

An aerial photograph of a winding asphalt road that curves through a dense, lush green forest. Several cars are visible on the road, including a white car at the top, a blue car, and another white car. The road has white dashed lines for lane markings. The overall scene is vibrant and scenic.

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DAILY NEWS DECODE

10.10.21

HIMACHAL PRADESH GETTING LESS SNOW

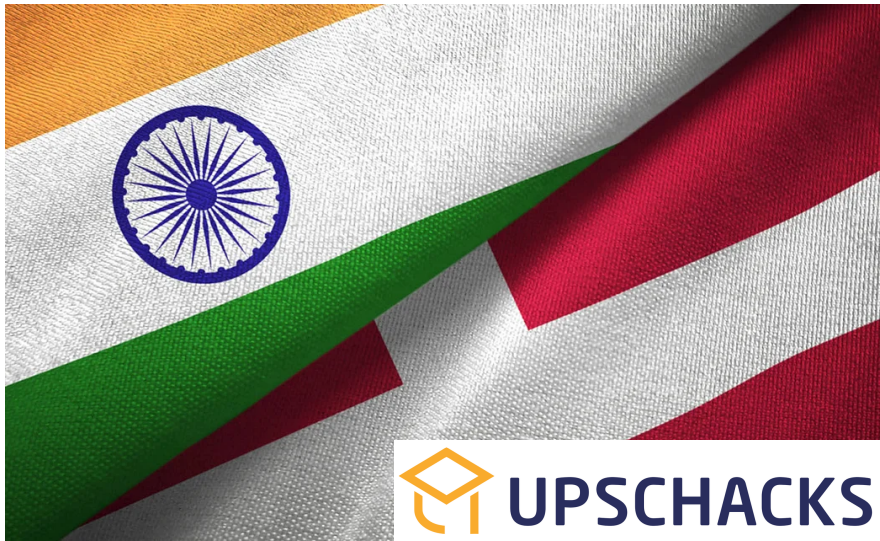


- The hill State of Himachal Pradesh has been gradually witnessing less snow in the past decade and the area under snow is also decreasing.
- The trend triggered by climate change has alarmed environmentalists, considering the importance of seasonal snow cover as a major input in controlling the hydrology of the river basins in the ecologically fragile State.
- A recent study, conducted jointly by the State Centre on Climate Change and the Space Applications Centre, Ahmedabad, using Advanced Wide Field Sensor (AWiFS) satellite data has revealed that all major river basins, including the Satluj, Ravi, Chenab and Beas, have witnessed an overall decrease of 18.5% in area under snow in 2020-21 winters in comparison to 2019-20.

- **The snowfall in peak winter is reducing slightly and, in fact, is shifting towards the late winter months or even the early summer months.”**
- **This phenomenon is attributed to the rising temperatures. Rapid deforestation, extensive construction and unregulated activities are the contributing factors.**

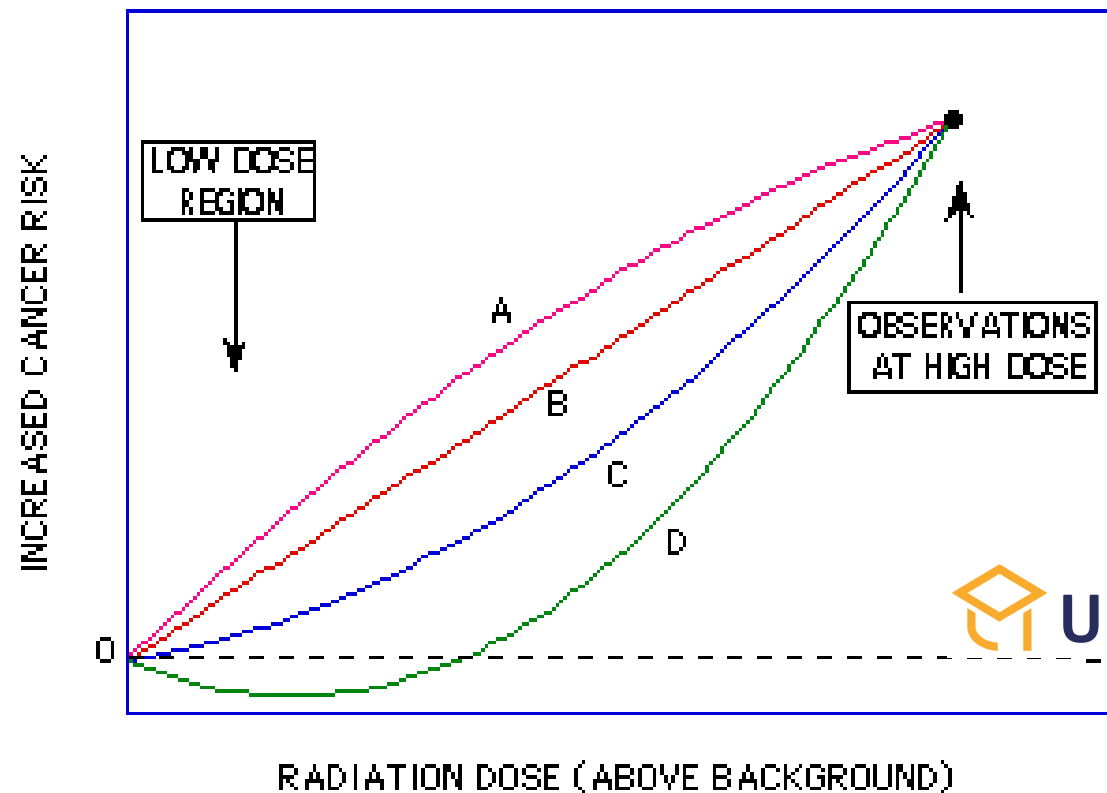
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INDIA-DENMARK RELATIONS



