

Chapter 9

The Political Economy of Transitioning to a Green Economy in Seychelles

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9.1 Introduction

The concept of the ‘green economy’ is still under debate. Many countries are apprehensive of the process of transitioning to a green economy. They fear that greening key economic sectors could reduce economic growth, while committing them to costly investments and diverting attention away from pressing economic priorities. For these and other reasons, the shift to a green economy and adoption of green growth principles, while a reality in a growing number of countries, has generally been slow.

Seychelles, however, is different. Seychelles is notable not just for its remarkable efforts to promote sustainable development over several decades but, more importantly, for being a living likeness of a ‘green economy’. Unlike many countries, the green economy is not an option for Seychelles: it is a critical necessity imposed by the country’s geography. The people of Seychelles are, by and large, aware of this reality, and their concern for the environment is entrenched in their day-to-day behaviour. Policy-makers, for their part, have provided leadership in preserving the country’s unique biodiversity. This unique connivance between the government and the people has helped ensure that development is sustainable in the broad sense of the term.

Yet the transformation to a green economy is an ongoing process, and it is not an easy one by any means. As we discuss later, Seychelles faces a number of hurdles along the way. Experience indicates that where there is strong political will, the process of greening the economy could be started as a matter of self-interest, and with locally available technologies and limited external funding. This is where Seychelles stands today. However, pushing the agenda forward inevitably requires substantial green investment in key sectors and the capacity to address the country’s dependency on fossil fuels. This will not be possible without support from the international community.

9.2 The green economy in Seychelles

This chapter sets out to document Seychelles’ transition towards a green economy; to take stock of the impediments to the process and to discuss ways in which they were addressed; and to offer some thoughts on the way forward. Specifically, the chapter will:

- explain the rationale for a green economy in Seychelles;
- discuss the current and emerging challenges to sustainable development in the country;

- explain the conceptualisation of the green economy;
- discuss the implementation of the green economy, highlighting critical success factors and pointing out potential roadblocks; and
- offer some recommendations for moving the process to the next level.

In this chapter, we define the green economy as ‘one that results in improved human well-being and social equity while significantly reducing environmental risks and ecological scarcities. In its simplest expression, a green economy can be thought of as one which is low-carbon, resource efficient and socially inclusive’ (UNEP 2011). This definition is both clear and comprehensive: it brings forth the three pillars of the green economy, namely economic prosperity, social inclusiveness and environmental sustainability, and suggests that there need be no conflict among these goals. Furthermore, in the report, we use the terms ‘green economy’ and ‘sustainable development’ synonymously. Seychelles has designed a Sustainable Development Strategy (SSDS) 2012–2020 (Government of Seychelles 2011a), which we shall take as a document charting out a plan for Seychelles to shift to a green economy, or a ‘blue economy’ – a concept that is particularly relevant to Seychelles.

The chapter does not aim to provide a comprehensive sectoral analysis of Seychelles’ past environmental management plans or of its current sustainable development strategy. To do so would be an attempt to substitute for the original plans. Instead, the approach taken in this chapter is thematic, cutting across sectors, rather than focusing on any particular sector. However, given the importance of tourism and fisheries to the Seychelles economy, reference will be made to these sectors for illustrative purposes as and when needed. There is also some emphasis placed on the energy sector, given this sector’s greening potential in Seychelles.

The chapter is organised in five sections. The first section provides the background to the study, setting out the rationale for a green economy in Seychelles. *The following section* explains the conceptualisation of the green economy, laying emphasis on the process of formulating two generations of Environmental Management Plans (EMPS) and the current SSDS. It discusses the genesis of the SSDS from the EMPS 2000–2010 and provides key highlights of the strategy. *The third section* turns to the implementation of the strategy. Since implementation strictly speaking has not started yet, our analysis will necessarily be prospective. We shall discuss critical success factors and constraints with reference to the implementation of the past two EMPS. The concluding section will offer some recommendations on the way forward based on the analysis of the previous section.

9.3 The green economy context

9.3.1 Economic vulnerability

Seychelles’ recent economic performance has been punctuated by the effects of adverse external shocks. Economic growth exceeded 7.5 per cent for 3 years in a row (2005–2007) before the financial crisis forced the economy into a recession in 2008 and 2009. The rebound of real GDP growth to 6.7 per cent in 2010 remained

short-lived as the euro crisis started taking its toll around the end of 2011, with pronounced effects in 2012. Consequently, growth dipped to 5 per cent in 2011, and forecasts suggest that growth will remain 'anaemic' (AfDB et al. 2012).

The erratic pattern of economic growth in recent years highlights the vulnerability of the Seychelles economy to external shocks. This vulnerability derives from the country's high export concentration, both in products and markets. Tourism and fisheries constitute the quasi-totality of Seychelles' exports that are destined for the European market. Attempts at economic diversification have generally proved unsuccessful. It appears that Seychelles is condemned to the classic curse of small island economies: geographical isolation, smallness and lack of natural resources conspire to keep economic progress fragile and vulnerable to external conditions.

