



Annual Frontiers Report 2022

For Prelims: Annual Frontiers Report, United Nations Environment Programme, UNEP, wildfires, climate change, pollution, biodiversity loss, greenhouse gases, lightning, Savannah ecosystem

For Mains: Role of United Nations Environment Programme (UNEP) in addressing environmental issue, Environmental Pollution & Degradation

Why in News?

Recently, the [United Nations Environment Programme \(UNEP\)](#) has released its **Annual Frontiers Report** named **Noise, Blazes and Mismatches**.

- The document has been released 10 days ahead of the **UN Environment Assembly**.
- The Frontiers report **identifies and offers solutions to three environmental issues: urban noise pollution, [wildfires](#) and phenological shifts** that merit attention and action from governments and the public at large to address the triple planetary crisis of [climate change](#), [pollution](#) and [biodiversity loss](#).

What is the United Nations Environment Programme (UNEP)?

- **About:** The UNEP is a **leading global environmental authority** established on 5th June 1972.
 - It **works to identify and draw attention to emerging issues** of environmental concern.
- **Functions:** It sets the **global environmental agenda**, promotes the sustainable development within the United Nations system, and serves as an authoritative advocate for global environment protection.
- **Major Reports:** [Emission Gap Report](#), [Adaptation Gap Report](#), [Global Environment Outlook](#), Frontiers, Invest into Healthy Planet.
- **Major Campaigns:** Beat Pollution, UN75, [World Environment Day](#), Wild for Life.
- **Headquarters:** Nairobi, Kenya.

What is the United Nations Environment Assembly (UNEA)?

- It is the **governing body** of the UN Environment Programme.
- It is the **world's highest-level decision-making body** on the environment.
- It **meets biennially** to set priorities for global environmental policies and develop international environmental law.
- It was created in June 2012, during the [United Nations](#) Conference on Sustainable Development, also referred to as RIO+20.

What are the Key Highlights of the Report?

- **Urban Noise Pollution:**
 - The **unwanted, prolonged, and high-level sounds** from road traffic, railways, or leisure activities, impair human health and well-being.
 - Chronic annoyance and sleep disturbance caused by traffic can result in **severe heart diseases and metabolic disorders** with the very young, and mostly affect the elderly and marginalised communities near busy roads.
- **Wildfires:**
 - The trends towards more **dangerous fire-weather conditions** are likely to increase due to **rising concentrations of atmospheric [greenhouse gasses](#)** and the **attendant escalation of wildfire risk factors**.
 - **Climate change can prompt extreme wildfires**, generating [lightning](#) that can ignite other fires, far beyond the fire front and creating a so-called hazardous feedback loop.
 - Such extreme events are **disastrous for human health and the environment**.
 - Wildfires have also become more common in the [Savannah ecosystem](#), which has **affected over one-fourth of species** in the Savannah ecosystem.
 - Wildfires are also responsible for [air pollution](#).
 - According to a global study published in September 2021, there is a **link between the impact of wildfire-related pollution and human deaths**
 - Wildfires seldom spread to **humid [tropical forests](#)** in the past. But these forests are now more vulnerable **due to [deforestation](#) and forest fragmentation**.
- **Phenological Shifts:**
 - Plants and animals in terrestrial, aquatic and marine ecosystems use temperature, day length or rainfall as cues for when to bear fruit, migrate or transform in other ways.
 - However, **climate change disrupts these natural rhythms** as plants and animals are being pushed out of sync with their natural rhythms, leading to mismatches, such as when plants shift life cycle stages faster than herbivores.
 - **Phenology is the timing of recurring life cycle stages**, driven by environmental forces, and how species interacting within an ecosystem respond to changing conditions.

What are the Recommendations of the Report?

- Appreciating and adopting **indigenous fire management techniques**.
- A **preventive approach, rather than reactive approach** by engaging vulnerable groups, will help adapt to the wildfires.
- It is important to **enhance fire-fighting capabilities** and strengthen community resilience-building programmes
- It is important to **focus on long-range [weather forecasting](#)**.
- Focus on **remote-sensing capabilities** such as satellites, ground-based radar, lightning detection as well as data handling.

[Source: BS](#)

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