Chapter 1

The Political Economy of Transitioning to a Green Economy in Small States

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1.1 Introduction

The United Nations (UN) recognises 38 small island developing states (SIDS) and a further 14 SIDS that are not UN members. The Commonwealth defines small states as those with a population of 1.5 million or less, but considers some larger countries (e.g. Botswana, Jamaica, Lesotho, Namibia and Papua New Guinea) as small states because they share many of their characteristics.

Small states have distinct perspectives on sustainable development shaped by their experiences and geographical contexts. The Barbados Programme of Action for the Sustainable Development of Small Island Developing States (BPoA) indicates that small population size, low capacity, remoteness, vulnerability,[1] a small, narrowly based economy,[2] high dependence on imported sources of energy and exposure to an array of natural hazards adversely affect development in small states.[3] Most small states are particularly vulnerable to climate change and lack the resources required to adapt to its effects. For most small states, climate change will increase damage from severe weather such as cyclones, increase the effects of drought and cause a rise in sea level, thus eroding coastal resources and infrastructure.

The majority of small states have small, open economies, based on a few sectors. They are vulnerable to changes in world demand and pricing and have little influence on world markets. Additionally, for many states, distance from markets increases the cost of imported and exported goods. In many cases, the important economic sectors (e.g. mining or tourism) could severely damage the natural environment if not properly managed.

1.1.1 Green growth and the green economy

The concepts of green growth and the green economy have received considerable recent attention and traction at the national and international levels, in both developed and developing countries. The green economy was also given significant impetus through its identification as one of two key themes for the Rio+20 UN Conference on Sustainable Development held in June 2012 (Rio+20).

The current international discourse on green growth and the green economy has paid insufficient attention to the challenges of small states. Yet, several small states have begun conceptualising their pathways to a green economy, with different models and approaches emerging. There is an opportunity to analyse through a series of case

studies the different pathways proposed and taken to transform to a green economy in small states, the levers of influence, the road blocks encountered, policy interventions undertaken and blockages that still need to be cleared.

The purpose of this book is to provide a picture of the practical policy processes implemented in eight small states (Botswana, Grenada, Guyana, Jamaica, Mauritius, Nauru, Samoa and Seychelles) and to examine some of the benefits and challenges that have been encountered in each case. It will also provide practical examples for policy-makers in small states as models and pathways that can be explored in the development of green economies and in enabling green growth.

1.2 Background

This review covers eight countries with a combined population of 6.9 million. Selected statistical information on the eight countries in the study is summarised in Table 1.1. Although the countries in the study are all classified by the UN Development Programme (UNDP) as having medium or high human development, no small state, including the countries in the study, has achieved a Human Development Index (HDI) of 0.800. This is important because Moran et al. (2008, 470–474) argue that countries with an HDI of less than 0.800 are not sustainable. High levels of poverty (30 per cent or more) and social inequality remain in many small states. With the exception of Botswana, the debt to gross domestic product (GDP) ratios of the countries studied are very high. Indeed, several small states have ratios in excess of 100 per cent, and according to the UN Economic Commission on Latin America and the Caribbean (UN ECLAC) ratios over 40 per cent impact negatively on growth (ECLAC 2008).

The World Bank classifies the countries studied (except Nauru) as middle income, based on gross national income (GNI) per capita. Apart from masking the sometimes-profound disparities between the wealth of individuals in a population, comparing *per capita* measures of GNI (or GDP) ignores the error caused by dividing GNI by very small populations, which has the effect of causing small states to appear wealthier than they actually are. As a result, many small states have graduated to middle-income status by virtue of their *per capita* GNI and are no longer eligible for concessional finance from the World Bank. This creates a barrier to green growth, which is discussed later in this paper. This research suggests that further investment is required for the small states to attain sustainability, despite their artificially high *per capita* GDP.

Seychelles has the highest HDI of the countries studied and the highest GDP per capita in sub-Saharan Africa. Its level of environmental protection does not seem to have come at the cost of economic development. This is important, since many assume that green growth means slower growth. Further, the poverty levels suggest that inequality is low and that growth has been inclusive. The Seychelles' fisheries sector is also an opportunity to realise the so-called 'blue economy' that is of interest to SIDS. The Government of Seychelles has provided effective leadership and shown strong commitment to sustainable development. Additionally, the government and people of Seychelles recognise that the natural environment is Seychelles' only asset.[4]

Table 1.1 Selected statistics

	Botswana	Grenada	Guyana	Jamaica	Mauritius	Nauru	Samoa	Seychelles
HDI[a]	0.633	0.748	0.633	0.727	0.728	NA	0.688	0.773
Inequality adjusted HDI[b]	NA	NA	0.492	0.61	0.631	NA	NA	NA
Debt:GDP ratio (%)[c]	16	87	60	141	50	NA	NA	82
Debt service, % of exports[d]	1.5	14.3	2.6	27.9	2.4	NA	5.2	5.7
World Bank category[e]	Upper middle	Upper middle	Lower middle	Upper middle	Upper middle	NA	Lower middle	Upper middle
World Bank loan category[f]	IBRD	Blend	IDA	IBRD	IBRD	NA	IDA	IBRD
Per capita CO_2 emissions[g] 2008[h]	2.48	2.37	2.03	4.54	3.12	NA	0.89	7.84
CO_2 emissions/2005 PPP[i]	0.25	0.22	0.7	0.62	0.27	NA	0.22	0.39
Energy use per $1000 GDP[j]	85.82	75.4	234.79	236.39	85.91	NA	77.34	114.66
Population	2,000,000	105,000	756,000	2,700,000	1,300,000	9,800	187,820	86,000
Government spending % of GDP	46	27	31	33	26	NA	38	34
Global Footprint[k]	Does not include EEZ and is not calculated for most small states							
Environmental performance index	41.3	NA	59.2	58	80.6	NA	NA	NA
3° education enrolments/100,000[l,m]	874	6,556	1,067	2,657	2,019	NA	685	NA
Murders per 100,000[n]	14.5	11.5	18.6	52.2	2.5	9.8	1.1	8.3
Corruption perception index[o]	6.1	NA	2.5	3.3	5.1	NA	3.9	4.8
Mining	Y	N	Y	Y	N	Y	N	N

Notes:

[a] UNDP (2011) Human Development Report.

