Chapter 3

The Political Economy of Transitioning to a Green Economy in Grenada

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3.1 Introduction

This case study is framed from the backdrop that the concept of the green economy has received considerable attention globally, and has been one of the two key themes of the June 2012 United Nations Conference on Sustainable Development (Rio+20).

The study sets out to identify Grenada's conceptualisation of the green economy, the influence of various actors and partners, and to identify how the concept has been implemented and translated into concrete policy interventions. This study focuses on the water, energy, tourism and transport sectors as the building blocks for a green economy, and analyses a range of factors that have played a role in Grenada's conceptualisation and implementation of a green economy.

3.2 Contextual considerations

The current global financial, economic, social and environmental crises have provided the impetus to determine new concepts and formulations to constitute drivers for economic growth and development. The concept of a green economy has emerged and been debated to the point where it became a major factor in the international negotiations of Rio+20.

At the start of the Rio+20 conference, the UN Secretary-General Ban Ki-Moon referred to the draft outcome text and remarked that the old model for economic development and social advancement is broken. He stated 'Rio+20 has given us a unique chance to set it right, to create a new model, to set a new course that truly balances the imperatives of robust growth and economic development with the social and environmental dimensions of sustainable prosperity and human well-being' (UN 2012a). The President of the Conference, Brazilian President Dilma Rousseff, also made reference to the need to develop new models for growth, employment and economy recovery when she stated that 'development models have exhausted the ability to respond to contemporary challenges' (ibid).

The green economy model was therefore seen as a response to these global challenges. In this regard, one of the two major themes of the conference was 'A Green Economy in the Context of Sustainable Development and Poverty Eradication'. In the intensive and protracted negotiation process in the lead up to the conference, the governments could not agree on a definition of a green economy, the underlying principles, nor the modalities and means of its implementation. Further, the key divergent issues were the impact on nature, the financialisation of nature, corporate capture, the impact on trade, and the role of the private sector and markets.

Agreement on the final outcome document was achieved after a last ditch effort by the Brazilian government in the final negotiation session, and only after delicate compromises were made by the negotiating governments.

The conference thus reaffirmed in the outcome document, *The Future We Want*, that there are different approaches, visions, models and tools available to each country, in accordance with its national circumstances, priorities, strategies and plans to achieve sustainable development (UN 2012b: paras 56 and 59).

General agreement was reached that:

- The green economy in the context of sustainable development and poverty eradication is one of the important tools available for achieving sustainable development, and that it could provide options for policy-making but should not be a rigid set of rules (para 56).
- Policies for the green economy in the context of sustainable development and poverty eradication should be guided by and in accordance with all the Rio Principles, Agenda 21 and the Johannesburg Plan of Implementation (Para 57).
- Green economy policies must include inter alia:
  - consistency with international law and respect for national sovereignty over national resources;
  - support from an enabling environment with a public sector lead and participation by all relevant stakeholders;
  - promotion of holistic, sustained and inclusive economic growth and the fostering of innovation;
  - measures to strengthen international co-operation, including the provision of financial resources, capacity building and technology transfer for developing countries, contributing to closing the technology gap;
  - such policies must not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade;
  - enhance the welfare of indigenous peoples and vulnerable groups, including dimensions of gender and inequalities and the promotion of sustainable production and consumption patterns (para 58); and
  - that developing countries must be provided with the capacity and means of implementation if they choose to implement green economy policies. There were general references in the text on capacity building, and the various elements on the means of implementation, including technology transfer and finance. General references were included on the role of the private sector and markets and the need for involvement of stakeholders, partnerships, networking and the sharing of experiences to implement green economy policies (paras 59–74).

The outcome of the Rio+20 negotiations on the green economy reflects the global attitude towards the concept. The outcome highlighted the mistrust of some governments on the motives of the proponents of the concept of the green economy. The tone of the agreement reached was couched in general terms, which leaves much scope for differing interpretations. The outcome document is replete with language borrowed from previous international processes and does not provide any significant and new commitments to implement a green economy development framework. The new model for development, as called for by the UN Secretary-General and the President of Brazil, was not advanced to any level of significance.

The agreement reaffirmed that the concept of the green economy, while desirable to be pursued, should be based upon, and conditioned by, the existing and previously agreed principles of sustainable development. The green economy is not a new concept, nor a new development framework, but one of many approaches, visions or constructs to achieve sustainable development (UN 2012b). It was clear, however, that the debate on the green economy was not over, and that the precepts underlying the green economy will be the subject of future global discussions – as governments seek to implement green economy policies to reduce the stress on their economies caused by the global crises, and to take advantage of and capitalise on growth and development opportunities.

3.3 The concept of the green economy in the small state of Grenada

The conceptualisation of the green economy and the influence of the various actors and partners in Grenada have been viewed through the lenses of Grenada's socioeconomic conditions, national resource endowments, regional integration activities and international negotiations as a small island developing state (SIDS).

The concept of the green economy was introduced to national stakeholders in 2009 by the officials of the Ministry of Finance and Planning and the Ministry of the Environment engaged in development co-operation activities.

3.3.1 Regional dialogue on the green economy

A key starting point for the regional focus on the green economy was a regional dialogue project facilitated by the Caribbean Natural Resource Institute (CANARI) and executed between December 2009 and February 2012 'to elicit ideas from a wide cross section of Caribbean stakeholders on what green economy means in the Caribbean context' (CANARI 2012).[1] The Caribbean perspective on the green economy evolved over the period, but by the end of the regional dialogue project the conclusion was that the dialogue resulted in the development of a 'broad but as yet incomplete picture of what a Caribbean green economy could look like and aim to achieve' (ibid). Thus national-level activities were necessary to advance the concept as initially articulated during the dialogue.

