

## 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>JAPAN</b>		
<b>GOALS</b>	<b>CURRENT STATUS</b>	<b>CURRENT / PLANNED POLICIES &amp; PROGRAMMES</b>
GENERAL OVERVIEW	<ul style="list-style-type: none"> <li>● <b>Overall situation with respect to air quality in the country, including key air quality challenges:</b> Air quality in the country has improved dramatically over the past few decades even as the economy has grown, thanks to stringent legislation; Japanese cities amongst world's least polluted (WHO), a dramatic change from 1960's and 1970's</li> <li>● Transport-related air pollution (NOx/SPM) on roadside has been improved after 1990's because of the special law and tightening Emission standards. NOx hasn't declined as much as SOx has</li> <li>● PM2.5 is still an issue, with achievement rate of the ambient standard being low (16.1% in 2013 at the monitoring stations, 13.3% at roadside stations)</li> <li>● Haze from the continent carrying pollutants; this haze blows onto Japan and is a problem</li> <li>● <b>Air quality monitoring system:</b> Yes</li> </ul>	<ul style="list-style-type: none"> <li>● <b>National Ambient air quality standards:</b> Are within WHO Interim Targets</li> <li>● <b>National Air Quality Policy:</b> Air Pollution Control Act (amended in 2015 to include mercury)</li> <li>● <b>Air Quality legislation / programmes:</b> Air Pollution Control Law; Automobile NOx/PM Law; Dioxins Law; Prefectural (subdivisions in Japan) standards and total mass emission control standards for stationary sources, and governors implement improvement orders of air pollutant emitters; air pollutant emitters must have a pollution control manager in the factory; Basic Law for Environment provides framework for environmental policy</li> <li>● <b>Other:</b> Japan and UNEP launched the Asia Pacific Clean Air Partnership to bring together the multiple regional initiatives to provide clear policy options based on the best science to support action on air pollution across the region; the Ministry of Environment of Japan and Clean Air Asia launched the Integrated Programme for Better Air Quality in Asia, to address growing issues of air pollution</li> </ul>
REDUCE EMISSIONS FROM INDUSTRIES	<ul style="list-style-type: none"> <li>● <b>Industries that have the potential to impact air quality:</b> copper, iron, steel, petrochemicals</li> <li>● <b>GDP of country:</b> \$4.7 trillion</li> </ul>	<ul style="list-style-type: none"> <li>● <b>Emission regulations for industries:</b> National emission standards are set by the Minister of the Environment, but prefectural governors can set more stringent standards in areas under their jurisdiction; Law on Emission Control of Soot and Smoke (1962) to regulate stationary sources; Air Pollution Control Law prescribes setting of emission control standards for stationary sources</li> </ul>

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	<ul style="list-style-type: none"><li>● <b>Industries' share of GDP:</b> 27%</li><li>● <b>Electricity sources:</b> fossil fuels (63%), nuclear (17%), hydro (8%)</li><li>● Electricity industry represented the largest source of soot and dust emissions (15% of total) in 2011, followed closely by the steel industry (~15%), and ceramics, clay and stone product manufacturers (9%)</li><li>● Boilers represented the major source by facility type, accounting for approximately 44% of total emissions</li></ul>	<p>depending on height of exhaust, and total mass emission control standards</p> <ul style="list-style-type: none"><li>● Emission standards include: maximum permissible limits for each type and size of facility; special standards which are stricter for areas where air pollution has or is likely to exceed the limits; more stringent prefectural emission standard in areas where national emission standards might be insufficient to protect human health or living conditions; standards for controlling total emissions that prescribe maximum limits for specific large-scale factories</li><li>● <b>Small installation's emissions regulated:</b> (Partly Yes) Small sized boilers that are not covered by Air Pollution Control Act. Instead they are regulated by ordinance set by local governments as appropriate according to local situation. Japanese government distributes the Guideline for Installing Small Incineration Facilities with Low NOx Emissions from 1996.</li><li>● <b>Renewable energy investment promoted:</b> Yes - feed-in tariff scheme, Green Investment Tax Incentive, subsidies</li><li>● <b>Energy efficiency incentives:</b> Japan is one of the most energy-efficient country (energy use/unit of GDP); Since its implementation in 1998, Japan's Top Runner programme, which sets mandatory standards based on the most efficient products on the market, has reduced energy consumption in the residential sector and in road transport. In 2013, the Top Runner Programme began to include building materials that contribute to the prevention of heat loss from houses and/or building</li><li>● <b>Incentives for clean production and installation of pollution prevention technologies:</b></li><li>● <b>Actions to ensure compliance with regulations:</b> Factories have to monitor and to report on results; inspections are carried out; fines and arrests are levied against polluting parties; Ministry of Environment surveys the status of enforcement and publicizes it annually</li><li>● <b>Other actions at national, sub-national and / or local level to reduce industry:</b> The Act on Compensation of Pollution-related Health Damage (ended in 1988) required polluting facilities to provide 80% of compensation to victims; The Act on the Improvement of Pollution Prevention Systems in Specified Factories obliges specific kinds of factories to have managers with government licenses to be in charge of pollution control</li></ul>

