



Report on Climate and Catastrophe Insight

For Prelims: 2024 Climate and Catastrophe Insight, [Natural Disasters](#), [early warning systems](#), [Sendai Framework for Disaster Risk Reduction 2015-2030](#).

For Mains: 2024 Climate and Catastrophe Insight, Strategies for Disaster Risk Reduction.

[Source: DTE](#)

Why in News?

Recently, the **2024 Climate and Catastrophe Insight** report has been published by a risk-mitigation service provider Aon PLC, which highlighted that the year 2023 recorded significant damages due to [Natural Disasters](#).

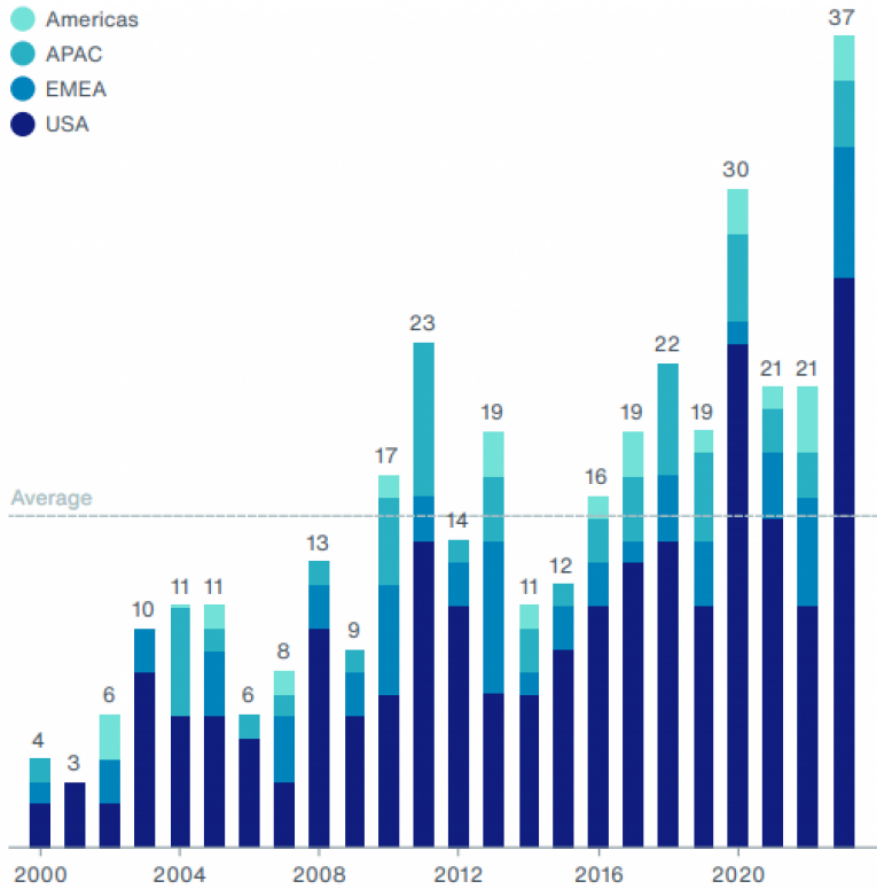
- Aon plc is a leading provider of advice and solutions for commercial, reinsurance, retirement, health, and data & analytic services in over 120 countries and sovereignties.
- Their mission is to shape decisions for the better, protecting and enriching the lives of people around the world.

What are the Key Highlights of the Report?

- **Increased Damages and Record-Breaking Events:**
 - In 2023, the world witnessed **398 notable natural disasters**, resulting in a staggering USD 380 billion in economic losses.
 - These losses surpassed the **estimated economic loss in 2022** and marked the hottest year on record, underscoring the urgent need for better disaster preparedness, risk reduction, and increased resilience.
- **Weather-Related Factors and Vulnerabilities:**
 - 95% of the natural disasters (that occurred in 2023) causing damages exceeding USD 1 billion were attributed to **Weather-related factors**.
 - From extreme heat to severe storms and earthquakes, these events highlight the threat **posed by catastrophe risk** to our lives and livelihoods.

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Number of Events Above \$1B



▪ **Protection Gap and Insurance Coverage:**

- Insurance only paid out USD 118 billion, or 31%, of the total damages incurred indicating a significant “**protection gap**” of approximately 69% as opposed to 58% in 2022.
- The majority of disaster losses were covered in the US, whereas most of the losses in three other regions — **Americas (Non-US), Europe, Middle East and Africa (EMEA) and Asia and Pacific (APAC)** — were uninsured.
 - The widest protection gap of around 91% existed in the APAC region, followed by 87% for non-US Americas and the EMEA.

▪ **Global and Regional Insights:**

- **US:** Economic losses from natural disasters reached USD 114 billion, with insurance covering 70%. **Severe convective storms (SCS)** contributed significantly to the financial toll.
 - **Convective storms or thunderstorms** are severe local storms associated with thunder, lightning, heavy rain, hail, strong winds and sudden temperature changes. They can occur all year round but are **most common during summer**.
- **Americas (Non-US):** Insurance covered only USD 6 billion of the USD 45 billion in economic losses.
 - **Hurricane Otis occurred in Mexico's southern Pacific coast**, stood out as the costliest individual event.
 - Drought impacted **several regions in South America**.
- **Europe, Middle East, and Africa (EMEA):** The region faced USD 150 billion in economic losses due to natural catastrophes, driven by devastating earthquakes.
 - The **Turkey and Syria earthquake** had a significant impact.
- **Asia and Pacific:**
 - Economic losses hit USD 65 billion with a protection gap of 91% as insurance losses reached USD 6 billion.
 - Flooding events resulted in USD 1.4 billion of insured losses in China and USD 1.3 billion in New Zealand. A multi-week-long heatwave impacted many countries in South and Southeastern Asia.

▪ **Recommendations:**

- There is a need to use climate analytics as catalysts that can provide **forward-looking diagnostics** for a range of extreme events.
- There is a need for the organisations – from **insurers to highly impacted sectors** such as construction, agriculture and real estate — to utilise forward-looking diagnostics to help **analyse climate trends and mitigate the risk**, as well as protecting their own workforces.
- The insurance industry can play a pivotal role in **unlocking and speeding up the flow of capital into green investments** and volatility management through innovative risk transfer programmes.