In spite of this vulnerability, the country has achieved significant economic prosperity and gains in human development over the years. It ranks consistently among the top in Africa on the Human Development Index. Seychelles has met all of its MDGs. And while most of Africa is grappling with youth unemployment, and attendant socioeconomic problems, unemployment in Seychelles is much lower, resulting more from a mismatch in the demand for and supply of skills than the capacity of the economy to create and sustain jobs.

9.3.2 Sustainable development challenges

Seychelles faces a number of current and emerging challenges to sustainable development. First, food security is becoming a critical issue as rising population and incomes, and larger numbers of tourists, are exacerbating supply-side pressures such as land-use changes and more frequent water shortages, especially during dry seasons, in a country with very limited arable land. Second, due to its economic dependence on tourism and fishing, Seychelles faces a growing challenge to preserve its unique and rich biodiversity.

Both the tourism and fishing industries are potentially harmful to the natural environment. Tourism development, although carefully controlled, has led to the construction of hotels in otherwise 'protected areas'. The increased demand for food from tourists is inducing the clearing away of forests and green spaces for agricultural land, while exerting greater pressure on fishing. The tourism sector, for its part, consumes large amounts of water and energy. While some large hotels have installed their own desalination plants, many still consume water from the country's distribution networks, reducing water availability for other purposes, including agriculture. Desalination, on the other hand, often results in chemical waste being dumped back into the sea, which can harm marine life and pollute the beach.

The tourism sector accounts for 25 per cent of GDP and 37 per cent of employment, and the government has designed various plans to further exploit the potential of this sector. Seychelles' Ecotourism Strategy for the Twenty-First Century, developed in 2003, charts out a long-term plan to develop a 'niche' market for tourism in Seychelles, emphasising 'ecotourism activities related to the natural environment', marine activities and cultural tourism. The more recent Tourism Master Plan

2012–2020 (Government of Seychelles 2011b) provides the implementation plan largely missing in the ecotourism strategy. Yet, these initiatives to promote tourism raise fundamental questions about the islands' carrying capacity and their ability to fend off pressures on the country's increasingly fragile ecosystems.

The fishing industry, which according to some stakeholders surpasses tourism in terms of earnings,¹ is also under pressure of commercial exploitation. The Seychelles Sustainable Development Strategy (SSDS) notes: 'Coastal fisheries will continue to be threatened from overfishing and other impacts on fish habitats' (Government of Seychelles 2011a, 11). The risk of overfishing is real due to the need to meet the ever-increasing demand for fish domestically and commercial fishing by franchised foreign vessels, which cannot be effectively monitored for catch sizes. Various human-induced events pose significant threats to the marine environment and fish habitats. Repeated coral bleaching since the worst occurrence in 1998, when Seychelles witnessed the strongest El Nino ever recorded, continues to affect inshore subsistence fishing. Moreover, climate change-induced increases in ocean temperature will likely cause fish stocks to migrate, thereby jeopardising the local tuna-processing industry.

Seychelles is particularly vulnerable to the deleterious impacts of climate change. Farmers are already experiencing water stress, especially during the dry season, which they claim has become longer. While desalination can relieve water shortages, it generally comes at high cost, and is not environmentally sustainable. For this reason, there are campaigns by some NGOs for the better harvesting and utilisation of rainwater. Extended droughts over the last ten years have affected the country's endemic tortoise and bird species. Sea-level rise is causing coastal erosion and damage to coastal infrastructure, as well as natural habitats.

9.3.3 Rationale for a green economy

Seychelles' biodiversity and natural environment are its main economic assets. They constitute the mainstay of the economy. As such, the people and government of Seychelles have every reason to protect the environment, and they are fully aware of this need. Environmental protection in Seychelles, beyond a mantra or a government-led action, actually defines the behaviour of the ordinary Seychellois, who is fully conscious of the environment within which s/he operates. Such behaviour has transcended generations.

Indeed, environmental protection and, more broadly, sustainable development is enshrined in the Constitution of Seychelles, which commits the people to 'participate actively in the sustainable economic and social development of our society'. Specifically, Article 40 (e) of the Constitution states: 'It is a fundamental duty of every Seychellois to protect, preserve and improve the environment' (Republic of Seychelles 1993).

The genesis of the green economy in Seychelles can be traced back to the 1960s, when the first national inland and marine parks were created in recognition of the natural beauty of the islands as a saleable product. Following independence, tourism development received a major policy boost as tourism was seen as the only

viable sector for diversifying the economy out of basic agriculture. However, it was explicitly decided to aim for high-end tourism, which was expected to generate high foreign exchange earnings while keeping tourist numbers, and hence pressure on the islands' natural resources and environment, low and manageable. This policy has not changed to date.

The government has spearheaded Seychelles' transformation to a green economy through a series of plans and strategies dating back to the late 1980s – a time when hardly anyone was talking about sustainable development, much less the 'green economy', and well before the Rio 1992 Earth Summit brought these issues into the limelight. The 1990–1994 National Development Plan and the Environmental Management Plan of Seychelles (EMPS) 1990–2000 together constituted what the government called 'a single and integrated national strategy for achieving sustainable development by the end of the decade and century' (Government of Seychelles 2012: 5). A second-generation EMPS spanning 2000–2010 followed, and in 2011 the government, working in close collaboration with NGOs and the private sector, proposed a Sustainable Development Strategy, the SSDS.

