EDITORIAL: THE HINDU

GENERAL STUDIES 3: **DISASTER MANAGEMENT** **DATE:** **01.05.2025**
TOPIC: **HEAT WAVES**

The impact of suspending a water treaty

1. Context: Escalating Heatwaves and Policy Urgency

- Northern India is witnessing **unprecedented heatwave patterns**, with **earlier onset**, **longer duration**, and **greater intensity**.
- These shifts call for **urgent public policy responses** to protect **health, agriculture, infrastructure**, and overall **climate resilience**.

2. Current Trends: Rising Heat Events in 2024–2025

- **Record-Breaking Temperatures**:
  - In **2024**, temperatures in parts of **Delhi** reached **53°C**, among the highest ever recorded.
  - **2025** saw the **earliest heatwave in history**, beginning as early as **February**.
  - Cities like **Delhi, Jaipur, Amritsar, and Chandigarh** reported **consistent highs above 40°C** through **March–April**, triggering multiple IMD heat alerts.
- **Changing Seasonal Patterns**:
  - **Winters are shrinking**, and summers are beginning earlier.
  - Heatwaves are becoming **more frequent and prolonged**, with 2025 projections exceeding historical averages.

3. Underlying Causes of Intensifying Heatwaves

- **Climate Change & Global Warming**:
  - Rising **baseline global temperatures** have increased the probability of extreme heat events.
  - Weakening **western disturbances**, which previously brought cooling, now contribute to prolonged heat.
- **Urbanization & Land Use Changes**:
  - Cities like **Delhi and Chandigarh** face severe **urban heat island (UHI)** effects due to **concretization**, **reduced vegetation**, and **dense population**.

    - **Loss of green spaces** and uncontrolled infrastructure expansion amplify temperature rise.

- **Atmospheric and Meteorological Factors**:
    - **Clear skies** and **low wind speeds** in pre-monsoon months allow intense solar radiation.
    - Sudden **seasonal transition** from winter to summer increases exposure to abrupt heatwaves.

4. Impacts of Intensifying Heatwaves

- **Public Health Crisis**:
    - Vulnerable groups — **children, elderly, outdoor workers, and people with health conditions** — face heightened risks.
    - In **2024**, around **150 heat-related deaths** were officially recorded, with **independent estimates suggesting higher numbers**.
    - Rise in **heatstroke, dehydration, and worsening of chronic illnesses** like heart and respiratory problems.
- **Agricultural and Economic Losses**:
    - Heat stress damages **winter-sown crops** (e.g., wheat), threatening **food security** and **rural livelihoods**.
    - Increases **water stress** and **irrigation demand**, worsening resource scarcity.
- **Infrastructure Strain**:
    - Peak heat periods drive up **electricity usage** for cooling, causing **power grid overload** and frequent outages.
    - Existing **urban infrastructure is not designed** for such temperature extremes, resulting in rapid **degradation**.

5. Current Policy Responses: Gaps and Limitations

- **Reactive Measures**:
    - Focus remains on **heatwave advisories and alerts**, rather than **long-term mitigation** or **resilience planning**.
    - Public advisories have **limited reach**, especially in rural and informal sectors.
- **Inadequate Early Warning Systems**:

- Though **IMD forecasting** has improved, there's **insufficient integration** with **local governance** and **health systems**.
- Lack of **targeted emergency plans** for vulnerable groups.

6. Recommendations: Towards Proactive Public Policy

- **Strengthen Early Warning and Integration**:
  - Improve **heatwave forecasting** accuracy and ensure **multi-channel dissemination** (TV, mobile, radio).
  - Link forecasts with **municipal services**, **health departments**, and **disaster management systems**.
- **Urban Planning and Green Infrastructure**:
  - Promote **urban greening**, **tree plantation**, **rooftop gardens**, and **green belts** to combat UHI.
  - Enforce **cool roofs**, **reflective pavements**, and **heat-resilient urban design** in construction norms.
- **Health Sector Preparedness**:
  - Create **Heat Action Plans** for **cities and states**, particularly targeting **slum dwellers, construction workers**, and **street vendors**.
  - Train **frontline health workers** to diagnose and treat heat illnesses.
  - Ensure availability of **ORS packets**, **medicines**, **ambulances**, and **cooling shelters**.
- **Water and Energy Resource Management**:
  - Implement **rainwater harvesting**, **drip irrigation**, and **smart water usage** in agriculture.
  - Promote **energy efficiency**, and stagger power demand through **demand-side management** during heat spikes.
- **Public Awareness and Community Engagement**:
  - Run **targeted campaigns** on heat safety, hydration, and first aid.
  - Involve **local communities, NGOs, and traditional leaders** in disseminating preventive strategies.
- **Climate Change Mitigation and Adaptation**:

- Shift to **renewable energy sources** to reduce greenhouse emissions.
- Mainstream **climate resilience** into **urban planning, housing, employment**, and **rural development** policies.

7. Conclusion: A Call for Integrated Climate Resilience

- The **escalating heatwaves** in North India are not just meteorological phenomena but **early warnings of climate breakdown**.
- Addressing this crisis requires **proactive, multi-sectoral, and long-term interventions** that combine **climate adaptation**, **health protection**, and **urban resilience**.
- India must urgently transition from **reactive response** to **anticipatory planning**, aligning policies across **health, agriculture, energy, and infrastructure**.

Source: https://www.thehindu.com/opinion/op-ed/the-impact-of-suspending-a-water-treaty/article69510612.ece