

## MISSION STATEMENT

*To ensure the protection, wise use and enhancement of the environment in Trinidad and Tobago, thereby contributing to an improved quality of life, through:*

- *Active partnerships with all sectors of the community;*
- *Public awareness and education;*
- *Co-operation with public entities in respect of Environmental Management Programmes;*
- *Development and enforcement of environmental laws;*
- *Being proactive as well as responsive to environmental concerns.*

TRINIDAD AND TOBAGO

STATE OF THE ENVIRONMENT REPORT  
2000

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## CHAIRMAN'S MESSAGE

The year 2000 was a challenging year for the Environmental Management Authority (EMA). A new Board of Directors assumed office in August and the Organization focussed on the drafting of subsidiary legislation (Rules) in accordance with Sections 26 and 27 of the Environmental Management Act No. 3, 2000. The process required that the draft rules be submitted for public comment, be revised in keeping with the public comments, published in the Gazette and laid thereafter in Parliament subject to negative resolution. These rules when enacted as law will provide the Authority with the legislative framework that is essential for its enforcement and regulatory responsibilities.

While the 1997, 1998 and 1999 Reports analysed the status of our Biodiversity, Freshwater and the current situation with regard to environmental legislation and its enforcement, this Report provides an analysis and status of air pollution in Trinidad and Tobago because of the critical importance of air quality in the sustainable management of the environment and human health.

Trinidad and Tobago is the most industrialized country in the Commonwealth Caribbean region and suffers the attendant environmental problems associated with the production of oil, natural gas and petrochemicals in addition to rum, soap, paint and wood products. It is not surprising therefore to find a situation in which industrial pollution particularly from oil, gas and the downstream petrochemical industry is a critical environmental issue. Furthermore the fact that Trinidad & Tobago has the highest motorization (vehicles per capita) level in Latin America and the Caribbean results in the transportation sector having a significant impact on air quality. Trinidad and Tobago therefore needs to address the environmental implications of the energy and transport sectors.

Air that is free of fine particulates, gaseous pollutants and odours is essential for the protection of human health. Air pollution also adversely affects the natural and built environments through unsightly deposits on vegetation and the soiling of buildings. In Trinidad & Tobago air pollution is caused mostly by emissions from vehicles, power plants and energy based industries. Forest and bush fires, uncontrolled burning to prepare land for crops, the burning of sugarcane fields during the harvest and the use of bagasse as a fuel all create windblown smoke, soot, dust and chaff that pollute our atmosphere with particulate matter. In addition, during the dry season fires at our land fills pose a serious threat to the environment.

In seeking to regulate air pollution, the EMA has drafted Air Pollution Rules and Air Pollution Fees Regulations which are to be laid in Parliament subject to negative resolution. National ambient air quality standards and criteria are being established under the prescribed rules for Trinidad and Tobago.

These will serve as the air quality objectives for the setting of limits for pollutants that may be released into the ambient air by various sources. The national ambient air quality standards will provide a basis for protecting public health from the adverse effects of air pollution and for eliminating, or reducing to a minimum, those air pollutants that are known to be or are likely to be hazardous to human health and the environment.

In collaboration with the Bureau of Standards appropriate Vehicle Emissions Standards are being prepared by the Bureau and Regulations are being drafted by the EMA under the Motor Vehicles and Road Traffic Act. Both the draft Standards and the Regulations would be completed in 2001. The phasing out of lead in gasoline by the year 2002 in accordance with the United Nations Development Programme/World Bank Energy Sector Management Assistance Programme for the elimination of lead in gasoline in Latin America and the Caribbean, will also be given high priority.

Given the emerging picture of the serious risks posed by global environmental changes on small island developing states, perhaps one of the most serious environmental challenges facing Trinidad and Tobago, as a result of global warming and climate change is sea level rise; with associated coastal erosion and salt water intrusion into our estuaries and aquifers.

While we are a very minor contributor to green house gas emissions on a global scale, we are one of the major contributors among developing countries on a per capita basis. The most recent scientific estimates indicate that by the year 2100, the world will on average experience a temperature rise of 1 ° C to 3.5 °C, a sea level rise of 15 to 95 cm plus a rainfall deficit of about 15%. Our climate may therefore become hotter and drier, posing significant threats to our valuable marine and terrestrial ecosystems. The EMA will address these global environmental issues by implementing vulnerability assessment studies of our marine and terrestrial ecosystems that will be utilized to develop adaptation programmes.

The analyses and data presented in the Report on air pollution have demonstrated information gaps in basic ambient air quality that need to be closed for the implementation of effective air pollution control programmes. The EMA, however, recognizes the need to establish a firmer scientific basis from which to tackle the problems that are exacerbated by our country's rapidly growing industrial and transportation sectors. The challenge is therefore to identify, in spite of scientific uncertainties, prudent, cost effective and adaptive management approaches that can be implemented with the full support of the private sector, NGOs, CBOs and civil society.

Finally, it is my honour to acknowledge the work of the past Board, management, and staff who piloted the EMA through this crucial period of its early development and who have provided a solid foundation for the exciting and challenging road ahead.

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## ABBREVIATIONS

C <sub>2</sub> H <sub>3</sub> Cl <sub>3</sub>	1,1,1-Trichloroethane
CBO	Community based organisation
CFC	Chlorofluorocarbons
CH <sub>4</sub>	Methane
Cl <sub>2</sub>	Chlorine
CNG	Compressed natural gas
CO	Carbon monoxide
COHb	Carboxyhaemoglobin
EMA	Environmental Management Authority
ESMAP	Energy Sector Management Assistance Programme
F <sub>2</sub>	Fluorine
Gg	Gigagram
GHG	Greenhouse gas
GORTT	Government of the Republic of Trinidad and Tobago
Hb	Haemoglobin
HC	Hydrocarbons
HNO <sub>3</sub>	Nitric acid
IQ	Intelligence quotient
ISP	Institutional Strengthening Programme
km	Kilometre
LPG	Liquified petroleum gas
m <sup>3</sup>	Cubic metre
mg	Milligram
MWH	Mega watt hours
N <sub>2</sub> O	Nitrous oxide
NGO	Non-governmental organisation
NH <sub>3</sub>	Ammonia
NMVOC	Non-methane volatile organic compounds

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