

## ● POLITY

## ● ECONOMICS

## ● TECHNOLOGY

## ● ECOLOGY

## ECOLOGY AND ENVIRONMENT

## MITIGATING TRAGEDIES IN THE HIMALAYAN REGION

**CONTEXT:** Sikkim's glacial lake outburst flood (GLOF) highlights climate change risks; study shows 90 million people live near glacial lakes.

**BACKGROUND:** A Nature study revealed that 90 million people in 30 countries inhabit areas with glacial lakes, with one-sixth living near potential GLOF (glacial lake outburst flood) zones. Mountain hazards like landslides, GLOFs, and flash floods often cascade, making prediction complex. The challenge lies in establishing risk mitigation systems and early warnings for such events.

## HIGHLIGHTS

## Early Warning Systems

- Recent Sikkim Tragedy: An unfolding tragedy occurred at the South Lhonak glacial lake in Sikkim, possibly triggered by a rock/moraine collapse.
- Monitoring Challenges: Monitoring and mitigating glacial lake outburst floods (GLOFs) in the Himalayas are challenging due to difficult terrain.

- Vulnerability in the Himalayas: The Himalayan region is vulnerable to various natural and human-induced hazards, requiring robust monitoring and mitigation strategies.
- Glacial Lake Atlas: The National Remote Sensing Centre's Glacial Lake Atlas of 2023 highlights the presence of thousands of glacial lakes, with a significant number in India.
- Need for Resilience: Hill communities in the region face high risks from various hazards, emphasizing the need to incorporate disaster and climate resilience into policies and practices.

Collaborative efforts among institutions are crucial for mitigating glacial lake outburst flood (GLOF) risks. Initiatives include high-resolution data from NRSC, hydro-dynamic assessments by the Central Water Commission, and national guidelines by NDMA. A comprehensive GLOF risk mitigation plan is nearing approval, emphasizing the need for integrated resources, prevention, and mitigation to enhance stability in hill communities' lives.

## INTERNAL SECURITY

## CENTRE TO INTRODUCE DNA, FACE MATCHING SYSTEMS AT POLICE STATIONS ACROSS COUNTRY

**CONTEXT:** The Centre is all set to roll out "DNA and face-matching" systems at 1,300 locations spread across police districts, Commissionerate's, and special investigation units at State headquarters.

The Criminal Procedure Identification Act, 2023 was passed by Parliament in April 2022 and the rules were notified in September, 2022. The Act replaced the 100-year-old Identification of Prisoners Act, 1920 whose scope was limited to capturing finger impressions, footprints, and photographs of convicted prisoners and a specific category of arrested and non-convicted persons under the orders of a Magistrate.

The Criminal Procedure Identification Act, 2023 enables the police and the Central investigating agencies to collect, store, and analyse physical and biological samples, including retina and iris scans of arrested persons. The Act and rules do not explicitly mention the collection of DNA samples and face-matching procedure.

The Union Home Ministry has constituted a Domain Committee for the successful implementation of the Act with representatives from the State Police, Central law enforcement agencies, and other key stakeholders. A technical

sub-committee for preparing the SOPs for capturing DNA as a measurement has also been constituted.

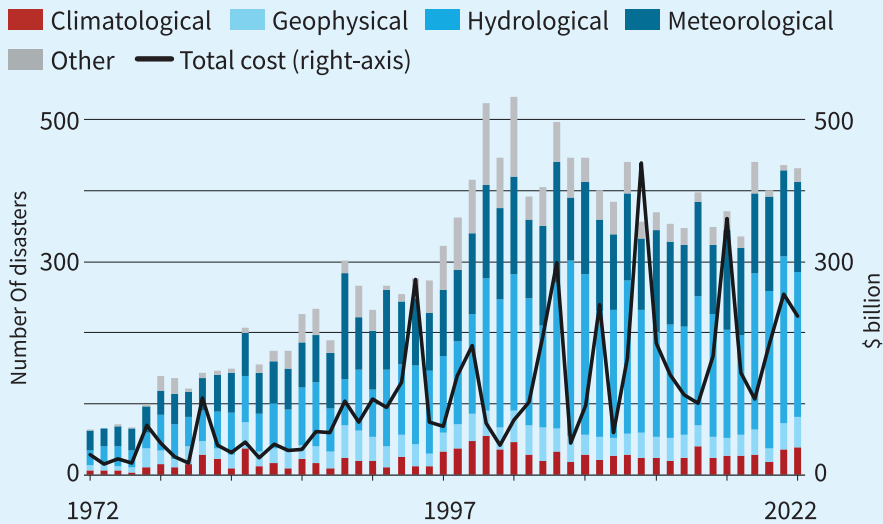
The National Crime Records Bureau (NCRB), a Central organisation tasked with rolling out the Act was assigned the task of finalising the standard operating procedures (SOP) to be followed by police officials. The States have been asked to identify the locations and prepare the sites where the measurement collection unit (MCU) may be established as suggested by the NCRB. The Central body under the Home Ministry will be the repository of the database at the national level.