What is the Significance of Disaster Preparedness, Risk Management, and Resilience-Building?

- **Disaster Preparedness:** It refers to proactive measures **taken before a disaster occurs** to enhance readiness and response.
 - **Early Warning Systems:** Preparedness involves setting up **efficient early warning systems**. These systems provide timely alerts about impending disasters (e.g., cyclones, floods, earthquakes), allowing people to evacuate and take necessary precautions.
 - **Training and Drills:** Regular training sessions and mock drills prepare emergency responders, healthcare professionals, and the public to **handle crises effectively**.
 - **Stockpiling Supplies:** Preparedness includes **stockpiling essential supplies** (food, water, medicines) to meet immediate needs during disasters.
 - **Community Awareness:** Educating communities about disaster risks and preparedness measures fosters a culture of safety and resilience.
- **Risk Management:** It involves identifying, assessing, and mitigating risks associated with disasters.
 - **Risk Assessment:** By analysing vulnerabilities, exposure, and potential impacts, risk management helps prioritise actions.
 - **Risk Reduction Strategies:** Implementing structural (e.g., building codes) and non-structural (e.g., land-use planning) measures reduces vulnerability.
 - **Financial Protection:** Insurance and risk financing mechanisms provide financial resilience against losses.
 - **Climate Adaptation:** Risk management integrates climate change adaptation strategies to address evolving risks.
- **Resilience-Building:** Resilience refers to a community's ability to bounce back after a disaster.
 - **Social and Psychological Resilience:** Strengthening social networks, community cohesion, and mutual support enhances resilience. Mental health support and coping mechanisms help individuals recover from trauma.
 - **Economic and Infrastructural Resilience:** Diversifying livelihoods, promoting local businesses, and creating employment opportunities contribute to economic resilience. Building robust infrastructure (roads, bridges, utilities) that can withstand shocks is vital.
 - **Environmental Resilience:** Conserving ecosystems (forests, wetlands) contributes to overall resilience.

What is the Role of Insurance Coverage in Mitigating Economic Losses?

- **Safety Net in Difficult Times:**
 - High **Inflation** and economic volatility can lead to **unexpected financial losses** and during such periods, insurance acts as a safety net.
 - For instance, repairing or rebuilding damaged property is now more expensive due to increased costs of building materials and services. Labour shortages and disrupted supply chains can further delay repairs.
 - Insurance coverage ensures **that individuals and businesses are financially protected** against such losses. Without coverage (or with inadequate coverage), the financial burden can be devastating.
- **Increased Risk Awareness:**
 - Financial shocks prompt consumers to **become more cautious and aware of risks**.

- Insurance companies can capitalise on this by emphasising their value in managing inflation risk and providing financial security.
- By offering timely payouts, **insurers help businesses and individuals recover faster**, allowing economic activities to resume after catastrophes.
- **Economic Development and Stability:**
 - Insurance turns accumulated capital into productive investments. It enables businesses to mitigate losses, maintain financial stability, and promote trade and commerce activities.
 - A robust insurance sector contributes to sustainable economic growth.
- **Disaster Mitigation and Risk Reduction:**
 - Insurance companies increasingly contribute to disaster mitigation by encouraging policyholders to invest in risk reduction measures. By incentivizing long-term thinking, insurers play a role in reducing overall risks.
 - For example, [PMFBY \(Pradhan Mantri Fasal Bima Yojana\)](#) offers financial protection to farmers against crop losses due to **natural calamities such as droughts**, floods, cyclones, pests, and diseases.
 - By providing timely compensation for crop damages, PMFBY helps farmers recover from losses and reduces their vulnerability to economic shocks triggered by disasters.

What are the Initiatives for Disaster Risk Reduction?

- **Global:**
 - [Sendai Framework for Disaster Risk Reduction 2015-2030](#)
 - [The Climate Risk and Early Warning Systems \(CREWS\)](#)
 - [International Day for Disaster Risk Reduction - 13th October](#)
 - Green Climate Fund's Sectoral Guide on Climate Information & Early Warning Systems
- **India's Initiatives:**
 - [Coalition for Disaster Resilient Infrastructure Society \(CDRIS\)](#)
 - [National Disaster Management Plan \(NDMP\)](#)

Conclusion

- Investing in disaster preparedness, risk management, and resilience-building is not only a matter of protecting lives and livelihoods in the short term but also crucial for ensuring the long-term sustainability and prosperity of communities in an increasingly uncertain world.

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims:

Q. In which one of the following groups are all the four countries members of G20? (2020)

- (a) Argentina, Mexico, South Africa and Turkey
- (b) Australia, Canada, Malaysia and New Zealand
- (c) Brazil, Iran, Saudi Arabia and Vietnam
- (d) Indonesia, Japan, Singapore and South Korea

Ans: (a)

Mains:

Q. Discuss the recent measures initiated in disaster management by the Government of India departing from the earlier reactive approach. (2020)

Q. Vulnerability is an essential element for defining disaster impacts and its threat to people. How and in what ways can vulnerability to disasters be characterised? Discuss different types of vulnerability with reference to disasters. **(2019)**

Q. Describe various measures taken in India for Disaster Risk Reduction (DRR) before and after signing 'Sendai Framework for DRR (2015-30)'. How is this framework different from 'Hyogo Framework for Action, 2005'? **(2018)**

Ladakh's Statehood Demand

For Prelims: [Union Territory of Ladakh](#), [Sixth Schedule](#), [Article 370](#), Article 3, Conditions under Article 3, Article 244(2), Autonomous Districts.

For Mains: Primary Demands Related to Ladakh, Imperatives Behind Ladakh's Current Union Territory Status, Objectives of Sixth Schedule.

Source: [IE](#)

Why in News?

Recently, the [Union Territory of Ladakh](#) observed a shutdown over demands for statehood and constitutional protection under the [Sixth Schedule](#).

What are the Primary Demands Related to Ladakh?

