

Air Quality Policies

This document is based on research that UNEP conducted in 2015, in response to Resolution 7 of the UNEA 1. It describes country-level policies that impact air quality. Triple question marks indicate that information for the section couldn't be found.

GOALS	CURRENT STATUS	CURRENT / PLANNED POLICIES & PROGRAMMES
GENERAL OVERVIEW	<p>Overall situation with respect to air quality in the country, including key air quality challenges: Brick kilns and transport (emissions and road dust) are two of the biggest sectors contributing to air pollution; also cement and metal smelting; Dhaka ranks high on the list of major cities with poor urban air quality.</p> <p>Unplanned construction, steel re-rolling and cement industries are some other major sources of air pollution. Dhaka is one of the major cities in Bangladesh which suffers air quality of below standard during some of the days of dry season especially November to march. In Bangladesh Air Quality Standards have been set out for CO, Pb, NO_x, SPM, PM₁₀, PM_{2.5}, O₃ and SO₂. The ambient air quality monitoring data from the Continuous Air Monitoring Stations (CAMS) suggest that PM₁₀ and PM_{2.5} are the most critical pollutants often exceed the national ambient air quality standard (NAAQS) during dry season. In Dhaka City the concentration of particulate matter in dry season has found to exceed NAAQS for more than 100 days of a year. It is observed that the gaseous pollutants remain within the limiting values of the NAAQS.</p> <p>Air quality monitoring system: The ambient air quality monitoring network in Bangladesh consists of eleven (11) fixed Continuous Air Monitoring Stations (CAMS). Real-time measurements of ambient level pollutants are being monitored in 8 major cities namely, Dhaka, Narayanganj, Gazipur, Chittagong, Rajshahi, Khulna, Barisal and Sylhet. The data generated by the CAMS are used to define the nature and severity of pollution in the cities; identify pollution trends in the country; and develop air models and Air Quality Index for public information.</p>	<p>National Ambient air quality standards: Meet WHO Interim Targets except NO₂ and SO₂. National ambient air quality standards (NAAQS) have been enshrined in the Environment Conservation Rules 1997 (ECR). Currently the Government is considering the revision of the existing NAAQS to meet WHO air quality guiding values.</p> <p>National Air Quality Policy: There is no stand-alone act or rule dealing air quality. The air quality issues are addressed in the Bangladesh Environment Conservation Act 1995 and Environment Conservation Rules 1997. Brick Manufacturing and Kiln Construction (Control) Act 2013 has been enacted to reduce emissions from brick kilns.</p> <p>Air Quality legislation: Not specifically. Initiatives underway to amend Brick Manufacturing and Kiln Construction (Control) Act 2013 aiming to facilitate energy efficient and less polluting brick industry. Initiatives being made to amend Environment Conservation Rules 1997 in order to be conformed with the existing environment challenges.</p> <p>Air Quality Programme: Converting traditional brick kiln into energy efficient kiln to reduce air pollution. Reviewing import policy order to impose ban on importing coal with high Sulphur content. Clean Air and Sustainable Environment (CASE) project is being implemented with the objective of abating air pollution from transport and brick kilns.</p>

