

Chapter 8

The Political Economy of Transitioning to a Green Economy in Samoa

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8.1 Drivers of transformation to a green economy

Samoa's economy was predominantly driven by the export of agricultural products during the German colonisation period from the 1880s, through the New Zealand occupation between 1914 and 1961, to the early stages of Samoa's independence up until the 1990s. Since the 1990s, agricultural exports have declined and they now only account for less than 10 per cent of the country's gross domestic product (GDP). The decline in agricultural exports was driven by several factors, including changing export markets, legislative amendments that made it harder to maintain large plantations, the devastating cyclones that besieged the country in 1990 and 1991, and the taro blight of 1993. As the contribution of the agricultural sector decreased, other new industries started to take off, such as the fishing, tourism, manufacturing and tertiary service industries. Additionally, with increasing Samoan emigrant populations residing in American Samoa, New Zealand, Australia, USA and other parts of the world, the remittances contribution to the national economy now fluctuates around 24–25 per cent of GDP (Ministry of Finance [MoF] 2011a).

Since the mid-1990s, as Samoa recovered from a bad patch in its national economy during the late 1970s to early 1980s, its development partners and global development banks, such as the Asian Development Bank and the World Bank, were willing to finance the infrastructural development needs of the country. This provided a major boost to the local economy, with new money circulating within the country despite a low export market. The shifts in the export-earning and income sources available in the country in the late 1990s still reflect the main contributors to the economy.

Without resource-extractive industries such as mining or large commercial logging operations, Samoa has never really suffered extreme damage to its natural resources or environment compared with other countries. Nevertheless, the small size of the country and its fragile and limited natural resource base meant that some of the economic development activities stressed the environment; so that when the cyclones hit the country, the already fragile environments took a hard knock. As a result of the cyclones and the taro blight on the agricultural sector, the Samoan government at the time promoted diversification to other industries and taking the path of sustainable development.

At the same time, the global-level Earth Summit in Rio de Janeiro, Brazil, in 1992 put the spotlight on sustainable development as a new paradigm for economic development. The resulting multilateral environmental agreements such as the UN

Framework Convention on Climate Change (UN FCCC), the UN Convention on Biological Diversity, the UN Convention on Combating Desertification (UNCCD) and the establishment of the Global Environment Fund (GEF), all of which Samoa ratified early on, provided the international framework and financing capacity that enabled Samoa to fully engage and address some of the environmental issues at the national and international levels.

Furthermore, the impact of the global economic crisis, especially on the main imports of Samoa such as oil, provided impetus for the government to seek renewable energy sources that would reduce its high dependence on imported oil, and improve energy efficiency.

These national and international factors were the main drivers that shaped the transformation of Samoa's economy into a green economy.

Since 1992, the Samoan government has slowly but effectively put in place appropriate measures to improve environmental management, conserve biodiversity and sustainably utilise its limited natural resources. The Government of Samoa has worked diligently to address sustainable development through a green economy by implementing policies and to encourage green industry growth, while being vocal internationally on issues such as climate change where small, and in particular, developing states such as Samoa are bearing the brunt of the pollution caused by larger developed nations.

Although progress is small and incremental, what can be seen over the last 20 years is a country committed to sustainable development. There is still a lot that can be done and much of it is now either being implemented or is planned for implementation through the Samoa Development Strategy 2012–2016.

The main constraints or stumbling blocks for Samoa's transformation into a green economy at the national level include availability of adequate financing, either from the national budgetary allocations or international financing institutions and development partners; availability of appropriate technical capacity to fully realise the plans and policies; availability of appropriate green technology at affordable prices; and market accessibility. Despite these constraints, the Government of Samoa perseveres.

8.2 Samoa – the small state

8.2.1 Country description

Samoa consists of four main inhabited islands (Upolu, Savaii, Manono and Apolima) and six smaller uninhabited islands. The country lies between 13° south to 14° south and 170° west to 173° west and has a total land area of approximately 2,934 km², with an Exclusive Economic Zone of 120,000 km².

From the 2011 census, Samoa's population is 187,820. More than half of the country's resident population live on Upolu, with just under 20 per cent of the population residing in the capital Apia and its surrounding urban area. The annual population growth rate between 2001 and 2011 was 0.63 per cent. Since independence in 1962, significant levels of emigration to New Zealand, Australia and the USA have slowed

the overall rate of population growth. The net migration rate estimated for Samoa is 1.6 per cent per annum (Samoa Bureau of Statistics, 2011).

