

Concept Note

OVC 2025

Theme: Climate Change and Human Health

Background

Climate change has emerged as a critical environmental stressor globally. The direct and indirect impacts of climate change on human health are manifold, varying significantly across space and time. In the Global South, vulnerable populations who contribute the least to the crisis are disproportionately affected. Increasing rainfall variability, more frequent heat waves, and shifting seasonal patterns threaten human health and its social determinants—particularly for marginalized communities dependent on climate-sensitive natural resources. These communities face shifting dynamics of communicable diseases, an increasing burden of heat-related illnesses and Non-Communicable Diseases (NCDs), food and nutrition insecurity, and heightened morbidity and mortality due to frequent disasters.

While the country's healthcare system is instrumental in protecting and promoting public health, it is simultaneously a significant contributor to greenhouse gas (GHG) emissions. The climate footprint of the Indian healthcare sector is estimated at 39 million tons of carbon dioxide equivalent, comparable to the annual emissions of 10 coal-fired power plants. Post-pandemic, the increased demand for air filtration and purification in hospital settings has significant implications for energy consumption. Additionally, rising ambient temperatures and frequent heatwaves necessitate a greater reliance on air conditioning to ensure thermal comfort in medical facilities.

Concurrently, India's healthcare infrastructure remains vulnerable to extreme weather events. The health system must become resilient to environmental changes, as it is currently sub-optimally equipped to mitigate risks associated with a changing climate, a growing population, and infrastructure gaps.

Key Questions

Against this background, the panel proposes to discuss the following key questions:

- **Impact Assessment:** How is climate change impacting health and its social determinants, specifically regarding vulnerable populations?
- **Systemic Resilience:** How can the health system become more responsive and sustainable in the face of climatic impacts?
- **Future Pathways:** What are the strategic pathways forward to build a climate-resilient health system in Odisha?