

# Testwale Current Affairs PDF

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## **1. World Heritage glaciers to disappear by 2050 : UNESCO ( Nov. 8, 2022 )**

World Heritage glaciers to disappear by 2050

According to new **UNESCO data**, by 2050, **one-third of the World's Heritage Sites of Glaciers** will disappear.

### **Key points of the UNESCO report**

- The report highlights the accelerated melting of glaciers regardless of efforts to limit temperature rise.
- The report says that it is still possible to save the other two thirds of glaciers, if the rise in global temperatures does not exceed **1.5°C** compared to the pre-industrial period.
- The study, conducted by UNESCO in partnership with the IUCN, shows that these glaciers have been shrinking at an accelerated rate since 2000 due to **CO2 emissions and higher temperatures**.
- Each year, glaciers are currently losing **58 billion tons of ice**.
- This is equivalent to the combined annual water use of France and Spain and is responsible for about **5% of the global sea-level rise**.

### **Reducing Carbon Dioxide Emission**

- The study suggests that the only effective solution to this environmental threat is to reduce **carbon dioxide** emissions as quickly as possible.
- The report calls for a rapid reduction in CO2 emissions to save the glaciers and the biodiversity it supports.
- In addition to reducing carbon emissions, UNESCO also advocated the creation of an **international fund for glacier monitoring and conservation**.

### **Some of the endangered glaciers**

- Kilimanjaro National Park and Mount Kenya (**Africa**)
- Glaciers in Western Tien-Shan (**Kazakhstan, Kyrgyzstan, Uzbekistan**) that have shrunk by 27% since 2000
- The Dolomites (**Italy**) (**Europe**),
- Yellowstone National Park (**North America**).

### **Importance of Glaciers**

- Glaciers are important for survival. Half of humanity is directly or indirectly dependent on glaciers as a water source for domestic use, agriculture and electricity.
- Glaciers are also supporters of biodiversity, which keeps many ecosystems alive.

- Due to the melting of glaciers, people will have to face other challenges including water scarcity, increasing number of disasters, and loss of biodiversity.

## **2. 8 years expected to be warmest from 2015 to 2022: WMO Report ( Nov. 8, 2022 )**

8 years expected to be warmest from 2015 to 2022

The report titled '**WMO Provisional State of the Global Climate 2022**' released at the 27th Conference of Parties to the UNFCCC on 6 November.

### **Key features of the report**

- The global mean temperature in 2022 is projected to be **1.15 °C** above the **pre-industrial (1850-1900) average**, with 2015 to 2022 (eight years) likely to be the warmest on record.
- Report stated that the rate of sea level rise has **doubled since 1993** and has risen by nearly **10 mm** since January 2020 to a new record high this year.
- Concentrations of the main greenhouse gases – **carbon dioxide, methane and nitrous oxide** – hit record levels once again in 2021.
- The annual increase in methane concentrations was the highest on record.
- Flood events occurred at various stages during the monsoon season in India, especially in the Northeast in June.

### **About the report**

- The WMO State of the Global Climate Report is released annually.
- It provides an authoritative voice on the current state of the climate using key climate indicators and reporting on extreme events and their impacts.
- The temperature figures used in the tentatively 2022 report are as of the end of September. Its final version will be released in April next year.

### **World Meteorological Organization (WMO)**

- It is an intergovernmental organisation with a membership of **193 member states and territories**.
- It was established by ratification of the **WMO Convention** on **23 March 1950**.
- The first State of Climate Report was released in 1993.
- Headquartered - **Geneva**
- Its supreme body - **the World Meteorological Congress**

### **3. COP27: First time Compensating poor countries for climate disasters ( Nov. 8, 2022 )**

COP27

The **27th Conference of the Parties 9COP**) to the United Nations Framework Convention on Climate Change (UNFCCC) (COP27) is being held in **Sharm el-Sheikh, Egypt** on 31 October to 13 November 2022.

#### **Important facts**

- In this, various countries have agreed to provide financial assistance to poor countries to deal with the loss and damage caused by climate change.
- The participating countries agreed on a **20-point provisional agenda**.

#### **What is Loss and Damage?**

- It refers to the economic and non-economic impacts of climate change, including extreme events in countries that are particularly vulnerable to the adverse effects of climate change.
- The demand for loss and damages is quite old, but it has faced strong resistance from rich and developed countries.
- The term was introduced in 1991 as a demand by the island country of Vanuatu, representing the Alliance of Small Island States (AOSIS).

