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Table of Content

India's Aadhaar system India-Germany: MoUs on Green Hydrogen, Technology & Trade Minimum Diet Diversity Failure (MDDF) in Indian States United Nations Day Commitment to Reducing Inequality Index India's Ethanol Push **NEWS IN SHORT** Lake Erie

National Mission for Manuscripts Pradhan Mantri Mudra Yojana (PMMY) Mormugao Port NAFED SPICE 2000 Bomb Flue Gas Desulfurization (FGD) Nature Conservation Index (2024) World's 1st Global Ecosystem Atlas The Mukaab: World's Largest Building

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INDIA'S AADHAAR SYSTEM

Context

 Nobel laureate Paul Romer, who won the 2018 Economics Prize, recently praised India's Aadhaar system, calling it one of the most significant technological innovations globally.

What is Aadhaar?

- Aadhaar number is a **12-digit** random number issued by **the Unique Identification Authority** of India (UIDAI) to the residents of India after satisfying the verification process laid down by the Authority.
- Person willing to enrol has to provide **minimal** demographic and biometric information.
 - **Biometric information:** Ten Fingerprints, Two Iris Scans, and Facial Photographs.

India's Aadhaar Programme

- Aadhaar is a strategic policy tool for social and financial inclusion, public sector delivery reforms, managing fiscal budgets, increasing convenience and promoting hassle-free peoplecentric governance.
- It is one of the key pillars of the **'Digital India'**, wherein every resident of the country is provided with a unique identity.
- It has features of Uniqueness, Authentication, Financial Address and e-KYC, enabling the Government to directly reach residents in delivery of various subsidies.

Aadhaar-based payment system (ABPS)?

- Under ABPS, workers' Aadhaar numbers are **linked with their job cards** as well as their bank accounts.
- It uses the worker's Aadhaar number as their **financial address.**
 - To become eligible for ABPS, workers have to get their Aadhaar card linked to their job card and the name on the Aadhaar card must match the name on the job card.
- The ABPS became mandatory from January 1, 2024.

Benefits of Payments through ABPS

- **Easy and Secure Authentication:** Aadhaar provides a unique identification method through biometric authentication, making transactions secure and reducing the risk of fraud.
- **Convenient:** Aadhaar-based payment systems eliminate the need for physical cards or documents for financial transactions.
- Reduced Leakages in Subsidy Programs: Aadhaar is often linked to various government

subsidy and welfare programs, ensuring that the benefits reach the intended beneficiaries directly.

- **Promotion of Digital Payments:** Integration of Aadhaar into payment systems contributes to the government's push for a less-cash economy by promoting digital transactions.
 - This aligns with broader initiatives to enhance the digital infrastructure of the country.
- Reducing Frauds: By linking Aadhaar to welfare programs and services through the JAM Trinity (Jan Dhan-Aadhaar-Mobile) and Direct Benefit Transfers (DBT), millions of underprivileged individuals now receive subsidies and benefits directly, eliminating middlemen and reducing fraud.

Concerns with ABPS Payments

- **Over- Reliance:** Over-reliance on technical tools has resulted in problematic implementation, with beneficiaries devoid of a proper recourse for corrections in the system.
- Authentication Issues: There have been instances where individuals faced difficulties with biometric authentication due to factors such as poor connectivity, technical glitches, or errors in the Aadhaar database.
 - Errors in any step of the process result in payment failures.
- The bank account must be **Aadhaar-seeded** and mapped with the National Payments **Corporation of India (NPCI)**, conditions that are difficult to meet for workers in rural setup and poor infrastructural assistance for meeting the official requirements.

Conclusion

- The Ministry of Rural Development has said that it may consider an exemption from ABPS on a case-to-case basis for gram panchayats if there are technical issues.
- Aadhaar-enabled Direct Benefit Transfer (DBT) has significantly transformed India's welfare landscape by enhancing transparency and ensuring the efficient delivery of services.

Source: DTE

INDIA-GERMANY: MOUS ON GREEN HYDROGEN, TECHNOLOGY & TRADE

Context

• Recently, India and Germany signed multiple treaties, agreements on Mutual Legal Assistance Treaty in Criminal Matters and Indo-German Green Hydrogen Road Map on the 7th India-Germany Intergovernmental Consultations.