- **Background:** Ladakh, once a part of the erstwhile **state of Jammu and Kashmir**, became a Union Territory following the abrogation of [Article 370](#) and the bifurcation of the state into two separate Union Territories in **August 2019**.
 - Since then, the region has grappled with its newfound administrative status and has been **advocating for greater autonomy** and protection of its cultural and demographic identity.
- **Primary Demands:** The two socio-political organisations spearheading the movement are seeking protections for the UT previously enshrined under Article 370 and 35A. Their primary demands include:
 - **Statehood for Ladakh:** Seeking to elevate Ladakh from its current Union Territory status to a full-fledged state, granting it greater political autonomy and decision-making powers.
 - **Safeguards under the 6th Schedule:** Advocating for Constitutional provisions under the 6th Schedule to protect the **cultural, linguistic, and land rights** of the indigenous population.
 - **Reservation of Jobs:** Calling for reservations in employment opportunities for the youth of Ladakh, ensuring equitable access to economic resources and opportunities.
 - **Creation of Separate Parliamentary Constituencies:** Proposing the establishment of distinct Parliamentary constituencies for **Leh and Kargil**, reflecting the unique demographic and geographical characteristics of each region.
- The [Ministry of Home Affairs \(MHA\)](#) has set up a high-powered committee to engage with the representatives of the demands from Ladakh.

Note

- **Article 35A (no longer in effect)** empowered the Jammu and Kashmir state's legislature to define "permanent residents" of the state and provide special rights and privileges to them which were not available to Indian citizens in general.

What are the Imperatives Behind Ladakh's Current UT Status?

- **Cultural and Demographic Differences:** Prior to its designation as a UT, Ladakh was part of the state of Jammu and Kashmir.
 - Ladakh's Buddhist majority contrasted significantly with the **Muslim-majority** population of the erstwhile state of J&K.
 - This difference often translated into concerns about resource allocation, political representation, and cultural preservation.
- **Security Considerations:** Ladakh borders sensitive regions like Pakistan and China, making strategic importance a significant factor.
 - Establishing it as a union territory allowed **for more direct and streamlined administration** from the central government in security matters.
- **Developmental Perspective:** The Indian government likely saw creating the union territory of Ladakh as a **way to address long-standing grievances**, improve administrative efficiency, and expedite development in the region.

What are the Constitutional Provisions Related to Formation of States in India?

- **Article 3** of the Indian Constitution grants **Parliament** the authority to undertake various actions regarding the **formation, alteration, or dissolution of states**. These actions include:
 - **Formation of New States:** Parliament can create a new state by separating territory from an existing state, uniting two or more states, or combining any territory with a part of an existing state.
 - **Increase or Decrease in State Area:** Parliament has the power to increase or diminish the area of any state.
 - **Alteration of State Boundaries:** Parliament can alter the boundaries of any state.
 - **Change of State Name:** Parliament can change the name of any state.
- **Conditions under Article 3:**
 - A bill proposing such changes must be **introduced in either house of the Parliament only with the prior recommendation of the [President](#)**.
 - Before recommending the bill, the President must refer it to the concerned state legislature to express its views within a specified period.
- **Additional Consideration:**
 - Parliament's authority to form new states includes the **ability to create a new state or union territory** by uniting a part of any state or union territory with another state or union territory.
 - Parliament is **not obligated to adhere to the views of the state legislature** and may accept or reject them, even if received on time.
 - For union territories, **no reference** needs to be made to the concerned legislature, and Parliament can take any action it deems appropriate.
 - Therefore, **India is an indestructible union of destructible states**.

What is the Sixth Schedule?

- **About: Sixth Schedule** contains special provisions for the administration of tribal areas in the four **northeastern states of Assam, Meghalaya, Tripura and Mizoram** under **[Article 244\(2\) of the Indian Constitution](#)**
- **Objectives:** It aims to safeguard tribal land and resources, **preventing their transfer to non-tribal entities**. It also strives to protect tribal communities from exploitation, ensuring their cultural and social identities are upheld and promoted.
- **Autonomous Districts and Regions:** The tribal areas within these states are to be administered as **[Autonomous Districts](#)**.

- In cases where different Scheduled Tribes inhabit an autonomous district, the Governor has the authority to divide the district into **Autonomous Regions**.
- The Governor is vested with the power to organise, reorganise, and alter the boundaries or names of autonomous districts.
- **District and Regional Council:** For each autonomous district, a **District Council** is to be constituted, comprising a maximum of 30 members.
 - Of these, no more than **4 members are nominated by the Governor**, while the remainder are elected through adult suffrage.
 - Likewise, a separate **Regional Council** is established for each area designated as an autonomous region.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q1. Which of the following provisions of the Constitution of India have a bearing on Education? (2012)

1. Directive Principles of State Policy
2. Rural and Urban Local Bodies
3. Fifth Schedule
4. Sixth Schedule
5. Seventh Schedule

Select the correct answer using the codes given below:

- (a) 1 and 2 only
- (b) 3, 4 and 5 only
- (c) 1, 2 and 5 only
- (d) 1, 2, 3, 4 and 5

Ans: (d)

Q2. Under which Schedule of the Constitution of India can the transfer of tribal land to private parties for mining be declared null and void? (2019)

- (a) Third Schedule
- (b) Fifth Schedule
- (c) Ninth Schedule
- (d) Twelfth Schedule

Ans: (b)

FSSAI to Streamline Food Safety Regulations

For Prelims: [Food Safety and Standards Authority of India \(FSSAI\)](#), [Bureau of Indian Standards \(BIS\)](#), [Agricultural Marketing \(AGMARK\)](#)

For Mains: Food Safety and Standards Authority of India, Food and Nutrition insecurity, Streamline Food Safety Regulations

Why in News?

In a recent meeting held in New Delhi, the [Food Safety and Standards Authority of India \(FSSAI\)](#) approved various amendments aimed at **simplifying food safety regulations and promoting ease of doing business**.

- FSSAI will issue a draft notification in this regard and will seek stakeholders' comments before finalising the amendments.

What are the Proposed Amendments in Food Safety and Standard Regulations?

- **Elimination of Multiple Certifications:**
 - The amendments aim to abolish the requirement for certification from the [Bureau of Indian Standards \(BIS\)](#) and [Agricultural Marketing \(AGMARK\)](#) certification for food products.
 - Instead, **only certification from the FSSAI would be mandatory** if these changes are finalised.
- **Facilitation of Ease of Doing Business:**
 - The amendments align with the government's vision of '**One Nation, One Commodity, One Regulator**,' intending to simplify regulations and administrative processes for businesses operating in the food sector.
- **Expansion of Standards:**
 - Apart from the simplification of the certification process, the proposed amendments include the **establishment of standards for Mead (Honey wine) and Alcoholic Ready-to-drink (RTD) beverages**, and the introduction of standards for '**Haleem**,' a dish made of meat, pulses, grains, and other ingredients.
 - Haleem currently lacks defined quality parameters.