8.2.2 Physical environment

Samoa has a rugged and mountainous topography. On Upolu, the central mountain range runs along the length of the island, with some peaks rising more than 1,000 m above sea level. The bigger island of Savaii, with a total land area of more than 1,800 km², has central volcanic peaks reaching more than 1,860 m.

More than 170,000 ha are categorised as forest areas. Around 46 per cent of Upolu and 69 per cent of Savaii's total land area is covered by forest. The biggest portion of Upolu's forest area is made up of open forest and secondary forest, which clearly shows the high degree of forest depletion on the island. Savaii's mid- to upland forest makes up for the largest portion of the total forest area, more than open forest and secondary forest combined.

Samoa's climate is characterised by high rainfall and humidity, near-uniform temperatures throughout the year, winds dominated by the south-easterly trade winds and the occurrence of tropical cyclones during the southern-hemisphere summer.

Samoa has two seasons, marked by significant differences in rainfall. The annual rainfall is about 3,000 mm (varying from 2,500 mm in the north-west parts of the main islands to over 6,000 mm in the highlands of Savaii), and about 75 per cent of the precipitation occurs between November and February. There are commonly tropical cyclones during Samoa's wet season, particularly between December and February. Samoa is also vulnerable to anomalously long dry spells that coincide with the El Niño Southern Oscillation (ENSO). Temperatures are generally uniform throughout the year, with a slight seasonal variation.

8.2.3 Economy

The economy of Samoa has historically been dependent on agriculture and fishing, and, more recently on development aid and remittances from Samoans working overseas. The agriculture and fisheries sectors combined employ two-thirds of the labour force and contribute 90 per cent of exports.

Socioeconomic parameters place Samoa on the medium level worldwide in terms of human development. Per capita income is slightly more than US\$2,000, and the government spends 4.1 per cent of GDP on health while spending 4.5 per cent on education. Based on the 2008 Household Income Expenditure Survey (HIES), around 26.5 per cent of the population live below the Basic Needs Poverty Line compared with 15.6 per cent in 1997.

Samoa is a small economy, with a GDP of around US\$537 million in 2009. Samoa's economy has traditionally depended on development aid, family remittances from overseas, agriculture and fishing. Samoa is one of the highest recipients of remittances in the world, totally over US\$150 million in 2011 or a quarter of GDP.

Only around 12 per cent of Samoa's total population is engaged in formal paid employment. Two-thirds of Samoa's potential labour force is absorbed by subsistence village agriculture, a dominant sector in the Samoan economy. The agriculture sector contributed 11.5 per cent of GDP in 2010, down from 20 per cent in 1998. The fisheries subsector contributed around 6 per cent of GDP in 2009 and 2010, slightly down from an average of 8 per cent in 1998 and 1999. The industrial sector (including utilities and construction) contributed 26.6 per cent of GDP in 2010. The contribution of the services sector to GDP rose from 56 per cent in 1998 to around 62 per cent of GDP in 2010, of which tourism accounted for 25 per cent of GDP. The manufacturing sector, which processes mainly agricultural products, contributed around 8.5 per cent in 2010, down from 14.5 per cent in 1998. Samoa has a Foreign Trade Zone, where one factory makes automobile electrical harnesses for an assembly plant in Australia, employing around 900 workers in 2011, down from nearly 3,000 in 2008.

The overall economy has major imbalances in two areas. One imbalance is in foreign trade. Total imports form about 50 per cent of GDP, whereas exports are only slightly over 25 per cent and, therefore, the ratio of imports to exports is high. Agricultural products make up about 90 per cent of exports, with relatively low value-added. Any redress in the merchandise trade deficit originates from remittances, exports of services (e.g. tourism) and foreign aid. Private sector growth is constrained by a narrow resource base, limited infrastructure, geographic isolation, dependence on fuel imports, a lack of skilled labour and a small domestic market.

Samoa's main primary industries are agriculture and fisheries. Secondary sectors include manufacturing, construction, electricity and water. Tertiary sectors include hospitality (hotels and restaurants) transport, communication, finance and business services.

Agriculture has traditionally provided the bulk of Samoa's commodity exports, including coconut oil, coconut cream, bananas, taro, kava and fish. Exports are subject to a number of constraining factors such as price stability, high transport costs, lack of overseas markets and harsh weather conditions. However, tourism has taken a prominent role in Samoa's economy.

