

CLIMATE CHANGE

World's water cycle severely impacted by climate change and human activities in 2022: WMO Context: The circulation of water in the Earth-Atmosphere system has been significantly impacted by climate change and human activities, according to the World Meteorological Organization (WMO).

Important discoveries:

- The continuing melting of snow, ice, and glaciers exacerbated the threat, increasing the likelihood of catastrophic weather events like floods. These events will have long-term ramifications for millions of people's water security, according to the World Meteorological Organization's State of Global Water Resources 2022 study, which will be released in October 2023.
- According to the World Meteorological Organization, the effects on the hydrological cycle are causing droughts and extreme rainfall events, and the unpredictable water cycles have caused widespread disruption, burdening livelihoods and businesses.
- The report's conclusions are crucial, as over four billion people already face extreme water scarcity for at least a month each year.

World Meteorological Organization (WMO)

It is a specialised agency of the United Nations responsible for promoting international cooperation on atmospheric science, climatology, hydrology and geophysics. Headquartered in Geneva, Switzerland, the WMO is governed by the World Meteorological Congress, composed of member states, which meets every four years to set policies and priorities.

Asian Water Tower (AWT):

- It is the world's largest reservoir of ice and snow after the Arctic and Antarctic regions. It saw significant glacial melting in 2022. The document pointed out that this altered the natural downward flow of major rivers the Indus, Amu Darya, Yangtze and Yellow River in the region.
- AWT covers the Third Pole, which includes the Tibetan Plateau, the Himalayas, the Karakorum, the Hindu Kush, the Pamirs and the Tien Shan Mountains.
- The increasing pace of glacial melting in AWT, which provides a reliable water supply to almost two billion people, highlighted the deepening influence of climate change on regional water resources.
- A warmer atmosphere holds more moisture. We are seeing much heavier precipitation episodes and flooding. And at the opposite extreme, more evaporation, dry soils and more intense droughts are also being seen.
- From 2000-18, the total glacier mass in the AWT decreased by approximately 4.3%. This led to a significant reduction in snow cover, shortening the snowmelt season. The number, total area and volume of glacier lakes have increased rapidly as a whole, pushing the lake's water by approximately 16% of the total volume, said the report.

Impacts on India

• The risks of such glacial events were evident in India as well. North Sikkim witnessed devastating glacial lake outburst floods (GLOFs) after the South Lhonak Lake burst in October 2023.

The state of the world's rivers

- Despite late snowfalls in May, the snow cover in the Alps remained significantly below the 30-year normal for the 2023 spring, as witnessed in the basins supplying the four major rivers Rhine, Rhone, Danube, and Po.
- The report also highlighted river course variations. The amount of water flowing through the rivers was less than usual. More than half of the global catchment basins had departures from typical river discharge conditions in 2022.
- For example, in Europe, river flow has dropped over the summer due to a severe temperature, drought, and La Nina. The hydrological cycle is projected to be further impacted by El Nino in 2023, according to the document.
- The Horn of Africa faced severe drought, threatening the food security of 21 million people. As a result, the volume of water in the region's rivers was lower than usual in 2022. The Congo River and the entire Nile River watershed in Central Africa saw decreased river discharge.
- As rivers dried up, the effects could be seen in reservoirs. Over 60% of major water reservoirs
 experienced below-average or normal inflow. This poses a problem to water availability in a
 changing environment.



Way forward:

- Including drought and floods, water management and monitoring lies at the heart of the global Early Warnings For All initiative that ensures everyone on Earth is protected by early warnings by 2027.
- The report called for enhanced data sharing to enable meaningful early warnings and more coordinated water management policies that are integral to climate action.
- Mid-way to 2030, when the world is far off from achieving sustainable development goal (SDG)
 6: Clean Water and Sanitation, the report's findings contribute towards informed decision-making relevant to the Sustainable development goals. It emphasised SDG 13 (climate adaptation) by focusing on climate-related impacts on water systems and calling for mitigation actions.