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About the India-Germany Relations

- India and Germany share a robust and multifaceted relationship, rooted in mutual respect, shared values, and common interests.
- It spans various domains, including political, economic, scientific, and cultural exchanges, reflecting the depth and breadth of their bilateral ties.

Historical Context

- The diplomatic relations between India and Germany were **established in 1951.**
- Over the decades, these relations have evolved, marked by high-level visits, strategic dialogues, and numerous agreements.
- The foundation of this relationship is built on shared democratic values, respect for human rights, and a commitment to multilateralism.

Key Highlights of the Agreements

- Green Hydrogen Roadmap: The Indo-German Green Hydrogen Roadmap was unveiled, outlining strategies to promote private sector investment, trade, and export of green hydrogen.
 - It aims to decarbonize hard-to-abate sectors such as steel, refineries, and heavy-duty transport.
- **Technology and Innovation:** Both nations agreed on a Road Map on Innovation and Technology, which includes joint research and development on advanced materials.
 - It is expected to enhance technological advancements and innovation in both countries.
- Trade and Economic Cooperation: Germany is India's largest trading partner in the European Union. Germany has a Bilateral Trade and Investment Agreement (BTIA) with India via the EU.
 - The bilateral trade volume has been steadily increasing, with significant investments in sectors like automotive, engineering, chemicals, and renewable energy.
 - The leaders discussed enhancing bilateral trade, which has already surpassed \$30 billion.
 - Germany emphasised the importance of avoiding one-sided dependencies, particularly in strategic areas like critical raw materials and technologies.
- Mutual Legal Assistance and Security: Several treaties were signed, including the Mutual Legal Assistance Treaty in Criminal Matters and an agreement on the exchange and mutual protection of classified information.

- These agreements aim to strengthen legal and security cooperation between the two countries.
- Strategic Importance: India highlighted its role as a prime centre for diversification and **derisking in global trade and manufacturing,** and invited German businesses to **invest in India**, emphasising the country's skilled workforce and the increasing number of visas for skilled Indians from 20,000 to 90,000 per year.
 - Germany noted that the free trade agreement between the European Union and India could be finalised in months rather than years.

Other Dimensions

- Political and Strategic Cooperation: India and Germany engage in regular high-level consultations, including the Inter-Governmental Consultations (IGC), which is a unique biennial dialogue mechanism.
 - Both nations reaffirmed their commitment to a rules-based international order and effective multilateralism, addressing global challenges such as climate change, terrorism, and economic recovery post-COVID-19.
 - The G4 nations (Brazil, Germany, India, and Japan) support each other's bids for permanent seats on the United Nations Security Council.
- Scientific and Technological Collaboration: Both countries collaborate extensively in areas such as renewable energy, environmental technology, and digitalisation.
 - The Indo-German Science and Technology Centre (IGSTC) plays a pivotal role in fostering joint research and innovation projects.
- Cultural and Educational Exchanges: The Goethe-Institut in India and the Indian Council for Cultural Relations (ICCR) in Germany facilitate cultural exchanges, promoting mutual understanding and appreciation.
 - Additionally, educational collaborations are thriving, with numerous Indian students pursuing higher education in Germany, particularly in engineering and technology fields.
- Climate Change and Sustainable Development: Both India and Germany are committed to addressing climate change and promoting sustainable development.
 - However, aligning their approaches and ensuring effective implementation of joint initiatives can be challenging.
 - The Green and Sustainable Development Partnership is a step in the right direction, but it requires continuous effort and cooperation.

Concerns and Key Issues

- Economic Dependencies and Trade Imbalances: There are concerns about trade imbalances, with India often running a trade deficit with Germany.
 - Both countries are working to diversify their economic relations to reduce dependencies, especially in light of global supply chain disruptions.
- **Geopolitical Shifts and Strategic Alignments:** The geopolitical landscape has been shifting rapidly, particularly with the ongoing Russia-Ukraine conflict.
 - Germany's strategic pivot, marked by increased defence spending and a reevaluation of its ties with Russia and China, has implications for its relationship with India.
 - India, while maintaining a neutral stance on the Ukraine conflict, faces pressure to align more closely with Western policies.
- Migration and Mobility: There are ongoing discussions to facilitate easier movement of professionals and students between the two countries.
 - However, regulatory challenges and differing immigration policies can pose significant hurdles.
 - Ensuring a balanced and mutually beneficial migration policy remains a key concern.

