

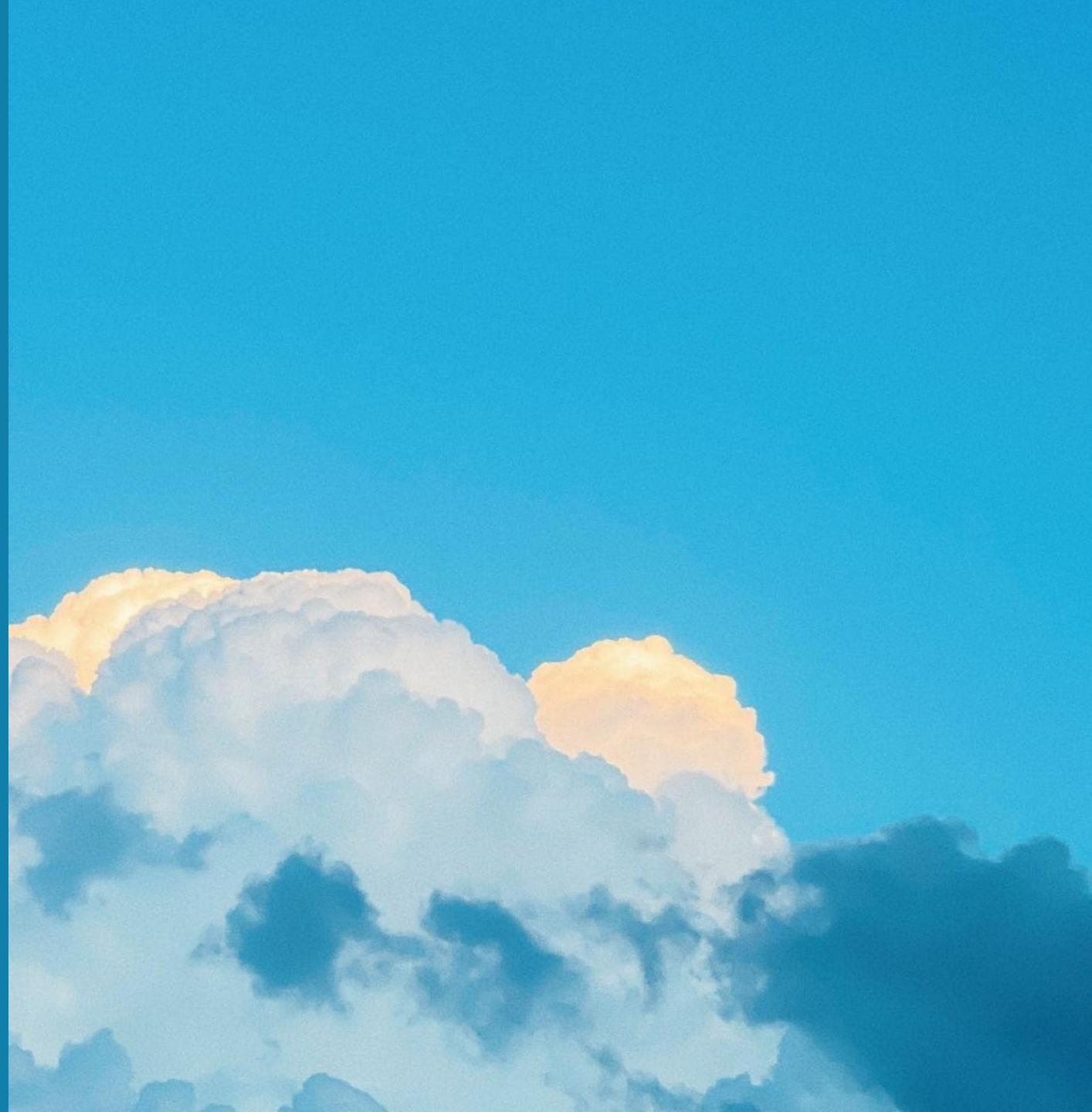


AIR POLLUTION IN ASIA: Overview and Actions Taken



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18 Dec 2025



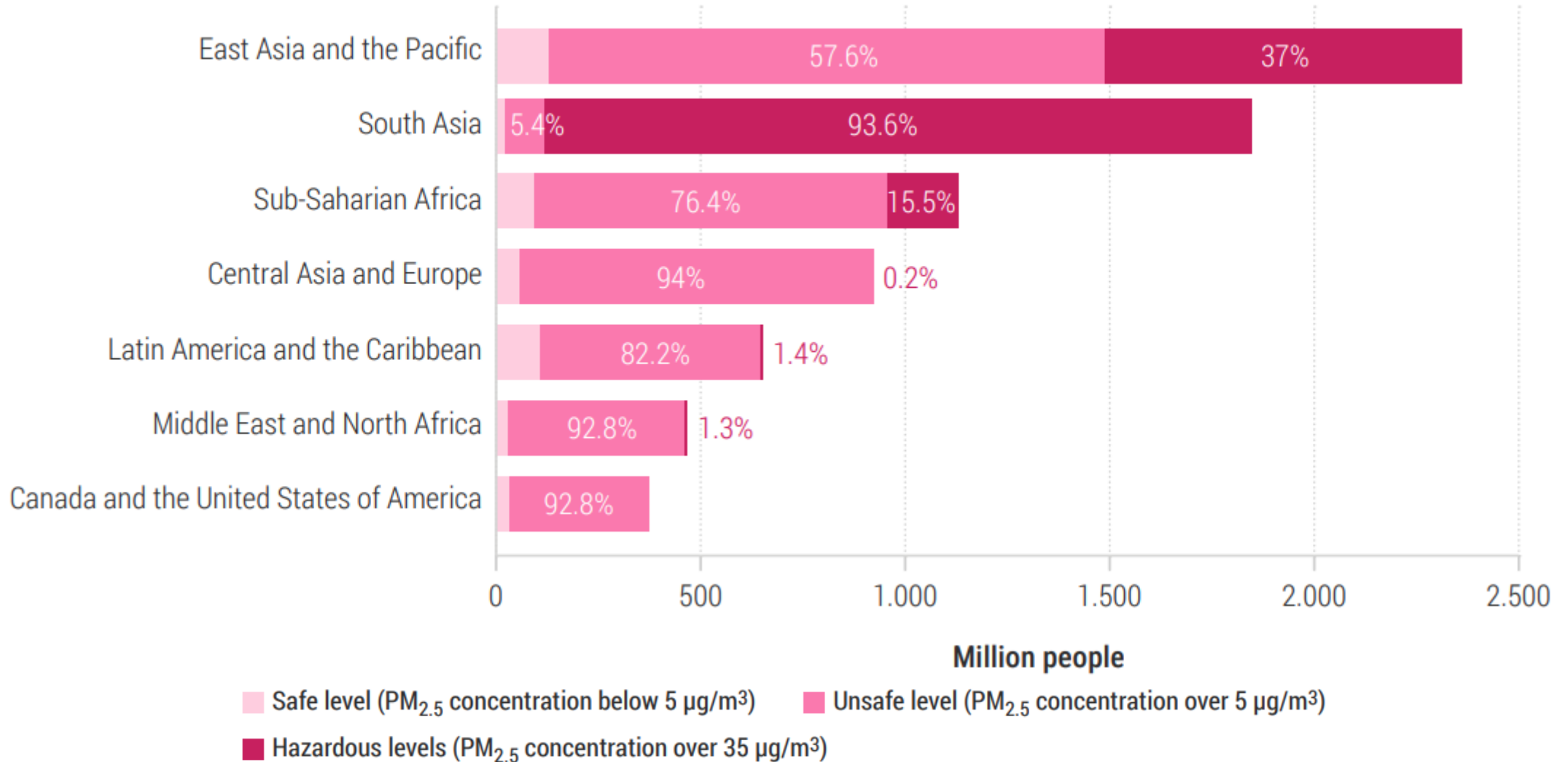
Air Pollution in Asia (GEO-7)



- Globally, six out of the ten countries with the worst air pollution levels are from Asia and the Pacific (Rahmayani et al. 2023).
- Exposure to air pollution in the AP is a significant contributor to premature deaths and economic losses. Air pollution exposure reduces the overall average life expectancy by 1.6 years in Southeast Asia (Greenstone and Hasenkopf 2023).
- Air pollution causes a 9.3 per cent loss of GDP in regions of East Asia and the Pacific, and a 10.3 per cent loss in South Asia (The World Bank 2022).
- Open dumping and unsanitary landfill sites in Southeast and South Asian countries are causing unprecedented water and air pollution.

