

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.

BOLIVIA (PLURINATIONAL STATE 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: Overall, air quality is good much of the year, except for 4 months in dry season during which many agriculture-related fires are set. Urban air pollution is an issue, especially in La Paz, El Alto and Cochabamba. Cochabamba is in a 'bowl', and was listed by WHO as one of the five most contaminated cities in Latin America. Most of the pollution comes from automobiles, brick kilns, metal foundries, oil refineries, and burning of household and agricultural waste. Wind erosion from mines' spoil heaps and from transport of uncovered ore spreads metal trace elements in the form of particles ● Air quality monitoring system: Yes 	<ul style="list-style-type: none"> ● National Ambient air quality standards: PM10 meets WHO Interim Targets, while O3, SO2 and NO2 don't meet WHO targets, and there is no PM2.5 standard. The capital La Paz has much stricter air quality standards, with PM2.5, PM10 (annual), SO2 and NO2 (1-hour) meeting WHO guidelines ● National Air Quality Policy: No ● Air Quality legislation / programmes: there is a strong framework in place with regard to proactive environmental and natural resource management in the new Constitution and the Law of Mother Earth; however, this framework has been criticized for being both not sufficiently comprehensive (not covering all regulations that the previous framework did) and for being too large and complicated (with overlapping and uncoordinated laws and administrative mandate). Implementation and enforcement lag behind, and need more attention and resources. ● Other:
REDUCE EMISSIONS FROM INDUSTRIES	<ul style="list-style-type: none"> ● Industries that have the potential to impact air quality: mining, smelting, petroleum refining, brick kilns (using outdated techniques) ● GDP of country: \$30 billion ● Industries' share of GDP: 38% (manufacturing 15%, mining 23%) 	<ul style="list-style-type: none"> ● Emission regulations for industries: there are Environmental (emission) Regulations for the Industrial and Manufacturing Sector. ● Small installation's emissions regulated: Yes ● Renewable energy investment promoted: National renewable energy target to increase renewable energy by 10% by 2020; there is no renewable energy law, although one is being developed; Feed-in tariffs being developed;

	<ul style="list-style-type: none"> ● Electricity sources: hydro (36%), thermal – mainly gas (60%), 	<ul style="list-style-type: none"> ● Energy efficiency incentives: in 2008, campaign to replace traditional incandescent bulbs with energy-saving bulbs produced a saving of 100MW/year. ● Incentives for clean production and installation of pollution prevention technologies: ??? ● Actions to ensure compliance with regulations: (monitoring, enforcement, fines etc) ??? ● Other actions at national, sub-national and / or local level to reduce industry emissions: ???
REDUCE EMISSIONS FROM TRANSPORT	<ul style="list-style-type: none"> ● Key transport-related air quality challenges: In La Paz and El Alto, vehicles account for up to 90% of pollutants 	<ul style="list-style-type: none"> ● Vehicle emission limit: in La Paz, buses must be at Euro III ● Fuel Sulphur content: 2,000 ppm (diesel) ● Restriction on used car importation: cars older than 3 years banned ● Actions to expand, improve and promote public transport and mass transit: recently built cable car system connects La Paz and El Alto, and has 3 lines (5 more being planned) and 11 stations; new municipal bus system in La Paz that serves remote hillside neighbourhoods with 3 routes, with another 4 to follow; taxi and mini-van unions offered loans to purchase modern buses that run on natural gas; diesel-powered buses being converted to CNG as part of a national project; El Alto to launch a new public transport system with natural gas fleet and exclusive lanes ● Actions to promote non-motorized transport: ??? ● Other transport-related actions: ???
REDUCE EMISSIONS FROM OPEN BURNING OF AGRICULTURAL / MUNICIPAL WASTE (OUTDOOR)	<ul style="list-style-type: none"> ● Outdoor, open burning: some slash-and-burn land clearing still happens; burning of household and agricultural waste common 	<ul style="list-style-type: none"> ● Legal framework: (ex: is burning banned?) ??? ● Actions to prevent open burning of municipal waste and / or agricultural waste: Alternatives are being explored - in MERCOSUR (of which Bolivia is a full member), ~80% of crops are planted using no-tillage methods (without burning)
REDUCE EMISSIONS FROM OPEN BURNING OF BIOMASS (INDOOR)	<ul style="list-style-type: none"> ● Dominant fuels used for cooking and space heating: nationally, 34% use solid fuels (wood, dung, charcoal, green residue); in the rural areas, that rate increases to +70% ● Impact: 1,500 deaths/year from indoor air pollution (1,000 from outdoor air pollution); 	<ul style="list-style-type: none"> ● Indoor air pollution regulated: No ● Promotion of non-grid / grid electrification: 98% connection rate in urban areas; 50% access in rural areas; recurring outages and unsatisfied demand are issues; World Bank project to expand rural coverage through solar photovoltaic systems and other options ● Promotion of cleaner cooking fuels and clean cook stoves: ???

	<p>morbidity is a greater problem, with health impacts affecting women and children disproportionately</p> <ul style="list-style-type: none"> • Human and institutional capacity to improve access to modern energy for households and community-run social infrastructure institutions is very low 	<ul style="list-style-type: none"> • Other actions to reduce indoor biomass burning, or to reduce its emissions: ???
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Secondary Sources used in the research: <http://www.cleanairinstitute.org/calidaddelaireamericalatina/cai-report-english.pdf>, http://www.unep.org/Transport/new/PCFV/pdf/Maps_Matrices/LAC/matrix/LAC_FuelsVeh_June2015.pdf, <http://latinlawyer.com/>, http://www.irena.org/DocumentDownloads/Publications/IRENA_RE_Latin_America_Policies_2015.pdf, <http://airlex.web.ua.pt/pm10>, http://www.who.int/quantifying_ehimpacts/national/countryprofile/en/#I, https://energypedia.info/wiki/Bolivia_Energy_Situation, <http://www.reegle.info/countries/bolivia-energy-profile/BO>, <https://en.ird.fr/the-media-centre/scientific-newssheets/357-the-impact-of-mining-in-bolivia>, <https://globalvoices.org/2008/03/25/bolivia-air-quality-in-santa-cruz/>, <http://www.jornadanet.com/n.php?a=90396-1>, <http://www.psa.com.ar/psa-es-salud/notas-de-interes/bolivia-los-niveles-de-contaminacion-del-aire-preocupan-en-cochabamba#.VhJxJpfD-mM>, <http://sidaenvironmenthelpdesk.se/wordpress3/wp-content/uploads/2013/06/Bolivia-Environmental-Policy-Brief-Final-May-2013.pdf>, <http://www.nrdc.org/international/files/latin-america-diesel-pollution-IB.pdf>, <https://nacla.org/blog/2014/12/26/bolivia-revolutionizes-urban-mass-transit-streets-sky>, <http://www.ngvjournal.com/bolivia-el-alto-will-launch-a-new-public-transport-system-with-natural-gas-fleet/>, <http://www.ngvglobal.com/blog/bolivia-begins-new-diesel-to-cng-transit-bus-conversion-project-0909>, <http://snia.mmaya.gob.bo/main.php?opini=3>