Prelim Bits 16-11-2022 | UPSC Daily Current Affairs

Ahyi Seamount

The U.S. Geological Survey found that the Ahyi Seamount began erupting in mid-October 2022.

- Ahyi seamount is a large conical submarine volcano, which is an undersea volcanic source.
- It lies deep beneath the Pacific Ocean in the U.S. Commonwealth of the Northern Mariana Islands, which are 6,115 km west of Honolulu.
- Its highest point is 79 m below the surface of the ocean.
- It is located about 18 km southeast of the island of Farallon de Pajaros, also known as Uracas.
- The seamount is part of the Mariana Volcanic Arc, which is a chain of over 60 active volcanoes stretching over 600 miles west of and parallel to the Mariana Trench, the world's deepest point.

References

1. The Hindu | Remote undersea volcano likely erupting in Pacific Ocean
2. USGS | Ahyi seamount
3. Volcano | Ahyi seamount

Subarctic Boreal Forest

The Subarctic Boreal Forest is burning, drifting and falling victim to insects. They are shrinking.

- The boreal forest or taiga is a forest of the cold, subarctic region.
- It is the deep, verdant green ring that encircles the Arctic. It stretches across Canada, Scandinavia, Russia and Alaska.
- The forest - named for Boreas, the Greek god of the north wind - covers 10% of the world's land surface.

The soil beneath the taiga often contains permafrost - a layer of permanently frozen soil.

- The boreal forest is second only to the Amazon in terms of its vital role in ensuring the

future of the planet.
- It is in as much danger from climate change as the Amazon rainforest.
- **Significance** - The boreal forest has a decisive impact on the globe's northern oceans and overall climate.
- Its 1.2 billion hectares, which account for nearly a third of all forested land in the world, help slow global warming by absorbing a significant amount of carbon emissions.
- The boreal forest holds twice as much carbon as all tropical forests combined, and also helps purify a massive amount of freshwater.
- There have always been natural changes to its makeup, but scientists are now concerned that those changes are happening more often, and are even becoming the norm.
- **Threats** - The boreal forest has been weakened by
    1. Increasing forest fires,
    2. Melting of permafrost,
    3. Intensifying insect infestations and
    4. Warming temperatures.
- Experts are categorical in their warnings: the forest is encroaching on the tundra, and the prairies are slowly taking the place of the trees.
- **Related Links** - Arctic fires, Arctic Lightning Storms

References

1. The Hindu | Subarctic boreal forest, vital for the planet, is at risk
2. The News | Subarctic boreal forest, vital for the planet, is at risk
3. National Geographic | Taiga

Climate Change Performance Index 2023

The Climate Change Performance Index 2023 was released recently.

- The Climate Change Performance Index (CCPI) is compiled by three environmental non-governmental organisations - Germanwatch, New Climate Institute and the Climate Action Network.
- The index is an independent monitoring tool for tracking the climate protection performance of the European Union and 59 countries.

Together the European Union and 59 countries in the CCPI 2023 account for more than 92% of the greenhouse gas (GHG) emissions in the world.

- The rankings are based on how well the countries are doing to halve their emissions by 2030 - an essential aspect to keep the 1.5-degree Celsius goal within reach and prevent dangerous climate change.
- **Findings** - The report leaves the first 3 places empty as "no country performed well enough in all index categories to achieve an overall very high rating".
- It puts Denmark in fourth place, followed by Sweden and Chile. Iran, Saudi Arabia and

Kazakhstan fared the worst.
- China, which is the world's biggest polluter now, fell 13 places to 51st in this year's CCPI.
- It has received an overall very-low rating due to plans for new coal-fired power plants.

Country	Ranking in the CCPI 2023
Denmark	4th rank
India	8th rank
China	51st rank
U.S.	52nd rank
Iran	63rd rank

- **India** - In the CCPI 2023, India rose two spots to rank 8th out of 63, thanks to its low emissions and the increasing use of renewable energy.
- India earned a high rating in the GHG Emissions and Energy Use categories, while it got a medium rating in Climate Policy and Renewable Energy sections.
- The report said India is "on track" to meet its 2030 emissions targets, compatible with a well-below 2-degree-Celsius scenario.
- However, the renewable energy pathway is not on track for the 2030 target.
- Since the last CCPI, India has updated its Nationally Determined Contribution (NDC) and announced a net-zero target for 2070.

Net zero means achieving a balance between the greenhouse gases put into the atmosphere and those taken out.

