



World Environment Day (WED) is celebrated on the 5th of June every year. WED was established in 1972 during the United Nations Conference on the Human Environment, which led to the creation of the **United Nations Environment Programme (UNEP)**.

Its aim is “encouraging worldwide awareness and action for the protection of our environment”. World Environment Day is the ‘people’s day’ for doing something to take care of the Earth.

Each World Environment Day is organized around a theme that focuses attention on a particularly pressing environmental concern. Every World Environment Day has a different global host country, where the official celebrations take place.

In 2018, India was the host for World Environment Day and the theme was focussed on **Plastic Pollution**, which is one of the most challenging environmental concerns today.

In 2019, China is the host for World Environment Day celebrations on the theme, ‘**Air Pollution**’.

According to a new UN report, millions of lives could be saved and one billion people living in Asia could be breathing clean air by 2030 if 25 simple and cost-effective measures are implemented. Currently, about 4 billion people – 92 per cent of Asia and the Pacific’s population – are exposed to levels of air pollution that pose a significant risk to their health.

The report, **Air Pollution in Asia and the Pacific: Science-based Solutions**, is the first comprehensive scientific assessment of the air pollution outlook in Asia and the Pacific. It details 25 policy and technological measures that will deliver benefits across sectors. These are as follows-

## 25 CLEAN AIR MEASURES

### 1. Strengthen emission standards for road vehicles

- a. Strengthen all vehicle emissions standards with a special focus on regulation of light and heavy-duty diesel vehicles. This will require collaboration between environmental agencies, transport agencies, oil companies and vehicle manufacturers, among others.
2. **Regularly maintain and inspect vehicles**
  - a. Introduce legislation and enforcement of regular mandatory emission checks and maintenance. This includes random tests to prevent extended use of vehicles with failed emissions abatement systems.
  - b. Centralize inspection and maintenance systems and establish self-funding mechanisms for regular audits at test centres.

### 3. Mainstream electric vehicles

- a. Develop fiscal and non-fiscal policies to promote electric mobility.
- b. Invest in required infrastructure to encourage quicker uptake of electric vehicles

### 4. Provide better mobility options

- a. Improve public transport system to encourage shift from private passenger vehicles to public transport and integrate with sustainable urban planning.
- b. Invest in walking and cycling infrastructure (sidewalk and bike-paths, sufficient lighting, bike sharing options, etc.)

### 5. Control dust from construction and roads

- a. Suppress construction and road dust through dust control measures including road washing and cleaning, road paving, water spraying, installation of barrier protection, avoiding dust-generating work during windy days, etc.
- b. Increase green spaces and areas especially in cities. This includes public parks, gardens, etc.

### 6. Reduce emissions from international shipping

- a. Require low-sulphur fuels and control of particulate emissions.
- b. Collaborate with the International Maritime Organization to widen the ratification and implementation of International Convention for the Prevention of Pollution from Ships.

### 7. Improve post-combustion control

- a. Introduce state-of-the-art end-of-pipe measures to reduce sulphur dioxide, nitrogen oxides and particulate emissions at power stations and in large-scale industry.
- b. Examples include flue gas desulphurization for sulphur dioxide, selective catalytic reduction for nitrogen oxides, and high efficiency particulate matter controls like fabric filters, multistage electrostatic precipitators.

### 8. Strengthen industrial process emissions standards

- a. Introduce advanced emissions standards in industries, e.g., iron and steel, cement, glass production, chemicals, etc.
- b. Strengthen production, performance and emission standards to control end-of-pipe emissions and fugitive emissions. This will stimulate investment in pollution control and/or cleaner technologies.

### 9. Introduce efficient brick kilns technology

- a. Improve efficiency and introduce emissions standards to stimulate shift to more efficient brick kiln technologies (such as zig-zag, vertical shaft brick kiln or tunnel kilns). This requires collaboration among kiln owners,

technical experts, and government to demonstrate benefits of cleaner kiln technology.