The dialogue concluded that the term 'green economy' describes 'a form of development that addresses in a holistic way the multiple economic and environmental challenges confronting the world' (ibid). Further that 'A green economy in the Caribbean context aims for long-term prosperity through equitable distribution of economic benefits and effective management of ecological resources; it is economically viable and resilient, self-directed, self-reliant and pro-poor' (ibid).

The green economy was also the subject of enquiry at the regional Caribbean Community (CARICOM)[2] level, which along with the dialogue project influenced Grenada's conceptualisation process. The CARICOM officials concluded that given that the multifaceted vulnerabilities faced by SIDS were not adequately considered in international negotiations, the green economy must be consistent with national priorities, sustainable development priorities and socioeconomic conditions. They agreed that considerations should be sectoral in nature to facilitate focused and practical on-the-ground activities, and that the green economy should not become a market-driven concept or be used as green protectionism. They advised that national dialogue and processes should condition the Caribbean region's contribution to the global debate.[3]

The key messages from the regional initiatives provided the platform for discussions at the national level on conceptualisation and implementation of the green economy in Grenada.

3.3.2 The Grenadian economy

The Grenadian economy can best be described as a fairly diversified economy dominated by the services sector, which currently constitutes about 80 per cent of the gross domestic product (Ministry of Finance [MOF] 2012). The recent global crises, along with weather-related events and crises in the insurance and banking sectors, have had a significantly negative impact on the economy. The economy went into a deep recession in 2009 and 2010, with negative annual growth rates of 5.6 per cent and 2.0 per cent respectively. The economy achieved a modestly positive growth rate of 1.4 per cent in 2011; 0.7 per cent in 2012; and for 2013 a 3 per cent growth rate was projected (MOF 2011 and MOF 2013).

The Grenadian economy continues to face major challenges, including rising debt and debt servicing, stubbornly high unemployment rates and debt-to-GDP ratios, rising food and fuel prices, high food and fuel import bills, reduced foreign direct investments and remittances, challenges in the insurance and banking sectors, deteriorating physical infrastructure and reduced capacity to address socioeconomic and infrastructure decline (Eastern Caribbean Central Bank [ECCB] 2012). The national responses proposed to address these issues were to engage in activities to maintain fiscal discipline and macroeconomic stability, as well as to promote growth and to strengthen the national implementation capacity (MOF 2012). In this regard, the Government of Grenada (the government) has identified five transformational sectors to re-energise the economy, and they constitute the sectors with the greatest potential to contribute to the economic transformation of the country.

The identified sectors are as follows:

- tourism and hospitality;
- health, wellness and education;

- sustainable (green) energy;
- agribusiness; and
- information and communications technology (MOF 2012).

Economic growth and development, enabled through these five sectors, is seen as necessary to provide the budgetary flexibility to invest in green economy initiatives, while at the same time investments in green economy activities are necessary to enhance economic growth and development.

3.3.3 Social sector

With a population of approximately 105,000, a life expectancy of 76 years, an education index of 0.779 and a gross national income per capita in purchasing power parity (PPP) terms of 6.982, Grenada has a Human Development Index (HDI) of 748 and ranks 67 out of 187 countries evaluated in 2011 (UNDP 2012). The per capita GDP/PPP in 2011 was estimated at US$14,100 (World Bank 2012). The latest Country Poverty Assessment Survey, which was completed in 2008, indicated that 37.7 per cent of the population were living below the poverty line. A further 14.6 per cent were classified as vulnerable, meaning that this group is at great risk of falling below the poverty line. The level of indigence was estimated at 2.4 per cent, indicating the percentage of the population that are consuming below the minimum accepted level of nutrition (Government of Grenada [GoG] 2008). Therefore, more than half of the population in the period leading up to 2008 was deemed to be at serious risk. It is generally agreed that the poverty situation in Grenada has not improved since the last survey.

The survey identified the following factors giving rise to the poverty levels:

- limited income arising from poor job opportunities;
- few safety nets;
- poor physical infrastructure, especially in rural communities;
- insufficient social infrastructure in rural communities;
- lack of organised groups at the community level; and
- inadequate human resources (GoG 2008).

The survey also identified several conditions and problems affecting the poor, including:

- inability to purchase the basic necessities of life;
- lack of access to basic social amenities like clear water, quality housing, health assistance and education;
- high unemployment, low wages and heavy dependence on agriculture;
- lack of credit from financial institutions; and
- heavy dependence on remittances and government hand-outs (note that remittances were estimated to be in the order of 25 per cent of GDP in 2010).

The national response includes the commissioning of several macroeconomic and sectoral strategies to address those concerns. The Growth and Poverty Reduction Strategy, for example, identified a series of measures to address the national poverty condition (GoG, 2011a). In addition, the Non State Actors Panel[4] prepared an Alternative Growth and Poverty Reduction Strategy, which took a slightly different perspective by focusing on the psychology of poverty, valuation of assets of the poor and on-the-ground, solution-oriented outcomes (Non State Actors Panel 2012).

Social conditions in Grenada have influenced the national approach to the green economy. The green economy was seen as a means to alleviate the plight of the poor, through practical community-based activities to enhance livelihoods. Investments in the health, wellness and education sector were deemed necessary for economic and social transformation in Grenada.

