

## TAKAKIA

Takakia stands as a remarkable example of a moss genus that has endured millions of years of evolutionary challenges to thrive in its unique habitat on the Tibetan Plateau.

However, the swift impact of climate change poses a significant threat to this species, prompting researchers to assess its resilience and raise concerns about the survival of a living fossil in the face of a changing world.



Takakia is a fascinating and distinctive genus of moss that holds a special place in the world of bryophytes (non-vascular plants, including mosses, liverworts, and hornworts).

The moss has developed specific genetic traits to survive these conditions, making it a remarkable example of adaptation.

### Ecological Role

Takakia's role in modern ecosystems, especially in terms of its interactions with other organisms, is not as well understood as its evolutionary significance.

It likely plays a role in providing microhabitats for various microscopic organisms, and its dense growth can help retain moisture and prevent soil erosion in its habitat.

### Climate Change Impact

- While Takakia has thrived for millions of years in its harsh habitat, climate change is rapidly altering this environment.

- Measurements taken since 2010 reveal an alarming trend on the Tibetan Plateau: an average annual temperature increase of nearly half a degree Celsius and the rapid recession of nearby glaciers by almost 50 meters per year.
- These changes significantly impact Takakia and its ability to survive, and the species appears to struggle with temperature rises compared to other plants.
- The study suggests that Takakia's populations have become smaller over the study period, while some other plant species benefit from the warming conditions.
- This trend is a cause for concern, as a species with such a deep evolutionary history, spanning the era of dinosaurs, may face considerable challenges in adapting to the rapid changes brought about by human-induced climate change.

## HAWAII

The devastating wildfires that have been affecting the US state of Hawaii, particularly the island of Maui, since Tuesday, August 9th.

Large-scale wildfires have been sweeping the US state of Hawaii since Tuesday

The death toll has reached 55 as of Friday. Widespread destruction includes downed power lines and over 675 acres of burned land. The town of Lahaina has suffered near-total damage, with State Governor Josh Green comparing it to a bombed area.



## Factors Contributing to the Extent of Fires

- Dry weather and strong winds from a passing hurricane played a significant role in the blaze.
- Maui County's hazard mitigation plan, last updated in 2020, had identified Lahaina as at risk due to frequent ignitions and vulnerable populations.
- The region also has a high rate of non-English speakers, potentially limiting effective response during hazards.
- The emergency warning sirens were not triggered, and mobile alerts were used instead.

### Historical Significance of Maui and Lahaina

- Lahaina was the one-time capital of the former Hawaiian kingdom (1820-1845).
- It was the royal residence of King Kamehameha, who unified Hawaii.
- Important historical sites like the Wainee Church and Lahainaluna High School connect to Hawaiian heritage.
- The town's connection to Native Hawaiians and its role in drafting the Hawaiian Kingdom's Constitution.

### Causes of Devastating Fires

- "Flash droughts" caused by rapid drying of atmospheric moisture aided fire spread.
- Around 83% of the island was abnormally dry or in moderate to severe drought conditions.
- Invasive, fire-prone grass species have taken over former pineapple and sugar cane lands.
- Unusually strong trade winds from Hurricane Dora's impact contributed to fire conditions.
- Climate change's role in increasing forest fires globally and in Hawaii due to rising temperatures.

### Implications and Ongoing Investigation

- Human factors in evacuation and response are under investigation.
- Climate-related factors, including flash droughts and strong winds, are being discussed.
- Climate change's impact on fire frequency and severity in Hawaii.
- Unanticipated effects of distant hurricanes, like Hurricane Dora's influence on fire occurrence.



## INCREMENTAL CRR

**Context:** The Reserve Bank of India (RBI) Governor has announced a temporary measure involving the Cash Reserve Ratio (CRR), which is the portion of deposits that banks are required to maintain with the central bank.

The RBI Governor announced that Indian banks must maintain an incremental CRR of 10% on the rise in deposits between May 19 and July 28. This requirement will be in effect for the fortnight starting August 12.

### Highlights of the Announcement

**Purpose of the Measure:** The purpose of this temporary measure is to absorb liquidity from the return of high-denomination notes that was announced by the central bank in mid-May. This liquidity overhang needed management to ensure the stability of the financial system.

