

## Offsetting Cousin Island's Emissions

Whilst managing our own footprint to ensure that our emissions are kept to an unavoidable minimum, we accept that for a small country like Seychelles, tourism is essential to the economy and given its remoteness, visitors can only arrive by aeroplane. Therefore, it is not possible to reduce these emissions directly and carbon offsetting is the most realistic option in these circumstances to mitigate our climate change impact.

To offset our emissions we purchased the equivalent carbon credits in an African clean cook stove project, based in Darfur, Northern Sudan. This project was rigorously selected because it delivers on many levels:

- Significant and verifiable carbon reductions
- Substantial health benefits – reducing indoor air pollution
- Reduces demand for wood from unsustainable sources
- Located in Sudan – described as the location for the world's first climate change war.

The project is currently at listed status with the Gold Standard Foundation. This project has been implemented by Practical Action. The project has been running since December 2007, with a local team fully trained and new stoves being rolled out. Importantly, the project is being independently verified by Bureau Veritas.

**Carbon Clear** is a world leading carbon management company advising international corporations on emission reduction and climate change strategies. It is a founder of ICROA (International Carbon Reduction and Offset Alliance) [www.carbon-clear.com](http://www.carbon-clear.com).

**Practical Action** is a development charity with a difference. For over 40 years, it has been working closely with some of the world's poorest people - using simple technology to fight poverty and transform their lives for the better.

**The Gold Standard Foundation** is a non-profit organization under Swiss law that operates a certification scheme for premium carbon credits. The Gold Standard benchmark was the brain child of a core group of NGOs led by the World Wide Fund for Nature (WWF).

## Assurance

Whilst this activity has been voluntarily undertaken by Nature Seychelles and Cousin Island, we have been careful to ensure that it has been conducted to the highest standard. Therefore, we retained Nexia, Smith and Williamson to assure both the measurement and offsetting process.



*“Based on the results of our procedures, in our opinion, the Carbon Statement for the year ended 31 December 2008 is fairly stated, in all material respects, in accordance with the Carbon Reporting Policy.”*

**Nexia Smith and Williamson, March 2010**

Nexia, Smith and Williamson was founded in Glasgow in 1881, employs 1,500 people and operates from 10 principal offices in the UK and Ireland, and provides a range of advisory services to private clients, professional practices, mid-large corporates and non-profit organisations.

[www.nexiasmith.williamson.co.uk](http://www.nexiasmith.williamson.co.uk)

*“Nature Seychelles has taken an unprecedented step in not only taking conservation to the next level by going carbon neutral but also in conducting an independent audit of its footprint by Carbon Clear and then having the process independently assured. This commitment speaks volumes about the integrity and care which the team at Nature Seychelles and Cousin Island goes about protecting and enhancing the environment”*

**Mark Chadwick, CEO, Carbon Clear**



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# Cousin Island - The World’s 1st Carbon Neutral Nature Reserve

## Background

Nature Seychelles is a multiple award winning non-profit environmental organization in the Seychelles. Involved in a wide range of exciting activities to improve environmental standards, Nature Seychelles flagship reserve is Cousin Island Special Reserve. The reserve is managed by local staff, welcomes thousands of eco-tourists and benefits local communities on the neighbouring island of Praslin through eco-tourism.

Conservation activities on the Reserve include monitoring of the island’s biodiversity, research, re-introduction of endangered species such as the Seychelles Magpie robin, ecotourism and education. Cousin has received international awards for its conservation and ecotourism efforts.

In recognition of the environmental impact of international visitors to Cousin, most of whom fly from Europe and reach the island by boat, Nature Seychelles has undertaken a rigorous approach to carbon neutrality. This has involved measuring all the emissions associated with the island, reviewing opportunities for on-going reductions and investing in high quality carbon credits from a clean cook stove project in Sudan.