Seychelles was a strong proponent of the 'blue economy' at the Rio+20 Summit, calling for future negotiations on the green economy to consider oceans and their resources, and islands and their natural environment, as critical agents for achieving food security and sustainable development in small island economies. Largely as a result of such pressure, the Rio+20 outcome document includes 20 paragraphs on oceans and the marine environment, and an additional three paragraphs on small island developing states (SIDS). Thus, by virtue of its historical efforts at promoting sustainable development and its unflinching commitment to this ideal, Seychelles despite its small size was able to show leadership at Rio.

The government has used global platforms such as the Rio+20 conference and various regional initiatives, including the Indian Ocean Commission and the Common Market for Eastern and Southern Africa (COMESA), to leverage donor interest in its green policies and attract external funding for projects and programmes. In this, Seychelles benefits from its excellent track-record in environmental protection, which has earned the country several awards and international recognition as an ecotourism destination. Seychelles has declared more than 50 per cent of its land surface as protected areas – the highest in the world – and boasts two UN Educational, Scientific and Cultural Organization (UNESCO)-designated World Heritage sites.

9.4 Conceptualisation of the green economy

9.4.1 The process

The formulation of the first environmental management plan in 1989 was largely a government in-house exercise. It involved inter-departmental co-operation and international partnerships with the UN and the World Bank. Civil society organisations were not involved in the process simply because hardly any such organisation was around at the time. However, about a decade later when the EMPS 2000–2010 was being drafted, several NGOs were actively working in the field of

environmental protection. These NGOs find a legal basis for their existence in Article 40 (e) of the constitution, which urges every Seychellois to ‘protect, preserve and improve the environment’. The government has been generally supportive of these organisations, many of which receive project aid from the government, as well as funding from international donors.

NGOs participated in a limited way in the design of the EMPS 2000–2010, but more fully in the subsequent SSDS 2012–2020 following a critical review of the EMPS that called for greater ownership of the plan by all constituencies.² The same review pointed out that, despite the presence of some donors and private sector actors at the design stage, the process was driven mainly by the government, and community-based organisations were altogether absent. While the formulation of the SSDS addressed many of the shortcomings flagged by the review, it has nevertheless proved difficult to integrate grassroots communities.

However, there appears to be a divide between perception and reality in the strategy formulation process. First, even though this process is described as participatory and consultative, it is clear that ultimately ‘the plan is unknown beyond a small group of organisations and individuals’ (Jean-Louis et al. 2009, 5). Second, this question of awareness and ownership was a recurring issue in the discussions with stakeholders interviewed for this study. It was clear that some organisations ‘did their bit’ without really caring about the strategy. Others were focused on their own strategy, rather than on the EMPS 2000–2010 or the SDSS 2012–2020. This seemed to be the case with tourism, in particular. The NGOs that were interviewed complained about their financial woes and felt that they were marginalised in the debates on sustainable development, even though they were doing a great job on the ground.

9.4.2 Sustainable development planning: an overview of EMPS I and II

EMPS I (1990–2000)

The first Environmental Management Plan of Seychelles (Government of Seychelles, 1989a) was a list of projects. However, it was backed by UNDP, UNEP and the World Bank, and was able to raise funding pledges of over US\$40 million. It focused on a number of institutional/policy developments, including strengthening government capacity in environmental management through partnerships and training, enactment of a modern Environment Protection Act (EPA) and the subsequent legislation for Environmental Impact Assessment (EIA). Few on-the-ground projects were implemented. Among these, the construction of the Greater Victoria sewerage system is worth mentioning.

The plan was deemed successful. The Ministry of Environment claims that more than 90 per cent of the plan was implemented. However, since the plan was not audited or monitored in a systematic manner, it is difficult to verify this claim.

EMPS II (2000–2010)

Motivated by the success of the EMPS 1990–2000, the government followed through with an EMPS for the next decade (2000–2010). The second-generation EMPS was

more elaborate and was developed through a national consultative process involving a variety of stakeholders, including NGOs and private sector representatives. It had the benefit of drawing on the environment and sustainability principles emerging from the 1992 Rio Summit, and as such was more than just an environment plan. This was clear in the stated objective of the plan, namely ‘The promotion, co-ordination and integration of sustainable development programs that cut across all sectors of society in Seychelles’ (Government of Seychelles 1999).

The plan presented a broad set of projects and programmes to be implemented over the coming decade, complete with indicators, budgets and timeframes. Ten thematic areas were addressed, including:

- society, population and health;
- land use, coastal zones and urbanisation;
- biodiversity, forestry and agriculture;
- energy and transport;
- fisheries and marine resources;
- water, sanitation and waste;
- tourism;
- environmental economics, mainstreaming and sustainable financing;
- climate change; and
- cross-cutting issues.