#### **What is Conference of Parties (COP)?**

- The United Nations Conference on Environment and Development (**UNCED**), also known as the '**Earth Summit**', was held in Rio de **Janeiro, Brazil**, from 3-14 June 1992.
- The conference focused on the impact of human socio-economic activities on the environment.
- The countries assembled here agreed to work together to deal with issues of sustainable development and climate change .
- The Rio Earth summit agreed to create the United Nation Framework Convention on Climate Change (UNFCCC) where the member countries can discuss issues related to global warming and climate change and take steps to deal with these problems .
- It entered into force on 21 March 1994, and has been ratified by 197 countries and territories .
- The countries which has ratified the UNFCCC are called as Parties
- Every year they meet to discuss climate change related issues . These meetings are called Conference of Parties(COP) .
- The first COP was held in 1995 in Berlin, Germany .

#### **4. Union Environment minister Bhupendra Yadav to lead Indian delegation at the COP27 meeting in Egypt ( Nov. 4, 2022 )**

COP27 meeting in Egypt

Union Minister of Environment, Forest and Climate Change, **Bhupender Yadav** will be leading the Indian delegation to attend the 27th Session of Conference of Parties of the UNFCCC (COP 27) scheduled to be held at **Sharm El-Sheikh**, Egypt from 6-18 November, 2022. The last , COP 26 was held in **Glasgow**, United Kingdom from 31 October to 13 November 2021.

The COP 27 conference is being organized by the **Bonn**, Germany based **United Nation Framework Convention on Climate Change (UNFCCC)** with Egypt being the host country.

#### **Agenda of the conference**

The COP 27 will focus on delivering action on a number of issues critical to tackling the climate emergency like;

- urgently reducing greenhouse gas emissions,
- building resilience and adapting to the inevitable impacts of climate change, and
- delivering on the commitments to finance climate action in developing countries.

The **theme** of the COP 27 is **Delivering for People and Planet**.

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- The next COP 27 will be held in **Sharm el-Sheikh ,Egypt in 2022**.

#### **5. India's per capita Greenhouse gas emissions below world average: UNEP ( Oct. 28, 2022 )**

India's per capita Greenhouse gas emissions

According to the [United Nations Environment Programme](#) (UNEP) report “**Emissions Gap Report 2022: The Closing Window**”, India’s per capita greenhouse gas emissions were far below the world’s average per capita greenhouse emission average (including land use, land-use change, and forestry—LULUCF) of **6.3 tCO<sub>2</sub>e** (tonne carbon dioxide equivalent) in 2020.

The report released on 27 October 2022 said that India’s average greenhouse gas emission was **2.4 tCO<sub>2</sub>e** (tonne carbon dioxide equivalent) in 2020.

### **Highest per capita emitter of greenhouse gasses**

The highest per capita emission was of the **United States of America** at 14 tCO<sub>2</sub>e, followed by 13 tCO<sub>2</sub>e in the Russian Federation, 9.7 tCO<sub>2</sub>e in China, about 7.5 tCO<sub>2</sub>e in Brazil and Indonesia, and 7.2 tCO<sub>2</sub>e in the European Union.

India’s contribution to historical cumulative CO<sub>2</sub> emissions (excluding LULUCF) is three per cent, whereas the US and the EU have contributed 25 per cent and 17 per cent respectively to total fossil CO<sub>2</sub> emissions from 1850 to 2019.

China contributed 13 per cent, the Russian Federation seven per cent, and Indonesia and Brazil one per cent each. Least developed countries contributed only 0.5 per cent to historical CO<sub>2</sub> fossil fuel .

The report has been released by the UNEP on the eve of the UN Climate Change conference (COP27) in Egypt next month. The report said that the International community is still far off its Paris climate summit 2015 goal of “limiting global temperature rise to below 2 degree Celsius” to the pre industrial level .

However, in absolute terms the largest emitter of greenhouse gasses in the world is **China** followed by the United States of America , India ,Russia and Japan .

### **United Nation Environment Programme (UNEP)**

The United Nations Environment Programme was set up in 1972 after the United Nation Conference on Human Environment was held in Stockholm, Sweden in 1972.

In 1988 it set up Intergovernmental Panel on Climate Change (IPCC) with World Meteorological Organisation

Headquarters : **Nairobi, Kenya**

Director: **Inger Andersen**

## **6. GEAC approves Genetically Modified mustards for field trials ( Oct. 28, 2022 )**

GEAC approves Genetically

The **Genetic Engineering Appraisal Committee (GEAC)**, under the Union Ministry of Environment, Forest and Climate Change has recommended “environmental release (larger field trials)” of a transgenic mustard hybrid.

The regulator has given approval for field trials of GM mustard for four years and is renewable for two years at a time based on compliance reports. However the final decision will be taken by the ministry of environment and forests and climate change.

## **Who has developed the GM mustard seed?**

The GM mustard seed DMH 11 was developed by the Centre for Genetic Manipulation of Crop Plant (CGMCP) of Delhi University.

Patent on indigenously developed GM mustard is jointly held by **National Dairy Development Board** and the **University of Delhi under Deepak Pental**.