INTERNATIONAL RELATIONSHIP

A war that ends the Saudi-Israel 'normalisation' process

Context:

• As Hamas commenced its fatal strikes on Israel on October 7, the assault decisively undermined Israeli efforts, backed by the US, to pursue normalization of relations with Arab states while making no concessions to the Palestinians. The Gaza war, in particular, has delivered a fatal blow to Saudi Arabia's ambitions to normalize relations with Israel.

Relations between Saudi Arabia and Israel:

• To enhance his speech at the United Nations General Assembly in September 2023, Israel's Prime Minister Benjamin Netanyahu waved two maps: one depicting an isolated Israel in 1948, and the other depicting Arab neighbors who now had peace treaties with Israel — Egypt, Sudan, the United Arab Emirates, Saudi Arabia, Bahrain, and Jordan. It also depicted all of the occupied Palestinian lands, including the West Bank, Gaza, and East Jerusalem, as integral components of Israel.

U.S.backed diplomacy

- U.S. officials pushed for diplomatic relations between Israel and Saudi Arabia, possibly within this year. The normalisation deal had hinged on three conditions that the kingdom had placed before the U.S.:
- U.S. approval for a civilian nuclear programme that provides for uranium enrichment within the country
- An "ironclad" U.S. security guarantee for the country
- Sales of advanced weapons.

The Americans were said to be insisting that Saudi Arabia return the favour as follows:

- Back U.S. interests on oil prices
- Dilute its political, military and technological ties with China
- Deepen strategic engagement with the U.S.

Issues with the new US- Saudi Arabia deal:

- Saudi Arabia's three conditions for normalisation were contentious in Israel and the U.S. Several U.S. politicians opposed the idea of giving security guarantees to an authoritarian state. They also warned the U.S. President against Saudi Arabia developing its own nuclear programme, believing that it poses an unacceptable proliferation risk a concern shared in Israel as well.
- There were also obstacles to the U.S. sales of advanced weapons, largely due to Saudi Arabia's poor human rights record at home and in Yemen.
- Finally, there were concerns about Saudi insistence that arms supplies be accompanied by a transfer of technology to develop its arms industry.
- Despite these obstacles, the U.S. was confident the deal would go through. Palestinian interests and concerns did not figure in these normalisation discussions.
- At that time, Israel made provocative incursions into the Al Aqsa mosque complex, while the Jewish settlers in the West Bank increased their activities.

Impact of the war on Indian interests in the region:

- The conflict in Israel and Palestine will not dampen plans for the India- Middle East- Europe Economic Corridor (IMEC), Finance Minister recently said. However, violence has brought concerns about fuel and food security to the fore again.
- Indian government has condemned Hamas' attack on Israeli civilians. This marks a departure from the traditional Indian foreign policy, which was supportive of Palestine till recently. India also supports the Two State solution to the Israeli–Palestinian conflict, which envisions an independent State of Palestine alongside the State of Israel, west of the Jordan River.

Saudi- Iran ties

- The Gaza war has once again placed the Palestinian issue at the center of West Asian politics. Some writers are blaming Iran, arguing that the Islamic Republic has instigated the Hamas attacks to block Saudi Arabia's normalisation initiative with Israel. This argument has little credibility.
- Saudi-Iran ties have already been normalised under Chinese mediation: embassies have been reopened in both capitals, high level visits have been exchanged and economic cooperation is being expanded.
- Now, following the Hamas attacks, the kingdom has recognized that peace and stability in the region are not possible without Palestinian interests being addressed.

Palestinian interests in focus

- Again, the Saudis have abandoned recourse to insincere verbal assurances to the Palestinians that
 were under consideration during the normalisation negotiations. The search now is for concrete
 action to serve Palestinian interests.
- Looking ahead, it has been obvious over the last three years that the kingdom had shrugged off the American yoke and was pursuing its foreign policy engagements in terms of its own interests, without any U.S. involvement. The kingdom rejects the U.S. interest in building an anti- China coalition globally and an anti- Iran cabal regionally.

