

Rwanda 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.

Rwanda 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> <ul style="list-style-type: none"> • Air quality standards and regulations proposed in 2014 by the Rwanda Environment Management Authority • fully functional air quality regulation is being implemented <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> <ul style="list-style-type: none"> • Cement, agricultural products, small-scale beverages, soap, furniture, shoes, plastic goods, textiles, cigarettes are the dominant industries in Rwanda <p>GDP of country: USD 7.7 B in 2013</p> <p>Industries' share of GDP: 14.8%</p> <p>Electricity sources:</p> <ul style="list-style-type: none"> • 52.4% of the installed electricity generating capacity (57,250 KW in 2010) is generated from fossil fuel; and 47.2% is generated from hydropower and the rest 0.4% is generated from various renewable 	<p>Emission regulations for industries: ???</p> <p>Small installation's emissions regulated: (Yes/No) ???</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> <ul style="list-style-type: none"> • The National Energy Policy has an objective of ensuring energy audits are carried out in industries, particularly the energy intensive ones, in order to enhance energy efficiency. <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 industrial emissions: (can include incentives to move industries to less populated areas here) ???</p>

	<p>sources.</p> <p>Others</p> <ul style="list-style-type: none"> • Most other industrial emissions are associated with combustion facilities within the industries, e.g. boilers and standby power generators. • Currently no data is available on the impacts of these emissions on human health or the environment. • Particulate matter is considered the most important air pollutant in the country • Particulate matter concentrations can reach more than 10 times the WHO recommended concentrations during both day and night due to the interactions between meteorology and topography¹. • Growth in industrial emissions is projected to increase in the coming years 	
REDUCE EMISSIONS FROM TRANSPORT	<p>Key transport-related air quality challenges: (<i>ex: vehicle growth, old fleet, dirty fuel, poor public transport etc</i>)</p> <ul style="list-style-type: none"> • Transport is the main source of air pollutants in Rwanda • Generally vehicle ownership in Rwanda is low but since 2005 and 2011 the total number of cars has grown by 50% • Car ownership has been raising while bicycle and motor cycle ownership has been dropping steadily • The sector is also an important indirect source of O₃ 	<p>Vehicle emission limit: (<i>Euro rating</i>) Vehicle emission standards exist (verify ???)</p> <p>Fuel Sulphur content: (<i>in ppm</i>) Diesel sulphur content capped at 50ppm</p> <p>Fuel Lead content Phased out leaded fuel since 2005</p> <p>Restriction on used car importation: only brand new motorcycles can be imported</p> <p>Actions to expand, improve and promote public transport and mass transit: ???</p> <p>Actions to promote non-motorized transport: (<i>ex: include sidewalks and bike lanes in new road projects, car-free areas etc</i>) ???</p> <p>Other transport-related actions???</p>
REDUCE EMISSIONS FROM	<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> <ul style="list-style-type: none"> • Regulated by Rwanda Environment Management Authority

¹ Sascha M. Henninger, 'When Air Quality Becomes Deleterious—A Case Study for Kigali, Rwanda', *Journal of Environmental Protection*, 04 (2013), 1–7 <<http://dx.doi.org/10.4236/jep.2013.48A1001>>.

<p>OPEN BURNING OF WASTE (OUTDOOR)</p>	<ul style="list-style-type: none"> • Most municipal solid waste is management better compared to the neighbouring countries • Burning of agricultural waste is still a major source of air pollutants 	<p>Actions to prevent open burning of municipal waste and / or agricultural waste: ???</p>
<p>REDUCE EMISSIONS FROM BIOMASS BURNING (INDOORS)</p>	<p>Dominant fuels used for cooking and space heating:</p> <ul style="list-style-type: none"> • Wood is the dominant fuels used by the poor for cooking accounting for 90% of the energy mix in Rwanda² • Biomass accounts for 85% of energy use in Rwanda • Kerosene is the main fuel used for lighting. In rural areas. <p>Impact:</p> <ul style="list-style-type: none"> • Solid fuel combustion causes an estimated 12,500 premature deaths every year³ <p>Others</p> <ul style="list-style-type: none"> • Air pollution from indoor sources is the single largest contributor to the negative health effects of air pollution in Rwanda • Adoption rate for clean and efficient cook stove is around 50% • Diesel remains the primary fuel for self-generation in rural areas, and for emergency supply in urban areas. 	<p>Indoor air pollution regulated: (Yes / No) ???</p> <p>Promotion of non-grid / grid electrification: ???</p> <p>Promotion of cleaner cooking fuels and clean cook stoves:</p> <ul style="list-style-type: none"> • Promotion of efficient cook stoves <p>Other actions to reduce indoor biomass burning, or to reduce its emissions:</p> <ul style="list-style-type: none"> • Promotion of non-grid electrification • No import tax on solar systems • Promotion of renewable energy through feed-in tariffs • Energy concessions

² World Bank, *The Little Green Data Book 2015 | Data*, 2015.

³ WHO, 'WHO | Country Profiles of Environmental Burden of Disease', WHO, 2008
http://www.who.int/quantifying_ehimpacts/national/countryprofile/en/#T.