

CLIMATE & HEALTH RISK INTELLIGENCE PLATFORM

Team Name- Hack4Earth

**Focuses on impact of climate on
people's mental and physical
health.**



PROBLEM STATEMENT



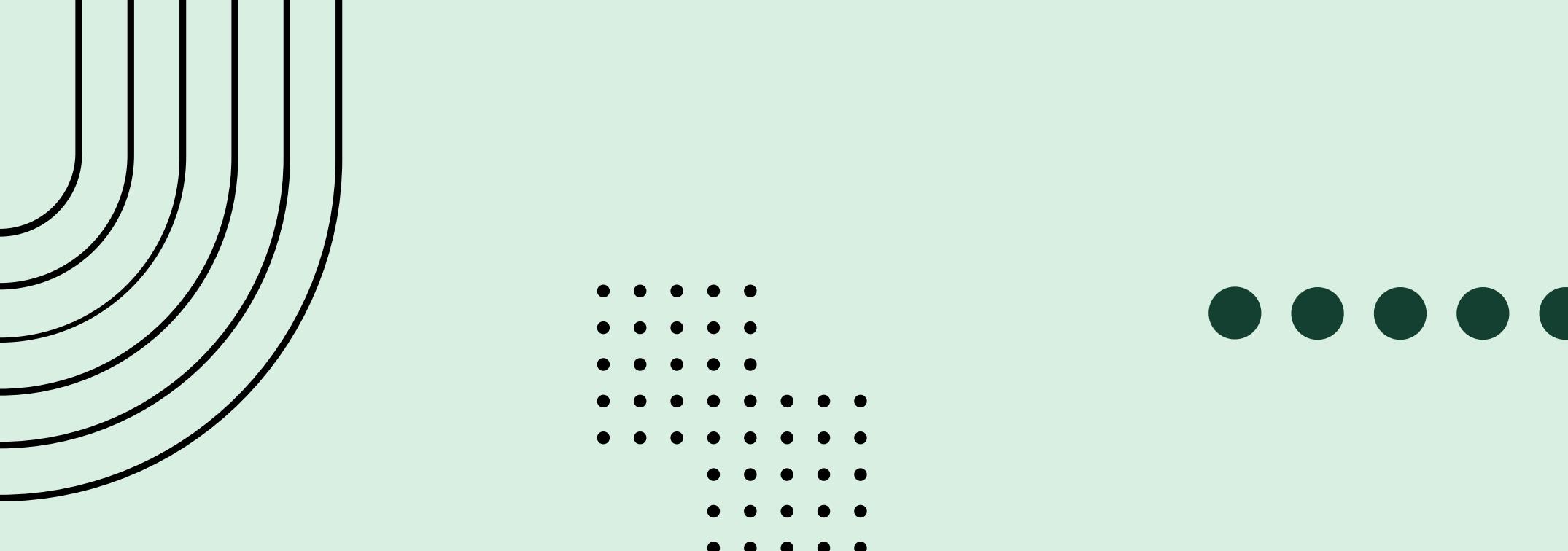
Climate change is no longer just an environmental issue — it's a growing public health emergency. Rising temperatures, air pollution, extreme weather events, and water scarcity are causing:

Heat-related illnesses and deaths

- Respiratory diseases from worsening air quality
- Vector-borne disease outbreaks (malaria, dengue, cholera)
- Mental health issues from disasters and displacement

Yet, there is no single integrated system that provides communities and policymakers with real-time, actionable insights to safeguard public health against these threats.





OUR SOLUTION



An AI-powered platform that acts like a Climate-Health Radar.

- Forecasts risks (heatwaves, disease outbreaks, pollution spikes)
- Sends real-time alerts to communities & authorities
- Recommends preventive actions tailored to vulnerable groups



KEY MODULES

- Predicts upcoming heatwaves using climate models
- Identifies vulnerable groups (elderly, infants, outdoor workers)
- Suggests hydration schedules, cooling shelters, and safe activity hours.
- Uses IoT sensors + satellite pollution data
- Predicts high-risk respiratory days for asthma/COPD patients
- Sends personalized SMS/app alerts (e.g., "Stay indoors between 12–4 PM")
- ML model combining rainfall, temperature, and water stagnation data
- Predicts hotspots for dengue/malaria outbreaks.
- AI chatbot for talking to people feeling under the weather.

01. Heatwave Health Risk Monitor

02. Air Quality Alerts

03. Disease Predictor

04. Mental Health Monitor



EXPECTED IMPACT



By transforming climate data into actionable health insights, our solution directly saves lives through early warnings — predicting heatwaves to reduce heatstroke fatalities, forecasting disease outbreaks to enable timely medical response, and alerting vulnerable populations to prevent emergency hospital visits. It empowers governments and NGOs to shift from reactive to proactive strategies, allowing smarter resource allocation such as deploying mosquito nets before outbreaks or setting up cooling shelters in high-risk zones.

At the community level, real-time alerts delivered via SMS or mobile apps in local languages equip citizens with personalized health tips, especially for the elderly, children, and outdoor workers, while also offering mental health support during climate disasters. Designed to be scalable and adaptable, the system works with open datasets and minimal infrastructure, making it suitable for urban slums, rural villages, and megacities alike. Built for India, but ready to serve the world — this is data-driven impact at its most human.

.....

THANK YOU

By team Hack4Earth