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REDUCE EMISSIONS FROM TRANSPORT	<ul style="list-style-type: none"> <li>● <b>Key transport-related air quality challenges:</b> vehicle growth; main cause of urban pollution</li> <li>● Compared to 1970's, SO<sub>x</sub>, NO<sub>x</sub> and PM concentrations have been decreased through the Air Pollution Control Law (tightening Emission standards) and Automobile NO<sub>x</sub>/PM law</li> <li>● Emission standards have been tightened over time, resulting in emission limits being reduced 1% to 10% of initial regulation (depending on vehicle type)</li> <li>● Due to implementation of stricter standards, almost all new diesel vehicles are now equipped with diesel particulate filters</li> <li>● Since the 1990's, Japan has taken a series of steps to tighten standards on Sulphur content in fuels</li> </ul>	<ul style="list-style-type: none"> <li>● <b>Vehicle emission limit:</b> Post new long-term regulation</li> <li>● <b>Fuel Sulphur content:</b> 10 ppm</li> <li>● <b>Restriction on used car importation:</b> No</li> <li>● <b>Actions to expand, improve and promote public transport and mass transit:</b> Tokyo has one of most extensive and most used railway networks in the world. Rail is major means of passenger transport especially between major cities and within metropolitan areas. 72% of passenger-km is by rail; 13% by motor vehicles</li> <li>● <b>Actions to promote non-motorized transport:</b> Tokyo is doubling the amount of bike lanes and promoting biking (already 16% commuters use bikes); there is a Cycling Embassy of Japan to promote cycling</li> <li>● <b>Other transport-related actions:</b> tax deductions and exemptions for environmentally friendly vehicles, fuel efficient vehicles; leads in KPGM ranking for tax measures that promote use and manufacture of green vehicles</li> <li>● For 3 metro areas (Tokyo, Osaka/Hyogo and Aichi/Mie): Trucks, buses, diesel vehicles registered in these areas that don't meet specified emission standards will be banned; Large business operators must develop vehicle management plans</li> </ul>
REDUCE EMISSIONS FROM OPEN BURNING OF AGRICULTURAL / MUNICIPAL WASTE (OUTDOOR)	<ul style="list-style-type: none"> <li>● <b>Outdoor, open burning:</b> Most waste is burned in industrial incinerators</li> <li>● Highly radioactive debris to be burned, sometimes in municipal incinerators: there is a concern that the radiation won't be filtered, and will have transboundary as well as local impacts</li> </ul>	<ul style="list-style-type: none"> <li>● <b>Legal framework:</b> (ex: is burning banned?) Yes</li> <li>● <b>Actions to prevent open burning of municipal waste and / or agricultural waste:</b> Yes</li> <li>● Act on Special Measures concerning Countermeasures against Dioxins (2000) was enacted to reduce dioxin emissions from waste incinerators</li> <li>● Emission regulations on soot and dust for waste incinerators were tightened in 1998</li> </ul>
REDUCE EMISSIONS FROM OPEN BURNING OF BIOMASS (INDOOR)	<ul style="list-style-type: none"> <li>● <b>Dominant fuels used for cooking and space heating:</b> few households use solid fuels</li> <li>● <b>Impact:</b> no deaths from indoor air pollution; (24,700 deaths/year from outdoor air pollution)</li> </ul>	<ul style="list-style-type: none"> <li>● <b>Indoor air pollution regulated:</b> Yes, although not all potential indoor pollutants covered</li> <li>● <b>Promotion of non-grid / grid electrification:</b> 100% electrification</li> </ul>

**Secondary Sources used in the research:** Air quality report submitted to UNEP by Japanese government on 30 November 2015, [http://cleanairasia.org/portal/sites/default/files/presentations/japan\\_country\\_presentation.pdf](http://cleanairasia.org/portal/sites/default/files/presentations/japan_country_presentation.pdf), <http://www.env.go.jp/en/coop/pollution.html>, <http://www.unep.org/ccac/Media/PressReleases/Japan-UNEPCooperationtotackleAsiaPacificair/tabid/793992/Default.aspx>, <http://www.rieti.go.jp/en/special/policy-update/059.html>, <http://www.bloomberg.com/news/articles/2014-02-27/tokyo-air-pollution-climbs-approaches-government-alert-levels>, <http://www.world-weather-travellers-guide.com/air-pollution-in-japan.html>, [http://latitude.blogs.nytimes.com/2013/02/15/japans-pollution-diet/?\\_r=0](http://latitude.blogs.nytimes.com/2013/02/15/japans-pollution-diet/?_r=0), <https://www.env.go.jp/en/coop/pollution.html#air>, <http://www.env.go.jp/en/air/aq/pollution/>, <http://www.ecology.com/2014/01/07/renewable-energy-in-japan-current/>, [http://www.forbes.com/2008/07/03/energy-efficiency-japan-biz-energy\\_cx\\_jz\\_0707efficiency\\_countries\\_slide\\_2.html](http://www.forbes.com/2008/07/03/energy-efficiency-japan-biz-energy_cx_jz_0707efficiency_countries_slide_2.html), <http://www.stat.go.jp/english/data/handbook/c0117.htm#c09>, <http://www.tokyobybike.com/2015/07/cycling-embassy-of-japan-releases-japan.html>, <http://www.washingtonsblog.com/2012/04/japan-is-poisoning-other-countries-by-burning-highly-radioactive-debris.html>, <http://www.tandfonline.com/doi/full/10.1080/13669870801967119#abstract>, [http://cleanairasia.org/wp-content/uploads/portal/files/agenda/meeting\\_report\\_of\\_consultation\\_for\\_joint\\_forum\\_and\\_5th\\_govt\\_meeting\\_feb2015.pdf](http://cleanairasia.org/wp-content/uploads/portal/files/agenda/meeting_report_of_consultation_for_joint_forum_and_5th_govt_meeting_feb2015.pdf)