



# DEVELOPING A CARBON OFFSETTING SCHEME IN THE TOURISM SECTOR OF MONTENEGRO



*Centar za održivi razvoj je program koji zajednički sprovode Vlada Crne Gore i UNDP*

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## **ACRONYMS**

ASE: AdventureSmith Explorations

CN: Carbon Neutral

CCB: Climate, Community and Biodiversity (Standards)

CCM: Climate Change Mitigation

CDM: Clean Development Mechanism

COP: Conference of the Parties

CSR: Corporate Social Responsibility

GDP: Gross Domestic Product

GHG: Greenhouse Gases

GS: Gold Standard

IBP: Included in Booking Price

INDC: Intended Nationally Determined Contribution

IPCC: International Panel on Climate Change

KPI: Key Performance Indicator

MRV: Monitoring, Reporting and Verification

NCOS: National Carbon Standard

NGO: Non-Government Organization

NTCF: National Tourism Climate Fund

RE: Renewable Energy

SD: Sustainable Development

SIDS: Small Island Developing State

SGP: Small Grants Program (of the GEF)

TCNT: Towards Carbon Neutral Tourism

UNDP: United Nations Development Program

UK: United Kingdom

UNFCCC: United Nations Framework Convention on Climate Change

USA: United States of America

USD: United States Dollar

VCS: Verified Carbon Standard

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## **EXECUTIVE SUMMARY**

### **Introduction and Problem Statement**

As a main driver of Montenegro's economic growth and investment, the tourism sector is responsible for a significant share of GHG emissions from the transport, accommodation and other leisure-related activities.

According to Montenegro's Initial National Communication (INC) to the UNFCCC, in the 'business-as-usual' scenario Montenegro's GHG emissions will rise by 40% in 2020 above 1990 baseline. By contributing to over third of GDP and a half of capital investment in infrastructure, the tourism sector will inevitably be an important, if not the leading, factor in a projected GHG emissions increase.

The Government is firmly committed to develop its tourism sector on a sustainable basis and it is putting in place the required policy and regulatory framework to attract large-scale investment in tourism infrastructure, but also to steer them in a more environmentally sustainable way.

Helping the Government with its ambitions, the 'Towards Carbon Neutral Tourism' (TCNT) main project objective is to reduce GHG emissions from Montenegro's tourism. The three areas of activity are:

1. Promoting adoption of low-carbon policies and regulation,
2. Establishing sustainable financing mechanisms, and
3. Supporting design and implementation of flagship investment in low-carbon tourism infrastructure.

This report focuses on the development of a carbon-offset scheme for the tourist sector in Montenegro.

Carbon offsetting, compensating emissions to make an activity, organization or product carbon neutral (CN)<sup>1</sup>, will help achieve the policy objective. It involves taking responsibility for any remaining GHG emissions that cannot reasonably be reduced by corporate mitigation actions to reduce them.

The focus should be put on efforts to design and implement a carbon-offset scheme that can become a valuable marketing tool helping the tourist sector compensate those emissions that it is not able to reduce or mitigate.

### **Options and Analysis of Carbon Offset Scheme Models**

Four alternative models can be considered that combine different options of two fundamental parameters:

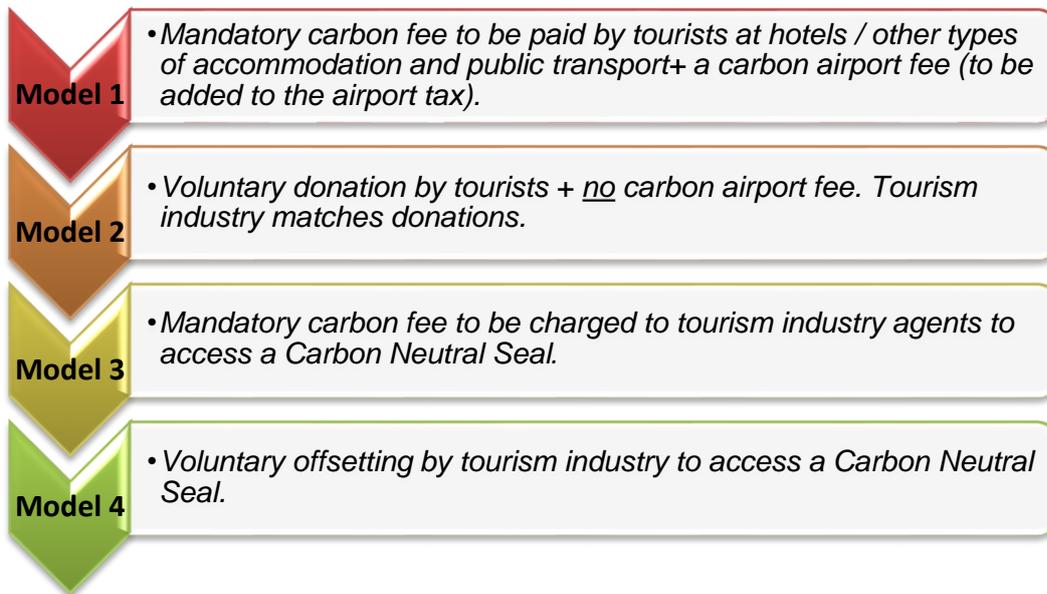
- 1) Whether the programme is voluntary or mandatory,
- 2) Who pays for the offsets.

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<sup>1</sup> i.e. with zero net emissions.

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Figure 1. Carbon Offset models

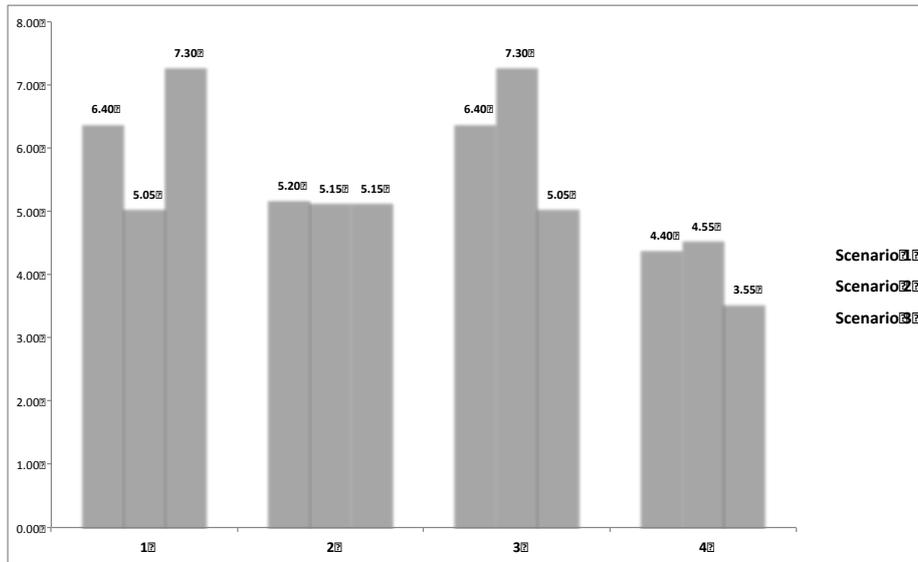


Five key criteria were used for the comparative analysis:

- Cost:** There are two cost categories that must be considered: Set-up and operational costs. Set-up costs include different concepts, such as developing or sourcing / adapting a potential online platform for footprint calculation whereas operational costs are the costs of running the scheme (including labour, etc.).
- Funding effectiveness:** How much funding could the scheme collect through the different models?
- Marketing impact:** This concept refers to the intangible benefits of the scheme through an improvement of Montenegro's image as a destination for sustainable tourism.
- Cultural fit:** Adaptability of the model to Montenegrin idiosyncrasy and character.
- Benchmarks:** Existing precedents at the international level that may serve as a reference in terms of successes and failures of similar initiatives (lessons learnt). In the end, this concept is also related to how innovative the scheme would be.

The results of the evaluation exercise together with the sensitivity analysis clearly indicate that a mandatory scheme would be most suitable for Montenegro's tourism sector if the final goal were to have a carbon neutral sector. Moreover, we would be inclined to choose model 1 - a mandatory carbon offsetting fee for tourists - if we were relatively more concerned with the costs of the scheme and model 3 - a mandatory carbon offsetting fee for tourism industry - if we wanted to focus more on the marketing benefits of a '100 per cent' carbon neutral sector.

**Figure 2. Results of the evaluation exercise.**



Given that Montenegro is at the very beginning of the introduction of the low carbon (LC) and carbon neutrality concepts in the country and that there is still a strong need for an education and communication effort in this respect, both at private and public levels, but particularly within the tourism industry, the implementation of a **pilot phase** is recommended that would allow the authorities, the sector and TCNT project managers to obtain feedback on the best way to set up a successful scheme for the long run.

### Recommendation

Of the two voluntary alternatives, it is recommended to choose Model 2 for the pilot - ‘Voluntary donation by tourists’ - for the following two key reasons: (i) Least costly overall to set up and operate, and (ii) quickest to set up. A roadmap is detailed with the necessary tasks to guarantee a smooth implementation.

### Details of the Pilot Phase

**Table 1. Key Elements of the Pilot Carbon-offset Scheme in the Tourist Sector**

Element	Description
Nature	<b>Voluntary</b> Scheme: Even though the comparative analysis above recommends a mandatory scheme for Montenegro’s tourist sector, it makes sense to start with a pilot phase given the very low level of knowledge about key concepts related to LC and CN.
Model	Of the two voluntary alternatives, it is recommended to choose <b>Model 2</b> - ‘Voluntary donation by tourists’ - for the following two key reasons: <ul style="list-style-type: none"> <li>- Least costly overall to set up and operate; and</li> <li>- Quickest to set up.</li> </ul>
Participants	A few, very committed tourism industry companies that would ideally include at least a representative of each main activity type: accommodation, car rental and tour & travel agents. In order to make the pilot project a relevant activity, the <b>minimum</b> amount is set at <b>10 participants</b> . <u>Criteria for selection (not all have to be met):</u> <ul style="list-style-type: none"> <li>- It would be preferred if participants were open all year round,</li> <li>- Preferred if participants had some sort of eco-label certification,</li> </ul>

	<ul style="list-style-type: none"> <li>- Preferred if participants carried out emissions reductions measures, and</li> <li>- Better to start with mid to large companies that might have funds for the offset cost matching.</li> </ul>
Offset Projects	<p>Even though the analysis suggests that, technically, the use of international offsets would be a better choice, the question of initial local stakeholder acceptance carries enough weight so as to recommend local mitigation projects for the pilot phase. Local mitigation projects <u>outside the scope of tourism sector companies</u> but that provide benefits for the sector. Tourism industry will be more engaged if local projects are utilized and tourists will have the opportunity to check by themselves that they are real and permanent.</p> <p>Ideally these local projects would do more than remove or sequester carbon - they would provide other environmental and social co-benefits (e.g. will help support local communities by creating jobs or rebuilding biodiversity in the area).</p> <p>Municipalities in Boka Bay will be asked to participate in a call for proposals for mitigation projects. Participating projects should be discussed with sector stakeholders during a communication workshop (see roadmap below) to choose the preferred projects for carbon finance through the offsetting scheme.</p>
Emissions calculations	<p>For this initial pilot phase and to make things simple, it wouldn't be necessary that all participants have a GHG inventory. For the purpose of estimating emissions to be offset they could use the methodology being developed for the TCNT Project. In other words, use average emission factors per room, km or stay. The client would be informed of these emissions (his/her carbon footprint) when presented with the option to offset the stay / travel.</p>
Emission reduction guarantee	<p>The scheme should offer some form of guarantee that the emissions reductions will be maintained, so that alternative projects will be funded by UNDP if the funded projects don't deliver the expected emissions reductions.</p>
Offset embedding	<p>It is recommended to use the opt-in alternative. This should be simpler than the 'opt-out' system in terms of the additional modifications at the point of payment.</p>
Offset Price	<p>The offset price for the tourist should be a reasonable one in relation to the total cost of the tourist activity and a discrete figure. To simplify things, it is proposed to start with a value of 2% of the cost of the stay / activity.</p>
Point of payment	<p>Hotels and other accommodation types: at check-out.<sup>2</sup>          Apartment owners: with community services bills.<sup>3</sup>          Public transport: during payment of ticket.          Online travel agents: during purchasing process.</p> <p>It is not recommended to include Montenegro Airlines as part of the pilot since most of its tickets are not bought through its own website.</p>
Channelling of funds	<p>Money collected from voluntary tourist donations and tourism industry will be channeled through a selected tourism association and managed by UNDP.</p>
Project funding	<p>There will be co-financing by UNDP from TCNT Project's funds. At this point it is not possible to estimate the level of co-financing to be supplied.</p>
Time frame	<p>Recommended duration: 1-2 years. The decision to extend the pilot should be taken at the end of the first year.</p>

The results of the pilot phase will be fundamental to decide whether to modify or not the design of the carbon-offset scheme and, indeed, whether or not to continue with carbon offsetting at all.

