



Motivations to make your establishment more sustainable while saving money



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Introduction

This document is the result of a project with the aim to demonstrate measurable benefits and Best Practice examples as incentives for accommodations in Seychelles to seek certification from the Seychelles Sustainable Tourism Label (SSTL).

Interviews with all **15 SSTL** certified accommodations were conducted, asking questions about water, energy and waste management and the financial benefits of acting more sustainable.

- **86,7%** explained the SSTL was a convenient option and that sustainable approaches were already in place, which is often the case without even recognizing

- **93,3%** stated that sustainable behavior led to cost savings

In order to study the relevant matters in depth, four best practice cases were chosen that remarkably led to cost savings.



Best practice cases

Case Study 1: Awareness

Hotel A showcased in the first example is a large-scale establishment (SSTL definition 51+ rooms), which stated that most savings regarding energy and water were made by creating awareness about sustainable behavior among all their members of staff. Concentrating on implementing energy and water saving policies had a meaningful impact.

In order to do that, every single member of the staff received training and presentations about sustainability and why it is important in the context of the hotel's operation but also for the Seychelles in general as well as what can be done in their daily life routine, not only within the establishment.

One example was to add to the duty managers' tasks to check every night if all lights that are not needed are switched off.

It was stated, that a changed mindset among members of the staff could be observed and that this reflected positively on the energy and water consumption. Comparing numbers from 2016 and 2017 (January until November) shows a decrease in both consumptions.



Energy

	2016	2017 (January - November)
Highest peak	221,613 kWh Occupancy 88% (April 2016)	203,746 kWh Occupancy 94% (March 2017)
Total consumption	2,398,290 kWh	2,080,600 kWh
Average consumption per month	199,857.5 kWh	189,145.45 kWh
Average occupancy	78.08%	80.21% (January - October)

Highest energy consumption per month in 2017 compared to highest energy consumption per month in 2016 is around 8% less, even with 6,38% higher occupancy.

Comparing the total consumption, (adding the average monthly consumption from 2017 as value for the consumption in December 2017) shows 5.36% less kWh consumed in 2017 than the year before.



Water

	2016	2017 (January - November)
Highest peak	December 2016 4,675 liters Occupancy 63%	August 2017 3,441 liters Occupancy 81.1%
Total consumption	35,792 liters	28,201 liters
Average consumption per month	2,982.67 liters	2,563.72 liters
Average occupancy	78.08%	80,21% (January - October)

In terms of water consumption, similar changes can be observed.

Highest amount of water consumed per month in **2017** compared to highest water consumption per month in **2016** is **26.39%** less, with **22.32%** higher occupancy. Comparing the total consumption, (again adding the average monthly consumption from 2017 as value for the consumption in December 2017) shows around **14%** less liters consumed in 2017 than the year before.

It is noticeable that the highest peak in **December 2016** is high above average consumption, although the occupancy is below the average of 2016. It needs to be added that results might have differed if a comparison of the month of December 2016 with the month of December 2017 would have been possible. Nevertheless, looking at the total consumption and the average occupancy, it is no doubt, a decrease in water consumption is observable and therefore also in costs.

Of course, there are several circumstances that can increase the energy and water consumption. One example for an increase in water consumption can be a leak, which is not directly spotted and is wasting a lot of water. Which brings us to the next Case Study, a way to prevent this situation.





Case Study 2: Monitoring

In order to design an accommodation's consumption more efficiently, a sufficient and regular monitoring of the water and energy consumed by the establishment is necessary. Only then a valid overview of consumption based on regular readings is possible and strategies that will lead to cost savings can be implemented.

Hotel B in this Case Study is a large-scale establishment, which stated that good monitoring is the key for efficiency and therefore cost savings.

The accommodation installed meters by every section of the hotel, which monitor the water and energy consumption. Readings are done twice a day by the engineering department and the numbers are shared with the staff during the daily staff briefing, which has the additional advantage of creating awareness among the members of staff.

In addition, a third party is evaluating the collected data and sending the accommodation a yearly report, which also compares the data with the previous year. Cost savings are directly calculated and summarized, as well as recommendations made, depending on the performance.

For example, one statement of the report from **2016** is a decrease of **13.73%** of energy used compared to the previous year, which led to genuine savings of **USD 618,296 (8,569,387 SCR) in 2016.**

All results are summarized and can be spotted at a glance. This is in particular beneficial to plan long term strategies.

A future plan of **Hotel B** is to implement meters not only by section, but by each room, so consumption can be monitored even more efficiently and for example leaks can be detected even better.





Case Study 3: Renewable Energies

When the energy consumption is already efficient, it is advisable to think about investing in renewable energies like Solar photovoltaic (PV) due to its numerous environmental and economic benefits. PVs need sun as recourse and produce no harmful emissions while providing energy.

