

Impact of heat waves on human

- Global warming is causing temperatures across the globe to rise significantly enough to cause disruptions.
- Heat waves are occurring with greater frequency and are lasting longer than ever before, with the World Meteorological Organisation declaring that 2023 was the hottest year on record.
- While humans have adapted and acclimatized themselves to several variations in climate, there is believed to be a limit beyond which our bodies cannot process this change.
- Powerful effects that extreme temperatures can have during pregnancy and early childhood, including impacts on learning, sleep quality, and mental and behavioral health.
- It also explains how heat amplifies systemic inequities, including air quality, access to nutritious foods, and structural disadvantages.
- In addition, it provides some practical solutions to mitigate climate change, slow the heating of our environment, and provide new ways of cooling our communities.
- This includes tips on how to mitigate the impact of extreme temperatures,

finding new ways of cooling the communities where children live, and grow, along with some community initiatives that have reportedly started to bear fruit.

Impact of heat waves

- It stands to reason that extreme heat affects infants and young children more than most adults because their smaller bodies heat up more quickly, and their capacity for body temperature modulation is still under development and therefore, far less efficient.
- Infants and young children also can't seek out cooler environments or get water to drink without relying on adults.
- The human body responds to excessive heat primarily by redistributing blood flow toward the skin so heat can transfer out of the body and into the environment through sweat which evaporates on the skin, bringing body temperature down.
- The blood flow cooling method is especially important for young children.
- As long as the air temperature is cooler than the body's temperature, heat dissipates through the skin to the outside environment.
- When temperatures rise, the brain regulates these physiological

responses, with additional input from temperature-sensitive nerve cells in the skin and throughout the body.

- Cells also produce heat shock proteins, which act as “chaperones” that stabilize the structure of other proteins that high temperatures could damage.
- Every cell in the body contains heat shock proteins, protecting a variety of other proteins that are critical to life, including hemoglobin, which carries oxygen to our cells.
- **Brain** — The hypothalamus acts as a thermostat for the entire body, sensing temperatures and reacting to keep core temperatures within a healthy range.
- Continuous, high temperatures prevent the hypothalamus from shutting off these cooling responses.
- Also, when the heat shock proteins break down, the body identifies them as invaders and sends out immune cells to fight them, thus keeping them from their main task of fighting infections.
- **Skin and Gut** — In response to heat, pores in the skin open to allow more sweat to pass through and evaporate, increasing the body’s ability to cool itself.

- The lining of the gut can become leaky allowing bacteria to pass through to other parts of the body.

Pregnant women and children

- In pregnant women, high temperatures may result in reduced blood flow in the placenta, dehydration, and inflammation, which can trigger preterm birth.
- There is evidence that during times of high temperatures, there are increased rates of stillbirth, as well as more premature and lower birth weight babies, again, linked to a greater risk of a range of poor outcomes later in life, including impaired cognition, reduced growth, and chronic health issues such as cardiovascular disease and diabetes in adulthood.
- **Learning loss** — heat is linked to slower cognitive function and reduced concentration ability.
- **Sleep quality** — getting enough good quality sleep is essential for healthy growth and development.
- A growing body of evidence shows associations between less sleep in infancy and childhood obesity, and sleep habits in childhood may impact weight well into adulthood.
- The third crucial factor is Mental and behavioral health because children’s brains and bodies are developing rapidly and are highly

sensitive to their experiences, early childhood is a period where threats to well-being can have long-lasting effects on mental health.

- The Hindu

Capex

What is Capex?

- A capital expenditure, or Capex, is money invested by a company to acquire or upgrade fixed, physical or non-consumable assets.
- Capex is primarily a one-time investment in non-consumable assets used to maintain existing levels of operation within a company and to foster its future growth.
- Capex is used to buy or invest in tangible capital assets, such as real estate; raw materials; and plant, property, and equipment (PP&E).
- Out of the budgeted capex outlay of ₹11.11 trillion, nearly two thirds is earmarked for economic services
- In the case of the railways, the Finance Minister has announced the identification of three major economic rail corridors under the PM Gati Shakti programme to improve logistics efficiency and reduce cost; energy, mineral, and cement corridors; port connectivity corridors; high traffic density corridors, and 40,000 normal rail bogies will be upgraded to meet

Vande Bharat standards Defence capex, a niche priority segment under the Atmanirbhar Bharat campaign, will see a record high allocation of ₹1.72 trillion

- This will be supplemented with the launch of a new scheme for strengthening deeptech technologies for defense purposes and expediting 'atmanir bharta'.
- the government has also been active in pushing forward its inclusion agenda with interlinkages with the infrastructure sector.
- the capex thrust is also seen to be integrating the government's green energy ambitions
- Notwithstanding the unambiguous policy focus on government capex, there seems to be a slowdown in capex spending by public sector enterprises (PSEs).
- The Hindu

ICJ and case on Israel

- The International Court of Justice (ICJ) ordered Israel to take measures to prevent acts of genocide in Gaza, but stopped short of calling for an immediate ceasefire as requested by South Africa.
- A final verdict can only be pronounced after hearings on jurisdictional challenges and the

merits of the claim are concluded, which will likely take several years.