Delhi Police were recording measurements such as thumb and finger impressions and photographs of accused persons according to the old format and using the National Automated Fingerprint Identification System (NAFIS). Under the NAFIS, another project maintained and managed by NCRB, workstations and scanners have been put up at around 1,300 police stations. It has fingerprint details, a unique 10-digit number of more than one crore people, accused and convicts, across the country. This database is also being integrated with the Criminal Procedure Identification Act.

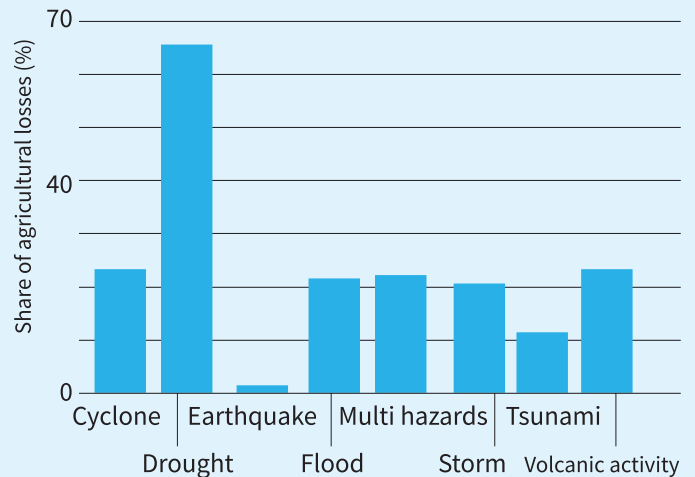
DISASTER MANAGEMENT

# LOSSES FROM EXTREME EVENTS OVER 31 YEARS WERE \$3.8 TRILLION

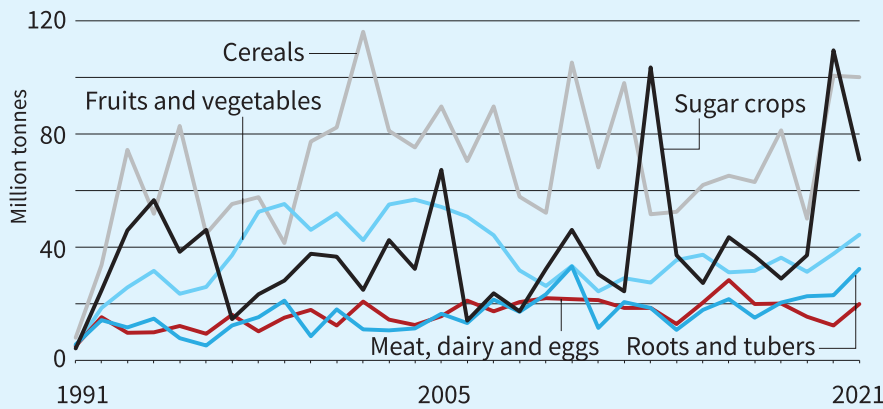
**Chart 1:** The chart shows the number of disasters by EM-DAT<sup>^</sup> grouping and total economic losses in \$ billion



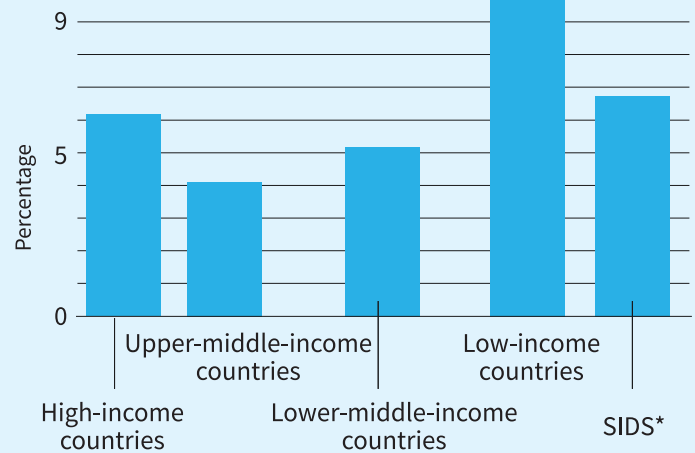
**Chart 2:** The chart shows the share of loss in agriculture by hazard type. About 65% of losses were caused by droughts