PV suppliers/installers on Seychelles:

- Energy Solutions Seychelles, www.energysolutionsseychelles.sc
- Sey Solar, www.seysolar.com
- Sun Tech Seychelles, www.sts.sc

In **Case Study 3**, Hotel C, which is a small-scale self-catering accommodation, decided to produce part of their own energy and install PV panels on their roofs. For accommodations on Seychelles the law allows to produce up to 50% of the monthly consumption, which is fed into the PUC grid and then subtracted from the PUC bill.

In average, Hotel C needs 3,066 kWh per month, which creates costs of **11,620.68 SCR monthly** (with the commercial PUC top tariff of 3.79 SCR/kWh).

36 panels were purchased and installed with a size of 290 W each. The estimated yield per month adds up to 1,365 kWh which equals savings around **5,175 SCR monthly (62,101 SCR yearly)**.

With this calculation, in this specific case, the payback period for the investment was calculated with 4 years.

Having a look at the actual numbers after the installation from May 2017 until January 2018, in total 9690.91 kWh were produced, in conclusion 1,076.74 kWh in average per month (including a very low number of 257.83 kWh in the first month during the implementation phase).

Calculating with the **PUC** top tariff, in this 9 months, **36,727.49 SCR** were saved, in average **4,080.83 SCR per month**. Deductive, the yearly saving would be around **48,970 SCR**, which would lead to a payback period of around 5 years and 1 month.

In both cases it can be stated that the payback period is reasonable and in long term will save a lot of money. Another advantage is the automatic monitoring of the PV's energy produced.





Case Study 4: Waste

Waste is one of the main challenges in terms of sustainability, also in the tourism sector, especially in hotels. But it can also be an opportunity for saving costs with the principle of reducing waste at its source, reusing waste as much as possible and recycling waste as last option.

Recycling in Seychelles is not always easy, the majority of waste ends up on the providence landfill as there are insufficient recycling initiatives and facilities in place. Nevertheless, there are still ways to reduce, reuse and even recycle waste and in the end save money with this kind of approaches.

Case Study 4 focusses on Hotel D, a large-scale hotel on Seychelles with different approaches and strategies, which are sometimes only little things, but still have a crucial impact for the environment as well as the economy of the establishment.

Reduction

Waste is reduced by the promotion of local products which come with less packaging. Water bottling in reusable glass bottles reduces the number of plastic bottles drastically.

A reverse-osmosis desalination plant with UV treatment was installed, it is used to convert seawater into drinking and washing water. For drinking water, Hotel D has a solar energy-powered bottling plant, which bottles purified water into re-usable glass bottles for the guest rooms.

To reduce paper consumption there is a Press Reader available, guests can enjoy newspapers and magazines online. In addition, they encourage staff to print double sided and only if needed.

Reuse

Beer bottles are collected and send back for reuse.

Fabrics, like towels, bed sheets, table cloths and uniforms are reused internally among staff members or donated to local charities

Reusable plastic egg trays are used instead of single use ones and send back to the supplier.

Chemical gallons are reused as planting pots.

Recycling

The key to recycling is a good waste separation strategy.

Afterwards most of materials actually can be recycled.

Hotel D gives their food waste to a local farmer for his pigs, uses it as dog food or feeds fruits to their tortoises. PET bottles and cans are collected and transferred to the redeem center in Providence, where they are collected, pressed and recycled overseas.

Glass bottles are send to a project, which uses it for construction, crashed and mixed with cement.

Green waste is shredded and used as compost. Batteries, scrap metal and electronic waste is shipped overseas for recycling.