*“We did not want to purchase credits over the internet or invest in just any generic scheme. The process we initiated lasted about 15 months but provided a verifiable and assured result”*

**Dr. Nirmal Shah, CEO, Nature Seychelles**



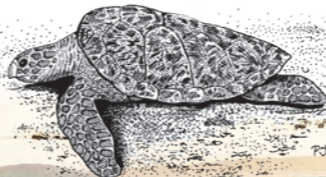
## The Carbon Footprint

How did we calculate our emissions? To measure our carbon footprint, Carbon Clear – a leading carbon management company - looked at the following activities:

1. All the emissions generated on Cousin Island - The island’s operations generate a small number of emissions, but using efficient technology these are kept to a minimum
2. A portion of the emissions from the Nature Seychelles operation. As Cousin Island is one of several projects that Nature Seychelles is responsible for, 15% of its overall organisational footprint has been attributed to the Cousin Island footprint.
3. The visitor footprint - Approximately 10,000 to 14,000 ecotourists visit annually. We used 2008 visitor figures (a record (high) year in terms of numbers) for the calculations. For this footprint to be complete we have included emissions from international flights to and from the Seychelles, internal travel and hotel stays. As a visit to Cousin Island is one part of a longer holiday to the Seychelles (visitors spend approximately 1/3rd of a day on the island), Cousin Island cannot be solely responsible for all greenhouse gas emissions. Therefore using the amount of time spent on the island as a guideline 3% of total visitor travel and hotel emissions was allocated to the Cousin Island footprint.
4. Finally, the footprint recognized the contribution of the reforestation programme on Cousin Island. Since 1968 the island has been restored with the result that the Island is 85% covered by natural tropical vegetation (based on GIS). Based on available scientific information, we calculated the amount of annual carbon that the island’s 22.95 hectares can absorb and netted this off against the footprint.

### Other Technical Information

With flights forming such a large part of the footprint, and with a lack of scientific consensus on the global warming impact of flights, we used a Radiative Forcing Index (RFI) of 1.9 as recommended by DEFRA (The UK Government Department for Food and Rural Affairs). Our consultants, Carbon Clear, used ISO14064-1:2006 (the International Standards Organisation’s recommended best practice for relevance, completeness, consistency, accuracy and transparency) to measure the organisation’s greenhouse gas emissions and to help Nature Seychelles establish credible benchmarks for tracking future emissions reductions from its carbon management activities.



## The Results - The Carbon Statement

The total emissions for Nature Seychelles’ activities on Cousin Island, including the allocations from visitor travel and the Nature Seychelles offices, in the calendar year 2008 amounted to approximately 1,569 tonnes of CO<sub>2</sub>e<sup>1</sup>.

However, incorporating emissions reductions of 211 tonnes (from CO<sub>2</sub> sequestered by Cousin Island’s natural tropical vegetation) the final footprint prior to offsetting is calculated at 1,358 tonnes of CO<sub>2</sub>e. The remainder of this footprint has been offset using carbon credits from a clean cook stove project in Sudan reducing the Island’s emissions to net zero.

A breakdown of emissions by section is shown in the chart below, with Visitors’ Holiday and Travel comprising 99% of emissions.

1. CO<sub>2</sub>e standards for carbon dioxide equivalent – It represents the universal unit of measurement used to indicate the global warming potential (GWP) of all greenhouse gases.

**The table below sets out the Carbon Statement for the year and confirms that Cousin Island has reduced its carbon footprint to zero:**

	Emissions sources	Tonnes CO <sub>2</sub> e (proportion of total)	% of Cousin Island overall footprint
Cousin Island	Fuels, waste, water and materials used on the island	15.79	0.7
Visitors Holiday & Travel	International flights, hotel accommodation and internal transfers	1,542.11	98.7%
Nature Seychelles Office	Fuels, electricity, waste, water, materials, business travel	11.60	0.5%
Total Emissions		1,569.50	
Less: Cousin Island Vegetative sequestration		(210.68)	
Less: offsets purchased		(1,358.82)	
Net Carbon Footprint		.00	