

Report on sea level rise

- The World Meteorological Organisation (WMO) has found in a new report that the world's sea level is rising at an unprecedented rate, portending potentially disastrous consequences for the weather, agriculture, the extant groundwater crisis, and social disparities.
- The report, entitled 'State of the Global Climate 2022'.
- Along with accelerating sea-level rise, it focused on a consistent rise in global temperatures, record-breaking increases in the concentration of greenhouse gases as well as glacier loss, sustained drought-like conditions in East Africa, record rainfall in Pakistan, and unprecedented heatwaves that struck Europe and China in 2022.
- The rate of global mean sea-level [GSML] rise has doubled between the first decade of the satellite record and the last."
- Since the 1990s, scientists have been measuring sea-level rise using satellite altimeters.
- These instruments send radar pulses to the sea surface and measure the time they take to get back and the change in their intensity.

What causes accelerated sea-level rise?

- The WMO report points to the following factors as being responsible for a rising GSML: "ocean warming, ice loss from glaciers and ice sheets, and changes in land water storage".
- The report also quantifies the individual contribution of these factors to yield, what researchers call the "GSML budget". According to the report, in 2005-2019, the loss of glaciers and ice sheets contributed 36% to the GSML rise.
- Ocean warming the phenomenon of rising mean ocean temperatures contributed 55%, and changes in the storage of land water contributed less than 10%.
- As increasing concentrations of carbon dioxide and other greenhouse gases drive global warming, 90% of the 'extra' heat is stored in the oceans.
- This leads to ocean warming. And as the ocean heats up, it undergoes thermal expansion, which in turn leads to a rise in the GSML. One measure of ocean warming is the ocean heat content (OHC).
- As per the report, OHC measures in 2022 touched a new record. The report also says that the earth's ice

cover, known as the cryosphere, has thinned.

- The cryosphere includes the Arctic and Antarctic regions (called “sea ice”), glaciers, the ice sheets of Greenland and Antarctica (area of ice on land covering more than 50,000 km²), seasonal snow cover, and permafrost (mass of land that remains below 0 degree Celsius for at least two straight years).

Impact

- Rising seas swallow more of the land cover, particularly in coastal areas, coastal communities will face an “acute shortage of land for human use”.
- This land crunch, according to Dr. Prabhakaran, will mean that those who are better off will be able to cope better than marginalized groups, leading to an increase in social disparities between people living in coastal areas. Second, weather formations such as cyclones are known to typically originate in the open seas.
- As the GSML continues to rise, along with a rise in ocean temperatures, the chances of cyclones could increase, affecting coastal communities and leading to large economic liabilities for tropical countries.

- GSML continues to rise, more seawater could seep into the ground, leading to the groundwater which is usually freshwater turning more and more saline.
- This, in turn, can exacerbate water crises in coastal areas as well as agriculture in adjacent regions.

How will sea-level rise affect societies?

- Coastal ecosystems could be “completely changed”. For example, he said that in the Sundarbans delta in West Bengal, the world’s largest mangrove area, rising sea levels, and coastal erosion, due to loss of land and sediment from coastal areas, have left more islands submerged under water, and that, in turn, has forced members of local communities to migrate. Since the lives of coastal communities, including their economic activities, are tied intricately with the coastal ecosystem, changes in the coastal ecosystem as a result of GSML rise especially when it happens faster than rehabilitative policies and laws can catch up will further endanger the socio-economic stability of these communities.

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Operation Kaveri

- Indeed, a combination of these forces has increased child trafficking in the Sundarbans area has already been documented.
- INS Tarkash, an Indian naval ship, reached Port Sudan on Thursday to evacuate stranded Indians. Announcing the progress of Operation Kaveri to bring back Indians from the war-torn Sudan.

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Agreement with Dimasa

- The Dimasa tribe is an indigenous, ethnolinguistic community living in Assam and Nagaland.
- The Dimasa peoples are the inhabitants of North Cachar Hills Autonomous District Council (now Dima Hasao), Karbi Anglong Autonomous District Council, Cachar District, Nagaon District of Assam, and the Dhansiri region of Nagaland State. The Dimasas ruled this vast tract with Dimapur (now in Nagaland state) as their capital.”
- The 2011 Census said: “The (Dimasa) Kacharis belong to the Indo-Mongoloid (Kirata) group which includes the Bodos and their allied tribes.

- They have prominent Mongoloid features.
- They call themselves Bodo or Bodo-fisa in the Brahmaputra valley and Dimasa or Dimafisa or ‘sons of the great river’ in the Dima Hasao & Karbi-Anglong district.”
- The DNLA and the history of nationhood demand
- The Dimasa National Liberation Army is a two-year-old militant group based in Assam that announced its launch in April 2019, claiming it was “committed to revamp the national struggle and fight for the liberation of a sovereign, Independent Dimasa Nation”.
- “The Dimasa tribe of India unitedly formed an armed revolutionary organization in the name of Dimasa National Liberation Army under the chairmanship of Naisodao Dimasa and Home Secretary Kharmindao Dimasa.

Agreement signed

- The Dimasa National Liberation Army (DNLA), an insurgent group operating mostly in Assam's Dima Hasao district, on Thursday signed a peace agreement with the government in the presence of Union Home Minister Amit Shah and Chief Minister Himanta Biswa Sarma.

- “According to the memorandum of understanding (MoU), the DNLA will lay down the arms and abide by the Constitution. A total of 179 DNLA cadres will surrender their arms and ammunition.
- The central and state governments will provide ₹ 500 crores each for the development of the Dimasa tribal areas.

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