3.3.4 Environmental issues

The impacts of climate change, loss of biodiversity and land degradation are viewed as the most important environmental issues facing Grenada and constitute the greatest threats to the economic well-being and livelihood of the population. The impacts of recent hurricanes and droughts are evident throughout the country. In 2004, Category 3 Hurricane Ivan brought damage to the country equivalent to more than 200 per cent of the GDP. One year later, Hurricane Emily, a Category 1 hurricane, struck and again set back the economy.[5] Grenada experienced its most severe drought in 2009–2010. The rainfall deficit in 2009 and 2010 was estimated at 50 per cent and 80 per cent respectively (Ministry of Agriculture [MOA] 2009). Grenada's environmental profile remains very fragile and vulnerable to external shocks.

In response, Grenada has embarked on several strategic and sector-based initiatives to enhance the national capacity and resilience to cope with these events and phenomena. The initiatives include the National Biodiversity Strategy and Action Plan, the National Capacity Self-Assessment, the National Climate Change Policy, the Pilot Program on Climate Resilience, the Sustainable Land Management Policy, the National Hazard Mitigation Policy and the National Environmental Policy and Action Plan. It was envisaged that Grenada's approach to the green economy would be consistent with the general tenets of these environment policy documents.

3.4 Green economy conceptualisation and policy

The foregoing brief on the economic, social and environmental capital and attendant realities, as well as the key messages emanating from the regional activities on the subject, provided the basis for and influenced the conceptualisation of the green economy at the national level. National-level consultations from 2011 leading up to the Rio+20 conference involving government officials, quasi-government officials, representatives of civil society organisations, academia and regional institutions were convened on the concept, thus providing broad-based participation to determine Grenada's interventions at the international negotiations. The NGO community, in particular through the Inter Agency Group of Development Organisations[6] and the Non State Actors Panel, was instrumental in crafting the final outcome.

Grenada's leadership role at the international environmental governance level was also a major factor. During the 2007–2011 period, Grenada was the Chair of the Alliance of Small Island States (AOSIS) and co-ordinated the work of the alliance at the United Nations Framework Convention on Climate Change (UN FCCC) negotiations.

Grenada and AOSIS had a strong voice in the UN FCCC negotiations. Further, Grenada also held leadership positions on the Convention on Biological Diversity, the Global Island Partnership (GLISPA), the Montreal Protocol and the International Union for Conservation of Nature (IUCN) Council. Grenada was highly active in the preparatory process towards Rio+20. In a direct way the national conceptualisation of the green economy influenced and was influenced by Grenada's role in the Rio process. At a meeting of the Grenada Sustainable Development Council,[7] Grenada's chief negotiator at the Rio+20 negotiations process while calling for greater national involvement stated, 'It is not enough to simply accept what others will decide for us in the future we want' (Sustainable Development Council [SDC] 2012).

From the national-level consultations, the participants concluded that starting from Grenada's resource endowments, the current national socioeconomic conditions and with Grenada's determination 'to enhance, improve and consolidate existing initiatives, strategies and plans which integrate the three pillars of sustainable development which will eventually lead to poverty eradication', that the specific strategies for the green economy will be determined (GoG 2012b).

The interviewees reiterated that the green economy stance adopted must be sensitive and adaptive to local practice, knowledge, culture and ecology.

Grenada's conceptualisation of the green economy was to be sector-based and linked directly to the enhancement of economic and social well-being and the livelihoods of the Grenadian people, particularly the rural community, women, youth and the poor.

The key focus areas identified for the green economy interventions were as follows:

- Policy development: Phasing out harmful subsidies, reforming policies and incentives, strengthening market infrastructure, introducing new market-based mechanisms, redirecting public investments, zoning and land-use/tenure policies and greening public procurement.
- Energy: Renewable energy and energy efficiency, waste-to-energy planning, sustainable transport, energy efficiency standards for building, appliances, lighting and vehicles, independent power regulation and fiscal incentives.
- Tourism: Transitioning to ecotourism, community health, geo-, heritage and agri-tourism.
- Agriculture: Climate-smart agriculture, aqua and hydroponics, sustainable fisheries, agroforestry, green house production, composting, sustainable irrigation and rainwater harvesting.
- Integrated water and coastal resource management: Water-demand management and efficient water use, rainwater harvesting and water sector reform.

- Biodiversity conservation and restoration: Forest and mangrove restoration, establishment of protected areas, ecosystem valuation studies, revision of the National Biodiversity Strategy and Action Plan.
- Private sector development: Policy reform and incentives, financing and investment initiatives, skills building and innovation, research and indigenous product development.
- Institutional strengthening of civil society: Community mapping and documentation, revival and strengthening of cultural practices and local knowledge, community agriculture, community ecotourism and skills building.
- Public awareness and education: Sustained public awareness and education programme targeting rural communities, children and youths (GoG 2012b).

During the interviews conducted for this study, it was revealed that limits to growth were recognised by the stakeholders and that while the green economy should enhance growth, there cannot be only continuous increases in GDP. It was recognised that increases in the quality of life, poverty eradication and a more equitable distribution of wealth and income were important elements of the green economy conceptualisation. Recalling absorptive capacity and carrying capacity limitations on the national level, the call therefore was for more sustainable national-level production and consumption as the key factors in the green economy.