<sup>2</sup> Other than apartment owners.

<sup>3</sup> E.g. Porto Montenegro.

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# 1 BACKGROUND

## Tourism Sector in Montenegro

Over the last decade Montenegro has seen unprecedented inflow of visitors and investment in its tourism sector. In 2014, more than 1.5 million tourists visited Montenegro, more than twice as much as domestic population and ten times more than just a decade ago. Tourism's total contribution to Gross Domestic Product (GDP) is projected to rise to 36.3% of GDP by 2021.

As a main driver of Montenegro's economic growth and investment, the tourism sector is responsible directly and indirectly for the large share of greenhouse gas (GHG) emissions from the transport, accommodation and other tourism-related activities. By contributing to over a third of GDP and a half of capital investment in infrastructure, the tourism sector will inevitably be an important, if not the leading, factor in a projected GHG emissions increase. Apart from the direct GHG emissions, the indirect climate change impact of millions of holiday-makers is also substantial, first, because of their sheer numbers in proportion to small local population and, second, because of their more carbon intensive life-style and consumption patterns.

In the business-as-usual scenario, the carbon footprint of Montenegro tourism will continue to grow as a result of large-scale investment in tourist infrastructure and constantly growing number of travellers. The Government of Montenegro sees tourism as the main driver of economic growth and income generation, but also fully realizes the environmental challenges associated with its rapid development and is committed to address them as part of the National Sustainable Development Strategy and Tourism Development Master Plan. The Government is firmly committed to develop its tourism sector on a sustainable basis, it is putting in place the required policy and regulatory framework to attract large-scale investment in tourism infrastructure, but also to steer them in a more environmentally sustainable way.

## TCNT Project

GEF-funded 'Towards a Carbon Neutral Tourism in Montenegro' (TCNT) Project's ultimate objective is to reduce GHG emissions from Montenegro's tourism sector. It will do so by promoting the country's transition towards a carbon neutral travel & tourism, minimizing energy use and transport in and around new development projects, helping tourism industry to identify and implement cost-effective mitigation options in travel and accommodation sectors, as well as introducing a **carbon-offset scheme to compensate for the residual emissions** and other innovative financial mechanisms to generate additional revenues for climate mitigation and adaptation actions in tourism. Any proposed carbon-offset scheme should be completely transparent in its financial management and operations (including the administrative costs). Visitors need to be reassured that their contributions will be invested in projects that have a real, objectively verifiable carbon mitigation impact.

## Carbon Markets and Carbon Offsetting

There is a growing number of not-for-profit organisations that offer travellers the opportunity to compensate, through additional payment, for the emissions produced as a result of flights undertaken. Flight calculators are used to make assessment of emissions generated by a flight between two airports. The money is then re-invested in carbon mitigation projects mostly located in developing countries. As many of the schemes are voluntary, there is confusion among tourists about the various approaches. The UNFCCC has introduced a Gold Standard (GS) Certified Emission Reductions to ensure that the projects certified do at least have sustainable development benefits. There is still a lot of confusion among tourists about what carbon offsetting is and there is thus an urgent need for airlines, tour operators and other tourism stakeholders to more seriously and pro-actively engage in carbon offsetting. Another problem is the character of the carbon

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markets, where a wide range of emission reduction units are offered.<sup>4</sup> Even though there has been a heated debate for some time now around the soundness of carbon offsetting, this report doesn't delve into whether they are good or bad per se.

This report is one of the components of the TCNT project and focuses on the development of a carbon-offset scheme for the tourist sector in Montenegro. It is based on a desktop study and a field mission that took place from September 14<sup>th</sup> to 18<sup>th</sup>. Annex 1 shows a list of stakeholders that were interviewed. The desktop study includes, as a separate deliverable, a report entitled 'International Review of Carbon-offset Schemes'.<sup>5</sup>

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<sup>4</sup> Source: UNEP (2008)

<sup>5</sup> Refer to UNDP Montenegro for a copy of this report.

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## 2 INTRODUCTION

The report is structured in three main chapters:

- Identification of alternative designs for the potential offset scheme, which builds upon the international desktop study carried out as part of the scope of work of the international consultant;
- High-level comparative evaluation of proposed alternative designs, based on a qualitative methodology;
- Recommendations for a pilot tourism carbon-offset scheme in Montenegro, including a roadmap defining the steps to follow to implement it.

### 2.1 Key concepts

Carbon offsetting is the practice of compensating emissions to make an activity, organization or product **carbon neutral** (CN). It should be carried out in the context of an effort by the organization or individual to reduce emissions up to a maximum, feasible level. Otherwise it wouldn't be a credible effort and could be interpreted as simple 'greenwashing'. In the end, it involves taking responsibility for any **remaining** emissions that cannot reasonably be reduced within the boundaries of the activity or organization that wants to become CN.

**Figure 1. Stages of Carbon Neutrality Implementation**



It has to be carried out by financing low carbon projects **elsewhere** (outside of the boundaries of the activity or organization to be 'neutralized'). The most popular way of investing in such carbon finance is to buy carbon-offset **credits** in the international compliance or voluntary carbon markets, especially from projects in developing countries. The box below provides a brief introduction to key concepts related to such financial instruments.

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## **Box 1. Key concepts in carbon offsetting**

### **Carbon offset**

A **credit** for negating or diminishing the impact of emitting a ton of carbon dioxide equivalent (CO<sub>2</sub>e) by paying someone else to absorb or avoid the release of a ton of CO<sub>2</sub>e **elsewhere**.

### **Offset project protocol / methodology**

Project protocols / methodologies cover accounting rules and/or monitoring, reporting, verification and certification rules. In other words, they outline the rules and procedures to determine project eligibility, additionality, baseline and project emissions for a particular project type. The terms “protocol” and “methodology” are often used interchangeably. Offset Programs either have their own protocols/methodologies for a set of project types or approve the use of protocols developed by another offset program.

### **Offset program**

There are three core components of a carbon-offset program:

#### 1. Accounting rules

Accounting rules ensure that offsets are “real, additional, and permanent”. These include definitions of and rules on the elements that are essential during the design and early implementation phase of a project. They can include additionality and baseline methodologies, definitions of accepted project types and methodologies, and methodologies for validating project activities.

#### 2. Monitoring, Reporting, Verification and Certification rules

Monitoring, reporting, verification and certification rules ensure that offset projects perform as they were predicted to during project design. Certification rules are used to confirm the actual carbon savings that can enter the market once the project is up and running.

#### 3. Registration and Enforcement Systems

Registration and Enforcement Systems clarify ownership, enable trading of offsets, track retirement of offsets and ensure that carbon offsets are not double counted through sale to multiple buyers. These must include a registry with publicly available information to uniquely identify offset projects and a system to transparently track ownership of offsets.

### **Offset standard**

Standards can include protocols/methodologies and guidance documents, and provide guidance and/or specifications on GHG quantification, monitoring, reporting. Stand-alone standards typically do not have an associated regulatory body that registers projects and also do not typically have registration and enforcement systems to track and ensure legal ownership of offset credits (e.g. ISO 14064-2, PAS 2050 and WBCSD/WRI GHG Protocol for Project Accounting). In other words, **standards do not have Registration and Enforcement Systems. *The use of a standard alone is therefore not sufficient to guaranty the quality of offset credits.*** Many offset programs have their own standards, as part of their program, which outline requirements and guidance for offset projects using their system.

### **Offset registry**

An offset registry is a system for reporting and tracking offset project information including project status, project documents, offsets generated, ownership, sale and retirement. Offset Programmes must have their own or use an approved registry to track offsets projects under their programmes.

Source: Stockholm Environment Institute (SEI) Carbon-offset Research and Education programme (CORE).

There are many carbon-offset programs with different degrees of credit quality, as shown in the figure 2. In this case, the quality is assessed in terms of both environmental and social co-benefits

and MRV<sup>6</sup> stringency. As can be readily observed, the Gold Standard<sup>7</sup> offsets are the ones with the highest quality given the emphasis the program puts on social and environmental co-benefits and its very demanding MRV protocol. Logically, these credits are normally the most expensive in the voluntary carbon market.

**Figure 2. Mapping of carbon-offset programmes.<sup>8</sup>**



These credits are normally acquired through offset suppliers<sup>9</sup>, which can be for, or not for profit organizations, at a market price (per ton of CO<sub>2</sub>e)<sup>10</sup>. The most common projects for carbon credit generation tend to differ in the mandatory compared to the voluntary market, as can be observed in figures 3 and 4 below: Whereas the mandatory market clearly favors renewable energy projects, in the voluntary market there is a clear preference for forestry related projects (projects with high co-benefits).

<sup>6</sup> Monitoring, reporting and verification.

<sup>7</sup> Gold Standard Certified Emission Reductions are registered and certified by the United Nations Framework Convention on Climate Change (UNFCCC).

<sup>8</sup> Source: The Gold Standard Foundation. *Carbon-offset Handbook*.

<sup>9</sup> See annex 2 for a list of some of the most relevant carbon-offset suppliers (in alphabetical order).

<sup>10</sup> CO<sub>2</sub> equivalent.

Figure 3. Relevance of carbon-offset projects by type in the voluntary market.<sup>11</sup>

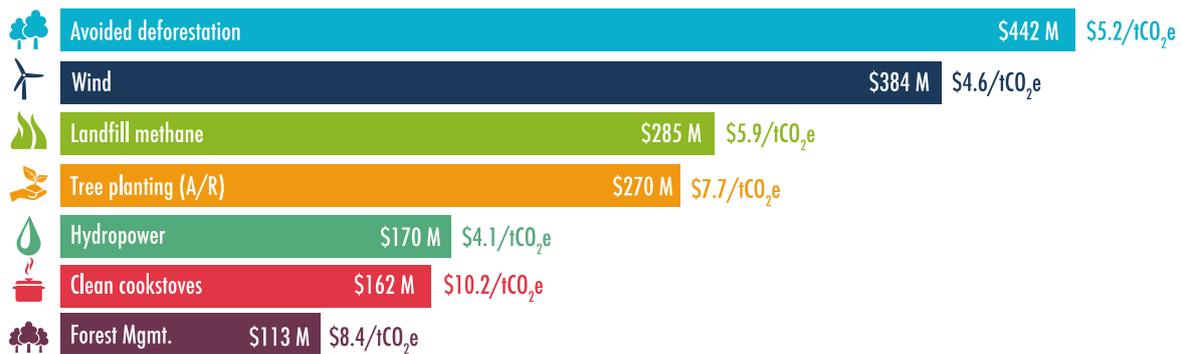
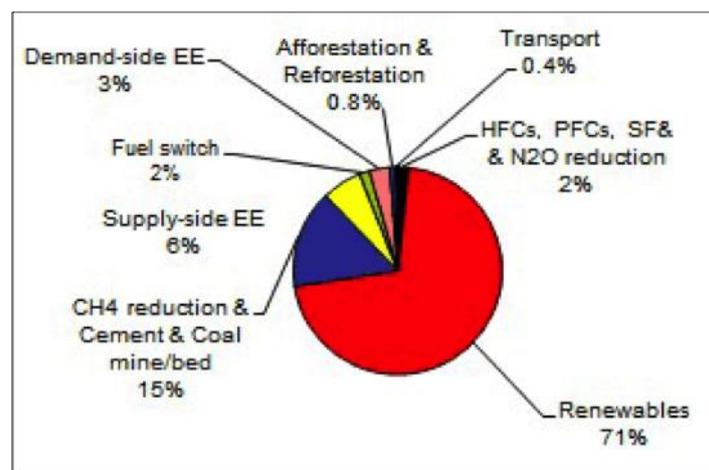


Figure 4. Relevance of carbon-offset projects by type in the mandatory market.<sup>12</sup>



International offset credits from carbon mitigation projects are not, however, the only means of becoming CN through offsetting. There is also the possibility of using investment in **local projects**, whether in a developing or a developed country, as a way to reach this status. Moreover, this ‘local carbon finance’ can be executed through the purchase of credits or directly transferring funds for the realization of the projects (normally through NGOs),<sup>13</sup> which doesn’t imply a relaxation of protocols and standards for emission reduction calculations (it must be as transparent and rigorous as accepted international methodologies).