Most of the projects in these areas were ‘soft’, involving risk assessment and research, capacity building, policy development, sensitisation and outreach, promotional campaigns, enforcement and extension. There were very few infrastructure-related projects. This is true even in sectors where greening typically involves massive investments, such as energy. The biggest investments were made in the ‘water, sanitation and waste’ thematic area, with projects such as the construction of four desalination plants (at a total cost of US\$30 million); installation of a centralised sewerage treatment system (US\$41 million); and setting up of an integrated solid-waste management system on three key islands (US\$46 million). These projects absorbed two-thirds of the budget forecast (US\$173 million) of the EMPS 2000–2010.

In view of Seychelles’ energy deficiency and its reliance on fossil fuels for the totality of its power supply, it was expected that the second EMPS would propose some projects to harness Seychelles’ renewable energy potential. But this was not the case. The laudable goal of limiting emission of greenhouse gases and other pollutants was to be achieved through energy audits, greater use of energy-efficient appliances and solar water heaters, and the preparation of an Energy Master Plan and commissioning of a number of studies in the area of energy conservation and energy efficiency. While these projects are a good start, their contribution to reducing energy consumption and to encouraging a shift to green energy alternatives is limited.

In the tourism sector, two innovative projects listed under ‘Goal 2: Promoting sustainable tourism development’ included the launch of the sustainability label and enforcement of EIA for hotels. The criteria for the award of a sustainability label were pilot-tested, revised and validated at a stakeholders’ workshop. The initiative is now being implemented. Enforcement of EIA guidelines, on the other hand, has been delayed due to a lack of qualified professionals who could undertake such assessment. Capacity building is therefore, naturally, a key goal in the tourism thematic.

An independent review of the EMPS 2000–2010 was carried out by a team of local experts. The review, on the whole, was highly critical of the implementation and co-ordination of the plan. A number of projects were marked down as ‘moderately unsatisfactory’ (forestry, energy and climate change) or ‘moderately satisfactory’ (land use, coastal zones and urbanisation; transport; and tourism). The review does not provide any estimate of the overall degree of implementation. Yet the authorities claim that 85 per cent of the plan was successfully implemented.

A careful analysis across projects suggests that implementation in general was constrained by four sets of factors:

- lack of financial resources;
- lack of capacity building;
- lack of commitment to implement or enforce; and
- lack of communication among implementing agencies.

These constraints need to be monitored and addressed if future sustainable development plans are to succeed.

9.4.3 Seychelles Sustainable Development Strategy (2012–2020)

The SSDS is the most comprehensive document to date steering Seychelles onto the path of a green economy. In many ways, it is an upscale version of the EMPS 2000–2010. It follows broadly the same structure; the projects listed for implementation are also similar, albeit more numerous and more elaborate. Thus, for example, the profile sheet of each project includes information on cross-sectoral linkages (which specify all the implementing agencies concerned), climate change considerations, capacity building requirements and possible sources of funding, among others. Funding sources are more diversified, and for the first time they include regional initiatives such as the Intergovernmental Oceanographic Commission (IOC) and the Regional Program for Sustainable Management of Coastal Zones in the Indian Ocean Countries (ReCoMaP) in addition to UNDP–GEF and contributions from the Government of Seychelles.

More importantly, the SSDS is a document about greening the economy proper – in contrast to the EMPS which, as pointed out by Jean-Louis et al. (2009), was neither ‘an Environment management plan...nor...an *Environmental* management plan – it [was] more of a National Development Plan’ (p. 4, emphasis added).³ The strategy benefited from extensive consultation among government departments and agencies,

and NGOs in particular. There was, however, limited participation by the private sector, and even less by community-based organisations, in the design of the strategy.

Strangely enough, though, at no point in the strategy document is the objective of the SSDS explicitly stated. In the foreword to volume 1 of the SSDS, the President of Seychelles writes: 'The ultimate objective is to improve sustainable development management in Seychelles'. The strategy speaks of 'the *vision* of the country to become a knowledge-based society and to manage its natural resources in a sustainable manner' (emphasis added, p. 9). Yet, the goals or aims of the SSDS are not stated clearly, but are left to the reader's judgment.

The shift from an environment plan to a sustainable development strategy was meant to address several of the weaknesses of the EMPS II, as highlighted in the review, as well as to redirect environmental management towards sustainable management or the green economy, taking advantage of the emerging interest in this area. The review of EMPS II had noted that a sustainable approach was needed to tackle a number of issues, including population growth, agriculture and fisheries, land use, coastal management and climate change. It was also hoped that the shift to a strategy would help improve the institutional framework and governance effectiveness of the SDSS by selling the document as a multi-stakeholder effort and buying in ownership, as opposed to the past two environment plans that were perceived as the monopoly of the Ministry of Environment and consequently suffered from institutional isolation. Indeed, in launching the SSDS, the government has made a solemn appeal 'to all stakeholders, including aid donors, to embrace the objectives of the strategy' (Government of Seychelles 2011a: 3).

The total cost of implementing the SSDS over the period 2012–2020 is estimated at US\$704 million. The most costly programmes are in the thematic areas of climate change (US\$207.2 million); water, sanitation and waste management (US\$179.5 million); fisheries and marine resources (US\$114.5 million); and energy and transport (US\$95.7 million). These four thematic areas take away 85 per cent of the estimated programme budget. Thus, in contrast to the EMPS II, many of the projects earmarked for implementation in the SSDS involve large investments.