Fisheries are critical both for commercial purposes and the sustenance of the populace. According to the 2005 agricultural survey, a total of 5,060 households harvest fish, with 77 per cent consuming all that they catch while 23 per cent sell their surplus at market.

Since 1994, tourism earnings have been the largest source of foreign exchange. Between 2009/10 and 2010/2011, the number of tourists visiting Samoa increased from 128,205 to 129,081. Visitor numbers are currently growing at an annual rate of 0.7 per cent. The earnings from tourism activities have grown significantly from 297.6 million Samoan dollars or tala (T) in 2010 to T306.3 million in 2011.

8.2.4 Environment and resources

Samoa's biological environment reflects a rich natural heritage of high species diversity and endemism. It is estimated that Samoa supports 775 native vascular plant species,

of which approximately 30 per cent of the angiosperms are endemic. There are about 280 genera of native angiosperms (more than any other archipelago in Polynesia). In addition, there are about 250 introduced plant species and 47 threatened plants. Samoa's fauna consists of 21 butterfly species, 11 species of reptiles, 43 resident bird species, eight of which are endemic, and three flying fox species (Government of Samoa, 2001).

The ecological vulnerability inherent in its smallness, isolation and limited genetic variability is exacerbated by the ever-present threat of natural events such as cyclones, tsunami and droughts, along with alien invasive species.

8.2.5 Infrastructure

Samoa's energy consumption in 2010 was estimated at around 123.49 kilotonnes of oil equivalent (kTOE); this was an increase of 4.6 per cent from 2009. Approximately 33.3 per cent was met by biomass (firewood), while 63.8 per cent was met by petroleum products, with the remaining balance from hydropower, coconut biofuel and other minor renewables. The total renewable energy consumption was estimated at 41.11 kTOE, with the residential sector accounting for 90 per cent of the total biomass consumption (36.81 kTOE) (MoF 2010).

Samoa depends upon imported petroleum products for much of its energy needs. Unleaded petrol is widely used for terrestrial and marine transport, and automotive diesel is used for electricity generation and heavy machinery. Since 2001, diesel has supplied about half of Samoa's electricity. About 95 per cent of Samoa has access to electricity. The government's objective is to change Samoa's reliance on fossil fuels to renewable energy. The Samoan government has endorsed the Samoa Energy Policy, which is intended to encourage the use of renewable energy sources like solar, wind, coconut oil and energy from waste.

8.3 Green economy concept

While there is no single definition, the term 'green economy' refers to a low-carbon, resource-efficient economy that is socially inclusive (UNEP 2011). More broadly, it has been described as an economy that 'results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities' (ibid). Importantly, the green economy is not meant to displace the sustainable development paradigm, but offers a more effective and invigorated framework for achieving this. It revisits and re-emphasises four core elements, notably the precautionary principle, the conservation of biological diversity and ecological integrity, the principles of intra-generational and inter-generational equity, and the internalisation of environmental costs, including the 'polluter pays' principle.¹

Green growth is basically a practical means to achieving the transition to a green economy and sustainable development. It allows 'green' to drive growth and investment, rather than to be its casualty or cost. It has the capacity to produce sustainable growth and profits. At the same time, green growth can directly help to improve livelihoods by creating (green) jobs, enhancing energy and food security, and generally steering

economic activity away from short-sighted plunder of natural capital, on which the livelihoods of both present and future generations ultimately depend.

8.4 Pathways for transformation into a green economy

In 2011, the Pacific region, including Samoa, identified as part of its preparation for the UN Conference on Sustainable Development (Rio+20) the following five modalities and pathways for greening the economy.

1. Investment in natural capital

The green economy places a value on biodiversity capital and ecosystem goods and services, recognising these things as an important source of sustenance, incomes and general well-being, and worthy of investment (UNEP 2011). Investment in natural capital promises many benefits. It has the capacity to create (green) jobs, enhance food security, reduce poverty and generally promotes more sustainable and equitable livelihoods and growth.