Future Prospects

- The MoUs signed between India and Germany mark a new chapter in their bilateral relations, with a strong focus on sustainability, innovation, and economic growth.
- By working together, both nations aim to achieve their common goals of reducing reliance on fossil fuels, decarbonising their economies, and establishing robust green hydrogen economies.

Conclusion

- India-Germany relations are characterised by a deep sense of mutual trust and shared aspirations.
- As both nations navigate the complexities of the 21st century, their partnership is poised to contribute significantly to global peace, stability, and sustainable development.
- Recent collaboration not only strengthens the strategic partnership between India and Germany but also sets a precedent for international cooperation in addressing global challenges such as climate change and sustainable development.

MINIMUM DIET DIVERSITY FAILURE (MDDF) IN INDIAN STATES

In News

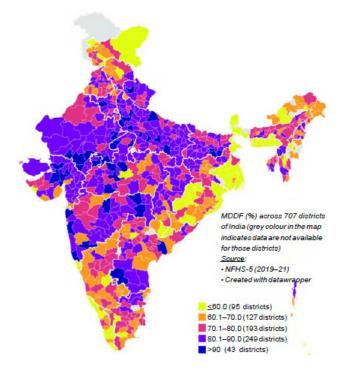
 The report was published in the National Medical Journal of India published by All India Institute of Medical Sciences.

Minimum diet diversity

- Minimum dietary diversity is a reliable and widely used indicator approved by the World Health Organization (WHO) that reflects the access and consumption of diverse food groups and essential micronutrient availability to the children.
- As per the WHO, nutrition-related factors lead to approximately 35 percent of child deaths and contribute to 11 per cent of the total disease burden globally.

Key Findings of recent report

- Data sources : Scientists used National Family and Health Survey (NFHS) datasets from rounds 3, 4 and 5 to examine MDDF among children longitudinally, regionally and across population groups having diverse background characteristics.
 - The NFHS surveys, under the Ministry of Health and Family Welfare, provided representative data covering India. The MDDF rate declined from 87.4% in NFHS-3 (2005-06) to 77.1% in NFHS-5 (2019-21).
- **Prevalence of MDDF:** Despite a decline, eight Indian states, mainly in the north, central, and west, still have over 80% MDDF among children aged 6-23 months.



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Source: BL

- Uttar Pradesh (86.1%), Rajasthan (85.1%), Gujarat (84%), Maharashtra (81.9%), and Madhya Pradesh (81.6%) are the highest.
- **Regional Trends**: Central India had the highest MDDF (84.6%) as of 2019-21. Only 95 of the 707 districts analyzed showed MDDF prevalence below 60%, mainly in the south, east, northeast, and north.
- **Diet Diversity**: Consumption of food items within eight groups, including eggs, Vitamin A-rich foods, vegetables, and flesh foods, increased from NFHS-3 to NFHS-5.
- Factors Affecting MDDF: Logistic modeling found higher MDDF among children of young, illiterate mothers, girls, poor households, anemic children, low birth-weight infants, and those lacking regular health checkups at anganwadis/ ICDS centers.

Recommendations

- The study emphasizes the need for intensive policy interventions in nutrition resource deliverance, beneficiary population counselling for screening of malnutrition and diet consumption and strengthening of local self-governance systems for programme implementation.
- Programs like Poshan Abhiyaan and ICDS are active but require stronger convergence to meet gaps in nutritional resources.

Source: DTE

UNITED NATIONS DAY

In News

• United Nations Day is observed on October 24th each year.

About United Nations Day

- The day marks the anniversary of the **United Nations Charter** coming into force in 1945.
- The UN was established post-World War II to promote peace, security, and cooperation among countries.
 - The term "United Nations" was first coined by Franklin D. Roosevelt in the Declaration of the United Nations on January 1, 1942.
- The organization started with 51 member states and has grown to 193.
- There are six official languages of the United Nation are as follows:
 - Arabic
 - Chinese
 - English
 - French
 - Russian
 - Spanish

- Member States make payments in accordance with an **established scale of assessments.** This scale is determined by the population size, national revenue, and ability of a country to pay.
 - The top four contributors are the United States, Japan, China and Germany.