[b] Ibid.

[c] World Bank database (accessed 25 August 2012).

[d] World Bank database (accessed 25 August 2012). Data for 2010, except for Guyana (2008).

[e] World Bank data, available at: http://data.worldbank.org/about/country-classifications/country-and-lending-groups (accessed 3 September 2012).

[f] Ibid, note that the criterion used here is GNI per capita.

[g] World Bank database (accessed 9 September 2012).

[h] USA is 17.96, Singapore is 6.67, Barbados is 4.97, Trinidad 37.39.

[i] USA is 0.42, Singapore is 0.14, Trinidad is 1.55. PPP is purchasing power parity.

[j] World Bank database (accessed 9 September 2012).

[k] See: www.footprintnetwork.org/en/index.php/GFN/ (accessed 1 September 2012).

[l] World Bank database, available at: http://databank.worldbank.org/Data/Views/VariableSelection/SelectVariables.aspx?source=Education%20Statistics (accessed 1 September 2012).

[m] USA is 6,673, UK is 3,968, Canada 4,051, Japan 3,056.

[n] From UN Office on Drugs and Crime (UNODC), available at: www.unodc.org/unodc/en/data-and-analysis/homicide.html (accessed 3 September 2012). Data refer to 2010 unless otherwise noted here: Botswana is 2009, Seychelles is 2006, Samoa and Nauru refer to 2008.

[o] Transparency International, available at: www.transparency.org/country (accessed August 2012).

1.2.1 The effect of disasters on small economies[5]

Most small states are exposed to a wide variety of natural hazards, including drought, tropical cyclones, volcanoes, earthquakes or tsunami. However, because of their size they often have limited resilience to extreme events. Such events may cause major loss of life and considerable economic impact. There are several examples of economic impacts of more than 100 per cent of GDP resulting from a single tropical cyclone event in SIDS;[6] for example, in 2004 Cyclone Heta caused an impact of 800 per cent of GDP in Niue (Herrmann et al. 2004). This kind of occurrence is devastating and the relative impact (as a fraction of GDP) of these events is particularly large on small countries (Zapata and Madrigal 2009). Damage may be a defining setback even to relatively strong economies such as the Cayman Islands, which, according to UN ECLAC, suffered damage and loss of nearly 200 per cent of GDP (or US$75,000 *per capita*) due to Hurricane Ivan in 2004. In effect, several years of development can be destroyed in a few hours. Smaller but repeated events will over time hamper economic growth. Most small states are also particularly threatened by the effects of climate change, including sea-level rise and the adverse effects of extreme weather events, such as drought and cyclones.

1.3 Conceptualisation of the green economy in the case countries

Traditionally, sustainable development can be thought of as having three main components: natural, social and economic (Table 1.2). Within these components, one can consider the existence of different types of capital; sustainability occurs as long as these capitals are not depleted. At one time, it was felt by development practitioners that the different types of capital could be exchanged, and that an abundance of one type could compensate for the removal of another. However, most practitioners now hold that development that continues to erode any of the different capital stocks, particularly natural capital, is unsustainable; in other words, there are limits to flows between the types and hence limits to growth.

Table 1.2 Components of sustainable development

Natural	Social		Economic	
	Social	**Human**	**Manufactured**	**Financial**
Minerals	Governance	Life expectancy	Factories	Financial
Biodiversity	Health services	Education attained	Hotels	Services
Insolation	Schools	Personal	Roads	Trade
Soils	Crime	security	Ports	Agriculture
Forest				Tourism
Fisheries				Transport
Reefs				
Seismicity				
Weather/climate				
Water				

The main objective of sustainable development is to increase people's well-being,[7] and this involves more than simply increasing the size of the economy in which they live.[8] This is because, as Stiglitz and Sen state, 'As statisticians and economists know very well, GDP mainly measures market production – expressed in money units – and as such it is useful. However, it has often been treated as if it were a measure of economic well-being. Conflating the two can lead to misleading indications about how well-off people are and entail the wrong policy decisions' (Stiglitz et al. 2010). Later in the same paper, they suggest, 'the time is ripe for our measurement system to shift emphasis from measuring economic production to measuring people's well-being'.[9] Since an objective of sustainable development is to increase human well-being, it may be useful to consider a green economy as contributing to sustainable development and the achievement of the four Sustainable Development Goals indicated in the World Happiness report:

- end extreme poverty by 2030;
- environmental sustainability;
- social inclusion; and
- good governance (Helliwell et al., 2012).

Since the publication in 2011 of the UN Environment Programme's (UNEP) paper on the green economy, it has been the subject of numerous meetings, particularly in the lead up to Rio+20. In the Pacific, a study by the UN Economic and Social Commission for Asia and the Pacific (UN ESCAP) defined the green economy as:

> an economy where prosperity can go hand-in-hand with ecological sustainability. A green economy invests in ecological resources and services, and sees that as an opportunity for profit, employment and economic growth rather than a cost and burden to the economy. Green growth is the process of greening [a] conventional economic system and a strategy to arrive at a green economy.[10]

In the Caribbean, a process led by the Caribbean Natural Resources Institute (CANARI), while not defining a green economy, indicated that a green economy should:

> aim for long-term prosperity, rather than solely for growth, through equitable distribution of economic benefits and effective management of ecological resources. It is economically viable and resilient to both external and internal shocks; self-directed and not driven by external agendas or funding opportunities, and self-reliant by being based predominantly on domestic production and investment. A Caribbean green economy is pro-poor and generates decent jobs and working conditions that offer opportunities for self-advancement for local people (CANARI 2011).

The breadth of definitions at the regional level probably reflects that individual countries are still engaged in the process of formulating the concept of the green economy and identifying and discussing its implications. The countries reviewed in this book offered differing concepts of a green economy, and many of them espoused

'green' principles in their national development plans or sustainable development plans. For the purposes of this paper, 'green growth' is used to indicate the process of transforming to a green economy.

1.3.1 Small states perspective on green economy and green growth

The results of consultations that were held in all the countries indicate some common themes and applications, as well as a few unique perspectives. Several stakeholders in different countries indicated their concern that the green economy may become an additional trade barrier that could further marginalise small states and reduce their access to international markets. Another concern raised was whether green economic growth would address poverty reduction and the need for decent jobs.