2. Sustainable consumption and production

The green growth approach, based on sustainable production and consumption, means less waste and environmentally degrading practices, and more eco-efficient use of scarce resources like water, energy and natural (land and marine-based) capital. This approach is more conducive to creating satisfying and sustainable livelihoods for both present and future generations, greater social equity and less poverty. It also offers new economic opportunities through greener but globally competitive economic activities like organic agriculture, based on traditional resource management and farming practices whose exports target high-value niche markets (Secretariat of the Pacific Community 2008). Ecotourism also provides opportunities for eco-efficient growth (Earth Systems 2010).

Green production and consumption also sit easily alongside cultural (subsistence) approaches to land and marine resource use, in particular the obligation of communal ownership, sharing, self-reliance, and traditional farming and fishing methods.

3. Sustainable infrastructure

Sustainable infrastructure as another pillar of green growth is a system for delivering housing, transport, energy, water and waste and sanitation services without over-using resources and in a way that minimises environmental harm.

4. Greening business and markets

The shift towards a green economy offers new business opportunities: growth based on the production and use of green goods and services, the creation of green jobs and the use of green energy. Opportunities for green jobs will arise in sectors like energy, agriculture/forestry, waste management and tourism. A green economy approach demands that the price of environmental externalities are internalised. This should provide a more accurate picture of the true value and cost of an industry, and in turn be a better guide to development decision-making.

5. Green taxes and budget reform

Green tax and budget reform (GTBR) is a critical tool of green growth. Fundamentally, it seeks to redress past failures of the traditional growth paradigm to take account of all ecological/resource risks and costs. Green growth requires a transformation in the taxation system to internalise the ecological price into the market price. In this way, taxes and subsidies can be used to send a price signal to consumers that more correctly reflects the real cost of production. Importantly, the main purpose of GTBR is increased resource efficiency and environmental protection, not more revenue. However, the benefits also include (green) job creation and higher demand for eco-efficient products and services.² GTBR is not new. Principle 16 of the Rio Declaration called for the internalisation of environmental costs and the use of economic instruments that recognise the ‘polluter pays’ concept.

8.5 Transformation of Samoa's economy into a green economy

The transformation of Samoa into a green economy is driven by a combination of factors. These include political commitment from the Government of Samoa, along with national circumstances such as natural disasters, a shift in the macroeconomic policy framework and a changing market. Additionally, the global emphasis on sustainable development – driven largely by the availability of international financing mechanisms and greening of lending policies by international financial institutions – has married the goals at the national and global levels to advance Samoa's progress.

Of special note in the transformation process is the increase of technical capacity within the region and in-country, facilitating continual progress, and the global availability of green technology to support implementation of national policies and plans.

8.5.1 Political will

Foremost in addressing national development is commitment and political will at the highest level of government. Therefore, to embark on a major shift in development approach such as the transformation to a green economy there must first be the *political will*. In Samoa, this has been a factor over the past 20 years, since the Rio de Janeiro Earth Summit in 1992. Throughout this period, the Samoan government and parliament have passed relevant legislation that supports sound environmental management and strengthens the environment sector, both in the public and private sectors. The green economy also requires government commitment in the provision of financial and technical capacity, as well as in international engagement.

Government commitment can further be seen in the prime minister's and cabinet speeches at the United Nations General Assembly (UNGA) and associated UN fora and at other international fora, including the Commonwealth Heads of Government Meeting (CHOGM), the Pacific Islands Forum Leaders Dialogue and regional ministerial meetings, where they have consistently urged the regional and the global community for measures to combat climate change and environmental degradation, and to promote green development such as sustainable energy use and sustainable fisheries management.

Within the public sector, political will from government is noted with its commitment to establish the Ministry of Natural Resources and Environment as one of the largest government ministries, along with substantial financing from both the national budgetary allocation and international aid. Perhaps the biggest commitment comes in the elevation of the environment sector to be a key priority, and mainstreaming it into other priority sectors in the Samoa Development Strategy 2012–2016.

8.5.2 Legislative frameworks

Samoa has continuously reviewed and updated its legislation to support sustainable development and a green economy. The following are some examples of the numerous laws passed in Samoa supporting sustainable development and the transformation into a green economy:

- Lands and Environment Act 1995: to support the conservation of biodiversity, promote adaptation and mitigation measures for climate change; ensure protection of watershed areas; and combat desertification.
- Planning and Urban Management Authority (PUMA) Act 2007: to support the conduct of environmental impact assessments for major developments, as well as establishing codes of environmental practices and development of sustainable management plans for urban areas.
- Tourism Bill 2012: to promote sound environmental practices for tourism and the hotel industry.
- Water Resources Act: to promote conservation and sustainable use of water resources, and access to safe drinking water.

