

NEWS TODAY

WORLD METEOROLOGICAL ORGANISATION (WMO) RELEASES 'GLOBAL SEA-LEVEL RISE (SLR) AND IMPLICATIONS KEY FACTS AND FIGURES' REPORT

- Report highlighted **how global sea-level changes** induced by climate change and **melting of major ice masses** will impact **small island dwelling states**, and **densely populated low-lying urban areas**.

Key findings


- **India, China, Bangladesh and Netherlands** face highest threat of SLR globally.
- **Global mean sea level increased** by 0.20 metres from 1901 to 2018.
- Almost 11% of global population (896 million people) lived within Low Elevation Coastal Zone in 2020, potentially **increasing to beyond 1 billion people by 2050**.

Factors for SLR from 1971-2018

- **Thermal Expansion** (Warming of water causes volume of water to increase) responsible for **50% SLR**.
- **Ice loss from glaciers** lead to **22% SLR**.
- **Loss of ice sheets contributes to 20% SLR**. Rate of ice-sheet loss **increased by a factor of four** between 1992-1999 and 2010-2019.
- **Changes in land-water storage** contributed to 8% SLR.

- **Impact of sea level rise:** Aquifer and agricultural soil contamination with salt; **coastal flooding led to habitat loss** for aquatic species; threatens coastal infrastructures, human lives/livelihoods etc.

- **Initiatives taken to control SLR:** National Strategy for Integrated Coastal Zone Management; Coastal Regulation Zone notification, 2019; **best practice** like Giant Sea Wall of Indonesia, sponge cities by China etc.



WORLD METEOROLOGICAL ORGANIZATION

World Meteorological Organization (WMO)

Geneva, Switzerland

Genesis: An intergovernmental organization established by the ratification of the WMO Convention in 1950.

- Originates from the International Meteorological Organization (IMO), which dates back to 1873.

Objective: Dedicated to international cooperation and coordination on the state and behaviour of the Earth's atmosphere, its interaction with the land and oceans, the weather and climate it produces, and the resulting distribution of water resources.

Membership: 193 Member States and Territories.

Other key information:

- Its supreme body is the World Meteorological Congress.
- It is a specialized agency of the United Nations (UN).

INFOCROP SIMULATION MODEL TO FORECAST HEATWAVE IMPACT ON FARM YIELD IN REAL TIME

- Indian Agricultural Research Institute (IARI) conducted a first-of-its-kind experiment to **quantify the impact of hot weather on crop yield** in Punjab and Haryana by **using InfoCrop Version 2.1**.

- InfoCrop version 2.1 is **India's only dynamic crop simulation model**, developed by IARI in 2015, that **study the long-term impact of climate change and crop management practices on yield**.

- It has **life cycle data for almost all local varieties of 11 crops:** paddy, wheat, maize, sorghum, pearl millet, pigeon pea, chickpea, soybean, groundnut, potato and cotton.

- In InfoCrop, **Parameters (updated at regular intervals) deal with aspects of**

- **Weather** (precipitation, temperature etc.); **Crop growth** (grain characteristics, leaf growth etc.); **Soil** (water holding characteristics, pH levels etc.); and **Pests and crop management** (organic matter, fertiliser and irrigation).

- **Impact of Heatwave/Global warming on Agriculture**

- **Food insecurity** by increasing food prices, and reducing food production.
- **High temperature reduces crops yield** and encourages weed and pest proliferation.
- **More frequent extreme weather events** led to crop failures and decline production.
- **Reduction in nutritional quality** of major cereals.

SIGNIFICANCE OF CROP SIMULATION MODEL

- Provide sound basis for **regional policy planning**.
- **Developing informative adaptive strategies** for climate related risk management.
- Can **drive efficiency in agricultural production systems**.
- **Assessment of crop loss in aftermath of an extreme weather event** to provide relief packages.