#### 10. Control methane from oil and gas production

- a. Encourage recovery of oil production and associated petroleum gas.
- b. Stop routine flaring and either utilize or convert to liquids that can be sold at higher value.
- c. Improve leakage controls in gas production and distribution networks.

#### 11. Improve solvent use and refinery controls

- a. Introduce low-solvent paints for industrial and do-it-yourself applications.
- b. Improve solvents recovery in industry. If not feasible, incinerate flue gas rich in hydrocarbons.
- c. Establish leak detection and repair programs at refineries. Install double seal systems, vapour recovery unit, fixed covers and monitoring at refineries and fuel depots.

#### 12. Use environmentally-friendly refrigerants

- a. Ensure full compliance with Kigali Amendment to phase-down hydrofluorocarbons which are commonly used in air conditioning, refrigeration and a host of industrial products.
- b. Establish regulations to support shift to low- global warming potential cooling agents.

#### 13. Provide clean cooking and heating options

- a. Use clean fuels – electricity, natural gas, liquefied petroleum gas in cities, and liquefied petroleum gas and advanced biomass cooking and heating stoves in rural areas.
- b. Substitute coal with briquettes for cooking and heating.



#### 14. Strictly enforce bans on household waste burning

- a. Strictly enforce bans on open burning of household waste. Burning ban needs to be complemented with comprehensive solid waste management plan including proper waste collection system, recycling, waste treatment, and awareness raising.

#### 15. Provide incentives for improved energy efficiency in households

- a. Provide incentives to improve energy efficiency of household appliances, buildings, lighting, heating and cooling.
- b. Encourage rooftop solar installations.

#### 16. Increase renewable electricity generation

- a. Establish renewable energy targets and supporting policies to achieve target. This includes providing incentives to foster extended use of wind, solar and hydro power for electricity generation and phase out least efficient plants.
- b. Leverage public pressure to switch from fossil fuels to renewables.

#### 17. Improve energy efficiency for industry

- a. Introduce ambitious energy efficiency standards for industry.
- b. Include energy efficiency targets for industry in national development plans.

#### 18. Recover coal mining gas

- a. Encourage pre-mining recovery of coal mine methane gas.
- b. Provide fiscal incentives, well-defined gas property rights and unsubsidized free gas market.

#### 19. Improve livestock manure management

- a. Introduce covered storage (floating or permanent covers) and efficient application of manure (when plants need fertilizers, rapidly incorporate manure in soil or as narrow bands in canopy or grassland).
- b. Consider low emission options for new animal housing: regular floor scraping, air ventilation cleaning, closed storage tanks.

#### 20. Strengthen management of nitrogen fertilizer application

- a. Establish efficient nitrogen fertilizer application (right timing and amount). Substitute urea and ammonium bicarbonate with e.g. ammonium nitrate fertilizer.
- b. Promote alternative formulations, e.g., neem coated urea, or use of urease inhibitors, where available and affordable.

## Beat Air Pollution

#### 21. Better management of agricultural crop residues

- a. Manage agricultural crop residues, including strict enforcement of bans on open burning. Complement burning ban with measures that use the residues. This includes alternative off-site use, technologies that plough residue into fields, no-till agricultural practice, or using residues as bedding for livestock or biogas digesters.

#### 22. Prevent forest and peatland fires

- a. Improve and enforce forest, land and water management and fire prevention strategies. This includes fire spread protection zones, fire alarm and brigade system, prohibit access to forests during droughts, and ban on land clearing.

#### 23. Promote more efficient rice production practices

- a. Encourage intermittent aeration of continuously flooded rice paddies (e.g. alternative wetting and drying – practice of allowing the water table to drop below the soil surface at one or multiple points during a growing season).

#### 24. Stop biogas leakage from wastewater treatment

- a. Introduce well-managed two-stage treatment with biogas recovery.
- b. Promote decentralized wastewater treatment units.

#### 25. Improve solid waste management

- a. Encourage centralized waste collection with source separation and treatment, including gas utilization.

Sources- United Nations Environment Programme & Climate and Clean Air Coalition (CCAC)