

NOVEMBER 2024

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Content

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National Landslide Risk Mitigation Project

Why in News?

Recently, a **High-Level Committee** chaired by the Union Home Minister and Minister of Cooperation has approved Rs 1,115.67 crore for <u>disaster mitigation</u> and **capacity-building projects in various states.**

Key Points

- > About the Committee:
 - The committee reviewed proposals to mitigate landslide risks in 15 states under the <u>National</u> <u>Disaster Mitigation Fund (NDMF)</u>.
 - It also approved funding from <u>the National Disaster</u> <u>Response Fund (NDRF)</u> for training and capacitybuilding initiatives for Civil Defense volunteers across all states and union territories.
- The National Landslide Risk Mitigation Project was approved for 15 states at a total cost of Rs 1,000 crore.
 - State-wise allocations:
 - Uttarakhand: Rs 139 crore
 - Himachal Pradesh: Rs 139 crore
 - Eight North-East States: Rs 378 crore
 - Maharashtra: Rs 100 crore
 - Karnataka: Rs 72 crore
 - Kerala: Rs 72 crore
 - Tamil Nadu: Rs 50 crore
 - West Bengal: Rs 50 crore
- Training and Capacity Building of Civil Defense Volunteers was approved for all states and union territories with a total outlay of Rs 115.67 crore.
- > Previous Approvals by the Committee:
 - **Urban Flood Risk Mitigation Projects:** <u>Urban flood</u> risk management projects were approved for seven cities with a total outlay of Rs 3,075.65 crore.
 - GLOF (Glacial Lake Outburst Flood) Risk Management Projects: <u>GLOF</u> was approved for four states at a total cost of Rs 150 crore under NDMF.

National Disaster Relief Fund

- National Calamity Contingency Fund (NCCF) was renamed as National Disaster Response Fund (NDRF) with the enactment of <u>the Disaster Management</u> <u>Act, 2005.</u>
 - It is defined in Section 46 of the Disaster Management Act, 2005.

- It is managed by the Central Government to meet the expenses for emergency response, relief and rehabilitation due to any threatening disaster situation or disaster.
 - It supplements the SDRF in case of a disaster of a severe nature, provided adequate funds are not available in the SDRF.

Glacial Lake Outburst Flood (GLOF)

- A glacial lake outburst flood (GLOF) is a type of catastrophic flood that occurs when the dam containing a glacial lake fails, releasing a large volume of water.
- This type of flood is typically caused by rapid melting of glaciers or the buildup of water in the lake due to heavy precipitation or the inflow of meltwater.
 - In February 2021, <u>Chamoli district in Uttarakhand</u> witnessed flash floods which are suspected to have been caused by GLOFs.

Environmental Crisis Over the Rivers in Uttarakhand

Why in News?

Uttarakhand, known for its pristine rivers and streams, is facing an unprecedented environmental crisis.

 Changing weather patterns, <u>climate change</u>, and increasing human activities are pushing the state's 206 perennial rivers and streams toward the brink of drying up.

Key Points

- > Current Situation:
 - According to a report by the <u>Spring and Rejuvenation</u> <u>Authority (SARA)</u>, a staggering 5,428 water sources in Uttarakhand are currently under threat.
 - Climate change experts at SARA, highlighted that human intervention, rather than natural causes, is primarily responsible for the degradation of these water bodies.
- > Establishment of SARA:
 - In response to this crisis, the Uttarakhand government established SARA to investigate the state of its perennial rivers and streams.
 - This initiative aims to understand the **impacts** of <u>climate change</u> on these vital water sources.