Guyana's approach to defining the concept of the green economy focuses on improved well-being, reducing its carbon footprint and environmental stewardship, and this concept has been enshrined in the national Low Carbon Development Strategy. The green economy will in part be driven by payments to the government for carbon sequestration taking place within Guyanese forests. Funds from this will be used inter alia to diversify the country's energy mix and increase the penetration of information and communications technology (ICT) into communities.

When the concept is broken down among groups of stakeholders consulted in Guyana, it should be noted that only the private sector was concerned about waste management and a lack of indicators to measure green progress. Unions were concerned about poverty reduction and renewable energy, but no other factors. Constraints to green growth cited included limited human capital, lack of financing and an inadequate governance framework. In Guyana, other constraints identified were a lack of social and physical infrastructure and a lack of public awareness of a green economy.[11]

In Mauritius, most of the stakeholders consulted agreed that achieving sustainable development was a major challenge and welcomed the government's initiatives in terms of green growth. Some, however, were not sure of the implications of green growth and were wary that the green economy could be used to further restrict access to foreign markets, a sentiment shared by some stakeholders in Grenada and Jamaica. Stakeholders consulted in Mauritius cautioned against undue haste in trying to implement green growth, and also felt there was not a very high demand for green products or services.[12]

According to the analysis from the Seychelles case study, Seychelles considers that it is on the path of green growth and this path is documented in its Sustainable Development Strategy (SSDS) for 2012–2020. This document addresses the greening of the economy, and was derived from extensive consultations with government and non-governmental organisations (NGOs); however, according to the Seychelles case study, there was limited participation from the business sector and community-based organisations.[13]

The concept of the green economy in Grenada was shaped by socioeconomic conditions, natural resource endowments, regional integration and SIDS international

negotiation positions leading up to Rio+20. The result of these consultations was that the green economy should improve the livelihoods of the Grenadian population, particularly rural communities, women and young people. The green economy must improve livelihoods and support holistically the pillars of sustainable development.[14]

Overall most of the consultations on the green economy for the countries in which case study analysis was undertaken were organised by governments. For some this was in response to the need to prepare for Rio+20, though for many of the countries green economy concepts were discussed in the context of national development plans or sustainable development plans. Across the countries studied, the participation of civil society, businesses and communities varied widely. In some countries, it was felt that consultations on the green economy with the private sector, community groups and civil society could have been more extensive.

1.4 Green growth and the implementation of the green economy

With the exception of Grenada, all the countries studied have green growth or the green economy addressed in their national development plans or within a sustainable development plan. Grenada seems to have identified the energy sector as critical to green growth, and is working to green that sector as a priority. Several of the constraints and roadblocks to green growth that were identified were also economic growth constraints, such as high levels of national debt, inequality, limited access to markets, low capacity for implementation of policies and strategies, and the need to increase human capital. Several of the countries studied had relatively low World Governance Indicators and education indicators (see Tables 1.3 and 1.5). This could imply that they may experience difficulty in implementing a transformation to the green economy, because levels of social capital are low. Such countries may experience shortages of qualified personnel to fill jobs or low human capacity in key agencies. A green economy is unlikely to materialise unless it results in improved benefits and quality of life for the poor.

Some common constraints to green growth as highlighted in the case studies are:

- lack of strong leadership and governance mechanisms;
- high price of green technology;
- low levels of education and training, leading to a lack of technical capacity;
- little political will to change the status quo and move to greening;
- small local market size, and isolation from larger markets which are far away;
- lack of suitable alternatives to current practices;
- depleted or damaged natural resources;
- the effect of natural hazards and climate change;
- poor local capacity to supply green goods and services;

- lack of funding to manage the environment or to support greening;
- unsuitable tax regimes and financial incentives; and
- unwillingness of business leaders, reluctant to change current practices.

In Samoa, green growth is seen to involve investment in natural capital, sustainable consumption and production, sustainable infrastructure, greening business and markets, and green taxes and budget reform. The enabling factors that can support green growth were identified as political will and a supportive legislative and policy framework. Samoa has a development strategy that espouses green principles. Constraints to green growth in Samoa were identified in the case study as the low availability of funding outside of official development assistance (ODA), the Global Environment Facility (GEF) and development loans. Technical capacity in the country is limited and not sufficient to implement the plans that have been made for transformation. There is also an urgent need for training in key areas. The requisite technology is expensive or unavailable in Samoa and, in particular, access to economical green technology is limited.

In Seychelles, the case study notes that the green economy is framed within the Seychelles Sustainable Development Strategy (SSDS 2012–2020). The document indicates investment in mainstreaming climate change adaptation, water and sanitation, fisheries, promoting renewable and alternative energy use and transport. Constraints identified in the Seychelles case study included internal bureaucratic difficulties and lack of appropriate tools and policies for mainstreaming (Government of Seychelles 2011). Also hampering progress were deficiencies in government policy, difficulties in accessing technology at reasonable cost, and insufficient technically qualified personnel to fully implement the strategy, financing and governance.

In the Mauritius study, concerns were raised about the increase in ecological footprint concomitant with an increase in HDI. Constraints to green growth included a lack of green products available locally, the higher cost of green products that are available, and the costs of certification and conforming to standards.

In the Grenada case study, energy was found to be the key focus for transforming to the green economy, because of its potential to support progress in the sectors that could lead the small state's economic and social transformation. By focusing on this important sector, the stakeholders consulted felt that this would help to mainstream the green economy, leverage funds and technology, involve key stakeholders, build capacity and resilience, and engender political will and leadership. By focusing on the energy sector, the government could also begin to establish the frameworks, education and awareness programmes and other mechanisms that underpin green growth. The major constraint identified was dependence on high-cost energy. Changing this is expensive and there are few viable alternatives; additionally, access to investment finance is limited. Other constraints included differing interpretations of the green economy, low levels of co-operation between national stakeholders and dependence on external donor funds for implementation.

In the Nauru study, paying for debt servicing, airline operation and the public service were identified as major costs inhibiting implementation of 'greening' development measures. It should be noted that most countries studied had to spend a large proportion of the government budget on debt service. Indeed this is an issue of concern to many small states.

In Jamaica, the case study analysis found that greening the economy is in the early stages, with ad hoc commitments to greening some tourism services, government procurement, some agricultural practices and developing renewable energy. The Vision 2030 National Development Plan contains commitments to green growth, but it is not the main focus of the plan. Investment in green technologies, such as wind and solar energy equipment and non-petroleum-fuelled transport, has been small.