The predominant opinion was that the green economy must be conceptualised as a subject of sustainable development, where sustainable development must involve the social, economic and environmental dimensions in a holistic and integrated manner. The green economy must not disturb the balance of the pillars of sustainable development. It was quite noticeable that the mistrust of the intent of the green economy, as expressed by some governments in the Rio+20 process, was a factor in the national consideration as there were lingering concerns on interpretation and implementation modalities. In this regard, the community-based organisation (CBO)/NGO responses were highly focused on social development, poverty eradication and livelihood issues.

In his national address on Earth Day, the Grenadian prime minister referred to the green economy and stated, 'A Green Economy is driven by growth and investment that reduce the harmful carbon emissions and pollution, promote energy and resource efficiency and most importantly prevent further loss of our flora, fauna and marine life' (Ministry of the Environment [MOE] 2012).

These sentiments were repeated in his address to the Rio+20 conference when he said, 'Given Grenada's national and resource endowments and our social and cultural ethos, we are already practitioners of sustainable development and will continue with that level of resolve and commitments'. He outlined, 'We accept that our tools will include a green and a blue economy based on various national approaches. Our driver within the three pillars of sustainable development must include institutional reform and strong means of implementation' – Prime Minister's address at Rio+20, available at: www.grenadabroadcast.com/news/13801-rio-20-conference (accessed 18 February 2014).

3.5 Implementation of the green economy

In Grenada, the sectoral approach in line with the identified five economy-wide transformative sectors was used to implement the green economy. The energy sector, through its links with the other sectors, was deemed to be the major driver for green economy implementation. The cost of energy is a key variable in the tourism and hospitality sector, as well as in the agriculture and agribusiness sector. The viability and economic transformation potential of these two sectors hinge directly on developments in the energy sector, especially the cost of energy. The potential economic gains of greening the energy sector was also seen as critical for developing the transformational potential of the health, wellness and education focus. With respect to information and communications technology (ICT), consistent with pronouncements of the International Telecommunications Union (ITU), this sector was seen as a catalyst and enabler of development. ICT can accelerate the transition to a green economy through facilitating smarter and more efficient economic growth, social development and environmental protection in the spirit of sustainable development. With more than 100 per cent cellular penetration in Grenada, mobile applications based on broadband connectivity were seen to offer the appropriate platform to host an array of applications and services in health, education, government, commerce, disaster management etc., to build national capacity and resilience and to accelerate progress towards the green economy (ITU 2012).

The next section of this chapter will focus on green economy implementation through four building blocks: the energy, tourism, water and transport sectors. For each sector, this case study will briefly examine the status and trends, policy and legislation, institutional factors, benefits, challenges and constraints and indicators of greenness.[8]

3.5.1 Energy

Status and trends

The end game of implementation of the green economy in Grenada is to achieve sustainable livelihoods, especially among the rural poor, youth and women. About 8 per cent of the population do not have access to electricity and use charcoal and wood for cooking, and kerosene and candles for lighting (MOF 2012).

The power sector was privatised in the early 1990s and is based almost entirely on diesel-fired generation from fossil fuels imports (99 per cent).

The price of electricity faced by the Grenadian consumer is approximately US$.40 per kWh, which is among the highest rates in the world. High-energy costs constitutes a binding constraint to achieving sustainable development through its negative impact on the viability of the economic transformational sectors. Oil imports constitute 10 per cent of GDP and are 2.5 times greater than the country's annual export earnings (MOF 2012).

This is against the economic backdrop of a deep and prolonged recession, with limited fiscal flexibility given the high debt, high unemployment and low growth.

Policy and legislation

In response to the status and trends in the energy sector, the Government of Grenada elaborated a National Energy Policy in November 2011 following a process of national consultation involving all stakeholders. The energy policy was approved by the cabinet in March 2012. The policy calls for greenhouse gas reductions of at least 20 per cent below 'business as usual' by 2020. This is part of a wider vision of the government, dubbed Greenada Vision 2030, which has the ambitious target of greening the energy sector, particularly power generation and transport, to 100 per cent by 2030 in line with Grenada's commitment to a low-carbon development pathway. The specific activities envisaged under Grenada's low-carbon development pathway towards Greenada Vision 2030 are as follows:

- construction of 20-MW geothermal plant by 2014;
- construction of an additional 20-MW geothermal plant by 2018;
- construction of 2.5-MW wind turbine by 2013;
- construction of 1–3-MW waste-to-energy plant by 2016;
- establish fuel efficiency standards by 2015;
- achieve 10 per cent electricity generation by wind and solar by 2015;
- achieve 20 per cent market penetration with hybrid and electric vehicles by 2020; and
- achieve a minimum of 20 per cent renewable energy in electric generation and transport by 2020 (Energy Division 2012 and GoG 2011b).

To facilitate the vision, work has already started on four bills to be promulgated in the national parliament. Significant advances have already been made on the following:

- Energy Efficiency Bill;
- Revised Electricity Supply Act;
- Geothermal Resource Development Bill; and the
- Revised Offshore Petroleum Bill (MOF 2012).

To achieve the national low-carbon development targets, the government is focused on building national capacity and seeking investment flows and technologies for renewable energy applications in geothermal, wind, solar and ocean thermal energy conversion (OTEC). In addition, the energy policy calls for a complementary focus on energy efficiency and appropriate technologies to be deployed in the short to medium term to reduce the demand for and consumption of fossil fuels. The programme has the following elements to facilitate green economy implementation:

- fiscal incentives to encourage renewable energy and energy efficiency measures;
- low interest loans to private sector renewable energy and energy efficiency initiatives;

- tariff reforms, including special feed-in power tariffs; and
- energy efficiency standards determination (MOF 2012).

