## TRANSPORT

The Barbados Transport Board is a Government owned and funded public transport system. The Transport Board was established as a result of an Act of Parliament in 1955.

As can be found with many other areas which are deemed to be important in Barbados' achievement of sustainable development, the Barbados Sustainable Development Policy speaks to the issue of transport addressing the need to reduce environmental damage associated with various aspects of transport whilst ensuring that its valuable economic and social contributions are not undermined. Within the context of these broader goals, however, the policy has identified specific recommendations that will place a special emphasis on improving the efficiency and reliability of the public transport system.

Specific policy recommendations which were identified within the Barbados Sustainable Development Strategy include:

- 1. The environmental hazards of all the constituents of a blended fuel should be fully documented. Appropriate measures should also be taken to address occupational health and safety of workers handling these fuels.
- 2. Development of a Clean Air Policy which will define strategies and/or options for reducing the release of polluting vehicle emissions into the atmosphere and including possibly a "flexitime" approach for the use of heavy vehicles in particular;
- 3. Development of safe minimum standards for atmospheric pollutants, especially those from vehicle emissions, which are appropriate to Barbadian circumstances while meeting internationally accepted standards. These standards could be informed in part by biological monitoring programmes to determine existing internal levels of pollutants and the variable distribution of these levels amongst members of the population;
- 4. Development of appropriate economic instruments/incentives, legislation and regulations towards ensuring the successful implementation of policy objectives and programmes developed to facilitate energy efficiency in the transport sector, and improved air quality in general;
- 5. Efficient and timely maintenance of heavy duty diesel vehicles especially those involved in public transport, cargo/load transport and construction;
- 6. Promoting energy efficiency in the transport sector including giving consideration to the feasibility of using electric cars as well as inter alia Liquid Petroleum Gas (LPG), Compressed Natural Gas (CNG) and hydrogen-powered vehicles and ensuring the provision of facilities for efficient ongoing maintenance of these vehicles;

- 7. The development, introduction and use of appropriate scientific technologies and practices with a view to improving the efficiency of the transport sector and its sustainability, in particular with regards to maintaining a clean and safe environment;
- 8. Conducting of studies on mass transit options in high traffic areas;
- 9. Areas where hydrocarbons are stored can be classified as potential hazardous sites and should be taken into consideration when considering development activities.

The Transport Board has a fleet of approximately 304 buses, which include two buses with wheel-chair access for the disabled. The headquarters of the Transport Board is located at Roebuck Street in Bridgetown, the capital of Barbados. Additionally, the Transport Board operates three (3) bus terminals; these are located at Fairchild Street, Bridgetown, Princess Alice Highway, St. Michael and Speightstown, St. Peter. A central staging depot is located at Mangrove, St. Philip, and a sub-terminal at Oistins, Christ Church.

The Transport Board's management team consists of eight (8) senior managers and eight (8) middle managers including operational managers for each terminal and depot. The organization is now operating on ninety-eight (98) routes across the island. Buses run from as early as 6 a.m. and as late as 12 a.m.

In addition the Government provided transportation services, there are also privately run minibus and route taxi services which operate on selected routes.

# **Concrete Progress in Implementation**

# Progress on Transport Access, Including the Rural Population and the Poor

The use of Government-run bus services in Barbados is increasing and may continue to increase once the Transport Board can demonstrate to the general public the reliability of services provided through maintenance of the fleet and improved regularity of services. Bus services are heavily subsidized with a fixed bus fare of \$1.50 per trip. School children in uniform and senior citizens over the age of sixty-five (65) travel for free on Transport Board buses.

The Transport Board has conducted research which suggests that there could be room for improvement in the service availability in some rural sections of the island. To address this issue, it has been proposed to use route taxi vehicles between the main routes and to some of the smaller villages to supplement the Transport Board's main services. There are also challenges regarding the provision of bus services in some areas of the country. These are attributed to poor road surface conditions and residential developments where roads are too narrow for standard-sized buses. A recent development in service improvement has been the establishment of the *Call a Ride* service through the Transport Board for persons with disabilities. This service provides access to public transportation for children who were previously unable to attend school because of physical challenges. The service is also available for people who need to attend medical appointments; in some cases aid is offered to members of the public who are elderly or disabled who wish to attend religious or church services. This novel initiative is a state funded service and is free to approved users. Given that there is an increasing demand for the service and the limited number of vehicles, a systematic approach needs to be developed which allows an optimal number of persons to be accommodated with the capacity that is currently available.

# Establishment of the Transport Authority

The recent establishment of a Transport Authority in November 2008 is expected to formulate the vision of the Transport Board into a clearly articulated policy framework for public transport in Barbados. This entity will also be responsible for strategic planning and goals of the organization and the role it plays with the public transportation sector on the island. The establishment of the Authority was the result of recommendations of a study done in the 1990s aimed at ensuring the right mix of transport options on the island.

