## **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>.

THAILAND	THAILAND			
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: Urban air quality is deteriorating, due to transport, power generation, poor enforcement of regulations</li> <li>Air quality monitoring system: Yes, 53 air quality monitoring stations around the country</li> </ul>	<ul> <li>National Ambient air quality standards: O3, PM10, PM2.5 meet WHO Interim Targets; NO2, SO2 don't meet</li> <li>National Air Quality Policy: No</li> <li>Air Quality legislation / programmes: There are standards for mobile and point sources (power plants, waste incinerators, mines, quarries, cement plants, industries, gold smelting, gold refining, rice mills boilers)</li> <li>Other:</li> </ul>		
REDUCE EMISSIONS FROM INDUSTRIES	• Industries that have the potential to impact air quality: construction, power generation (esp coal fired), manufacturing, mining, refinery, cement plants, quarries	<ul> <li>Emission regulations for industries: Limits for NOx, SO2, Particulate; industries must report emissions annually; government annual inspection programmes to verify reports</li> <li>Small installation's emissions regulated: Yes</li> </ul>		
	<ul> <li>GDP of country: \$387 billion</li> <li>Industries' share of GDP: ~40%</li> <li>Electricity sources: Natural gas is 71% and coal 21% of the fuel used for power generation</li> </ul>	<ul> <li>Renewable energy investment promoted: Tax breaks for solar power; government's 10-year Alternative Energy Development Plan to increase alternative energy usage to 25% of total energy consumption</li> <li>Energy efficiency incentives: (ex: Subsidies, labelling, rebates etc) 20-Year Energy Efficiency Development Plan 2011-2030 – target to reduce energy intensity by 25%, particularly in transport and industries, through rules and regulations, and supportive / promotional measures; these will include minimum energy performance standards, energy efficiency labelling, and funding for amount of energy saved (http://www.enconfund.go.th/pdf/index/EEDP_Eng.pdf)</li> <li>Incentives for clean production and installation of pollution prevention technologies: There is a Master Plan on Cleaner Production, but no incentives for installing pollution control</li> </ul>		

		• Actions to ensure compliance with regulations: (monitoring, enforcement, fines etc) ???
		• Other actions at national, sub-national and / or local level to reduce industry: Several award programmes for good performance
REDUCE	• Key transport-related air quality challenges: Traffic is greatest source of air pollution in Bangkok; Many old vehicles on the road; Car tax too low to make significant difference	• Vehicle emission limit: Euro 4 (tighter standards being considered)
Emissions From Transport		• Fuel Sulphur content: 50 ppm
		• Restriction on used car importation: Banned
		• Actions to expand, improve and promote public transport and mass transit: Bangkok Metropolitan Administration (BMA) Action Plan on Global Warming Mitigation 2007-2012 incudes expansion of Bangkok Mass Transit System and underground Metropolitan Rapid Transit, and improving traffic systems; expand park areas. Plans to add nine more electric rail routes to subway and skytrain services, plus flat-rate ticket prices for all mass transit services to encourage greater use of the system; Plans to invest in high-speed and regular trains over the next 8 years, within Bangkok (from 80km to 464km) and between Bangkok and other centres
		<ul> <li>Actions to promote non-motorized transport: (ex: include sidewalks and bike lanes in new road projects, car-free areas etc) Actions to promote non-motorized transport in the National Transport Master Plan (2011-2020) (http://ppmc-cop21.org/cycling-policies-to-improve-mobility-and-health-in-thailand/) include promoting NMT such as sidewalk improvement, bike lane, car free day, BRT, park and ride, pricing programmes</li> <li>Other transport-related actions: plan to amend regulations to allow access to electricity chargers at petrol stations, and 10% decrease in excise tax on EV components, as part of plan to promote EV; There is a plan to replace the current vehicle sales tax with a CO2 tax, to encourage purchase of more efficient vehicles; there is a concern that the schedule of rates may not be enough to shift buyers from less efficient to more efficient vehicles; measures to promote energy efficient vehicles through mandatory labelling and tax</li> </ul>
REDUCE	• Outdoor, open burning: Open burning of	• Legal framework: National Master Plan for Open Burning Control to prevent open burning
EMISSIONS FROM OPEN BURNING OF AGRICULTURAL / MUNICIPAL WASTE (OUTDOOR)	agricultural residue and municipal waste, as well as forest fires, are key sources of air pollution	• Actions to prevent open burning of municipal waste and / or agricultural waste: ???

REDUCE	• Dominant fuels used for cooking and space	• Indoor air pollution regulated: No
Emissions	heating: wood (50%) and charcoal (40%),	
FROM OPEN	especially in rural areas	• Promotion of non-grid / grid electrification: 99% access, although this doesn't mean that it is
BURNING OF	• Impact: WHO estimates 10,000 deaths/year	always available
BIOMASS	from indoor air pollution (4,000 for outdoor	
(INDOOR)	air pollution)	• Promotion of cleaner cooking fuels and clean cook stoves: ???
		• Other actions to reduce indoor biomass burning, or to reduce its emissions: ???

Secondary Sources used in the research: http://www.pcd.go.th/info\_serv/en\_reg\_std\_airsnd03.html,

http://www.pcd.go.th/info\_serv/en\_reg\_std\_airsnd.html, http://www.pv-magazine.com/news/details/beitrag/thailand-dusts-off-renewable-energyplans-as-unrest-subsides\_100015767/#axzz3hHENchk7, http://weben.dede.go.th/webmax/content/10-year-alternative-energy-development-plan, http://www.bloomberg.com/news/articles/2013-10-28/thailand-s-rural-boom-yields-mercedes-and-6-000-jacuzzis, http://www.reports-andmaterials.org/sites/default/files/reports-and-materials/TBIRD.htm, http://pulitzercenter.org/reporting/bangkok-public-health-air-pollution-asthmatransportation-politics, http://thailand.prd.go.th/ewt\_news.php?nid=1888&filename=index, http://www.bangkokpost.com/learning/learning-fromnews/332229/transportation-2-2-trillion-baht-investment, http://www.fao.org/docrep/w7519e/w7519e10.htm, http://www.enconfund.go.th/pdf/index/EEDP\_Eng.pdf, http://www.who.int/quantifying\_ehimpacts/national/countryprofile/en/#I, http://cleanairasia.org/wp-

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