

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.

COUNTRY NAME: ANTIGUA AND BARBUDA		
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: <ul style="list-style-type: none"> ● Because of the limited land area and forest clearing over the last several decades in Antigua and Barbuda trace gas emissions of Methane (CH₄), Carbon Monoxide (CO), Nitrous Oxide (N₂O) and Nitrogen Oxides (NO_x) due to burning of biomass are negligible¹. ● Non-CO₂ emissions are very small and derive from NMVOC emissions in the Industrial Processes Sector, from CH₄ emissions in the Agriculture and Wastes Sectors, from N₂O emissions in the Waste Sector and from SO₂ emissions in the Energy Sector. ● Air quality monitoring system: ??? 	<ul style="list-style-type: none"> ● National Ambient air quality standards: ??? ● National Air Quality Policy²: <ul style="list-style-type: none"> ● National Environmental Policy Framework ● Air Quality legislation / programmes³: <ul style="list-style-type: none"> ● Pollution control regulations ● Environmental Protection And Management Act, 2014 ● National Persistent Organic Pollutants (POPs) and Toxic Chemicals Management Policy as set out in the Rotterdam and Stockholm Conventions and their Protocols; ● National Air Quality Management Policy; ● Other: ???

¹ Antigua and Barbuda's Initial National Communication on Climate Change; <http://unfccc.int/resource/docs/natc/antnc1.pdf>

² Environmental Protection And Management ACT, 2014; http://www.environmentdivision.info/UserFiles/File/ENVIRONMENTAL_PROTECTION_AND_MANAGEMENT_ACT_2014.pdf

³ Environmental Protection And Management ACT, 2014; http://www.environmentdivision.info/UserFiles/File/ENVIRONMENTAL_PROTECTION_AND_MANAGEMENT_ACT_2014.pdf

	<ul style="list-style-type: none"> ● Industries that have the potential to impact air quality: <ul style="list-style-type: none"> ● Energy Sector, Transport Sector and Agricultural Sector. ● GDP of country: \$1.61 billion (2013 estimate)⁴ ● Industries' share of GDP: 16.4%⁵ ● Electricity sources: <ul style="list-style-type: none"> ● 100% energy and electricity generation is fossil fuel based⁶. 	<ul style="list-style-type: none"> ● Emission regulations for industries: ??? ● Small installation's emissions regulated: (Yes/No) ??? ● Renewable energy investment promoted⁷: <ul style="list-style-type: none"> ● The Antigua Public Utilities Authority (APUA) has been amenable to the connection of renewable energy sourced electricity to the national grid under very controlled conditions and limits. Established on 1 December 2011, the APUA Interconnection Policy governs the connection of renewable energy generating sources to the utility grid/network and allows the connection of such systems with rated capacity up to and including 50 kW. The Utility allows for a maximum distributed non-fossil fuelled power penetration level of 15 per cent of yearly maximum demand⁸ ● Solar installations to date total under 300 kW, 18 and include a 3-kilowatt (kW) system built in 2010 and a 25-kW array on the government building housing the Ministries of Tourism and Education. To encourage development, the utility has established interconnection standards for distributed renewable generators under 50 kW, including a simplified track for inverter-based systems under 5 kW. ● A utility-scale 3-MW photovoltaic project is being developed for the newly built terminal at VC Bird International Airport. ● Antigua and Barbuda's Environmental Division has conducted pre-feasibility studies of a 10-MW pumped-hydro system at St. Philips to provide energy storage and balancing in support of a proposed 18-MW wind farm at Crabbs Peninsula. ● There are small-scale biofuels operations. For example, one company uses waste food oil from hotels to make biodiesel which is bought by large-scale commercial enterprises⁹. ● Energy efficiency incentives: (ex: Subsidies, labelling, rebates etc.)¹⁰

⁴ Index Mundi; http://www.indexmundi.com/antigua_and_barbuda/gdp_composition_by_sector.html

⁵ Index Mundi; http://www.indexmundi.com/antigua_and_barbuda/gdp_composition_by_sector.html

⁶ <http://www.reegle.info/policy-and-regulatory-overviews/AG>

⁷ Energy Transition Initiative; <http://www.nrel.gov/docs/fy15osti/64115.pdf>

⁸ An assessment of fiscal and regulatory barriers to deployment of energy efficiency and renewable energy technologies in Antigua and Barbuda; <http://www.cepal.org/portofspain/noticias/documentosdetrabajo/7/51887/lcarw5.pdf>

⁹ An assessment of fiscal and regulatory barriers to deployment of energy efficiency and renewable energy technologies in Antigua and Barbuda; <http://www.cepal.org/portofspain/noticias/documentosdetrabajo/7/51887/lcarw5.pdf>

¹⁰ An assessment of fiscal and regulatory barriers to deployment of energy efficiency and renewable energy technologies in Antigua and Barbuda; <http://www.cepal.org/portofspain/noticias/documentosdetrabajo/7/51887/lcarw5.pdf>