## 2.2 Reasons for implementing a carbon-offset scheme

As mentioned above, carbon offsetting is carried out to help mitigate inevitable carbon emissions and as a **complement** to direct reduction measures, with the goal of becoming a carbon neutral individual, company, organization, locality, region, sector or country.

But why set up a carbon-offset scheme in the tourism sector? There can be two fundamental reasons:

<sup>11</sup> Source: Forest Trends’ Ecosystem Marketplace. *State of the Voluntary Carbon Markets 2015*.

<sup>12</sup> Source: UNEP-DTU CDM pipeline (<http://www.cdmpipeline.org/cdm-projects-type.htm>).

<sup>13</sup> Non Government Organizations (NGO) must be of a non-profit nature.

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- b) To use it as a **marketing** tool for ‘green positioning’ as a CN destination because we want to attract eco-conscious tourists and become an eco-tourism destination of choice; and/or
  - c) As a **policy** tool to help contribute to future post-Kyoto commitments (as part of a country’s Intended Nationally Determined Contribution (INDC)).<sup>14</sup>

Given that Montenegro is most likely already a CN country if we take into account its national sinks provided by forests<sup>15</sup>, the focus of this effort must be put on the marketing component for the tourist sector; to design and implement a carbon-offset scheme that can become a valuable marketing tool that can also help the tourist sector compensate those emissions that it is not able to reduce or mitigate.

### 3 IDENTIFICATION OF ALTERNATIVE DESIGNS

This section of the report portrays the main types of carbon-offset scheme designs relevant for this project and provides specific examples to illustrate them. The conclusions of the international review allow us to limit the quantity significantly to only those that can be used as a reference by this initiative in the tourist sector of Montenegro. Moreover, there aren’t yet any schemes that specifically target the tourist sector as a whole or that are designed exclusively for it as a sector-wide initiative, so this scheme would be a pioneer experience at sector level.

#### 3.1 Case studies

The relevant case studies are listed below and include national as well as individual company initiatives or schemes. It is important, however, to bear in mind that not all design aspects of each example are useful for or applicable to Montenegro’s case. A summarized description of the case studies can be found in annex 3.

1. Australia’s National Carbon Standard (NCOS)
2. Costa Rica’s national offsetting scheme
3. IslandOffsets scheme in The Cayman Islands
4. Cousin Island’s Carbon Neutral scheme in The Seychelles
5. KLM’s ZERO CO<sub>2</sub> voluntary offset purchase scheme
6. NatureAir carbon-offset scheme (Costa Rica)
7. TUI Travel PLC carbon-offset scheme (UK)
8. AdventureSmith Explorations (ASE) scheme (USA)
9. Soneva Fushi resort (Maldives)
10. Utjeha Apartments (Montenegro)

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<sup>14</sup> Countries across the globe committed to create a new international climate agreement by the conclusion of the UNFCCC Conference of the Parties (COP21) in Paris in December 2015. In preparation, countries have agreed to publicly outline what post-2020 climate actions they intend to take under a new international agreement, known as their INDCs. The INDCs will largely determine whether the world achieves an ambitious 2015 agreement and is put on a path toward a low-carbon, climate-resilient future. (Source: World Resources Institute).

<sup>15</sup> Source: Personal Communications with Olivera Kujundzic of the Environment Directorate of Montenegro’s Ministry of Tourism and Sustainable Development.

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### 3.2 Key parameters

After having identified and described -in annex 3 - relevant case studies that can be used as a benchmark for the design of a carbon-offset scheme within the TCNT project, we now list below the key parameters to design a carbon-offset scheme.

#### *Nature: mandatory vs voluntary*

There are two basic types in terms of the nature of a carbon-offset scheme: mandatory and voluntary. The great majority of mandatory schemes are part of a cap and trade mechanism where the offset scheme allows participants to use project offsets instead of allowances for compliance with emission caps (to allow for more flexibility and cost-efficiency). Voluntary schemes, on the other hand, are normally set up to help in achieving a carbon neutrality pledge and/or for marketing purposes. The tourism sector is not included in any of the existing mandatory offset schemes. On the other hand, there are many voluntary initiatives - especially by companies - in the tourism and travel sectors.

In the standard business model in voluntary markets, individuals and companies make donations to offset projects through the purchase of offset credits available in the voluntary carbon market. These credits are generated mostly by international projects, i.e. located abroad in developing countries (see below).

#### *Scope of the scheme*

The scope of offset schemes can vary widely from company to country levels, including municipal, sector and regional schemes. There are no tourist, sector-wide schemes yet. An example of a sector scheme could be the Carbon Farming Initiative in Australia.<sup>16</sup>

#### *Scope of offset projects supported by the scheme: local vs international*

As mentioned above, the standard, most widely used carbon-offset scheme model makes use of international offset credits generated in developing countries by projects such as wind farms, reforestation or clean cook stoves. Alternatively, though, there are some schemes that invest the proceeds from donations or contributions in local projects. The local projects most widely financed by offset schemes are tree plantation / conservation initiatives, but there are also examples of solar power projects (e.g. for schools).

The advantage of international project credits is that they can be sourced through well-established offset suppliers in the voluntary carbon markets and thus can be potentially much cheaper per ton of CO<sub>2</sub> to compensate than local projects. Thus, life-cycle 'production' costs of the local projects such as design, selection and MRV would be completely avoided. Moreover, reaching carbon neutrality through an international offset supplier implies directly having access to a more or less well-known CN seal (for marketing purposes).

On the other hand, the advantage of local projects is that tourists can probably relate more directly to them (especially if the projects are accessible during their stay in the country) and thus maybe be more inclined to make donations.

#### *Carbon Neutral seal*

Some voluntary initiatives at country level, such as those of Costa Rica and Australia, have created

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<sup>16</sup> [www.environment.gov.au/climate-change/emissions-reduction-fund/carbon-farming-initiative-project-transition](http://www.environment.gov.au/climate-change/emissions-reduction-fund/carbon-farming-initiative-project-transition)

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a CN Seal that participants can use for marketing purposes as part of their sustainability or Corporate Social Responsibility (CSR) strategies. This implies that there has to be a more or less complex audit and certification mechanism to support access to the seal, including third party verification of the offsets and a registry system to track their cancellation (to avoid fraud).

#### *Emissions covered by the scheme*

The scope of the emissions covered by the different scheme types varies not only according to the ambition level in each case but also depending on the specific context (i.e. who sets the scheme up and for what purpose). Thus, you can find hotels or airlines that will offset all their emissions to become carbon neutral as well as tourist resorts that will only offset their clients' travel emissions.

#### *Price calculation methodology*

The 'standard' offsetting model includes a carbon footprint calculator to estimate individual emissions and then a unit price per ton of CO<sub>2</sub>e to come up with the necessary donation / contribution to become carbon neutral. More recently, offsetting schemes began offering a simpler, less accurate alternative that implies the use of a 'fixed' amount, which tends to be a discrete figure that is considered reasonable for participants using the scheme and that is not directly related to the emissions generated by the activity.<sup>17</sup> So this latter option implies a tradeoff between transparency and simplicity in terms of the footprint neutralization process.

#### *Matching of funds*

This aspect only applies to voluntary schemes, whereby some include the matching of client contributions by the company (airline, hotel, etc.). This way the company shows coherence in terms of its commitment to the environment and entices higher participation rates.

Concern about the risk of over-exposure by companies to too much cost shouldn't really be an issue. In this regard, for example, if we considered a conservative estimate of a 1,5% donation over the bill to be paid by the client and a 33% participation rate, we would end up with 0,005% of gross revenues. In this scenario we would be talking about a matching contribution of 5.000 euros if gross revenue were 1M€. In any case, there is always the possibility to cap contributions by companies at a certain amount.

#### *Payment mode*

This criterion refers to companies' offsetting schemes and includes two basic possibilities in terms of how the cost of the offset is taken into consideration: (a) included with the booking price or (b) not included. That the price is included with the booking doesn't necessarily mean, however, that the client will end up paying for it explicitly; some companies like Utjeha Apartments in Montenegro or NatureAir in Costa Rica pay for the offsets, whereas others like Soneva Fushi resort in the Maldives charge an amount on top of the booking price to pay for the offsets.<sup>18</sup>

#### *Online embedding alternatives*

There is a key aspect when introducing offsets in a purchasing process: Whether you are telling the client to opt-in or to opt-out of the carbon-offset purchase option. It has been recently

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<sup>17</sup> The amount can go from 1€ to 20€ or even higher.

<sup>18</sup> Soneva Fushi charges a 2% 'offset tax'.

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demonstrated that opt-out designs obtain much better performances in terms of participation rates, even reaching a 33% participation rate (see TUI PLC's example in annex 3).

*Dedicated Fund*

Some offset schemes channel the collected moneys through specifically designed, proprietary funds to add transparency and efficiency to the whole process, but also to have more control over the use of the resources. As an example, TUI Travel PLC created the World Care Fund as part of its carbon-offset scheme.

The table below provides a summarized description of the case studies introduced above in relationship with the key parameters just mentioned.<sup>19</sup>

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<sup>19</sup> Empty cells mean that the parameter is not relevant / doesn't apply to that example.

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**Table 1. Key characteristics of a sample of voluntary offsetting schemes**

<b>Scheme</b>	<b>Nature</b>	<b>G-scope</b>	<b>Project scope</b>	<b>CN seal</b>	<b>Emissions Scope<sup>(1)</sup></b>	<b>Price calc. method</b>	<b>Cost matching</b>	<b>Payment mode<sup>(2)</sup></b>	<b>Emb. alt.</b>	<b>Dedicated Fund</b>
<b>Australia</b>	Voluntary	Country	Both	YES	LOCAL	Variable	-	-	-	-
<b>Cayman Islands</b>	Voluntary	Country	National	NO	LOCAL	Variable	-	-	-	-
<b>Costa Rica</b>	Voluntary	Country	National	YES	LOCAL	Variable	-	-	-	-
<b>Cousin Island (SC)</b>	Voluntary	Local	Int.	NO	ALL	Variable	-	-	-	-
<b>TUI Travel PLC (UK)</b>	Voluntary	Company	Int.	-	ALL	Fixed	YES	NIBP	Opt-out	World Care Fund
<b>ASE (USA)</b>	Voluntary	Company	Int.	-	TOUR	Variable	-	IBP	-	-
<b>KLM (NL)</b>	Voluntary	Company	Int.	-	TRAVEL	Variable	NO	NIBP	Opt-in	-
<b>NatureAir (CR)</b>	Voluntary	Company	National	-	TRAVEL	Variable	-	IBP	-	-
<b>Soneva Fushi (MV)</b>	Voluntary	Company	Int.	-	TRAVEL	Fixed	NO	IBP	-	Slow Life Foundation
<b>Utjeha Apart. (MNE)</b>	Voluntary	Company	Int.	-	ACOMM.	Variable	-	IBP	-	-

(1) Local projects could theoretically include offsetting of international corporate travel emissions by e.g. a Costa Rican company. (2) NIBP: Not Included with the Booking Price.

