

State of the World's Forests 2024

- The **Food and Agriculture Organization (FAO)** of the United Nations released a report on July 22, 2024, discussing the current state of the world's forests.
 - While there has been a positive decline in the rate of deforestation globally, the report also highlights ongoing concerns about the effects of climate change on forests.
- The report, titled **The State of the World's Forests**
- **Key findings:**
 - The global deforestation rate decreased to **10.2 million hectares** per year between 2015 and 2020, down from 15.8 million hectares per year between 1990 and 2000.
 - **India ranked third** in the world for average annual net gain in forest area from 2010 to 2020.
 - Non-timber forest products support the livelihoods of about **275 million people in India**.

The Strategic Role of Data Centers in Empowering India's Digital Revolution

- The joint report titled **"The Strategic Role of Data Centers in Empowering India's Digital Revolution"** by **ASSOCHAM** and **PwC** highlights the importance of data centers in advancing India's digital landscape.
- **About Data Centers and Their Importance**
 - A data center is a secure facility where computing and networking equipment is concentrated to collect, store, process, distribute, or provide access to large amounts of data.
 - **Significance:** Data centers are key enablers of India's digital revolution. They transform government services, support remote work and education, and foster start-up innovation.
 - **Data Consumption:** By 2028, Indians are projected to consume the most data globally, surpassing developed markets like the US.
 - **Technology Integration:** Emerging technologies like artificial intelligence (AI) and the internet of things (IoT) are being integrated into various services.
 - **Data Localization:** Enhancing storage facilities to support data localization.
- **Key Challenges**
 - **Geographical Concentration:** Data centers are mostly located in cities like Mumbai and Chennai.
 - **Regulatory Hurdles:** Complex regulations related to land acquisition and environmental clearances.
 - **Operational Costs:** High power consumption and infrastructure maintenance lead to high operational expenses.
- **Key Recommendations**
 - **Regulatory Compliance:** Implement practices like audit trails and data governance to meet regulatory requirements.
 - **Investment in R&D:** Develop efficient technologies to reduce power consumption.
 - **Expansion to Tier 2 Cities:** Create a data center ecosystem in smaller cities to diversify and enhance coverage.

World Intellectual Property Organization (WIPO)

- The **Atal Innovation Mission (AIM)** and the **World Intellectual Property Organization (WIPO)** have signed a Letter of Intent to create joint innovation programs for the Global South.
- **About Atal Innovation Mission (AIM)**
 - **Overview:** AIM is a flagship initiative of the Government of India, established in 2016 under NITI Aayog.
 - **Objective:** The mission aims to foster a culture of innovation and entrepreneurship across the country.
- **About WIPO**
 - **Headquarters:** Geneva, Switzerland
 - **Establishment:** Founded in 1967, WIPO is a specialized agency of the United Nations.
 - **Objective:** Its mission is to encourage creative activities and promote the protection of intellectual property worldwide.
 - **Membership:** WIPO currently has 193 member states, including India. All UN member states are eligible to join WIPO, although it is not mandatory.

Green Climate Fund (GCF)

- The Green Climate Fund (GCF) has approved several projects in developing countries, including a project in India called **Financing Mitigation and Adaptation Projects (FMAP)**.
- **About FMAP**
 - **Initiative:** FMAP is an initiative by the Small Industries Development Bank of India (SIDBI).
 - **Purpose:** It provides loans to micro, small, and medium enterprises (MSMEs) for projects involving renewable energy, energy efficiency, energy storage, and e-mobility.
- **About Green Climate Fund**
 - The GCF is the world's largest dedicated climate fund.
 - **Establishment:** It was created under the Cancún Agreements in 2010.
 - **Mandate:** The fund aims to promote low-emission, climate-resilient development in developing countries.
 - **Role:** It is an operating entity of the financial mechanism of the **United Nations Framework Convention on Climate Change (UNFCCC)**.

Greenium

- According to the **Economic Survey 2023-24**, Indian sovereign green bonds received minimal **Greenium** from private investors.
- **About Green Bonds**
 - Green bonds are debt instruments used to fund projects or activities classified as 'green' according to national or international green standards.
- **About Greenium**
 - **Definition:** Greenium refers to the pricing benefits investors receive because they are willing to pay more or accept lower returns for investments that have a sustainable impact (as defined by the United Nations Development Programme, UNDP).
 - **Additional Cost:** It represents the extra cost of choosing clean technology over technologies that emit more greenhouse gases.

FMAP Programme

- IDBI has received approval for **\$215.6 million** in funding from the **Green Climate Fund (GCF)** to create a **\$1 billion** corpus for **financing mitigation and adaptation projects (FMAP)** for Medium and Small Enterprises (**MSMEs**).
- **About FMAP**
 - **Purpose:** The FMAP facility will provide loans to MSMEs for projects such as renewable energy, energy efficiency, energy storage, and e-mobility.
- **About Green Climate Fund (GCF)**
 - The GCF is the world's largest dedicated climate fund.
 - **Role:** It operates as an entity of the financial mechanism of the United Nations Framework Convention on Climate Change (UNFCCC).

Clarion-Clipperton Zone

- India plans to apply for licenses to explore deep-sea minerals in the **Clarion-Clipperton Zone in the Pacific Ocean** through the **UN-backed International Seabed Authority (ISA)**.
- Additionally, India anticipates receiving two more exploration permits from the ISA this year for the Indian Ocean, targeting the **Carlsberg Ridge and Afanasy-Nikitin Seamount regions**, known for their **polymetallic sulphide deposits** and ferromanganese crusts.
- **About the Clarion-Clipperton Zone**
 - **Location:** A vast area between Hawaii and Mexico.
 - **Significance:** Known for large volumes of polymetallic nodules.
 - **Discovery:** First discovered by British sailors in 1873.
- **Polymetallic Nodules and Ferromanganese Crusts**
 - **Polymetallic Nodules:** Contain metals such as copper, gold, silver, and zinc.
 - **Ferromanganese Crusts:** Known for containing cobalt, nickel, manganese, platinum, and rare earth elements.