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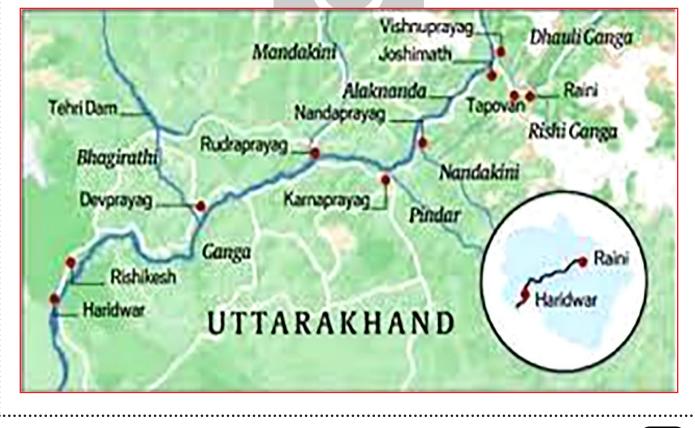
• SARA recommended all relevant state departments to collaborate and provide data on the condition of these water bodies. The findings have raised serious concerns within the government, prompting the need for urgent interventions.

> Pilot Projects for River Rejuvenation:

- SARA has prepared a pilot project to revive five key rivers:
 - The **Song River** in Dehradun, the **Western Nayar** and **Eastern Nayar** in Pauri, the <u>Shipra River</u> in Nainital, and the **Gaudi River** in Champawat.
 - The National Institute of Hydrology (NIH) and IIT Roorkee have been assigned to study these rivers, with plans to extend the project to other rivers based on the findings.
- > Impact of Climate Change:
 - The rise in temperature due to climate change has been more pronounced in **Tibet** and **the Himalayas** than in the rest of the world over the **past 150 years**.
 - This alarming trend is leading to significant environmental consequences, including the **drying up of water sources**.
 - Data from the **Water Resources Department** reveals that **288 water sources** in the state have less than **50%** of their original water levels remaining, with nearly 50 sources having less than **75%** of their water left.

> Related Observations & Impact:

- o Environmentalists and local officials have observed drastic changes in water levels and river courses.
- In **Bhimtal**, the lake has started to resemble a plain, and similar crises are emerging across other rivers and water sources.
- Climate scientists warn that climate change is causing mountains to crumble and rivers to either change their courses or wreak havoc during **floods**.
- In Haldwani, the water levels of the **Gaula and Kosi rivers** have dropped, creating a crisis for drinking water and irrigation.





Uttarakhand's Grassland Conservation SOP

Why in News?

The **forest department of Uttarakhand government** will prepare a **standard operating procedure (SOP)** to conserve grasslands in the <u>Upper Himalayan Region</u> of the state.

This initiative aims to address the increasing frequency of landslides and land subsidence caused by both natural and human activities.

Key Points

- > Grassland Conservation Initiatives:
 - Dayara Bugyal, a sensitive ecological area, has shown positive results from previous ecological restoration efforts. To extend these benefits to other grasslands, the forest department plans to develop a SOP for conservation.
 - This **SOP** will focus on reducing biological pressure and preventing further degradation.
 - So far, conservation work has been carried out on approximately 83 hectares of land across 22 grasslands under the Bugyal Conservation Scheme.
- > Snow Leopard Conservation Center:
 - During their visit, the officials also inspected a <u>snow</u> <u>leopard conservation center</u> under construction at Lanka near Gangotri.
 - The center is expected to be ready within a year, offering tourists an opportunity to experience the **natural environment** and **observe snow leopards** in their habitat.
 - Gangotri National Park has emerged as a significant trans-Himalayan national park over the past decade.
 - The **Wildlife Institute of India** has recorded a substantial presence of **snow leopards** in the park, which was relatively unknown until recently.

Untreated Waste in Landfills of Kedarnath

Why in News?

Environmentalists are raising concerns as authorities continue to dump **tonnes of untreated waste at landfill sites** around the <u>eco-sensitive Himalayan temple of</u> <u>Kedarnath</u>.

Key Points

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- > Garbage Dumping in Kedarnath:
 - It was revealed that 49.18 tonnes of unprocessed garbage were dumped at two landfill sites near Kedarnath between 2022 and 2024.
 - Untreated waste generation showed an upward trend, 13.2 tonnes in 2022, 18.48 tonnes in 2023, and 17.5 tonnes so far in 2024.
- > Environmental Concerns:
 - Activists criticized the inadequate garbage management system, emphasizing that the ecosensitive Kedarnath region lacks proper waste treatment facilities.
 - The temple, located at 12,000 feet amid glaciers, requires immediate waste management reforms to preserve the fragile ecosystem.
 - The two landfill sites near Kedarnath are nearing capacity and continued negligence could lead to another tragedy similar to the 2013 disaster in the region.