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### 3.3 Best Practice Guidelines for Offset Projects / Credits

From the international review the following key elements emerge in terms of offset project / credit quality:

- **Additionality:** This concept refers to the fact that the investment wouldn't have happened without the extra funding from carbon finance. Partly because of the difficulty of ensuring additionality, many offset providers guarantee their emissions savings. This way, if the emissions savings don't come through or they turn out to be "non-additional", the provider promises to make up the loss via another project.
- **Permanence:** The emission reduction to be financed should be permanent, not temporary. For example, a reforestation project that has received carbon finance must ensure that the trees are standing until the end of the crediting period (25 to 100 years approximately, depending on the tree species).<sup>20</sup>
- **Verifiability:** The alleged emission reductions must have been quantified and verified by an independent third party.<sup>21</sup>
- **Traceability:** A carbon-offset must be traceable so that it can be ensured that it has not been used before and will not be resold to other customers in the future.<sup>22</sup>
- **Leakage:**<sup>23</sup> Leakage occurs when a carbon-offset project displaces activities that create emissions outside the boundaries of the project. There are two main types of leakage which can occur in both forestry carbon and energy-related carbon projects:
  - *Activity shifting leakage* includes leakage that may occur in-country, for example when forest conserved in one area of a country leads to deforestation or degradation in another area.
  - *Market leakage* may occur when mitigation policies have an effect on commodity prices, driving changes in investment patterns, potentially towards high emissions activities. For example, if timber and crop production are reduced, then market prices will rise, which may cause a shift to more intensive activities (that could involve higher emissions). Market leakage is less likely to occur at the project level.

Leakage assessment requires detailed knowledge of the drivers of deforestation in the local area. There exist a number of options for controlling leakage at the project level. These include both 'project specific' approaches and 'standardised approaches'.

- **Contribution to sustainable development:** In addition to the emission reductions, it is important to know that your carbon offsets also contribute to sustainable development in other ways. Even if this is not the main purpose of your carbon offsets, it can be a decisive factor in the choice between different carbon offsets that are otherwise equivalent from a climate change perspective. Some carbon-offset projects improve social sustainability of the local community through new job opportunities, poverty reduction, improved health, economic security or better access to energy resources. Alternatively, a carbon-offset

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<sup>20</sup> Source: The Gold Standard Carbon-offset Handbook.

<sup>21</sup> Ibid.

<sup>22</sup> Ibid.

<sup>23</sup> Source: Overseas Development Institute (ODI), Carbon-offset Project Sheet #8: 'Additionality, non-permanence and leakage'.

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project may enhance environmental values such as limiting soil erosion or conserving biodiversity.<sup>24</sup>

- **Location of the projects:** Offsetting theory tells us that the offset projects should be outside of the boundaries of the scope of emissions to be neutralized. As the definition of offset clearly states, the emissions have to be reduced elsewhere. Otherwise we wouldn't be enhancing mitigation efforts 'at home'. In the end, you can't finance something that the tourism industry needs to do itself.

## 4 COMPARISON OF ALTERNATIVE MODELS

### 4.1 Model definition

There are two fundamental variables or cornerstones in any carbon-offset scheme:

- Its **nature**, which can be mandatory or voluntary; and
- **Who pays** for the offsets: the tourist or the tourism industry (hotels, rent-a-cars, etc.)

The figure below graphically represents the four possible combinations of these two key variables and therefore the **four basic models** that will be compared here for the purpose of deciding which one suits best Montenegro's needs, political landscape, and business culture or, in other words, which one is most recommendable.

Figure 5. Graphic summary of proposed alternative models

		NATURE OF THE PROGRAM	
		MANDATORY	VOLUNTARY
WHO PAYS	TOURIST	MODEL 1	MODEL 2
	TOURISM INDUSTRY	MODEL 3	MODEL 4

Table 2 summarizes the alternative models.

<sup>24</sup> Source: The Gold Standard Carbon-offset Handbook.

**Table 2. Summary of proposed alternative scheme designs**

Model	Description
1	Mandatory carbon fee to be paid by tourists at hotels / private accommodation and car rental + carbon airport fee (to be added to the airport tax).
2	Voluntary donation by tourists + <u>no</u> carbon airport fee. Tourism industry matches donations.
3	Mandatory carbon fee to be charged to tourism industry agents (excluding Montenegro airlines) to access a Carbon Neutral Seal.
4	Voluntary offsetting by tourism industry to access a Carbon Neutral Seal.

Furthermore, it is assumed that, regardless of the model adopted, the carbon-offset scheme would finance **international projects** through the purchase of high quality carbon credits. Moreover, it is also assumed that tourists would be able to choose among a set of mitigation projects. This assumption is adopted after the analysis of advantages and disadvantages of local vs international projects in Montenegro, which is summarized in the following table.

Table 3. Comparison of the use of local vs international offset projects in Montenegro.

ADVANTAGES	DISADVANTAGES
<ul style="list-style-type: none"> <li>• If the scheme were voluntary the use of local projects might contribute to increasing participation rates.</li> <li>• Collected funds would be invested in the local economy, which would potentially increase support for the scheme by local stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>• Much higher cost given the need to establish the entire necessary infrastructure to ensure the production of offsets of a quality comparable to the best international standards (i.e. Gold Standard). In other words, the local projects would have to undergo the whole life cycle of the Gold Standard accreditation, including the definition of a baseline, which takes time and money.<sup>25</sup></li> <li>• Depending on the amount of funds available, they might not even cover the costs of setting up and running the scheme.</li> <li>• A larger share of the collected funds would have to be used for running the scheme (due to lack of economies of scale) and thus wouldn't be channelled to the projects.</li> <li>• Added complexity in deciding what type of projects wouldn't qualify for</li> </ul>

<sup>25</sup> The idea is to avoid creating yet another CN seal.

	<p>being within the tourism sector 'borders'.</p> <ul style="list-style-type: none"> <li>• Added complexity in deciding what projects outside the tourism sector would receive the additional financing. Most likely municipalities would disagree on who should receive the financing.</li> </ul>
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#### 4.1.1 Model 1: Mandatory carbon fee paid by tourists

In this model there would be a mandatory carbon fee or levy that would be charged to all tourists as an addition to the airport tax (for travel emissions) and at their accommodation establishment or car rental location (for accommodation and local transport emissions).

Its main characteristics are shown in table 4:

**Table 4. Model 1 key characteristics.**

Model	Description
Emissions scope	<p>Travel &amp; Accommodation.</p> <p>Travel emissions of those foreign tourists not flying in <u>wouldn't be captured</u> by the scheme. It is not recommended to establish another border tax for incoming visitors by road transport.</p> <p>Public transport (bus, taxi, rail) service.</p>
Point of payment	<p>Carbon airport fee included in price of ticket.</p> <p>Accommodation fee paid at check-out (on top of city tax).</p> <p>Bus, taxi fee paid at payment of service.</p> <p>Collected funds to be channelled to and managed by a local NGO in charge of financing the offsetting projects.</p>
Price calculation	<p>Fixed fee (not directly related to tourist's emissions). See annex 4 for a revenue projection simulation for accommodation services.</p> <p>Even though a carbon calculator per se wouldn't be used, there would be information provided to tourists on the approximate C emissions associated to their stay / car rental.<sup>26</sup></p>
Cost matching	None.
Carbon Neutral Seal	Doesn't apply.

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<sup>26</sup> The specific methodology and parameters will be obtained from the GHG inventory currently being developed.

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#### 4.1.2 Model 2: Voluntary donation by tourists

In this case there would be no carbon airport fee to be charged with the flight or holiday booking and, most importantly, the donation by the tourists to offset their carbon footprint would be done on a completely voluntary basis. Moreover, tourism industry would participate on a voluntary basis as well.

Its main characteristics are shown in table 5:

**Table 5. Model 2 key characteristics**

<b>Model</b>	<b>Description</b>
Emissions scope	Accommodation services. Public transport (bus, taxi, rail) service. Travel emissions not included in this model to simplify the process at point of payment.
Point of payment	Decision to donate at check-out when paying city tax or at payment of bus, taxi, etc. Collected funds to be channelled to and managed by a local NGO in charge of financing the offsetting projects.
Price calculation	Fixed as a percentage of cost of stay / activity (not related to tourist's emissions and hence no need to use a carbon calculator). This way it is much simpler to implement. However, even though a carbon calculator per se wouldn't be used there would be information provided to tourists on the approximate C emissions associated to their stay / car rental. <sup>27</sup> Offer a range of possibilities to tourist for the amount of the donation: 1% - 5% of cost of stay / car rental cost. See annex 4 for a revenue projection simulation for accommodation.
Cost matching	Tourism industry participants match donations by tourists.
Carbon Neutral Seal	Doesn't apply.

#### 4.1.3 Model 3: Mandatory carbon fee paid by tourism industry to access C Neutral Seal

In this model there would be a mandatory carbon fee or levy that would be charged to all establishments (for accommodation emissions) and car rental companies in the tourist sector (for local transport emissions), who would then access a Carbon Neutral Seal to be used for marketing purposes. It may even be argued that the government could use the possession of a CN seal as the entry point to the provision of services.

Its main characteristics are shown in table 6:

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<sup>27</sup> The specific methodology and parameters will be obtained from the Factor CO2 GHG inventory currently being developed.

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**Table 6. Model 3 key characteristics**

<b>Model</b>	<b>Description</b>
Emissions scope	Car rental and accommodation services. Public transport (bus, taxi, rail) services. It doesn't include Montenegro Airlines due to the high cost it would have to bear.
Point of payment	To be determined after discussions with the finance ministry and the sector. Collected funds to be channelled from the finance ministry to a local NGO in charge of managing and financing the offsetting projects.
Price calculation	Variable (related to direct emissions). Need for a carbon calculator and carbon footprint audit system.
Cost matching	Doesn't apply.
Carbon Neutral Seal	Yes. Given the relatively high cost and complexity of creating a Montenegrin Carbon Seal and associated infrastructure, it is recommended to use a select choice of international auditors / verifiers that could ensure high quality offset projects (e.g. Gold Standard quality) and offer a widely recognised carbon seal.

#### 4.1.4 Model 4: Voluntary donation by tourism industry to access Carbon Neutral Seal

In this model any tourism sector company, including Montenegro Airlines, could voluntarily participate in the carbon-offset scheme to have access to the national Carbon Neutral seal, similar to what is done in Costa Rica. Additionally, tourists would be offered the option to voluntarily offset their travel emissions.

Its main characteristics are shown in the table below:

**Table 7. Model 4 key characteristics.**

<b>Model</b>	<b>Description</b>
Emissions scope	Public local transport (bus, taxi, rail) and accommodation services.
Point of payment	To be determined after discussions with the finance ministry and the sector. Collected funds to be channelled from the finance ministry to a local NGO in charge of managing and financing the offsetting projects.
Price calculation	Variable (related to direct emissions). Need for a carbon calculator for industry (accommodation and car rental).

Cost matching	Doesn't apply.
Carbon Neutral Seal	Yes. Given the relatively high cost and complexity of creating a Montenegrin Carbon Seal and associated infrastructure, it is recommended to use a select choice of offset suppliers that could provide high quality credits (e.g. Gold Standard) and carbon seal.

## 4.2 Comparative analysis

The high-level comparison among the four basic models focuses on five key criteria, which are defined below.

### 4.2.1 Definition of relevant criteria

Five key criteria have been selected for the comparative analysis:

- f) **Cost:** There are two cost categories that must be considered: Set-up and operational costs. Set-up costs include different concepts, such as developing or sourcing / adapting a potential online platform for footprint calculation whereas operational costs are the costs of running the scheme (including labour, etc.).
- g) **Funding effectiveness:** How much funding could the scheme collect through the different models?
- h) **Marketing impact:** This concept refers to the intangible benefits of the scheme through an improvement of Montenegro's image as a destination for sustainable tourism.
- i) **Cultural fit:** Adaptability of the model to Montenegrin idiosyncrasy and character.
- j) **Benchmarks:** Existing precedents at the international level that may serve as a reference in terms of successes and failures of similar initiatives (lessons learnt). In the end, this concept is also related to how innovative the scheme would be.