Conclusion:

• Regardless of what the US wants, Saudi Arabia will not capitulate on oil prices or weaken its overall strategic ties with China. They demonstrate its claim of strategic autonomy and are essential to its pursuit of broad, multidimensional, and substantive ties throughout Asia. Promoting the Palestinian cause will now be a key component of this foreign policy strategy.

PRELIM FACTS

1. Odisha's New Rural Development Scheme

Context: The Odisha government rolled out a scheme, 'Ama Odisha, Nabin Odisha' (our Odisha, new Odisha).

Details-

- Under this every panchayat of the state will get assistance of Rs 50 lakh to take up projects for:
- protecting places of worship,
- upgrading sites of historical significance, and
- improving rural infrastructure and digital access.
- Under the new scheme, the government has allocated funds for various projects based on suggestions by people from rural areas, who comprise 80% of the state's population.
- These projects range from:
- strengthening internet connectivity,
- developing playgrounds and science parks,
- training facilities,
- work hubs and skill centres for rural entrepreneurs,
- projects to bridge the gap in education infrastructure,
- providing banking facilities, and
- digital infrastructure at the village level.

2.Udaipur set to become country's first wetland city

Context: The Rajasthan government is making all efforts to make Udaipur, the City of Lakes, the country's first wetland city.

About

- The city was picked by the Environment and Forest Department in accordance with the Ramsar Convention of International Importance.
- Udaipur is already part of the central government's National Lake Conservation Plan (NLCP) rehabilitation effort.
- Pichola, Fateh Sagar, Rang Sagar, Swaroop Sagar, and Doodh Talai are the five important lakes that surround it.
- The city's marshes and lakes are primarily controlled by tourist and local self-government ministries.
- The state Environment and Forest Department has submitted the nomination to the Ramsar Convention for worldwide recognition.

How a Ramsar site is selected:

- If we go by the Ramsar Convention, a wetland has to be considered internationally important if it
- a rare, representative, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region and
- supports vulnerable, endangered, or critically endangered species or threatened ecological communities.
- According to state authorities, Udaipur, with an area of 37 sq km, fulfils all the necessary requirements to earn the designation of a wetland city.
- This title is a rare distinction, with only a few cities worldwide having received this recognition.
- Aside from Udaipur, Bhopal is also vying for this prestigious status.

2. Saraswati Samman

Context: Tamil writer Sivasankari was presented with the 'Saraswati Samman' 2022 for her book of memoirs Surva Vamsam.

Key details:

- The Saraswati Samman is an annual award for outstanding prose or poetry literary works in any of the 22 languages of India listed in Schedule VIII of the Constitution of India.
- It is named after the Hindu goddess of knowledge, Saraswati.
- The Saraswati Samman was instituted in 1991 by the K. K. Birla Foundation.
- It carries a citation, a plaque, and prize money of ₹15 lakh.
- Candidates are selected from literary works published in the previous ten years by a panel that included scholars and former award winners.
- The inaugural award was given to Hariyanshrai Bachchan for his four volume autobiography. Kya Bhooloon Kya Yaad Karoon, Needa Ka Nirman Phir, Basere Se Door and Dashdwar se Sopan Tak. PSC/OPSC

About Surya Vamsam

- Surva Vamsam is a book of memoirs in two volumes.
- These two volumes together present not only the evolution of an innocent child into an acclaimed author but also unfold the transformation society has undergone in these seven decades.
- The book is an autobiography.

3. Global Hunger Index 2023

Context: India's ranking in the Global Hunger Index 2023 fell to 111 out of 125 countries from 107 in 2022.

