

United Republic of Tanzania 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.

United Republic of Tanzania 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> <ul style="list-style-type: none"> • Environmental management (Air quality standards) regulations promulgated in 2007 <p>Other: ???</p>
REDUCE EMISSIONS FROM INDUSTRIES	<p>Industries that have the potential to impact air quality:</p> <ul style="list-style-type: none"> • Industries with a high potential to impact air quality include agricultural processing (sugar, beer, cigarettes, sisal twine); mining (diamonds, gold, and iron), salt, soda ash; cement, oil refining, wood products and fertilizer among others • Industrial development in Tanzania remains relatively small, with cement manufacture and mining being the dominant industries • <p>GDP of country: USD 31.94 B in 2013¹</p> <p>Industries' share of GDP: 25%</p> <p>Electricity sources:</p>	<p>Emission regulations for industries:</p> <ul style="list-style-type: none"> • The air quality standard limits emissions from large combustion sources e.g. thermal power plants and cement manufacturers <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> <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> <ul style="list-style-type: none"> • The National Energy Policy which was adopted in 2003 with the main objective of addressing national energy needs. Subsidiary objectives included developing domestic cost-effective

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

	<ul style="list-style-type: none"> ● 33.2% of the installed electricity generating capacity (841,000 KW in 2010) is generated from fossil fuel; and the rest 66.8% is generated from various renewable sources. <p>Others</p> <ul style="list-style-type: none"> ● Most air 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 ● Growth in industrial emissions is projected to increase in the coming years 	<p>energy resources; improving energy reliability, efficiency, and security; and reducing forest depletion.</p> <ul style="list-style-type: none"> ● Tanzania has a feed-in tariff scheme in place since 2008 for small power producers (100 kW to 10 MW). Above that size, the FIT is negotiable. Feed-in tariffs for small power producers are adjusted annually by the Energy and Water Utilities Regulatory Authority (EWURA) and are based on the avoided cost of the electricity.
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 a major source of air pollutants² ● Most public transport is owned by private sector within minimal investments from government ● One of the fastest growing sectors in Tanzania with an average growth rate of 19% between 2000 and 2012³. 	<p>Vehicle emission limit: <i>(Euro rating)</i></p> <ul style="list-style-type: none"> ● Vehicle emission standards (not implemented yet) <p>Fuel Sulphur content: <i>(in ppm)</i> Fuel sulphur content capped at 15 – 50 ppm</p> <p>Fuel Lead content Phased out leaded fuel since 2004</p> <p>Restriction on used car importation:</p> <ul style="list-style-type: none"> ● Pre-shipment inspection of vehicles before import, although this tests for roadworthiness of the vehicle and not its emission levels. <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	Outdoor, open burning: <i>(ex: is it commonly</i>	Legal framework: <i>(ex: is burning banned?)</i>

² Msafiri M. Jackson, 'Roadside Concentration of Gaseous and Particulate Matter Pollutants and Risk Assessment in Dar-Es-Salaam, Tanzania', *Environmental Monitoring and Assessment*, 104 (2005), 385–407.

³ Robert B. Kiunsi, 'A Review of Traffic Congestion in Dar Es Salaam City from the Physical Planning Perspective', *Journal of Sustainable Development*, 6 (2013), p94 <<http://dx.doi.org/10.5539/jsd.v6n2p94>>.

<p>EMISSIONS FROM OPEN BURNING OF WASTE (OUTDOOR)</p>	<p><i>done? burning what kinds of wastes? etc)</i></p> <ul style="list-style-type: none"> ● Uncontrolled waste burning is one of the practices that contributes to deteriorating air quality in Tanzania’s urban centres ● Agricultural waste burning also impacts air quality in the rural areas. ● Due to the waste composition (plastics, waste tires, and other organic/inorganic materials) unregulated waste burning can be a source of health impairing emissions such as dioxins and furans 	<ul style="list-style-type: none"> ● Under the Environmental management (Air quality standards) regulations gaseous waste emission is regulated by local authorities <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 Tanzania⁴ ● Charcoal is the single largest source of household energy in urban areas and (roughly estimated, assuming primitive kilns) represents 20% of total energy use. The proportion of households in Dar es Salaam using charcoal has increased and is now above 70%. ● Approximately half of Tanzania’s annual consumption of charcoal takes place in Dar es Salaam, amounting to 500,000 tons for 2009 approximately. <p>Impact:</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 Tanzania. ● Solid fuel combustion causes an estimated 	<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"> ● energy policy put much emphasis on the promotion of efficient biomass conversion and end use technologies ● No import tax on solar systems <p>Other actions to reduce indoor biomass burning, or to reduce its emissions: ???</p>

⁴ The clean energy info portal, ‘The Clean Energy Info Portal’, Reegle - Clean Energy Information Gateway <<http://www.reegle.info>>.

	<p>18,000 premature deaths every year⁵</p> <p>Others</p> <ul style="list-style-type: none">● Adoption rate for clean fuels is very low despite several policies and initiative to stimulate this● Tanzania's national electrification rate lies at just 14% – with less than 3% in rural areas.	
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⁵ WHO, 'WHO | Country Profiles of Environmental Burden of Disease', WHO, 2008
<http://www.who.int/quantifying_ehimpacts/national/countryprofile/en/#T>.