

Report titled "Imperative of Cutting Methane from Fossil Fuels" released

- Report was prepared by **International Energy Agency (IEA)** with contributions from **UNEP** and **UNEP-Convened Climate and Clean Air Coalition (CCAC)**.
 - ⊕ CCAC, founded in 2012, is the **only international body working to reduce short-lived climate pollutants-methane, black carbon, hydrofluorocarbons** - that drive both climate change and air pollution.
- **Key findings**
 - ⊕ Targeted **methane mitigation from fossil fuels** could avoid **0.1 °C warming by 2050**.
 - ⊕ **Without targeted action** on methane, increase in global average surface temperature will likely **exceed 1.6 °C by 2050**.
- **Methane mitigation by 2050 can prevent**
 - ⊕ **Nearly 1 million premature deaths** due to ozone exposure.
 - ⊕ **90 million tonnes of crop losses** (wheat, rice, soy and maize) due to ozone and climate changes.
 - ⊕ About **85 billion hours of lost labour** due to heat exposure.
- Methane (CH₄) is a **greenhouse gas** and **responsible for 30 percent of global warming**.
 - ⊕ Around **580 million tonnes of methane** is emitted **every year** globally, 60 percent of which comes from **human activities** (landfills, agricultural practices, wastewater treatment etc).
 - ⊕ It is the **second largest contributor** to climate change after carbon dioxide.

Initiatives to Tackle Methane Emissions

- **Global Methane Pledge** was launched at **COP26 in 2021** to cut methane emissions by at least 30% by 2030 from 2020 levels.
 - ⊕ It was **not signed by India**.
- **Gobar (Galvanizing Organic Bio-Agro Resources) Dhan** scheme, an umbrella initiative of **Ministry of Jal Shakti**, supports conversion of waste into resources and reduction of methane emissions.

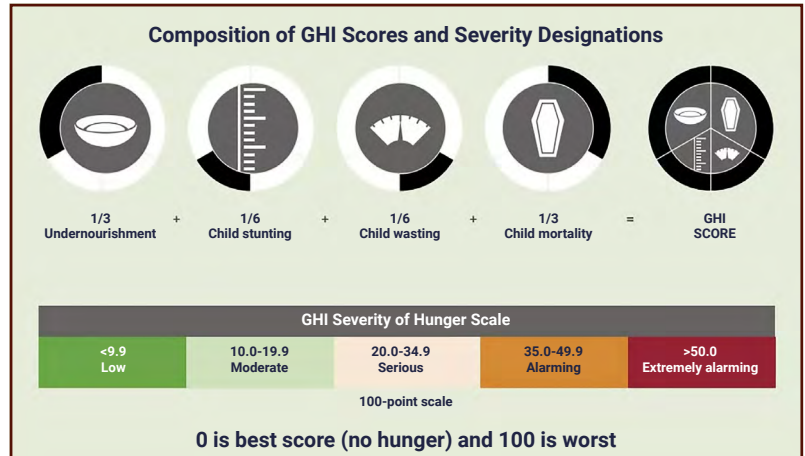
Global Girlhood Report 2023 released by 'Save the Children' organization

- The report focuses on the impact of the **Climate Crisis** on the **lives of Girl children** across the globe.
- **Key highlights:**
 - ⊕ **Climate Crisis** impacts **girls in various aspects** e.g., Food Security, Poverty, Migration, Safety, Education, and Health.
 - ⊕ **Child marriage** is often seen as a **coping strategy to reduce economic vulnerability** and food insecurity that a family is facing because of a disaster.
 - ⊕ Globally, **9 million girls face extreme risks of climate disaster** and consequently forced into **child marriage every year**.
 - ◆ **2/3rd child marriages** are to happen in regions with **higher-than-average** climate risks.
 - ⊕ Almost **60% of girls globally** will experience at least one extreme climate event by 2030.
- **Lack of appropriate measures in climate change plans**
 - ⊕ **Paris Agreement** acknowledges the need to promote gender equality however, girls are not specifically dealt with in the agreement.
 - ⊕ **Gender Action Plan at COP25** only mentions **girls in relation to their involvement in science and technology** for climate solutions.
- **Recommendations:**
 - ⊕ **Making gender equality and protection from gender-based violence a central priority** in climate action plans.
 - ⊕ Investing in **anticipatory actions** to serve girls needs.
 - ⊕ **Supporting girls as decision-makers** and feminist movements.