Government and Legal Oversight:

- The National Green Tribunal (NGT) and National Mission for Clean Ganga (NMCG) responded to complaints, directing authorities to establish sewage treatment plants in Kedarnath.
 - The NMCG noted that untreated waste from Kedarnath is polluting the Mandakini River, a Ganga tributary, and instructed the Rudraprayag district administration to act.

Eco-Sensitive Zones

- Eco-Sensitive Zones or Ecologically Fragile Areas are areas within 10 kms around Protected Areas, National Parks and Wildlife Sanctuaries.
- ESZs are notified by MoEFCC, Government of India under <u>Environment Protection Act 1986.</u>
 - In case of places with sensitive corridors, connectivity and ecologically important patches, crucial for landscape linkage, even areas beyond 10 km width can also be included in the ecosensitive zone.
- The basic aim is to regulate certain activities around National Parks and Wildlife Sanctuaries so as to minimise the negative impacts of such activities on the fragile ecosystem encompassing the protected areas.



Igas Bagwal Festival

Why in News?

Igas Bagwal, also known as Budhi Diwali or Harbodhni Ekadashi, is a traditional festival celebrated in Uttarakhand 11 days after Diwali. The festival reflects the cultural heritage of the state, uniting communities through shared traditions and festivities.

Key Points

- > Origins and Significance:
 - Igas Bagwal is celebrated on Kartik Shukla Ekadashi and marks the end of Lord Vishnu's four-month rest period, an auspicious time for new beginnings.
 - The term "Igas" resonates with cultural pride and mythological reverence in Uttarakhand.
 - It is believed that when news of Lord Rama's return to <u>Ayodhya</u> reached Uttarakhand 11 days after Diwali, locals celebrated their version of Diwali.
 - Another legend celebrates the victory of Garhwali warrior Madhav Singh Bhandari over Tibet at Dapaghati, commemorated by the community as a symbol of unity and valor.
- > Bhailo- The Torch Tradition:
 - Villagers create large torches called Bhailo or Andhaya by binding pinewood sticks, which are lit and swung overhead, symbolizing the banishment of darkness.
 - This torch ritual is also believed to invoke blessings of prosperity from Goddess Lakshmi.
- > Festival Rituals and Cattle Honoring:
 - Cattle, essential to Uttarakhand's agrarian lifestyle, are honored during Igas Bagwal. Villagers wash and decorate them with turmeric and mustard oil.
 - Special **meals are prepared for the animals,** and traditional delicacies are shared among villagers to celebrate communal harmony.
- > Efforts to Preserve Igas Bagwal:
 - Local authorities and cultural organizations promote lgas Bagwal through programs and awareness campaigns, aiming to preserve the festival's heritage.
 - Youth-focused initiatives emphasize the cultural significance of Igas Bagwal, ensuring its legacy endures for future generations.

Pilgrims Death During Char Dham Yatra 2024

Why in News?

In 2024, the 192-day <u>Char Dham Yatra</u> in Uttarakhand, encompassing the **high-altitude shrines of <u>Badrinath</u>**, <u>Kedarnath</u>, <u>Gangotri</u>, and <u>Yamunotri</u>, saw the unfortunate **loss of 246 pilgrims** due to health-related complications.

Key Points

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- As per Uttarakhand government data, over 47,03,905 pilgrims participated in the Char Dham Yatra, which started on 10th May 2024 and is scheduled to conclude on 17th November 2024.
 - Deaths exceeded 230 in 2023, while in 2022, the count was over 300.
- > Helicopter Travel and Health Risks:
 - A high death rate was noted among pilgrims using helicopters to reach the Kedarnath shrine. Rapid ascent to high altitudes (about 3,000 meters) without acclimatization increases health risks.
 - **Oxygen depletion** at all Char Dham shrines can lead to **altitude sickness**, which can become fatal if not managed promptly.
 - Issues such as inadequate accommodation, trail congestion, extreme and shifting weather conditions, and insufficient health screenings.