- The report noted that India is among the nine countries responsible for 90% of global coal production and it also plans to increase its oil, gas, and oil production by more than 5% by 2030.
- This is incompatible with the 1.5 degree Celsius target.

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1. The Hindu | At eighth spot, India ranks high on list for climate protection
2. CCPI | Climate Change Performance Index 2023
3. Economic Times | Climate Change Performance Index 2023

Kashi Tamil Sangamam

The month-long Kashi Tamil Sangamam will begin in Varanasi soon.

- Kashi Tamil Sangamam celebrates the many aspects of the historical and civilisational connection between India’s North and South.
- The broader objective is to bring the two knowledge and cultural traditions (of the North and South) closer.
- This will create an understanding of our shared heritage and deepen the people-to-people bond between the regions.
- This is in sync with National Education Policy 2020 that emphasises on nurturing a

generation that is modern and in sync with the 21st-century mindset, while being rooted in the Indian culture and ethos.
- **Stakeholders** - BHU and IIT-Madras are knowledge partners for the event.
- The Ministries of Culture, Tourism, Railways, Textiles and Food Processing have been roped in as stakeholders, besides the government of Uttar Pradesh and the Varanasi administration.

History

- In the 15th century, King Parakrama Pandya ruled over the region around Madurai.
- He wanted to build a temple to Lord Shiva, and he travelled to Kashi to bring back a lingam.
- While returning, he stopped to rest under a tree - but when he tried to continue his journey, the cow carrying the lingam refused to move.
- Parakrama Pandya understood this to be the Lord's wish, and installed the lingam there, a place that came to be known as **Sivakasi**.
- For devotees who could not visit Kashi, the Pandyas had built the **Kasi Viswanathar Temple** in Tenkasi in southwestern Tamil Nadu.
- In the 19th century, King Adhivir Ram Pandyan, after returning from a pilgrimage to Kashi, constructed another Shiva temple in Tenkasi.

- The connection between the two centres of knowledge (Kashi and Kanchi) is evident in
    1. The similar themes in literature, and
    2. The presence of the name Kashi in every village in Tamil Nadu.

- Besides the Kasi Viswanathar temple, there are hundreds of Shiva temples in Tamil Nadu that bear the name of Kashi.

- Sant Kumara Guruparar from Thoothukudi district had negotiated with the princely state of Kashi to get a place for the consecration of Kedarghat and Vishvesvaralingam in Varanasi.
- He also composed Kashi Kalambagam, a collection of grammar poems on Kashi.

- There is a connection between the traders dealing in silk saris and textiles from Bananas and Kanchipuram, and architectural, culinary, and other kinds of connections.

References

1. Indian Express | Kashi Tamil Sangamam begins Thursday
2. The Hindu | Preparations in full swing for month-long Kashi-Tamil Sangamam
3. IITM | Kashi Tamil Sangamam

India's Cold Chain Project

At the 27th COP to the UN Framework Convention on Climate Change held at Sharm El-Sheikh, the "Sustainable Food Cold Chains: Opportunities, Challenges and the Way Forward" report was launched.

- Cold chains in the food processing, packaging, distribution and consumption systems are critical for pulling millions of people out of the cycle of hunger and poverty.

- These will help meet the challenge of feeding an additional two billion people by 2050.

Findings of the report

- **Cooling Action Plan** - The report recommended the governments and other cold chain stakeholders to collaborate and develop a National Cooling Action Plan.
- **Food waste** - Of the total food produced for human consumption, an estimated 14% is lost and 17% wasted and costs the global economy to $936 billion a year.
- **Green House Gas Emissions** - Food loss and waste also accounted for 8-10% of global greenhouse gas emissions (GHG).
- **GreenCHILL -** It is a biomass powered refrigeration unit and is an example of an alternative refrigeration technique.
- It uses an adsorption refrigeration technology that uses a solution of water and R-717 (ammonia) as a refrigerant, with zero global warming potential.

Scheme for Integrated Cold Chain & Value Addition Infrastructure

- The scheme is under implementation since 2008.
- It aims to provide integrated cold chain and preservation infrastructure facilities, without any break, from the farm gate to the consumer.
- It covers creation of infrastructure facility along the entire supply chain.
- The scheme allows flexibility in project planning with special emphasis on creation of cold chain infrastructure at farm level.

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1. Down to earth | Cold chains can address climate, food crises
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3. UNEP | Amid food and climate crises, investing in cold chains