What is the Food Safety and Standards Authority of India?

- **About:**
 - FSSAI is an **autonomous statutory body** established under the **Food Safety and Standards Act, of 2006**.
 - The Act of 2006, consolidates various laws related to food, such as the **Prevention of Food Adulteration Act, 1954**, the **Fruit Products Order, 1955**, the **Meat Food Products Order, 1973**, and other acts that were previously handled by different ministries and departments.
 - The Act also aims to establish a **single reference point for all matters relating to food safety and standards**, by moving from multi-level, multi-departmental control to a single line of command.
 - FSSAI is responsible for **protecting and promoting public health** by regulating and supervising food safety and quality in India, operating under the **Ministry of Health & Family Welfare**.
 - FSSAI has a **headquarters in New Delhi** and regional offices in eight zones across the country.
 - The Chairperson and Chief Executive Officer of FSSAI, appointed by central government. The Chairperson is in the **rank of Secretary to the Government of India**.
- **Functions and Powers:**
 - Framing of **regulations and standards** for food products and additives.
 - Granting of **licences and registration** to food businesses.
 - Enforcement of food safety laws and regulations.
 - **Monitoring and surveillance** of food safety and quality.
 - Conducting **risk assessment and scientific research** on food safety issues.
 - Providing **training and awareness** on food safety and hygiene.
 - Promoting **food fortification** and organic food.

- Coordinating with other agencies and stakeholders on food safety matters.
- **Events and Campaigns:**
 - [World Food Safety Day.](#)
 - [Eat Right India.](#)
 - [Eat Right Station.](#)
 - [Eat Right Mela.](#)
 - [State Food Safety Index.](#)
 - [RUCO \(Repurpose Used Cooking Oil\).](#)
 - [Food Safety Mitra.](#)
 - [100 Food Streets.](#)

Bureau of Indian Standards (BIS)

- BIS is the **National Standard Body** of India established under the BIS Act 2016. It operates under the **Ministry of Consumer Affairs, Food, and Public Distribution.**
- BIS is responsible for the harmonious development of standardisation, marking and quality certification of goods.
 - BIS has its headquarters in New Delhi.
- The BIS Act, 2016, empowers the government to **authorise agencies beyond BIS for certification and enforcement of standards.**
 - It includes consumer protection measures such as product recalls, compensation, and stricter penalties for non-conforming standard-marked products.

Agricultural Marketing (AGMARK)

- AGMARK is a **certification mark for agricultural produce**, assuring that they conform to a **grade standard** notified by the Directorate of Marketing & Inspection (DMI), Department of Agriculture, Cooperation and Farmers Welfare, Ministry of Agriculture & Farmers Welfare under **Agricultural Produce (Grading Marking) Act, 1937.**
- These standards **differentiate between quality and 2-3 grades** are prescribed for each commodity.
 - Till date, grade standards for 222 agricultural commodities have been notified.

UPSC Civil Services Examination, Previous Year Question

Prelims

Q. Consider the following statements: (2018)

1. The Food Safety and Standards Act, 2006 replaced the Prevention of Food Adulteration Act, 1954.
2. The Food Safety and Standards Authority of India (FSSAI) is under the charge of Director General of Health Services in the Union Ministry of Health and Family Welfare.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (a)

Mains:

Q.1 Elaborate the policy taken by the Government of India to meet the challenges of the food processing sector. (2021)

Red Sea Disruptions and India's Oil Import Dynamics

For Prelims: [Red Sea](#), Persian Gulf, [International Energy Agency](#), India's Oil Import Dynamics, [PAT \(Perform, Achieve and Trade\)](#), [Ethanol Blending Program](#), [FAME scheme](#)

For Mains: Status of Oil Imports, Government's Recent Initiatives to Control Surging Oil Demands

[Source: IE](#)

Why in News?

The recent turmoil in the [Red Sea](#) has sent ripples through [India's oil import dynamics](#), triggering notable changes in its reliance on conventional suppliers like the US.

Why is India Moving its Oil Imports Away from the US?

- For a while, the US has consistently ranked among **India's top five crude suppliers**, with domestic refiners procuring an average of 205,000 barrels per day (bpd) of crude in 2023.
 - However, recent data indicates that Indian refiners did not acquire any US crude in January 2024.
- [Red Sea troubles](#) escalated **freight rates**, rendering US crude economically unviable for Indian refiners. Consequently, Indian refiners reverted to traditional suppliers in the **Persian Gulf (West Asia)**.
 - Recently, Chemical tanker MV Chem Pluto was struck by a drone attack, approximately 200 nautical miles off Gujarat's coast.
 - MV Chem Pluto is a Liberia-flagged, Japanese-owned, and Netherlands-operated chemical tanker.
 - It had started its journey carrying crude from Al Jubail, Saudi Arabia and was expected to arrive in **New Mangalore, India**.
 - It is believed to have been carried out by [Houthi rebels based in Yemen](#), citing protest against Israel's actions in Gaza.



Who are the Top Crude-Oil Suppliers for India?

- **Status of Oil Imports:** India currently is the 3rd largest consumer of oil behind the US and China. It imports **85% of its oil needs** and this dependence is likely to rise as domestic production falls.
 - **India will overtake China** as the biggest driver of global oil demand in 2027. Diesel will be the single largest source of demand growth, accounting for almost half of the rise in the nation's demand ([International Energy Agency](#)).
- **Major Oil Suppliers:**
 - **Russia:** Russia is currently **India's largest supplier** of oil. Russian oil imports to India surged to 1.53 million barrels per day (bpd) in **January, 2024**.
 - India capitalised on discounted Russian offers following Western sanctions on Russia (due to [Russia-Ukraine Conflict](#)), displacing traditional suppliers.
 - The **Urals crude oil grade of Russia** has become a cornerstone of India's energy diversification efforts.
 - **Iraq:** Iraq is the **second-largest** source of crude supplier to India, with imports reaching 1.19 million bpd in January 2024, the highest since April 2022.
 - India's efforts to diversify oil procurement channels aim to mitigate geopolitical risks and ensure a stable energy supply.
 - **Saudi Arabia:** Saudi Arabia is India's **third-largest** oil supplier and exported approximately 690,172 bpd of crude oil to India in January, 2024 maintaining its position as a key player in India's energy security landscape.
 - **UAE:** Oil imports from the UAE surged by 81% in January, 2024 reaching around 326,500 bpd.
 - Abu Dhabi is India's **fourth-largest supplier of crude oil**.