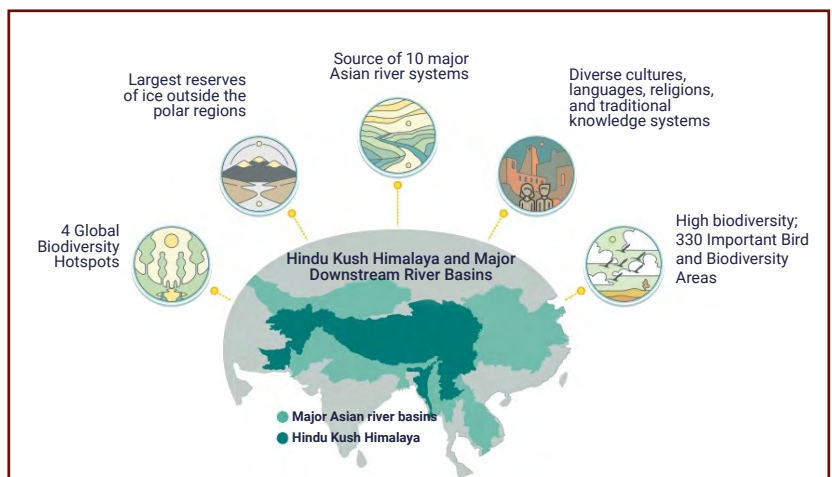
India slips four places to rank 111 out of 125 countries in Global Hunger Index (GHI) 2023

- Previously, India ranked 107 out of 121 countries in 2022.
- GHI is **published by Concern Worldwide** (international humanitarian organization) and **Welthungerhilfe** (private aid organisation in Germany).
- GHI is **used to measure and track hunger** at global, regional, and national levels. **It uses four parameters to determine its score**
- Key findings**
 - India's ranking is based on a **GHI score of 28.7**.
 - Highest child wasting rate** (under five age who have **low weight for their height**) in world at 18.7 percent, reflecting acute undernutrition.
 - Rate of undernourishment** (caloric intake is insufficient) stood at **16.6 percent** and **under-five mortality** (children who die before their fifth birthday) at **3.1 percent**.
 - Since 2015, **worldwide progress against hunger remains largely standstill**.
 - South Asia and Africa (South of Sahara)** are the world regions with **highest hunger levels**.
- However, **Ministry of Women and Child Development (MoWCD)** questioned GHI and called it a **flawed measure of hunger that doesn't reflect India's true position**.
- Objections raised by MoWCD**
 - 3 out of 4 indicators of GHI** are related to health of children and cannot be representative of entire population.
 - 4th indicator** (Undernourishment) is based on **telephone-based opinion poll conducted on a very small sample size of 3000**.



Record Spike in Aerosol in Hindu Kush Region: Study by ISRO

- Atmospheric aerosols** consist of **solid/aqueous particles** suspended in the lower atmosphere and are typically of **sizes** in a range of **0.001–10 micrometers**.
- Aerosols source:**
 - Natural:** volcanic eruptions, dimethyl sulfide emissions from **phytoplankton**, etc.
 - Anthropogenic:** fossil-fuel burning, **deforestation fires**, etc.
- The study used data sources and simulations to **evaluate aerosol properties** and **Aerosol Radiative Forcing and Efficiency (ARFE)**, over **Hindu Kush Region**.
 - ARFE shows the **effect of anthropogenic aerosols** on the **total amount of radiation** that the **earth** and its **atmosphere absorb**, convert into **heat**, and **re-emit**.
- Findings**
 - ARFE is **2-4 times higher** than over **other sites** in South and East Asia.
 - Aerosols** alone could account for **>50 % of the total warming** over this region.
 - Aerosol-induced warming** leads to:
 - increasing **air temperature**, **observed accelerated** retreat of glaciers.
 - changes in the **hydrological cycle and precipitation patterns** over the region.
- Hindu Kush-Himalayan region** (refer to infographic) spans an area of **approximately. 4.3 million square km** in Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan.