MINISTRY OF HOME AFFAIRS (MHA) SHARED DETAILS OF CUSTODIAL DEATHS IN LAST FIVE YEARS (2018-2022)

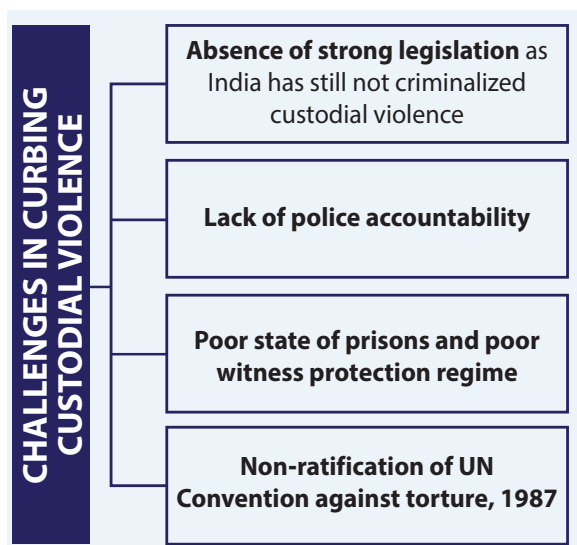
• Key highlights

- **Highest number of custodial deaths reported in Gujarat** followed by Maharashtra and Uttar Pradesh.
- Among UTs, **highest incidents were reported from Delhi** followed by Jammu and Kashmir.
- Custodial violence primarily **refers to violence in police custody and judicial custody**. Besides death, **rape and torture are two other forms** of custodial violence.
 - However, the term **custodial violence has not been defined under any law**.
- **Causes for Custodial Deaths:** Traditional habit of **using force by police**, **Prison overcrowding** leads to **violence between prisoners or suicide**, **deficiencies in basic services** like medical facilities, food etc.
- **Constitutional safeguards include:**
 - **Article 20** (Right to protection against conviction of offenses),
 - **Article 21** (Right to life and liberty)
 - **Article 22** (Right to protection against arrest and detention in certain circumstance).
- **Statutory safeguards include**
 - Sections 330 & 331 of **Indian Penal Code**.
 - Sections 25 & 26 of **Indian Evidence Act**.
 - Section 29 of **Police Act, 1861** that were enacted to curb tendency of policemen to resort to torture to extract confessions etc.

MIZORAM ASSEMBLY ADOPTED RESOLUTION OPPOSING ENACTMENT OF UNIFORM CIVIL CODE (UCC)

- Mizoram has a special provision to **protect its social or religious practices, customary laws and procedures** under **Article 371 G** of constitution.
 - **Article 371(G)** states that **Parliament cannot decide on matters of religious and social practices of Mizos**, civil and criminal law of land, land ownership transfer, and customary law procedure **without the consent of Assembly**.
- UCC refers to the **proposal to replace personal laws that are based on religious practices** of each major religious community in country with a common set of laws that would apply to all citizens.
 - It comes **under Article 44** which says that **state shall endeavour to secure a UCC for citizens** throughout territory of India.

Arguments in favour of UCC	Arguments against UCC
<ul style="list-style-type: none"> • Strengthen gender justice as religious or customary personal laws are biased in favour of men. • Address inconsistency in laws regarding marriage, succession, etc. for people belonging to different communities. • To make judicial pronouncements enforceable (Mohd. Ahmed Khan v. Shah Bano Begum, 1985 etc.). 	<ul style="list-style-type: none"> • Law commission stated that UCC is neither necessary nor desirable. • Erode minorities' right and right to freedom of religion (Article 25 of Constitution). • Threat of homogenization as it may hamper India's cultural diversity.



