

Finland 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.

Finland 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"> ● On average, air quality in Finland is good, except for exceptional periods during summer and wintertime when pollution levels can rise. ● In the recent decades air quality has improved significantly in Finland ● Air pollution in Finland is mainly driven by energy production, industry and traffic, especially in urban areas. ● Transboundary transport of air pollutants also impacts Finland's air quality ● Real-time data produced by municipalities, industry and the Finnish Meteorological Institute is available via the air quality portal ● WHO estimates that outdoor air pollution causes 100 premature deaths annually¹ <p>Air quality monitoring system:</p>	<p>National Ambient air quality standards: yes</p> <ul style="list-style-type: none"> ● 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</p> <ul style="list-style-type: none"> ● 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, - Promoting and integrating environmental protection requirements into the transport and energy sector are part of these aims. <p>Air Quality legislation / programmes:</p> <ul style="list-style-type: none"> ● Finland's regulations on air quality are all based on provisions adopted by the EU <p>Other:</p> <ul style="list-style-type: none"> ● A review of the EU air quality policy was conducted in 2011-2013 ● This review lead to the adoption of a Clean Air Policy Package in December 2013, this package

¹ WHO, 'WHO | Country Profiles of Environmental Burden of Disease', WHO, 2008
 <http://www.who.int/quantifying_ehimpacts/national/countryprofile/en/#T>.

	<ul style="list-style-type: none"> ● Air quality is measured by a sophisticated national air quality monitoring network. 	<p>consists of :</p> <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; metals and metal products, electronics, machinery and scientific instruments, shipbuilding, pulp and paper, foodstuffs and chemicals among others <p>GDP of country: USD 259.6 Billion in 2013</p> <p>Industries' share of GDP: 25.1%</p> <p>Electricity sources:</p> <ul style="list-style-type: none"> ● 52.3% of the installed electricity generating capacity (16.68 million KW in 2010) is generated from fossil fuel, 18.5% from hydropower, 16.2% from nuclear and the rest 12.7% from renewable sources 	<p>Emission regulations for industries:</p> <ul style="list-style-type: none"> ● Industrial emissions within the European Union are regulated under the Industrial Emissions Directive (IED), which was issued on 21 December 2007 ● The directive's aim was to achieve significant benefits to the environment and human health by reducing harmful industrial emissions across the EU, in particular through better application of Best Available Techniques. ● The IED entered into force on 6 January 2011 and has to be transposed into national legislation by Member States by 7 January 2013. ● European legislation establishes air quality objectives (limit and target values) for the different pollutants. Limit values are concentrations that must not be exceeded in a given period of time. <p>Small installation's emissions regulated: (Yes/No) yes</p> <p>Renewable energy investment promoted:</p> <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> <ul style="list-style-type: none"> ● 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) ???
REDUCE EMISSIONS FROM TRANSPORT	<p>Key transport-related air quality challenges: (ex: vehicle growth, old fleet, dirty fuel, poor public transport etc)</p> <ul style="list-style-type: none"> ● Transport is among the most important source of air pollution in the Finland ● Transport is the main source in 97% of the AQMAs declared for NO₂; this is predominantly road transport but may 	<p>Vehicle emission limit: (Euro rating)</p> <ul style="list-style-type: none"> ● Emissions standards for vehicles correspond to Euro 6 for LDV vi HDV standards. ● 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

	<p>include some other types, e.g. trains or shipping.</p> <ul style="list-style-type: none"> ● Transport in the Finland is well developed and several options spanning from railways, tramps, metros and bus are available for commuters. ● Use of private cars is discouraged as demonstrated by the high fuel cost which stood at USD 1.59 per litter in 2015². ● Private car ownership is high with 519 cars per 1000 individuals in 2010³ 	<p>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> <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> <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>
<p>REDUCE EMISSIONS FROM OPEN BURNING: OUTDOOR</p>	<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> <p>Actions to prevent open burning of municipal waste and / or agricultural waste: ???</p>
<p>REDUCE EMISSIONS FROM OPEN BURNING: INDOOR</p>	<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 issues are obsolescence and 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: <i>(Yes / No) ???</i></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>

² ‘Gasoline Prices around the World, 28-Sep-2015 | GlobalPetrolPrices.com’ <http://www.globalpetrolprices.com/gasoline_prices/> [accessed 5 October 2015].

³ World Bank, *Worldwide Total Motor Vehicles (per 1,000 People)*, 2011 <<http://chartsbin.com/view/1114>> [accessed 30 June 2015].