Economic Impact of the Char Dham Yatra:

- The yatra generates approximately Rs 7,500 crore annually, a significant portion of Uttarakhand's economy.
- The yatra **provides direct and indirect employment to over 10 lakh people**, including hotel staff, guides, taxi drivers, priests, mule operators, porters, and others in the tourism and handicraft sectors.
- Criticism and Concerns:
 - Although the State mandated health check-ups for pilgrims this year, the high fatality rate has raised concerns.
 - Think tanks like <u>NITI Aayog</u> have repeatedly called for <u>sustainable tourism practices in the Indian</u> <u>Himalayan region</u>, urging the State to align with these standards.



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Char Dham Yatra

- > Yamunotri Dham:
 - o Location: Uttarkashi district.
 - o Dedicated to: Goddess Yamuna.
 - River Yamuna is the second-most sacred river in India after River Ganga.
- > Gangotri Dham:
 - o Location: Uttarkashi district.
 - o Dedicated to: Goddess Ganga.
 - σ $\,$ Considered the most sacred of all Indian rivers.
- Kedarnath Dham:
 - Location: Rudraprayag district.
 - Dedicated to: Lord Shiva.
 - o Situated on the bank of the Mandakini River.
 - One of the 12 Jyotirlingas (divine representations of Lord Shiva) in India.
- > Badrinath Dham:
 - o Location: Chamoli district.
 - Home to the sacred Badrinarayan Temple.
 - o Dedicated to: Lord Vishnu.
 - o One of the holy shrines for Vaishnavites.

Millimeter Wave Transceiver

Why in News?

Recently, <u>Centre for Development of Telematics</u> (C-DOT) has signed an agreement with the Indian Institute of Technology-Roorkee (IIT-Roorkee) for the development of a "<u>Millimeter Wave Transceiver for 5G rural</u> <u>connectivity</u>".

Key Points

- > Millimeter Wave Backhaul Technology Project:
 - It aims to develop millimeter wave backhaul technology for improved 5G connectivity, particularly in rural areas.
 - A limited number of small cell-based stations (SBSs) will be connected to the network gateway through fiber, reducing infrastructure needs.
 - The transceiver development will use a **combined optical and millimeter wave approach.**

- It is expected to reduce the overall size and cost of the technology, making it more efficient and affordable.
- It aims to reduce India's reliance on international <u>semiconductor</u> fabrication industries, bolstering self-reliance.
- It will contribute to generating <u>Intellectual Property</u> <u>Rights (IPRs)</u> and developing a skilled workforce in millimeter wave and Sub-THz technology, preparing for advancements in <u>5G</u> and <u>6G</u>.
- > Support for Local Industry and Employment:
 - The project encourages small and medium-scale industries to establish manufacturing units in India, especially in polymer-based and metal-integrated structures.
 - Increased local manufacturing will create job opportunities for Indian engineering graduates.
 - Funding Support under TTDF Scheme:
 - The agreement is signed under the Department of <u>Telecommunications' Telecom Technology</u> <u>Development Fund (TTDF) scheme</u>.
 - TTDF is designed to fund Indian startups, academia, and R&D institutions, supporting the domestic development and commercialization of telecom products and solutions.

Millimeter Wave

➤ About:

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- It is a wireless communication technology that uses high-frequency radio waves to transmit data.
- Millimeter waves have a frequency range of 30–300 GHz, and a wavelength range of 1–10 millimeters.
- Uses:
 - 5G: Millimeter waves are used in 5G to provide high-speed, increased bandwidth communications.
 - Explosive detection: Millimeter waves can pass through clothing and reflect off of the body, allowing imaging systems to detect concealed objects.
 - Other applications: Millimeter waves can be used for business and residential broadband access, campus area networks, outdoor Wi-Fi hotspots, and more.



Note:

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Centre for Development of Telematics (C-DOT)

- It was established in 1984. It is an autonomous Telecom R&D (Research and Development) centre of DoT (Department of Telecom), Ministry of Communications.
- It is a registered society under the <u>Societies</u> <u>Registration Act,1860</u>.
- It is a registered public-funded research institution with the Department of Scientific and Industrial Research (DSIR), Ministry of Science and Technology.

