## **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 countrylevel policies that impact air quality. Triple question marks (???) indicate that information for the section couldn't be found.

Please review the information, and provide feedback. A Word version of the template can be provided upon request. Corrections and comments can be emailed to <u>Vered.Ehsani@unep.org</u> and <u>George.Mwaniki@unep.org</u>.

MALAYSIA		
GOALS	CURRENT STATUS	CURRENT / PLANNED POLICIES & PROGRAMMES
GENERAL Overview	<ul> <li>Overall situation with respect to air quality in the country, including key air quality challenges: Malaysia started to tackle air and other environmental issues much earlier than most other Asian countries; for this reason, the country's capacity to manage air quality is above-average and the air quality itself is fairly good; Transboundary haze is a serious issue</li> <li>Air quality monitoring system: Yes</li> </ul>	<ul> <li>National Ambient air quality standards: Using WHO Interim Targets for all the critical pollutants</li> <li>National Air Quality Policy: No, but there is a National Policy on the Environment; Malaysia Environmental Strategic Plan 2011-2020 states a requirement to maintain good air quality</li> <li>Air Quality legislation / programmes: Environmental Quality (Clean Air) regulations 2014 (revised from 1978 version)</li> <li>Other:</li> </ul>
REDUCE EMISSIONS FROM INDUSTRIES	<ul> <li>Industries that have the potential to impact air quality: power stations, industrial fuel burning, industrial production processes (electronics, rubber &amp; palm oil processing, smelting, petroleum production &amp; refining)</li> <li>GDP of country: \$375 billion</li> </ul>	<ul> <li>Emission regulations for industries: emission limits (PM2.5 not regulated); Stack Gas Emission Standards; requirement that industrial projects use Best Available Techniques; Clean Air Regulations require industries to conduct emission inventories</li> <li>Small installation's emissions regulated: No (thermal power plants&lt;10MW, metal foundries, solvent industries, cement, glass etc), and they don't need an EIA process</li> </ul>
	<ul> <li>Industries' share of GDP: 41%</li> <li>Electricity sources: gas (49%), coal (43%), hydro (5%)</li> </ul>	<ul> <li>Renewable energy investment promoted: Renewable Energy Act 2011; Sustainable Energy Development Authority has initiated renewable energy policies to encourage industries and individuals to employ renewable-energy-powered systems in power applications (solar, biomass, small hydro, biogas); Solar Rooftop Programme</li> <li>Energy efficiency incentives: National Energy Efficiency Action Plan (drafted in 2014 - enacted?) - appliance rating &amp; labelling; minimum energy performance standards; energy audits in buildings &amp; industries; targeted rebates &amp; support; energy efficient building design</li> <li>Incentives for clean production and installation of pollution prevention technologies:</li> </ul>

REDUCE EMISSIONS FROM TRANSPORT	• Key transport-related air quality challenges: responsible for ~70% air pollution, and increasing PM, in urban areas; emission standards are only at Euro 2 and no restrictions on second hand vehicle imports	<ul> <li>Special capital allowance incentive for companies that install pollution control equipment (Income Tax Act 1997)</li> <li>Actions to ensure compliance with regulations: (monitoring, enforcement, fines etc) ???</li> <li>Other actions at national, sub-national and / or local level to reduce industry: ???</li> <li>Vehicle emission limit: Euro 2 for petrol vehicles (goals: Euro 4 for petrol vehicles, Euro 2 for diesel vehicles, and Euro 3 for motorcycles in 2016)</li> <li>Fuel Sulphur content: 500 ppm (goal: 50ppm in 2016)</li> <li>Restriction on used car importation: None</li> <li>Actions to expand, improve and promote public transport and mass transit: One bus rapid transit system being built in Kuala Lumpur; 9th Malaysia Plan (2006-2010) included urban transport focus to encourage modal shift</li> <li>Actions to promote non-motorized transport: (ex: include sidewalks and bike lanes in new road projects, car-free areas etc) ???</li> <li>Other transport-related actions: government's Electric Mobility Flagship Programme aims to have 200,000 EV (including buses, cars, scooters) &amp; 125,000 public charging stations by 2020</li> </ul>
REDUCE EMISSIONS FROM OPEN BURNING OF AGRICULTURAL / MUNICIPAL WASTE (OUTDOOR)	• Outdoor, open burning: Open burning (of waste & other) is one of significant pollution sources of PM; Monitoring network is used to identify local burning & enforce regulations; Haze monitoring has improved	<ul> <li>Legal framework: Environmental Quality (Declared Activities) (Open Burning) Regulations in 2003 to reduce haze from domestic sources</li> <li>Actions to prevent open burning of municipal waste and / or agricultural waste: ???</li> </ul>
REDUCE EMISSIONS FROM OPEN BURNING OF BIOMASS (INDOOR)	<ul> <li>Dominant fuels used for cooking and space heating: ~95% use of electricity / gas for cooking</li> <li>Impact: WHO estimates &lt;100 deaths/year from indoor air pollution (600 for outdoor air pollution)</li> </ul>	<ul> <li>Indoor air pollution regulated: No</li> <li>Promotion of non-grid / grid electrification: Rural Electrification Programme includes off-grid microgrids such as solar systems for remote areas</li> <li>Promotion of cleaner cooking fuels and clean cook stoves: ???</li> <li>Other actions to reduce indoor biomass burning, or to reduce its emissions: ???</li> </ul>

Secondary Sources used in the research: Country Synthesis Report on Urban Air Quality Management: Malaysia. Asian Development Bank and the Clean Air Initiative for Asian Cities, 2006., <u>http://www.doe.gov.my/eia/wp-content/uploads/2012/03/A-Guide-For-Investors1.pdf</u>, <u>http://www.kettha.gov.my/kettha/portal/document/files/NEEAP% 20For% 20Comments% 20Final% 20January% 202014.pdf</u>, <u>http://www.mida.gov.my/env3/uploads/events/Sabah04122012/SEDA.pdf</u>, <u>http://asiapacific.anu.edu.au/newmandala/2013/06/23/reinvigorating-rural-malaysia-new-paradigms-needed/</u>, Gonorel: World Bank, 2015, The Little Green Data Book 2015, Washington, DC: World Bank, doi: 10.1506/078, 1.4648, 0560, 8. Ligense: Greetive

General: *World Bank. 2015. The Little Green Data Book 2015. Washington, DC: World Bank. doi:10.1596/978-1-4648-0560-8. License: Creative Commons Attribution CC BY 3.0 IGO* (https://openknowledge.worldbank.org/bitstream/handle/10986/22025/9781464805608.pdf), http://www.who.int/quantifying\_ehimpacts/national/countryprofile/en/#T, http://sekitarsynergy.blogspot.com/2014/08/clean-air-regulations-2014-malaysia.html, http://www.who.int/healthinfo/survey/whsmys-malaysia.pdf, http://kvmrt.info/, http://www.thestar.com.my/Lifestyle/Features/2015/02/02/Electric-vehicles-the-face-of-future-mobility/, http://www.pvmagazine.com/news/details/beitrag/rural-electrification-set-to-transform-asia-pacific-microgrid-market\_100016479/#axzz3hHENchk7, http://www.who.int/quantifying\_ehimpacts/national/countryprofile/en/#I, http://cleanairasia.org/wpcontent/uploads/portal/files/agenda/meeting\_report\_of\_consultation\_for\_joint\_forum\_and\_5th\_govt\_meeting\_feb2015.pdf



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