In the area of climate change, the strategy proposes a range of projects aimed at mainstreaming climate change adaptation into the sustainable development agenda; implementing enhanced mitigation measures; and promoting technology transfer and capacity-building measures to support mitigation and adaptation strategies. The main projects listed under the climate change thematic area are adaptation measures in critical areas, such as rainwater harvesting, beach restoration and national disaster crop insurance; mitigation actions, including shifts to green energy sources and reduction of greenhouse gases (especially in the transport sector, which is responsible for 43 per cent of total energy consumption); capacity building at various levels; and transfer of technology in the energy sector.

In the other key sectors, many projects are a continuation of projects identified in the EMPS II. In the energy subsector, for example, a strategic goal is to promote alternative and renewable energies such as solar photovoltaic, wind, hydropower and energy from waste. The development and implementation of a regulatory framework

for promoting renewable energy supply by independent power producers is high on the government agenda, and many interested actors have welcomed the promulgation of the new Energy Act.

The government has committed, and promises to commit over the lifetime of the strategy, substantial financial resources to the SSDS. The bulk of the financing needs are expected to be raised from a variety of local and external sources, including private sector donations and corporate social responsibility programmes; taxes; innovative financing instruments such as debt-for-nature swaps; regional platforms (IOC, ReCoMaP); bilateral and multilateral development partners.

9.5 Implementation of SSDS 2012–2020

The implementation of the strategy has faced some bureaucratic and administrative delays. This was due in large part to disagreement over the governance structure of the body meant to implement the SSDS. Originally, it was envisaged that implementation would be entrusted to an autonomous ‘commission’. However, this was not acceptable to cabinet, which recommended instead that a division under the Ministry of Environment be set up to implement the SSDS. This change called for a sweeping revision of Chapter 11 (‘Institutional Framework’) of the strategy document, and its re-submission for approval to cabinet. The framework for steering and monitoring implementation of the SSDS was expected to become operational by the end of 2013.

This section, therefore, resorts to a *prospective* analysis of the implementation of the SSDS. The analysis is based on knowledge of implementation issues associated with past environmental management plans, being mindful of emerging challenges and recent developments at the local level and in the global context. This section aims to identify critical success factors and discuss potential constraints to implementation.

9.5.1 Critical success factors

Political commitment

Seychelles has historically shown an unflinching commitment to sustainable development, and by implication to the green economy. This follows partly from the value that the people of Seychelles attach to environmental protection – a value that has been transmitted from generation to generation. Political leaders are well aware of the political mileage that strong commitment to environmental protection could earn them. For this reason, sustainable development has been high on the agenda of successive governments.

The government’s commitment to the current strategy is manifest in the amount of financial resources that it is willing to devote to the implementation of the SSDS. No estimate of the government’s contribution to the SSDS budget is available, but if the EMPS II could serve as a guide, one might expect this contribution to be around 40 per cent. This comes to a hefty US\$280 million over an eight-year period.

The government – and, in particular, the Ministry of Environment and its senior staff – has spoken eloquently of the SSDS at public events. In addition to popularising

the strategy, these events also serve as occasions to sell the government's programmes to the public and to buy in their political support.

Despite the political support for the strategy, there are several areas where greater commitment would be welcome. During interviews conducted for this study, it became clear that many stakeholders felt that the government could do more, especially on the policy front. For example, prospective independent power producers (IPPs) were disappointed by government's apparent slowness in enacting the much anticipated Energy Act, which was passed in December 2012.

Ownership

This is clearly a key ingredient in the success of environment plans in Seychelles. Ownership of the SSDS – it is claimed – derives from stakeholders' participation in the design of the strategy even though, in reality, much of it could be implicit in the people's behaviour towards the environment, whether or not a formal strategy exists to protect it. However, as noted by Jean-Louis et al. (2009) and confirmed by the interviews, many people including some NGOs were not fully aware of the specifics of the strategy. On the other hand, communities were left out of the consultation process altogether, and so there is need for the authorities to make greater efforts to inform them of the strategy.

There are more fundamental issues lying beneath the surface. Lack of co-ordination among implementing agencies was pointed out as a major weakness of the EMPS II, and this was evident on the ground during the interviews. Some departments were simply focused on doing their share, caring more about their sector's narrow contribution rather than the final outcome. This is partly the result of the existence of a multitude of sector plans and strategies (e.g. Tourism Master Plan, Energy Act, Energy Policy, National Climate Change Strategy), some of which are not perfectly aligned with the SSDS.

Ownership challenges also arise from perceptions of environment management plans as being solely the responsibility of the Ministry of Environment. Such perceptions are amplified when the plan's secretariat or co-ordination unit is housed within the said ministry. This, for example, was the case with the EMPS II. The SSDS tried to break away from this practice, and proposed that an independent commission be set up to implement the strategy. Unfortunately, this failed to materialise. A dedicated division within the Ministry of Environment has been assigned responsibility for implementing the SSDS.

