

## Kuwait 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](mailto:Vered.Ehsani@unep.org) and [George.Mwaniki@unep.org](mailto:George.Mwaniki@unep.org).

<b>Kuwait Air Quality Policy Matrix</b>		
<b>Goals</b>	<b>Status</b>	<b>Current Policies &amp; Programmes</b>
<b>General Overview</b>	<p><b>Overall situation with respect to air quality in the country, including key air quality challenges:</b></p> <ul style="list-style-type: none"> <li>● Moto vehicles and industrial emissions are the most important anthropogenic sources of air pollutant in Kuwait.</li> <li>● Oil refineries are the main source of air pollutants in periurban areas.</li> <li>● Occasional dust storm in the region also significantly deteriorates local and regional air quality</li> <li>● Ozone is the most important air inorganic air pollutant during summertime, mainly due to its high concentrations and associated health effects</li> <li>● The concentration of other major pollutant pollutants such as NO<sub>2</sub>, and lead are usually below the standards set by the Kuwait Environment Public Authority (KEPA) for both industrial and residential KEPA standards<sup>1</sup>.</li> </ul>	<p><b>National Ambient air quality standards: ???</b></p> <ul style="list-style-type: none"> <li>● Kuwait ambient Air quality Standards set the concentration limits for the criterion air pollutants.</li> </ul> <p><b>National Air Quality Policy: ???</b></p> <p><b>Air Quality legislation / programmes: ???</b></p> <p><b>Other: ???</b></p>

<sup>1</sup> A. A. Ramadan, 'Air Quality Assessment in Southern Kuwait Using Diffusive Passive Samplers', *Environmental Monitoring and Assessment*, 160 (2010), 413–23 <<http://dx.doi.org/10.1007/s10661-008-0705-8>>.

	<ul style="list-style-type: none"> <li>• WHO estimates that air pollution causes 300 premature deaths annually<sup>2</sup></li> </ul> <p><b>Air quality monitoring system: ???</b></p>	
Reduce Emissions from Industries	<p><b>Industries that have the potential to impact air quality:</b></p> <ul style="list-style-type: none"> <li>• Air pollution from industrial installations emanates from the following: petroleum, petrochemicals, cement, shipbuilding and repair, water desalination, food processing, construction materials among others, with petroleum being the most important sources.</li> </ul> <p><b>GDP of country:</b> USD 179.5B in 2013<sup>3</sup></p> <p><b>Industries' share of GDP:</b> 50.6%</p> <ul style="list-style-type: none"> <li>• The oil and gas industry accounts for more than 50% of the GDP</li> </ul> <p><b>Electricity sources:</b></p> <ul style="list-style-type: none"> <li>• 100% of the installed electricity generating capacity (13.5 million KW in 2010) is generated from fossil fuel.</li> <li>• Electricity demand in Qatar has grown by 5-7% in recent years,</li> </ul> <p><b>Other</b></p> <ul style="list-style-type: none"> <li>• Industrial emissions are the most important emission sources of PM, VOCs and SO<sub>2</sub></li> <li>• The southern region of Kuwait is considered to be the most vulnerable area to air pollution due to the industrial area where</li> </ul>	<p><b>Emission regulations for industries: ???</b></p> <p><b>Small installation's emissions regulated: (Yes/No) ???</b></p> <p><b>Renewable energy investment promoted: ???</b></p> <ul style="list-style-type: none"> <li>• Kuwait aims for 5% of total electricity supply from renewable energy by 2020.</li> </ul> <p><b>Energy efficiency incentives: (ex: Subsidies, labelling, rebates etc) ???</b></p> <p><b>Incentives for clean production and installation of pollution prevention technologies: ???</b></p> <p><b>Actions to ensure compliance with regulations: (monitoring, enforcement, fines etc) ???</b></p> <p><b>Other actions at national, sub-national and / or local level to reduce industrial emissions: (can include incentives to move industries to less populated areas here) ???</b></p>

<sup>2</sup> WHO, 'WHO | Country Profiles of Environmental Burden of Disease', WHO, 2008  
[http://www.who.int/quantifying\\_ehimpacts/national/countryprofile/en/#T](http://www.who.int/quantifying_ehimpacts/national/countryprofile/en/#T).