### 4.2.2 Methodology

This analysis is carried out in order to help Montenegro's government and tourist sector choose one of the four alternative models. It feeds on the key findings of both the international review and the field mission by the International Consultant in mid september, and takes into account the current level of know-how about offsets in the country.

It is a high-level, qualitative analysis where each criterion is assigned a 'low', 'medium' or 'high' value in relation to the other alternatives. In general, the 'low' value scores 1 point, the 'medium' value 5 points and the 'high' value 10 points. The only exception takes place with the criterion 'cost', where the scoring system is inversed (the most costly model will score 1 point).

After the initial evaluation a sensitivity analysis is done assigning more relevance to different criteria.

### 4.2.3 Comparative evaluation

In this section we apply the scoring methodology to every criterion.

#### Cost

As mentioned above, there are two basic cost categories: (i) set-up or investment costs and (ii) operational costs. Here we have to include the costs borne by the tourism industry as well as the local NGO / government unit managing and channeling the collected funds to the projects.

The table below summarizes the relevant considerations in this respect, which constitute the basis for the scoring exercise.

**Table 8. Cost considerations per model.**

Model	Considerations	Score
1	Set-up costs: would be the lowest of the four alternative models since the scheme would only require minor adjustments to an already existing disbursement mechanism (the city tax). Operational costs: the same applies for operational expenses.	10
2	Set-up costs: It would be necessary to set up a minimum additional billing infrastructure at hotels, etc. Operational costs: Includes matching funds by tourism industry participants. It would be relatively more expensive than model 1 but lower than models 3 & 4.	5
3	Set-up costs: Higher than models 1 and 2 but lower than model 4. Need for a carbon calculator and carbon footprint audit system. Operational costs: Highest operational costs taking into account that all tourism industry would have to pay for offsetting their emissions annually as well as an audit of the same.	1
4	Set-up costs: would be the most expensive (similar system to that of Costa Rica with third party verification). Operational costs: Potentially only lower than model 3 (due to lower participation rates).	1

### Funding effectiveness

This is directly related, in voluntary schemes, to participation rates, which is a key parameter to gauge the success of the initiative. In general, voluntary offsetting schemes have low participation rates (1-5%), although some have been able to reach a 33% through intelligent design (e.g. TUI Travel's opt-out system).

Moreover, this criterion implicitly refers to environmental effectiveness as well since the more funds collected the more emissions should be offset.

The table below summarizes the relevant considerations in this respect, which constitute the basis for the scoring exercise.

**Table 9. Funding effectiveness considerations per model.**

Model	Considerations	Score
1	For any given number of tourist overnight stays per year, the amount of funding will depend basically on the value at which the fee is set. This option and model 3 represent the best alternatives for this criterion given their mandatory nature.	10

2	This alternative presents the lowest potential effectiveness given that there is little tradition in Montenegro of participation in voluntary schemes (in general) and participation by tourists tends to be low.	1
3	The amount of funding will depend on the value of the fee per ton of CO <sub>2</sub> e and the actual amount of emissions by tourism industry agents. This option and model 1 represent the best alternatives for this criterion given their mandatory nature.	10
4	This option represents a middle ground, being potentially more effective than model 2 but less so than the mandatory versions of the scheme (it doesn't depend on tourists choices on top of tourism industry's).	5

### Marketing impact

Most carbon-offset schemes are implemented in connection to a marketing effort to position the company or country as carbon neutral and more environmentally conscious than its competitors. For example, Costa Rica, which is well known as an eco-tourism destination of choice, has pledged to become carbon neutral by 2021. This pledge only adds to its already consolidated green brand as a tourist destination.

The table below summarizes the relevant considerations in this respect, which constitute the basis for the scoring exercise.

**Table 10. Marketing impact considerations per model.**

Model	Considerations	Score
1	Model 1 would have the lowest relative marketing impact since there would be no CN seal and the tourists would be charged a fixed fee (without matching by hotels, etc.).	1
2	Being a voluntary decision by tourists that would be presented to them at check-out / payment time (with opt-in + cost matching approach) the concept of carbon neutrality in Montenegro would be promoted. On the other hand, participation rates would be highly influenced by the number of participating companies in the tourism sector.	5
3	This alternative has the highest score because the whole sector would be carbon neutral and the CN seal would be widely promoted.	10
4	Its real marketing impact at sector level would depend on the total number of participating stakeholders. In principle, the use of the CN logo should help in the positioning efforts.  Thus it is considered to score at 'medium' level'.	5

### Cultural fit

All stakeholders consulted in Montenegro during the field mission agreed that the country's culture and idiosyncrasy is more amenable to mandatory schemes than voluntary ones.

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**Table 11. Cultural fit considerations per model**

<b>Model</b>	<b>Considerations</b>	<b>Score</b>
<b>1</b>	Highest score together with model 3, since mandatory schemes fit better with local idiosyncrasy.	10
<b>2</b>	Medium score since the final result depends also on decisions taken by tourists (not related to local idiosyncrasy and culture).	5
<b>3</b>	Highest score together with model 1, since mandatory schemes fit better with local idiosyncrasy.	10
<b>4</b>	Lowest score since the scheme's success depends almost totally on local tourism industry stakeholders.	1

### Benchmarks

Carbon offsetting and carbon neutrality are concepts that have been in the mainstream for many years now, since the early 2000s. A wealth of examples exists that provides a basis on which to develop new initiatives. In this sense, this criterion looks at how well the proposed models adapt to existing practices.

**Table 12. Benchmarks considerations per model.**

<b>Model</b>	<b>Considerations</b>	<b>Score</b>
<b>1</b>	This option and model 3, both mandatory carbon fee mechanisms, score the lowest value since there are no similar initiatives for the tourism sector.	1
<b>2</b>	This alternative and model 4 score highest since there are many examples of similar initiatives.	10
<b>3</b>	This option and model 1, both mandatory carbon fee mechanisms, score the lowest value since there are no similar initiatives for the tourism sector.	1
<b>4</b>	This alternative and model 2 score highest since there are many examples of similar initiatives.	10

The comparative evaluation for the five criteria is synthesized in the figure below.

Figure 6. Graphic summary of the comparative evaluation

MODEL	CRITERIA			Recommended model
	LOW	MEDIUM	HIGH	
<b>Costs</b>				
1				<b>1</b>
2				
3				
4				
<b>Funding effectiveness</b>				
1				<b>1</b>
2				
3				
4				
<b>Marketing impact</b>				
1				<b>3</b>
2				
3				
4				
<b>Cultural fit</b>				
1				<b>1</b>
2				
3				
4				
<b>Benchmarks</b>				
1				<b>2</b>
2				
3				
4				

As can be readily observed, most criteria favor mandatory schemes: cost, funding effectiveness marketing impact and cultural fit. On the other hand, if we focus on benchmarks we find that voluntary schemes receive better scores given that there are no references for such mandatory schemes in the tourism sector.

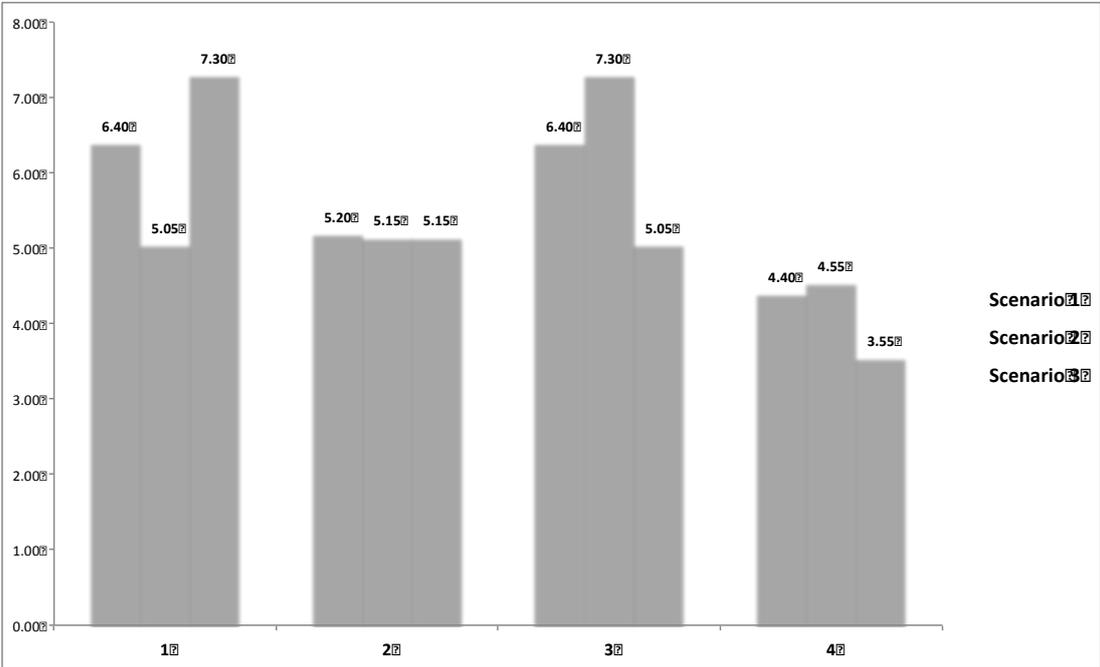
#### 4.2.4 Sensitivity Analysis

We need to test the evaluation exercise for changes in the evaluation methodology through a sensitivity analysis. In this sense, three scenarios are proposed to support the decision on the preferred option:

- Scenario 1, or base case, where each of the five criteria carries the same weight (20%).
- Scenario 2, where it is considered that the **'marketing impact' criterion is much more relevant** than the others and is assigned a 40% weight (the other criteria are assigned a 15% weight) and we use a weighted average calculation for the scoring exercise.
- Scenario 3, where it is considered that the **'cost' criterion is much more relevant** than the others and is assigned a 40% weight (the other criteria are assigned a 15% weight) and we use a weighted average calculation for the scoring exercise.

The comparative analysis is synthesized in the graphs below for the three proposed scenarios.

Figure 7. Graphic summary comparing the three scenarios.



We can see that in our base case, both mandatory models obtain the highest scores (6,40) and model 4 has the worst evaluation (4,40). When we look at scenario 2 - giving more relevance to marketing impact - the result clearly shows that model 3 would be the preferred option; whereas scenario 3 tells us that model 1 - the cheapest to set-up and run - would obtain the best result.