UN's Contribution to the World

- Preventing Nuclear Proliferation: International Atomic Energy Agency (IAEA) was established in 1957 as an autonomous organization within the United Nations system.
 - It has been the world's nuclear inspector for more than 50 years. IAEA makes sure that nuclear material under safeguards is solely used for peaceful purposes. More than 180 States currently have safeguards agreements with the Agency.
- Maintaining Peace and Security: Over the past 60 years, the United Nations has been able to restore quiet, enabling many countries to recover from violence by dispatching peacekeeping and observer teams to the world's troubled regions.
- Supporting Disarmament: UN support the disarmament efforts through –
 - The Chemical Weapons Convention-1997 The Mine-Ban Convention-1997, The Arms Trade Treaty-2014.

UN peacekeepers forces to implement disarmament agreements between warring parties.

- **Promoting Development:** The **Millennium Development Goals** (MDG) have served as a framework for raising living standards, human capabilities, and potential worldwide since 2000.
 - The UN Children's Fund (UNICEF) works in more than 150 countries, focusing primarily on child protection, immunization, girls' education, and emergency aid.
- The UN Development Programme (UNDP) supports more than 4,800 projects to combat poverty, encourage good governance, deal with crises, and protect the environment.
- **Economic Development: UN Conference on Trade and Development (UNCTAD**), an organization of the United Nations, assists developing nations in maximizing their trade possibilities.
 - The World Bank has funded more than 12,000 projects in more than 170 countries since 1947 and lends and gives money to developing nations.
- Global Think Tank: The UN Statistics Division is the centre of the global statistical system, gathering and disseminating data on global

economic, demographic, social, gender, environment, and energy trends.

- The **UN Population Division** is a foremost source of information and research on global population trends, producing up-to-date projections and demographic estimates.
- Historic Architecture and Natural Sites
 Protection: UNESCO has assisted 137 nations in protecting historic, cultural, and natural sites.
 - In order to protect cultural assets, cultural diversity, and exceptional natural and cultural places, it has negotiated international accords.
 - More than a thousand of these locations have been named **World Heritage Sites** due to their remarkable universal importance.
- Environment Protection: Climate change is a global problem that demands a global solution. The Intergovernmental Panel on Climate Change (IPCC), which brings together 2,000 leading climate change scientists, issues comprehensive scientific assessments every 5-6 years.
- Initiative on Human Rights: UN General Assembly adopted the Universal Declaration of Human Rights in 1948.
 - It has helped to enact dozens of legally binding agreements on political, civil, economic, social and cultural rights.
 - UN human rights bodies have focused world attention on cases of torture, disappearance, arbitrary detention and other violations.

What is India's Role in the UN?

- India played a significant role in the formation of the United Nations (UN) and its subsequent activities. As one of the original members of the League of Nations, India gained automatic entry to the UN due to its participation in the Treaty of Versailles in 1919.
- In 1944, India, along with other original UN members, signed the Declaration by the United Nations in Washington D.C. This declaration laid the foundation for the establishment of the UN and United Nations Day. The United Nations Charter, which was signed by 50 countries in 1945, formalized the UN's existence.
- India actively raised concerns about issues such as colonialism, apartheid, and racial discrimination as early as 1946.
- In fact, India was the **first country to bring the issue of apartheid** and discriminatory treatment of Indians in South Africa to the attention of the UN.

- India also played a vital role in the drafting of the Universal Declaration of Human Rights in 1948.
- However, India's experience with the UN has not always been positive. In the case of the Kashmir issue, India's faith in the UN and its adherence to its principles proved costly, as the organization appeared to be influenced by pro-Pakistani powers.
- India also recognizes and aware the people of the objective of United Nations goals and its achievements on United Nations Day.

Source: TH

COMMITMENT TO REDUCING INEQUALITY INDEX

Context

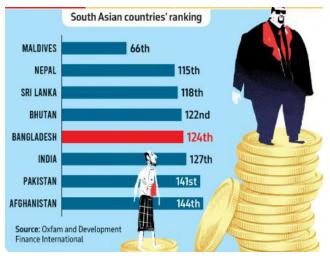
 The Index is published by international nongovernmental organisation Oxfam and Development Finance International (DFI), measuring 164 countries' commitment to reducing inequality.

About

• The **fifth edition** of the index ranked countries on their policies regarding **public services spending** (education, health and social protection), progressive taxation, and labour rights and wages .