With numerous laws passed, the greatest difficulty one finds is to ensure effective implementation, of which the Samoan situation is no exception. Based on the consultations and assessment of the body of work done over the years, it is clear that the commitment for implementation is certainly high. The challenges identified are related to lack of funding and human resources, both in terms of technical capacity and actual staff. Other difficulties are mostly related to a lack of knowledge on the part of the public about the laws, and others trying to circumvent the proper procedures.

8.5.3 Samoa development strategies

The preceding annual Samoa Economic Strategies (from 1998–2001) and Samoa Development Strategies (2002–2012) (Box 8.1) have all recognised the environment as an integral component of national development, but used have the environment more as a cross-sectoral issue which has resulted in it having limited visibility. The 2012–2016 Samoa Development Strategy made a very strong commitment to the area of the environment, with not only its being one of the priority sectors; it has also been mainstreamed into other priority areas such as the economic sector and infrastructure sector. The overarching goals of the environment as a priority area are for the transformation to a green economy and promotion of green growth.

Box 8.1 Strategy for the development of Samoa, 2012–2016

Vision: Improved quality of life for all

Theme: Boosting productivity for sustainable development

Priority Area 1: Economic Sector

- Key Outcome 1: Macroeconomic Stability
- Key Outcome 2: Reinvigorate Agriculture
- Key Outcome 3: Revitalise Exports
- Key Outcome 4: Sustainable Tourism
- Key Outcome 5: Enabling Environment For Business Development

Priority Area 2: Social Policies

- Key Outcome 6: A Healthy Samoa
- Key Outcome 7: Improved Focus On Access To Education, Training And Learning Outcomes
- Key Outcome 8: Social Cohesion

Priority Area 3: Infrastructure Sector

- Key Outcome 9: Sustainable Access To Safe Drinking Water And Basic Sanitation
- Key Outcome 10: Efficient, Safe And Sustainable Transport System And Networks
- Key Outcome 11: Universal Access To Reliable And Affordable ICT Services
- Key Outcome 12: Sustainability Energy Supply

Priority Area 4: Environment Sector

- Key Outcome 13: Environment Sustainability
- Key Outcome 14: Climate And Disaster Resilience

Within the current SDS, a strong emphasis is placed on the mainstreaming of the environment into the economic sector, the social policy sector and the infrastructure sector. The current objectives flow from the previous SDS, but with more direct and strong emphasis on greening the economy under the objectives of sustainable tourism, sustainable agriculture, business development, sustainable access to drinking water and basic sanitation, an efficient, safe and sustainable transport system and networks, sustainable energy supply, environmental sustainability, and climate and disaster.

8.5.4 Greening of the sectors

Samoa has developed sector policies over the past ten years that reflect the principles of sustainable development and are supported by actions that promote the transformation into a green economy through green growth. Despite this, implementation of the policies and plans are dependent on availability of funding and access to technical capacity and affordable green technology.

Environment

The primary focus of the environment sector has been the development of policies and plans to support implementation of the laws passed promoting conservation and sustainable use of natural resources. In this sense, a lot has been achieved with national plans and policies now completed for each issue such as biodiversity, climate change, waste management, toxic chemicals, energy and sustainable land management. In all the plans and policies established, there is strong emphasis on the promotion of green technology.

Environmental work is still guided by the National Environment and Development Management Strategy (NEMS), which was prepared in 1994 (SPREP 1994). In practice, much of this work has been integrated into the SDS and sectoral policies and plans.

The Ministry of Natural Resources and Environment (MNRE) has a Corporate Plan (2008–2011; and 2012–2014), and a number of plans for MNRE divisions, including the National Biodiversity Sector and Action Plan (NBSAP), the Sustainable Land Management Plan (SLMP), the National Implementation Plan on Persistent Organic Pollutants and the Waste Management Policy and Waste Management Strategy.