- **Temporary Nature:** Governor Das emphasized that this measure is temporary in nature. He assured that even after the temporary impounding, there will still be adequate liquidity in the system to meet the credit needs of the economy.
- **Review Date:** The measure will be reviewed on September 8 or earlier. The impounded funds will be returned to the banking system ahead of the festival season, which suggests that this measure is not intended to be a long-term policy change.
- **Liquidity Surplus:** The banking system has experienced a liquidity surplus, with the average being around Rs 2.5 lakh crore (\$30.18 billion) in August, which is higher than the previous month of July.

### Discontinuation of Reverse Repos:

The RBI has stopped conducting lower-durability variable-rate reverse repos after auctions were not fully subscribed about a month ago. Reverse repos are a tool used by central banks to manage liquidity by absorbing excess funds from banks.

A trader from a private bank mentioned that banks will need to maintain excess CRR for the next two fortnights, leading to a reduction in the current liquidity surplus. The amount that could be withdrawn due to this measure is estimated to be less than one trillion rupees.

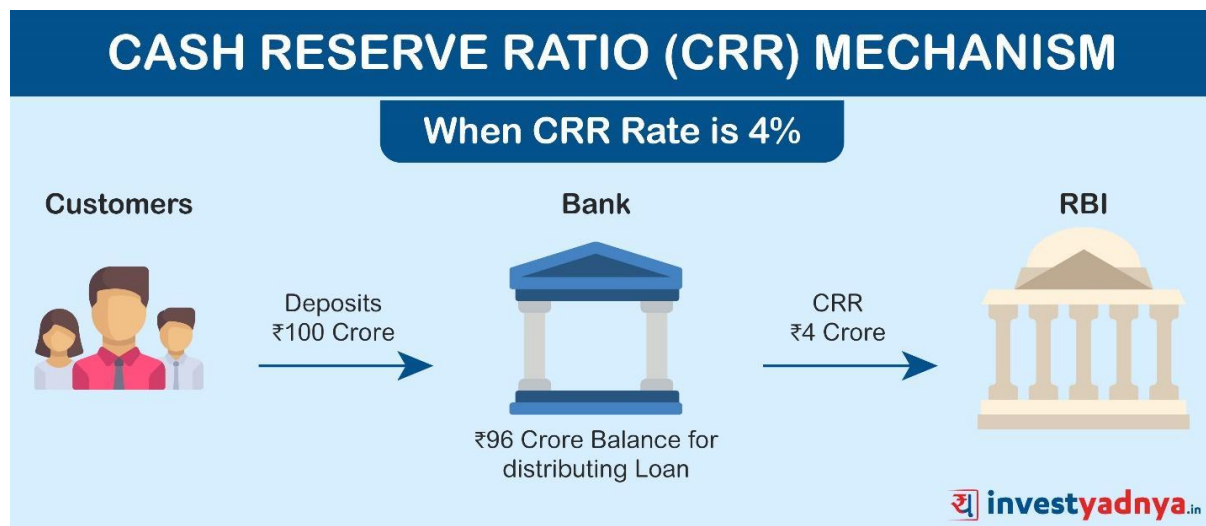
### Incremental Cash Reserve Ratio (CRR)

The Incremental Cash Reserve Ratio (CRR) is a monetary policy tool used by central banks, including the Reserve Bank of India (RBI), to manage liquidity in the banking system.

CRR is the portion of a bank's deposits that it is required to hold with the central bank. The Incremental CRR is an additional requirement imposed on banks for a specific period to absorb excess liquidity from the banking system.

### Features

- **Temporary Nature:** The Incremental CRR is not a permanent measure; it's implemented for a short duration to address a particular liquidity issue or economic circumstance. It's not a long-term policy but rather a tool used when needed.
- **Specific Time Frame:** This refers to the fact that the Incremental CRR is not a continuous or ongoing requirement. It's applied over a defined period that is linked to a specific event, policy change, or economic situation. Once the situation is resolved or the designated period ends, the requirement may be lifted.
- **Targeted Absorption:** The purpose of the Incremental CRR is to absorb excess liquidity in the banking system that might arise due to particular events, policies, or economic conditions. By mandating banks to hold a higher reserve, the central bank aims to control the flow of money and manage the liquidity situation more effectively.



**Graduated Approach:** The central bank typically specifies a certain percentage of additional CRR that banks need to maintain on the incremental deposits they receive during the specified period. This additional percentage might be higher than the regular CRR. The graduated approach ensures that the impact on banks' liquidity and lending activities is proportional and manageable.

Overall, the Incremental CRR is a tool used by central banks to fine-tune the liquidity levels in the banking system for a limited duration, addressing specific circumstances that require temporary measures. It allows the central bank to exert a targeted influence on the economy without committing to a permanent policy change.