If the trial is successful then it will be the **first genetically modified food crop** to be cultivated in India.

## **Genetic Crops in India**

The first transgenic crop to be approved in India was **Bt.Cotton in 2002**, which has led to a massive jump in the production of cotton in India. India is now the largest producer of cotton in the world.

The second crop which was approved for field trial was **Bt. Brinjal** in 2009. However, the decision was later stayed by the then environment minister Jairam Ramesh on grounds of "insufficient scientific evidence about safety".

## **What is a transgenic crop?**

A transgenic crop is a genetically modified organism (GMO). Here transgenic means that one or more genes of a different unrelated plant or from different species is inserted artificially in a crop using recombinant DNA technology. This is done to introduce desired quality in the crop and improve its productivity.

## **Benefits of GM Crops**

### **Improve crop protection and production**

- One of the objectives for developing plants based on GM organisms is to improve crop protection. It can be used to modify the genes of the crops so as to increase the resistance of plants to specific insects and diseases, thus increasing the production. For example Resistance against insects is achieved by incorporating into the food plant the gene for toxin production from the bacterium *Bacillus thuringiensis* (Bt).
- This helps in reducing the consumption of the insecticides and herbicides saving money for the farmers.
- It can help in creating plants which are more tolerant to cold, frost, or drought. It will make crops grow in harsh climatic conditions and will be extremely helpful in a constantly changing environment.
- It also helps in increasing the production of crops as they grow faster than the traditional crops and also taste better. This will in turn lower the prices of the crop produced.
- Genetically engineered foods are reported to be high in nutrients and contain more minerals and vitamins than those found in traditionally grown foods.
- Genetically engineered foods have an increased shelf life and hence there is less fear of foods getting spoiled quickly.

## **Problems with Transgenic crops**

### **Fear of adverse effect on Human health**

The consumption of transgenic foods is believed to have a harmful effect on the human body as it can cause the development of diseases which are immune to antibiotics.

The long term effect of these foods on human beings is not known.

### **Fear of MNC controlling food production**

The process to develop such transgenic crops needs resources, qualified personnel and technology which is mainly with large multinational corporations. The seeds of the transgenic crops can be used only once. Hence the farmers have to buy the seed again and again from the company which holds the patent of the crop. This makes the farmers and developing countries dependent on the company which can be a serious threat to the food system and economy of the developing countries.

### **Religious and cultural reasons**

Many religious and cultural communities are against such foods because they see it as an unnatural way of producing foods. Many people are also not comfortable with the idea of transferring animal genes into plants and vice versa.

### **Unknown impact on Ecosystem**

The introduction of a new crop in the ecosystem having foreign genes can have unpredictable consequences for the ecosystem. An ecosystem develops symbiotic relationships amongst its organism over a long period of time. Introduction of a new species with foreign genes can disrupt the ecosystem with unpredictable consequences.

Union Minister for Environment ,Forest and Climate Change : **Bhupendra Yadav**

## **7. Thundi and Kadmat beaches receives Blue Beaches certification ( Oct. 26, 2022 )**

Blue Beaches

In a tweet on 26 October 2022, the Union Environment Minister Bhupender Yadav said that **Thundi** and **Kadmat** beaches in Lakshadweep have received the prestigious Blue Flag certification. Now there are **12 Blue beaches** in India.

### **What is Blue Beach?**

The Blue Beach certificate is given by Copenhagen, Denmark based organisation Foundation for Environmental Education (FEE). It is an eco-label given to the cleanest beaches in the world.

The beaches have to meet the about 33 stringent requirements or criteria which includes environmental, educational, access and safety-related criteria.

### **Indian beaches which has been given the certification**

**Puri's Golden Beach** in Odisha is the first Indian as well as Asia's first Blue Flag certified beach.

Other Beaches are **Shivrajpur Beach** (Gujarat), **Kappad Beach** (Kerala), **Ghoghla Beach** (Diu), **Radhanagar Beach** (Andaman and Nicobar), **Kasarkod Beach** (Karnataka), **Padubidri Beach** (Karnataka), **Rushikonda Beach** (Andhra Pradesh), **Kovalam Beach** (Tamil Nadu) and **Eden Beach** (Puducherry).

Last year, the certification was given to **Kovalam** beach in Tamil Nadu and **Eden beach** in Puducherry.

**8. Dehradun to host 3-day “Akash for Life” Space Conference in November ( Oct. 20, 2022 )**

Akash for Life

The Union Minister of State (Independent Charge) Science & Technology Dr **Jitendra Singh** said that the 3-day “Akash for Life” Space Conference will be held in **Dehradun**, Uttarakhand from 5-7 November 2022.

ISRO and all major scientific ministries and departments of the government of India in collaboration with Vijnana Bharati will organize this National conference. Vijnana Bharati is a dynamic Science Movement with a Swadeshi Spirit, interlinking traditional and modern sciences on the one hand, and natural and spiritual sciences on the other hand.