- **Biodiversity conservation.** Through the NBSAP, Samoa has developed a conservation of biodiversity programme that aims to expand its protected areas network, which currently accounts for around 10 per cent of land area. The protected area network includes national parks, watershed areas, community-based conservation areas and former plantation forests protected as conservation forests rather than being logged. In the marine area, more than 60 villages have established traditional fishery reserves to go along with two district marine-protected areas and a government marine reserve. The protected areas are being used for nature tourism, conservation of biodiversity, carbon sinks, and breeding and nursery grounds for native biodiversity.
- **Land management.** The Sustainable Land Management Plan addresses enhanced productivity and livestock production from improved pasture, enhanced crop production through improved soil fertility maintenance, identification of new commercial uses of forest plantations, and the identification of alternative species for reforestation purposes.
- **Waste management.** The Waste Management Strategy provides the framework for addressing both solid and liquid waste, including hazardous wastes. Some of the programmes relevant to the green economy include promoting recycling with the private sector and a ban on non-biodegradable plastic bags. The ban on plastic shopping bags was also instituted as part of the waste minimisation

programme. Management of residential waste has changed significantly over the last decade from being burnt or buried: a roadside collection service begun in 1997 now covers the whole country. All household waste collected is delivered to a centralised semi-aerobic landfill system in Upolu and Savaii.

- **Climate change.** Developed in 2007, the Samoa National Climate Policy (NCP) provides a national framework to mitigate the effects of climate change and adapt to its impacts in an effective and sustainable manner. It provides overarching, strategic direction for all of the government's climate change initiatives. The goal of the policy is 'to enhance Samoa's response to the impacts of climate change in support of national sustainable development efforts' (MNRE 2007). The NCP has been effective in ensuring that the full range of climate-related activities are undertaken. The major areas of activity have been on mitigation and adaptation through external funding. The NCP has helped to ensure that there has been progress in the enabling activities involving awareness, information, capacity building and the regulatory framework. Most of the actions identified in the NCP are either being implemented or are in the process of planning and preparation.
- **Environmental management.** Samoa enacted the Planning and Urban Management Authority (PUMA) Act 2007, which requires all developments to obtain development consent. Development consent provides the opportunity for the PUMA to review developments and advise on the preparation of environmental impact assessments. To date, this process has been a useful tool for the promotion of the concept of sustainable development, including promoting environmental guidelines that facilitate the transformation into a green economy.

Infrastructure

- **Energy.** Samoa's first ever dedicated National Energy Policy (NEP) was approved by cabinet in June 2007 and was followed by a Strategic Action Plan in 2008. The NEP identifies five objectives: improved energy planning; increased use of renewables; an efficient, reliable and affordable electricity supply; safe access to petroleum products; and efficient transport.

The NEP identifies the need to promote clean and renewable energy to reduce Samoa's heavy reliance on imported fossil fuel. The commitment to renewable energy in the NEP has helped to ensure that Samoa has made progress in the last five years in promoting the use of renewable energy, including pilots on solar energy, coconut oil and biogas, and planning for more hydropower schemes.

SDS 2012–2016 re-emphasised through 'Key Outcome 12: Sustainable Energy Supply' the commitment to increase the contribution of renewable energy services and supply by 20 per cent by the year 2030.

To promote renewable energy, Samoa has participated in a Global Environment Fund (GEF)-funded Pacific Islands Greenhouse Gas Abatement through Renewable Energy Project (PIGGAREP), including demonstration of renewable energy installations (e.g. the copra biofuel project for some government vehicles and Apolima Island solar power project) and building capacity (e.g. related to

geothermal and biofuels and involving socio-economic evaluations, such as for the Tafa'igata waste-to-energy project).

The Pacific Environment Community Fund is supporting a US\$4 million 400-kW grid-connected solar photovoltaic system project. The Government of Samoa has also committed to exploring other options for renewable energy, including biomass and wind. Hydro-electricity, which currently provides 36 per cent of electricity, is also being assessed for potential sites in a co-management approach with traditional landowners.

In promoting energy-efficiency products, an Asian Development Bank-funded project installed power factor correction capacitors for the top 20 commercial users in the country. A long-term plan is currently under development for other energy-efficiency options, including conversion of streetlights to efficient alternatives and energy audits for government buildings – as highlighted in the Pacific Islands Forum Communiqué of 2011, which was the result of the Pacific Islands Heads of Government Dialogue.

- **Transport.** Samoa's transport system is all privately operated, with government vehicles being the only ones under the government's control. At present there is no policy to convert government vehicles to fuel-efficient vehicles, mainly due to the current costs of such vehicles and the availability of the technical capacity nationally to service them.