Grenada has also committed to a sub-regional energy initiative within the context of the Organization of Eastern Caribbean States (OECS) Economic Union Treaty, partnering with the World Bank to establish an Eastern Caribbean Energy Regulatory Authority – aimed at effecting appropriate regulations in the sector and to benefit from economies of scale through harmonised and co-ordinated approaches. This development is expected to have a positive impact on the implementation of the green economy.

Institutional factors

The implementation of the green economy requires the establishment of the appropriate national legal, regulatory and institutional frameworks. The energy policy addresses the institutional factors required for greening the energy sector. Given the energy sector's pivotal role in green economy implementation, a National Sustainable Energy Office and a Centre for Renewable Energy and Energy Efficiency are to be established for the management of the National Energy Strategy and Action Plan flowing out of the National Energy Policy. In addition, the office and centre will be responsible for enhancing the national capacity and resilience of the sector, and for seeking the capital investments – estimated at US$150 million – required to roll out the renewable energy plan. The office and centre will be responsible for determining, co-ordinating and managing the private sector engagements and public interface, strategic alliances, technologies, human resources, research and development, public education and awareness and the efforts at mainstreaming the national vision throughout the other sectors of the economy. Waste management, for example, is identified as a priority case and work has already started on a programme for conversion of waste to energy. Plans are also being developed to build a 'green' parliament building to replace the old parliament building, which was destroyed by hurricanes. A pilot project on building a green economy in Carriacou and Petit Martinique, as a microcosm to demonstrate the requirements for a green economy in Grenada, has been commissioned (GoG 2012d). The government is actively seeking donor support to implement the energy policy and green economy policies.

Benefits, challenges and constraints

Grenada's energy sector transformation from fossil fuels to renewable energy technologies is expected to bring macroeconomic benefits to the country, by changing the energy mix to a greater reliance on domestic renewable resources rather than the imported fossil fuels.

The linkages between access to energy and social development are well demonstrated in the literature reviewed. The Grenadian officials interviewed on this issue were quite passionate and had great expectations that once the policy and associated strategy and plan were implemented, then the well-being of the most vulnerable – in particular, rural communities, women and youth – will be enhanced.

The major challenges and constraints identified relate to simplified and expedited access to finances for investments and appropriate technologies. It was also pointed out that government has limited fiscal space given its mounting debt burden, high unemployment and slow growth. The issue of national absorptive capacity, in particular human capacity at the individual and the institutional levels, was flagged as a major area of concern. It was pointed out that there was no budgetary flexibility to engage the necessary human resources; at the same time, optimal use has not been made of existing capacity, as a result of inadequate collaboration and co-operation mechanisms and evidence of 'turfism'. It was generally agreed, however, that the reforms in greening the energy sector were principal for determining Grenada's low-carbon development pathway. The energy sector was seen as the fulcrum for green economy implementation.

Indicators of greenness

The suggested indicators of greenness in the energy sector include the following:

- greenhouse gas emissions per kilowatt of energy produced (grid efficiency factor);
- amount of energy used per unit of GDP produced (energy efficiency factor);[9]
- number of small power producers;
- increase in energy produced by renewable energy applications; and
- percentage reduction in fossil fuel import bill.

3.5.2 Tourism

Status and trends

The tourism sector has been identified as a key economic transformation sector in Grenada, but, while critical for economic and social development, tourism activities are primary sources of greenhouse gas emissions and environmental degradation. Green economy policies in tourism are therefore seen as necessary to balance the seemingly competing objectives. The tourism sector is recognised as the single largest source of foreign exchange earnings, income and employment generation, and an important contributor to general economic activity and social development. In 2010, the sector contributed 6.1 per cent to gross domestic product (MOF 2011). The predominant tourism activities take place in the marine and coastal zones, with potential impacts on the fragile coastal ecosystems. In this regard, mention was made by interviewees of the 'blue economy' to ensure that green economy considerations must take into account marine and coastal as well as terrestrial activities.

In 2011, the total number of visitors to the country was 455,363, with a fairly flat trajectory for the last five years. Seventy-four per cent of tourism arrivals are cruise ship passengers, while 24 per cent are stay-over visitors averaging 8.5 days per visitor (Grenada Board of Tourism [GBT] 2011). The principal activities reflect the marketing slogan of 'Sun, Sea, Sand and Spices in Goodness Gracious Grenada', thus requiring a high-quality tourism infrastructure and services and demands on the scarce resources of land, ecosystem, food, water and energy.

The national outlook of expansion of the tourism sector therefore requires careful management for implementation of the green economy.

Policy and legislation

In line with the green economy theme, stakeholders interviewed for this case study indicated that tourism activities should respond in balance with the three dimensions of sustainable development. In response to the pressures exerted on the sector by the global recession and financial crises, coupled with high prices for food and energy, the drive to greening the sector is actually led by the private sector. On Earth Day 2012, the Grenada Hotel and Tourism Association, an umbrella organisation of tourism entrepreneurs, pledged to engage in activities to transition the sector to be the first zero-carbon hotel sector in the Caribbean through a carbon-free future and energy cost reduction strategy. The initiative is dubbed the '2012 Earth Day Declaration' (SDC 2012).

The key elements of the initiative are as follows:

- energy efficiency and renewable energy;
- energy demand management;
- lobbying for power tariff reforms; and
- support to the establishment of a regional energy regulatory body (see: www.gogrenada.gd).

