

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.

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 Vered.Ehsani@unep.org and George.Mwaniki@unep.org.

CHINA		
GOALS	CURRENT STATUS	CURRENT / PLANNED POLICIES & PROGRAMMES
GENERAL OVERVIEW	<ul style="list-style-type: none"> ● Overall situation with respect to air quality in the country, including key air quality challenges: China has adopted many broad ranging, new policies, although implementation presents a key challenge due to the complex structure of policies and the related legal framework and administrative structure ● In Beijing, levels of harmful PM2.5 particulates have dropped by a fifth, and the number of "heavily polluted" days halved over the first five months of 2015. Some of the success may be due to the recent weather with wind blowing away some of the pollution, but there has also been action on the ground by regulators ● In 2014, the national air quality improved; average annual concentration of PM₁₀ in 338 prefecture level cities decreased by 2.1% from 2013 to 95ug/m3; the average annual concentration of PM_{2.5} in 74 cities decreased by 11.1% from 2013 to 64ug/m3 ● 3 key regions (Beijing-Tianjin-Hebei, Yangtze River Delta, and Pearl River Delta) and 10 city clusters cover only 14% of the country's land area, but account for nearly 	<ul style="list-style-type: none"> ● National Ambient air quality standards: Standards meet WHO standards, or are within WHO Interim Targets ● National Air Quality Policy: "12th Five-Year Plan on Air Pollution Prevention and Control in Key Regions", plus related laws, regulations, presents a comprehensive air pollution prevention and control plan. The plan covers the 3 key regions and 10 city clusters ● Air Quality legislation / programmes: Recently introduced binding pollution reduction targets. The Total Emission Control Program and various emissions standards have been strengthened, monitoring capacity has been significantly increased, and much data has been released to the public. The Air Pollution Prevention and Control Action Plan (2013) focuses not only on pollution targets, but also industrial restructuring, industrial location, and technological innovation, as well as stronger governance. It will be enforced by linking industrial project approvals to EIA and energy audits, and linkage with senior officials' performance evaluations ● Other: Clean Air Action Plan 2014 - set up an evaluation system focusing on improving air quality; assessment results will be used for performance evaluation of the local leaders, and will be referred to when allocating the central government's Clean Air Fund; ● Focus on encouraging civic participation in improving air quality through films, posters, promotional materials; ● Established an inter-ministry coordination mechanism for cleaning air, to identify and confirm the function and priority of the ministries and play a positive role in coordination among government agencies, smoothing the communicating and ensuring the coherence of policies; similar mechanisms established at regional level for a few areas

	<p>half (48%) of the country's population, 71% of the nation's GDP, and 52% of the country's coal consumption. The air pollutants emissions level is 2.9 to 3.6 times higher than the nation's average</p> <ul style="list-style-type: none"> ● Air quality monitoring system: Yes, with more stations built to release real-time monitoring information 	
<p>REDUCE EMISSIONS FROM INDUSTRIES</p>	<ul style="list-style-type: none"> ● Industries that have the potential to impact air quality: thermal power, iron and steel, petrochemicals, cement, non-ferrous metals, and chemicals ● Objective to decrease total consumption of coal in Beijing-Tianjin-Hebei-Shandong Area has led to total consumption of coal decreasing for the first time in history in 2014 ● Beijing plans to move away from coal: already, two coal-fired power plants have been closed, and a new gas-powered plant has opened up ● In Guangzhou, industrial pollution, particularly emissions from coal-fired power plants and industrial boilers, accounts for about 33% of the PM2.5 ● GDP of country: \$9 trillion ● Industries' share of GDP: 43% ● Electricity sources: fossil fuels (69%, mainly coal) & hydro (22%), some wind, nuclear 	<ul style="list-style-type: none"> ● Emission regulations for industries: Yes, particularly for the top 6 polluting industries; Many emission standards for industries have been revised or newly established since 2011. Major polluting industries will need to gradually comply with the strictest existing international emission limits on airborne pollutants. Designated industries include thermal power, iron and steel, petrochemicals, cement, non-ferrous metals, and chemicals in 47 cities of China's most heavily polluted regions. These six industries account for more than 70% of the annual amount of smoke and dust. New emission standards for thermal power plants are more stringent than standards in US, Canada, and the EU; Local governments required to increase charge for emission permits for SO2 and NOx; 12 provinces have emission trading pilot projects; Environmental protection info of a total of 85,000 companies has been included in the enterprise's credit record (for what purpose though ???) ● Small installation's emissions regulated: (Yes/No) ??? ● Renewable energy investment promoted: China leads the world in production and use of wind power, solar photovoltaic power and smart grid technologies; Provides a reduced corporate income tax to qualified renewable energy enterprises; Exemptions and deductions for tax on income derived from Clean Development Mechanism projects; 50% refund of VAT on sale of wind power, photovoltaic power etc; financial subsidies given to qualified green energy projects in rural areas ● Energy efficiency incentives: Yes, resulting in a 70% decline of energy intensity per unit of GDP from 1980 to 2010, and accounting for more than half the world's entire energy savings in the past 20 years ● Incentives for clean production and installation of pollution prevention technologies: Cleaner Production Promotion law; Authorities in Guangzhou are planning to introduce state-of-the-art technology to upgrade coal-fired power plants and industrial boilers - emissions of sulphur dioxide, oxynitride and fine dust are expected to decrease by more than 60%; China ranks well with a green tax policy balanced between incentives and penalties, focused on