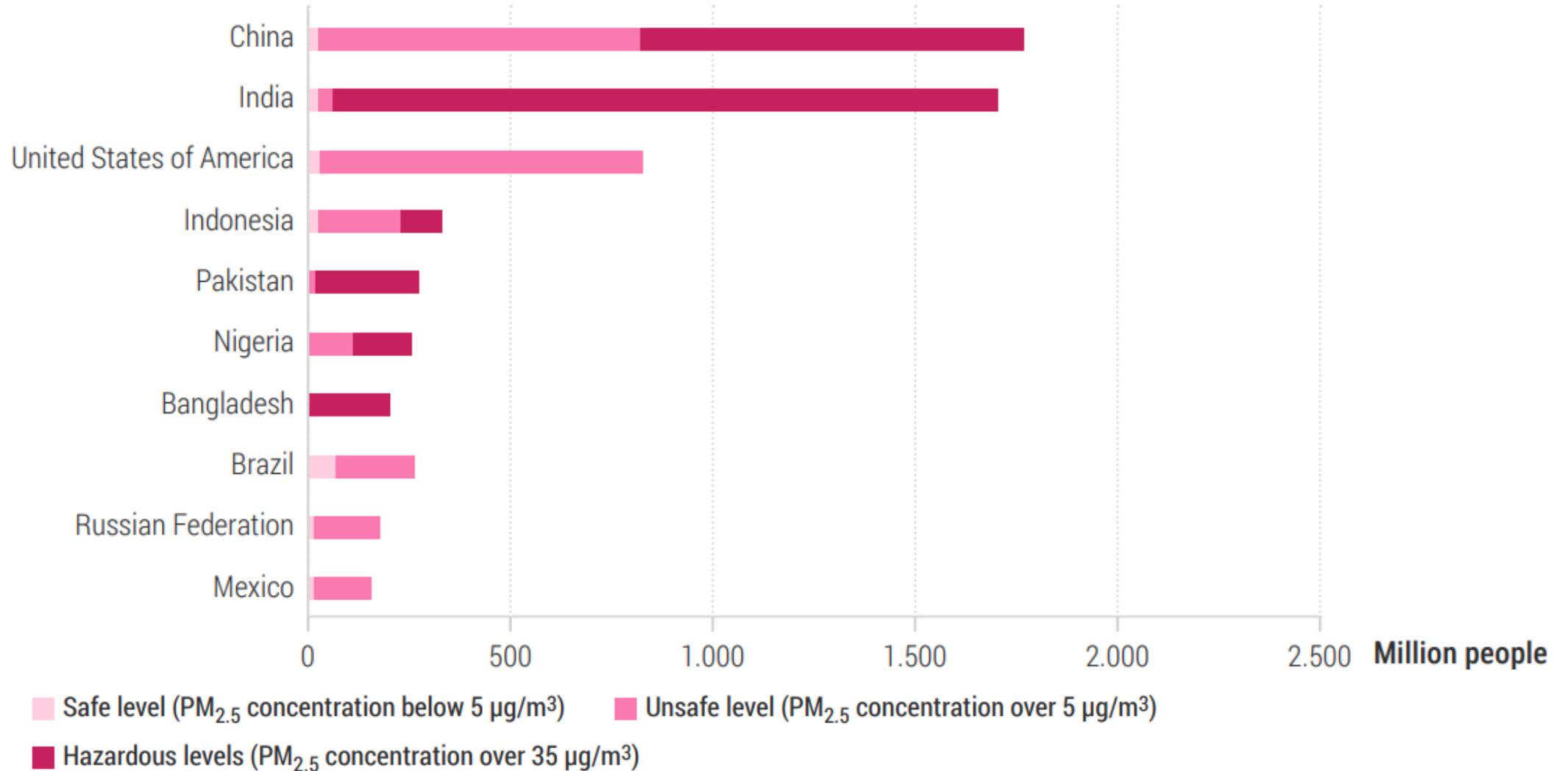
Exposure to Air Pollution (GEO-7)

