since the death of Karimov, who was by default suspicious and hostile toward his country's neighbors. On June 3, Rahmon, the Tajik leader, signed a joint declaration with his Uzbek counterpart, Shavkat Mirziyoyev, committing them to "strengthen the eternal friendship and alliance" between their nations."Tajikistan is a close neighbor, a true friend and a time-tested reliable strategic partner," Mirziyoyev was quoted as saying by his press service.

Fully 11 bilateral agreements were signed during Rahmon's two-day visit. On the eve of the presidents' meeting, contracts worth a total of $1 billion were signed among companies from the two countries.

Source: https://eurasianet.org/uzbekistan-commits-to-buying-power-from-tajikistans-roghun-plant

Water Eneregy Food Ecology (WEFE) NEXUS highlights

Improving irrigation efficiency to reduce energy use in Uzbekistan

In Uzbekistan, 21% of all electricity generated is used in the agriculture sector. Energy-intensive pumping stations lift river water, sometimes more than 100 meters, for irrigation of cotton, wheat, vegetables and fruit trees. This is not only expensive, but it reduces river flows to the Aral Sea and adds considerably to greenhouse gas emissions. Research has shown that by increasing irrigation efficiency and, in places, improved irrigation planning and scheduling, electricity demand could be significantly decreased, simultaneously reducing greenhouse gas emissions and leaving more water in the rivers. This is a neat nexus solution: improvements in one sector (water) translate to improvements in others (energy and the environment).

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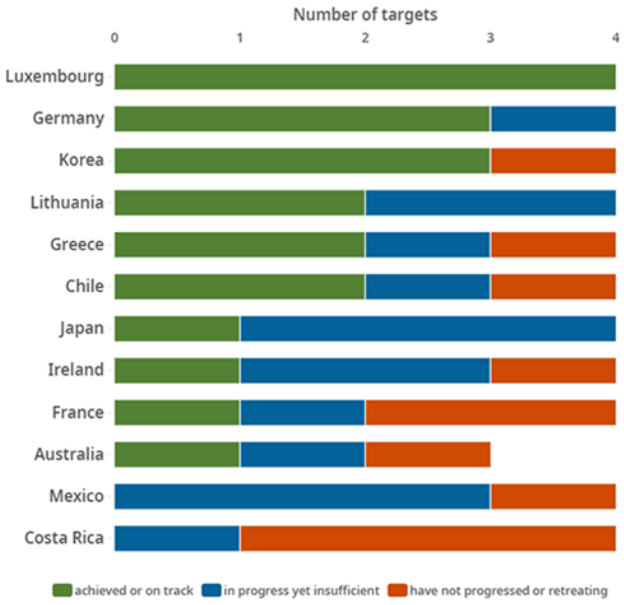
The world is not on track to meet its water goals

With 2.1 billion people lacking access to safe water services and over 4.4 billion without access to safe sanitation, the world is not on track to meet its global commitments on water. And the situation will likely worsen due to rapid population growth, urbanisation and increasing pressure from agriculture, industry, the energy sector, and climate change.

Most OECD countries already provide access to drinking water and sanitation services to virtually all their residents (targets 6.1 and 6.2) but 1 in 10 is far from reaching water quality and waste management targets (targets 6.3



Country progress on SDG 6 2021, selected countries

Some OECD countries have lost over 10% of their surface water since the mid-1980s due to drought and wasteful irrigation methods. While water-use efficiency (target 6.4) has seen significant improvements in the past two decades, the pace of progress is only sufficient to reach 2030 targets in a few countries. Finally, 7 in 10 OECD countries are far from achieving target 6.6 on the protection of aquatic ecosystems.

We need to built a future,
Where people live in harmony with nature

HPA

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