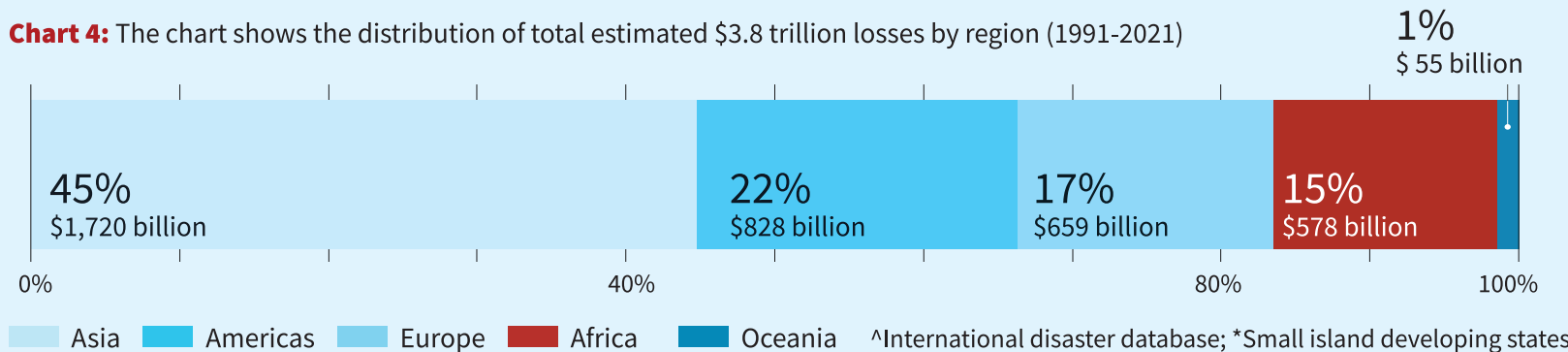
**Chart 3:** The chart shows the estimated loss in various product groups (in million tonnes) between 1991 and 2021



**Chart 5:** The chart shows total agricultural losses as a share of agricultural GDP by country groups (1991-2021)



**Chart 4:** The chart shows the distribution of total estimated \$3.8 trillion losses by region (1991-2021)



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## SCIENCE AND TECHNOLOGY

## FOOD LABELS TO HAVE QR CODE TO HELP THE VISUALLY DISABLED

**CONTEXT:** FSSAI suggests QR codes on food for visually impaired, promoting accessibility and safe consumption.

**BACKGROUND:** FSSAI issued an advisory emphasizing the fundamental right of inclusive access to information for citizens. It stressed the need for food product labels to be designed for accessibility, ensuring that even visually impaired consumers can access the information.

### HIGHLIGHTS

- **FSSAI Regulations:** The Food Safety and Standards (Labelling and Display) Regulations, 2020 detail information to be included on food labels.
- **Empowering Consumers:** These regulations aim to empower consumers by providing essential details like product name, nutrition facts, and allergen warnings.
- **Rights of Persons with Disabilities:** The Rights of Persons with Disabilities Act, 2016 promotes accessibility and health for individuals with disabilities.
- **QR Codes for Accessibility:** Food business operators are encouraged to use QR codes on labels to provide comprehensive product information, particularly benefiting visually impaired individuals.



- **Complementary to Mandatory Labelling:** The use of QR codes doesn't replace the mandatory information on product labels but complements it for enhanced accessibility.

## POLITY AND GOVERNANCE

## I&B MINISTRY CANCELS REGISTRATION OF 477 CABLE TV PERATORS

**CONTEXT:** The Information and Broadcasting Ministry has terminated the registration of 477 multi-system operators (MSO), which run multiple cable television systems, for violations and non-compliance of rules.

The terms and conditions of the MSO registration was that they had to comply with the provisions of the Cable Television Networks (Regulation) Act. The permission granted is liable to be cancelled or suspended for non-compliance.

Multi-System Operators (MSOs) were also required to submit a list of their subscribers and other details as per the periodical requests made by the Ministry. According to Regulation 15(1) of the Interconnection Regulations, 2017, it is mandatory for every distributor of channels to conduct an audit of their system once in a calendar year.