In the final analysis, therefore, the SSDS might suffer the same fate as the EMPS II: to the extent that the SSDS is seen as the Ministry of Environment's 'baby', other stakeholders may shy away from participating fully in its implementation, reducing its overall effectiveness and impact.

Mainstreaming sustainable development into the National Development Plans

Seychelles' success in implementing past environment plans is partly credited to the effective mainstreaming of sustainability issues in national development policies

and strategies. This means that economic decisions were made bearing in mind their potential environmental impacts. However, before the SSDS, this was done in a casual rather than formal way. The SSDS devotes a whole section to the question of mainstreaming and discusses practical steps in which this can be done. In particular, in the thematic area of climate change, a number of projects are proposed to mainstream climate change adaptation measures into the green economy agenda. In spite of these efforts, as the strategy itself notes, mainstreaming continues to be constrained by a lack of appropriate tools and policies (Government of Seychelles 2011a, 144).

Education and sensitisation

There is no doubt that the education and sensitisation of the population from a very early age have played a key role in promoting environmental awareness and respect for the environment. In this, NGOs have been instrumental. Wildlife Clubs of Seychelles has effectively built a network of clubs based in schools but extending out to communities. Club members learn about environmental sustainability and conservation and are encouraged to put their knowledge into practice. Sustainability for Seychelles is another NGO working to educate professionals, private operators and the general public on environmental issues, with the aim of promoting renewable energy technologies and energy efficiency.⁴ NGOs like these face important financial hurdles in carrying out their activities. There is need for government to support such organisations in their endeavour.

9.5.2 Constraints

Government policy

Government policy has generally evolved to support and speed up Seychelles' transition towards a green economy. This role has spanned across all sectors and has taken various forms, including laws and regulations, incentives, taxes and subsidies. In the energy sector, for example, the government has made a voluntary commitment to achieve 15 per cent of Seychelles' energy supply from renewable energy sources by 2030. In the SSDS, a number of projects have been earmarked to deliver on this commitment. These include soft actions aimed at developing or improving the regulatory framework for promoting renewable energy (such as the new Energy Act, amendments to the Public Utilities Corporation [PUC] Act to allow IPPs access to the national grid, design of feed-in tariffs etc.) to large-scale infrastructure projects (such as a landfill gas power plant, wind energy farms and solar photovoltaic power plants etc.). Similarly, a number of new regulations are being proposed in the SSDS to reduce emissions from the transport sector.

However, there is a general sentiment that the government is not doing enough, especially to shift to renewable energy alternatives, where Seychelles registers a huge 'green deficit'. Some stakeholders believe that the government has not been proactive, and that the policies being adopted now are coming rather too late. Stakeholder consultations indicate that some feel, on the whole, that government policy in support of the green economy may have been either misconceived, incomplete or too soft and 'lacking punch'.

Misconceived policies. The Masdar wind farm on the main island of Mahé became operational in June 2013. It will generate an estimated 6 MW of windpower and has been financed by a major grant from the Abu Dhabi Fund for Development. However, some stakeholders believe that the project is not worth the cost. First, Seychelles' wind energy potential is limited due to the absence of strong winds through most of the year. Second, the project contributes a mere 5 per cent of Seychelles' total energy needs. Thus, although the Masdar project may be welcome as a ground-breaking project in renewable energy development, its impact on Seychelles' energy supply is limited. Consequently, some stakeholders question the rationale of the project and wonder if the country would not have got better value for money if the capital was invested in a solar photovoltaic power plant.

Another example of a misconceived policy is the government-sponsored initiative to distribute energy-saving bulbs to households in replacement of conventional bulbs. The plan is faulty by design. The Seychelles Energy Commission (SEC) implemented a similar plan on a limited basis in the recent past. It gave away energy-saving bulbs to households irrespective of the amount of electricity they consumed. However, the PUC intends to target small consumers of electricity on the argument these are typically the poor households. Yet, if the ultimate goal is to achieve a meaningful reduction in energy consumption, it is the large consumers of electricity who should be targeted.

Incomplete policies. Some stakeholders also consider that even well-intended policies may have partial effects if not accompanied by complementary policies. For example, the Government of Seychelles lifted import duties on solar water heating panels in a bid to encourage wider use of this technology, thereby reducing electricity consumption. However, the policy had limited success since, even after duties were removed, the equipment was still very expensive and outside of the reach of many households. The policy would have been more successful if the government provided some form of concessional finance, through say the Development Bank of Seychelles, as was the case in Mauritius.

Moreover, a tax-subsidy combination is shown to work better than either one of the two. De-taxing solar panels is good, but it would be better if this policy was complemented with higher taxes on 'dirty' energies. This does not seem to be the case at the present. For example, while the government has introduced unleaded fuel, leaded fuel continues to be sold at gas stations since a majority of vehicles have not been equipped to run on unleaded gasoline. The prices of leaded and unleaded fuel are the same, which acts as a deterrent to drivers to switch to cleaner fuel. The SSDS identifies promotion of clean fuels as one of the components of the bigger goal of limiting emission of greenhouse gases and other pollutants from road transportation. However, no detail is provided as to how this would be achieved.