Number of people and share of population exposed to PM_{2.5} by region



Exposure to Air Pollution (GEO-7)

Ten countries with highest population exposure to unsafe levels of PM_{2.5}



Health Impact of Air Pollution (GEO-7)

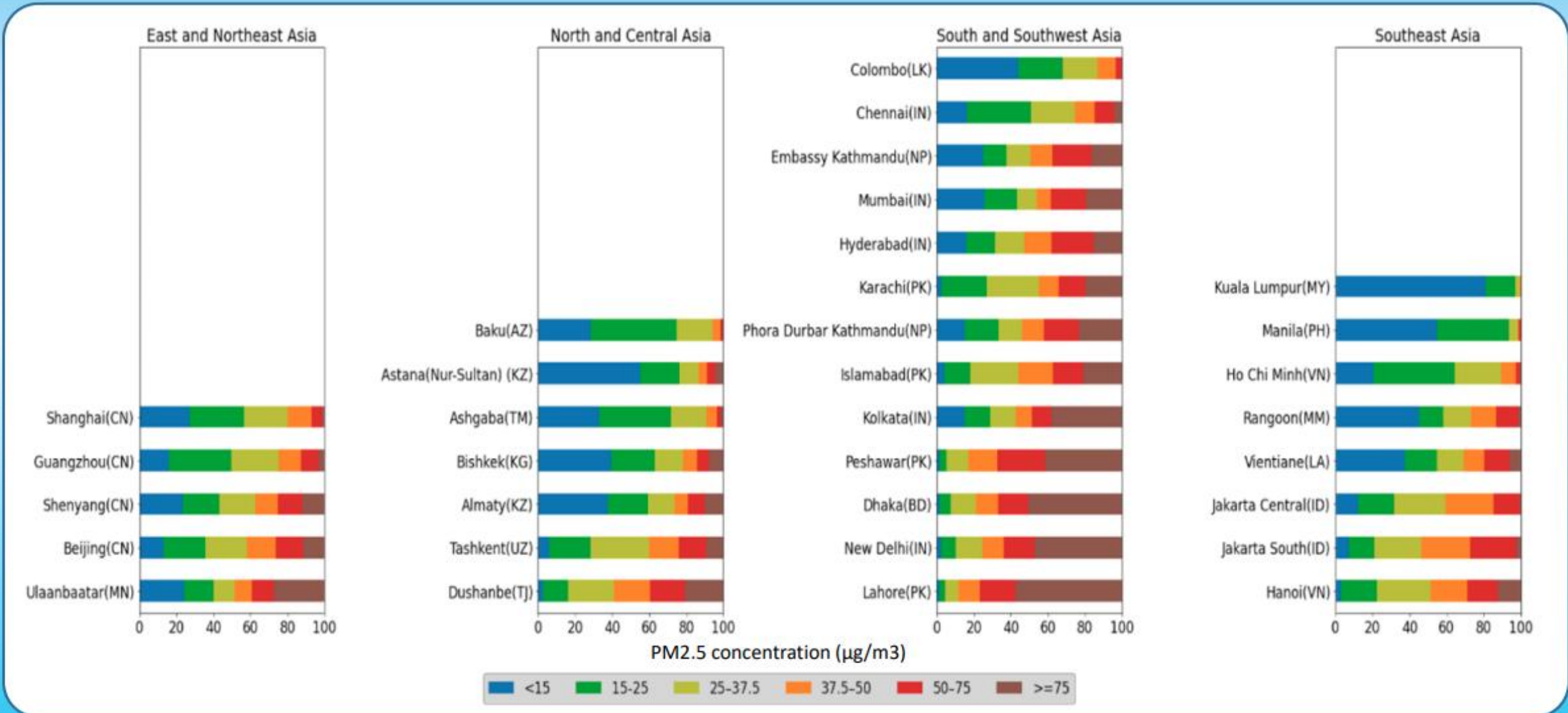


- In 25 Asian countries, the total economic loss due to premature deaths attributed to PM2.5 exposure amounts to US\$45 billion.
- South Asia is the hotspot for stillbirths related to PM2.5 (Xue et al. 2022).
- Incidents of pediatric asthma attributable to nitrous oxide in the air are rising in South Asia and the Middle East (Paciência et al. 2022).
- Exposure to air pollution contributes to a significantly higher rate of stunting among South Asians, by 38 per cent, compared to the global average (Saif and Anwar 2023).
- South Asians have a 2–3 times higher risk of cardiovascular diseases and diabetes due to early and lifelong exposure to pollution (Wilder et al. 2024).