- India and Denmark inked four agreements and decided to expand cooperation in a meeting between Prime Minister Narendra Modi and his Danish counterpart Mette Frederiksen in New Delhi.
- The agreement was signed in the field of Skill Development and Entrepreneurship, Traditional Knowledge Digital Library, establishing a Centre of Excellence towards natural refrigerants for tropical climates with potential applications and on mapping of ground water resources and aquifers.
- Both the Prime Ministers noted with satisfaction the progress in the bilateral relations since they launched the Green Strategic Partnership during their Virtual Summit on 28 September 2020.
- They welcomed the detailed 5-year Action Plan for the period 2021 to 2026 and noted the progress in its implementation.

LINEAR NO-THRESHOLD (LNT) MODEL FOR RADIATION SAFETY



- The U.S. Nuclear Regulatory Commission (NRC) decisively upheld the Linear No-Threshold model to prescribe radiation safety standards, ending the protracted controversy on the topic.
- The LNT model states that biological effects such as cancer and hereditary effects due to exposure to ionising radiation increase as a linear function of dose, without threshold.
- The LNT model helps the agencies to regulate radiation exposures to diverse categories of licensees, from commercial nuclear power plants to individual industrial radiographers and nuclear medical practices.

Debate

- In 2015 three petitions requested the NRC, “to amend its regulations based on what they assert is new science and evidence that contradicts the linear no-threshold (LNT) dose-effect model that serves as the basis for the NRC’s radiation protection regulations.”
- The petitioners support “radiation hormesis,” a concept that posits that low doses of ionising radiation protect against the deleterious effects of high doses of radiation and result in beneficial effects to humans.
- The NRC denied the three petitions because they failed to present an adequate basis supporting the request to discontinue use of the LNT model. Therefore, the NRC will maintain the current dose limit requirements.
- The NRC noted that although there are studies and other scholarly papers that support the petitioners’ assertions, there are also studies and findings that support the continued use of the LNT model, including those by national and international authoritative scientific advisory bodies.

INDIA-NEPAL RAILWAY RELATIONS



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- India and Nepal reviewed implementation of ongoing cross-border railway links and overall bilateral cooperation in the railway sector in the 5th Joint Working Group and the 7th Project Steering Committee meetings in New Delhi.
- Both sides signed the Standard Operating Procedures for start of passenger train services on the Jaynagar-Kurtha section and the Memorandum of Understanding for Final Location Survey of the proposed broad gauge railway line between Raxaul and Kathmandu.
- The proposed Raxaul-Kathmandu broad gauge railway line will further boost connectivity between India and Nepal.
- Both sides discussed the ongoing works of Jaynagar-Bijalpura-Bardibas and Jogbani-Biratnagar broad gauge railway lines between India and Nepal, being developed with grant assistance from Government of India.

LUCY



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- **NASA is set to launch 'Lucy' , its first mission to explore the Jupiter Trojan asteroids.**
- **These asteroids are believed to be the remnants of the early solar system, and studying them will help scientists understand its origins and evolution, and why it looks the way it does.**
- **The solar-powered mission is estimated to be over 12 years long, during the course of which the spacecraft will visit eight asteroids covering a distance of about 6.3 billion km to deepen the understanding of the "young solar system".**
- **The mission is named after 'Lucy', a 3.2 million-year-old ancestor who belonged to a species of hominins (which include humans and their ancestors).**

- **The spacecraft's first encounter will be with an asteroid that lies in the main belt that can be found between Mars and Jupiter.**
- **This asteroid is named 'Donald Johnson' after the paleoanthropologist who discovered the fossilised remains of 'Lucy'.**
- **The spacecraft will launch from the Cape Canaveral Space Force Station, Florida on an Atlas V 401 rocket during a 21-day launch period that will start on October 16, 2021.**

INDIAN SPACE ASSOCIATION (ISpA)



- Prime Minister Narendra Modi will launch Indian Space Association (ISpA) on October 11, 2021.



- Indian Space Association is the Premier Industry Association of Space and Satellite companies, which aspires to be the collective voice of the Indian Space industry.
- It will undertake policy advocacy and engage with all stakeholders in the Indian Space domain, including the Government and its agencies.
- ISpA is represented by leading home grown and global corporations with advanced capabilities in space and satellite technologies.
- Its founding members include Larson and Toubro, Nelco , OneWeb, Bharti Airtel, Mapmyindia, Walchandnagar Industries and Ananth Technology Limited. Other core members include Godrej, Hughes India, Azista-BST Aerospace Private Limited, BEL, Centum Electronics and Maxar India.