#### 4.2.5 Conclusions

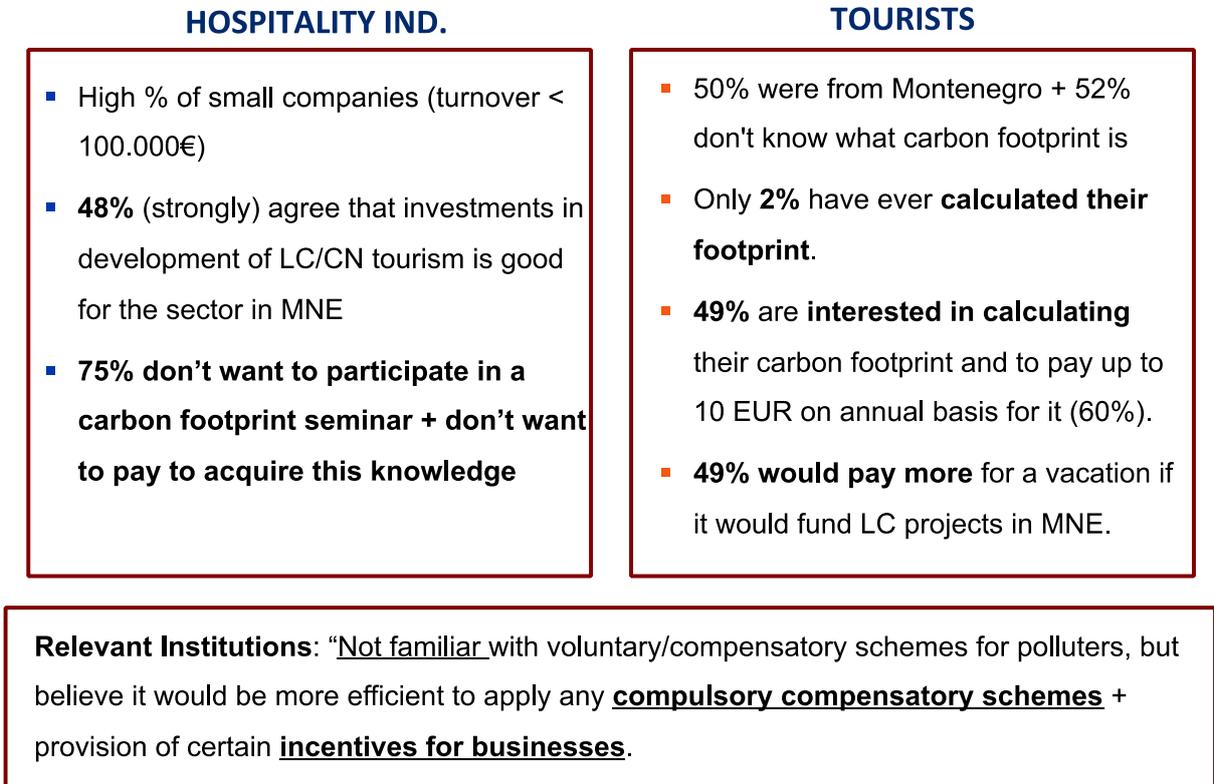
The results of the evaluation exercise together with the sensitivity analysis clearly indicate that a **mandatory** scheme would be most suitable for Montenegro’s tourism sector if the final goal were to have a carbon neutral sector. Moreover, we would be inclined to choose model 1 - a mandatory carbon offsetting fee for tourists - if we were relatively more concerned with the costs of the scheme and model 3 - a mandatory carbon offsetting fee for tourism industry - if we wanted to focus more on the marketing benefits of a ‘100 per cent’ carbon neutral sector.

## 5 RECOMMENDATIONS FOR A TOURISM CARBON-OFFSET SCHEME IN MONTENEGRO

Montenegro is at the very beginning of the introduction of the low carbon (LC) and carbon neutrality concepts in the country. A recent survey carried out as part of the TCNT Project shows that there is still a strong need for an education and communication effort in this respect, both at

private and public levels, but particularly within the tourism industry.

Figure 8. Key results of the LC survey in the tourism sector.



Considerations in figure 8 lead us to conclude that the logical way to start implementing a carbon-offset scheme in the tourist sector would be through a **pilot** phase or project that would allow the authorities, the sector and TCNT project managers to obtain feedback on the best way to set up a successful scheme for the long run.

This chapter sets the stage for a quick start of a carbon-offset scheme through a pilot project that should contribute to setting the tourist sector in a path towards carbon neutrality. In this regard, this chapter is divided into two sections: pilot scheme design and road map for implementation.

5.1 Pilot Scheme Design

The challenge is developing an approach that's credible, accurate and reliable and not so burdensome that the businesses that want to participate voluntarily decide not to do it.

Table 13 describes the key building blocks that the scheme should have.

Table 13. Key Elements of the Pilot Carbon-offset Scheme in the Tourist Sector

Element	Description
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Nature	<b>Voluntary</b> Scheme: Even though the comparative analysis above recommends a mandatory scheme for Montenegro's tourist sector, it makes sense to start with a pilot phase given the very low level of knowledge about key concepts related to LC and CN.
Model	Of the two voluntary alternatives, it is recommended to choose <b>Model 2</b> - 'Voluntary donation by tourists' - for the following two key reasons: <ul style="list-style-type: none"> <li>- Least costly overall to set up and operate; and</li> <li>- Quickest to set up.</li> </ul>
Participants	A few, very committed tourism industry companies that would ideally include at least a representative of each main activity type: accommodation, transport and tour & travel agents. In order to make the pilot project a relevant activity, the <b>minimum</b> amount is set at <b>10 participants</b> . <u>Criteria for selection (not all have to be met):</u> <ul style="list-style-type: none"> <li>- It would be preferred if participants were open all year round</li> <li>- Preferred if participants had some sort of eco-label certification</li> <li>- Preferred if participants carried out emissions reductions measures</li> <li>- Better to start with mid to large companies that might have funds for the offset cost matching</li> </ul>
Offset Projects	Even though the analysis suggests that, technically, the use of international offsets would be a better choice, the question of initial local stakeholder acceptance carries enough weight so as to recommend local mitigation projects for the pilot phase. Local mitigation projects <u>outside the scope of tourism sector companies</u> but that provide benefits for the sector. Tourism industry will be more engaged if local projects are utilized and tourists will have the opportunity to check by themselves that they are real and permanent. Ideally these local projects would do more than remove or sequester carbon - they would provide other environmental and social co-benefits (e.g. will help support local communities by creating jobs or rebuilding biodiversity in the area). Municipalities in Boka Bay will be asked to participate in a call for proposals for mitigation projects. Participating projects should be discussed with sector stakeholders during a communication workshop (see roadmap below) to choose the preferred projects for carbon finance through the offsetting scheme.
Emissions calculations	For this initial, pilot phase and to make things simple, it wouldn't be necessary that all participants have a GHG inventory. For the purpose of estimating emissions to be offset they could use the methodology being developed by CO2 Factor for the TCNT Project. In other words, use average emission factors per room, km or stay. The client would be informed of these emissions (his/her carbon footprint) when presented with the option to offset the stay / travel.
GHG Standards	To calculate emission reductions by local projects it is recommended that one of the following internationally recognized GHG standards be used:

and Protocols	<ul style="list-style-type: none"> <li>• ISO 14064-2<sup>28</sup></li> <li>• WRI's GHG Protocol<sup>29</sup></li> </ul>
Emission reduction guarantee	The scheme should offer some form of guarantee that the emissions reductions will be maintained, so that alternative projects will be funded by UNDP if the funded projects don't deliver the expected emissions reductions.
Offset embedding	It is recommended to use the opt-in alternative. This should be simpler than the 'opt-out' system in terms of the additional modifications at the point of payment.
Offset Price	<p>Since the donations will be allocated to local projects, and there are no existing local offset credits, there will be no carbon market price available as a reference.</p> <p>The offset price for the tourist should be a reasonable one in relation to the total cost of the tourist activity and a discrete figure. To simplify things, it is proposed to start with a <b>value of 2%</b> of the cost of the stay / activity.</p>
Point of payment	<p>Hotels and other private accommodation: at check-out.</p> <p>Apartment owners: with community services bills.<sup>30</sup></p> <p>Public transport (bus, taxi ) during paying a tickets.</p> <p>Online travel agents: during purchasing process.</p> <p>It is not recommended to include Montenegro Airlines as part of the pilot since most of its tickets are not bought through its website.</p>
Channelling of funds	Trough a selected tourism sector association. UNDP would manage and follow up the implementation of the local compensation projects.
Project funding	There will be co-financing by UNDP from TCNT Project's funds. At this point it is not possible to estimate the level of co-financing to be supplied.
Time frame	Recommended duration: 1-2 years. The decision to extend the pilot should be taken at the end of the first year.

The results of the pilot phase will be fundamental to decide whether to modify or not the design of the carbon-offset scheme and, indeed, whether or not to continue with carbon offsetting at all. Table 14 shows a list of key performance indicators (KPI) to take into account:

<sup>28</sup> [http://www.iso.org/iso/catalogue\\_detail?csnumber=38382](http://www.iso.org/iso/catalogue_detail?csnumber=38382)

<sup>29</sup> <http://www.ghgprotocol.org>

<sup>30</sup> E.g. Porto Montenegro.

**Table 14. Key Performance Indicators for the Pilot Phase**

KPI	Description
Percentage of total emissions offset	One fundamental KPI will be to compare the total amount of annual emissions offset with the total annual emissions from the pilot phase participants. <sup>31</sup>
Participation rate	Percentage of bookings offset. Percentage of overnight stays offset. Percentage of public transport service (for bus, taxi). Percentage of km offset (for car rental).
Projects chosen	Percentage of participants who chose each of the three offset projects.
Mix of participants	Origin of those participating.

<sup>31</sup> The baseline would be the average footprint from the factor co2 inventory.

Figure 9. Implementation Plan of the Pilot Carbon-offset Scheme

Steps	Key considerations/activities																								
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Determine role of offsets in overall climate strategies of MNE destinations and providers	<ul style="list-style-type: none"> <li>When to use offsets/Stakeholders, potential risks</li> <li>Establish working group</li> </ul>																								
Determine scope of activity to be covered by MNE's offsets (Pilot phase)	<ul style="list-style-type: none"> <li>Offset what/emission scope</li> <li>Select 10 participants</li> </ul>																								
Review budgetary and regulatory aspects	<ul style="list-style-type: none"> <li>Set-up costs, government requirements</li> <li>Tax implications, maintenance</li> </ul>																								
Define customer proposition	<ul style="list-style-type: none"> <li>Opt in/opt out vs. mandatory</li> <li>Link to promotional programmes/design communication material</li> </ul>																								



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## ANNEXES

## ANNEX 1. STAKEHOLDER LIST<sup>32</sup>

Organization	Attendees
Coastal Zone Management Agency	Aleksandra Ivanovic, Head of Sustainable Development Nemanja Malovrazic, Advisor
Hotel Budva	Irina Tomic (Director)
Hotel Slovenska Plaza (Budvanska Rivijera Hotels Group)	Katarina Kazanegra (Acting Executive Director)
Lustica Bay (Orascom Development Subsidiary)	Spomenka Sotra, Site Manger Slavica Milic, Senior Marketing Executive
Ministry of Sustainable Development and Tourism National Tourism Organization	Ana Todorovic, Advisor, Directorate for Tourism Development & Standards Biljana Bozovic, Assistant, International & Branch Office Cooperation
Ministry of Sustainable Development and Tourism / Directorate of Environment Ministry of Sustainable development and Tourism/Directorate for Spatial planning	Olivera Kujundzic, Advisor Milena Spicanovic, Advisor Stevo Davidovic, Advisor
Montenegro Airlines Airport of Montenegro	Radmila Bogojevic (Call Center & Help desk Manager) Mileta Lekic, Quality Management System Manager
Municipalities of Tivat, Kotor and Herceg Novi	Tatjana Jelic, Head of Secretariat for Spatial Planning and Environment in municipality Tivat Biljana Krivokapic, Advisor in municipality Tivat Srdjan Drgomanovic, Manger in municipality Kotor

<sup>32</sup> In alphabetical order.