Major Highlights

- Nine out of ten countries are implementing policies and actions likely to increase economic inequality.
- Major Cuts: 84 percent of countries have cut investment in education, health and social protection, 81 percent weakened their tax systems' ability to reduce inequality, and in 90 percent of them, labour rights and minimum wages have worsened.
- **The top performers**: These are all high-income countries, led by Norway, Canada, Australia, Germany and Finland.
 - Labour policies: These countries start from much lower wage inequality.
 - They have high social spending and collect more tax revenue.
- Belarus, Costa Rica and South Africa are at the best-performing among the low- and middle-income countries.
- The worst performers: They are low- and lower middle-income countries, all situated in sub-Saharan Africa (South Sudan, Nigeria, Zimbabwe, Uganda, Central African Republic, Liberia, Sierra Leone and Burundi).



Recommendations:

- Develop clear national time bound plans to reduce inequality.
- Prioritize public spending on essential public services such as education, healthcare and social protection.
- Increase progressive taxation by taxing the income of the richest 1%.
- Intervene in the labour market to protect all workers.
- Develop gender-responsive policies to recognize, reduce and redistribute unpaid care work and ensure that paid care workers are represented and rewarded justly.

Source: DTE

INDIA'S ETHANOL PUSH

Context

 India is taking significant steps toward securing its energy future by embracing sustainable practices like ethanol blending.

About

- The practice of blending ethanol with petrol began in **2001 as a pilot project**.
- The government's proactive approach to ethanol blending is evident in its decision to advance the target of **20% ethanol blending from 2030 to 2025.**

Ethanol

- Ethanol is an anhydrous ethyl alcohol having chemical formula of **C2H5OH**.
- It can be produced from **sugarcane**, **maize**, **wheat**, **etc** which are having high starch content.
- In India, ethanol is mainly produced from sugarcane molasses by fermentation process.
- It can be **mixed with gasoline** to form different blends.

- **Application:** It is widely used not only as an alternative fuel source but also in various industries as a chemical solvent and in the synthesis of organic compounds.
 - Ethanol also has medical applications as an antiseptic and disinfectant, adding to its versatile uses.

Ethanol Blending

- Ethanol blending refers to the **practice of mixing ethanol with gasoline** to create a fuel mixture that can be used in internal combustion engines.
- There are a few common blends:
 - **E10:** This is a mixture of 10% ethanol and 90% gasoline. It is the most common blend and is used widely in many countries.
 - **E15:** This blend contains 15% ethanol and 85% gasoline.
 - **E85:** This is a high-ethanol blend, consisting of 85% ethanol and 15% gasoline. It's used in flex-fuel vehicles designed to run on higher ethanol content.
- Significance: As the ethanol molecule contains oxygen, it allows the engine to more completely combust the fuel, resulting in fewer emissions and thereby reducing the occurrence of environmental pollution.
 - Since ethanol is produced from plants it is also considered as renewable fuel.

Need

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- As of March 2024, around **98% of the fuel** used in the road transportation sector comes from fossil fuels, while only **2% is met by biofuels like ethanol.**
- This **dependency on fossil fuels** presents challenges related to energy security, foreign currency outflow, and environmental impact.
- With ethanol blending, India has a **promising opportunity to reduce** its dependence on imported oil **while addressing environmental concerns.**

India's Ethanol Blending Program

- The Ethanol Blended Petrol (EBP) programme was launched in 2003.
 - The programme sought to promote the use of alternative and environment friendly fuels and to reduce import dependency for energy requirements.
- Objectives
 - Reduce Import Dependence: India aims to decrease its reliance on imported crude oil, thereby improving energy security.
 - Environmental Benefits: Ethanol is a cleaner-burning fuel compared to gasoline,

which helps in reducing air pollution and greenhouse gas emissions.

- **Support for Farmers:** The program supports the agricultural sector by providing a market for ethanol, which is often derived from sugarcane, corn, or other crops.
- Key Components
 - Blending Targets: India has set specific targets for ethanol blending. For instance, the National Policy on Biofuels (2018) outlines a target of 20% ethanol blending in petrol by 2025.
 - Phased Implementation: The blending targets are being rolled out in phases, gradually moving towards higher blends like E20.
 - InfrastructureDevelopment:Thegovernment has been investing in the infrastructure necessary for ethanol production, storage, and distribution, including establishing more ethanol production facilities and blending units.
 - Incentives and Support: Various financial incentives and support mechanisms are provided to encourage ethanol production and blending. This includes subsidies for ethanol producers and incentives for upgrading infrastructure.