Weak policies. As a result of limited or lack-lustre government efforts at diversification through the years, as well as other factors, the economy of Seychelles remains heavily concentrated in two sectors – tourism and fisheries. This exposes livelihoods, and the economy as a whole, to external perturbations. Also as a result of this economic concentration, Seychelles is confronted with formidable sustainability challenges

arising from the fact that tourism and fishing make important demands on the natural and marine environment. Hence, diversification away from these sectors into environment-friendly economic activities, such as services, could speed up Seychelles' transformation into a green economy.

Technology transfer

Seychelles faces numerous challenges in the area of technology transfer due to its small size (which precludes economies of scale) and isolation, its economic structure, with reliance on just one processing industry (tuna canning), its limited human resource base and, until recently, poor government policy to promote the acquisition and adoption of new technologies. Technology transfer is particularly needed in the areas of coastal zone management, in the energy and transport sector, in climate change adaptation and mitigation and in capacity building across a number of sectors.

Despite its focus on sustainable development, Seychelles has not been able until now to garner the resources and external support needed to enable the transfer of relatively simple technologies and their cost-effective and widespread adoption. This is the case, for example, in the road transport sector where, as noted above, despite the introduction of unleaded gasoline, most vehicles continue to run on leaded fuel because the technological change needed to make the shift is neither easily available nor affordable.

Lack of human capability and finance has constrained investment in research and development in many sectors. The agriculture sector is a case in point. The Seychelles Agricultural Agency (SFA), established in 2009, is mandated to promote food security; to modernise and develop the agricultural sector; and to increase agricultural production. The agency is playing an important role in helping farmers adapt to climate change. It is promoting use of greenhouses designed to adapt to local conditions; micro- and drip irrigation projects in water-stressed areas; and integrated crop management, among others. SFA is also undertaking research on biotechnology aimed at developing drought-resistant crop varieties and high-yield seed varieties and cultivation techniques. However, despite a motivated staff, the agency has made little progress in this direction because of a lack of critical mass of expertise and the absence of mechanisms to facilitate the transfer of knowledge from abroad. Yet this could easily be achieved by the government through partnerships with donor countries eager to share their expertise in agricultural research and development. In this, the region and regional initiatives could provide a useful starting point.

Private sector participation

The private sector can contribute to the green economy transformation in essentially three ways: by paying taxes that allow the government to finance sustainable development projects; by giving donations or engaging in green corporate responsibility activities; and by undertaking 'green' projects or activities. In Seychelles, the private sector was not involved in the design of the strategy as much as other stakeholders, and there is a presumption that it is not playing its part in the game. For example, voluntary

initiatives from the private sector are lacking and donations for green projects have been rare and rather small.

However, the private sector is showing growing interest in a number of sectors – either out of self-interest or due to the profit motive. For example, the tourism industry is particularly concerned about sea-level rise and other deleterious effects of climate change. Consequently, some hotels have contributed to the beach monitoring programme. Opportunities for greater engagement of the private sector in green economy projects are arising in the energy sector and in Clean Development Mechanism (CDM) projects. Private firms and individuals are waiting for the government to provide the legal framework for them to produce and sell solar power to the national grid.⁵ The private sector can also provide financing options for major renewable energy projects, through PPP or other arrangements.

Financing

The Government of Seychelles faces the formidable challenge of raising US\$704 million over eight years to finance the SSDS. The government was able to raise more than 50 per cent of the financing requirement of the EMPS II from external sources, and it is likely that it will continue to do so with the current strategy, especially since the country can now boast of its past achievements and also thanks to the attention it attracted at the Rio+20 event, where it was a strong advocate of the ‘blue economy’.

The climate change thematic represents about 30 per cent of the total cost of the SSDS, and the government has proposed to seek funding from the World Bank, the GEF and donor countries. Furthermore, private sector financing could be tapped if the appropriate conditions or mechanisms are created. The government must also explore other, innovative financing instruments, such as green bonds and debt-for-nature swaps. However, there is need for better co-ordination of financing from external sources to NGOs and the government to ensure that the SSDS is not compromised.

Governance

An elaborate three-tiered governance structure has been proposed for the implementation and monitoring of the SSDS. A division within the Ministry of Environment will be responsible for the implementation, co-ordination, monitoring and evaluation of the strategy. The second tier will consist of a steering committee, which will review the work and progress of the division. An SSDS council, chaired by the Minister of Environment, constitutes the top tier. The council will provide direction to and oversight of the work of the steering committee. It will also act as a facilitator for project approval and implementation.

The fundamental problem with the above structure is that it places the bulk of the responsibilities for implementing the strategy within the hands of the Ministry of Environment, thus subjecting the strategy to the same criticism that was levelled against the EMPS II: that it was an environmental plan, and was solely the business of the Ministry of Environment. Therefore, as with the EMPS II, the institutional framework of the strategy is likely to raise critical ownership issues.