What are Government's Recent Initiatives to Control Surging Oil Demands?

- **Managing Demand:**
 - **Promoting Energy Efficiency:** Schemes like [PAT \(Perform, Achieve and Trade\)](#) incentivize industries to reduce energy consumption.
 - Star labelling for appliances helps consumers choose efficient options.
 - **Fuel Diversification:** Initiatives like the [Ethanol Blending Program \(EBP\)](#) aim to blend **20% ethanol with petrol by 2025**, reducing gasoline dependence.
 - Similarly, [Compressed Natural Gas \(CNG\)](#) is promoted for vehicles.

- **Electric Mobility:** [FAME scheme](#) is a subsidy programme aims to support electrification of public and shared transportation
 - By 2030, the government intends to have an electric vehicle (EV) sales penetration of 30% for private cars, 70% for commercial vehicles and 80% for two and three-wheelers.
- **Boosting Domestic Production:**
 - **Attractive Exploration Policies:** Production Sharing Contract (PSC) regime, Discovered Small Field Policy, and Hydrocarbon Exploration and Licensing Policy (HELP) aim to attract investments in oil and gas exploration.
 - **Technological advancements:** ONGC is investing in [Enhanced Oil Recovery \(EOR\)](#) techniques aimed to extract more oil from existing fields.

Way Forward

- **Diversifying Biofuel Development:** Beyond ethanol blending, the government can invest in research and development of advanced biofuels **derived from algae, agricultural waste, and municipal solid waste.**
 - These biofuels can be used in transportation and industrial sectors, reducing the need for fossil fuels.
- **Promoting Public Transportation and Active Mobility:** Integrated public transportation systems with **efficient last-mile connectivity** can encourage more people to opt for sustainable modes of travel and reduce the demand for oil-based transportation fuels.
- **Green Building Standards:** Mandating [green building standards for residential and commercial constructions](#) can reduce energy consumption for heating, cooling, and lighting.
 - Incorporating energy-efficient designs and materials in buildings can lessen the reliance on fossil fuels for electricity and heating purposes.
- **Towards Hydrogen Economy:** Developing India as a hydrogen economy can offer a **clean alternative to traditional fossil fuels.**
 - Hydrogen fuel cells can be utilised in various sectors including transportation, manufacturing, and power generation.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims:

Q. The term 'West Texas Intermediate', sometimes found in news, refers to a grade of (2020)

- (a) Crude oil
- (b) Bullion
- (c) Rare earth elements
- (d) Uranium

Ans: (a)

Mains:

Q. Write a note on India's green energy corridor to alleviate the problem of conventional energy. (2013)

Q. "Access to affordable, reliable, sustainable and modern energy is the sine qua non to achieve Sustainable Development Goals (SDGs)". Comment on the progress made in India in this regard. (2018)

India Becomes Net Exporter of Toys

For Prelims: [Make in India initiative](#), [License Raj](#), [Net Exports](#)

For Mains: Contribution and importance of toy industry for the Indian economy.

[Source: TH](#)

Why in News?

Recently, The Indian toy industry exhibited remarkable growth, exports surged by **239%** and imports dropped by **52%** between **2014-15** and **2022-23** making India a net exporter.

- The toy industries are dealing with higher costs in China and struggling to find cheaper places to move their production.

What is the Status of India's Toy Industry?

- **Focus on the Toy Industry:**
 - Policy discussions have spanned from the old "[permit license raj](#)" era to the current '[Make in India](#)' initiative.
 - A study attributes the industry's recent success to '[Make in India](#)' initiatives.
- **Positive Shift in Trade Balance:**
 - Trade balance was **negative Rs.1,500 crore** in **2014-15**, but turned **positive from 2020-21**.
 - **This shift can be attributed to:**
 - Increased import duty from **20% to 60%** in **February 2020**.
 - Non-tariff barriers are like Quality control order (QCO) and mandatory sample testing.
 - COVID-19 disruptions impacted imports globally.
 - **Decline in Net Exports in 2022-23:**
 - Despite high import duty, [net exports](#) fell from **Rs. 1,614 crore to Rs. 1,319 crore**.
 - This decline is more significant for toys (31%) compared to all toys (18%).

What led India to become a Net Exporter?

- **Tariff and Non-Tariff Barriers:** The increase in customs duty on toys from 20% to 60% in February 2020, and subsequently to 70% in March 2023, acted as a significant deterrent to toy imports.
 - Non-tariff barriers, such as the quality control order (QCO) and mandatory sample testing of each import consignment since January 2021, further restricted imports.
 - These measures aimed to reduce the demand for imported toys and protect the domestic industry.
- **Global Supply Chain Disruption:** The COVID-19 pandemic disrupted global supply chains in 2020-21, adversely affecting imports. As the global supply chain was restored in 2022-23, net exports reduced, indicating a correlation between supply chain disruptions and India's net export performance.

What are the Challenges?

- **Limited Domestic Productive Capabilities:** The analysis of data from the Annual Survey of Industries (ASI) indicates that there is hardly a steady rise in fixed capital per worker, gross value of output, and a decline in labor productivity.
 - This suggests that the domestic industry may not have experienced substantial

improvement in its productive capabilities during the period under consideration (2014-15 to 2019-20).

- **Declining Labor Productivity:** There is a steady decline in labor productivity from ₹7.5 lakh per worker in 2014-15 to ₹5 lakh in 2019-20. This decline raises concerns about the efficiency and competitiveness of the industry, indicating potential challenges in enhancing productivity.
- **Foreign dependence for sourcing raw materials:** Indian manufacturers excel in producing board games, soft and plastic toys, puzzles, and similar products. However, to manufacture these items, companies often need to import materials from South Korea and Japan.
- **Lack of Technology:** It also seems to act as a barrier to the Indian toy industry. Most of the domestic toy manufacturers use outdated technology and machinery, which affects the quality and design of the toys.
- **High Tax Rates:** The toy industry in India faces challenges due to high GST rates. Currently, electronic toys are taxed at 18% GST, while non-electronic toys incur a 12% GST rate.
- **Cheap Alternatives:** The Indian toy industry faces competition from inexpensive and low-quality imports from countries such as China. China constitutes around 80% of toy imports into India, negatively impacting domestic toy manufacturers.
- **Unorganized and Fragmented:** The Indian toy industry remains largely fragmented, with 90% of the market being unorganised. This fragmentation makes it challenging to maximise the industry's potential benefits.

