

True Cost analysis to identify and address Hospitality and MICE impacts on the Natural Environment

When it comes to the environment and nature, we regularly take out more than what we give back. Yet, we rely on these natural resources for the quality and highlights of our travel experience.

This deficit occurs because venues rarely know, calculate, or inform customers of the wider environmental impacts of using their hospitality and MICE services, and the travel to them.

These natural and environmental impacts include carbon dioxide released into the atmosphere, which most of us are familiar with, but also a range of other harms related to, emission of other greenhouse gases, pollution through detergents, soluble products, use of plastics and release of micro-plastics, impacts and pollution of water and land, including our waste, food waste and rubbish.

With TLC Harmony the **True Cost** of the goods and services delivered by hospitality and MICE experiences, on the natural environment are:

- **Identified and priced in**, as a separate item.
- **Communicated to guests**, who are often eager to participate in positive change
- **Invested in nature**, to resource the engagement of local communities towards the protection and regeneration of biodiversity and ecosystems.

Why Bother?

- **For More Business** - Sustainability has become a requirement for companies, corporations, and investors, ESG (Environmental, Social and Governance) position. We know that corporations are preferring to choose MICE venues and destinations that are tackling carbon reduction, climate change, and being more nature positive.
- **For Profit** – we know, the organisations deploying greater ESG initiatives make more profit, 21% to be exact (Accenture); 66% of consumers willing to pay a premium for sustainable products (Nielson)

How is it done

Many venues are looking at reducing electricity and gas bills, staff travel, removing single use plastics and changing towards more sustainable suppliers for their goods and services. They are making changes towards carbon dioxide emissions reduction, and finding their customers appreciate the time and resources to address CO2 and plastic waste.

TLC supports these initiatives but adds to them by identifying and targeting as a priority, the activities and behaviors that create the largest emissions and most harmful impacts on nature. Thereafter, we calculate the financial environmental cost of these harm impacts. This environmental financial cost is the “investment value” to fund improvements, promote change and regenerate the environment. We have found that both the venue and the guests appreciate the information and the ability to make a difference by giving ‘a bit back’ to the planet.

For instance, in 2021 we engaged a large five-star, hotel and conference venue, with over 400 rooms next to Hyde Park in London. We calculated that, to address CO2 and biodiversity impacts, an additional:

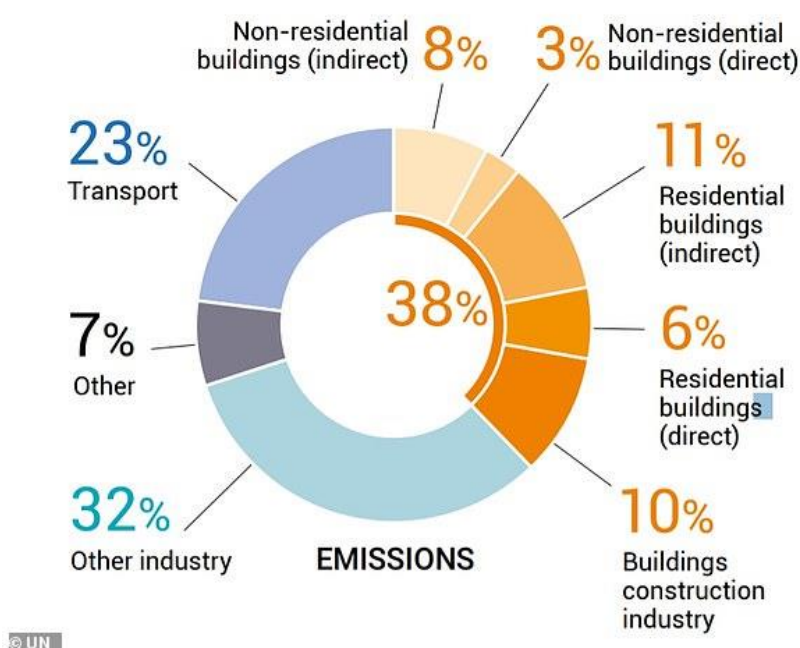
- £18 ‘planet tip’ would be required per guest, per room night, to address CO2 and equivalent greenhouse gas emissions; compared to the £350 per night room rate this was viewed as a small fraction to pay back to nature.
- 16 pence charge for every single use plastic bottle, to address downstream biodiversity impacts.
- and 20p for a large steak.

Other venues have factored in guest travel, one of the most significant contributors to a hotel or conference venues CO2 emissions (scope 3). For a central London hotel the guest travel was factored into the assessment of their CO2 emissions and it was addressed to achieve a credible and verifiable status as a “Net Zero Carbon Hotel” and venue.