	Sofija Jokic, Advisor, Secretariat for spatial planning, communal infrastructure and environment protection
National Tourism Association (CTU)	Petar Ivkovic (Executive Director, CITPA Travel + CTU, President Tour & Travel agencies) Zlatibor Milic (CTU - President hotel sector)
Porto Montenegro	Tatjana Vuksanovic (Operations Manager, Adriatic Marinas D.O.O.)
Utjeha Apartments	Michael R. Bader (Director & Owner)

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## ANNEX 2. CARBON-OFFSET SUPPLIERS

NAME	HQ COUNTRY	REFERENCE CLIENTS	URL
ATMOSFAIR	GERMANY	Adelphi, Cisco, Clariant, Last Minute, Merck, Miele, Thomas Cook	<a href="https://www.atmosfair.de/en/">https://www.atmosfair.de/en/</a>
CARBON CLEAR	UNITED KINGDOM	Amazon, Bankia, Coca Cola Enterprises Ltd, RBS, Sainsburys, Virgin Atlantic	<a href="http://www.carbon-clear.com/">http://www.carbon-clear.com/</a>
CARBON SINK	ITALY	ENI	<a href="http://www.carbonsink.it/en/">http://www.carbonsink.it/en/</a>
CLIMATE CARE	UNITED KINGDOM		<a href="http://climatecare.org">http://climatecare.org</a>
CLIMATE FRIENDLY	UNITED KINGDOM	Novo Nordisk, PwC, SAP, Tetra Pack, UEFA	<a href="http://www.climatefriendly.com">http://www.climatefriendly.com</a>
MYCLIMATE	SWITZERLAND	Dyson, Kuoni, Sunstar, SwissCom, WWF	<a href="http://www.myclimate.org">http://www.myclimate.org</a>
THE CARBON NEUTRAL COMPANY	UNITED KINGDOM	Avis, MacMillan, Tata Steel, PwC, TUI	<a href="http://www.carbonneutral.com">http://www.carbonneutral.com</a>
THE SOUTH POLE GROUP	UNITED KINGDOM	P&C Insurance, SAP	<a href="http://www.thesouthpolegroup.com">http://www.thesouthpolegroup.com</a>

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## ANNEX 3. CARBON-OFFSET SCHEME CASE STUDIES

### Australia National Carbon-offset Standard

The Carbon Neutral Program is a voluntary scheme that certifies products, business operations or events as carbon neutral against the Australian Government's National Carbon-offset Standard (NCOS), which replaced the Greenhouse Friendly™ initiative that operated from 2001 to 30 June 2010. This standard provides integrity through its guidance on genuine voluntary offsets and its minimum requirements for calculating, auditing and offsetting a carbon footprint to achieve **carbon neutrality**. The Department of the Environment now administers the program.

To achieve carbon neutral certification under the NCOS Carbon Neutral Program, you must measure, reduce and then offset any remaining greenhouse gas emissions. Once certified, you are able to use the NCOS Carbon Neutral Certified logo under license for promotional and marketing purposes.

To verify carbon neutral claims, the NCOS specifies that organisations must buy their offsets from projects verified under eligible schemes. These include credits issued under the Carbon Farming Initiative (CFI), Verified Carbon Standard (VCS) and Gold Standard (GS), among others. The NCOS provides national consistency and consumer confidence in the voluntary carbon market. The standard provides guidance on what is a genuine voluntary carbon emissions offset and sets minimum requirements for calculating, auditing and offsetting the carbon footprint of an organisation, product or event to voluntarily achieve 'carbon neutrality'.

NCOS works by providing a means of ensuring the environmental integrity of the carbon offsets and carbon neutral products available in the Australian voluntary market for consumers and businesses alike. It assists consumers to make informed choices and interpret carbon neutral claims. It also helps businesses to determine their carbon footprint in line with consumer expectations and ensures they purchase robust offsets.

Organisations seeking to voluntarily offset their emissions or achieve carbon neutrality under the NCOS are able to purchase from a range of eligible offset units.<sup>33</sup> These include:

- Australian Carbon Credit Units (ACCUs) issued under the CFI;<sup>34</sup>
- Credits issued under the Australian Government's former Greenhouse Friendly Program;<sup>35</sup>
- International units issued under the Kyoto Protocol; and
- Credits issued under the GS and VCS.

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<sup>33</sup> Exceptions apply, refer to section 3.2 of the NCOS for details

<sup>34</sup> <http://www.climatechange.gov.au/reducing-carbon/carbon-farming-initiative>

<sup>35</sup> <http://www.environment.gov.au/climate-change/carbon-neutral/greenhouse-friendly>

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## **Costa Rica's Carbon Compensation Scheme**

Costa Rica aims to become carbon-neutral by 2021, but has made this target conditional on external support. It intends to reduce its fossil fuel emissions, and increase its carbon sinks, to reach net zero total emissions. **It does not plan to use offsets in other countries.**

The Costa Rican government is implementing plans to go carbon neutral by beginning to offset all of the country's carbon dioxide emissions. Costa Rica aims to reach this goal using budgeting, laws and incentives, including measures to promote biofuels, hybrid vehicles, and clean energy. Another key component of the national strategy will be a **"C-Neutral" label** to certify that **tourism** and certain industrial practices mitigate all of the carbon dioxide they emit. To foster the development of C-Neutral, the country is cultivating a **carbon certificate market** that aims to not only boost carbon capture and storage in the nation's forests, but also help maintain their scenic beauty. Under the new certification system, tourists and businesses will be charged a voluntary "tax" to offset their carbon emissions, with one ton of carbon valued at \$10.<sup>36</sup> The financing amount is not specified; presumably the fees that are collected plus a government budget. Money will be used to fund conservation, reforestation, and research in Costa Rica. The scheme applies to all types of organizations and

- Defines the formula for C-neutrality;
- Defines requisites to establish a system to demonstrate C-Neutrality;
- "0 emissions" are verified thru accredited verifiers.

The box below illustrates the steps followed for its implementation:<sup>37</sup>

### **Box 2. Steps followed to set up the Costa Rica C-Neutral Scheme**

- July 2007 – Announcement of Costa Rica's Carbon Neutral 2021 goal
- March 2009 – Publication of the National Climate Change Strategy
- September 2011 – Passing of the Norm INTE 12-01-06:2011 "Management System to demonstrate C-neutrality"
- June 2012 – Official publication of the Agreement 36-2012-MINAET (the country's Programme becomes official)
- June 2012 – Recognition of the first approved organizational inventories
- January 2013 – Creation of an informal coordinating body among donors with similar goals in terms of C-Neutrality
- March 2013 – Delivery of first C-Neutral brands
- September 2013 – Signature of the Decree that regulates the Costa Rica Carbon Market (CRCM)
- 13 February 2014 – First Meeting of CRCM's Carbon Executive Committee
- 25 February 2014– First Meeting of the Protocols & Methodologies Committee

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<sup>36</sup> Pending confirmation with Costa Rican authorities.

<sup>37</sup> Source: Source: Presentation by Felipe De León, Climate Change Directorate: 'El Mercado de Carbono de Costa Rica (MCCR)'; Intercambio PMR Sur-Sur (March 2, 2014).

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### **IslandOffsets scheme in The Cayman Islands**

Launched in September 2015 by the National Trust for the Cayman Islands<sup>38</sup> in partnership with Green Tech Environmental, a local environmental consultancy, this new scheme gives **businesses** (including tourism industry) an opportunity to offset their carbon footprint with projects that benefit the Cayman Islands. Through its *Islands Offsets* 'Pay it Forward Programme'<sup>39</sup> local businesses meet voluntary corporate carbon emissions reduction goals by investing in **local** clean energy **projects** in local schools and/or forestry conservation projects. Each of these projects involves specific actions that would not have been taken without the investment in the programme (i.e. in principle they should be additional). The programme does not trade in the carbon markets, and, has tangible social and environmental benefits locally. Currently it is very local and small-scale. The two primary projects supported by the scheme are a solar for schools project and the prevention of deforestation with the National Trust.

- Solar for Schools Project, which will fund a solar array for a local school. The amount of energy produced by the panels will offset carbon emissions by substituting for fossil fuel-based energy. Each school fitted with solar power will have computer access to the panels allowing the students to monitor energy being created in real time. The panels will also benefit community development and education of future generations.
- Prevention of Deforestation Effort with the National Trust: The National Trust will use funds raised by the Island Offsets programme to purchase land (mangroves) that would otherwise have been deforested. The trees are saved to absorb carbon from the atmosphere while the carbon that they hold in their tissues and in the soil continues to be sequestered for generations to come.

In terms of the methodology to calculate the offsets, it works as follows: Participants will fund a solar array that will reduce the energy consumption of a local school by an equivalent amount of their total energy consumption in kWhs. The money saved after that on the school's energy bill will be put back into the program to fund further energy conservation projects and improved sustainability curricula in the school, as well as the purchase of local mangroves that would otherwise have been deforested. All the money goes to the actual project.

Other than emissions reductions, there are many potential benefits of this scheme, such as

- Increasing Cayman's energy independence;
- Ensure that local environmentally sensitive lands continue to sequester carbon;
- Ensure the protection of ecosystems critical to meeting the threats of a changing climate;
- Providing critical habitat for Cayman's unique wildlife;
- Reduction of utility costs in local schools;

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<sup>38</sup> The National Trust for the Cayman Islands is a non-profit NGO created to preserve the history and biodiversity of the Cayman Islands ([www.nationaltrust.org.ky](http://www.nationaltrust.org.ky)).

<sup>39</sup> [www.islandoffsets.org](http://www.islandoffsets.org)

- Contributing to the local economy; and
- Educating the next generation of local leaders.

### Seychelles' Carbon Neutral Cousin Island scheme

The Government recognizes 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 appears as the most realistic option in these circumstances to mitigate its climate change impact. In keeping with this policy, this country's Cousin Island became the World's 1st Carbon Neutral Nature Reserve.

Nature Seychelles is a multiple award winning non-profit environmental organization in the Seychelles. Its flagship reserve is Cousin Island Special Reserve.

In recognition of the environmental impact of international visitors to Cousin, most of who 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 Darfur, Northern Sudan.

The project, running since December 2007, is currently at listed status with the Gold Standard Foundation. It has been implemented by Practical Action. Importantly, the project is being independently verified by Bureau Veritas. Moreover, in terms of 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.

The Carbon Footprint: To measure our carbon footprint Carbon Clear – a leading carbon management company - was chosen.

The Results (from 2008 emissions) are shown below:

	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 g & Travel	International flights, hotel accommodation and internal transfers	1,542.11	98.7%
Nature Seychelles Offic	Fuels, electricity, waste, water, materials, business travel	11.60	0.5%
<b>Total Emissions</b>		<b>1,569.50</b>	
Less: Cousin Island Vegetative sequestration		e(210.68)	
Less: offsets purchased		(1,358.82)	
Net Carbon Footprint		.00	

Keeping Cousin carbon neutral is an on-going programme advised by Carbon Clear. Each year carbon credits are purchased through investment in verified projects in poor and developing countries. Two other projects in Indonesia and Brazil have been recipients of the carbon offsets funds so far. The Brazilian project prevents deforestation and protects the Cerrado Biome by using agricultural waste in place of deforested wood to fire community based ceramic kilns. The Indonesian project made a number of vital upgrades to an existing conventional power station coal

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to make it geo-thermal.

### **KLM - CO2ZERO**

KLM has a voluntary offsetting service called CO2ZERO where the passenger compensates for his personal CO<sub>2</sub> emissions by investing in renewable energy projects with the Gold Standard Seal of Approval (wind power, solar energy, bio fuels) and approved by the World Wide Fund for Nature.

The offsetting option is **embedded in the online ticket purchase process**, via the 'extra options' section once the flight choice has been made and before paying. It is also accessible through a link at the bottom of the online booking webpage.

The calculation methodology for the carbon footprint of a trip is as follows: "By burning 1 kg (2 lbs) of fuel, 3.157 kg (6.959 lbs) of CO<sub>2</sub> is emitted. So we start by determining the fuel consumption for your flight. This depends on the type of aircraft, distance flown, and number of passengers. Then, we calculate the average CO<sub>2</sub> emission per passenger over a period of 3 months. This is how we calculate the amount you will have to pay to compensate for your share."

According to KLM, they keep the cost low by:

- Avoiding costly and unnecessary intermediate agents;
- Focusing on guaranteed realisation of renewable energy projects (not the ownership but the effect of a project is what matters);
- Selecting projects in the early development stages when the prices are still low;
- Covering all overhead costs of the CO2ZERO service, so that **100%** of the payment can go directly to the development of projects.

Verification of the emission data and the methodology for calculating carbon emissions is done by KPMG Sustainability.

