

## 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].

	<p>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</p>	
<p>Reduce Emissions From Open Burning: Indoor</p>	<p><b>Dominant fuels used for cooking and space heating:</b> <b>Impact:</b></p>	<p><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></p>