

Heat waves

- This year the month of February was the hottest so far since 1901 in India. According to a study in The Lancet, published in July 2021, with two decades of data (2000-2019), more than five million people died on average each year worldwide because of extreme temperatures.
- It is clear that both summer maximum and winter minimum temperatures will increase in the future.
- This can affect the growth of plants, ecological systems, and even the carbon economy as the extreme variations in temperature between days and nights will affect the quality of the soil.
- The diurnal temperature range (DTR) the variation between high air temperature and low temperature during a single day is also changing.
- According to a 2019 International Labour Organization report, India is expected to lose 5.8% of working hours in 2030 due to heat stress.
- The loss in the agriculture and construction sectors will be 9.04%, which translates to 34 million full-time jobs.
- The July 2021 study suggests that future death rates caused by extreme heat could be staggeringly

high by the end of the century, which is comparable in magnitude to all cancers or infectious diseases.

What should be done?

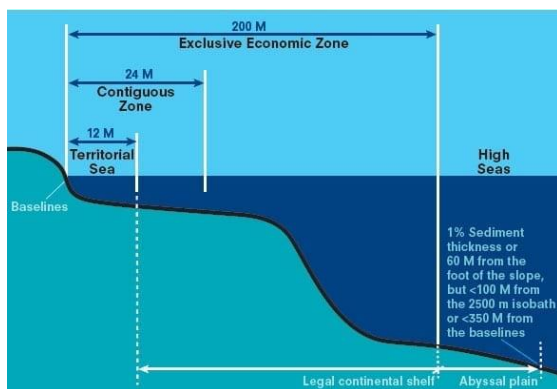
- To implement the Sendai Framework for Disaster Risk Reduction through improved early warning systems, the creation of public awareness, and the formulation of heat action plans.
- Emergency cooling centers (similar to the ones in Toronto and Paris); survival guides that are strategically displayed to survive extreme heat or heat waves (like in Athens); white roofs (Los Angeles); green rooftops (Rotterdam); self-shading tower blocks (Abu Dhabi); and green corridors (Medellin).
- But most of all, it is crucial we prepare district-level heat hotspot maps so that different departments of a State and/or district can design long-term measures to reduce deaths due to extreme heat.

THE HINDU

Role Marine Biodiversity of Areas beyond National Jurisdiction (BBNJ)

- Last week, the UN member states agreed on a historic treaty for protecting marine life in international waters that lie outside the jurisdiction of any country.

- The 'breakthrough' followed talks led by the UN during the Intergovernmental Conference (IGC) on Marine Biodiversity of Areas beyond National Jurisdiction (BBNJ) where negotiations were underway for the past two weeks.
- The treaty is yet to be formally adopted as members are yet to ratify it.



What are the high seas?

- Parts of the sea that are not included in the territorial waters or the internal waters of a country is known as the high seas, according to the 1958 Geneva Convention on the High Seas.
- No country is responsible for the management and protection of resources on the high seas.

How important are the high seas?

- The high seas account for more than 60% of the world's ocean area and cover about half of the Earth's surface, which makes them a hub of marine life.

- They are home to around 2.7 lakh known species, many of which are yet to be discovered.
- The high seas are fundamental to human survival and well-being.
- However, these oceans absorb heat from the atmosphere, are affected by phenomena like El Nino, and are also undergoing acidification all of which endanger marine flora and fauna.
- Several thousand marine species are at risk of extinction by 2100 if current warming and acidification trends continue.
- Anthropogenic pressures on the high seas include seabed mining, noise pollution, chemical spills, and fires, disposal of untreated waste (including antibiotics), overfishing, the introduction of invasive species, and coastal pollution.
- Despite the alarming situation, the high seas remain one of the least-protected areas, with only about 1% of them under protection.

How long did the process take?

- In 1982, the UN Convention on the Law of the Sea, or UNCLOS was adopted.
- The Convention delineated rules to govern the oceans and the use of its resources.

- But there was no comprehensive legal framework that covered the high seas.
- As climate change and global warming emerged as global concerns, a need was felt for an international legal framework to protect oceans and marine life.
- After years of informal discussions, the UNGA decided in 2015 to develop a legally binding instrument within the framework of UNCLOS

What is the treaty?

- The draft agreement of the 'High Seas Treaty' recognizes the need to address biodiversity loss and degradation of ecosystems of the ocean.
 - It places "30% of the world's oceans into protected areas, put more money into marine conservation, and covers access to and use of marine genetic resources," as per the United Nations.
 - An important negotiating point, and source of tension during the talks, was developing countries' access to benefits reaped from the commercialization of resources (especially genetic resources) extracted from the ocean.
 - The treaty has agreed to set up an access- and benefit -sharing committee to frame guidelines.
- It was also underlined that activities concerning marine genetic resources of areas on high seas should be in the interests of all States and for the benefit of humanity.

THE HINDU

Digital solutions and Women's Empowerment

- The theme for International Women's Day 2023 is 'DigitALL: Innovation and Technology for Gender Equality.'
- The transformational and all-encompassing role of digital technology is growing even faster in the post-pandemic world.
- The digital revolution also poses the challenge of perpetuating gender inequality, which is increasingly noticeable in the manner in which women are left behind in knowledge of digital skills and access to technologies.
- The need for inclusive technology and digital education is essential for a sustainable future.

Nutrition and empowerment

- A case in point is the introduction of digital training and mobile tablets for the cook-cum-helpers who drive PM POSHAN. Ninety percent of them are women.

- By bringing together access to a digital device, digital literacy, and community ownership for women, the initiative has infused fresh energy and confidence in how women perceive and deliver their roles as

Digital literacy, food security

- Unleashing women's economic power helps to lift millions out of poverty and food insecurity, and one of the keys to achieving this is digital literacy.
- This strengthens financial inclusion and creates potential new income streams
- The women participating in training said that going forward, they will prioritize access to financial services to manage their own economic activities efficiently and take informed decisions to enhance their livelihoods, food security, and nutrition.

Gender- responsive approach

- India accounts for half the world's gendered digital divide given that only a third of all Internet users in the country are women.
- In Asia-Pacific, India has the widest gender gap of 40%.

- Less than 32% of women in India own a mobile phone compared to over 60% of men.
- Women generally have handsets that cost less and are not as sophisticated as those used by men, and their usage of digital services is usually limited to phone calls and text messages.
- Women can harness digital tools for improving nutrition schemes and initiatives, while also using them to create economic opportunities that ensure long-term food and nutrition security



THE HINDU

Chatbot and Upcoming challenges

- AI-powered search engines could be inaccurate and biased. They may even lie blatantly. This is particularly concerning because society as a whole appears to be almost ready to coexist with A Google had to introduce "Bard

- 'ChatGPT generates its responses by predicting the logical next word in a sentence, she said; but what is logical to the bot may not always be accurate.
- In reality, AI models are based on vast amounts of digital text that are extracted from the Internet.

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