- The Court also ordered Israel to permit the entry of urgently needed basic services and humanitarian assistance into the Palestinian enclave.

What gives ICJ jurisdiction?

- The ICJ is the principal judicial organ of the United Nations. The statute that created it makes it clear that only states may be parties in cases before the Court.
- Both South Africa and Israel are signatories to the Genocide Convention of 1948, which has now been invoked by South Africa.
- Provisional measures are interim rulings of the ICJ aimed at preventing either party from doing irreparable harm to the main case.
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- South Africa had alleged that Israel's blockade of food, water, medicine, and other essential supplies had pushed Palestinians to the "brink of famine."
- The UN Security Council (UNSC) is set to meet next week to deliberate upon the decision.

Can South Africa move against Israel?

- The Genocide Convention has been ratified by an overwhelming number of states, including South Africa (1998) and Israel (1950).
- Article IX allows any state party to institute a case against another in the ICJ, even if it is not directly involved in the conflict.
- This is because the prohibition of genocide is considered a peremptory norm of international law (jus cogens) from which no derogation is permissible.
- This is the basis on which South Africa, a party that is technically unrelated to the conflict, instituted the ongoing proceedings.

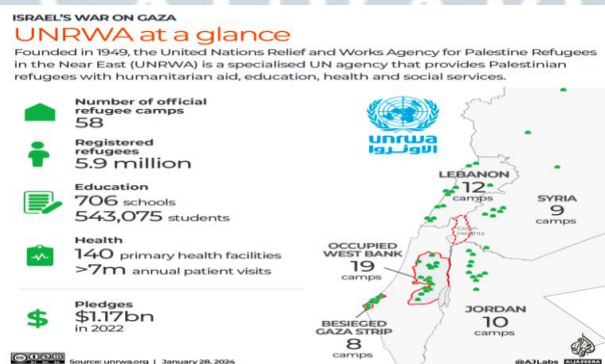
- For instance, in December 2022, the Court ruled that Gambia could bring a genocide claim against Myanmar for its treatment of the ethnic Rohingya population.
- Upholding South Africa's standing to sue, the Court noted that "all States parties to the Convention have a common interest to ensure the prevention, suppression, and punishment of genocide" and thus any of them can seek compliance of such erga omnes obligations (obligations towards the international community as a whole) in any given case.

The Hindu

Why was UNRWA created?

- UNRWA was created by the UN General Assembly on December 8, 1949, to provide basic support including food, healthcare and education to tens of thousands of Palestinian refugees.
- More than 700,000 Palestinians were forcefully displaced leading up to Israel's creation in 1948, which Palestinians remember as [the Nakba](#), or "the catastrophe".
- The UNRWA operations are spread across the occupied West Bank – including East Jerusalem, the Gaza Strip, Syria, Lebanon and Jordan.

(UNRWA)



What does it do?

- UNRWA supports some six million Palestinian refugees who live within and outside Palestine. It is like a quasi-state providing direct services, such as schools, primary health centres and other social services.
 - It also provides loans to Palestinians.
 - However, it does not run refugee camps, as the maintenance of law and order and security are not part of its mandate.
 - UNRWA operates separately from the United Nations High Commissioner for Refugees (UNHCR), which was also established in 1949.
- The UN Relief and Works Agency for Palestinian Refugees in the Near East (UNRWA), which is the main humanitarian agency in Gaza, has been facing an unprecedented funding crisis after its main international donors led by the United States cut its funding over "terror" allegations.

- While UNHCR provides temporary protection and assistance to refugees, it does not have a mandate over Palestinian refugees within the UNRWA fields of operations.

The Hindu

Volt Typhoon

- US authorities they had dismantled a network of hackers known as Volt Typhoon, which was targeting key American public sector infrastructure like water treatment plants and transportation systems at the behest of China.
- In May 2023, the United States and its allies had accused Volt Typhoon, described as a “state-sponsored hacking group” backed by China, of infiltrating critical U.S. infrastructure networks claims rejected by Beijing.

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