

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 and George.Mwaniki@unep.org.

Kuwait Air Quality Policy Matrix		
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"> ● Moto vehicles and industrial emissions are the most important anthropogenic sources of air pollutant in Kuwait. ● Oil refineries are the main source of air pollutants in periurban areas. ● Occasional dust storm in the region also significantly deteriorates local and regional air quality ● Ozone is the most important air inorganic air pollutant during summertime, mainly due to its high concentrations and associated health effects ● The concentration of other major pollutant pollutants such as NO₂, and lead are usually below the standards set by the Kuwait Environment Public Authority (KEPA) for both industrial and residential KEPA standards¹. 	<p>National Ambient air quality standards: ???</p> <ul style="list-style-type: none"> ● Kuwait ambient Air quality Standards set the concentration limits for the criterion air pollutants. <p>National Air Quality Policy: ???</p> <p>Air Quality legislation / programmes: ???</p> <p>Other: ???</p>

¹ 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"> • WHO estimates that air pollution causes 300 premature deaths annually² <p>Air quality monitoring system: ???</p>	
Reduce Emissions from Industries	<p>Industries that have the potential to impact air quality:</p> <ul style="list-style-type: none"> • 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. <p>GDP of country: USD 179.5B in 2013³</p> <p>Industries' share of GDP: 50.6%</p> <ul style="list-style-type: none"> • The oil and gas industry accounts for more than 50% of the GDP <p>Electricity sources:</p> <ul style="list-style-type: none"> • 100% of the installed electricity generating capacity (13.5 million KW in 2010) is generated from fossil fuel. • Electricity demand in Qatar has grown by 5-7% in recent years, <p>Other</p> <ul style="list-style-type: none"> • Industrial emissions are the most important emission sources of PM, VOCs and SO₂ • The southern region of Kuwait is considered to be the most vulnerable area to air pollution due to the industrial area where 	<p>Emission regulations for industries: ???</p> <p>Small installation's emissions regulated: (Yes/No) ???</p> <p>Renewable energy investment promoted: ???</p> <ul style="list-style-type: none"> • Kuwait aims for 5% of total electricity supply from renewable energy by 2020. <p>Energy efficiency incentives: (ex: Subsidies, labelling, rebates etc) ???</p> <p>Incentives for clean production and installation of pollution prevention technologies: ???</p> <p>Actions to ensure compliance with regulations: (monitoring, enforcement, fines etc) ???</p> <p>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) ???</p>

² WHO, 'WHO | Country Profiles of Environmental Burden of Disease', WHO, 2008
http://www.who.int/quantifying_ehimpacts/national/countryprofile/en/#T.

³ '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"> ● A high proportion of primary energy consumption is in the residential sector, caused by a high standard of living and harsh summer climatic conditions. 	
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 in Kuwait relies heavily on roads, with use of private cars being the most dominant mode of transport. ● Use of private cars is encouraged as demonstrated by the low fuel cost which stood at USD 0.21 per litre in 2015⁴. ● Public transport is dominated by bus routes, these buses are operated by the Kuwait public Transport Company. ● There are also a few public transport buses that are privately owned and operated. ● Plans exists to expand public transport to include, trams and city metros within the major cities. ● Private car ownership is high with 527 cars per 1000 individuals in 2010⁵ 	<p>Vehicle emission limit: (<i>Euro rating</i>)</p> <ul style="list-style-type: none"> ● Roadworthiness inspection system established in 2004; for vehicles over two years old; inspection is annual for petrol vehicles, every six months for diesel vehicles <p>Fuel Sulphur content: (<i>in ppm</i>):</p> <ul style="list-style-type: none"> ● Diesel sulphur content is regulated at 5000ppm, but the dominant diesel in the market has a sulphur content of 500ppm <p>Fuel Lead content: All vehicles use lead free gasoline.</p> <p>Restriction on used car importation:</p> <ul style="list-style-type: none"> ● Imports of motor vehicles more than five years old are restricted <p>Actions to expand, improve and promote public transport and mass transit: ???</p> <p>Actions to promote non-motorized transport: (<i>ex: include sidewalks and bike lanes in new road projects, car-free areas etc</i>) ???</p> <p>Other transport-related actions: ???</p>
Reduce Emissions From Open Burning: Outdoor	<p>Outdoor, open burning: (<i>ex: is it commonly done? burning what kinds of wastes? etc</i>)</p> <ul style="list-style-type: none"> ● High living standards in Kuwait make it one of the countries with a high per capita waste generation. ● Most of the solid waste is disposed through 	<p>Legal framework: (<i>ex: is burning banned?</i>) ???</p> <p>Actions to prevent open burning of municipal waste and / or agricultural waste: ???</p> <ul style="list-style-type: none"> ● Government is encouraging investments in conversion of waste to energy through Public Private Partnerships.

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

⁵ 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>Dominant fuels used for cooking and space heating: Impact:</p>	<p>Indoor air pollution regulated: <i>(Yes / No)</i> Promotion of non-grid / grid electrification: Promotion of cleaner cooking fuels and clean cook stoves: Other actions to reduce indoor biomass burning, or to reduce its emissions:</p>