MORE ELECTRIC BUS ORDERS UNDER FASTER ADOPTION AND MANUFACTURING OF (HYBRID &) ELECTRIC VEHICLES-II (FAME-II)

- Ministry of Heavy Industries (MHI) is pushing **state governments to place more orders for electric buses (e-buses) to meet the target of 7,090** under FAME-II scheme.
 - Currently, deployment of e-buses by states under the plan completed **31 percent (2,232) of target**.
- **MHI has launched FAME scheme** in 2015 under **National Electric Mobility Mission Plan (NEMMP)** to encourage electric and hybrid vehicle purchase by providing financial support.
 - **FAME Phase I**, functional till 2019, had **four focus areas** i.e., technological development, demand generation, pilot project and charging infrastructure components.
- **FAME-II** was launched in 2019 with an outlay of Rs 10,000 crore **for three-year period** but was **extended till March 2024**.
 - **Generate demand by way of supporting 7000 e-bus**, 5 lakh e-3 wheelers, 55000 e-4 wheelers and 10 lakh e-2 wheelers.
 - **Implemented through three components** i.e., Demand Incentives, Establishment of network of Charging Stations, and Administration of Scheme including Publicity, IEC (Information, Education & Communication) activities.
- NEMMP 2020, unveiled in 2013, is a National Mission document providing the **vision and roadmap for faster adoption of electric vehicles** and their manufacturing in country.





GLOBAL SUGAR PRICES SURGED TO NEAR 6-YEAR HIGH

- Surge in global sugar prices is due to
 - **Fear of lower production in few countries** including India.
 - Likelihood of **Indian government not allowing exports of more than six million tonnes (mt)** for current season (October 2022- September 2023).
- **Factors for lower sugar production:**
 - **Excess rain affected sugarcane crops** in Maharashtra and Karnataka.
 - **Brazil faces logistics issues** in transporting cane crops.
 - **Ruling in European Union against neonics-coated sugar beet seeds** (neonics coating prevents insects from damaging crops) could result in lower yield.
 - **Drought in Chinese province** of Guangxi.
- Sugar is an **important agro-based industry** that impacts rural livelihood of 50 million sugarcane farmers and around 5 lakh workers directly employed in sugar mills.
 - **India has emerged as world's largest producer and consumer of sugar as well as world's 2nd largest exporter of sugar** in 2021-2022.
 - **Maharashtra is largest producer of sugar** followed by Uttar Pradesh in 2021-2022.
- **Issues in sugar sector:** High production cost due to low yield, Low sugar recuperation rate, Short crushing season etc.

INITIATIVES TAKEN TO PROMOTE SUGAR SECTOR

- **Fair and Remunerative Price of sugarcane** from 2009-10 onwards.
- **Extended soft loans to sugar mills** through banks to clear cane price dues.
- **Cane Reservation Area** (purchase of sugarcane by sugar mills from farmers within a specified radius).

ALSO IN NEWS

 <p>Deputy Speaker</p>	<ul style="list-style-type: none"> • Supreme Court issued notices to Centre and five states (Rajasthan, Uttarakhand, Madhya Pradesh, Uttar Pradesh, and Jharkhand) over the failure to elect Deputy Speaker. • Constitutional provisions related to Deputy speaker <ul style="list-style-type: none"> ➤ Article 93: Lok Sabha shall choose two members of House to be respectively Speaker and Deputy Speaker. <ul style="list-style-type: none"> ▪ As office of Speaker or Deputy Speaker becomes vacant, House shall choose another member. ➤ Article 95: While office of Speaker is vacant, duties of the office shall be performed by Deputy Speaker or, if office of Deputy Speaker is also vacant, by such member of Lok Sabha as President may appoint for purpose. ➤ Article 178: Corresponding position for Speaker and Deputy Speaker of Legislative Assembly of a state. ➤ Term of Office: 5 years.
 <p>President's Colour Award</p>	<ul style="list-style-type: none"> • Ministry of Home Affairs presented 'President's Colour' to Haryana Police in Karnal, Haryana. • President's Colour Award is a unique honour conferred by President on armed forces that have rendered exceptional service to country. <ul style="list-style-type: none"> ➤ Indian Navy was the first Indian Armed Force, to be awarded the President Colour in 1951. ➤ It is given to police after a review of 25 years of continuous service and service with valour and dedication.
 <p>Transfer Pricing</p>	<ul style="list-style-type: none"> • Income-Tax department carried out surveys at British Broadcasting Corporation (BBC) on allegation of non-compliance with transfer pricing rules. • Transfer pricing refers to prices of transactions or transfer of goods, services and technology between related enterprises or between unrelated parties but controlled by a common entity. • Companies use transfer pricing to reduce the overall tax burden of parent company. <ul style="list-style-type: none"> ➤ Effect of transfer pricing is that parent company tends to produce insufficient taxable income or excessive loss on a transaction.
 <p>Krishi UDAN scheme</p>	<ul style="list-style-type: none"> • Centre is planning to include 21 more airports under Krishi Udan scheme. • Ministry of Civil Aviation launched Krishi UDAN scheme in 2020 on international and national routes. <ul style="list-style-type: none"> ➤ It aims to ensure seamless, cost-effective, time bound, air transportation and associated logistics for all Agri-produce originating especially from North-East, hilly and tribal regions of country. • Krishi UDAN 2.0 launched in 2021 to increase share of air carriage in modal mix for transportation of Agri-produce which includes horticulture, fishery, livestock and processed products.