National Action Plan for Toys (NAPT):

The National Action Plan for Toys (NAPT) is a comprehensive plan launched by the Government of India in 2020 to promote the Indian toy industry, including traditional handicrafts and handmade toys, with the objective of establishing India as a global toy hub.

- The NAPT comprises 21 specific action points, coordinated by the Department for Promotion of Industry and Internal Trade (DPIIT) and implemented by multiple Central Ministries/Departments.
- The NAPT addresses various aspects such as design, quality control, innovation, marketing, e-commerce, skill development, and promotion of indigenous toy clusters.

Way forward

- **Balancing Protectionism and Competitiveness:**
 - Evaluate the effectiveness of protectionist measures and tariffs to ensure they provide a temporary boost to the industry without fostering long-term dependence.
 - Consider implementing protectionism alongside policies that encourage investments, foster innovation, and improve overall competitiveness.
- **Investment in Domestic Capabilities:**
 - Develop and implement investment policies that incentivize the toy industry to invest in modern technology, research and development, and skill development to enhance productivity and quality.
 - Provide financial and non-financial support to encourage the industry's growth, such as subsidies, tax incentives, and access to affordable credit.
- **Quality Control and Standards:**
 - Continue to enforce quality control measures like the quality control order (QCO) to ensure that domestically produced toys meet international standards.
 - Invest in establishing and promoting industry-specific standards to enhance the reputation of Indian toys in the global market.
 - Implement eco-friendly practices throughout the toy value chain, including using recycled materials, sustainable packaging, and adopting reuse and reshare models to promote environmental sustainability.
- **Infrastructure Development:**
 - Develop localized, industry-specific public infrastructure to support the toy manufacturing clusters. This could include efficient transportation, logistics, and production facilities.
 - Support small and medium enterprises (SMEs) through skill development, financial

- assistance, and other forms of support to foster growth in the toy industry.
- Facilitate collaboration between industry stakeholders, academia, and the government to identify and address infrastructure gaps.

ASI Results for 2020-21 and 2021-22

For Prelims: [Annual Survey of Industries](#), [Gross Value Added](#), [Gross Domestic Product \(GDP\)](#), Net Value Added, [National Statistical Office \(NSO\)](#)

For Mains: Gross Value Added and its significance in assessing economic growth, Annual Survey of Industries (ASI), Growth & Development

[Source: PIB](#)

Why in News?

Recently, the **Ministry of Statistics and Programme Implementation (MoSPI)** released the results of the [Annual Survey of Industries \(ASI\)](#) for the reference periods of 2020-21 and 2021-22 referred to as ASI 2020-21 and ASI 2021-22.

What are the Key Highlights From the ASI 2020-21 and ASI 2021-22 Results?

▪ Growth in Gross Value Added (GVA):

- **GVA** grew by **8.8% in the year 2020-21** over 2019-20, primarily due to a sharp fall in input (4.1%) that offset an output contraction (1.9%) during the pandemic.
- In 2021-22, GVA surged significantly by **26.6% over the previous year**, riding on high growth in industrial output, which expanded by more than 35% in value terms.
- The year 2021-22 witnessed a sharp rise in level as well as in the growth of the majority of the important economic parameters like **invested capital, input, output, GVA, net income and net profit registered by the sector** and even surpassed the pre-pandemic level in absolute value terms.

▪ Key Industry Drivers:

- Industries such as Manufacture of **Basic Metal, Coke & Refined Petroleum Products**, Pharmaceutical Products, Motor vehicles, Food Products, and Chemical and Chemical products emerged as **major drivers of growth**.
 - Together, these industries contributed about **56% of the total GVA of the sector**, with a GVA growth of 34.4% and output growth of 37.5% compared to 2020-21.

▪ Regional Performance:

- **Gujarat remained at the top in terms of GVA in 2020-21** and second in 2021-22, while **Maharashtra ranked first in 2021-22** and second in 2020-21.
 - **Tamil Nadu, Karnataka, and Uttar Pradesh** consistently maintained their positions among the top five states contributing to manufacturing GVA.

▪ Employment Trends:

- Despite a **marginal fall in employment in 2020-21** due to the **pandemic**, 2021-22 saw robust growth of 7.0% year-on-year (Y-o-Y) in total estimated employment in the sector.
 - The estimated number of persons engaged in the sector in 2021-22 exceeded pre-pandemic levels by **more than 9.35 lakh**, with the average salary per employee registering an increase of 1.7% in 2020-21 and by 8.3% in 2021-22 in comparison

to respective previous years.

- **Tamil Nadu, Gujarat, Maharashtra, Uttar Pradesh, and Haryana** emerged as the **top five states employing the highest number of persons** in the manufacturing sector in both 2020-21 and 2021-22.
 - Together, these states contributed about 54% of total manufacturing employment in both years.

Table 1: Value of a few key parameters from ASI 2017-18 to 2021-22 in current prices

(Value figures are in Rupees Lakh)

Year	2017-18	2018-19	2019-20	2020-21	2021-22
Fixed Capital	328,588,927	346,606,975	364,135,165	369,438,562	372,635,444
Invested Capital	446,094,480	477,726,474	497,362,352	519,114,310	554,493,175
Total Persons Engaged (No.)	15,614,619	16,280,211	16,624,291	16,089,700	17,215,350
Total Emoluments	41,835,716	46,207,983	49,172,897	48,389,031	56,082,801
Input	660,520,215	774,377,980	749,755,617	719,206,541	987,917,996
Output	807,217,258	928,179,908	898,330,129	880,921,387	1,192,715,147
GVA	146,697,043	153,801,928	148,574,512	161,714,846	204,797,151
Depreciation	23,729,624	26,155,291	27,309,742	28,135,986	29,964,685
NVA	122,967,418	127,646,637	121,264,771	133,578,860	174,832,466

Gross Value Added (GVA)

- GVA measures the **value producers add to goods and services** during production.
- It's calculated by **subtracting the cost of inputs (intermediate consumption) from total output**.
- It's a key component of **Gross Domestic Product (GDP)**, reflecting economic growth. **GVA growth rates provide insights into sectoral performance**, aiding economic analysis and policymaking.
 - **GVA = GDP + subsidies on products - taxes on products.**
- If we deduct the depreciation from GVA we get **Net Value Added (NVA)**.
 - NVA is the value of output less the values of both intermediate consumption and consumption of fixed capital.