		<p>resource efficiency (energy, water, materials) and green buildings; Special fund to promote clean production; Central government issued Implementation Plan of Clean Production Technology in the Key Industries for Controlling Air Pollution, to guide steel, cement, chemical, petrochemical, non-ferrous metal smelting etc. to adopt advanced, clean production technology; 55,000 units of small coal-fired boiler were phased out in 2014</p> <ul style="list-style-type: none"> ● Actions to ensure compliance with regulations: (monitoring, enforcement, fines etc) <i>The Notice on Strengthening Supervision and Enforcement of Environmental Laws (General Office of the State Council of China [2014] No.56)</i> requires regional coordination on law enforcement; the Ministry of Environmental Protection and Ministry of Public Security of China established the coordination mechanisms and institutions for enforcing administrative laws and criminal laws. Meanwhile, the Ministry of Supervision strengthened the accountability mechanism for illegal activities regarding air pollution. (Fines ???) ● Other actions at national, sub-national and / or local level to reduce industry: Incentives to move industries to less populated areas, especially for highly polluting industries within certain regions. Larger polluting factories have been moved further away from Beijing; however care should be taken that pollution is not merely being transferred elsewhere by ensuring that emission limits and air quality standards are applied across the country. High sulphur, high ash coal is banned in some key areas; ● PetroChina and Sinopec invested 2 billion yuan to treat VOCs in refinery enterprises; February 2015 - a VOC consumption tax was imposed, and is exempted if the VOCs' content is less than 420 grams per litre to promote reduction of VOCs' content in paints, adhesives and other materials and products
<p>REDUCE EMISSIONS FROM TRANSPORT</p>	<ul style="list-style-type: none"> ● Key transport-related air quality challenges: vehicles account for significant levels of pollution in urban settings (ex Guangzhou – 23% of PM2.5) 	<ul style="list-style-type: none"> ● Vehicle emission limit: Euro 4 (equivalent) and being tightened ● Fuel Sulphur content: 50 ppm, with plans to implement China V standard (10ppm) in 2017 ● Some cities / provinces already have 10ppm fuel ● Restriction on used car importation: Banned with a few possible exemptions ● Actions to expand, improve and promote public transport and mass transit: Yes, in some cities; Over 300 cities have built more than 1,550 Bus Rapid Transit systems. ● Actions to promote non-motorized transport: (ex: include sidewalks and bike lanes in new road projects, car-free areas etc) ??? ● Other transport-related actions: Some cities have license plate lotteries, restricted days for

		<p>even / odd numbered plates etc; Promoting electric vehicles through tax rebates, free fast-charging stations. In Beijing, electric vehicles can drive on any day (no license plate-based restrictions); Qualified energy efficient vehicles charged 50% less Vehicle and Vessel Tax; Plans to accelerate roll-out of electric vehicles – plan to have 1 million in the domestic market by 2020; Local governments must have >30% of newly ordered vehicles as ‘green’ or face stiff penalties; Environmental labelling of light duty vehicles</p> <ul style="list-style-type: none"> ● <i>2014 Implementation Plan for Phasing Out Yellow-Label and Old Cars</i> was issued to achieving the target of eliminating 6 million yellow-label and old cars in 2014; Yellow-Label cars are banned in central areas of Beijing, Tianjin, Shanghai and other cities; In Beijing, 476,000 older cars were denied registration last year, with hundreds of thousands more to come off the road;
<p>REDUCE EMISSIONS FROM OPEN BURNING OF AGRICULTURAL / MUNICIPAL WASTE (OUTDOOR)</p>	<ul style="list-style-type: none"> ● Outdoor, open burning: China one of the top offenders for trash burned by individual residents and for the most garbage burned at dumps; produces emissions equivalent to 22% of reported emissions of PM10 ● In 2014, the Standard for Pollution Control on the Municipal Solid Waste Incineration was revised and it will be implemented in 2016. The emission standard for fine dust, sulphur dioxide (SO₂) and Oxynitride (NO_x) in the new version becomes stringent considerably and basically is consistent with the emission requirement for thermal power plant. 	<ul style="list-style-type: none"> ● Legal Framework: At present, the open burning of crop straw is prohibited in China. ● Actions to prevent open burning of municipal waste and / or agricultural waste: The related departments promote the overall utilization of straw in the key areas for air pollution prevention and control and main production areas for grain and cotton in an in-depth manner. A budget of 0.75 billion RMB Yuan from central government has been invested to support the crop straw overall utilization project. 20 items and over 100 types of crop straw treatment and utilization machine have been enlisted in the category of agricultural machinery procurement subsidy.
<p>REDUCE EMISSIONS FROM OPEN BURNING OF BIOMASS (INDOOR)</p>	<ul style="list-style-type: none"> ● Dominant fuels used for cooking and space heating: 80% use solid fuel 	<ul style="list-style-type: none"> ● Indoor air pollution regulated: Yes ● Promotion of non-grid / grid electrification: electrification rate 99%, although most people in rural settings have low consumption, relying on solid fuel for cooking and lighting ● 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: China Country Report on Air Quality (submitted by government), <http://www.abc.net.au/news/2015-05-23/beijing-improved-air-quality-result-of-good-policy-say-officials/6492350>, <http://www.abc.net.au/news/2015-02-02/china-says-90-pct-of-cities-failed-to-meet-air-standards-in-2014/6063696>, <http://www.chinadaily.com.cn/china/fightairpollution/>, http://www.chinadaily.com.cn/china/2014-02/24/content_17300965.htm,

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