## PUSHP Portal



The National Power Committee (NPC) in India has taken steps to address the lack of participation in the PUSHp portal, which is a mechanism for facilitating power transactions between states with surplus power and those facing power shortages.

- PUSHp portal serves as a national-level generating capacity utilization mechanism to assist states experiencing power shortages in buying power from states with surplus power. Tariffs for power transactions on the portal are regulated and determined by relevant regulatory commissions.
- To encourage broader participation, the NPC has urged states to provide suggestions for offering incentives to both buyers and sellers on the portal.

The regional power committees (RPCs) have been tasked with improving the attractiveness of the portal by suggesting incentive mechanisms, especially for units under reserve shutdown (RSD).

### Portal for Utilization of Surplus Power (PUSHp)

- PUSHp is a unique initiative by the Ministry of Power and the Regulator to enhance power availability.
- Distribution Companies (DISCOMs) can indicate their surplus power availability in block times, days, or months on the portal.
- DISCOMs in need of power can requisition surplus power from the portal.
- The new buyer will pay both variable charges and fixed costs as determined by regulators.
- Reassigning power to a new beneficiary will shift the entire fixed cost liability to them, relieving the original beneficiary of the obligation.
- This approach reduces the fixed cost burden on DISCOMs and ensures better utilization of available generation capacity.

## Asian Champions Trophy 2023: India beat Malaysia 4-3 to win the title



Asian Champions Trophy Final: A spirited India eked out a fighting 4-3 win over Malaysia in the final to clinch the Asian Champions Trophy hockey tournament for the fourth time on Saturday. The 'Men in Blue' wore the Asian Champions Trophy crown once again to become the toast of the country, and the emotion that hockey manages to invoke in the country was felt once again.

### World Elephant Day

Syllabus: GS-3, Conservation

Prelims: World Elephant Day, Asian Elephants

Mains: Conservation measures for Asian Elephants, Man-Animal Conflicts

Context:

World Elephant Day is observed on 12th of August every year.

### World Elephant Day:

World Elephant Day was co-founded in 2012 by Canadian Patricia Sims and the Elephant Reintroduction Foundation of Thailand.

The day aims to raise awareness about the threats facing elephants, including habitat loss, poaching, and human-elephant conflict.



- It is a rallying call for people to support organizations that are working to stop the illegal poaching and trade of elephant ivory and other wildlife products, protect wild elephant habitats, and provide sanctuaries and alternative habitats for domestic elephants to live freely.
- The day provides a platform for organizations, governments, and individuals to come together, share knowledge, and engage in initiatives aimed at protecting elephants and their habitats.
- World Elephant Day 2023 theme – “Ending the Illegal Wildlife Trade”.
- Read more on Asian Elephants in the linked article.

### **National Automated Fingerprint Identification System (NAFIS)**

National Automated Fingerprint Identification System (NAFIS) wins the gold award under the Excellence in Government Process Reengineering for Digital Transformation Category-1 of the Department of Administrative Reforms and Public Grievances (DARPG).

About NAFIS:

- NAFIS is a database and matching system for fingerprints and palm prints that aids in automating fingerprint matching and assisting with criminal investigations.
- It is a centralized database of fingerprints developed by the National Crime Records Bureau (NCRB).
- Every person who has been arrested has a unique identity that matches the Crime and Criminal Tracking Network & Systems database (CCTN). As





they are linked at the backend, it will give every person arrested in the CCTNS the essential unique identifier.

- The NAFIS enables law enforcement to upload and look for fingerprint data at an arrest point or from evidence collected at a crime scene in almost “real-time”
- As a result, it is possible to locate a person of interest in a matter of minutes and connect that individual’s name to any active warrants, warnings, or information about related criminal conduct stored in other police information reference systems.
- With its extensive reach, it has transformed policing and investigation, connecting police stations to even the most remote regions.
- Madhya Pradesh became the first state in the nation to use NAFIS to identify a deceased individual.
- NAFIS was launched in 2022.

### **National Apprenticeship Promotion Scheme (NAPS)**

The Union Minister launched Direct Benefit Transfer (DBT) in the National Apprenticeship Promotion Scheme (NAPS).

- The move aims at bolstering the participation of both industries and young individuals in apprenticeship training on a nationwide scale.
- An amount of approximately Rs 15 crores was disbursed to one lakh apprentices by the Minister at the occasion.