Paying the ‘planet tip’ to address environmental harm costs usually amounts to around 10% addition to the commercial price bill. It is often less than you would pay for the service in a restaurant, yet we forget to say, “thank you”, to the natural world that has delivered the highlights of our experience.

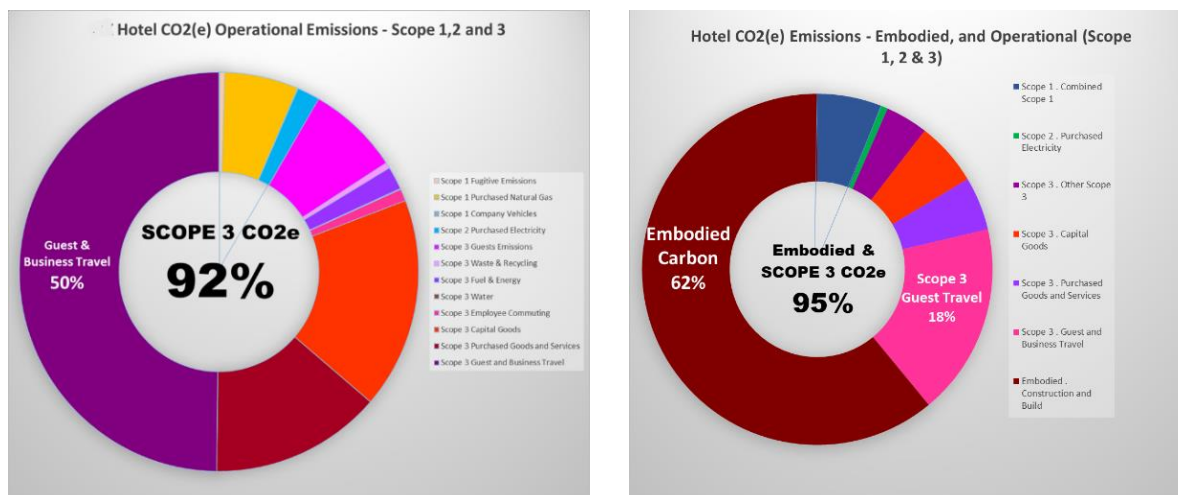
A MICE Review

For Carbon dioxide and equivalent greenhouse gases, within hospitality and MICE, operational emissions that include staff and guest travel should be identified as a priority area to measure reduce and mitigate. Hotel scope 1 and 2 emissions related to electricity and gas (fossil fuels) used for lighting and heating also need to be addressed.



Agriculture food products form a significant part of our hospitality and MICE offering, and while guests should not be put under any guilt for their food and beverage preferences, they may like to be informed of the impact on climate and biodiversity of the highest greenhouse gas related elements of the menu. Methane and nitrous oxide, two highly potent greenhouse gases, are associated with beef and lamb livestock farming. And food miles should be considered, while not penalising agriculture and farming economies from developing nations.

For venues built within the last 25 years, consideration should be given to the embodied carbon of the venues, particularly venues with significant use of concrete and steel in their build.



Dublin MICE venue - Real World Example and Analysis:

This example is based on a hundred business conference delegates flying and attending a conference for 2 days from London(UK) to Dublin (Ireland) business class; thereafter taking taxis, and staying at an inner-city hotel for two nights, with breakfast lunch and dinner, that includes a range of red meats and half a bottle of wine per delegate per day. Showering, and consuming plastics and other products at the same rate as if they were home.

Areas of Measure	Primary Issue (city centre ¹)	GHG emissions/ Biodiversity cost (Source mostly UK Cabinet Office)
Hotel per room night	GHG	27.1kg per rm night
Conference/ Delegate activity	GHG	23kg per large conference area
Guest Air Travel (business class)	GHG	0.0025kg per passenger km
Guest Land Travel	GHG (taxi)	0.15kg per km
Water Supply	GHG and Biodiversity	0.344kg per m ³
Water Treatment	GHG and Biodiversity	0.7 kg per m ³
Solid Waste	GHG and Biodiversity	0.217kg per kg
Freighted food and beverage goods	GHG and Biodiversity	Food dependent and travel miles
Plastic per single use item	Social impact/ Biodiversity marine	- 20 pence per item - £30 per kg
Food & Meals (red meats)	GHG and Biodiversity	27kg per kg
Wine	GHG	1.28kg per bottle

¹ Biodiversity impacts outside urban areas have greater impact, as there are less closed loop treatment, refuse and waste systems

The principle environmental costs related to greenhouse gas emissions and biodiversity impacts would cost the whole party an additional £2,522² (\$3433.65 US). That is **£25 per delegate³** (\$34 US)

We often find **addressing environmental** impacts is often **less than 10%** of the total bill.
A percentage frequently smaller than a service tip at a restaurant.

