

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.

AUSTRALIA, COMMONWEALTH OF		
GOALS	CURRENT STATUS	CURRENT / PLANNED POLICIES & PROGRAMMES
GENERAL OVERVIEW	<ul style="list-style-type: none"> ● Overall situation with respect to air quality in the country, including key air quality challenges: Although air quality nationwide is generally good and urban air quality has improved, it is an environmental concern for Australians¹. Australian air quality has generally improved² over the last decades despite considerable population and economic growth. There are many sources of air pollutants in Australia, including natural (e.g. bushfire smoke) and anthropogenic (e.g. motor vehicles, wood combustion, industrial) sources. Particle concentrations vary temporally and spatially as a consequence of many different factors. Extreme events (bushfires and dust storms) are associated with the highest levels of air pollution in Australia.³ Premature mortality associated 	<ul style="list-style-type: none"> ● National Ambient air quality standards: Six criteria pollutants – particles as PM₁₀, particles as PM_{2.5}, O₃, NO₂, SO₂ and CO. Current variation to strengthen particle standards underway, with initial work also underway for strengthening the NO₂, SO₂ and O₃ standards. ● National Air Quality Policy: The Ambient Air Quality NEPM provides the air quality monitoring framework for six pollutants. Environment Ministers are currently developing a National Clean Air Agreement to help prioritise air quality issues for action and to determine who is best to address them (government, business and/or the community). ● Air Quality legislation / programmes: National Environment Protection Measures (NEPMs) are developed at a national level, but are implemented by State and Territory governments. There are four NEPMs related to air quality – Ambient Air Quality NEPM, Air Toxics NEPM (provides monitoring protocols and investigation levels for BTEX and PAH), NEPM for Diesel Vehicle Emissions NEPM (provides guidance for managing emissions for on-road diesel vehicles), and the National Pollutant Inventory NEPM (provides the community, industry and government with free information about substance emissions in Australia, with emission estimates for 93 toxic substances and the source and location of these emissions). Legislation relevant to managing air quality and administered at the national level includes the Fuel Quality Standards Act 2000 and the Motor Vehicles Standards Act 1989.⁵

¹ Who Cares about the Environment <http://www.environment.nsw.gov.au/resources/communities/130079WC12Sum.pdf>

² State of the Air <http://www.environment.gov.au/system/files/resources/5c312275-81fb-4d89-ae4a-091e441f4eb6/files/community-summary.pdf>

³ AAQ NEPM Variation Impact Statement, p42 and Appendix D. <https://www.environment.gov.au/protection/nepc/nepms/ambient-air-quality/variation-2014/impact-statement>

	<p>with chronic exposure to PM estimated at 1586 cases averaged over 2006 to 2010⁴.</p> <ul style="list-style-type: none"> ● A 2013 Senate Committee inquiry concluded that despite improvements, air quality can be a problem in parts of Australia, with some communities more affected than others. ● Air quality monitoring system: Yes. All capital cities undertake AQ monitoring. Ambient air quality monitoring stations are required for regions with a population of 25 000 people or more, although additional monitoring of smaller population centres is also undertaken state governments. Ambient air quality monitoring data is reported annually, some states provide daily information and real-time information. Emissions from industrial facilities are also reported annually against an inventory of 93 substances. 	
<p>REDUCE EMISSIONS FROM INDUSTRIES</p>	<ul style="list-style-type: none"> ● Industries that have the potential to impact air quality: mining (coal, diamond?, iron ore, gold), power generation (coal), chemicals, steel, brickworks, steel works, oil refineries, quarrying, cement plants, paper mills, unconventional gas extraction? ● GDP of country: \$1.4 trillion⁶ ● Industries' share of GDP: 27%⁷ ● Electricity sources: electricity generated in 2008 / 2009 came from coal (77%); natural 	<ul style="list-style-type: none"> ● Emission regulations for industries: Varies from State to State, but general approach is to regulate via works approval and licensing system ● Small installation's emissions regulated: YES By State and/or local government ● Renewable energy investment promoted: Renewable Energy Target set at 20% electricity from renewable sources by 2020 ● Energy efficiency incentives: labelling programme for electrical and gas appliances; energy efficiency standards in national building code; import restriction on inefficient light bulbs; phase-out of conventional electric water heaters; large energy-using businesses required to have an energy audit every 5 years; National Energy Efficiency Initiative – Smart Grid, Smart City to

⁵ As described in Ch4 AAQ NEPM Variation Impact Statement, as above.