The Grenadian government has endorsed and pledged its support to the private sector initiative as part of its overall vision for a low-carbon development pathway. Using the Master Plan for Tourism Development,[10] the government has developed the Strategic Plan for Tourism Development ('the Strategic Plan'), which calls for significant expansion of the sector by way of increased room stock, tourist arrivals, length of stay and receipts, and direct employment. The action plan provides for greater product and infrastructure development and enhancement, product diversification, marketing, investment, finance, incentives, capacity building and quality, as well as for institutional reforms (GBT 2012). With direct reference to the green economy, the national effort focuses on an integrated approach to ecotourism, community-based health, heritage, geo- and agri-tourism (GoG 2012b and GBT 2012).

There is no specific reference to the green economy in the Strategic Plan for Tourism Development, but some elements of the plan are consistent with the concept while others have the potential to block green economy implementation.

Several interviewees, while appreciative of the national effort in greening tourism, were apprehensive as to whether the announced zero-carbon target for the hotel sector could be achieved.

Institutional factors

The Strategic Plan calls for legislative changes to the structure of the Grenada Board of Tourism, by creating a fully autonomous authority to manage tourism development in the country. The issues of marketing and product development were seen by the interviewees to be the key occupations of this new entity.

The issue of product diversification was captured, including the need to expand the ecotourism product. There seems to be a disconnect in terms of the focus on the green economy in the tourism sector among the Grenada Board of Tourism, the Government of Grenada and the tourism entrepreneurs.[11]

The pursuit of alternative forms of tourism towards a green economy, as called for by the government, should be included in the mandate of the proposed new entity to manage the tourism product. Even so, clarity is required on the manner in which ecotourism is to be developed. Ecotourism must be developed as an environmentally and ecologically sustainable activity, to stimulate economic and social development in line with the agreed green economy foundations. Appropriate regulation and management for tourism expansion and development were deemed necessary for green economy implementation.

Benefits, challenges and constraints

A major benefit of the green economy focus is the imperative for the government, its agencies and the private sector to work together to develop the tourism sector. Given the importance of the sector to the economy and livelihoods, strategic alliances must be developed. The major challenge to the green economy in the tourism sector is to ensure that there is consistency in the activities undertaken by the major stakeholders, and that short-term economic perspectives do not overshadow sustainable consumption and production decisions. The sector is beset by low occupancy levels, combined with high-energy and financing costs. The green economy therefore presents an opportunity to address these challenges, but at the same time these challenges affect the implementation of the green economy as the sector has limited flexibility to invest in greening activities. The financing of the sector, the investments to be undertaken and the fiscal incentives granted must be linked to green economy concerns. Given the segmented nature of the sector, there is a sense that the level of co-operation required to achieve the green economy target in tourism would not be present in the Grenada case.

Indicators of greenness

The suggested indicators of greenness in the tourism sector include the following:

- number of renewable energy and energy efficiency initiatives;
- number of hotel properties endorsing the zero-carbon initiative;
- savings on energy bills attributed to reduced demand for fossil fuel energy; and
- progress towards the zero-carbon target.

3.5.3 Water

Status and trends

Grenada's national water resource supply has been pressured by growth in the tourism sector and economic development in the country as a whole. Given the changing nature of the economy, from a dominance of rain-fed agriculture to services, the urbanisation of the economy, with growing population and increasing average water use per person and housing development, the demand for water has escalated (GoG 2011c).

Natural water sources are surface water from rivers and springs, groundwater resources, natural lakes and rainwater harvesting. Several attempts at establishing desalination plants have been unsuccessful.[12]

While development exerts pressure on the water supply, water is key for further development. During the interviews, it was pointed out that water availability is negatively impacted by climate change and associated extreme weather events.

In 2009–2010, Grenada experienced it severest drought in recorded history. This was followed by above-average rainfall in the dry season in 2011 and 2012 (GoG 2012c). Given the projected demands for water, based on housing development, tourism development and the changing agricultural landscape with the unpredictability of future water supply, the green economy framework calls for concerted national efforts at water management.[13]

Policy and legislation

The key policy and legislation response to the green economy concept in the water sector is the focus on integrated water resources management and efficient water use.

The dominant view of national water experts is that water must be seen as a resource in the holistic sense, not just as a product for final consumption. A lifecycle approach must be the cornerstone of the national water policy to be consistent with the green economy conceptualisation. Prior to the popularisation of the concept of the green economy, a national water policy was approved by the cabinet (GoG 2011c). The policy calls for promoting efficient and sustainable use of water, promoting substitution of potable water, rainwater harvesting and water demand management. The major element of the national water policy is the implementation of water resources reform and modernisation of water resource management.

Institutional factors

The relevant institutional issues in the water policy call for the separation of functions in water management based on water cycle considerations, from water production and catchment to final sales. The policy also calls for an independent water regulatory authority. In the current environment, the water utility, a quasi-government organisation, the National Water and Sewerage Authority (NAWASA) is responsible for water management in the country. The new strategic plan for NAWASA elaborated in line with the new water policy sees NAWASA concentrated in distribution and sales of potable water, with separate agencies set up for water resource supply and regulatory issues.

There is a public perception that water is a 'free good', meaning that it should be freely available in unlimited supply at very low cost to everyone for their use. A low value is placed on water conservation generally. According to the experts, a public education and awareness programme on the value of water is necessary, and the public at large must return to traditional practices of water conservation. Special mention was made of rainwater harvesting in Carriacou as a best practice case. Training in water use management can be invaluable for water demand management.

