

ISSN 1727-9917

S E R I E S

STUDIES AND PERSPECTIVES

ECLAC SUBREGIONAL
HEADQUARTERS
FOR THE CARIBBEAN

An assessment of mechanisms to improve energy efficiency in the transport sector in Grenada, Saint Lucia and Saint Vincent and the Grenadines

Elizabeth Emanuel
Charmaine Gomes



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This document has been prepared by Elizabeth Emanuel, consultant, and Charmaine Gomes, Coordinator of the Sustainable Development Unit at the ECLAC subregional headquarters for the Caribbean, in the framework of the activities of the project ECLAC/German Cooperation project “Sustainable Energy in the Caribbean”.

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United Nations publication

ISSN 1727-9917

LC/L.3915

LC/CAR/L.449

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Printed at United Nations, Santiago, Chile

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Abstract

Energy represents a fundamental input for modern economies and social life. The world today faces two main threats related to energy, namely inadequate and insecure supplies and global warming due primarily to the over-consumption of fossil fuels. Like many other Caribbean countries, Grenada, Saint Lucia and Saint Vincent and the Grenadines are almost entirely dependent on imported petroleum as their primary source of energy.

In this regard, many countries in the subregion have taken a strategic approach to long-term planning in the energy sector towards creating higher levels of efficiency on both the demand and supply side as well as promoting diversification in the energy mix. Grenada, Saint Lucia, and Saint Vincent and the Grenadines have developed national energy policies that seek to improve energy efficiency and conservation in all sectors, promote the use of alternative sources to petroleum such as liquefied natural gas (LNG) and develop renewable energy technologies based on the countries' indigenous supplies. Saint Vincent and the Grenadines has also developed its first energy action plan that identifies specific actions to be taken in the short, medium and long term.

As in other Caribbean countries, transport and electricity generation account for the largest consumption of energy in these three countries, with both sectors accounting for approximately 90 per cent of national energy consumption. The transport sector, which comprises land, air and maritime modes, represents a critical component of any country's national development. One of the most fundamental attributes of the sector is the ability to move persons, goods and services between spatial locations at the local, regional and international levels.

Within this context, this study was conducted to present mechanisms to improve energy efficiency (EE) in the transport sector in Grenada, Saint Lucia and Saint Vincent and the Grenadines. For each country, the report presents a brief description of current trends in energy consumption generally as well as energy issues in the transport sector and programmes, initiatives and regulatory mechanisms currently in place that are contributing to energy efficiency in this sector. The report also presents a range of recommendations that can be adopted by the countries as they pursue more sustainable practices and look towards improving and advancing energy efficiency in the transport sector.

The national energy policies of these three countries include a focus on the transport sector and outline actions for increased efficiency and fuel diversification in this sector. However, comprehensive national transport policies that incorporate these energy goals do not exist. Fortunately, collaboration among the various sectors has begun in each country. Through the promulgation of the energy policies, multi-sectoral committees and working groups have been created, which could provide a model for the development of comprehensive transport policies that address issues related to energy as well as land use and finance.

Recommendations to promote energy efficiency and fuel diversification in the transport sector are presented in three categories: policies to encourage transport system efficiency (land use and urban planning); policies to encourage vehicle efficiency (increasing energy efficiency in freight, increasing fuel economy of new vehicles, and influencing driver behaviour); and institutional arrangements linking transport and energy. These recommendations include the development of national transport and spatial planning policies ensuring that they support the goals of the energy policy. To facilitate more accurate assessment of the transport sector, it is recommended that countries prioritise the collection and analysis of data relating to their transportation energy consumption. This will then lead to better planning and management of the sector. Other recommendations include financial and tax incentives and mandatory labelling programmes which may exist in other sectors that address, for example, heating and lighting, but which are needed specifically for the transport sector. Other recommendations include improving efficiency in public and private passenger and freight vehicles through fuel quality standards, driver education programmes, and vehicle maintenance requirements.

I. Introduction

Energy represents a fundamental input for modern economies and social life. The world today faces two main threats related to energy. These are inadequate and insecure supplies at affordable prices and global warming due primarily emissions that result from over-consumption of fossil fuels. Coupled with this is the challenge that the prospects for global energy markets heighten concerns around energy security and the impact of climate change on energy-dependent small island States such as those in the Caribbean. Small island developing States (SIDS) are unique because of their small size and geographical location. Furthermore, SIDS also are vulnerable to the high cost of imported fossil fuels.

Most Caribbean countries are almost entirely dependent on imported petroleum as their primary source of energy. Also, in the majority of these countries, transport and electricity generation account for the largest consumption of petroleum. In this regard, many countries in the subregion have taken a strategic approach to long-term planning in the energy sector towards creating higher levels of efficiency on both the demand and supply sides as well as diversification of the energy mix either through the use of alternative sources such as liquefied natural gas (LNG) or through the deployment of renewable energy (RE) technologies based on the countries' indigenous supplies. The thrust by governments towards diversification of the energy mix in almost all Caribbean countries is being aggressively pursued as a means of advancing energy security and promoting international

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