About

Key findings about India:

- The index also stated that India has the highest child-wasting rate in the world at 18.7 per cent, reflecting acute undernutrition.
- With a score of 28.7, India has a level of hunger that is "serious".
- India's neighboring countries Pakistan (102nd), Bangladesh (81st), Nepal (69th) and Sri Lanka (60th) fared better than it in the index.
- According to the index, the rate of undernourishment in India stood at 16.6 per cent and under-five mortality at 3.1 per cent.
- The report also said that the prevalence of anaemia in women aged between 15 and 24 years stood at 58.1 per cent.
- The government, however, rejected the index, calling it a flawed measure of hunger that does not reflect India's actual position.

What is the Global Hunger Index?

- Global Hunger Index is a tool for comprehensively measuring and tracking hunger at global, regional, and national levels.
- It is released by the Alliance2015, a network of seven European non-government organisations engaged in humanitarian and development action.
- The index captures three dimensions of hunger:
- insufficient availability of food,
- shortfalls in the nutritional status of children and
- child mortality (which is, to a large extent, attributable to undernutrition).

- It, accordingly, includes three equally weighted indicators:
- the proportion of people who are food energy-deficient, as estimated by the Food and Agriculture Organisation (FAO),
- the prevalence of underweight in children aged under five years, as compiled by the World Health Organisation (WHO), and
- the mortality rate of children aged under five years, as reported by UNICEF.
- Countries are ranked on a 100-point scale, with 0 and 100 being the best and worst possible scores, respectively.

What does GHI 2023 say about the world?

- After many years of advancement up to 2015, progress against hunger worldwide remains largely at a standstill.
- The 2023 GHI score for the world is 18.3, considered moderate and less than one point below the world's 2015 GHI score of 19.1.
- Furthermore, since 2017, the prevalence of undernourishment, one of the indicators used in the calculation of GHI scores, has been on the rise, and the number of undernourished people has climbed from 572 million to about 735 million.

4. Bharat NCX 2023

Context: The National Security Council Secretariat organizes the 2nd Edition of the National Cyber Security Exercise Bharat NCX 2023.

Key details:

This exercise is for Government organizations, Public and Private Sector to strengthen India's Cyber posture of India's Critical Sector

Aim:

- to train senior management and technical personnel of Government/Critical Sector organizations and Public and Private agencies on contemporary cyber threats and handling cyber incidents and response.
- The program is being conducted by the National Security Council Secretariat (NSCS), in strategic partnership with Rashtriya Raksha University (RRU).
- Bharat NCX India will help strategic leaders to better understand cyber threats, assess readiness, and develop skills for cyber crisis management and cooperation.

5. Abortion rights in India

Context: The Supreme Court is hearing a married woman's request to end her 26-week pregnancy. Key details:

- The case has travelled to two different Benches of the SC, raising crucial questions on the decisional autonomy of a woman to abort, and the legislative framework.
- A two-judge Bench of SC allowed the termination of the pregnancy.
- The court reasoned that an unwanted pregnancy due to failure of contraceptive methods is the same as a forced pregnancy for which termination is allowed up to 24 weeks.
- The case went before a three-judge Bench headed by Chief Justice of India (CJI) D Y Chandrachud.
- The Bench called for a fresh medical report to indicate the foetal health and medical condition of the woman.

What is the law on abortion?

- The Medical Termination of Pregnancy Act (MTP Act) allows termination of pregnancy in three stages.
- Termination of pregnancy up to 20 weeks is allowed on the advice of one doctor.
- If a pregnancy is 20-24 weeks, the right to seek abortion is determined by two registered medical practitioners as an exception, but only under certain categories.
- Section 3B of the Rules under the MTP Act lists seven categories of forced pregnancies, including statutory rape in case of minors or sexual assault; women with disabilities; or when there is a change in the marital status of women during pregnancy.
- After 24 weeks, a medical board must be set up in "approved facilities", which may allow or deny termination of pregnancy only if there is substantial foetal abnormality.

What about the rights of unborn child?