<p>REDUCE EMISSIONS FROM INDUSTRIES</p>	<p>Industries that have the potential to impact air quality: Cement, brick industry, unplanned construction acting are the main sources of air pollution. (Textile and garments factories are not major sources of air pollution in the context of Bangladesh).</p> <p>Monitoring of stack emissions and ambient AQ not fully implemented; lack of AQ information on emissions and concentration levels hampers effective enforcement of regulations</p> <p>Measurement of in-stack emission is carried out for enforcement purpose. However, the Department of Environment lacks enough equipment and technical manpower for rigorous stack emission monitoring.</p> <p>GDP of country: US\$ 172.9 billion (2014)</p> <p>Industries' share of GDP: 30%</p> <p>Electricity sources: Natural gas (63%) and furnace oil (21%)</p>	<p>Emission regulations for industries: Environmental Conservation Rules 1997 regulates industrial emission; Brick Manufacturing and Kiln Construction (Control) Act 2013 has been enacted to reduce emissions from brick kilns.</p> <p>Small installation's emissions regulated: Regulated by the Environment Conservation Rules, 1997. For Environmental Clearance purpose industries/projects are categorized into 4 classes namely, Green, Amber-A, Amber-B and Red. Small installations are mostly Green or amber-a category projects which, for obtaining environmental clearance.</p> <p>Renewable energy investment promoted: Yes, but inadequate financial incentive or regulatory support – need feed-in tariffs towards promotion of Renewable Energy (according to Sustainable and Renewable Energy Development Authority of Bangladesh); Renewable Energy Policy 2009: Equipment and spare parts exempted from duty and 5% VAT, 5 years income tax exemption</p> <p>Energy efficiency incentives: Programs include energy audit (yet to launch), distribution of improved cook stoves, improved brick kiln, improved rice parboiling, distribution of CFL bulbs and energy star labeling</p> <p>Incentives for clean production and installation of pollution prevention technologies: Bangladesh Bank (the central bank) launched the BDT 2 bn green banking refinance scheme in August 2009; it provides soft loans for industries using environmentally friendly technology (to set up solar panel, bio-gas plants and industrial effluent treatment plant under the scheme) in order to help reduce industrial pollution and increase power supply. More sectors have been brought under the green banking refinance scheme to build environment-friendly economy</p> <p>Actions to ensure compliance with regulations: Monitoring and enforcement being carried out by the Department of Environment to ensure regulatory compliance on a regular basis.</p> <p>Other actions at national, sub-national and / or local level to reduce industry emissions: Department of Environment regularly conducts stakeholder meeting, seminar and workshop to motivate the industries to undertake pollution control measures as well as switch to less polluting technologies. Clean Air and Sustainable Environment project (CASE Project) working on cleaning up brick kilns (as well as transport)</p>
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REDUCE EMISSIONS FROM TRANSPORT	<p>Key transport-related air quality challenges: transport dominates as an air pollution source in Dhaka; re-suspended soil from unpaved roads, high traffic volumes, congestion, poor vehicle maintenance, old vehicles</p> <p>Limited enforcement of registration legislations: “The Bangladesh Road Transport Authority has a legal mandate to ensure gross polluting vehicles do not operate on the road network. However, its capacity to carry out this mandate is limited.” (CAI-Asia)</p> <p>46% of fleet is motorcycles; many are 2-stroke</p>	<p>Vehicle emission limit: Euro 1 for diesel driven vehicle and Euro 2 for petrol driven vehicle.</p> <p>Fuel Sulphur content: Bangladesh Petroleum Corporation (BPC) has begun importing diesel fuel with a lower sulphur content of 0.05% (500 parts per million, or ppm) since 2015, although the official standard is still 5,000ppm</p> <p>Restriction on used car importation: not older than 4 years</p> <p>Actions to expand, improve and promote public transport and mass transit: Greater Dhaka Sustainable Urban Transport Project</p> <p>Actions to promote non-motorized transport: Construction of 70km of sidewalks with surface drainage and ancillary road improvements have been completed by the Clean Air and Sustainable Environment project (CASE Project).</p> <p>Other transport-related actions: Electric rickshaws banned as they consume electricity mainly through illegal connections; 2-stroke engines are banned in some cities</p>
REDUCE EMISSIONS FROM OPEN BURNING OF AGRICULTURAL / MUNICIPAL WASTE (OUTDOOR)	<p>Outdoor, open burning: burning of municipal and agricultural waste common</p> <p>The Government of Bangladesh creates awareness of harmful impacts of open burning.</p>	<p>Legal framework: Bangladesh Environment Conservation Act, 1995 and Environment Conservation Rules 1997 broadly cover the issue of open burning.</p>
REDUCE EMISSIONS FROM OPEN BURNING OF BIOMASS (INDOOR)	<p>Dominant fuels used for cooking and space heating: 89% households use solid fuel, mostly wood, agricultural wastes and cow dung (99% in rural areas, 60% in urban)</p> <p>Impact: 49,000 deaths/year from indoor pollution (9,400 from outdoor air pollution); 230 million cases of respiratory diseases/year</p>	<p>Indoor air pollution regulated: Indoor air pollution is regulated by the Bangladesh Labor Act 2006 covering mostly working condition of a premise in general. However, this Act does not stipulate any specific standard of the pollutant.</p> <p>Promotion of non-grid / grid electrification: electrification rate 60%; supply not reliable; Infrastructure Development Company Ltd (government owned) has target to finance off-grid systems in rural areas</p> <p>Promotion of cleaner cooking fuels and clean cook stoves: Bangladesh Country Action Plan for Clean Cook stoves to distribute cook stoves to 30 million households by 2030. Govt of Bangladesh has financed 4.5million USD to promote environment friendly clean cook stoves. Approximately 0.6 million households are now using improved cook stoves in the country.</p>

Secondary Sources used in the research: *Country Synthesis Report on Urban Air Quality Management: Bangladesh*. Asian Development Bank and the Clean Air Initiative for Asian Cities, 2006, http://www.nytimes.com/2013/07/15/world/asia/bangladesh-pollution-told-in-colors-and-smells.html?_r=0, <http://urbanemissions.info/model-tools/sim-air/dhaka-bangladesh.html>, <http://www.worldbank.org/en/news/feature/2014/07/24/cleaning-dhakas-air-bangladesh>, <http://www.thedailystar.net/renewable-power-development-with-incentives-20979>, http://d335hnnegk3szv.cloudfront.net/wp-content/uploads/sites/837/2015/06/Siddique-Zobair_SREDA-Activities-Copy.pdf, <http://baqconference.org/2012/assets/Uploads/BAQ-2012Swapan-Kumar-Biswas.pdf>, <http://www.slideshare.net/mithilamarufa/rural-electrification-using-pv-success-story-of-bangladesh>, <http://www.sreda.gov.bd/index.php/acts-policies-rules/24-4-cap-final/file>, https://energypedia.info/wiki/Bangladesh_Energy_Situation, http://www.who.int/quantifying_ehimpacts/national/countryprofile/bangladesh.pdf?ua=1, http://www.unep.org/Transport/New/PCFV/pdf/Maps_Matrices/AP/matrix/AP_Matrix_June2015.pdf

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