Central Information Commission commemorates 18th Year of enactment of Right To Information (RTI) Act

- RTI Act, 2005 empowers Indian citizens to seek information from government.
 - It replaced the former Freedom of Information Act, 2002.
 - RTI is a part of fundamental rights under Article 19(1) of Constitution. Article 19(1) specifies that every citizen has freedom of speech and expression.
 - Any person who is citizen of India or Non-Residents of India can file RTI.
- As per RTI (Amendment) Act 2019, central government will notify the term of office for Chief Information Commissioner (CIC) and Information Commissioners (ICs).
 - Similarly, salaries, allowances, and other terms and conditions of service of central and state CIC and ICs will be determined by central government.
- Significance of RTI Act**
 - Promote transparency and accountability in working of Government.
 - Reduce corruption, and make democracy work for people in real sense.
 - Improve government records/database management.
- Challenges with RTI**
 - Huge pendency and delays:** As of June 30, 2023, there were 3.21 lakh pending appeals and complaints within 27 ICs.
 - Vacancies:** CIC is currently working with only four commissioners even as seven posts are vacant.

Central Information Commission

- It is a statutory body (constituted under RTI Act, 2005). Its jurisdiction extends over all Central Public Authorities.
- It consists of a CIC and not more than ten ICs. They are not eligible for reappointment.

G20 expert group released a report titled 'Bigger, Bolder, Better' Multilateral Development Banks (MDBs)

- The report was presented at the fourth G20 finance ministers and central bank governors meeting in Marrakech.
- The independent expert group submitted volume two of a series of reports,
- This report focuses on reforms of MDBs on the theme of **Bigger, Bolder, Better MDBs**.
 - Earlier submitted volume one, focused on tripling the annual lending levels of MDBs to \$390 billion by 2030.
- MDBs** are a financial institution established by multiple member countries and governed by international law. e.g., Bretton Wood institutions, Asian Development Bank, etc.
- Recommendations**
 - Better MDBs:**
 - Address the largest external financing gaps in low- and middle-income countries
 - Focus on non-concessional lending in climate action.
 - Scaling up national transformations by integrating with regional programs.
 - Bigger MDBs:**
 - Catalyze private finance by shifting culture from risk avoidance to informed risk-taking.
 - More donor pledges for the International Development Association.
 - Established a Global Challenges Funding Mechanism (GCFM) for investors seeking financial return while also supporting SDGs,
 - Bolder MDBs:**
 - Adopt cascade principle: refers to public sector banks refraining from financing what can be done by the private sector.
 - Empowering the Multilateral Investment Guarantee Agency (MIGA).

Also in News



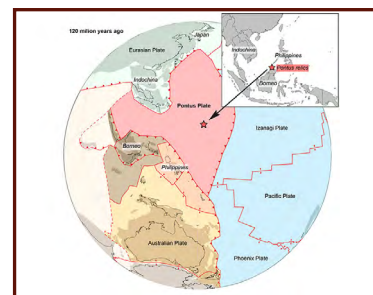
Passport to Earning (P2E) Initiative

- More than one million young people in India are certified through UNICEF's P2E Initiative in areas of financial literacy and digital productivity.
 - Notably, 62 percent of all young learners who benefitted from P2E courses in India are adolescent girls and young women.
- P2E is an e-learning solution which empower youth with relevant skills and abilities to thrive.
 - It aims to deliver long-term sustainable skilling to 5 million youth in age group of 14-29 in India by 2024.
 - It is aligned with National Education Policy 2020.
 - P2E solution offers provisions for online, hybrid, and offline learning models.



Pontus Tectonic Plate

- A long-lost tectonic plate named 'Pontus' was discovered in Borneo.
 - It disappeared 20 million years ago.
- About Pontus Tectonic Plate**
 - Location:** Present-day South China Sea.
 - Early Movement** shrank steadily over its lifespan, finally getting pushed under the Australian plate to the south and China to the north.
- Significance:** revealed planet's paleogeography and climate have changed over time etc.





