

## Kathmandu's Air Pollution Emergency

February

January

0.00

The first four months of 2025 saw Kathmandu's air quality reach alarming new lows, with PM2.5 concentrations consistently measuring 7-8 times above WHO safety limits. The valley, which accounts for 60% of Nepal's air pollution-related deaths, has experienced a sustained health crisis – the toxic air is now reducing average life expectancy by 3.5 years. This year's unprecedented pollution spike has been driven by over 200 wildfires across central Nepal, exacerbated by prolonged drought and winds. At its peak, the AQI hit 365  $\mu$ g/m<sup>3</sup> in areas like Boharatar (10x above safe levels), causing widespread respiratory illnesses, flight disruptions, and leaving tourists unable to see the Himalayas. Experts attribute the crisis to converging factors: rampant forest fires, agricultural burning, industrial emissions, and Kathmandu's bowl-shaped geography that traps pollutants. Despite temporary relief from April rains (reducing PM2.5 to 154  $\mu$ g/m<sup>3</sup>), the government faces mounting criticism for lacking comprehensive emission controls and waste management policies.

April

March



# Wildfires Ravage Ecosystems



Nepal's forests are burning at an alarming rate. In Manang, a wildfire that ignited on January 31 continued raging for over 10 days despite efforts by the Nepal Army, police, and local communities. The fire has destroyed critical habitats for endangered species like the Himalayan monal and decimated grazing lands. Similarly, Kavrepalanchok's Gorakhnath Community Forest fire threatened water supplies for Thalidanda villages. These disasters highlight Nepal's vulnerability to climate-driven droughts, with dry forest floors becoming tinderboxes.

# **Global Climate Inaction & Nepal's Advocacy**

As most nations miss deadlines to submit updated climate plans (NDCs) under the Paris Agreement, only 12 countries (representing 16.2% of global emissions) have complied. Major polluters like the US, China, and the EU remain delayed, undermining global efforts to limit warming to 1.5°C. President Paudel has intensified calls for climate justice, emphasizing that Nepal – responsible for just 0.1% of emissions – suffers disproportionately from glacier melt (65% faster since 2011) and GLOF threats. The UN's 2025 International Year of Glaciers' Preservation spotlights these challenges, as Himalayan ice loss now contributes significantly to sea-level rise and water insecurity for 1.5 billion people downstream.





#### **Grassroots Solutions & Innovation**

Amid the crises, local initiatives offer hope:

- **Everest Clean-Up:** Drones have removed 875kg of waste from Everest and Amadablam, while assisting climber safety through the Khumbu Icefall.
- **Circular Economy:** Dhangadhi's Waste Segregation Centre generates NPR 4.55 million annually by recycling 21 tons/day, creating 140 jobs.

• **Plastic Revolution:** Bharatpur's new PET facility (investment: NPR 13 million) now recycles previously non-recyclable green bottles, involving indigenous Bote communities in river clean-ups.



### Youth Demand Action

The BaYu Sambaad summit united 100+ young activists with government and UN agencies to shape Nepal's climate policies. Their declaration will inform Nepal's NDC3 and COP30 strategy, emphasizing climate-resilient education, health, and water systems.

### **Extreme Weather & Health Alerts**

With 2024 as Nepal's hottest year on record, early 2025 brought dangerous heatwaves (34°C+ in Nepalgunj) and water shortages. Health experts report surges in heat-related illnesses and pollution-induced conditions, urging masks and indoor stays during high-pollution periods.



### By the Numbers:

• 9,000 gigatons: Global glacier ice lost since 1975 (UNESCO)

- 365 μg/m<sup>3</sup>: Kathmandu's peak PM2.5 in April (WHO safe limit: 25 μg/m<sup>3</sup>)
- \$88 billion: Nepal's estimated climate investment needs (NDC3)

"The mountains are burning, the air chokes us – but together, solutions are within reach."

Good Reads:

<u>Household air pollution: Key Facts 2024</u> <u>State of Air in Focus to Kathmandu Valley</u> <u>2024 to become the hottest year on record</u> <u>Status of Air Quality Report of Nepal, 2022</u>

> Editorial Team Prakash lama (Program Coordinator), Keshav Raj Pokharel (Program Officer)

> > Design: Prakash Lama

Copyright © 2025 CEN | Clean Energy Nepal Write to us: Info@cen.org.np Mailing address: P.O. 24581 181 Moti Marga, Satdobato, Talchickhel, Lalitpur, Nepal