Benefits, challenges and constraints

Since water is the main ingredient for development and critical for the viability of the tourism, agriculture, health and education sectors, earmarked sectors to transform the Grenadian economy, then water management must be a national priority. Green economy implementation provides an opportunity to refocus development priorities on water. During the interview process, a water expert remarked, 'in future we cannot live without the green economy, hence we must think green in everything we do – starting from water management'.

A major challenge is to overcome the perception that water is free and freely available, and to instil water conservation consciousness in the population. It is recognised that the national water infrastructure is archaic and needs upgrading. The infusion of appropriate technologies including information and communications technologies into the water sector is highly recommended. The availability of financing for water infrastructure development is a major challenge, as the necessary financing is not readily available. To that extent, green economy implementation can be a useful opportunity to leverage funds for greening the water sector.

Indicators of greenness

The suggested indicators of greenness in the water sector include the following:

- number of renewable energy applications in the water supply cycle;
- percentage improvements in irrigation efficiency;
- percentage increase of rainwater harvesting for potable water use to substitute for treated water;
- percentage of homes with rainwater harvesting capability; and
- percentage increase in water distribution efficiency.

3.5.4 Transportation

Status and trends

The transportation sector, which is highly dependent on imported gas and diesel fuel, is the single largest consumer of energy and hence the largest emitter of greenhouse gases in the country. In 2012, approximately 50 per cent of the total energy consumed in Grenada was by the transportation sector. The power sector accounted for 40 per cent of the energy consumed (GoG 2011b).

There are approximately 30,000 vehicles in the country, the most dominant of which are gasoline-powered vehicles. There are no ethanol blends or hybrids, natural gas or electric powered vehicles (ibid). Inter-island travel is also in the mix, as there are ferry services between the islands.

Despite the recession, the number of registered vehicles increased by an average of 5 per cent between 2006 and 2011 as a consequence of the importation of cheaper used vehicles (GoG 2012a). Used-vehicle importation, coupled with an ageing vehicle stock, contributes to greater fuel consumption and greenhouse gas emissions. This trend is expected to continue in the future (ibid). There is no publicly owned transportation system in Grenada.

Policy and legislation

It is significant to note that reform of the transport sector was not an area of focus in Grenada's preparatory process to Rio+20, given its contribution to greenhouse gas emissions. Nevertheless, there is a stated policy of 20 per cent of energy used in the sector to originate from renewable energy sources by 2020. There is no regulation on fuel efficiency or vehicle emissions control. It was also revealed during the interviews that national transportation activities are co-ordinated by the Ministry of Communication, Works, Physical Development, Public Utilities & ICT; while energy issues are co-ordinated by the Ministry of Finance, Planning, Economy, Energy & Cooperatives, and that there is little co-ordination between the two ministries on this key issue.

The importation of used vehicles beyond five years and with higher power ratings attracts higher import taxes. The government is currently considering proposals on the potential for electric vehicles and renewable energy-operated ferries that could impact a green economy transition.

Institutional factors

The most important factor to note is the implementation of the public education and awareness programme by the Ministry of Energy. The transportation module of the programme includes fuel-efficient driving tips and procurement guidelines.

The government had indicated that a public transportation board will be established to regulate the sector, but the mandate does not include energy efficiency or energy conservation. The transportation board provides an opportunity to improve interagency collaboration and co-operation, in particular the nexus between transportation and energy.

Benefits, challenges and constraints

Reversing the reliance on fossil fuels for transport has the potential to benefit the green economy through fiscal savings, but therein lays the greatest challenges because of the entrenched nature of fossil fuel and inertia to change in the sector. This thrust would require the active participation of the private sector, in particular the vehicle dealers. The availability of finance and technology to drive the transition remain the key issues.

Indicators of greenness

The suggested indicators of greenness in the transport sector include the following:

- emissions per unit travel;
- number of hybrid/electric vehicles sold per year;
- number of alternative fuel vehicles sold per year;
- number of cars per capita/number of buses per capita; and
- average age of vehicle stock.

3.6 Conclusion

The conceptualisation of the green economy in Grenada has been shaped by national socioeconomic conditions, national resource endowments, regional integration activities and the international negotiation positions of SIDS in the negotiations leading up to Rio+20. National-level consultations, taking key messages from the above considerations and involving all major national stakeholders, determined that the concept of the green economy should relate directly to an improvement in livelihoods for the Grenadian population, particularly rural communities, youth and women. The interviewees viewed 'green economy' as just a colourful term if it does not improve livelihoods and respond in a holistic and balanced manner to the three pillars of sustainable development.

Green economy implementation was viewed through sectoral analysis, with energy, tourism, water and transportation as the building blocks. The energy sector was deemed key to implementing the green economy, given its linkages to the other building blocks and to the other sectors identified to lead Grenada's economic and social transformation. Limited fiscal flexibility, due to poor macroeconomic performance and the negative impact of global crises, revealed that for Grenada the prospects for successful implementation of green economy policies should focus primarily on the energy sector as the identified key sector. This can then be used to mainstream the green economy, to leverage funds and technology, to involve all key stakeholders, to build capacity and resilience and to engender political will and leadership. Through the energy sector, the government can establish the legislative, administrative and institutional framework, a public awareness and education programme, monitoring, evaluating and reporting mechanisms, and the means and resources for green economy implementation and to address the blockages encountered.