National Mission for Clean Ganga (NMCG)

- Executive Committee of NMCG has approved seven projects.
- NMCG was registered as a society in 2011 under **Societies Registration Act 1860**.
 - It acted as **implementation arm of National Ganga River Basin Authority (NGRBA)** which was constituted under provisions of Environment (Protection) Act, 1986.
 - Nodal Ministry:** Ministry of Jal Shakti.
- Objective of NMCG**
 - Ensure **effective abatement of pollution and rejuvenation of river Ganga** by adopting a **river basin approach**.
 - Maintain minimum ecological flows in river** to ensuring its water quality and sustainability.
- NMCG has a **two tier management structure** and comprises of **Governing Council and Executive Committee**. Both of them are headed by Director General of NMCG.



Continuously Operating Reference Stations (CORS) Network

- Government launched **National Survey Network**, which comprises **CORS**.
- CORS stations** are **permanent installations and continuously stream satellite observations** to a central server, forming a CORS Network.
- Operated by:** Survey of India
- Significance:** provide real time location-based **mapping services 24x7** with an **accuracy of + / - 3cm**.
 - India now has a **world-class Precise Location-based service**, capable of providing centimetre-level positioning services in real time.
- Applications:** Agriculture, Mining, Construction, Transport, Civil Aviation, Space weather studies, Meteorology and weather forecast etc.



Technologies under Intelligent Transportation System

- Launched by Ministry of Electronics and Information Technology**
- Technologies are:
 - Complementary Metal Oxide Semiconductor (CMOS) Sensor-based Camera for Industrial Vision Applications:** for automated inspection and identification of objects employing Machine Learning and Deep Learning Techniques
 - Thermal Sensor based Camera:** for road traffic applications and It can provide data of stationery as well as of moving objects with high accuracy even in dark.,
 - Online SuCro Crystal Imaging System:** for measurement of crystal size in sugar industries for maintaining its quality.



Data Analytics Dashboard and Poorvottar Sampark Setu Portal

- Ministry of Development of North Eastern Region (DoNER)** has launched two portals viz:
- DoNER Data Analytics Dashboard:** has data of 112 schemes across 55 Departments and Ministries,
 - will help in **Data-driven decision-making; Ease of operations; Centralized monitoring**, etc.
- Poorvottar Sampark Setu portal:** generates a curated list of **Ministers** who can be nominated for a fortnightly visit of Union Ministers to North east region.



White Phosphorus

- As per **Human Rights Watch**, Israel fired white phosphorus bombs over Gaza and Lebanon during their conflict with Hamas.
- White phosphorus is a **waxy, yellowish-to-clear chemical with a pungent, garlic-like odour**.
 - It is **used by military in form of various types** of ammunition as an incendiary agent because it spontaneously **catches fire in air** when it comes into **contact with oxygen**.
 - Applications:** Used as a component in **fertilisers, food additives and cleaning compounds**.
 - It can cause **severe burn injuries** that are slow to heal.
- White phosphorus weapons are **not banned**, but their **use in civilian areas is considered a war crime**.
- Previous Usage:** Israel during **Operation Cast Lead in Gaza (2008-2009)**, USA in city of **Fallujah (Iraq)**, etc.



GI tag for Goan cashew (kernel)

- Goan cashew gets the geographical indication (GI) tag.**
- A GI tag is **conferred upon products** originating from a specific geographical region, **signifying unique characteristics and qualities**.
 - GI tag stands valid for **10 years**, and **can be renewed from time to time for a further period of 10 years each**
- About Goan Cashew:**
 - Origin:** Native to **northeast Brazil**; introduced to Goa by Portuguese in 1570.
 - It occupies **largest area among horticultural crops** in Goa.
 - Soil:** Well-drained deep sandy loam soils.

Places in News



Italy (Capital: Rome)

- India and Italy signed pact to deepen defence cooperation.
- Political Boundaries**
 - Country of **south-central Europe**.
 - Surrounded by **Mediterranean Sea**, in particular by **Adriatic Sea** (northeast), **Ionian Sea** (southeast), **Tyrrhenian Sea** (southwest), and **Ligurian Sea** (northwest).
 - Bordered by **France, Switzerland, Austria, and Slovenia**.
- Geographical features**
 - Highest Peak:** Mont Blanc.
 - Major Rivers:** Po River (longest), Adige, Tiber etc.