What is the Annual Survey of Industries (ASI)?

- **About:**
 - The Annual Survey of Industries (ASI) is the **principal source of industrial statistics** in India. It **started in 1960 with 1959 as the base year** and continues annually except for 1972, under the Collection of Statistics Act, of 1953.
 - From ASI 2010-11, the Survey is being conducted under the **Collection of Statistics Act, 2008**.
 - The Collection of Statistics Act, 2008 has been amended in 2017 as the **Collection of Statistics (Amendment) Act, 2017** which extends the coverage to All India.
 - The **National Statistical Office (NSO) conducts the ASI**. The NSO is part of the MoSPI.
 - The MoSPI is responsible for the coverage and quality of released statistics.
- **Scope and Coverage:**
 - ASI covers factories registered under **Sections 2(m)(i) and 2(m)(ii) of the Factories Act, 1948**.
 - Bidi and cigar manufacturing establishments registered under the **Bidi & Cigar Workers**

(Conditions of Employment) Act, 1966.

- Electricity undertakings engaged in generation, transmission and distribution of electricity, not registered with the [Central Electricity Authority \(CEA\)](#).
- **Units with 100 or more employees registered in the Business Register of Establishments (BRE)** prepared and maintained by the State Governments as and when such lists are shared by the respective State Governments.
- **Data Collection Mechanism:**
 - Data for ASI are collected from the selected factories under the **Collection of Statistics Act 2008** as amended in 2017 and Rules framed there under in 2011.

India's Industrial Sector

- India has witnessed a **significant shift in its manufacturing dynamics**. Traditionally known for its prowess in [textiles](#), [handicrafts](#), and [agro-based industries](#), the nation has diversified its manufacturing portfolio.
- There has been a consistent recovery in industrial production after the [Covid-19 pandemic](#).
 - In the **FY 2021-22, industrial production recovered from the Covid pandemic** and registered a double-digit growth of 11.4%. Industrial production further expanded by 5.2% in FY 2022-23.
 - During the April to October period of FY 2023-24, [Index of Industrial Production \(IIP\)](#) registered a cumulative growth of 6.9% over the corresponding period of the previous year.
 - **Index of Manufacturing, Mining and Electricity** sector grew by 6.4%, 9.4% and 8.0% respectively during the aforesaid period.
- Initiatives like '[Make in India](#)' have created a favourable business environment, encouraging investment and indigenous manufacturing.
- [Production-linked incentives \(PLIs\)](#) are boosting various sectors and aiming to make India competitive globally.
- The combined **Index of Eight Core Industries** increased by 12.1% (provisional) in October 2023 as compared to the Index of October 2022.
 - The production of **all eight core industries (namely; Cement, Coal, Crude Oil, Electricity, Fertilizers, Natural Gas, Refinery Products and Steel)** recorded positive growth in October 2023 over the corresponding month of 2022.
- As [Industry 4.0 approaches](#), integrating technologies like [artificial intelligence](#), [robotics](#), and the [Internet of Things](#) into its manufacturing processes, is crucial, and requires a **skilled and adaptable workforce**.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Prelims

Q1. In the 'Index of Eight Core Industries', which one of the following is given the highest weight? (2015)

- (a) Coal production
- (b) Electricity generation
- (c) Fertiliser production
- (d) Steel production

Ans: (b)

Q2. With reference to Indian economy, consider the following statements: (2015)

1. The rate of growth of Real Gross Domestic Product has steadily increased in the last decade.
2. The Gross Domestic Product at market prices (in rupees) has steadily increased in the last decade.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (b)

Mains

Q.1 “Industrial growth rate has lagged behind in the overall growth of Gross-Domestic-Product(GDP) in the post-reform period” Give reasons. How far are the recent changes in Industrial Policy capable of increasing the industrial growth rate? **(2017)**

Q.2 Normally countries shift from agriculture to industry and then later to services, but India shifted directly from agriculture to services. What are the reasons for the huge growth of services vis-a-vis the industry in the country? Can India become a developed country without a strong industrial base? **(2014)**

Assam's Traditional Buffalo and Bulbul Fights

Source: IE

The Assam government's efforts to revive **traditional buffalo and bulbul (songbird) fights** during **Magh Bihu** festival face legal challenges from **People for the Ethical Treatment of Animals (PETA)**, who filed petitions in the Gauhati High Court to prohibit both these practices.

- These fights, part of the folk culture linked to the **Assamese winter harvest festival, Magh Bihu**, were stopped following a 2014 Supreme Court ruling on **animal cruelty**.
- However, in 2023, the Supreme Court allowed **amendments to the [Prevention of Cruelty to Animals Act](#)**, leading to the revival of such events.
 - A recent controversy over a buffalo fight scheduled outside the designated period has prompted legal intervention.
- This issue highlights the tension between preserving cultural heritage and addressing ethical concerns in modern society.

Read More: [Harvest Festivals](#), [Jallikattu](#), [Kambala](#)

Zero Hour

Source: TH

During the ongoing **Budget session**, members of the Lok Sabha have raised key issues including **Manipur ethnic violence**, stricter **hate speech** laws, and a national task force for stray dogs during the **Zero Hour**.

