## **United Kingdom 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 <u>Vered.Ehsani@unep.org</u> and <u>George.Mwaniki@unep.org</u>.

<u>United Kingdom</u> Air Quality Policy Matrix		
Goals	Status	Current Policies & Programmes
GENERAL OVERVIEW	Overall situation with respect to air	National ambient air quality standards: yes
	<ul> <li>quality in the country, including key air quality challenges:</li> <li>Overall, UK air quality compares favourably with other EU Member States. The UK currently meets EU limits for almost all pollutants.</li> </ul>	• The current standards are contained in the Ambient Air Quality Directive (EP & CEU, 2008) and the Fourth Daughter Directive (EP & CEU, 2004). These Directives set limit values for concentrations of air pollutants and also include rules on how Member States should monitor, assess and manage ambient air quality.
	<ul> <li>However the UK still faces a significant domestic challenge in reducing levels of NO<sub>2</sub> to meet EU limit values, along with 16 other EU Member States.</li> </ul>	<ul> <li>National air quality policy</li> <li>The UK is committed to improving air quality through continued implementation of EU legislation and its international commitments as a Party to the UNECE Convention on Long-range Transboundary Air Pollution (CLRTAP).</li> </ul>
	<ul> <li>Concentrations of some of air pollutants are higher than the WHO Air Quality Guideline values. This is particularly so with respect to NO<sub>2</sub> and O<sub>3</sub>.</li> <li>The UK Committee for the Medical</li> </ul>	<ul> <li>EU air quality policy has a long term goal of achieving levels of air quality that do not result in unacceptable impacts on, and risks to, human health and the environment.</li> <li>In December 2015 the UK published revised Air Quality Plans<sup>2</sup> which set out how the UK will reach compliance with EU limit values for NO<sub>2</sub> in all zones outside London</li> </ul>

<sup>&</sup>lt;sup>2</sup> <u>https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/486636/aq-plan-2015-overview-document.pdf</u>

<ul> <li>Effects of Air Pollutants (COMEAP) estimated that an annual effect equivalent to ro 29,000 deaths in the UK was attributable to anthropogenic particulate matter air pollution 2008. COMEAP is planning t publish a report in the first ha 2016 on quantifying the assoc between long-term exposure t and mortality.</li> <li>The UK has 629 Air Quality Management Areas, all of wh declared for either NO<sub>2</sub> or PN emissions, or both.</li> <li>Air quality monitoring and modell</li> <li>Air quality in the UK is asses through a combination of mon and modelling, as well as thro development and upkeep of a emissions inventory.</li> <li>The Department for Environn and Rural Affairs currently su sophisticated national networl monitoring sites, measuring concentrations of 13 pollutant local authoritics also</li> </ul>	<ul> <li>and the performance of the performance of</li></ul>
local authorities also undertak monitoring separately for the Local Air Quality Manageme	purpose of <b>Other</b> : nt. In 2015 the EU reached agreement on a new Directive to reduce
Data from monitoring is supp	pollution from medium-sized combustion plants.

<sup>&</sup>lt;sup>3</sup> http://uk-air.defra.gov.uk/

	with compliance modelling <sup>1</sup> . This modelling is underpinned by emissions data from the National Atmospheric Emissions Inventory (NAEI) and calibrated using data from the monitoring network.	• A revised National Emissions Ceiling Directive with stricter national emission ceilings for the six main pollutants is currently under negotiation in the EU.
REDUCE EMISSIONS FROM INDUSTRIES	Industries that have the potential to impact air quality:	<ul> <li>Emissions regulation for industry:</li> <li>Agreed in 2010, the Industrial Emissions Directive (IED) sets</li> </ul>
	<ul> <li>Major industries in the UK include; machine tools, electric power equipment, automation equipment, railroad equipment, shipbuilding, aircraft, motor vehicles and parts, electronics and communications equipment, metals, chemicals, coal, petroleum, paper and paper products amongst others.</li> <li>GDP of country: USD 2.49 trillion in 2013<sup>4</sup></li> <li>Industries' share of GDP: 20.5%</li> </ul>	<ul> <li>standards and stringent emissions limits on harmful pollutants that industry across the EU must comply with.</li> <li>Mandatory standards and emissions limits are set out as conditions in environmental permits that all installations must obtain from the relevant regulator, in order to operate. Applications, permits, monitoring data and other information must also be placed on a public register.</li> <li>The legislation also requires regular monitoring and periodic, riskbased inspections.</li> <li>Additional domestic-level legislation applies to smaller industrial installations that are regulated by Local Authorities, which set limits on emissions to air.</li> </ul>
		Small installation's emissions regulated: (Yes/No) yes
	<ul> <li>Electricity sources:</li> <li>76% of the installed electricity generating capacity (89.24 million KW in 2012) is generated from fossil fuel, 4.8% from hydropower, 11.2% from nuclear and the rest 8% from renewable sources.</li> </ul>	<ul> <li>Actions to ensure compliance with regulations (monitoring, enforcement, fines etc):</li> <li>If an installation does not comply with its permit conditions under the IED, the relevant competent authority takes the necessary enforcement action, requiring the installation to make changes to meet the conditions as soon as possible. Should the conditions continue not to be met they can withdraw the permit. If the</li> </ul>

http://uk-air.defra.gov.uk/research/air-quality-modelling
 <sup>4</sup> 'Countries of the World - 32 Years of CIA World Fact Books', 2015 <u>http://www.theodora.com/wfbcurrent/united\_kingdom/united\_kingdom\_economy.html</u>