Financial benefits

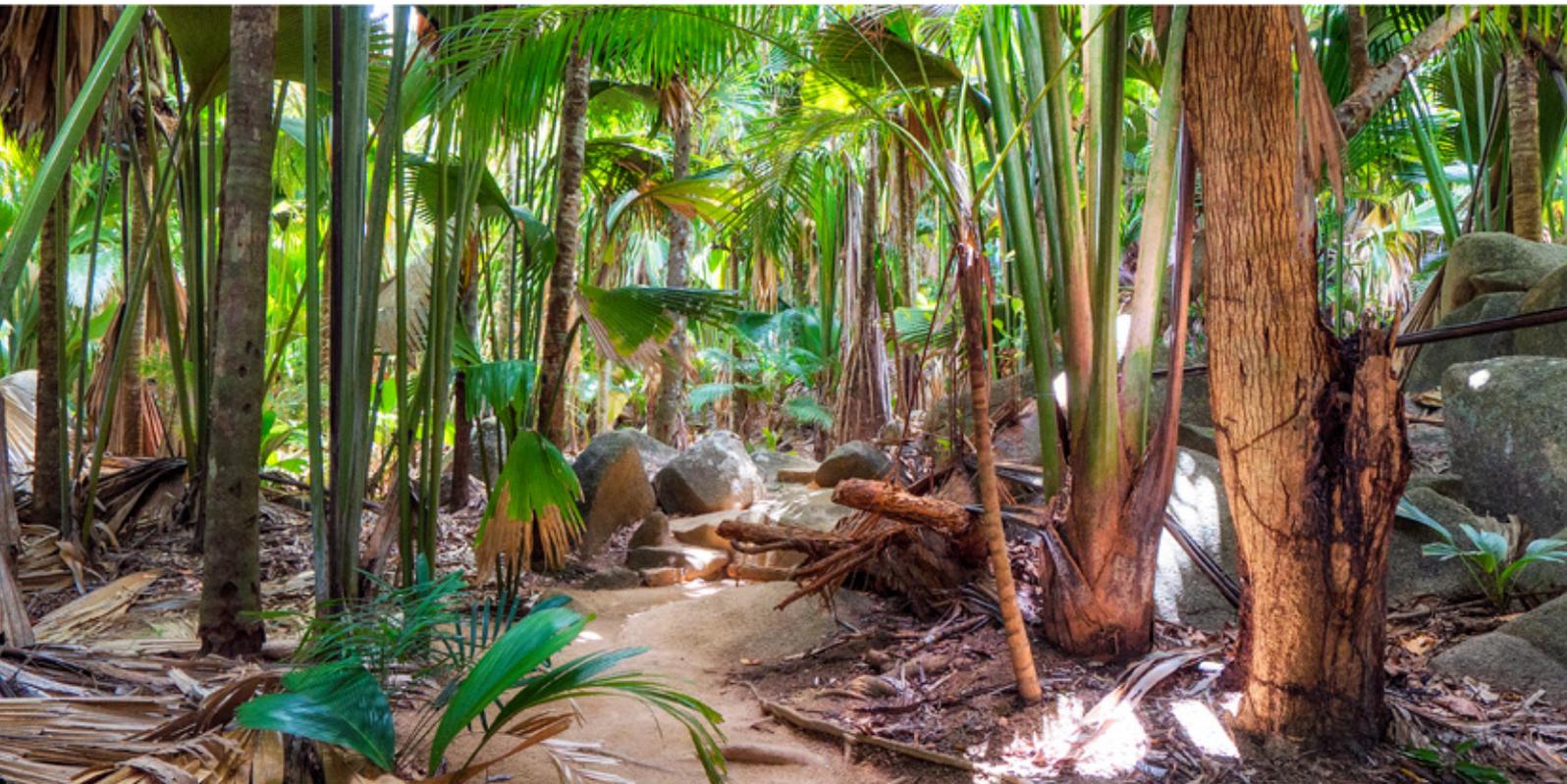
In 4 years **381,561 PET bottles**, 148,130 cans, 27,901 beer bottles were collected, which led to an economic benefit of SCR 200,759.

200,000 glass bottles are filled with drinking water per year (54% of hotels demand of drinking water), which causes 7 tons less plastic and saves costs of 15,000 SCR.

2017 5.8% less paper was consumed compared to 2016 (65,000 A4 paper less), which caused a saving of 6,200 SCR.

And the plastic egg trays allowed the elimination of usage of 55,000 carton trays, which saved purchasing costs of **247,500 SCR** and disposal costs of around 3000 SCR.

In total, waste reduction activities in 2015 provided the resort with a cost saving of around **USD17,100 (237,000 SCR)** in waste disposal transport and landfill fees.



Conclusion

The beauty of the natural environment plays one of the most important roles in the Seychelles' tourism product. In addition, as a Small Island Developing State it is very vulnerable to Climate Change. To decrease this risk, it is crucial to help to mitigate this change by acting responsible in a sustainable way. But as a private establishment it is also important to keep business running and save costs, the study showed that both things can go hand in hand. The SSTL is a framework and guideline to support sustainable approaches. And if you decide to implement sustainable approaches into the daily operations, you also might consider applying for the SSTL certification, since by then it is only one step away.

Seychelles Sustainable Tourism Label

The SSTL is a sustainable tourism certification program for accommodations of all sizes, designed specifically for use in Seychelles. It was introduced by the Ministry of Tourism in 2012 and is voluntary, user-friendly, and designed to inspire more efficient and sustainable ways of doing business. The purpose of the Label is to provide a set of standards to encourage and guide accommodations to do their part to increase the sustainability in Seychelles.

In order to apply for the certification, contact sinha.levkovic@seychelles.travel or find more information at sstl.sc.

Seychelles Sustainable Tourism Foundation

The Seychelles Sustainable Tourism Foundation (SSTF) is a Seychellois NGO which acts as a connecting platform for tourism stakeholders in Seychelles, facilitating partnerships and joint initiatives for sustainable tourism. The SSTF pursues the vision to make Seychelles an international best practice example for sustainable tourism through an integrated collaborative approach between public, private sector, academia and NGOs. As part of this vision the action plan is based on the Global Sustainable Tourism Council (GSTC) criteria, pursuing a five-year goal for Seychelles to be certified as a sustainable tourism destination by one of the GSTC-recognized bodies. The Foundation works closely with the Ministry of Tourism, Civil Aviation, Ports and Marine and can help to inform about sustainable tourism, for example in form of workshops. Please contact office.SSTF@gmail.com for more information, questions and advice.

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