Uttarakhand Livability Improvement Project

Why in News?

Recently, the **Government of India** and the <u>Asian</u> <u>Development Bank (ADB)</u> signed a USD 200 million loan to enhance urban services in Uttarakhand, including water supply, sanitation, and urban mobility.

The <u>European Investment Bank</u> is co-financing the project with a USD 191 million parallel investment to further support <u>urban infrastructure</u> enhancements.

Key Points

- > Objectives of the Project:
 - The project aligns with India's urban development agenda and Uttarakhand's goals to improve urban services, aiming for greater livability and sustainability in cities.
 - It will focus on building climate- and disasterresilient urban infrastructure to safeguard Uttarakhand's population from risks like <u>floods</u> and landslides.
- > Initiatives Included under the Project:
 - Key Upgrades in Haldwani- Economic Hub of Uttarakhand:
 - In Haldwani, climate-resilient roads will be developed, along with an intelligent traffic management system, CNG buses, and electric bus pilots.

- The project includes constructing stormwater and roadside drains and implementing an early warning system for improved flood resilience.
- A green-certified administrative complex and bus terminal will enhance public service delivery.
- Water Supply and Sanitation Improvements in Four Cities:
 - In Champawat, Kichha, Kotdwar, and Vikasnagar, the project aims for 100% water service coverage, installing climate-resilient pipelines, tubewells, new reservoirs, and a water treatment plant.
 - Sanitation coverage will be increased through sewage treatment facilities.
- Women's Empowerment and Livelihood Opportunities:
 - The project will provide **skill training for women** such as bus driving, ticketing, and managing electric charging stations.
 - The project will train women, including those from vulnerable households, in operating and managing water and sanitation services.

Asian Development Bank (ADB)

- ADB is a multilateral development bank established in 1966 with a mission to foster economic growth and cooperation in the Asia-Pacific Region.
- It is headquartered in Manila, Philippines, and has 69 members.
- It is governed by a board of governors and funded through member contributions, retained earnings from lending, and loan repayments.

European Investment Bank (EIB)

- It was established in 1958 and is the lending arm of the European Union.
- It is one of the biggest multilateral financial institutions in the world and one of the largest providers of climate finance.
- Since 1993, EIB has been supporting India's evolving green ambitions by investing in sustainable urban transport and renewable energy.



HIV Outbreak in Uttarakhand Village

Why in News?

Recently, a <u>HIV</u> outbreak has been reported in Ramnagar, Nainital, raising awareness on the impact of drug addiction and unprotected sexual interactions.

Key Points

- > HIV Spread:
 - Over 19 men in Ramnagar tested positive for <u>HIV</u> after unprotected sexual interactions.
 - Authorities emphasize this as a wake-up call for stricter community health vigilance.
- > HIV in India Statistics:
 - As of 2022, around **2.47 million Indians live with HIV,** with a **0.2%** adult prevalence rate.
 - New infections have dropped by over 42% since 2010, with AIDS-related deaths declining by nearly 77%.

> Government Efforts:

- India's <u>National AIDS and STI Control Programme</u> (2021-2025) is funded largely domestically, focusing on prevention, testing, and treatment.
- The <u>Ministry of Social Justice</u> operates a national helpline to support those with addiction and substance-related issues.

Human Immunodeficiency Virus (HIV)

> About:

- HIV stands for Human Immunodeficiency Virus, which is a virus that attacks the <u>immune system</u> in the human body.
- It primarily targets and damages CD4 immune cells, which are essential for the body's ability to fight infections and diseases.
 - Over time, HIV weakens the immune system, leaving the body vulnerable to opportunistic infections and <u>cancers.</u>

> Transmission:

 HIV is primarily spread through the exchange of certain bodily fluids such as blood, semen, vaginal fluids, and breast milk.

> Severity:

- If left untreated, the virus destroys a person's immune system and they are said to be in the Acquired Immunodeficiency Syndrome stage (AIDS) where they get several opportunistic infections that may result in death.
- > Cure:
 - Although there are no cures for the infection at present, the disease can be managed using <u>antiretroviral therapy.</u>
 - These medicines suppress the replication of the virus within the body, allowing the number of CD4 immune cells to bounce back.