⁴Summary for Policy Makers of the Health Risk Assessment on Air Pollution in Australia <https://www.environment.gov.au/system/files/pages/dfe7ed5d-1eaf-4ff2-bfe7-dbb7ebaf21a9/files/summary-policy-makers-hra-air-pollution-australia.pdf>

⁶ <http://www.tradingeconomics.com/australia/gdp>

⁷ https://en.wikipedia.org/wiki/Economy_of_Australia

	<p>gas (15%); hydro (5%); wind (1.5%); biomass, biogas, solar (1.2%); oil (1%)</p> <ul style="list-style-type: none"> ● Installed capacity: coal (54%), natural gas (26%), hydro (13%), oil (2.5%), other renewable (4.5%)⁸ ● Environment protection licences (EPL) are used by state and territories as a central means to control the localised, cumulative and acute impacts of pollution.⁹ States and territories also utilise a mix of other regulatory based mechanisms to manage pollution including risk based licensing¹⁰, load based licensing¹¹ and emission trading¹². States also require the full public disclosure of environment protection licenses, including penalties, convictions, and license reviews¹³. 	<p>demonstrate commercial scale, smart grid</p> <ul style="list-style-type: none"> ● Incentives for clean production and installation of pollution prevention technologies: OECD report on Australia recommended the development of economic and fiscal instruments to promote more cost-effective pollution prevention; expenditure incurred for an environmental protection activity (preventing, remedying, treating etc) is tax deductible ● Actions to ensure compliance with regulations: (monitoring, enforcement, fines etc) voluntary monitoring, fines, imprisonment for serious offences, cancelled license ● Other actions at national, sub-national and / or local level to reduce industry emissions:
<p>REDUCE EMISSIONS FROM TRANSPORT</p>	<ul style="list-style-type: none"> ● Key transport-related air quality challenges: increasing fleet and increasing population. 	<ul style="list-style-type: none"> ● Vehicle emission limit: Euro 5 (Euro 6 planned for some vehicles in 2017/2018). ● Fuel quality: legislation that regulates fuel quality with the aim of reducing pollutants and emissions, and facilitating better engine technology and emission control technology. ● Fuel sulfur content: 10 ppm in automotive diesel, 50 ppm in premium unleaded petrol and 150 ppm in unleaded petrol. ● Restriction on used car importation: Must meet road worthiness inspection ● Actions to expand, improve and promote public transport and mass transit: recently, a new portfolio established – Minister for Cities and Built Infrastructure – that will work with State governments to improve urban design and public transport in major cities

⁸ <http://www.reegle.info/countries/australia-energy-profile/AU>

⁹ <http://www.epa.nsw.gov.au/licensing/licencePOEO.htm>

¹⁰ <http://www.epa.nsw.gov.au/licensing/licencereg.htm>

¹¹ <http://www.epa.nsw.gov.au/licensing/lbl/lblicences.htm>

¹² <http://www.epa.nsw.gov.au/licensing/emissionstrading.htm>

¹³ <http://www.epa.nsw.gov.au/prpoeo/index.htm>

		<ul style="list-style-type: none"> ● Actions to promote non-motorized transport: (ex: include sidewalks and bike lanes in new road projects, car-free areas etc) national government has outlined possible actions to take to increase non-motorised transport (https://infrastructure.gov.au/infrastructure/pab/active_transport/files/infra1874_mcu_active_travel_report_final.pdf) ● Other transport-related actions: Green Vehicle Guide with comparative environmental ratings; mandatory fuel consumption labels
REDUCE EMISSIONS FROM OPEN BURNING OF AGRICULTURAL / MUNICIPAL WASTE (OUTDOOR)	<ul style="list-style-type: none"> ● Outdoor, open burning: some open burning for agricultural purposes is permitted. Burning of municipal waste is not permitted. 	<ul style="list-style-type: none"> ● Legal framework: open burning of municipal waste is banned ● Actions to prevent open burning of municipal waste and / or agricultural waste: state/territory and local government managed. Open burning not permitted in urban areas.
REDUCE EMISSIONS FROM OPEN BURNING OF BIOMASS (INDOOR)	<p>Dominant fuels used for cooking and space heating: <5% use solid fuel for cooking; Wood heaters are used by people in colder climates. National emission and efficiency standard for wood heaters are in place. Density of wood heater use in some urban environments can cause urban air quality problems. In the Sydney region, domestic solid fuel combustion contributes 28% and 47% of annual PM₁₀ and PM_{2.5} particle pollution, respectively. The contribution of wood smoke is highest in July, making up 57% and 75% of monthly PM₁₀ and PM_{2.5} particle pollution, respectively.</p> <ul style="list-style-type: none"> ● Impact: <i>Suggest reference Global Burden of Disease¹⁴ and Summary for Policy Makers¹⁵.</i> 	<ul style="list-style-type: none"> ● Indoor air pollution regulated: Yes ● 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:

¹⁴ http://www.who.int/healthinfo/global_burden_disease/gbd/en/

¹⁵ Summary for Policy Makers of the Health Risk Assessment on Air Pollution in Australia <https://www.environment.gov.au/system/files/pages/dfe7ed5d-1eaf-4ff2-bfe7-dbb7ebaf21a9/files/summary-policy-makers-hra-air-pollution-australia.pdf>

Secondary Sources used in the research:

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