- Zero hour commences directly after the **question hour** and extends until the commencement of

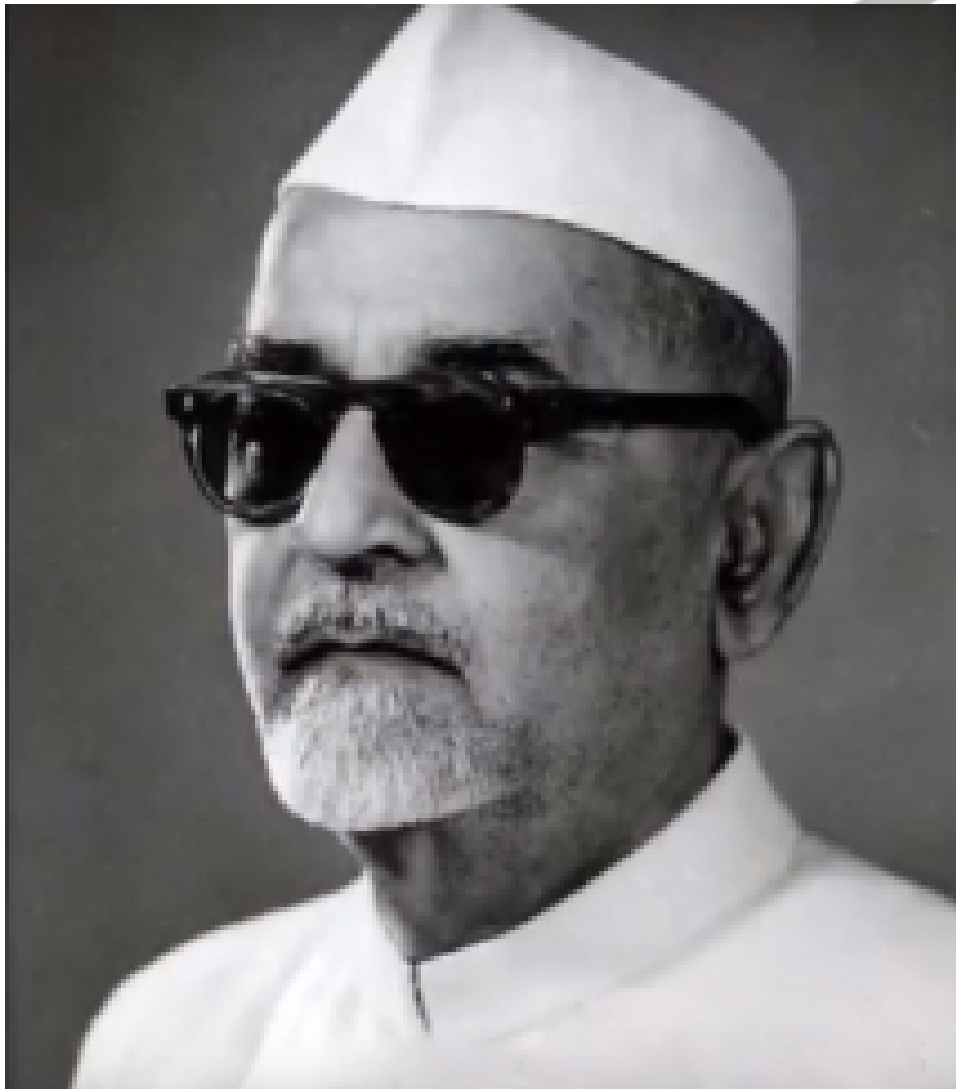
the day's agenda, signifying the **interval** between the two.

- Under this, Members of Parliament (MPs) can raise matters without any prior notice.
- Zero Hour is an Indian parliamentary innovation. The phrase is not mentioned in the **rules of procedure**.
- Zero Hour originated in early Indian Parliament as MPs sought to address constituency and national concerns informally before the lunch break, starting around 12 noon and lasting until adjournment.
 - This led to the hour being popularly referred to as Zero Hour and the issues being raised during this time as **Zero Hour submissions**.

Read more: [Question Hour and Zero Hour](#), [Questioning in Parliament](#)

Birth Anniversary of Dr. Zakir Hussain

Source: [PIB](#)



Recently, the President of India, paid floral tributes to **Dr. Zakir Hussain**, former President of India on his birth anniversary at Rashtrapati Bhavan.

- Dr. Zakir Husain (08 Feb 1897- 03 May 1969) was an Indian statesman, and the first Muslim to hold

the position of [President of India in 1967](#).

- He was also appointed [governor](#) of Bihar state in 1957 and was elected [vice-president](#) of India in 1962.
- He helped found the Muslim National University in Aligarh (later moved to New Delhi) and served as its vice-chancellor from 1926 to 1948.
 - At [Mahatma Gandhi's](#) invitation, he also became chairman of the National Committee on Basic Education, established in 1937 to design a **Gandhian syllabus for schools**.
- During 1956-58, he served on the executive board of the [United Nations Educational, Scientific, and Cultural Organization \(UNESCO\)](#).

Read More: [Parliament](#), [United Nations](#)

Olive Ridley Turtles on Mangaluru Beaches

Source: [DTE](#)

After a gap of nearly 40 years, [Olive Ridley turtles \(*Lepidochelys olivacea*\)](#) returned to nest on the beaches of **Karnataka's Mangaluru** division in February 2024, overcoming [environmental challenges](#) such as increased salinity and pollution.

- Olive Ridley turtles, typically laying around 150 eggs per site, have pleasingly nested on **Sasihithlu and Tannerbavi** beaches.
- The Olive Ridley turtles, named for their **olive-coloured shell**, are the world's **smallest and most populous** sea turtles.
 - They are known for their **mass nesting practice called 'Arribada'**.
 - **Protection Status:**
 - [IUCN- Vulnerable](#)
 - [Wildlife Act of 1972- Schedule 1](#)
- They feed on [jellyfish](#), play a role in controlling the jellyfish population.

Few Turtle Species



Loggerhead Sea Turtle

- Species of oceanic turtle
- Spend most of their life in saltwater and estuarine habitat
- IUCN status: **Vulnerable**

Leatherback Turtle

- The largest of the seven species of sea turtles
- Able to maintain high body temperature using metabolically generated heat
- IUCN status: **Critically Endangered**



Green Turtle

- Named after the greenish colour of their cartilage
- Found in tropical and subtropical waters
- IUCN Status: **Endangered**

Olive Ridley Turtle

- Smallest and most abundant of all sea turtles
- Carnivores
- They practice Unique Mass Nesting called Arribada
- IUCN Status: **Vulnerable**



#FewTurtleSpecies

Read more: [Olive Riddley Turtle](#)

PDF Refernece URL: <https://www.drishtias.com/current-affairs-news-analysis-editorials/news-analysis/10-02-2024/print>