The Land Transport Authority (LTA) is the main agency of government overseeing both transportation and road management. LTA is a recipient of PIGGAREP funding, testing gas emissions from vehicles with the goal of establishing a fuel-efficient standard that will further enhance the existing restrictions on the importation of vehicles over 12 years old.

- **Water.** Samoa's water system services roughly 95 per cent of the population, with the remainder receiving its supply exclusively from wells, springs and small rainwater reservoirs. Although water is widely available, only a small proportion of the population receives safe, treated water due to village-owned and -operated water systems. A multi-sectoral Water Sector Policy and Plan developed in 2008 provides a framework for collaboration and implementation of activities that promote sustainable access to safe drinking water.
- **Housing.** Although no policies have been developed for the housing industry, discussions are underway through the energy efficiency programme to conduct an energy audit for all government buildings, with the goal of converting them to energy-efficient buildings. This will be used as a catalyst for environmentally-friendly building design. Furthermore, the environmental impact assessment component of providing development consent for buildings also provides advice on the use of green products, technology and designs for buildings.

Economic

- **Agriculture.** Agriculture plays an important role in the economy and the everyday lives of Samoans. Although the sector has decreased in its contribution

to the GDP from 17 per cent in 1999 to less than 10 per cent of GDP in 2010, the 2009 agricultural census showed that approximately 32 per cent of households were non-agriculturally active, while 68 per cent were agriculturally active or relied on a mixture of subsistence agriculture and cash income.³

The Agriculture Sector Plan (2011) goal ‘To revitalise the agriculture sector to increase its contribution to the national GDP from 10% to 20% by 2015’ focuses on reducing poverty and improving economic growth through four key sector policy objectives (Box 8.2).

Policy Objective 4 of the Agriculture Sector Plan has strong emphasis in advancing the implementation of environmentally-friendly production and farming systems to appreciate the value of natural resources, and key outcomes focusing on greening the economy through the promotion of organic farming, improving agricultural production for export and import substitution through environmentally-friendly approaches.

Organic farming is promoted by the private sector through the Women in Business and Development Inc. working with local farmers for organic certification and export of the products.

- **Tourism.** The Samoa Tourism Development Plan (STDP) 2008–2013 promotes sustainable tourism as its core vision, and identifies nature and culture as its main attractions. Within its development objectives, the STDP requires the continuous development and enhancement of tourism facilities in accordance with excellent quality standards, including supporting environmental sustainability as the foundation of quality tourism standards.

To support this objective, the Samoa Tourism Authority (STA) has embarked on developing nature tourism attractions in collaboration with the MNRE and private sector partners, while ensuring that all new tourism developments comply with environmental impact assessment requirements and promoting traditional beach *fales* (traditional bungalows) and green designs for hotels.

Box 8.2 Agriculture Sector Plan

Policy Objective 1: to strengthen policy, legal, regulatory and strategic planning frameworks for sustainable agriculture development

Policy Objective 2: to improve national self-reliance in food production and nutritional security

Policy Objective 3: to enhance private sector capacity in improving agricultural productivity, value-adding and marketing

Policy Objective 4: to ensure sustainable adaptation and management of agriculture resources

8.5.5 Pacific regional efforts for green economy transformation

Within the Pacific islands, the Pacific Islands Forum Leaders and Pacific regional agencies – such as the Secretariat for the Pacific Regional Environment Programme (SPREP), Secretariat for the Pacific Community (SPC), University of the South Pacific (USP) and the Pacific Islands Forum Secretariat (PIFS) – have been at the forefront of advocating for sustainable development, including the transformation of Pacific island economies into green economies in a blue ocean. This is based upon the understanding of the vulnerabilities of the Pacific environments to global economic shocks, and more importantly the changing climate and its fragile and limited natural resources.

This strong support for the Pacific region on sustainability is evident in the ratification by most Pacific island small states of most global multilateral environmental agreements, including some specifically for the Pacific region itself. Furthermore, the establishment of the SPREP, charged with providing support and advice for Pacific island nations on sound environmental management, shows this commitment from within the region.

The 2011 Forum Leaders Communiqué further showed commitment from the Pacific leaders to the concept of the green economy with specific reference to promoting sustainable tourism, renewable energy and the promotion of energy efficiency, conservation and sustainable management of fishery resources, climate financing, and strengthening regional collaboration on other areas.