- While courts have read the MTP Act liberally, the test of "foetal viability" as a benchmark to allow abortion is new in India.
- The landmark 1973 US Supreme Court verdict in Roe v Wade that made abortion a constitutional right allowed abortion up to the point of foetal viability, that is, the time after which a foetus can survive outside the womb.
- Foetal viability in 1973 was pegged at 28 weeks (7 months), which is now with scientific advancement lower at 23-24 weeks.

Criticism of India's law:

Decision in the hands of doctor:

• The criticism of India's law is that the decision to terminate after 20 weeks is shifted to doctors and not the woman.

Rights of unborn child ignored:

- The Indian legal framework on reproductive rights tilts to the side of the woman's autonomy to decide and choose more than towards the rights of the unborn child.
- In 2005, Rajasthan High Court in Nand Kishore Sharma versus Union of India rejected a challenge to the constitutional validity of the MTP Act on the grounds that it violates the fundamental right to life of an unborn child.
- The right of an unborn child has, however, formed the basis of legislation that deal with succession or the law banning sex-determination of foetus.
- Section 416 of CrPC also provides for postponement of the death sentence awarded to a pregnant woman.

ANSWER WRITTING

Q. Case Study

You are the Mayor of a town/city that has recently seen a rise in cases of dog bites. The local community is concerned about the safety of their children and pets, and they have started to demand action from the authorities. As the Mayor, you are responsible for addressing this issue and ensuring the safety of the community. Upon investigating the issue, you have discovered that many of the dogs in the area are strays, and some are owned by people who do not take proper care of them. You also found that the local dog population has grown significantly in recent years, and there is no effective system in place to monitor or control it. What would you do in this situation?

Introduction

The case involves the increase in incidences of dog bites in a town/city, which has raised concerns for the safety of the community, including children and pets. Investigation reveals that many of the dogs in the area are strays or owned by people who do not take proper care of them. Moreover, the local dog population has grown significantly in recent years, and there is no effective system in place to monitor or control it.

Stakeholders

- ♣ Local Community
- Dog Owners
- Animal Welfare Organizations
- ♣ Law Enforcement Agencies
- ♣ Local Government
- Mavor

Ethical Issues Involved

- Animal Welfare
- Public Safety
- Responsibility of Dog Owners
- ♣ Balancing the rights of dog owners with the safety of the community
- Potential conflicts between different stakeholders, such as dog owners, parents, and animal welfare advocates
- ♣ Enforcement of laws and regulations related to dog ownership and animal welfare

Short-Term Course of Action

Propose a Immediate Restriction on all Stray Dogs:

Pros: This action can help immediately reduce the number of dogs roaming around freely and causing potential harm. It also sends a strong message to the community that you are taking their concerns seriously.



Cons: There may be some pushback from animal rights activists who believe that stray dogs should be taken care of rather than being banned.

Increase Patrols by Animal Control Officers:

Pros: This will help identify and remove any aggressive or dangerous dogs from the area, and also educate pet owners on the importance of responsible pet ownership.

Cons: This can be a costly endeavour, especially if there is a need to hire additional animal control officers to increase patrols.

Collaborate with Local Animal Shelters and Rescue Organizations:

Pros: These organizations can help identify and remove any dangerous or aggressive dogs from the area, as well as provide temporary or permanent homes for stray dogs.

Cons: This may require additional resources and funding from the local government to support the collaboration and the operations of the organizations.

Long Term Course of Action

Implement Stricter Dog Ownership Regulations: Stricter dog ownership regulations can be implemented such as mandatory licensing and vaccinations, leash laws, and fines for owners who fail to meet these requirements.

Pros:

Levying fines for owners who fail to take care of their pets will discourage people from abandoning their dogs or allowing them to roam free, which could reduce the number of stray dogs in the area.

It could encourage responsible dog ownership and reduce the likelihood of dog bites.

