



**General Studies-3; Topic: Conservation, environmental pollution and degradation, environmental impact assessment.**

## India's climate imperative

### Introduction

- In the absence of COVID-19, climate change-induced disasters would have been India's biggest red alert in recent years.
- **The heatwave this year; torrential downpours in south India in 2021; and the super cyclone Amphan in 2020 are symbols of man-made climate change.**

### Rising Temperature

- Temperatures over the Indian Ocean have risen by over 1°C since the 1950s, increasing extreme weather events.
- **Heat waves** in India have claimed an estimated 17,000 lives since the 1970s.
- Labour losses from rising heat, by one estimate, could reach ₹1.6 lakh crore annually if global warming exceeds 2°C, with India among the hardest hit.
- Heatwaves are **aggravated by deforestation and land degradation**, which also exacerbate fires.

### Climate-resilient agriculture

- Agriculture, being water-intensive, does not do well in heat wave-prone areas.
- A solution is to promote agricultural practices which are not water-intensive.
- Insurance schemes can transfer some of the risks of extreme heat faced by industrial, construction and agricultural workers to insurers.
- **Weather-based crop insurance would help.**

- **Climate-resilient agriculture** calls for diversification — for example, the cultivation of multiple crops on the same farm.

## Floods and storms

- Floods and storms are worsened by vast sea ingress and coastline erosion in the low-lying areas in the south.
- Southern States need stronger guidelines to avoid construction in locations with drainages.
- It is vital to map flood-risk zones to manage vulnerable regions.
- **Environment Impact Assessments** must be mandatory for commercial projects.
- Kerala has some **flood-resistant houses** constructed on pillars.
- Communities can build round-shaped houses, considering optimum aerodynamic orientation to reduce the strength of the winds.

## Arresting climate change

- Adaptation alone will not slow climate damages if the warming of the sea level temperatures is not confronted.
- Leading emitters, including India, must move away from fossil fuels.
- Nearly 295 dams in India are more than 100 years old and need repairs.
- Regulations must stop the building of dams on steep slopes and eco-fragile areas, as well as the dynamiting of hills, sand mining, and quarrying.
- India could cut its pollution by half just by providing clean cooking fuel to rural households in the Indo-Gangetic plains.
- **Nature-based solutions**, such as increasing forest area, would be valuable to India's climate adaptation programmes.

## Way Forward

- India needs to adapt to climate impacts by **building resilience against weather extremes**.
- India's share in disaster management should be raised to 2.5% of GDP.
- States can tap into the Union government's resources, financial and technological, from early warning meteorological systems to centrally sponsored climate schemes.
- **MGNREGA funds** can be used for climate adaptation in agriculture, waste management and livelihoods.
- States could make compensatory payment to local self-government resources for climate adaptation.
- For public pressure to drive climate action, we need to consider climate catastrophes as largely man-made.