Major Achievements of EBP

- In the current Ethanol Supply Year (ESY) 2023-24, the blending percentage surpassed 13% of ethanol blended.
- This underscores a significant increase in the overall ethanol blending percentage, rising from **1.53% in 2014** to an impressive **15% in 2024**.
- After achieving **15% ethanol blending in 2024,** the government set an ambitious target of achieving **20% blending by 2025.**

Challenges

- **Infrastructure:** Developing the necessary infrastructure for large-scale ethanol production and blending can be complex and costly.
- Feedstock Availability: Ensuring a steady and adequate supply of raw materials for ethanol production, such as sugarcane, can be challenging, especially in the face of changing agricultural conditions and market fluctuations.
- Consumer Acceptance: Educating consumers and ensuring that vehicles can run efficiently on higher ethanol blends are also important for the program's success.

Conclusion

 India's Ethanol Blending Program is a significant step towards a more sustainable and selfreliant energy future, aligning with broader goals of environmental protection and energy independence.

Source: PIB

NEWS IN SHORT

LAKE ERIE

Context

• Researchers in a lab near Lake Erie study how toxic algae can damage health.

About

- Lake Erie is one of the **five Great Lakes of North America** and is the **fourth** largest by surface area.
- It's bordered by the United States to the south and Canada to the north.
- It is the **13th largest lake** in the world by surface area.
- The **2nd smallest** of the Great Lakes by surface area.
- Great Lakes is the chain of deep freshwater lakes in east-central North America comprising Lakes
 Superior, Michigan, Huron, Erie, and Ontario.





NATIONAL MISSION FOR MANUSCRIPTS

In News

 The Union Ministry of Culture is planning to revive the National Mission for Manuscripts (NMM), considering creating an autonomous body, potentially named the National Manuscripts Authority, for preserving ancient texts.

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About National Mission for Manuscripts (NMM)

- It was launched in 2003 by India's Ministry of Tourism and Culture.
- It aims to discover and preserve India's vast collection of manuscripts, estimated at around ten million, covering various themes, scripts, languages, and artistic styles.
- Its core mandate is to identify, document, conserve, and make accessible India's manuscript heritage.
- Achievements include creating metadata for 5.2 million manuscripts and digitizing over 300,000 titles, though only one-third have been uploaded.
- Issues noted included mismatches between digitized metadata and manuscripts and limited access, with 70,000 of 130,000 uploaded manuscripts viewable due to lack of an access policy, especially affecting private manuscript owners who hold 80% of manuscripts.

Source : TH

PRADHAN MANTRI MUDRA YOJANA (PMMY)

In News

 The government has doubled the loan limit under the Pradhan Mantri Mudra Yojana (PMMY) to 20 lakh to enhance entrepreneurship in India.

About Pradhan Mantri MUDRA Yojana (PMMY)

- It was launched by the Prime Minister on April 8, 2015 for providing loans up to Rs.10 Lakh to the non-corporate, non-farm small/micro enterprises
- It aims to provide financial inclusiveness and support to the marginalised and hitherto socioeconomically neglected classes.
- **Categories** : MUDRA loans are offered in three categories namely, 'Shishu', 'Kishore And 'Tarun' which signifies the stage of growth or development and funding needs of the borrowers:-
 - Shishu: covering loans upto Rs. 50,000/-
 - Kishore: covering loans above Rs. 50,000/and up to Rs. 5 lakhs
 - Tarun: covering loans above Rs. 5 lakh and up to Rs. 10 lakh.
- Latest Developments : A new "Tarun Plus" category will be introduced for loans ranging from 10 lakh to 20 lakh, specifically for eligible entrepreneurs.
 - This change, announced by Finance Minister Nirmala Sitharaman during the Union Budget 2024-25, aims to support entrepreneurs who have previously taken and successfully repaid loans under the "Tarun category."

 The guarantee coverage of PMMY loans for amounts up to 20 lakh will be provided under the Credit Guarantee Fund for Micro Units (CGFMU).