Cons:

It can be overly burdensome for some owners, and they may resist complying with them, which could lead to additional challenges for enforcement agencies.

Enforcement agencies may need to hire additional staff or spend more resources to ensure compliance with the regulations.

Establish a Dog Population Control Program: A Dog Population Control Program can be established such as spaying and neutering programs and adoption initiatives.

Pros:
Reduction in the stray dog population
Promotion of responsible dog ownership
Cons:
Costs accepiated with implementing such programs and potential difficulties in reaching and convincing

Costs associated with implementing such programs and potential difficulties in reaching and convincing dog owners to participate.

Increase Public Awareness and Education: There is room to enhance public knowledge and understanding of responsible dog ownership as well as the potential hazards associated with dogs.

Pros:

It would increase public safety and better-informed dog owners.

Dog owners who may feel targeted can resist any Initiative.

This step will be time taking and resources required to develop and implement effective awareness and education campaigns.

Conclusion

Implementing stricter dog ownership regulations and establishing dog population control programs could help reduce the number of stray dogs and promote responsible dog ownership. Increasing public awareness and education could also help prevent dog bites and promote public safety. As the Mayor, I will take the responsibility to consider all options and make an informed decision that benefits the community's safety and animal welfare.

- 1. Consider the following statements regarding Nilgiri Tahr:
 - 1. It is the state animal of Tamil Nadu.
 - 2. It inhabits the open montane grassland habitats of the Eastern Ghats.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2
- 2. Which one of the following is the best description of 'USS Gerald R Ford' that was in the news recently?





A.It is a nuclear-powered submarine.

B.It is a stealth frigate.

C.It is an advanced aircraft carrier.

D.It is a patrol vessel.

- 3. Gunji Village, recently seen in the news, lies in which state?
 - a) Sikkim
- b) Manipur
- c) Punjab
- d) Uttarakhand
- 4. With reference to Aerosols, consider the following statements:
 - 1. They are tiny gas particles suspended in air.
 - 2. They provide the nuclei upon which condensation and freezing take place during rainfall.
 - 3. They affect the climate by reflecting or absorbing incoming solar radiation.

How many of the above statements are correct?

- a) Only one
- b) Only two
- c) All three
- d) None
- 5. Consider the following statements regarding Holodomor:
 - 1. It is a man-made famine that occurred in the Soviet republic of Ukraine in 1930s.
 - 2. The primary victims of the Holodomor were soldiers and volunteers of the army.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2
- 6. With reference to the Lyme Disease, consider the following statements:
 - 1. It is a vector-borne infectious disease caused by a bacterium.
 - 2. It is easily transmitted between humans through air, food, or water.
 - 3. It is commonly treated using antibiotics.

How many of the above statements are correct?

- a) Only one
- b) Only two

- 7. Deception Island, recently seen in the news, lies in which one of the following regions?

 A. North Atlantic Ocean Coaching for

 - B. Northeast of Australia
 - C. Northwest of Antarctic Peninsula
 - D. Arctic Ocean
- 8. Consider the following statements regarding White Phosphorous:
 - 1. It is a highly combustible chemical that burns quickly when exposed to the air.
 - 2. White phosphorus munitions are completely banned under international law.

Which of the statements given above is/are correct?

a) 1 only

- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2
- 9. With reference to Green Credit Programme (GCP), consider the following statements:
 - 1. It allows private sector companies to earn green credit for undertaking environment-friendly actions.
 - 2. Green credits earned under the GCP can be traded on a domestic market platform.
 - 3. The Indian Council of Forestry Research and Education (ICFRE) is responsible for implementing the GCP.

How many of the above statements are correct?

- a) Only one
- b) Only two
- c) All three
- d) None
- 10. Consider the following statements regarding CAR-T cell therapy:
 - 1. In this, T- cells from blood are harvested outside patient's body to destroy tumour cells.
 - 2. It is used in treating leukemia and lymphoma.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2