Since the concept of the green economy is relatively new, it is not yet mainstreamed into the processes and policies of governments for the small states studied. In many cases, it may still be conceived as an environmental issue rather than a development issue or an economic one. This is unfortunate, since it often means that environmental issues are still not widely considered when economics is discussed. So, for example, the Government of Jamaica's vision for the energy sector is an 'efficient, diversified and environmentally sustainable energy sector providing affordable and accessible energy'.[15] Reducing the cost of energy is important since, as the study points out, high-energy costs are discouraging investments and making production uncompetitive. While the government has promoted several energy efficiency projects, it is considering the use of cheaper fuel sources such as coal. The longer-term impacts of this change, which include locking the country into a high-pollution fuel source for many years, would have to be considered against the benefits of 'cleaner' options such as natural gas and increasing the use of renewables. High dependence on imported fuel sources is a common problem shared by small developing countries, which constrains economic growth of any kind.

The study on Jamaica referred to an 'implementation gap', describing the poor ability of government agencies to implement plans and enforce policies and regulations. Although laws are passed, enforcement may be lax. Strong leadership in the public and private sectors would advance the transformation process, but the study recognised that the Jamaican economy is still dependent on natural resource-based export industries and on imported energy, with debt servicing of more than 140 per cent of GDP, and this could constrain implementation. The study also noted that risk aversion of traditional businesses is another obstacle to be overcome. The economy will need more investments, technology transfers, technical know-how and market access from developed countries, while Jamaica may have to locate resources for funding and technical assistance from regional co-operation schemes and the diaspora.

Botswana is in a promising position to move towards a green economy; it has numerous natural resources and is in a good position in terms of its economic and social indicators. The case study sets out how the country has prioritised three sectors – agriculture, water and transport – for development. Botswana also has the opportunity to use mineral revenues strategically to support economic diversification

and transition to a green economy. The country should also seek to diversify its energy sources and increase the amount of renewables used.

The Botswana study indicates that appropriate actions at this time would be to develop and implement the relevant plans and strategies and create a series of incentives to support a transition to a green economy. Along with this, environmentally damaging subsidies could be removed. This could follow a strategic environmental assessment of national policies. Tracking progress towards a green economy would require a series of indicators and could benefit by determining and tracking methods for natural resource accounting. The study indicates that a National Green Economy Covenant, signed by government, the private sector and civil society could be the end result. To bolster limited institutional and human capacity, the country could exploit the use of ICT to increase productivity and international linkages. This would require developing partnerships between government and the private sector.

1.4.1 Governance

Promoting green growth in small states will require governments to take the lead in setting examples and helping to incentivise green behaviour. This will involve making decisions that may not be popular, as their benefit may not be seen in the short term. Where economic circumstances are challenging, politically expedient decisions do not usually support green solutions. Governments will require the trust of citizens, the confidence of the private sector and national buy-in to long-term sustainability goals if green growth is to take place. Additionally, green growth can be greatly facilitated if countries can attract foreign investment to their economies. The perception of levels of corruption, safety and the effectiveness of government, as well as the ease of doing business, may have marked effects on foreign investment from the private sector, as well as ODA. Several of the countries surveyed are not perceived well in terms of these critical indicators (Table 1.3).

Table 1.3 Percentile rankings for governance indicators for the countries in the study (higher numbers indicate a better rank)[16]

Country name	Rule of law	Control of corruption	Political stability and absence of violence and terrorism	Government effectiveness
Barbados	82.94	89.47	87.74	88.99
Mauritius	74.88	73.21	65.57	75.60
Botswana	67.77	79.90	78.30	67.46
Samoa	67.30	61.72	82.55	53.11
Nauru	63.51	58.37	99.06	33.49
Grenada	59.72	69.86	66.51	61.24
Seychelles	55.92	65.07	75.00	62.20
Guyana	39.34	33.97	28.30	50.72
Jamaica	37.44	44.98	32.08	62.68

Source: World governance indicators, available at: http://databank.worldbank.org (accessed 9 September 2012).

1.5 Potential options for policy analysis and action

Within the small states studied, the process of discussing and conceptualising the green economy and green growth was government-led, but included other sectors to varying degrees. This participatory approach was useful since it provided opportunities for key partners to buy in to the process in its early stages, and ensured greater involvement through an extended period. This could translate into support for initiatives that promote sustainable policies and actions. From these case studies, it is clear that there are some challenges and approaches that can provide a suitable framework for transforming to green economies.

1.5.1 Stakeholder involvement in policy development

Since stakeholder involvement in the early stages of policy conceptualisation may influence support for green growth initiatives, it is important to involve the key sectors of the economy from the onset. Similarly, strong efforts should be made to ensure that the private sector is involved as early as possible and opportunities for public–private partnerships (PPPs) should be identified early.

1.5.2 Economic diversification

Mining was prominent in four of the eight economies: Nauru, Jamaica, Botswana and Guyana. Although mining currently takes place in all, it is not at the level of the past and revenues are lower than before. The studies seem to indicate that since mining is not a sustainable source of income, it is beneficial to build strategic parts of the economy with the profits from mining and establish a diverse base that can support the economy when the mineral resources are exhausted or when prices drop. While small states should avoid spending mineral wealth on consumption, they should also ensure that the income from mining is enough to rehabilitate the mined-out lands that remain after mining is completed, as well as to remove chemical waste, old mining works and factories. If not, the government may be left looking for resources to meet the costs of clean-up and rehabilitation or may be left with unusable areas of land.

Given the acknowledged limits in capacity, the countries in the study could benefit from prioritising and focusing on greening their largest investments, energy plants, transport infrastructure and large buildings, since these will persist for long periods of time and create benefits if done well or create an energy, climate or finance deficit if they are done wrong.