Where does this planet tip or environmental return go?

We believe that harm impact costs on nature should be reinvested back to nature. BUT it can be done by action taken by people, particularly local communities, who should be the target for investing in activities that support nature.

Activities could include: nature cleanup schemes by local groups, tree planting, regenerating, and restoring native species and wildlife, teaching young people about their local natural resources, training your supply chain in reducing their climate harm impacts, engaging vulnerable and disadvantaged groups into activities that provides employment, training and resources that enhances wellbeing, but also improves biodiversity and habitats for future generations to enjoy.

Your Action

If you enjoyed this briefing, contact our Founder, Nicki Page. We would love to chat to you about how you can take your hospitality and MICE venue and experience to the next sustainability level.

Email: n.page@tlhealthtravel.co.uk



TLC

www.tlcharmony.com

² Based on the European carbon (and equivalents) allowance price of 70 euros per tonne, and biodiversity costs related to plastics and other wastes.

³ This excludes embodied carbon costs related to the use of the building which is the responsibility of the venue rather than guest

Appendix 1

Scope of TLC Measures, Audit and Verification

The scope of the audit is identified with the resort. Concerns and impacts are differentiated and prioritised according to localised needs. For instance, water usage is not an issue in a high rain fall area. Similarly, where national and local laws ban discrimination based on gender, race or nationality this is not an area as appropriate for audit.

	HARM	Activities Associated with Harm Impacts	Measures and Financial Models Available (examples below)
AIR/ CLIMATE	<ul style="list-style-type: none"> ▪ CO2 (carbon dioxide – global warming) ▪ Methane ▪ Nitrogen & Sulphur oxides ▪ Ozone depletion (CFC's, HCFC's) ▪ Particulates 	<ul style="list-style-type: none"> ▪ Planes, trains, cars, electricity generation, lighting, heat, air-conditioning, construction, manufacture ▪ Farm animals, meat, dairy ▪ Diesel transportation costs, including shipping ▪ Transport, Cars, brake dust, fires, forest fires, construction ▪ Refrigeration solvents ▪ Manufacturing of intra tourism industry products 	<ul style="list-style-type: none"> ▪ Measuring Carbon Dioxide and other GHG gases through CO2 equivalence has been established ▪ CO2 dollars per ton has been aligned to the European Carbon Allowance price of \$72 US per ton. The IMF reports a floor of \$75 per ton⁴ ▪ Methane equivalence - \$1500 US per ton, NO2 equivalence - \$18,000 per ton ▪ The costs of road traffic related air pollution in Europe has been estimated in 2018 as € 66.7 billion; diesel vehicles contributed 83% of these costs
WATER	<ul style="list-style-type: none"> ▪ Nano particles (e.g. zinc oxide NP) ▪ Plastic and plastic micro-particles ▪ Hazardous wastes and Eco-Toxins ▪ Fertiliser runoff ▪ Sewage in rivers and sea ▪ Water scarcity 	<ul style="list-style-type: none"> ▪ Cleaning washing and sterilising products used onsite and offsite, skin care & cosmetics, nail polish, deodorants ▪ Bags, containers, utensils, clothing, uniforms ▪ Solvents, chemicals in products, hormones, antibiotics, nuclear, oil exploration and extraction, dyes ▪ Animal and plant agriculture and farming ▪ Homes, businesses, over consumption for the environment 	<ul style="list-style-type: none"> ▪ UN SEEA System for Ecosystem Economic Accounting for Water ▪ Deloitte, cost of removing plastic waste from the marine environment, Cost per person globally is \$1.61, but this cost varies according to region. ▪ Fisheries financial impacts ▪ There is an estimated 8m ton of plastic pollution enter the world's oceans every year, Plastic waste is reported to cost up to \$33,000 per ton in reduced environmental value.
LAND	<ul style="list-style-type: none"> ▪ Soil erosion ▪ Habitat loss ▪ Waste landfill ▪ Toxins in soil 	<ul style="list-style-type: none"> ▪ Deforestation, unsustainable farming practice, poorly located infrastructure, and resorts ▪ Construction, business, homes ▪ human population expansion, products, and consumerism ▪ Manufacturing, mining, landfill 	<ul style="list-style-type: none"> ▪ UN SEEA System for Ecosystem Economic Accounting for Land ▪ UK Biodiversity Metric 3.0, ▪ Cambridge Natural Capital Group
BIOSPHERE	<ul style="list-style-type: none"> ▪ Biodiversity reduction ▪ Extinctions ▪ Deforestation 	<ul style="list-style-type: none"> ▪ Construction, farming, over-tourism, hunting, fishing, poaching, logging, resource exploitation, human population expansion, poor waste 	<ul style="list-style-type: none"> ▪ UN SEEA System for Ecosystem Economic Accounting for Biodiversity ▪ UK Biodiversity Metric 3.0, ▪ Cambridge Natural Capital Group