The major blockages to green economy conceptualisation and implementation in Grenada stemmed from macroeconomic concerns, including dependence on high-cost energy inputs. The entrenched nature of fossil fuel use in the economy, coupled with limited access to finance for investments and technologies, meant that there was inertia to change. There was evidence of inconsistencies in the interpretation of the national green economy vision, low levels of co-operation and collaboration, and even 'turfism' among major national stakeholders at the sectoral level. Dependence on external donor resources to drive implementation was also noted as a major hurdle.

Thus the key lessons gleaned from the Grenada case study are that the green economy should be rooted in a national vision, socioeconomic priorities and national resource base, and should be catalysed by leadership at the highest levels of government. Involvement of all national stakeholders from the conceptualisation stage provided national ownership, direct linkages to development and a focus on livelihoods and poverty eradication through targeted and practical sector-based, on-the-ground interventions. The study highlighted that – given the limits to national capacity – the green economy-enabling institutional framework should be concentrated in a single sector linked to other building blocks and sectors, and mainstreamed throughout the economy. It was also deemed necessary to determine sectoral indicators of greenness for monitoring, evaluating and reporting purposes, to create a feedback loop for policy adjustments.

The Grenadian case study also calls for greening decision-making itself, and hence reiterated the call for behavioural and attitudinal changes to think green in everything we do. Making a bold declaration at Rio+20, the Grenadian prime minister highlighted, as an example of the national effort, the construction of the first green parliament building in the Americas. This paper concludes with the final words of the prime minister at the Rio+20 conference: 'For the future we want, for the future we need, visionary and action-oriented leadership is a fundamental requirement. We motivate our people to pursue the path to sustainable development, and we commit to achieving the goals of Rio+20, acting at the national level and in collaboration with our global partners' (GoG 2012e).

The concept of the green economy must be a part of the future we need. As stated by Achim Steiner, Executive Director of UNEP, at the close of the Rio+20 Summit: 'Green economy offers a key pathway towards a sustainable twenty-first century'.

Notes

1 The regional dialogue project was entitled 'Caribbean Regional Dialogue as Part of the Green Economy Coalition of National Dialogues'. The aim of the dialogue was to facilitate the emergence of the Caribbean's unique development pathway, and to inform international understanding and action on the green economy.

2 The Caribbean Community (CARICOM) established by treaty in 1973 is an organisation of 15 Caribbean states with the objectives to improve standards of living and work; the full employment of labour and other factors of production; accelerated, co-ordinated and sustained economic development and convergence; expansion of trade and economic relations with third states; enhanced levels of international competitiveness; organisation for increased production and productivity; achievement of greater level of economic leverage; effectiveness of member states in dealing with third states, groups of states and entities of any description; and the enhanced co-ordination of member states' foreign and foreign economic policies and enhanced functional co-operation. See: www.caricom.org.

3 Synopsis of the interview conducted with Grenada's participants at the CARICOM meeting and a presentation made by the co-ordinator at the meeting of the Grenada Sustainable Development Council.
4 The Non State Actors (Advisory) Panel was established in 2009 by a Memorandum of Understanding between the Government of Grenada and the European Union. The panel seeks to promote dialogue and collaboration between the state and non-state actors on matters of national development. The members of the panel represent a wide range of sectors and interests.
5 Grenada has largely recovered from the ravages of the hurricanes. More than 90 per cent of the built infrastructure has been fixed. The major areas of concern following hurricane damage are the tropical forest, wildlife and the coastal mangroves.
6 The Inter Agency Group of Development Organisations, an umbrella group consisting of eight NGOs, functions as a collective voice for NGOs on national matters.
7 The Grenada Sustainable Development Council (SDC) was established in 1996 pursuant to Agenda 21. The council comprises representatives of the public sector, NGOs, private sector organisations, the trade union movement, academia, development organisations and other interest groups. The council meets on a monthly basis to consider matters of national significance and to advise policy-makers accordingly.
8 During the interviews it was pointed out that green economy implementation would require a robust set of indicators for monitoring, evaluating and reporting on the progress made at the sectoral level, which would be required for feedback and policy and implementation adjustments.
9 The UN Secretary-General has set a global target of doubling the rate of improvement in energy efficiency by 2030.
10 The Master Plan for Tourism Development was elaborated in 1996 and constitutes the most important and comprehensive document on the tourism sector.
11 It was revealed, for example, that the marketing strategy of the Grenada Board of Tourism focuses on tourism expansion, but not necessarily green expansion, while the entrepreneurs faced with high-energy costs have a lofty green target. The fiscal incentives structure for product and tourism infrastructure development does not have consideration for greening the sector, but the government endorses the zero-carbon initiative.
12 The respondents indicated that the failure of the desalination plants was due to a range of factors, including management failure, mechanical failure, improper planning, absence of local buy-in, hurricane damage, political considerations, and the absence of viability analyses and social and environmental impact assessments.
13 During the rainy season, the average water production was estimated at 31,800 m^3/day. During the dry season the average water production drops to 20,700 m^3/day. The annual demand is estimated at 31,877 m^3/day (the National Water and Sewerage Authority [NAWASA] 2006; data taken from study done by Plan Group on Financial and Economic Study of Water and Waste Water Sector in Grenada). Another study indicated that water production in the rainy season was 54,600 m^3/day and 31,800 m^3/day in the dry season, while water demand in the rainy season is 45,500 m^3/day and 54,600 m^3 in the dry season (ECLAC 2011).

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