The Ministry marked the status of the MSOs under scrutiny that had not conducted audits of their systems as per the information shared by the Telecom Regulatory Authority of India (TRAI) for 2021 and/or 2022 as “non-compliant”. Despite being classified as “non-compliant”, the MSOs did not make any references to the Ministry for alternation of their status to “compliant”. Subsequently, show-cause notices dated July 25 were issued to them seeking an explanation for the contraventions mentioned therein.

However, the MSOs did not provide the details within the stipulated period. A last opportunity, vide letters dated September 20, was given to them, extending the deadline to October 10. As they did not respond or provide the details, their registrations were cancelled.

*“Intelligence plus character-that is the goal of true education. — Martin Luther King Jr.*





## ECONOMICS AND DEVELOPMENT

## WORLD BANK'S BANGA SAYS GEOPOLITICS POSE BIGGEST, BUT NOT ONLY, RISK TO WORLD ECONOMY

**CONTEXT:** World Bank President Ajay Banga remarked that the geopolitical tensions heightened by the Middle East conflict pose the biggest threat to the world economy right now but other risks are also at play.

The U.S. 10-year Treasury (yield) just crossed 5% briefly. Mr. Banga noted that a rise in the benchmark for borrowing costs around the world, which further threaten an economic slowdown.

The private sector investment was needed in developing economies but added that political risks in some of these countries remained a barrier. One trillion of dollars is needed just for renewable energy in the emerging markets. There is not enough money in government coffers or even in the multilateral development banks, we need to involve the private sector with their capital.



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#### INTERNATIONAL RELATIONS

## BHUTAN AND CHINA BOUNDARY TALKS

#### 25th Round of Talks

Bhutan and China recently held their 25th round of boundary talks. These negotiations had been on hold since 2016. During this time, Bhutan's Foreign Minister, Tandi Dorji, visited China and met with his Chinese counterpart, Wang Yi, in Beijing. Both sides expressed their eagerness to reach an agreement on demarcating the boundaries soon.

#### First Official Visit to China

This visit by the Bhutanese Foreign Minister marked the first official visit to China. It signified substantial progress made by expert groups from both countries in the long-standing boundary discussions.

#### Cooperation Agreement

The boundary talks were led by Dr. Dorji and Sun Weidong, Vice Foreign Minister of China. They signed a "Cooperation Agreement" outlining the functioning of a Joint Technical Team (JTT) responsible for the "Delimitation and Demarcation of the Bhutan-China Boundary."

#### China's Desire for Diplomatic Relations

China expressed its desire to establish diplomatic relations with Bhutan, a step that Bhutan had previously held off on, mainly because it does not have relation with any UN Security Council Permanent Member countries. Both sides believe that concluding boundary negotiations and establishing diplomatic relations would be in the long-term interests of Bhutan.

#### Bhutan's Stance on Diplomatic Relations

While Bhutan's Prime Minister, Dr. Lotay Tshering, mentioned progress towards boundary delineation, the establishment of diplomatic ties with China remains a matter of "when" and "how." Bhutan is open to establishing bilateral relations, but the specifics are still under consideration.

#### Joint Efforts Towards Boundary Resolution

Both countries have conducted numerous rounds of talks and expert group meetings, gradually moving towards a three-step road map for boundary delineation. This roadmap involves negotiations, on-site visits to demarcate the border, and formal boundary demarcation.

#### India's Interest

India closely follows these talks due to security concerns, especially around the Doklam trijunction. While India has not commented on the Bhutan Foreign Minister's visit to China, both Bhutanese officials reiterated that any agreement would not compromise India's interests, and talks about the Doklam trijunction would be trilateral with India's involvement.



#### Concerns About Boundary Changes

Experts in India express concern about potential boundary changes, particularly if it involves a "swap arrangement" near the Siliguri Corridor, which connects India's northeastern states with the rest of the country. Tensions between India and China have been high in recent years due to border issues.



**Ongoing Diplomatic Relations**

China and Bhutan do not have diplomatic relations, but they maintain periodic contact through official visits. China has sought to establish full-fledged diplomatic ties with Bhutan and resolve the border dispute, which has been complicated by territorial claims in the Doklam region.

**China's Approach**

China prioritizes neighborhood diplomacy, respects the sovereignty and territorial integrity of all countries, and values equal relations, especially with smaller nations. Bhutan supports several global initiatives proposed by China, indicating a positive outlook on cooperation.

**Support for Global Initiatives**

China is pushing for support for its global initiatives, similar to the Belt and Road Initiative (BRI). While some countries have reservations about specific initiatives, Bhutan's stance is supportive, highlighting the broader regional dynamics at play.



*“Education is the ability to listen to almost anything without losing your temper or your self-confidence.” - Robert Frost*

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