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## NatureAir

NatureAir claims to be the first carbon neutral airline since 2004 (world's first certified carbon neutral airline). In this period, it has helped to protect and conserve over 500 acres of tropical forests in the Osa Peninsula of Costa Rica. Since day one, NatureAir has offset 100% of its flight emissions thru its own contributions. This means that simply by choosing NatureAir, the passenger chooses to conserve and protect tropical forests in Costa Rica. In the end, **the cost of the offset is included in the price of the ticket.**

Compensation allows offsetting emissions related to flights through Government recognised compensation projects. Such projects also provide other benefits, such as tropical forest conservation, protection of biological corridors, and environmental payment services to local communities and public education. To this effect, NatureAir has entered into an agreement with FONAFIFO, the National Forestry Finance Fund (of MINAE, the Ministry in charge of Environment and Energy).

NatureAir chose to support conservation projects in the Osa Peninsula of Costa Rica, described by Nat Geo as one of the most biologically diverse ecosystems on earth. As deforestation is the planet's largest single source of carbon emissions and a significant source of carbon emissions in Costa Rica, the Company felt this compensation method would be most suitable locally.

To ensure the calculation of the volume of emissions relevant to each flight the company calculates the total carbon emissions for all flight sectors flown in the previous twelve months (associated with all aspects of its operations both in the air and on the ground). The calculations are processed thru the FONAFIFO, which uses guidelines widely accepted and equal to the Intergovernmental Panel on Climate Change (IPCC) guidelines for calculating emissions inventories.

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## **TUI Travel PLC**

According to its Sustainable Holidays Report for 2013, Tui Travel “offset 1,2 million tonnes of carbon through investing in clean energy projects over the last 5 years (equivalent to taking around 500,000 cars off the road for a year)”. In 2009, for all of that summer’s bookings, Thomson joined forces with First Choice and introduced the ‘*World Care Fund*’.<sup>40</sup> The scheme gave customers the opportunity to **donate £1 per adult and fifty pence per child on an opt-out basis – a donation that was matched by the company**. Originally launched by First Choice in 2007, the scheme raised at least over £1,000,000 for *The Travel Foundation*<sup>41</sup>, who organises projects benefiting local environments and communities overseas, and *Climate Care*<sup>42</sup>, one of the UK’s leading offsetting providers (80% of the funds were destined to carbon offsetting). It seems that more than one third of First Choice customers contributed to the scheme in which the **payment was automatically added to the bill**, and explained so the customer knew exactly what it was. The payment was easily removed if the customer didn’t wish to contribute. Apparently, with other industry schemes traditionally having very low uptakes, according to TUI, **the opt-out system has proven to be a winning formula**.

Further ahead, in 2011, Thomson and First Choice made 20 commitments around reducing their environmental impact (to raise £14 million by 2014). And, as part of this, they pledged to save one million tonnes of CO<sub>2</sub> emissions by investing in forestry, clean energy and energy efficiency projects around the world (apparently through the World Care Fund and Climate Care). According to TUI Travel, “the uptake of the scheme apparently remained higher than traditional offsetting programmes, with around **a third of customers contributing** – helping to make it the **largest carbon offsetting scheme in the travel industry**.” According to the Sustainable Development Department, introducing a scheme with an opt-out set-up at an amount that most customers find acceptable leads to much better results. Moreover, their experience with the World Care Fund dispels the myth that sustainability is only for the well-off: When they analysed the contributions that First Choice customers made to the scheme in its first year, they found that young families with children were most likely to contribute – and that less well-off families were more likely to contribute than their more “affluent” counterparts.

According to Climate Care, the carbon reduction portfolio was designed to ensure that every offset project supported by the World Care Fund was located in one of the countries that Thomson and First Choice travel to – enabling them to give back to their destinations by looking after the local environment; with projects that not only generate carbon emission reductions but also provide sustainable benefits to local communities. The projects selected were certified by internationally recognised benchmarks such as the Verified Carbon Standard (VCS), the Climate, Community and Biodiversity (CCB) standard as well as the Gold Standard - to ensure the quality of the carbon reductions. For example, in Zambia a hydroelectric project is providing a new reliable source of

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<sup>40</sup> Thomson ([www.thomson.co.uk](http://www.thomson.co.uk)) and First Choice ([www.firstchoice.co.uk](http://www.firstchoice.co.uk)) are part of TUI Travel PLC (UK), which is one of the world's leading leisure travel companies.

<sup>41</sup> The Travel Foundation ([www.thetravelfoundation.org.uk](http://www.thetravelfoundation.org.uk)) is a charity that helps to care for tourist destinations and is the first organisation of its type in the world. Its role is to ensure that local people get a fair deal from tourism.

<sup>42</sup> Climate Care ([www.climatecare.org](http://www.climatecare.org)) is a leading carbon-offset organisation, channelling money into carbon reduction and renewable energy projects in the developing world.

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electricity to local schools and hospitals.

### **AdventureSmith Explorations**

AdventureSmith Explorations (ASE) has calculated the amount of carbon emitted by its small ship cruise passengers each year. Through its Carbon-Free Cruising campaign it has completely neutralized those emissions and hopes to educate its travellers about how to fight global warming by reducing their own carbon footprint.

The Carbon-Free Cruising program does not increase the price of the cruise in any way. However, after learning more about carbon emissions and the travel industry most travellers make an additional contribution to offset the emissions resulting from their airline flights.

Increasingly travellers are seeking to reduce the impact of their own travel footprint. To this end, ASE is working in conjunction with Sustainable Travel International and MyClimate to neutralize cruise related greenhouse gas (GHG) emissions that contribute to global warming. MyClimate is dedicated to fighting global warming through the support of alternative energy projects around the world. The benefits of this new partnership are simple.

When someone purchases a cruise with ASE the company has paid to neutralize the impact of greenhouse gasses that were emitted as a result of the cruise. ASE has calculated and offset the emissions resulting from the cruise. Calculations are based on the number of travellers ASE had on each cruise the year before, along with projection for future growth.

Given that air travel is still a significant contributor after offsetting the cruise, ASE invites clients to make the entire journey "carbon free" with the purchase of an additional offset ticket (typically only \$10-\$50).

#### How Are Emissions Offset?

Both the contribution from ASE and the passenger's MyClimate™ Ticket are invested in climate-friendly projects around the world. The money goes to a local community or businesses in a developing country to help fund more environmentally friendly development options. Projects include methane collection and electricity generation in South Africa, solar collectors instead of diesel boilers in Costa Rica and weatherizing low-income housing in the United States. To learn more about specific MyClimate™ projects please visit [www.my-climate.com](http://www.my-climate.com) and click on "offset projects."

MyClimate™ is about empowering communities through commerce and tackling climate change at the same time. Offsets are Kyoto Protocol-compliant projects and projects certified by The Gold Standard.

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## **Soneva Fushi resort**

Soneva Fushi, located in the Maldives, is an iconic resort of this international luxury hotel chain.<sup>43</sup>

A survey of CO<sub>2</sub> emissions from the resort between 2008 and 2009 revealed approximately 75% of all carbon emissions resulted from guest and employee flights. Because flight travel is essential to the resort and mostly uncontrollable, Soneva Fushi decided to offset these emissions through several carbon mitigation projects around the world:

Thus, a carbon levy of 2% of room revenue is added to guest bills to mitigate these emissions and is then invested in carbon mitigation projects by the SLOW LIFE Foundation. Soneva uses a carbon calculator developed together with Carbon Foresights.

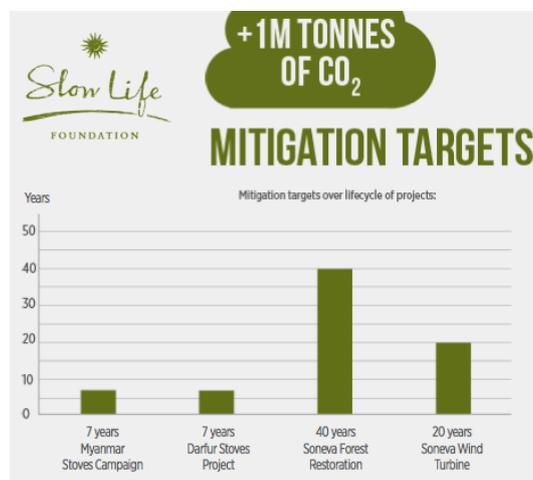
In 2009, the resort recorded and offset the following:

- 5.929 guest flights covering 140 million kilometres from as far as Buenos Aires, Argentina;
- 329 host flights covering 2,9 million kilometres, with most flights to or from nearby India or Sri Lanka.

Although all guests are charged the 2% carbon levy on room cost, there has been virtually no opposition from guests.

The mitigation projects are as follows:<sup>44</sup>

- Soneva Wind Turbine (Southern India): 80.000 MWh clean energy production (70.000 tonnes of CO<sub>2</sub>);
- Soneva Forest Restoration (Thailand): 511.920 trees planted (255.000 tonnes of CO<sub>2</sub> avoided);
- Myanmar Stoves Campaign (Myanmar): 84.000 families to be helped in Myanmar (350.000 tonnes of CO<sub>2</sub>);
- Darfur Stoves Project (Sudan): 125.000 families to be helped (350.000 tonnes of CO<sub>2</sub>).



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<sup>43</sup> <http://www.soneva.com/soneva-fushi/>

<sup>44</sup> Soneva Sustainability Report 2013-14.

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## Utjeha Apartments

Utjeha Apartments (UA)<sup>45</sup> is located near Utjeha in the Southern Montenegrin coast. With six apartments, it has become the first carbon neutral accommodation in the country. Moreover, it also has the EU Ecolabel certification. The cost to the company was approximately 500€ in 2014 (to offset its 2013 emissions amounting to 22,27 tonnes of CO<sub>2</sub>e). The offsetting was done through the German branch of the Swiss offset supplier *myclimate*.<sup>46</sup>

In this case, and given the small volume of the offsetting, UA wasn't able to choose the offsetting project. Below is a copy of the offset certificate provided by myclimate where it shows the total amount of emissions and a breakup by sources. UA is positioning itself in the eco-tourism market in Western Europe, catering mostly to German speaking tourists from Germany, Austria and Switzerland.<sup>47</sup>



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<sup>45</sup> [www.utjeha.me](http://www.utjeha.me)

<sup>46</sup> [www.myclimate.org](http://www.myclimate.org)

<sup>47</sup> By for example, appearing online in sustainable tourism websites such as [www.destinet.eu](http://www.destinet.eu).

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## ANNEX 4. REVENUE PROJECTIONS

Due to data availability, the revenue projections in the tables below only include those coming from accommodation. The term ‘market share’ refers to the percentage of the total tourism market that would be included at any one time (a gradual inclusion is foreseen).

In case of Model 1, the fee is paid per tourist per night, whereas in Model 2 it is paid per booking.

Model 1	Ref (2014)	2018	2019	2020	2021	2022
Overnight stays	10.553.783	10.337.346	10.544.093	10.754.975	10.970.074	11.189.476
Growth in stays/year	2%					
Market share		25%	50%	75%	100%	100%
Mandatory fee (€/night)	€0,20	€516.867	€1.054.409	€1.613.246	€2.194.015	€2.237.895
	€0,30	€775.301	€1.581.614	€2.419.869	€3.291.022	€3.356.843
	€0,40	€1.033.735	€2.108.819	€3.226.492	€4.388.030	€4.475.790
	€0,50	€1.292.168	€2.636.023	€4.033.116	€5.485.037	€5.594.738
	€0,60	€1.550.602	€3.163.228	€4.839.739	€6.582.045	€6.713.685

Model 2 (with matching)	Ref (2014)	2018	2019	2020	2021	2022
Number of tourists	1.517.376	1.578.678	1.610.252	1.642.457	1.675.306	1.708.812
Growth in tourists/year	2%					
Market share		25%	50%	75%	100%	100%
Participation rate		2%	3%	5%	7%	10%
Average price/night (€)		60	55	50	45	45
Average # persons/booking	3,0	3,0	3,0	3,0	3,0	3,0
Donation	1%	€3.157	€8.856	€20.531	€35.181	€51.264
	2%	€6.315	€17.713	€41.061	€70.363	€102.529
	3%	€9.472	€26.569	€61.592	€105.544	€153.793
	4%	€12.629	€35.426	€82.123	€140.726	€205.057
	5%	€15.787	€44.282	€102.654	€175.907	€256.322