Subregional Perspective

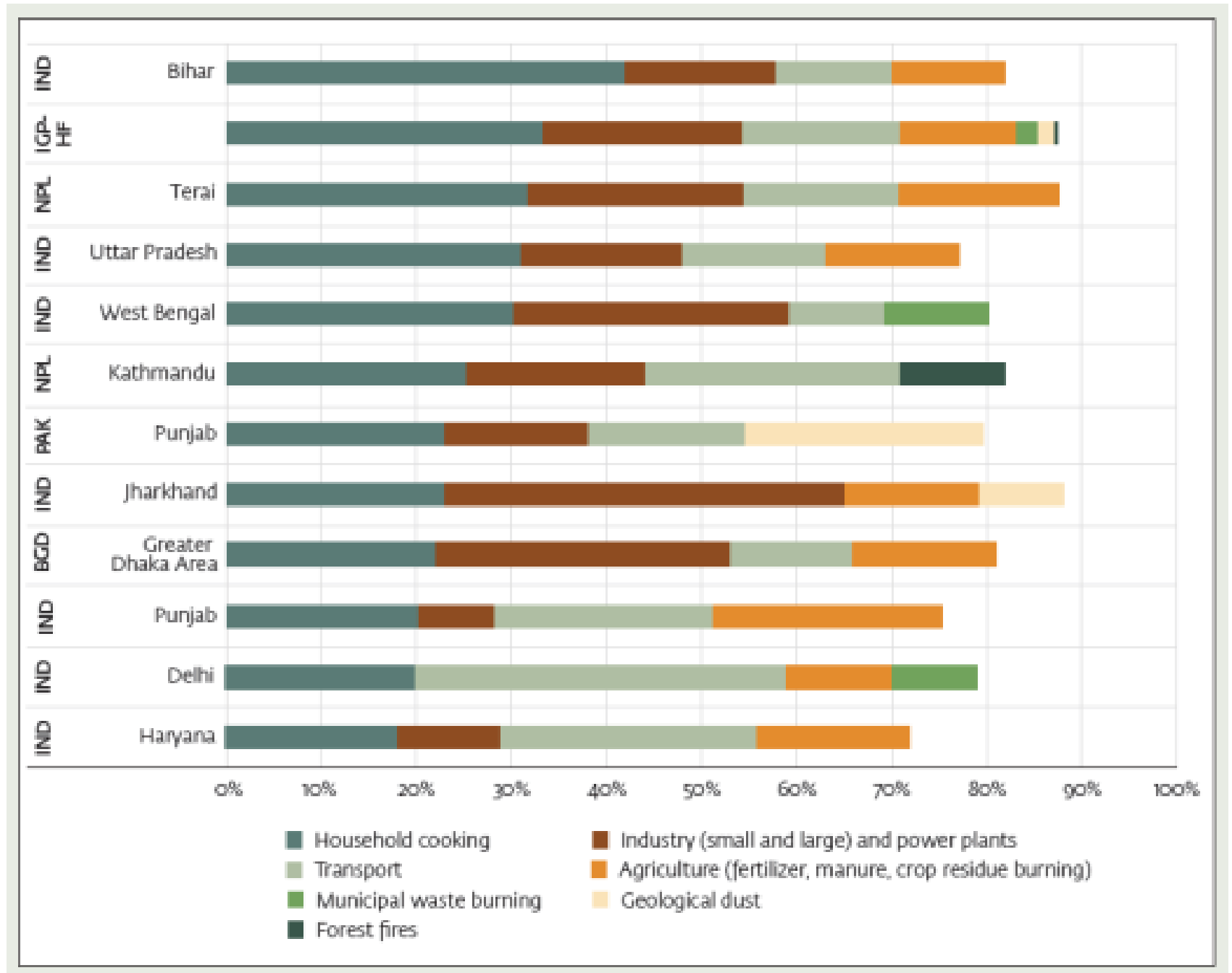
Percentage of days per city exceeding the threshold of the 24-hour average WHO air quality guideline for PM_{2.5}

