

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.

HAITI		
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: Air pollution in Port-au-Prince and Cap-Haïtien can reach levels considered hazardous by the U.S. Environmental Protection Agency, mainly from residential and commercial sources. Key sources include power generation, diesel generators as an alternative or a backup for the unreliable electricity grid, trash burning, use of charcoal and other biomass for cooking, and traffic congestion¹. ● Air quality monitoring system: No 	<ul style="list-style-type: none"> ● National Ambient air quality standards: None ● National Air Quality Policy: ??? ● Air Quality legislation / programmes: ??? ● Other: ???
	<ul style="list-style-type: none"> ● Industries that have the potential to impact air quality: Power production, cement ● GDP of country: \$13 billion² ● Industries' share of GDP: 19.9%³ ● Electricity sources: Petroleum accounts for 85% of production on the grid, while hydropower comprises the remaining 15%⁴. 	<ul style="list-style-type: none"> ● Emission regulations for industries: ??? ● Small installation's emissions regulated: (Yes/No) ??? ● Renewable energy investment promoted: <ul style="list-style-type: none"> ● The Clinton Foundation has been investing in green energy in Haiti to boost Haiti's recovery, recognizing that providing efficient renewable energy sources to reduce energy costs and dependency on fossil fuels area key to improving Haiti's energy structure. The Foundation has worked with a variety of green technology

¹ <http://phys.org/news/2014-04-alarm-air-pollution-haiti.html>

² http://www.indexmundi.com/haiti/economy_profile.html

³ http://www.indexmundi.com/haiti/economy_profile.html

⁴ Haiti Sustainable Energy Roadmap; November 2014: <http://www.worldwatch.org/system/files/Haiti-Roadmap-English.pdf>

		<p>organizations in Haiti to address Haiti's high-energy costs, low electrification rates, and high dependency on fossil fuels⁵.</p> <ul style="list-style-type: none"> • The construction of an innovative solar-diesel hybrid mini-grid system in Haiti's rural south-west that will provide reliable and affordable electricity seven days a week for up to 1,600 households, or 8,000 people, is underway⁶. • NRECA's partner organisation, the Solar Electric Light Fund, procured and designed the solar PV system as well as the streetlights in the towns, 80 of which will have batteries for all-night lighting and 150 of which will be lit until 10pm. Furthermore, there will be no limiters on the power provided by 120kW of solar and two diesel generators (120kW and 250kW), allowing the communities to set up small businesses that are needed in the area, such as bakeries, small convenience stores and ice-makers⁷. <ul style="list-style-type: none"> • Energy efficiency incentives: (ex: Subsidies, labelling, rebates etc.) ??? • Incentives for clean production and installation of pollution prevention technologies: <ul style="list-style-type: none"> • A US not-for-profit Sirona Cares is implementing a solar and grid charged battery rental scheme for 2,100 households in rural Haiti. A 1.5-kilowatt solar or EdH charging station is set up in an accessible community centre such as a school, clinic, store, or orphanage in towns without electrical infrastructure. Up to 100 nearby families then pay a monthly fee to rent a battery that they can recharge as often as they want. The cost of the monthly lease is based on a market evaluation that considers the price that a household is paying for kerosene, cell phone charging and candles. The goal is <i>to set the monthly cost at, or below, the cost of kerosene</i>. In Haiti the monthly cost is US\$6.25 per home⁸. • Enèji Pwòp - a clean energy retail program run by international organisation EarthSpark - provides a product line of small-scale, clean and energy-efficient products for families who would otherwise rely on kerosene and candles to light their homes and businesses⁹. • Actions to ensure compliance with regulations: (monitoring, enforcement, fines etc.) ??? • Other actions at national, sub-national and / or local level to reduce industry emissions: ???
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⁵ Clinton Foundation; <https://www.clintonfoundation.org/our-work/clinton-foundation-haiti/programs/powering-haiti-clean-energy>

⁶ The Haiti Sustainable Energy Programme; 2015: http://postconflict.unep.ch/publications/UNEP_Haiti_sustainable_energy.pdf

⁷ The Haiti Sustainable Energy Programme; 2015: http://postconflict.unep.ch/publications/UNEP_Haiti_sustainable_energy.pdf

⁸ The Haiti Sustainable Energy Programme; 2015: http://postconflict.unep.ch/publications/UNEP_Haiti_sustainable_energy.pdf

⁹ The Haiti Sustainable Energy Programme; 2015: http://postconflict.unep.ch/publications/UNEP_Haiti_sustainable_energy.pdf