# Urban Transport Planning and Policies

Given the relatively small size of Barbados and its system of centralized government, urban transport planning is not carried out as a separate activity to transport planning at the national level.

In the late 1970s, the Government of Barbados commissioned the undertaking of the first integrated land-use transport study for the island. In the 1980s there was a Bridgetown traffic management study done that proposed the upgrade of the road corridors that form the inner and outer bypass system that exists today. In 1995, the Government of Barbados commissioned a study to prepare a National Transport Plan.

# Vehicle Efficiency and Emissions Policies

A Draft Energy Policy for the country was completed in December 2007. It is described as a series of measures to ensure a secure supply of energy, at competitive prices, with efficient use, in an environmentally sound manner. The Draft Policy promotes the use renewable energy technology and the development of a low carbon economy as key strategies to ensure sustainability.

The Ministry of Transport and Works (MTW) is currently researching the issue of emissions in collaboration with the EPD and the Barbados National Standards Institute (BNSI) in order to establish a policy. Existing legislation cover emissions in a very subjective way, i.e. it doesn't refer to specific levels/standards.

With regard to efficiency, the Transport Board has acquired diagnostic software for the most recent acquisitions in the fleet of buses.

Additionally there is a policy from the Ministry of Finance via the Central Purchasing Department (CPD) regarding vehicles which can be imported for government use to ensure that they are fuel efficient.

## **Lessons Learned and Best Practices**

# Capacity Building Needs on Transport Activity Assessment and Analysis for Integrated Planning

The Ministry of Transport has recently started a process with the Inter American Development Bank (IDB) to take a detailed look at capacity building needs. The new Transport Authority will develop the policy framework and guidelines for the operation of the Public Transport System. The system as a whole is currently working on establishing its personnel and augmenting its human resources. In addition to these activities, it will seek to cooperate with public service operators, taxi drivers and the public sector to ensure that concessions are properly managed. These activities used by these stakeholders. The Authority is also seeking to develop an Association of Private Transport Operators (APTO) that will represent the concerns of route taxis and minibus operators and taxi drivers.

## **Actions Taken**

# Road Construction and Changes in Anticipation of Climate Change Impacts

The Ministry is addressing climate change impacts by re-designing its road net-work to facilitate better drainage as a result of recent heavy rainfall events. However, some of these changes, such as curbs will assist with drainage in heavier downpours, which may be associated with climate change.

The Adams-Barrow-Cummins Highway (ABC) was constructed as an inland highway, running from the Grantley Adams International Airport to the West Coast of the island, bypassing the capital city, Bridgetown. Although not its sole reason for its construction, the development of this highway has successfully mitigated against the vulnerability of the coastal highways being vulnerable to sea level rise.

Improving the reliability and comfort of the public transport system, may also encourage more people to make use of these services rather than driving cars. It is anticipated that this may become an increasingly attractive alternative particularly in light of the increasingly severe traffic congestion situation. In the longer term, this could result in fewer vehicles and hence fewer vehicle emissions, thereby contributing to other climate change mitigation efforts.

## Relevant Trends, Constraints, Challenges and Emerging Issues

#### Availability of Vehicles

Currently, the Barbados Transport Board has an inadequate number of buses in service to meet the demands of commuters, particularly during peak hours of the day.

## **COMMON ISSUES**

## Education, Training, Awareness-Raising and Capacity Building

The Transport Board established a website a few years ago, which details bus routes to help commuters to plan their trips. The Transport Board also produces newsletters which provide relevant information to the general public. Additionally, the Transport Board has access to the Government Information Service (GIS) for dissemination of information about services.

#### National Legal Frameworks

Relevant legislation in place includes the Transport Authority Act, the Transport Board Act, and the Road Traffic Act.

## Institutional Capacity Building

The Transport Board has a new computer system with a fleet management system. The system has not yet filtered through to the whole organization, but it is being used to manage stores and bus operations. The Transport Board also has plans to develop an inhouse training system on customer service.

#### Technology Development, Transfer and Dissemination

There is ad-hoc research by individuals in the Transport Board and the use of technology has been applied to electronic ticket machines on buses, closed circuit television on buses, and global positioning systems (GPS) to track buses. There are plans to start implementing a next bus – electronic signaling system telling people waiting at the bus stops when the next bus is coming, along with electronic scheduling.

Within MTW, the synchronizing of traffic lights has started with some in existence and plans for further expansion. The strips installed to count traffic and monitor speeds on specific roads are used for monitoring road use.

Researchers from the University of the West Indies (UWI) are investigating electronic tracking by planting devices on telephone poles.