Source : TH

MORMUGAO PORT

In News

 Mormugao Port Authority has received global recognition as an incentive provider on the Environmental Ship Index (ESI) portal, acknowledged by the International Association of Ports and Harbours (IAPH

About Mormugao Port

- Mormugao Port was established in 1885 on Goa's west coast
- It is one of India's oldest ports with a natural, protected harbour at the mouth of the Zuari River.
- It supports Goa's export industry and became a major national port in 1964, contributing significantly to India's economic growth
- It is India's first to introduce Green Ship Incentives through the Environmental Ship Index (ESI) with its "Harit Shrey" program, launched in October 2023, offering discounts based on ships'
 ESI scores.
- In August 2024, the IAPH Secretary General praised the port's commitment to green shipping, noting Mormugao's leadership in Asia alongside Japan and Oman.
 - Many ships have benefited from incentives aimed at reducing greenhouse gas emissions, and the port has submitted the scheme for IAPH Sustainability Awards.

Source: PIB

NAFED

Context

 The Appointments Committee of the Cabinet (ACC) chaired by PM has appointed Deepak Agarwal as the new Managing Director of the National Agriculture Cooperative Marketing Federation of India Ltd (NAFED).

About NAFED

- It was established on October 2, 1958 with the objective to promote Co-operative marketing of agricultural produce to benefit the farmers.
- It is registered under the Multi State Co-operative Societies Act and comes under the Ministry of Agriculture.

Source: IE

SPICE 2000 BOMB

In News

• Israel launched a SPICE 2000 bomb to destroy a building in Beirut.

About SPICE Bomb

- The SPICE 2000 is a type of guided bomb, often referred to as a "smart bomb."
- It is made by Israel's owned Rafael Advanced Defense Systems.
- SPICE bombs use advanced guidance systems to accurately target specific locations.
- The system utilizes both GPS and electro-optical sensors to navigate and target specific locations.

Source: TOI

FLUE GAS DESULFURISATION (FGD)

Context

 The Punjab government might face a penalty for its failure to comply with timely installation of Flue Gas Desulphurisation (FGD) systems in thermal power plants (TPPs) across the state.

About

- Flue Gas Desulphurisation is a set of technologies used to remove sulfur dioxide (SO₂) from exhaust flue gases of fossil-fuel power plants and other industrial processes.
- This is crucial for reducing air pollution and meeting environmental regulations.
- The FGD systems to control sulphur dioxide (SO) emissions — was mandated by the Ministry of environment, forest and climate change (MoEF&CC) across India in 2015.

Source: DTE

NATURE CONSERVATION INDEX (2024)

In News

• India ranked 176th (out of 180) with a score of 45.5, signifying poor performance in the nature conservation Index.

Reasons for Low Ranking

- High pressure on natural resources due to growing population density
- Inadequate enforcement of conservation policies

About the Index

• It is developed by Goldman Sonnenfeldt School of Sustainability and Climate Change at Ben-Gurion University of Negev.

- The NCI uses four key markers to assess a country's conservation efforts:
 - Land Management, Threats to Biodiversity, Capacity and Governance, Future Trends
- The NCI report highlights the critical need for India to improve its conservation efforts to secure a sustainable and ecologically friendly future.

Source: DTE

WORLD'S 1ST GLOBAL ECOSYSTEM ATLAS

Context

 World's 1st global ecosystem atlas is unveiled at the 16th Conference of Parties (COP16) to the United Nations Convention on Biological Diversity (CBD).

About

- The tool, developed by the **Group on Earth Observations (GEO)**, is the first of its kind to focus on **mapping and monitoring ecosystems** around the world.
- The Atlas combines existing national ecosystem maps and fills in gaps using advanced techniques, such as Earth observation, artificial intelligence and field data collections.
- It is **open-source**, it would be freely accessible to all.
- It provides important information about the health and risks facing various ecosystems, which can help governments, businesses, financial institutions and local communities make better decisions for sustainable management.

Source: DTE

THE MUKAAB: WORLD'S LARGEST BUILDING

Context

• Saudi Arabia has officially commenced construction of the Mukaab — if completed, it is set to become the world's largest structure.

About

- Located in the capital city of Riyadh, this 400m cube-shaped building will encompass a staggering two million square metres of floor space, equivalent to twenty times that of New York's iconic Empire State Building.
- The 'Mukaab' is part of the ambitious 'New Murabba' project, which aims to revitalise downtown Riyadh and contribute significantly to the Kingdom's Vision 2030 initiative.

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• The Mukaab will be built using the modern **Najdi** architectural style, one of the most prevalent architectural patterns in Saudi Arabia.

Najdi architectural style combines three main factors:

- the need to respond to the hot desert climate,
- the need for privacy in residential buildings, and
- the need to use locally available materials such as mud brick stone and wood.

Source: IE