Gaps

The major gap in the transformation of Samoa's economy into a green economy is the absence of green taxes and internalisation of environmental costs in the economy. Resource economics and economic valuation of natural resources have been used in the region mainly through projects only, but have never really taken been up by countries such as Samoa.

8.6 Constraints for transforming Samoa's economy into a green economy

Samoa's transformation into a green economy is being slowed by a variety of constraints, as listed below.

1. **Lack of financing:** With most of the plans and strategies already in place promoting transformation to a green economy, Samoa as a least-developed country continues to struggle with implementation due to lack financial resources. The majority of funding for environmental work in-country is financed via aid, the GEF and loans. The national budget allocates most of its financial resources to social services and community service obligations for infrastructural development. As long as this continues, the transformation to a green economy will be slow. Plans such as the current climate financing programme being developed in Samoa and encouraged through the Pacific island region under the auspices of the Pacific Island Forum should be supported by the international community. Furthermore, the push for green taxes and budget reforms is not a real option, as the Pacific island small

states are already heavily taxed for their national economic development. Samoa already has a 15 per cent value-added goods and services tax and around 27 per cent PAYE (income tax) for workers earning above T20,000. Companies making any profit are taxed over 25 per cent of the profit.

2. **Lack of technical capacity:** Another major constraint is the lack of technical capacity within the country to effectively implement the necessary plans. A good example is conducting energy audits or environmental economic valuation; although these have been identified over the past five years, the absence of such technical capacity in-country has meant the audits/valuations could not be undertaken. In recognising this, efforts are being made to conduct training for locals. In areas where technical capacity is readily available in-country, progress is much faster and seamless.
3. **Lack of green technology:** Although sustainable development has been around for more than 20 years, green technologies have been very expensive to purchase, or in some cases no suitable technology exists for the needs in Samoa. The conversion and promotion of solar energy has not advanced much, mainly due to the capital and maintenance costs compared with diesel, especially over the short term.
4. **Limited local market:** With a small population of just over 187,000 people, the market in Samoa is very small for the private sector to invest in green products or produce and expect to be profitable over a sustained period of time. A good example is the recycling business, which cannot generate enough waste to operate a profitable business locally, so ends up having to export its waste, thus reducing its potential profits all the more.
5. **Limited market accessibility:** Samoa's isolation from the main markets in North America, Europe and Asia, as well as its close development partners in New Zealand and Australia, means products and produce from the country are not competitive due to high transport costs.

8.7 Conclusion

Samoa as a small state has made progress over the past 20 years in promoting sustainable development through the passing of relevant legislation, and the development and implementation of subsequent policies and plans. However, it has experienced varying degrees of success in terms of transformation into a green economy. What is undisputed is the political commitment of the Government of Samoa, given its support in the provision of available national resources and also being vocal in the international community in securing necessary financial assistance for national and regional implementation.

As a general overview of Samoa's transformation into a green economy, the tourism sector has within its STDP goals and objectives the promotion of green tourism – both as a destination, but also the greening of the industry. The energy sector is also being transformed, with the promotion of renewable energy and energy efficiency, while in the transport sector actions are underway for the establishment of a fuel-efficient standard for vehicles. Agriculture, which is still the main export sector at the

national level, is also prioritising the green economy through organic farming and sustainable agriculture programmes.

As for the environment sector, the greening process has been taken place for a while with the establishment of more terrestrial protected areas, watershed areas and marine-protected areas, and the conversion of state-run reforestation areas into national parks. Land-use plans and sustainable land management plans have been completed and are being used nationally, while waste management programmes support green growth through recycling, biogas from landfill sites and waste collection. The area with most funding currently available is climate change, where mitigation and adaptation programmes are all structured on the promotion of the green economy and green growth.

Samoa, as a small state in the Pacific islands far from established markets and with limited natural resources, will always be fighting an uphill battle to fully utilise benefits from a green economy. On the positive side, such economic development constraints have been a saving grace for the country, preventing it from ruining its surrounding environment. Therefore, with continued political will to support the implementation of the plans already in place, and when financing is made available by the international financial institutions and donor community, sustainable development and the green economy are real dreams that can be achieved.

Notes

- 1 Principles 15, 7, 3 and 16, Rio Declaration on Environment and Development, 1992.
- 2 Port Vila Outcome Statement/Resolutions, cited in UN ESCAP (MSI+5) (2008), 71.
- 3 Samoa Bureau of Statistics: Samoa Agricultural Census 2009.

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