1.5.3 Strategic planning

The study on Seychelles indicates that implementation of the SSDS can assist in transitioning to a green or blue economy, and areas of importance for the Government of Seychelles and its stakeholders include several areas that could be relevant to other small states. These are:

- maintaining a strong political commitment to a green economy;
- ensuring broad ownership of national strategies and plans (the transformation to the green economy should not be perceived as the purview of a sectoral ministry

such as the ministry of environment [this factor was also noted in the Mauritius study]);

- formalising the mainstreaming of sustainable development policies and plans into national development strategies;
- allowing independent power producers (IPPs) to produce and sell electricity (mainly from solar photovoltaic) and investing in the infrastructure to allow IPPs to connect to the national grid;
- eliminating use of leaded fuel and introducing a tax on leaded gasoline to discourage its use;
- negotiating regional agreements and providing the private sector with incentives to invest in technology development and transfer;
- facilitating the private sector's engagement in the green economy by PPPs, especially for renewable energy and Clean Development Mechanism (CDM) projects;
- providing financial and other incentives for the private sector to contribute to the transition to a green economy; and
- seeking aid from the World Bank and GEF and exploring innovative financing instruments such as green bonds and debt-for-nature swaps.

The study noted that the Government of Seychelles deliberately aimed its tourism product at the high-end market in order to keep impacts low while generating income. This is a good practice for other small states to consider implementing.

Although Mauritius has a sustainable development plan, the case study argues that the government has not made the progress expected in implementing this and although green taxes have been enacted, the energy sector has become less green rather than more so. The study suggests that the reasons for this are that sustainable development and green growth have traditionally been viewed as environmental issues and not developmental ones; the Ministry of Finance in Mauritius is not deeply committed to the green growth strategy and the government lacks capacity to manage implementation of the plan.

The private sector, on the other hand, has supported the plan because it is good for business. Several private initiatives have been implemented, with or without government support. MEXA, an organisation of export-oriented businesses, runs a competition that rewards companies that account for their carbon emissions and try to reduce them. Textile industries have shifted to solar energy and are saving on fuel costs. Likewise, a private medical clinic in the north of the island has installed photovoltaic panels on its roof and plans to be self-sufficient in its energy requirements soon.

The case study on Jamaica sets out how food production could benefit from the application of green technology to the production of affordable and nutritious food products, and adapting to the negative impacts of climate change. This could be an opportunity for new investment. Also, producing organically grown food for the tourist industry could assist in greening tourism and provide increased income to farmers.

In Jamaica, greening the energy and food production sectors could benefit through a focus on building resilience to shocks from the international energy and food markets, as well as meteorological hazards. The shift in the relative burden of taxation and the relative benefits of subsidies will be crucial to redirecting investment flows.

Greening Jamaica's economy will entail more respect for the natural systems that protect the island, its economy and society, reducing harmful practices, such as disposing toxic and non-biodegradable waste in the atmosphere and water bodies, and reorienting settlement practices to create a more harmonious relationship with the natural environment and the changing climate. By doing this, the vulnerability of the economy to natural hazards and extreme weather events may be reduced.

Development plans and consultations concerning the green economy must be broadly based and include all sectors. Since green growth is about economic activity, the private sector will play the major role in whether there is any success in implementation and should be involved from the beginning. In Mauritius, members of the private sector have shown that 'going green' makes business sense.

Small states can also learn some lessons from the gender aspects of the Guyana study:

- women play a critical role in natural resource protection, a key element of the green economy; so the creation of decent job opportunities for women who interact daily with natural resources should be a priority for green growth;
- women's impacts and challenges due to a green economy are often the indirect effects of the impacts and challenges experienced by men at the household level;
- research on sustainable livelihood activities that will augment women's economic status should be a key element of any national policy on a green economy; and
- education and skills training are cornerstones for women's involvement in the process of transformation.

The key lessons from Grenada for small states considering transformation to a green economy are:

- the green economy should be rooted in national vision, socioeconomic priorities and national resources and lead by the highest levels of government, such as the prime minister;
- involvement of all national stakeholders from the conceptualisation stage can create national ownership, direct linkages to development and a focus on livelihoods and poverty eradication through targeted and practical sector-based on-the-ground interventions;
- if national capacity for implementation is limited, 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; and
- as with Botswana, the need to determine sector-specific indicators of greenness for monitoring, evaluating and reporting purposes to create a feedback loop for policy adjustments was noted.

1.6 Main themes arising from the studies

In this section, the main themes are noted and possible ways to address them are indicated.

1.6.1 The need to finance green growth and changes to the economy

Most of the countries studied cited lack of finance as a major barrier to green growth. This included lack of financing for environmental management activities, as well as a lack of finance for greening other activities or sectors of the economy. While the importance of ODA to the economies of the countries studied varies, most of these countries are highly dependent on aid (Table 1.4) or highly indebted (Table 1.1). ODA is equal to a large proportion of GNI or imports in four of the countries. Debt-to-GDP ratios exceed 50 per cent in all the countries for which data were available, except Botswana.[17] The challenge for small states, especially given their high levels of debt, is to use ODA to address the current problems of the existing economy (such as poverty alleviation), while promoting green growth.

Unfortunately many small states are no longer eligible for International Development Association (IDA) funding because of their high GNI *per capita*. In light of their extreme vulnerability and limited resilience, the Alliance of Small Island States (AOSIS) and other suitable groups could lobby for small states to be allowed to access World Bank financing in the 'blend' category until their HDI reaches 0.800, rather than using *per capita* GNI as a measure of economic well-being.

Since a great deal of infrastructure in small states may be financed by development banks, countries may wish to consider the possibility of re-tooling loans for building public infrastructure such as roads, hospitals or schools to help secure access to finance for climate change adaptation. This could involve separating the added requirements of adaptation to climate change from the remainder of the loan. For example, if a coastal road needs to be raised in order to avoid damage from rising sea levels, the added cost of this undertaking would be identified as a climate change adaptation requirement. Such aspects of development would have longer repayment periods and lower interest rates or would be financed by adaptation funds. The

Table 1.4 Net ODA received

	Percentage of imports of goods and services			Percentage of GNI		
Country	**2008**	**2009**	**2010**	**2008**	**2009**	**2010**
Samoa	10.83	24.28	37.7	7.47	15.27	25.5
Guyana	10.69	12.22	9.09	8.72	8.63	6.74
Seychelles	0.98	1.94	4.48	1.4	2.86	6.25
Grenada	6.5	10.98	7.74	4.23	6.74	4.62
Mauritius	1.58	2.81	1.96	1.13	1.76	1.27
Botswana	11.4	5.16	2.45	5.62	2.43	1.06
Jamaica	0.78	2.06	1.96	0.67	1.26	1.06

Source: http://databank.worldbank.org (accessed 9 September 2012).

lender would be able to count the concession as its contribution to climate change adaptation funds. Samoa was able to access 15 million US dollars of grant funding from the Pilot Program for Climate Resilience (PPCR)[18] to climate-proof the main road from the airport to the capital city, but funds within this facility for small states are limited. In any case, mainstreaming climate change and other green economy issues into structural and other loans and grants could contribute greatly to countries that are short of funds to implement greening.