9.6 Conclusion and recommendations

Seychelles is well set on the path of a green economy. It has both the experience and the political commitment to speed up the transition. After two decades of implementing an EMP, Seychelles adopted a Sustainable Development Strategy (SSDS) covering the period 2012–2020. This strategy borrows heavily from the second EMPS, which ended with some success in 2010. In fact, it is safe to say that the SSDS is the third generation of the EMPS, integrating experience with implementation of past plans and knowledge of sustainable development issues, and drawing on the ongoing discourse on the green economy and the post-Rio+20 agenda.

The design of the SSDS benefited from inputs from a broad constituency. Inevitably, the government was over-represented, but there was also a significant presence of NGOs. The private sector's participation was rather timid, while community-based organisations were not formally consulted even though they had some opportunity to express their views at validation workshops.

The implementation of the SSDS is still at an early stage. So, it is impossible to comment on how the process will go. This report provides an assessment of the critical success factors and likely constraints in the implementation of the SSDS using the EMPS II as a reference. This analysis is prospective. Yet it is well documented, and so can form the basis of discussion on the strategy.

An interesting question to ask at the outset is the following: *Is the SSDS a plan for Seychelles to transition to a green economy?* Bearing in mind the green economy's strategic pillars – namely, economic prosperity, social inclusiveness and environmental sustainability – the answer is an unequivocal 'yes'. Seychelles is probably the one country in the world that is as close to the model of a green economy as is possible.

Seychelles has the highest GDP per capita in sub-Saharan Africa and ranks consistently among the top in terms of human development. This means that environmental protection has not come at the cost of economic development. This is an important observation. It serves to allay the fears of many countries that believe that green growth means slower growth.

Second, poverty is virtually non-existent in Seychelles. This suggests that growth has been inclusive. Jobs have been a critical factor in alleviating poverty, and since most of the jobs occur in the ecotourism sector and in fisheries, they are by definition green. Seychelles has the potential to generate more green jobs in, for example, the renewable energy sector and in services, including tourism.

Finally, environmental protection in Seychelles is entrenched in people's behaviour. The government has provided effective leadership and has shown strong political commitment to the objective of sustainable development. More importantly, both the government and the people of Seychelles know that the natural environment is Seychelles' only asset. Directly or indirectly, everybody's livelihood depends on it. Hence, it is the responsibility of one and all to respect the environment and to protect it. This responsibility is enshrined in the constitution.

Yet, much remains to be done to complete the transition to a green economy. This report argues that the SDSS, if properly implemented, can go a long way towards completing Seychelles' transition to a green economy, or a 'blue economy' as one may wish to call it. Going forward, the Government of Seychelles and relevant stakeholders must pay attention to the following critical elements for the success of the strategy:

- The government has demonstrated strong and unflinching political commitment to achieving the transition to a green economy. It is important that this commitment does not waver.
- Ownership of the strategy is critical to its success. The SSDS must not be perceived as the affair of the Ministry of Environment. It may prove a valuable investment for the government to dispel – through an information campaign, for example – any wrong impression that any stakeholder might have about the strategy.
- There has been some kind of de facto mainstreaming of sustainable development policies and plans into the national development strategy. There is need to formalise the process. However, given the large number of sector plans and strategies in existence, with the Medium-Term National Development Strategy (MTNDS) at the apex, it is important to ensure consistency and relevance. Sector strategies should not subsume the SSDS, and the SSDS must in turn fit into the MTNDS.
- The government will need to implement fully the new Energy Act without further delay. The act will provide the framework for IPPs to produce and sell electricity (mainly from solar PV) to the Public Utilities Corporation (PUC). However, this will not be enough. The government should consider investing in the infrastructure to allow IPPs to connect to the national grid.
- The government will need to eliminate use of leaded fuel. To do this, measures can be put forward that would encourage owners and importers to equip vehicles with the technology, allowing them to shift to the clean energy option. Second, the government could consider introducing a tax on unleaded gasoline to discourage its use.
- To promote the transfer of technology in specific sectors, the government may seek to negotiate agreements with partner countries (beginning in the region), and provide the private sector with the incentives to invest in technology development and transfer.
- The private sector's engagement in the green economy transition needs to be harnessed through arrangements such as PPP. Significant potential exists in renewable energy and in CDM projects. The government needs to provide appropriate incentive mechanisms to attract the private sector to contribute to the transition to a green economy, including by providing finance.
- In addition to attracting private sector investment in major green projects, the government is likely to need to seek support from the international community, and bilateral and multilateral development partners. It should also explore innovative financing instruments such as green bonds and debt-for-nature swaps.

Notes

- 1 This view was expressed by officials of the Seychelles Fishing Authority (interviewed in July 2012).
- 2 It is interesting to note that the national co-ordinator of the second EMPS was in fact from civil society and was later elected as Chair of the Liaison Unit of NGOs of Seychelles (LUNGOS) – an umbrella organisation regrouping all NGOs/CSOs in Seychelles.
- 3 In contrast to this view, many still see the EMPS II as ‘the reference strategic document for sustainable development programs in Seychelles’ (Government of Seychelles 2011a, 7).
- 4 There are other NGOs involved in environmental education and outreach.
- 5 During the fieldwork, a firm suggested that it has acquired and adopted the technology to supply power to the national grid.

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