Electronic Maintenance Management System (e-MMS) and SAMAR portal

- At Aero India 2023, Ministry of Defense has launched the Indian Air Force **e-MMS and SAMAR (System for Advance Manufacturing Assessment & Rating) portal**.
- E-MMS is one of the largest and technologically complex **digital Enterprise Asset Management solutions** implemented in world.
 - It is software that helps an organization **track the status of maintenance tasks**, and schedule equipment repairs.
- SAMAR is a **portal of DRDO's Aeronautical Research and Development Board (AR&DB)** and is an **outcome of DRDO and Quality Council of India (QCI)**.
 - It is the **benchmark** to measure the **competency of defence manufacturing enterprises**.



Vinyl Chloride

- Crash of a train carrying toxic chemicals including Vinyl Chloride in Ohio, US has sparked health and environmental concerns.
- Vinyl chloride** is a **carcinogenic gas** mostly used to **make Polyvinyl Chloride (PVC)**. It is associated with increased risk of liver cancer and oral cancers.
- Burning Vinyl Chloride releases **phosgene and hydrogen chloride (HCl)** into the air.
 - Phosgene** is a **highly toxic, colourless gas** with a strong odour that can cause vomiting and breathing troubles. It was **used as a chemical weapon** in World War I.
 - HCl is a gas with strong odour and **causes skin, eye, nose and throat irritation**.



Marburg Virus Disease (MVD)

- Equatorial Guinea has confirmed its first-ever outbreak of MVD.
- Marburg virus is **part of filovirus family that also includes Ebola virus**. Though caused by different viruses, two diseases are clinically similar.
 - MVD is **not an airborne disease**.
 - MVD can spread through **human-to-human transmission**.
 - There are no **authorized vaccines or drugs** to treat Marburg, but **rehydration treatment** to alleviate symptoms can improve the chances of survival.
 - MVD was initially detected in **1967 in Marburg and Frankfurt (Germany); and in Belgrade (Serbia)**.



Monkey pox (mpox)

- World Health Organisation (WHO) stated that global mpox cases crossed 85,000 and 93 people died in 2023.
- It is a **zoonotic viral disease with symptoms similar to smallpox**, but is less contagious.
 - Spreads via close contact and tends to cause flu-like symptoms** and pus-filled skin lesion.
 - First diagnosed in humans in 1970 in Democratic Republic of Congo in Africa.
 - It has been spreading in men who have sex with men.
 - JYNNEOS (Imvamune or Imvanex) vaccine developed to protect against mpox and smallpox infections.



Places in news

New Zealand (Capital: Wellington)

- New Zealand has declared an emergency as cyclone Gabrielle causes widespread flooding and landslides.
- Political & Boundaries**
 - Island country in South Pacific Ocean**, south-westernmost part of Polynesia.
 - It is a **remote land** and lies more than 1,600 km **southeast of Australia, its nearest neighbour**.
 - Its two main islands, North and South Islands, are **separated by Cook Strait**.
- Geographical features**
 - Part of **Ring of Fire -the circum-Pacific seismic belt** marked by frequent earthquakes and volcanic activity.
 - Longest River:** Waikato.
 - Highest mountain peak:** Mount Cook.