⁴ <https://www.imf.org/-/media/Files/Publications/Staff-Climate-Notes/2021/English/CLNEA2021001.ashx>

	<ul style="list-style-type: none"> ▪ Mono-cultures of trees, plants or animals 	<p>management and sustainability practice locally or nationally, poor CO2 offsetting bandwagon decisions</p>	
PEOPLE	<ul style="list-style-type: none"> ▪ Disease and Pathogens spread ▪ Loss of culture ▪ Loss of historic artifacts ▪ Loss of sustainable employment ▪ Low wage or poor work conditions ▪ Discrimination and exploitation ▪ Reduced prospects & Intergenerational Injustice 	<ul style="list-style-type: none"> ▪ Human expansion into “wild areas”, poor pathogen control, air travel, air conditioning, water supply ▪ Poor governance, management, and insight 	<ul style="list-style-type: none"> ▪ Resort impacts on jobs, training, completed training, change in NEET, range and salaries of employment opportunities in a local area improved, social impact assessment and value ▪ Gender/ race/ physical ability inequalities (depending on relevance) ▪ Potential gain or loss of tourism revenue, if the culture or heritage site were not there or was seriously eroded, based on similar sites locally, regionally, or internationally. ▪ At Destination/ National Level via the Happiness Index

Appendix 2

Carbon Emissions For further information <https://ghgprotocol.org/>

Scope 1:

All direct emissions produced by a reporting company, such as emissions from fuel combustion on site for heating or cooking, and emissions from fuel used in company owned vehicles.

Scope 2:

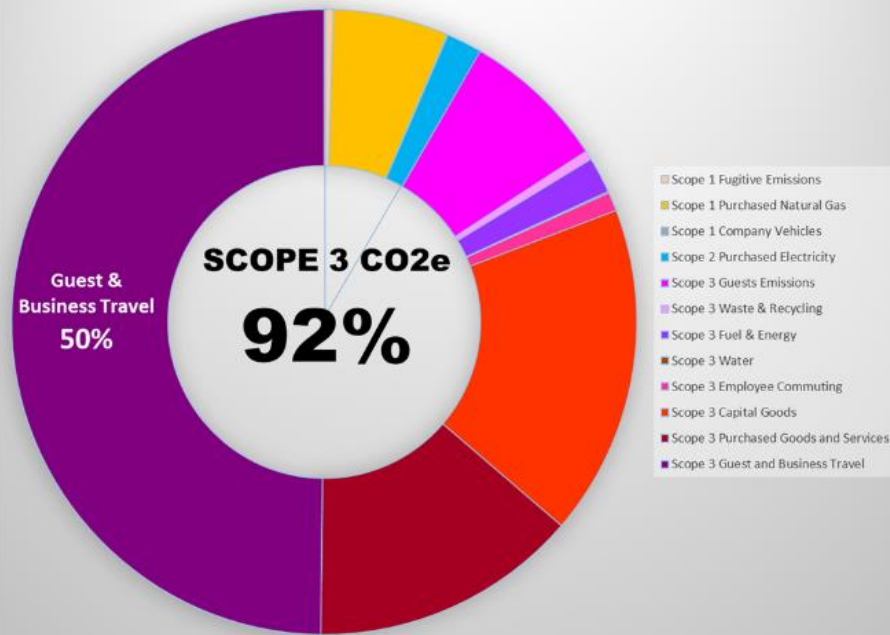
Indirect emissions from purchased electricity, steam, heating, or cooling a company uses across its facilities. These emissions are considered indirect, because they are generated off-site to produce energy that is then consumed by the reporting company .

Scope 3:

Represents all other indirect emissions that are a result of activities that occur in the value chain. This includes 15 categories:

1. Purchased Goods and Services
2. Capital Goods
3. Fuel- and Energy-Related Activities Not Included in Scope 1 or Scope 2
4. Upstream Transportation and Distribution
5. Waste Generated in Operations
6. Business Travel
7. Employee Commuting
8. Upstream Leased Assets
9. Downstream Transportation and Distribution
10. Processing of Sold Products
11. Use of Sold Products
12. End-of-Life Treatment of Sold Products
13. Downstream Leased Assets
14. Franchises
15. Investments

Hotel CO2(e) Operational Emissions - Scope 1,2 and 3



Hotel CO2(e) Emissions - Embodied, and Operational (Scope 1, 2 & 3)