Small states may wish to re-examine their policies, tax and duty regimes to evaluate their effects on green growth. Several countries are developing ways to incentivise the private sector to become strong partners in a green economy. Mauritius has used taxation to influence the use of plastic bags and encourage the use of cars with lower capacity engines. Carrying out a Strategic Environmental Assessment (SEA) for key sectors of the economy could help to identify barriers to green growth and opportunities for income generation.

Similarly, countries could investigate the possibilities of using debt swaps to finance aspects of greening. Such swaps have been carried out to create funds for environmental management, but similar mechanisms could be used to benefit education or health activities. Jamaica has had a useful experience with debt-for-nature swaps, while the experience of the Green Fund of Trinidad and Tobago, which currently has assets of more than US$300 million,[19] also provides some useful lessons in how countries could finance green activities.

1.6.2 The need for human and social capital to be increased and managed by governments

The Botswana study noted that increased prosperity brought with it an erosion of traditional methods of coping with poverty, as well as increased consumerism. This highlights the need for policies that emphasise improved well-being and not just increased GDP, especially if increasing the size of the economy does not reduce inequality and improve the welfare of the poor. Small states may wish to consider the recommendations of the Stiglitz et al. report (2010), mentioned earlier in this paper, and measure well-being and reduce inequity.

All countries in the study indicated that capacity issues constrained green growth; this could either be the availability of staff to be assigned to greening activities by government or a shortage of technically trained persons to support technology transfer. Whether growth is green or not, economies grow faster with a well-educated workforce, so building human capital by education and training should be a cornerstone of any green growth strategy, particularly since education is the main way that people escape poverty. A point raised by the Guyana study is that requirements and performance in education vary with gender and a well-balanced strategy should recognise this. With this in mind, small states could seek to increase investment in education, particularly tertiary education, and set ambitious targets to increase the number of years of schooling and decrease the student–teacher ratio. For example, Barbados has set a target of having at least one university graduate per family. Additionally, ICT can be used to facilitate online teaching, improve access to

education and reduce costs to the student. Importantly though, a national strategy should also ensure that training is matched to national development plans.

In four of the countries studied, remittances are a significant contributor to the economy (Table 1.5). Studies in Jamaica have shown that the amount of money remitted increases with income level (Simmons et al. 2005) and education, so it is in a country's interest to improve education and training – even if the students migrate. Further, by training, especially in technology-related subjects and ICT, the potential for new green jobs is increased.

1.6.3 The need to diversify the economy and increase its effective size

Many of the case study countries are increasing the level of services in the economy, which is an advantage since it is often easier to green services than to green agriculture, mining or manufacturing. Further, the use of ICT in service industries may also be greater and more beneficial to these activities than in other sectors. Most of the countries studied have domestic economies too small to take advantage of economies of scale and are dependent on external economies for their survival. Traditionally, this took place via exporting agricultural crops, mining or more recently tourism. A feature of most small states is migration; it is suggested that governments in small states increase their understanding of migration factors and remittances and manage migration by training as many of their citizens to the highest level possible and facilitating the movement of their skilled citizens to work in foreign markets.

Most of the countries studied are members of a regional economic grouping. Small states should in their own interest support efforts to increase regional linkages, support the creation of free trade regions among islands and reduce barriers to the movement of highly skilled and well-trained persons.

1.6.4 The need to ensure the maintenance and management of natural capital

To attain sustainability, all small states – regardless of the extent of their natural resources – must make the care and management of their natural resources the foundation of their economies. Those with a coastline should improve efforts to manage their marine and coastal resources. Since the Exclusive Economic Zone (EEZ) of most SIDS exceeds by many times their land area, they should seek to manage these zones sustainably. This is difficult to achieve, because national capacity to manage fisheries over large areas is low. A recent study showed that small states with large EEZs often lack the ability to benefit from value-added processes associated with fishing, and that the increase in fishing fleets threatens the economic development and sustainability of the African, Caribbean and Pacific Group of States (ACP) countries (Gagern and van den Bergh 2012).

Regional organisations and commissions could be supported to address transboundary coastal and marine resource management and build capacity to manage marine and coastal resources. On the terrestrial side, an emphasis could be placed on ensuring the security of watersheds and protected areas. This can be facilitated by promoting

Table 1.5 Level of remittances and investment in education

	Botswana	Grenada	Guyana	Jamaica	Mauritius	Nauru	Samoa	Seychelles	Very high HD
Remittance inflows % of GDP[a]	0.7	8.6	12.5	15.8	2.5	NA	25.1	1.6	**0.3**
1° Pupils per teacher	25.6	17.1	25.2	27.7	21.6	NA	31.7	13.8	**6-24**
Public expenditure on education % GDP	10.3	7.4	8.1	5.1	5.7	NA	7	4	**11.9**
Satisfaction	3.6		6.0	6.2					6.7

Notes: [a] UNDP Human Development Report 2011.

Payment for Ecosystem Services schemes, an approach contained in the Guyanese Low Carbon Development Strategy. Such arrangements would be one way of ensuring that vital ecological services such as watershed management are protected, thus benefitting the poor.

More generally, small states could benefit from improvements in stewardship of the environment for construction projects, such as hotel developments, housing schemes and industrial parks. It will be difficult to achieve green growth without mainstreaming the stewardship of environmental resources.

1.6.5 The role of energy and energy cost in the economy

The economic sector that may be most important to a green economy is energy. Indeed, the Grenada study indicated that due to capacity constraints it may be best for that country to focus all its efforts to green the energy sector, since the knock-on effect would facilitate other sectors and building blocks of the economy. In all the small states studied, there is a high dependence on fuel imports, though the countries vary considerably in the potential for use of domestic sources of energy. It would be quite possible for Guyana to support all its economic growth with renewable sources of energy.