installation continues to operate, the regulator has further powers of enforcement, including notices to prosecution, to ensure compliance. Similar provisions apply to industry regulated under
<ul> <li>domestic legislation.</li> <li>Monitoring must meet the quality requirements set by the relevant competent authority.</li> </ul>
<b>Energy efficiency incentives:</b> (ex: Subsidies, labelling, rebates etc):
Energy Saving Opportunity Scheme (ESOS)
<ul> <li>A mandatory energy assessment scheme for all large undertakings (employing more than 250 people and/or with annual turnover exceeding €50m and balance sheet exceeding €43m). Requires an audit of energy used in their buildings, industrial processes and transport to identify cost-effective saving measures. ESOS was developed to meet the requirements of EU Energy Directive (2012/27/EU).</li> <li>Businesses do not report data to the government, but are required to report compliance to the Environment Agency, who administer the scheme.</li> </ul>
Climate Change Agreements (CCAs)
• A voluntary scheme which enables energy intensive participants to pay reduced rates of Climate Change Levy (CCL) in exchange for signing up to agreed energy efficiency or carbon reduction targets
<u>CRC Energy Efficiency scheme (formerly the Carbon Reduction</u> Commitment)
<ul> <li>A mandatory carbon emission reporting and pricing scheme covering large, non-energy intensive energy users in both public and private sectors.</li> </ul>
• Companies have to buy allowances for every tonne of carbon emitted over a threshold (6,000 megawatt hours). Aimed at organisations not covered by the EU Emissions Trading Scheme.

		<ul> <li>Incentives for clean production and installation of pollution prevention technologies:</li> <li>Enhanced Capital Allowances (ECA) - scheme for energy saving technologies (provides an incentive for businesses to invest in a range of non-sector specific energy efficient equipment (e.g. heating, cooling, ventilation, lighting, motors, pumps).</li> </ul>
REDUCE EMISSIONS FROM TRANSPORT	<ul> <li>Key transport-related air quality challenges: (ex: vehicle growth, old fleet, dirty fuel, poor public transport etc)</li> <li>Transport is among the main source of air pollution in the UK.</li> <li>At least half the Air Quality Management Areas in the UK result from road transport emissions.</li> <li>Transport infrastructure including cross- modal connectivity in the UK is well developed and several options spanning from standard and light railways, bus and occasionally river are available for commuters.</li> <li>Use of private cars is discouraged in many urban environments though traffic management, access charging and parking controls.</li> <li>Private car ownership is high with 519 cars per 1000 individuals in 2010.</li> </ul>	<ul> <li>Vehicle emission limit: (<i>Euro rating</i>)</li> <li>Emissions standards for vehicles correspond to Euro 6 for LDV vi HDV standards.</li> <li>European Union emission regulations for new light duty vehicles (passenger cars and light commercial vehicles) are specified in Regulation 715/2007 (Euro 5/6) [2899].</li> <li>Emission standards for light-duty vehicles are applicable to all vehicles not exceeding 2610 kg (Euro 5/6).</li> <li>EU regulations introduce different emission limits for <i>compression ignition</i> (diesel) and <i>positive ignition</i> (gasoline, NG, LPG, ethanol) vehicles. Diesels have more stringent CO standards than positive ignition vehicles. Positive ignition vehicles were exempted from PM standards through the Euro 4 stage. Euro 5/6 regulations introduce PM mass emission standards, equal to those for diesels, for positive ignition vehicles with direct injection engines.</li> <li>Fuel Sulphur content: (<i>in ppm</i>)</li> <li>The 2000/2005 emission standards were accompanied by the introduction of more stringent fuel regulations that require "Sulphurfree" diesel and gasoline fuels (≤ 10 ppm S) from 2009.</li> </ul>
	cars per 1000 individuals in 2010.	<ul> <li>Maximum allowable sulphur level in petrol and diesel fuels is 10ppm.</li> <li>Fuel Lead content: All vehicles use lead free fuel.</li> </ul>

		• Restriction on used car importation: Imported vehicles without EU type approval must apply for national approval scheme and/or comply with Construction and use regulations depending on the age of the vehicle.
		Actions to expand, improve and promote public transport and mass transit:
		Actions to promote non-motorized transport: (ex: include sidewalks and bike lanes in new road projects, car-free areas etc)
		<ul> <li>£665m invested 2011-2015: £600m to support 96 projects across 77 local authorities to increase the use of buses, cycling and walking. An additional £65m to support 44 local authorities in 2015/16.</li> </ul>
		• £580m invested 2015-2020 for a new 'Access' fund for sustainable travel, building on the legacy of the Local Sustainable Transport Fund and supporting growth in cycling and walking.
		• £593m invested 2011-2020 in a variety of measures to support cycling under the Local Sustainable Transport Fund, Bikeability, the Cycle Ambition Scheme, and Cycle Rail.
REDUCE EMISSIONS FROM OPEN BURNING: OUTDOOR	Outdoor, open burning:	Legal framework:
	• The outdoor burning of commercial or industrial waste by businesses, organisations or individuals is illegal in the UK.	• The recovery and disposal of waste requires a permit under EU legislation. This legislation also allows Member States to provide for exemptions from the need for a permit, providing general rules are laid down for each type of exempt activity, and the operation is registered with the relevant authority.
	• The open burning of vegetation,	L E l l l M l d id l C c c c d c id

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