<p>REDUCE EMISSIONS FROM TRANSPORT</p>	<p>● Key transport-related air quality challenges: The road infrastructure in urban areas is of poor quality affecting the safety of its users and creating an environment nuisance from dust of passing vehicles. There is a lot of congestion as well</p>	<p>● Vehicle emission limit: (Euro rating) ???</p> <p>● Fuel Sulphur content: (in ppm) ???</p> <p>● Restriction on used car importation: ???</p> <p>● Actions to expand, improve and promote public transport and mass transit:</p> <ul style="list-style-type: none"> ● The Inter-American Development Bank (IDB) provided US\$65 million to Haiti to improve transportation. The programme will rehabilitate a 29.5-kilometre stretch of the RN1 highway between Camp Coq and Vaudreuli. The grant also includes resources necessary for the rehabilitation, improvement and or maintenance of Haiti's primary and secondary road networks¹⁰. <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> <ul style="list-style-type: none"> ● Haiti banned leaded petrol from the year 1998¹¹.
<p>REDUCE EMISSIONS FROM OPEN BURNING OF AGRICULTURAL / MUNICIPAL WASTE (OUTDOOR)</p>	<p>● Outdoor, open burning: Open trash burning is widely practiced in Haiti¹².</p>	<p>● Legal framework: (ex: is burning banned?) ???</p> <p>● Actions to prevent open burning of municipal waste and / or agricultural waste: ???</p>
<p>REDUCE EMISSIONS FROM OPEN BURNING OF BIOMASS (INDOOR)</p>	<p>● Dominant fuels used for cooking and space heating:</p> <ul style="list-style-type: none"> ● >95% of households use solid fuels¹³: <ul style="list-style-type: none"> ● Wood 51.8% ● Charcoal 41.6% ● Coal 0.3% ● Kerosene 2.9% ● Gas 3.1% ● Fuels 0.3% 	<p>● Indoor air pollution regulated: (Yes / No) ???</p> <p>● Promotion of non-grid / grid electrification:</p> <ul style="list-style-type: none"> ● The Caracol Electrification Project is part of USAID's \$2 million electrification program that built the 10 megawatt power plant that is energizing the Caracol Industrial Park and the areas around it. The power plant, which has been operational since July 2012, is the sole power supplier for the Caracol complex—an industrial park built after the 2010 earthquake¹⁶. ● The government of Haiti received a new US\$90 million IDA project which was

¹⁰ http://www.jamaicaobserver.com/news/IDB-spending--65-million-to-improve-transportation-in-Haiti_19236827

¹¹ United Nations Environment Programme; http://www.unep.org/transport/pcf/PDF/Maps_Matrices/LAC/matrix/LAC_combined_March2012.pdf

¹² <http://www.aidvolunteers.org/waste-and-what-to-do-with-it-haiti/>

¹³ Clean Cook Stoves; <http://cleancookstoves.org/country-profiles/102-haiti.html>

	<p>● Impact:</p> <ul style="list-style-type: none"> ● 9,461,611 people are affected by Household Air Pollution related illness per year¹⁴. ● 9,593 deaths are reported resulting from Household Air Pollution per year from. ● 1,379 child deaths are reported resulting from Household Air Pollution per year from. ● According to USAID's 2007 study, Environmental Vulnerability in Haiti: Findings and Recommendations, it is estimated that the average life span in Haiti is shortened by 6.6 years due to the impacts of indoor air pollution caused by burning biomass indoors¹⁵. ● Acute Lower Respiratory Illness (ALRI) is the number one killer of children under five in Haiti (as it is worldwide). 	<p>approved in September 2012 (Haiti Rebuilding Energy Infrastructure and Access Project), which benefited from the activities supported by the \$100,000 technical assistance to the Government of Haiti grant. The project contains a \$7.8 million component for Rural Electrification, aiming to provide access to clean energy services to at least 30,000 households¹⁷.</p> <ul style="list-style-type: none"> ● Following-up the workshops funded by the \$100,000 technical assistance to the Government of Haiti grant, other donors also approved new funding for energy access expansion in Haiti: United Nations Environment Programme (\$9.76 million for rural electrification in the South) and Inter-American Development Bank (\$3 million for Technical Assistance to the Government of Haiti)¹⁸. <p>● Promotion of cleaner cooking fuels and clean cook stoves:</p> <ul style="list-style-type: none"> ● USAID-financed a three-year Improved Cooking Technology Program ("Recho Pa'w" in Creole) which was aimed at improving air quality for cooking vendors and is expected to save more than 500 tons of charcoal a year¹⁹. <p>● Other actions to reduce indoor biomass burning, or to reduce its emissions: ???</p>
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¹⁶ USAID; <https://www.usaid.gov/news-information/frontlines/energy-infrastructure/electricity-sparks-life-northern-haiti>

¹⁴ Clean Cook Stoves; <http://cleancookstoves.org/country-profiles/102-haiti.html>

¹⁵ Cook Stove Projects; <http://cookstoves.lbl.gov/haiti.php>

¹⁷ The World Bank; <http://www.worldbank.org/en/results/2014/04/04/energy-access-expansion-in-haiti>

¹⁸ The World Bank; <http://www.worldbank.org/en/results/2014/04/04/energy-access-expansion-in-haiti>

¹⁹ USAID; <https://www.usaid.gov/results-data/success-stories/improved-cooking-technology-program-enhances-health-and-environment>