Small states could benefit from monitoring the proportion of foreign exchange earnings used to pay for fuel imports. They could set targets to increase the energy efficiency of the economy and to increase the amount of renewable energy sources in the economy. As decisions are made to diversify the energy mix, efficiency, reduction of emissions and pollution, and increasing the use of renewable energy, as well as cost, could be taken into account.

Allowing for net metering is a strategy that should be considered, as should allowing for IPPs to produce and sell electricity generated from renewable sources and investing in infrastructure to allow IPPs to connect to the national grid. Governments could remove import barriers to renewable energy devices and seek to incentivise the use of energy efficient devices and penalise wastage and inefficiency.

1.6.6 The need for strong leadership from government and the increased role of the private and not-for-profit sectors

In the small states studied the role of civil society and the private sector was important, but they were not always included in the conception of the green economy. This often led to low levels of engagement in implementation. In Mauritius, the private sector was perceived as playing an important role in green growth, while in Seychelles the private sector was not as involved as other sectors in designing the sustainable development strategy, nor was it as involved in implementation. The role of civil society in understanding and implementing the green economy was found to be important in Jamaica and Guyana.

In the countries studied, government spending varies from 26 per cent to 46 per cent of GDP and is thus a significant part of the economy. Therefore, if the government implemented a comprehensive green procurement programme, it could catalyse green purchasing.

Ensuring that climate change and disaster risk reduction are mainstreamed into national planning, creating resilient models for livelihoods and ensuring that key civil and commercial infrastructure is climate-proofed will probably support green growth. Examples of government taking the lead in energy efficiency included an initiative by the Jamaican government to install renewable energy appliances and increase energy efficiency in its hospitals and schools, and the school solar photovoltaic projects in Mauritius.

1.7 Recommendations

The following list of recommendations is collated from the studies carried out by the eight authors, as well as additional analysis. It does not represent a systematic step-by-step approach, but attempts to suggest ways in which some of the points from the studies could be addressed. While there are many commonalities among small states, the usefulness of the recommendations in whole or in part would depend on the national circumstances within a particular country.

- If capacity is a problem, prioritise and focus on a single sector.
- Address the human capacity problem (short to medium term):
- increase tertiary training and education opportunities;
- increase investment in primary and secondary education; and
- decrease student–teacher ratios across the board.
- Share information and raise awareness of the concept (short term):
- continue dialogues on green growth in the post-Rio context to solidify the vision, identify opportunities and constraints and ensure a broad participation of stakeholders, especially the private sector, labour and women's groups.
- Address finance and debt (short to medium term):
- examine existing sources and retool existing loans to take into account climate change adaptation requirements;
- negotiate new loans with climate change adaptation in mind;
- support payment for ecosystem service initiatives as appropriate, focusing on those services which support climate change adaptation – such as watershed protection and reducing coastal zone erosion;
- implement a green procurement policy for government and its agencies and companies;
- advocate for small states to continue to be allowed access to World Bank financing in the blend category until their HDI reaches 0.800, rather than using *per capita* GNI as a measure; and
- ensure that suitable rent is charged for the use of sensitive income-generating ecosystems, such as beaches and the coastal zone.

- Reduce dependence on high-carbon and imported sources of energy (medium to long term):
- increase the use of public transport;
- phase out the use of leaded gasoline;
- ban importation of new vehicles that cannot use unleaded fuel;
- adjust the tax regime so that, over time, leaded fuel becomes more expensive than unleaded;
- adjust taxes to incentivise the development and use of renewable energy applications; and
- as generating plants become old, seek to replace them with plants that use cleaner fuel, are more efficient and have less emissions.
- Implement Strategic Environmental Assessments of government policy (short to medium term).
- Maximise the green economy by an integrated focus on natural resources across land and sea (short to medium term).
- Lobby convention secretariats for simplified convention reporting for small states (medium term).
- Train government staff in the theory and practice of environmental–economic accounting, and assist them in implementing such accounting (medium term).
- Support the enhanced use of ICT for networking, international meetings, education and capacity building (short to medium term).

1.8 Conclusion

In all the small states studied, government-led consultations on the green economy took place mostly in the context of preparing for Rio+20. National plans contained language consistent with green growth, though in the case of Guyana's Low Carbon Development Strategy, green growth and the green economy is the centrepiece; in Seychelles, aspects of the green economy can be found in the constitution. Overall, however, the concept of a green economy has not yet matured, nor has it been mainstreamed into government practice or public thinking. This will require further consultations and public education, which should ensure that the national concerns about poverty alleviation, improved job prospects, better access to markets and enhanced well-being for men and women are addressed. It is unlikely that countries will transform to a green economy and reap the full benefits of green growth if this is not carried out.

All the countries studied indicated that the high cost of imported energy and a high dependence on imported energy were major factors constraining growth of any kind. Therefore, progress in greening the energy sector has the great advantage of benefiting

other sectors throughout the economy. Regardless of the priorities identified or the state of implementation of national policies and plans, the countries studied identified human capacity as a problem. This related to a shortage of technically trained individuals to carry out work such as environmental impact assessments, as well as low capacity in departments in charge of implementing greening. Faced with capacity issues, Grenada prioritised and decided to focus on a single sector that could provide leverage; this is an approach worthy of consideration.

The studies indicated that locating suitable and adequate financing for greening was a major constraint, even in those small states that had allocated government resources to green activities. Other points are contained within the list below:

- Most studies indicated that among stakeholders, explicit identification of ways in which the green economy can alleviate current poverty or inequity is lacking. Also for many persons it is unclear how green growth can improve current issues such as poor access to international markets and small domestic markets. This will limit the extent to which stakeholders will perceive greening the economy as a priority.
- To be successful, 'green growth' and the 'green economy' cannot be perceived as environmental issues, they will need to be perceived as economic issues and owned by the appropriate arms of government (e.g. the finance ministry and the department that deals with financial planning) and the private sector. Limited uptake and support will result if the green economy is seen to be a sectoral issue.
- The high dependence on imported oil and its high cost creates high-energy costs for most SIDS, which reduces the potential for economic growth. Diversifying energy sources and increasing energy efficiency, and increasing local or renewable sources even at a small scale, are important ways of improving economic prospects.
- Improving human capital through education and training is vital to take advantage of opportunities that green growth may offer. Increased education may help to address some of the gender, poverty and equity issues raised in each country. Even some of the countries with higher levels of education suffer from a shortage of technically trained persons who could work effectively in the green economy.
- The role of ICT in facilitating green growth was raised in several countries. ICT can help isolated or small producers reach a larger market, though transportation costs may reduce competitiveness for trade in goods. ICT can play a major role in increasing the availability of education to isolated communities.
- Initial cost seems to be a barrier to adopting technological solutions that can increase 'greenness'. Governments could consider ways to adjust taxes and work with the private sector to create incentives that can improve access to technology.
- It is very important to channel funds derived from the exploitation of non-renewable resources, such as mineral wealth into investments with lasting potential. It is also important for governments to plan what the economy could look like after mineral resources are reduced, and to educate and train their people appropriately.