(2023 analysis by ESCAP based on AirNow ground stations)



Sectoral Sources

Top four sources contributing to population-weighted PM_{2.5} exposure, by jurisdiction



Source: World Bank (2025), *A Breath of Change: Solutions for Cleaner Air in the Indo-Gangetic Plains and Himalayan Foothills*.

Regional Air Pollution Actions

ASIA PACIFIC CLEAN AIR PARTNERSHIP



CALL TO ACTION BY MEMBER STATES

At UN Environment Assembly-1: For UN Environment Programme to facilitate immediate and coordinated action to address air pollution and its impacts and prepare regional assessment reports on air quality issues.

Member states reiterated the urgent attention needed to address air pollution with a **UNEA-3 Resolution: Preventing and Reducing Air Pollution to Improve Air Quality Globally**

25 MEASURES SUMMARIZED IN 3 CLUSTERS



AIR POLLUTION IN ASIA AND THE PACIFIC:
SCIENCE-BASED SOLUTIONS



- 01 FULL APPLICATION OF CONVENTIONAL MEASURES IN ASIA**
vehicles, power plants, and large- and small-scale industry
- 02 NEXT STAGE AIR QUALITY MEASURES THAT ARE NOT YET MAJOR COMPONENTS OF CLEAN AIR POLICIES**
burning of agricultural and municipal solid waste, proper management of livestock manure
- 03 MEASURES WHICH CONTRIBUTE TO DEVELOPMENT PRIORITIES WITH AIR QUALITY BENEFITS**
solid waste management, mainstream electric vehicles, using renewable energy for electricity generation

RAPAP

Asia-Pacific Regional Action Programme on Air Pollution

Negotiated and adopted under auspices of ESCAP as the **only regional legislative organ** in the Asia-Pacific

RAPAP represents **collective aspiration and consensus** among countries in the region to combat air pollution

Adopted at ESCAP's **Committee on Environment and Development** in 2022 and endorsed by the Commission in 2023

Provided major impetus to the **UNEA-6 resolution** on regional cooperation on air pollution



Promoting **science-based and policy-oriented cooperation**



Establishing an **open regional platform** for best practices exchange



Identifying **technical and financial resources** for multilateral and cooperative action



Fostering **dialogue and technical cooperation**



Promoting **domestic actions and regional cooperation**

IDENTIFYING GOOD PRACTICES AND FACILITATING KNOWLEDGE SHARING AND EXCHANGE OF SOLUTIONS



UNEP and partners present

CLEAN AIR WEEK 2025

24-28 November
Sukosol Hotel, Bangkok, Thailand



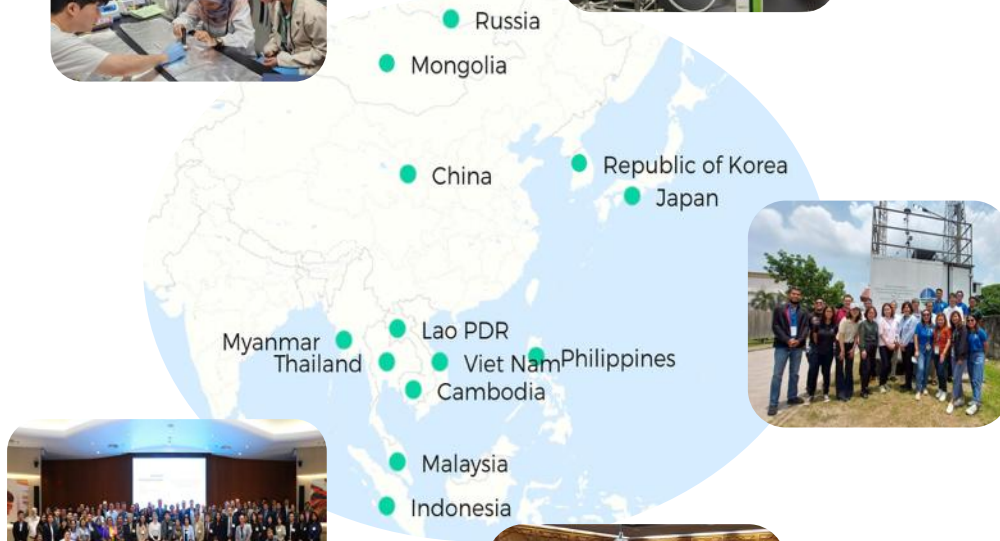
*facilitating dialogue, solutions, and cooperation for air quality
in the Asia Pacific region*





