

Roadmap to End Open Burning of Waste in Asia

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Process of Roadmap Development in Asia

1. **Conducted baseline survey** for 10 countries (Cambodia, Lao PDR, Thailand, Nepal, Pakistan, India, Maldives, Iraq, Jordan and China) to understand the current practice, policy and regulatory framework, and institutional capacity around open burning of waste
2. **Estimated emissions of GHG and black carbon** and its climate impact caused by open burning of waste together with UN-Habitat.
3. Organised two **Regional dialogues** for peer-to-peer learning and review the draft regional roadmap
4. Implementing **city pilot activities**, formulating **an integrated waste management strategy/action plan**, and developing **policy recommendation** in Lao PDR, Maldives and Iraq
5. Finalise the Roadmap



Impact of Open Burning of Waste



Regional Dialogue on Transformative Action to End Open Burning of Waste in South Asia



**CLIMATE &
CLEAN AIR
COALITION**
TO REDUCE SHORT-LIVED
CLIMATE POLLUTANTS

IGES
Institute for Global
Environmental Strategies



Open Burning of Waste is a **cross-cutting issue** that undermines national goals on **climate, health, and clean air** —not just a waste problem.



Causes of Open Burning of Waste



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Current status of open burning of waste

Dumping Sites

Who?

- Waste pickers (informal sector)
- Disposal site operator
- Spontaneous fire (human, CH₄)

Why?

- Poor disposal site management without adequate equipment and infra (lack of \$)
- Absence of policy on waste disposal
- No alternative land available for new disposal site (reduction of waste volume)
- Extraction of valuable materials (E-waste)
- Spontaneous methane fire

Residential Area

Who?

- Waste generator (household, commercial sector)
- Waste pickers (informal sector)

Why?

- Cultural habit
- Inadequate waste collection service (frequency, reliability, difficult access)
- Lack of waste management infrastructure, vehicles and equipment
- Unwillingness to pay collection fee
- Weak enforcement



Strategic Framework in the Roadmap in Asia

1. Policy and Regulatory Reform

Foundation

2. Infra and
technology

3. Incentive and
Finance

4. HR & Technical
Capacity

Tangible resources

5. Data,
Monitoring and
Evaluation

6. Research and
Development

7. Institutional
Coordination

Internal enablers

8. Regional
Collaboration

9. Awareness
and Education

10. Inclusion of
Informal sector

External enablers



Integrated waste management (downstream solution)

- Insert V6



Strategic Framework for Action in Roadmap (1)

1. Policy and Regulatory Reform

- Explicit bans on OWB, with penalties, incentives and enforcement mechanisms.
- Sector-specific bans (plastics, e-waste, healthcare waste, agricultural residues)
- Mainstream OWB elimination into not only WM strategy but also **NDCs, SLCP strategies, air quality, public health and urban development strategies**
- Review and update commitments regularly through regional meetings such as **SACEP, CCAC, UNEA, and COP forums**

2. Infrastructure and Technology Dev't

- Expand sorted-waste collection in all Asian countries.
- Develop recycling, recovery and safe disposal facilities (eg. MBT, anaerobic digestion, black soldier fly, RDF/RPF, waste-to-energy incineration, where appropriate)
- Promote circular economy approaches
- Promote decentralised and community-led waste management models in areas lacking centralised infrastructure



Strategic Framework for Action in Roadmap (2)

3. Incentive and Finance

- Mobilise domestic resources and create financial mechanisms such as Extended Producer Responsibility (EPR), pay-as-you-through principle, and subsidies for recycling and segregation
- Promote public–private partnerships (PPP)
- Mobilise international finance such as climate finance and donor funds (GCF, GEF, international aid).

4. HR & Technical Capacity

- Build the capacity of local governments and waste management operator to implement, monitor, and enforce anti-burning policies
- Establish institutions domestically who can constantly provide technical and managerial training



Strategic Framework for Action in Roadmap (3)

5. Data, Monitoring and Evaluation

- Integrate OWB monitoring into climate MRV systems. (possible indicators below)
 - % reduction in OWB practices (household and dumpsite levels).
 - % increase in waste collection coverage.
 - Tonnes of GHG and SLCPs avoided.
 - Number of countries integrating OWB elimination into national strategies.
 - Number of premature deaths avoided.
- Commit to transparent reporting, validation and regular progress reviews at national and regional levels (linked to SDGs, NDCs, and SLCP frameworks)

6. Research and Development

- Promote development and adoption of digital tools, mobile apps and satellite monitoring to detect and prevent open burning.
- Support research and innovation in waste-to-resource technologies (composting, recycling, RDF/RPF, AD, etc), circular economy models, and health impact assessments.
- Strengthen the partnership with universities and innovation hubs



Strategic Framework for Action in Roadmap (4)

7. Institutional Coordination

- Clarify the unclear words and description in the policy and regulations
- Clearly distinct the roles and responsibilities of agencies dealing with open burning (prevention, monitoring, control)

8. Regional Collaboration

- Mainstream elimination of OWB into the regional discussion on climate, air quality, and health for dialogue
- Facilitate cross-border cooperation on knowledge sharing, financing and technology transfer
- Align efforts with global frameworks such as the Sustainable Development Goals (SDGs), the Paris Agreement, and the WHO Global Air Quality Guidelines



Strategic Framework for Action in Roadmap (5)

9. Awareness and Education

- Conduct targeted and consistent outreach and awareness campaigns to shift public attitudes and discourage burning by focusing on health impact
- Develop school programmes, community-based education, and citizen science for elimination of OWB

10. Inclusion of Informal sector

- Integrate informal waste workers into formal systems, ensuring safety, livelihoods, and dignity.
- Empower youth, women, and local leaders as champions of zero-burning and zero-waste practices



Let's review the Kathmandu Declaration based on the Asian Roadmap



Kathmandu Declaration (to review together)

Infra and Investment

HR & Technical
Capacity

Innovation, Data and Monitoring

Institutional
Coordination

Regional Cooperation
and Knowledge
Exchange

Community Engagement and Inclusion

Policy Reform and Enforcement