		<ul style="list-style-type: none"> • Since the mid-2000s, residential and commercial customers have been making investments in energy efficient lighting, primarily compact fluorescent lights and more recently light-emitting diodes (LEDs) by government and commercial customers. • During the period 2006 to 2008, the Government of Cuba donated compact fluorescent lights to the Government of Antigua and Barbuda resulting in an island-wide programme of changing incandescent bulbs for compact fluorescent lights in homes throughout the country. <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 emissions: ???</p>
REDUCE EMISSIONS FROM TRANSPORT	<ul style="list-style-type: none"> • Key transport-related air quality challenges: (ex: vehicle growth, old fleet, dirty fuel, poor public transport etc.) <ul style="list-style-type: none"> • The transport sector represents Antigua and Barbuda's second main source of GHG emissions after electricity production¹¹. 	<ul style="list-style-type: none"> • Vehicle emission limit: (Euro rating)¹² <ul style="list-style-type: none"> • No emission standards for new vehicles. • No new vehicle type-approval system and mechanism for checking/certifying 2nd hand vehicles. • Fuel Sulphur content: (in ppm)¹³ <ul style="list-style-type: none"> • 5000ppm for Diesel • 500ppm for Petrol • Restriction on used car importation: <ul style="list-style-type: none"> • Cabinet placed a ban on the importation of used cars older than five years. Cabinet made the decision on September 3, and it came into effect from October 15, 2014. In order to enforce this action the Environmental Levy imposed on imported used vehicles would be raised from \$4,000 to \$6,000. (While the Levy on new vehicles is \$1,000)¹⁴. • Actions to expand, improve and promote public transport and mass transit: ??? • Actions to promote non-motorized transport: (ex: include sidewalks and bike lanes in new road projects, car-free areas etc.) ??? • Other transport-related actions: ???
REDUCE EMISSIONS	<ul style="list-style-type: none"> • Outdoor, open burning: (ex: is it commonly 	<ul style="list-style-type: none"> • Legal framework: (ex: is burning banned?)

¹¹ Antigua and Barbuda's Initial National Communication on Climate Change; <http://unfccc.int/resource/docs/natc/antnc1.pdf>

¹² United Nations Environment Programme; http://www.unep.org/transport/pcf/PDF/Maps_Matrices/LAC/matrix/LAC_FuelsVeh_Feb2014.pdf

¹³ United Nations Environment Programme; http://www.unep.org/transport/pcf/PDF/Maps_Matrices/LAC/matrix/LAC_FuelsVeh_Feb2014.pdf

¹⁴ The Daily Observer; <http://antiguaobserver.com/govt-bans-importation-of-used-and-reconditioned-vehicles/>

FROM OPEN BURNING OF AGRICULTURAL / MUNICIPAL WASTE (OUTDOOR)	<p>done? burning what kinds of wastes? etc.)</p> <ul style="list-style-type: none"> • Municipal/landfill Waste Burning¹⁵. • Bush/Brush Fires¹⁶. 	<ul style="list-style-type: none"> • Under Bush Fire Act Open Burning is prohibited¹⁷. • Actions to prevent open burning of municipal waste and / or agricultural waste: <ul style="list-style-type: none"> • On summary conviction one will be liable to pay a fine not exceeding three thousand dollars, or to be imprisoned for such term not exceeding six calendar months as to a Magistrate shall see fit¹⁸.
REDUCE EMISSIONS FROM OPEN BURNING OF BIOMASS (INDOOR)	<ul style="list-style-type: none"> • Dominant fuels used for cooking and space heating: <ul style="list-style-type: none"> • Less than 5% use solid fuels for cooking and space heating¹⁹. The composition is further broken down as follows; <ul style="list-style-type: none"> • Gas/LPG/Cooking Gas – 96.2% • Electricity – 0.7% • Coal/Wood – 2.0% • Kerosene – 0.1%% • Others – 1.0% • Impact: ??? 	<ul style="list-style-type: none"> • Indoor air pollution regulated: (Yes / No) <ul style="list-style-type: none"> • There is no regulation on indoor air pollution. • Promotion of non-grid / grid electrification: • Promotion of cleaner cooking fuels and clean cook stoves: ??? • Other actions to reduce indoor biomass burning, or to reduce its emissions: ???

Secondary Sources used in the research:

¹⁵ Audit Report on the National Solid Waste Management Authority; http://www.oas.org/juridico/PDFs/mesicic4_atg_nswma_per_rep_oct_2013.pdf

¹⁶ <http://antiguaobserver.com/fire-permits-suspended-until-further-notice/>

¹⁷ Bush Fire Act; <http://laws.gov.ag/acts/chapters/cap-62.pdf>

¹⁸ Bush Fire Act; <http://laws.gov.ag/acts/chapters/cap-62.pdf>

¹⁹ Household Fuel Use; <http://chartsbin.com/view/2835>