Refuge in Uttarakhand to Escape Diwali Pollution

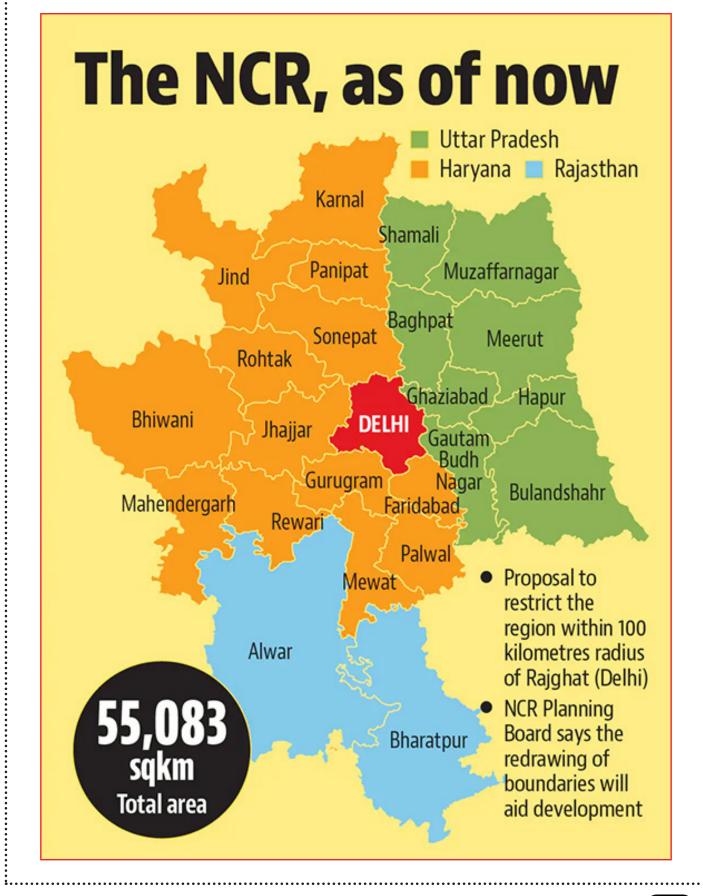
Why in News?

Recently, worsening air quality in the NCR (National Capital Region) region has driven residents to Uttarakhand for cleaner air and a healthier Diwali celebration.

Key Points

- Surge in Tourist Bookings:
 - NCR residents are increasingly booking hotels and homestays in Uttarakhand, especially in areas like Dehradun, Nainital, and Mussoorie, to escape pollution.
 - O Uttarakhand's relatively low pollution levels during Diwali make it an appealing refuge amid NCR's smoggy skies.
 - Families, especially with elderly and children, prioritize escaping the health risks associated with high pollution levels in urban areas.
 - The influx benefits Uttarakhand's tourism economy, with higher demands for accommodations and local services.







Uttarakhand's Diwali Gift

Why in News?

Recently, Uttarakhand announced a festive increase in <u>Dearness Allowance (DA)</u> for state government employees as a Diwali benefit.

Key Points

- > DA Hike:
 - Uttarakhand raised the DA for government employees by a set percentage, aiming to mitigate inflation's impact on household expenses.
 - The DA has been increased from **50% to 53% per month.**
 - The dearness allowance hike applies to all regular and full-time state employees and <u>UGC</u>-affiliated

officials, retroactive from 1st July, 2024, with arrears from July to **September 2024** payable in cash.

• The increased DA is effective immediately, covering employees and pensioners under the state government.

> Economic Impact:

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- This increase supports employees' purchasing power, particularly significant during the festive season when expenses are typically higher.
- Similar DA adjustments are seen across states as they aim to provide financial relief amidst rising living costs.

Dearness Allowance (DA)

 It is the cost-of-living adjustment to offset inflation, provided to government employees and pensioners.
It is calculated as a percentage of the basic salary.



Key Points	Details

Summary

Key Points	Details

Summary