- The private sector should be facilitated, encouraged and guided to go green; governments can show leadership and commitment by implementing green procurement and energy efficiency programmes. In most small states, this will have considerable impact since government is a significant purchaser of goods and services.

While most of the concerns and issues raised in these studies may have addressed national concerns, there are some points indicated in the studies and arising from an analysis of the cases that engage the international community and may be suitable areas for action. Indeed, international lobbying and support for the concerns of small states is vital if their issues are to be addressed. With respect to the green economy, areas in which the international community could lend their support are indicated below:

- **Support the innovative use of debt.** This could include debt reduction, debt swap programmes or reassigning debt repayments to the Climate Investment Funds, other climate adaptation funds, environmental trust funds, the Resilience Building Facility proposed in Mauritius in 2005, or to other programmes that can increase human capital, build resilient infrastructure and livelihoods, decrease vulnerabilities and increase the sustainability of small states.
- **Support regional organisations and commissions to address transboundary coastal and marine resource management.** It is particularly important to assist in the management of large marine ecosystems, to recognise that small states may need help to manage their EEZs sustainably and to promote equitable use of fisheries and other marine resources. This could be achieved through the support of existing conventions such as the UN Convention on the Law of the Sea (UNCLOS) or the Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean. Support to regional bodies such as the Secretariat of the Pacific Community (SPC),[20] the Western and Central Pacific Fisheries Commission (WCPFC),[21] the Indian Ocean Commission (IOC), the Indian Ocean Tuna Commission (IOTC),[22] the Guinea Current Commission (GCC) and the Caribbean Sea Commission (CSC) could benefit small states.
- **Support access to concessional financing for middle-income small states.** The reason for this would be to allow small states continued access to funds that will allow them to green the economy and address poverty and inequality. Additionally, support for financing to diversify energy sources or increase energy efficiency would aid the transformation. Because of their indebtedness, and vulnerability to climate change, weather and economic shocks, as well as other reasons noted above, it is suggested that small states should be allowed to access IDA and International Bank for Reconstruction and Development (IBRD) financing from the World Bank until their HDI reaches 0.800.
- **Increase the resources available to climate change adaptation funds.** Climate change adaptation has attracted less attention and funding than mitigation for a variety of reasons (Sachs and Someshwar 2012). However, for many small states

> and for least-developed countries (LDCs) with low-lying coastal areas, adaptation to climate change will have to be a major developmental focus. Support under this item could involve increasing the amount of funding in the PPCR for the Pacific and Caribbean, and adding funding to support AIMS (Africa, Indian Ocean, Mediterranean and South China Sea) SIDS and other small states. Increasing the level of funding in the other Climate Investment Funds, as well as increasing the amounts available to each country, is an excellent way of helping small states carry out green activities (ibid).

The transformation of the economies of small states into green economies will likely be a complex process. Several economic and social problems mitigate economic growth and also green growth. The case studies in this book indicate, however, that despite a series of constraining factors, individual small states have made progress in transforming to a green economy and there are lessons and experiences of value. Progress remains to be made in ensuring that a broad cross-section of stakeholders understand and adopt a concept of the green economy that is relevant to their country.

There is room for governments to set the example by committing to green growth and setting examples by government practice in areas such as green procurement. Since governments cannot achieve green growth on their own, strategic partnerships with the private sector and civil society will prove useful in supporting implementation of the green economy.

A useful starting point may be for small states to exchange information on projects and programmes that have met with success. Given the leverage that can be obtained from working on the sector, good returns on investment and effort could be obtained by focusing on greening the energy sector by diversifying the fuel mix, increasing efficiency and increasing the amount of local and renewable energy used.

Notes

1 An expert group convened by the UN Department of Economic and Social Affairs (UN DESA) in 1997 concluded that SIDS were more vulnerable than other groups of developing countries (A/53/65-E/1998/5). Available at: www.un.org/documents/ecosoc/docs/1998/e1998-5.htm (accessed 18 February 2014).
2 For an in-depth examination of the reasons for SIDS' economic vulnerability see M Witter et al. (2002).
3 Taken from University of the West Indies (UWI) briefing note to the Prime Minister of Barbados, member of the UN High Level Panel on Sustainability.
4 See Chapter 9, Seychelles.
5 Taken from UWI briefing note to the Prime Minister of Barbados, member of the UN High Level Panel on Sustainability.
6 ECLAC figures for Hurricane Ivan on The Cayman Islands (200 per cent) and Organization of Eastern Caribbean States (OECS) figures for impact on Grenada (180 per cent).
7 Global Science Panel on Population and Environment 2002.
8 A Sen. See: http://hdr.undp.org/en/humandev (accessed 18 February 2014).
9 Ibid.
10 Green growth approach: experiences in mainstreaming disaster risk reduction and climate change adaptation. Note by the UN ESCAP Secretariat.
11 See Chapter 4, Guyana.
12 See Chapter 6, Mauritius.

13 See Chapter 9, Seychelles.
14 See Chapter 3, Grenada.
15 Government of Jamaica (2009), Vision 2030 Jamaica National Development Plan, p.175.
16 World Bank database (accessed 25 August 2012).
17 See: www.climateinvestmentfunds.org/cifnet/investment-plan/samoas-ppcr-strategic-program (accessed 9 December 2012).
18 See: www.mphe.gov.tt/agenciesdivisions/gf.html (accessed 18 February 2014).
19 See: www.spc.int
20 See: www.wcpfc.int
21 See: www.iotc.org/English/index.php
22 Barbados is included for comparison.

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