Acid Deposition Monitoring Network in East Asia (EANET)

- Established in 2001: focus on **regional cooperation** on atmospheric deposition & **air pollution**.
- Expanded scope (2021) incl. broader atmospheric substances + **Project Fund mechanism**.
- **13 Member States across Asia**; robust monitoring network (wet/dry deposition, ecosystems).



- **High-quality 25-year datasets in Open Access**: results show SO₂ declines; PM & O₃ remain concerns.
- **30+ EANET Projects** (from 2022-2024) on various issues such as **Nitrogen management**, Volatile Organic Compounds (**VOCs**), innovative monitoring technologies including **low-cost sensors, capacity building, policy support**, with nearly USD1.4 million budget for Project Fund Activities
- **Flagship Reports** (Periodic Report on the State of Acid Deposition) published every 5 years

AQMx Sectoral Guidance: Eliminating Open Waste Burning

[Why take action on Open Waste Burning?](#)

[Step 1. Baseline Assessment](#)

[Step 2: Institutional Arrangements](#)

[Step 3. Planning and Design](#)

[Step 4. Policy Integration](#)

[Step 5. Standards and Regulations](#)

[Step 6. Communications and Awareness-Raising](#)

[Step 7. Implementation](#)

[Step 8. Enforcement](#)

[Step 9. Capacity-Building](#)

[Step 10. Monitoring and Evaluation](#)

[How can you finance actions to eliminate Open Waste Burning?](#)

[How can you include gender and socio-economic equity considerations?](#)

[Success stories](#)

CCAC Air Quality Management Exchange Platform (AQMx)

Air Quality, Energy and Health
Science and Policy Summaries




**Open waste burning –
sectoral solutions for air
pollution and health**

Technical brief



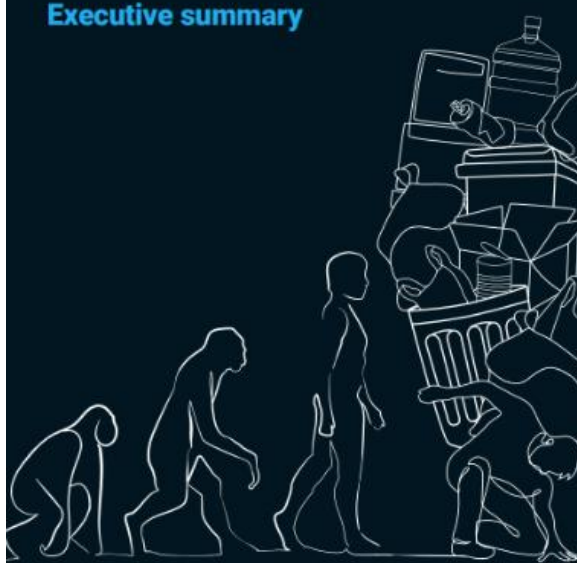
**Workshop Proceedings: Mapping of Open
Burning of MSW in Pakistan & Identification
of Underlying Factors & Key Drivers**

Organized by: Circular Plastics Institute at KSBL, Engro Foundation in
collaboration with the NED University, Indus Valley School of Art and
Architecture, and COMSATS University Islamabad




**Beyond an age
of waste**
Turning rubbish into a resource


Executive summary



isWA Global Waste Management Outcomes



PRESERVING OUR ENVIRONMENT WITH ANTI-OPEN BURNING PROTOCOL:
**GUIDELINES FOR THE
ERADICATION OF OPEN BURNING**



Thank you!