<sup>3</sup> 'Countries of the World - 32 Years of CIA World Fact Books', 2015 <http://www.theodora.com/wfb/#R>.

	<p>many of the large industries are established.</p> <ul style="list-style-type: none"> <li>• A high proportion of primary energy consumption is in the residential sector, caused by a high standard of living and harsh summer climatic conditions.</li> </ul>	
Reduce Emissions From Transport	<p><b>Key transport-related air quality challenges:</b> (<i>ex: vehicle growth, old fleet, dirty fuel, poor public transport etc</i>)</p> <ul style="list-style-type: none"> <li>• Transport in Kuwait relies heavily on roads, with use of private cars being the most dominant mode of transport.</li> <li>• Use of private cars is encouraged as demonstrated by the low fuel cost which stood at USD 0.21 per litre in 2015<sup>4</sup>.</li> <li>• Public transport is dominated by bus routes, these buses are operated by the Kuwait public Transport Company.</li> <li>• There are also a few public transport buses that are privately owned and operated.</li> <li>• Plans exists to expand public transport to include, trams and city metros within the major cities.</li> <li>• Private car ownership is high with 527 cars per 1000 individuals in 2010<sup>5</sup></li> </ul>	<p><b>Vehicle emission limit:</b> (<i>Euro rating</i>)</p> <ul style="list-style-type: none"> <li>• Roadworthiness inspection system established in 2004; for vehicles over two years old; inspection is annual for petrol vehicles, every six months for diesel vehicles</li> </ul> <p><b>Fuel Sulphur content:</b> (<i>in ppm</i>):</p> <ul style="list-style-type: none"> <li>• Diesel sulphur content is regulated at 5000ppm, but the dominant diesel in the market has a sulphur content of 500ppm</li> </ul> <p><b>Fuel Lead content:</b> All vehicles use lead free gasoline.</p> <p><b>Restriction on used car importation:</b></p> <ul style="list-style-type: none"> <li>• Imports of motor vehicles more than five years old are restricted</li> </ul> <p><b>Actions to expand, improve and promote public transport and mass transit: ???</b></p> <p><b>Actions to promote non-motorized transport:</b> (<i>ex: include sidewalks and bike lanes in new road projects, car-free areas etc</i>) ???</p> <p><b>Other transport-related actions: ???</b></p>
Reduce Emissions From Open Burning: Outdoor	<p><b>Outdoor, open burning:</b> (<i>ex: is it commonly done? burning what kinds of wastes? etc</i>)</p> <ul style="list-style-type: none"> <li>• High living standards in Kuwait make it one of the countries with a high per capita waste generation.</li> <li>• Most of the solid waste is disposed through</li> </ul>	<p><b>Legal framework:</b> (<i>ex: is burning banned?</i>) ???</p> <p><b>Actions to prevent open burning of municipal waste and / or agricultural waste: ???</b></p> <ul style="list-style-type: none"> <li>• Government is encouraging investments in conversion of waste to energy through Public Private Partnerships.</li> </ul>

<sup>4</sup> 'Gasoline Prices around the World, 28-Sep-2015 | GlobalPetrolPrices.com' <[http://www.globalpetrolprices.com/gasoline\\_prices/](http://www.globalpetrolprices.com/gasoline_prices/)> [accessed 5 October 2015].

<sup>5</sup> World Bank, 'Motor Vehicles (per 1,000 People) | Data | Table', 2014

<<http://web.archive.org/web/20140209114811/http://data.worldbank.org/indicator/IS.VEH.NVEH.P3>> [accessed 25 September 2015].

	landfill burial. These landfills are located close to residential houses, and due to the spontaneous fires within these landfill, residence can be exposed to dangerously air pollutants	
Reduce Emissions From Open Burning: Indoor	<b>Dominant fuels used for cooking and space heating:</b> <b>Impact:</b>	<b>Indoor air pollution regulated:</b> <i>(Yes / No)</i> <b>Promotion of non-grid / grid electrification:</b> <b>Promotion of cleaner cooking fuels and clean cook stoves:</b> <b>Other actions to reduce indoor biomass burning, or to reduce its emissions:</b>

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