The Government of India is organizing a campaign “**Sumangalam**” across the country for finding solutions to the environmental issues with an Indian perspective based on traditional knowledge .

**Panchmahabhoot**

In a blend of the modern and the traditional knowledge, the government of India is going to organise five national conventions across the country on the **Panchmahabhoot**- the five elements for solving environmental issues for the betterment of society.

In the traditional knowledge system the human body or the universe is made of Panchmahabhoot. **It consists of Aakash, Vaayu Jal, Prithvi and Agni.**

The government of India is organising the first conference based on Panchmahabhoot-Akash or Space in Dehradun.

**9. Madhya Pradesh to develop Meghdoot forest in Ujjain ( Oct. 19, 2022 )**

Meghdoot forest in Ujjain

Madhya Pradesh government will develop land freed from illegal encroachments in and around Mahakal temple in Ujjain as an urban forest called as Meghdoot. It is being built under the second phase of [Shri Mahakal Lok project](#).

The Chief Minister of Madhya Pradesh **Shivraj Singh Chouhan** performed bhoomipujan for the proposed Meghdoot forest in Ujjain on 18 October 2022.

Mahakal Lok project has been launched by the Madhya Pradesh Government to develop the Mahakaleshwar temple in Ujjain on the model of Kashi Vishwanath in Varanasi. The first phase of the Mahakal Lok project was inaugurated by the Prime Minister Narendra Modi on 12 October 2022.

**Meghdoot forest**

The Madhya Pradesh government has freed about 7 acres of land around the temple area which was under illegal encroachment. This area will be developed by the Ujjain Smart City as an urban forest named Meghdoot, at a cost of Rs 11.36 crore.

In the Meghdoot forest, there will be a beautiful entrance area, greenery area, walkways, along with seating, restaurant and a beautiful environment on the river banks.



## **Madhya Pradesh**

It is the second largest state area wise in India after Rajasthan.

According to the Indian State of Forest Report -2021, Madhya Pradesh has the **largest forest cover** in the country area wise.

25.14 % of its area is under forest cover.

## **10. World Bank appoints neutral expert and chairman of Court of Arbitration for 'Kishanganga' and 'Ratle' hydroelectric project ( Oct. 18, 2022 )**

The World Bank has appointed a "neutral expert" and a chairman of the Court of Arbitration regarding the **Kishanganga** and **Ratle** hydroelectric power plants, in view of disagreements and differences between India and Pakistan over the 1960 Indus Water Treaty.

Under the Indus water treaty if there is a dispute between India and Pakistan on the provisions of the treaty then the World Bank will mediate between the two.

**Michel Lino**, Chairman of the International Large Dam Commission has been appointed as the Neutral Expert and **Sean Murphy** has been appointed as Chairman of the Court of Arbitration.

**Pakistan** asked the World Bank to facilitate the establishment of a Court of Arbitration to consider its concerns about the designs of the two hydroelectric power projects, while **India** asked for the appointment of a Neutral Expert to consider similar concerns over the two projects.

## **What is the Indus Waters Treaty?**

The 1960 Indus Waters Treaty was mediated by the World Bank and signed by the then prime minister Jawaharlal Nehru and Pakistan's president Ayub Khan.

- It has allotted western rivers; **Indus, Jhelum and Chenab to Pakistan** and Eastern flowing rivers; **Sutlej, Ravi and Beas** to India.
- Under the treaty India will not restrict the flow of the river which is assigned to Pakistan but it can use the river for hydroelectric purposes on the condition that the flow of water to Pakistan is not affected significantly.
- Due to this provision of the Indus water treaty, India has designed the Rattle and the Kishanganga project as **run of the river** project.

## **Run of the River project**

In the run of the river project, reservoirs are not built for water storage purposes and the natural flow of water from a height is used to run micro turbines to produce electricity.

According to India such hydel projects do not contravene the Indus Water Treaty as river waters are not stored.

## **Dispute over Kishanganga and Ratle project**

Kishanganga or Neelum (for Pakistan) is a tributary of river **Jhelum**. India has constructed a run of the river hydroelectric projects with a capacity of 330 MW in Jammu and Kashmir.

The project was inaugurated by PM Modi in 2018. Pakistan argues that the flow of the river which enters Pakistan has been affected due to the faulty design of the project.

### **Ratle Hydroelectric Project**

It is also a run of the river hydroelectric project being built on the **Chenab river** in Kishtwar district of Jammu and Kashmir. In 2013 Pakistan government objected to the project as it was a violation of the Indus water treaty. In 2017 the World Bank allowed India to start the project which was opposed by Pakistan. After fresh objections from Pakistan, both countries approached the World Bank.