



Sci-Tech

Global prevalence of gout to rise over 70pc by 2050
 New Delhi: The number of individuals with gout — a type of inflammatory arthritis, which manifests as acute episodes of severe joint pain and swelling — will increase by more than 70 per cent by 2050, according to a study.

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River basins are losing snow cover in Himachal

Snow cover declines by 12.72 per cent in 2023-24: Study

#SHIMLA: The seasonal snow cover in Chenab, Beas, Ravi and Sutlej river basins in Himachal Pradesh decreased by 12.72 per cent in 2023-24 compared to 14.25 per cent in 2022-23, a statement issued here on Friday said.

During the study winter months of 2023-24 (October to November), the Chenab, Beas and Sutlej basins showed negative trends in snow cover, whereas the Ravi basin showed a marginal increase, reflecting a positive trend, the statement quoting a study said.

However, months for the peak winter months indicated significant declines in all the basins — 6.7 per cent in Sutlej, 44 per cent in Ravi, 41 per cent in Beas and 42 per cent in Chenab in January 2024, according to the study conducted by the State Centre on Climate Change, under the aegis of the HP Council for Science, Technology, and Environment (HIMCOSITE).

Based on the analysis, it was observed that the decline was 15.39 per cent in the Chenab basin, 7.65 per cent in Beas, 9.89 per cent in Ravi and 12.45 per cent in Sutlej in 2023-24,



Seasonal snow cover in Chenab, Beas, Ravi, Sutlej river basins falls

leading to an overall decline of 12.72 per cent, Director-cum-Member Secretary (HIMCOSITE) Dr. Rama said. "We have information about the total snowfall during the winter season from the various observation operating throughout the State but its spatial extent, reflecting that how much area is under snow, can not be ascertained. But it has now become possible to map the geographical

extent of the area covered under snow during winter season from October to April by using satellite data of different resolutions," Rama said. Based on various studies, the temperature in the Higher Himalayan Region is comparatively higher than the low-lying areas, which is affecting Himalayan snows, evidenced by the fact that most of the glaciers are losing mass. Chd Secretary Prabhoo Saxena said. **PTI**

A breakthrough in quantum-based data encryption



#BENGALURU: In a major breakthrough, a team of Indian scientists has created a user-friendly way to generate unpredictable random numbers crucial for stronger data encryption and provide robust cybersecurity.

The Ram an Research Institute, Bengaluru, which is an autonomous institute of the Department of Science and Technology (DST), performed a photonic experiment to demonstrate a violation of what is called the Leggett-Garg inequalities (LGI) — a litmus test for "quantumness" in a system in a loop-hole-free manner.

Team carried out extensive research in collaboration with researchers from the Indian Institute of Science (IISc), Bengaluru, JEEB, Tata Institute of Fundamental Research, Kolkata to use such LGI violation in a completely unexplored domain truly unpredictable random number generation, secure against device tampering and imperfections. **IANS**

Maternal mortality is claiming child brides

Over 6,500 adolescent girls die giving birth every year across South Asia: Study by UN agencies

#KATHMANDU: Every year, nearly 6,500 adolescent girls in South Asia die giving birth and most of them are minors who have limited power over their reproductive health or lives, according to a joint analysis done by UNICEF, WHO and UNFPA.

South Asia accounts for 290 million child brides — nearly half of the world's burden. In those countries in South Asia, they are also four times more likely to be out of school than their unmarried peers, as per the analysis done by United Nations International Children's Emergency Fund (UNICEF), World Health Organisation (WHO) and United Nations Fund for Population Activities (UNFPA).

At the two-day Regional Dialogue on Adolescent Pregnancy in South Asia, which concluded here on Friday, the SAARC countries, UNICEF South Asia, UNFPA and WHO called for increased commitment to critical services for over 2.2 million adolescent girls that give birth yearly in South Asia, a joint press release issued by the agencies said. **PTI**

Recycling in space

New space suit to help astronauts recycle urine into water during the spacewalks

#NEW DELHI: US researchers have developed a novel full-body space suit that astronauts can use during spacewalks and recycle urine into water.

Since the late 1970s, NASA space suits have been designed with maximum absorbency garment (MAG) — the waste management system — which functions like a multi-layered adult diaper made of superabsorbent polymer.

While astronauts on spacewalks relieve themselves inside their space suits, it is both uncomfortable with reports of leaks, and health issues such as urinary tract infections and genital-oral contact. **IANS**



The new prototype of the space suit designed by researchers from Cornell University "includes a vacuum-based external catheter leading to a combined forward-reverse osmosis unit".

It provided "a continuous supply of potable water with multiple safety mechanisms to ensure astronaut wellbeing", said Sofia Blin, a research staff member at West Cornell Medicine.

Collecting and purifying 500ml of urine takes only five minutes, reveals the study detailed in the journal *Frontiers in Space Technology*. It consists of a urine collection device, including an undergarment made of multiple layers of flexible fabric. **IANS**

Internationally acclaimed artist's share their vision for the future

"Embodied Vestiges" at Iram Art Gallery explores traces of the past and their profound implications for a posthuman future through the works of Dhruv Soliman and Promita Hossain. Their artworks, rooted in personal and familial experiences, delve into how remnants of historical events, cultural practices, and technological innovations shape our evolving understanding of identity, memory, and existence in an interconnected world.

Alongside several research-intensive curated exhibitions set to open throughout the year, the gallery is also launching a series of learning programs under the banner of the Iram Learning Initiative aimed at students, professionals, and cultural enthusiasts of the city. It aims to offer access to high-quality information via top academics and industry professionals to a large demographic interested in learning about art, design, and other corresponding fields.

Curator, Sayajee Dave emphasizes vestiges as echoes of the past that influence our present perceptions. These remnants can be physical—such as ruins and artifacts—cultural, psychological, and digital. The exhibition examines how these vestiges interact with contemporary posthuman thought, challenging Cartesian visions of human, machine, and nature to propose new ontologies and epistemologies. The artist's work offers a fundamental perspective on body politics and sexuality, positioning the body as an active principle of interpretation and care in the world.

Both the artists have had noteworthy international achievements such as - Promita Hossain Participation in Dhaka Art Summit 2022, Venice Biennale 2022, winner of Prince Claus Seed Fund Award, Hampa Art Labs (NSW) 2024. Winner of the Namdani Art Award's Special Mention Prize and Dinar Sultan. Exhibited at L.L.L.L.I Museum in Vienna, Dhaka Art Summit, and Asian Art Biennale. Recipient of prestigious residencies and awards, including the Samdani Art Residency 2024 and Lalit Kala Gujarat State Art Award.

WHEN: 13th July to 15th August 2024 | Monday to Friday - 5pm to 7pm | Saturday & Sunday - By prior appointment only.
WHERE: Iram Art Gallery, Block A, 502 & 503, Navratri Corporate Park, Ambli Bopal Road. For scheduling a private viewing, reach out to us at +91 972-787-0430 | www.iramart.in

