

Botswana 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.

Botswana 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> <p>Air quality monitoring system: ???</p>	<p>National Ambient air quality standards: ???</p> <p>National Air Quality Policy: ???</p> <p>Air Quality legislation / programmes: ???</p> <p>Other: ???</p>
REDUCE EMISSIONS FROM INDUSTRIES	<p>Industries that have the potential to impact air quality:</p> <p>Smelters are the most important industrial source of air pollution</p> <p>GDP of country: USD 15.53 billion in 2013¹</p> <p>Industries' share of GDP: 35.7% ²</p> <ul style="list-style-type: none"> • Diamond industry is the most important industry, accounting for more than 30% of the country's GDP and 70% of its export earnings <p>Electricity sources:</p> <ul style="list-style-type: none"> • 100% of total installed electricity producing capacity, which stood at 132,000 KW in 2011, is produced from fossil fuels <p>Others</p> <ul style="list-style-type: none"> • Beef farming is an important sector, which 	<p>Emission regulations for industries:</p> <ul style="list-style-type: none"> • Air pollution is regulated under the Atmospheric Pollution Prevention Act • Individual operating permits may have provisions regarding air emissions or effluents <p>Small installation's emissions regulated: (Yes/No) Small installations are not regulated</p> <p>Renewable energy investment promoted:</p> <ul style="list-style-type: none"> • The draft national energy policy states that by 2020, local production of biodiesel will account for 10% of the supply of diesel in the country <p>Energy efficiency incentives: (<i>ex: Subsidies, labelling, rebates etc</i>)</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 industry: (<i>can include incentives to move industries to less populated areas here</i>) ???</p>

¹ 'Countries of the World - 32 Years of CIA World Fact Books', 2015 <<http://www.theodora.com/wfb/#R>>.

² 'Countries of the World - 32 Years of CIA World Fact Books.'

	mean ammonia emissions might be important in considering PM pollution	
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"> • Vehicle emissions are a major source of PM, however suspension of road dust is the most dominant source of PM in the country • Public transport is mainly run by private companies or individuals • Private car ownership is low with 133 car per 1000 individuals • Car ownership is growing moderately at 7% per year 	<p>Vehicle emission limit: (Euro rating) ???</p> <p>Fuel Sulphur content: (in ppm) Fuel sulfur content restricted at 500ppm</p> <p>Fuel lead content: Unleaded gasoline restrictions since 2006</p> <p>Restriction on used car importation: No age or technology restrictions on second hand cars imported into Botswana</p> <p>Actions to expand, improve and promote public transport and mass transit: ???</p> <p>Actions to promote non-motorized transport: (ex: include sidewalks and bike lanes in new road projects, car-free areas etc) ???</p> <p>Other transport-related actions: ???</p>
REDUCE EMISSIONS FROM OPEN BURNING OF WASTE: (OUTDOOR)	<p>Outdoor, open burning: (ex: is it commonly done? burning what kinds of wastes? etc)</p> <ul style="list-style-type: none"> • Waste generation has increased in recent times due to increased urbanization and consumption patterns • Most of the waste generated in urban centers is dumped off into landfills • Some waste is burned in open fires leading to air pollution • Burning of agricultural waste is also a source of air pollution in the country 	<p>Legal framework: (ex: is burning banned?) burning of waste is regulated by the Botswana Waste Management Strategy</p> <p>Actions to prevent open burning of municipal waste and / or agricultural waste: ???</p>
REDUCE EMISSIONS FROM BIOMASS BURNING (INDOORS)	<p>Dominant fuels used for cooking and space heating:</p> <ul style="list-style-type: none"> • Fuel wood continues to play a significant role as an energy source for many households, especially in rural areas. • It is the principal energy source used for cooking in 46% of the households 	<p>Indoor air pollution regulated: (Yes / No)???</p> <p>Promotion of non-grid / grid electrification:</p> <ul style="list-style-type: none"> • The Government of Botswana has initiated a non-grid rural electrification scheme using photovoltaic power which was kicked started in 2006 by the Government and the UN <p>Promotion of cleaner cooking fuels and clean cook stoves:</p> <ul style="list-style-type: none"> • The National Energy Policy has a target of providing 80% access to electricity for the country as

	<p>nationally; and in 77% of households located in rural areas. This represents a decline from around 90% in 1981 but still significant enough to attract policy attention</p> <ul style="list-style-type: none"> ● Fuel wood usage has been declining over the years while LPG and electricity consumption has been on the rise ● This is mainly attributed to the rising level of affluence as well as the increased access to electricity. <p>Impact:</p> <ul style="list-style-type: none"> ● Indoor air pollution causes an estimated 500 premature deaths every year³ 	<p>a whole and 60% access in rural areas by 2016.</p> <p>Other actions to reduce indoor biomass burning, or to reduce its emissions:</p> <ul style="list-style-type: none"> ● It also aims at improved access, security, and reliability of energy supply to all sectors of the economy, particularly the low income and marginalized through effective institutional arrangement and service delivery.
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³ WHO, 'WHO | Country Profiles of Environmental Burden of Disease', WHO, 2008
http://www.who.int/quantifying_ehimpacts/national/countryprofile/en/#T.