

European Union Air Quality Catalogue

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 air.quality@unep.org.

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Goals	Status	Current Policies & Programmes
GENERAL OVERVIEW	<p>Overall situation with respect to air quality in the country, including key air quality challenges:</p> <ul style="list-style-type: none"> • EU air quality and air pollution legislation is comprehensive and includes measures to prevent air pollutants emissions at source. • The EU Member States monitor and assess air quality within their territory and manage the air quality by zones to be in conformity with the agreed standards. • One of the major air quality challenge in the EU is the full compliance with the PM10 short term limit value (not more than 35 days per year above 50 $\mu\text{g}/\text{m}^3$) and the NO2 long term limit value for (not in excess of 40 $\mu\text{g}/\text{m}^3$ as annual average), particularly in more polluted environments such as close to heavily trafficked roads. • More than 64% and 95% of the urban population lives in areas in which the WHO PM10 and ozone guidelines, respectively, were exceeded in 2012. <p>Air quality monitoring system:</p> <ul style="list-style-type: none"> • Member States are required to measure 	<p>National Ambient air quality standards: yes</p> <ul style="list-style-type: none"> • The EU ambient air quality standards are defined either as limit values set with the aim of avoiding, preventing and reducing harmful effects on human health and/or the environment, or as target values which aim at avoiding, preventing and reducing the effects wherever possible. • The current standards are contained in the Clean Air for Europe (CAFE) Directive (EP & CEU, 2008) and the Fourth Daughter Directive (EP & CEU, 2004). These Directives also include rules on how Member States should monitor, assess and manage ambient air quality. <p>National Air Quality Policy/ legislation / programmes</p> <ul style="list-style-type: none"> • Current EU air policy is guided by the Clean Air Programme for Europe which was published in 2013. • The EU air quality policy pursues policy objectives and measures with a staggered approach ranging from overarching objectives set out in the Treaty on European Union and further detailed in strategies, and secondary legislation, like directives, decisions and regulations as well as through implementing legal instruments like financing activities, programmes and projects. • The 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." • European Union air quality policy aims to; <ul style="list-style-type: none"> - Develop and implement appropriate instruments to improve air quality. - Control of emissions from mobile sources, through fuel quality improvement and vehicle emission standards - Promoting and integrating environmental protection requirements into the transport and energy sector are part of these aims.

	<p>ambient air quality, i.e. concentrations of key air pollutants, according to agreed standards and time intervals (depending on the respective air pollutant and the population potentially exposed).</p> <ul style="list-style-type: none"> Member States are furthermore obliged to report their data on ambient air quality, as well as information on the assessment and management, to the European Commission on an annual basis 	<p>Other:</p> <ul style="list-style-type: none"> A review of the EU air quality policy was conducted in 2011-2013 This review led to the adoption of a Clean Air Policy Package in December 2013, this package consists of : <ul style="list-style-type: none"> A new Clean Air Programme for Europe with new air quality objectives for the period up to 2030, A revised National Emission Ceilings Directive with stricter national emission ceilings for the six main pollutants, and A proposal for a new Directive to reduce pollution from medium-sized combustion installations
REDUCE EMISSIONS FROM INDUSTRIES	<p>Industries that have the potential to impact air quality:</p> <ul style="list-style-type: none"> Major industries in the country includes; ferrous and non-ferrous metal production and processing, metal products, petroleum, coal, cement, chemicals, pharmaceuticals, aerospace, rail transportation equipment, passenger and commercial vehicles, construction equipment, industrial equipment, shipbuilding, electrical power equipment, machine tools and automated manufacturing systems, electronics and telecommunications equipment, fishing, food and beverages, furniture, paper, textiles among others <p>GDP of country: USD 16.95 trillion in 2013</p> <p>Industries' share of GDP: 25.2%</p> <p>Electricity sources:</p> <ul style="list-style-type: none"> 48% of the installed electricity generating capacity (867.6 million KW in 2010) is generated from fossil fuel, 28% from nuclear, 13% from hydropower and the rest 11% from renewable sources 	<p>Emission regulations for industries:</p> <ul style="list-style-type: none"> Industrial emission standards (which previously appeared as separate legislation) are now consolidated into a common framework - the Industrial Emissions Directive (IED) The IED entered into force on 6 January 2011 and had to be transposed into national legislation by Member States by 7 January 2013. The IED <i>inter alia</i> sets specific emission limit values for some key sectors (e.g. power plants and incinerators) while at the same time requiring the competent authorities of issuing operating permits based on Best Available Technique (BAT) requirements for all activities falling under the defined scope of the legislation. <p>Small installation's emissions regulated: (Yes/No) yes</p> <ul style="list-style-type: none"> The smallest energy consuming appliances (below about 1MW) are covered by the EU Eco-design regulation The Eco-design standards are based on a range of best available technical performance standards This regulation also covers space and combination heaters which are important source categories of air pollution <p>Renewable energy investment promoted:</p> <ul style="list-style-type: none"> The EU's Renewable energy directive sets a binding target of 20% final energy consumption from renewable sources by 2020. <p>Energy efficiency incentives: (ex: Subsidies, labelling, rebates etc)</p> <ul style="list-style-type: none"> The 2012 Energy Efficiency Directive establishes a set of binding measures to help the EU reach its 20% energy efficiency target by 2020 <p>Incentives for clean production and installation of pollution prevention technologies:</p>

		<p>Actions to ensure compliance with regulations: (<i>monitoring, enforcement, fines etc</i>)</p> <ul style="list-style-type: none"> Where Member States are in breach of air quality standards, air emission ceilings or related source legislation, the European Commission may initiate legal action to correct the non-compliance (TFEU Article 258), which may ultimately lead to penalties
REDUCE EMISSIONS FROM TRANSPORT	<p>Key transport-related air quality challenges: (<i>ex: vehicle growth, old fleet, dirty fuel, poor public transport etc</i>)</p> <ul style="list-style-type: none"> Transport is among the most important source of air pollution in the EU The EU has a long standing policy of high quality fuels for the automotive sector set out in the Fuel Quality Directive 	<p>Vehicle emission limit: (<i>Euro rating</i>)</p> <ul style="list-style-type: none"> Mobile sources, in particular road vehicles and non-road mobile machinery are regulated through technical (EURO) emission standards which is also part of the global framework of regulations under UNECE (Working Group 29). Currently the EURO 6 for light passenger and commercial vehicles and EURO VI for heavy duty vehicles standard are in effect. 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]. Emission standards for light-duty vehicles are applicable to all vehicles not exceeding 2610 kg (Euro 5/6). 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 but are allowed higher NOx. 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. <p>Fuel Sulphur content: (<i>in ppm</i>)</p> <ul style="list-style-type: none"> The 2000/2005 emission standards were accompanied by an introduction of more stringent fuel regulations that require “Sulphur-free” diesel and gasoline fuels (≤ 10 ppm S) must be mandatory from 2009. Maximum allowable sulphur level in petrol and diesel fuels is 10ppm <p>Fuel Lead content: All vehicles use lead free gasoline</p> <p>Restriction on used car importation:</p> <ul style="list-style-type: none"> Non, provided the car to be imported meets the EU emission standards <p>Actions to expand, improve and promote public transport and mass transit: ???</p> <ul style="list-style-type: none"> Actions to promote non-motorized transport: (<i>ex: include sidewalks and bike lanes in new road projects, car-free areas etc</i>) ???
REDUCE EMISSIONS	<p>Outdoor, open burning: (<i>ex: is it commonly done? burning what kinds of wastes? etc</i>)</p>	<p>Legal framework: (<i>ex: is burning banned?</i>) ???</p>

FROM OPEN BURNING: OUTDOOR		Actions to prevent open burning of municipal waste and / or agricultural waste: ???
REDUCE EMISSIONS FROM OPEN BURNING: INDOOR	<p>Dominant fuels used for cooking and space heating:</p> <ul style="list-style-type: none"> ● Household heating is a major, and difficult to regulate, source of emissions of PM10. ● Main issue is low efficiency of combustion in heating units and to some extent behavioural traits of households. <p>Impact:</p> <ul style="list-style-type: none"> ● 	<p>Indoor air pollution regulated: (Yes / No) ???</p> <p>Promotion of non-grid / grid electrification: ???</p> <p>Promotion of cleaner cooking fuels and clean cook stoves: ???</p> <p>Other actions to reduce indoor biomass burning, or to reduce its emissions: ???</p>

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