

Environmental Impacts of Tourism

Recommendations from the T4T green subgroup (Task force 4 on green indicators)

*Note that this document focuses on recommendations regarding the **measurement of environmental impacts only**, neither social nor economic.*

Introduction and context

One of the main difficulties that the tourism sector faces today is the **lack of proper standard measurements** of their **environmental impact** – whether negative or positive. This **prevents stakeholders** - be they governments, destinations, tourism businesses and customers - **from making informed decisions** in terms of sustainable policies and actions towards supporting the sustainable transition of the tourism supply and the uptake of responsible tourist behaviour. Moreover, this current **lack of common metrics hampers comparison** at the EU and international level; thus, preventing Member States (MS) and industry to benchmark the success rate of existing sustainable policies and actions.

We believe that collecting accurate and shared data is essential to **inform decisions, enhance visitor experiences, and positively impact** the environment and society. This requires clear policy direction on gathering relevant statistical data on environmental impacts of tourism. Equally important is reducing data fragmentation, thus enhancing synergy in data governance at the European level among the main institutions tasked with collecting official statistics on the environment and tourism (for example: Eurostat for both topics but also EEA and JRC for the environment).

While we recognise the importance of being aligned with international systems, we also acknowledge that, on the one hand, the reality of Europe differs in many aspects from that of other parts of the world and, on the other, the level of ambition for certain targets (e.g. climate) are uneven. Besides, Global Systems are not agile enough to cope with the rhythm of approval of new policies at EU level. While we favour the adoption of the EU based sustainability monitoring system, we understand this system as a minimum standard of monitoring and reports. We acknowledge that MS may adopt additional measurements specifics to their national level, where different sustainability issues exist of national and not international importance (for example waste issues).

In this document, we set a list of recommendations addressed to:

- A. The European Commission (DG GROW), EUROSTAT and other institutions collecting official statistics on environment and tourism
- B. Members States and Regions
- C. Tourism industry

At the end of the document, we develop the rationale behind each of the recommendations and provide some useful references.

Recommendations

A. Recommendations to the European Commission

1. GOVERNANCE - *The EC should improve the coordination among European institutions tasked with collecting official statistics on environment and tourism topics.*

2. GREEN CLAIMS DIRECTIVE - *The EC should develop guidance and tools on substantiation of green claims (including both Empowering consumers for the green transition and Green Claims directive) in the tourism industry.*

3. RESTORE THE ETIS SYSTEM AND ENSURE CENTRALISED DATA COLLECTION –

*The EC should agree and provide on a common methodology and metrics to measure **footprints**: the **carbon** footprint, including emissions inventory; the **water** footprint and the **biodiversity** footprint.*

*The EC should promote **environmentally positive** tourism practices and adapt the narrative to highlight them. Measuring environmental positive impact of tourism activities should have EU-level guidelines*

When addressing the points above, DG GROW should build on the European Tourism Indicators System (ETIS), “a system of indicators suitable for all tourist destinations, encouraging them to adopt a more intelligent approach to tourism planning”. Restoring the ETIS system would avoid unnecessary investment in developing new sets of indicators, prevent confusion among tourism stakeholders caused by the proliferation of parallel sustainability systems, and facilitate the use of existing sustainability schemes and labels already aligned with ETIS. This, in turn, would support a more effective implementation of the EU Green Claims Directive.

To maximise its impact, it is essential to ensure centralised and harmonised data collection at the European level, and subsequently at the national level. Such a framework would guarantee the comparability of baseline data and derived indicators, potentially through the new Tourism Platform and the upcoming EU Tourism Data Space.

4. SMEs – *DG GROW needs to empower SMEs in measuring impacts.*

5. TOURISM DIVERSITY- *DG GROW should acknowledge the hidden regionality and diversity in the MS and regional tourism systems*

6. TOURISM STATISTICS REGULATION – *DG GROW should review the regulation on tourism statistics to incorporate the need to collect data that facilitate the measurement of the environmental dimension of tourism sustainability.*

B. Recommendations to MS and Regions

1. **REDUCTION OF ENVIRONMENTAL IMPACT** - NTOs (National Tourism Organisations), RTOs (Regional Tourism Organisations) and Ministries should roll out a large-scale program to reduce tourism's environmental impact. This should be done by promoting environmental measurements and certifications through training and incentives (e.g. subsidizing certifications, tax reduction for certified products and services).
2. **INCENTIVES** - Provide incentives for tourism stakeholders for adoption of sustainable measurements promoting sustainable behaviour of tourism suppliers, tourism employees and tourists.
3. **JOINT SYSTEM** – MS should work on a joint system for measurement and analytics of sustainable impact of tourism industry. This includes a common monitoring tool and basic data analytics to provide manageable feedback to tourism stakeholders on their impact (positive and negative) along with guidance on how to improve things. Having a common EU monitoring system with basic analytics (i.e. dashboard) would allow comparable insights for interested parties and would serve as empirical base for policies (local, regional, national, EU).

C. Recommendations to Tourism Industry

1. **CERTIFICATIONS** - The tourism industry should support the development of tools and guidelines to ensure that sustainability measurements and certifications are consistent with EU directives and can be effectively applied by DMOs that align services and mission
- LTOs (Local Tourism Organisations): support the sustainability certification of destinations,
2. **MARKETING** - The Tourism Industry should focus their marketing activities on certified and/or labelled products and services.
 3. **R&D** - The tourism industry should support R&D activities for establishing research-based testing of interventions that increase environmentally sustainable tourist behaviour.
 4. **BEHAVIOUR CHANGE** - Tourism associations should encourage systematic support for SMEs and micro companies on the implementation of infrastructure and other approaches to support tourists' behaviour change.

Systematic support would encompass:

- changes to service standards (e.g. why is a use of cotton serviettes as a standard of high quality, when tourists do not consider them as vital).
- support funding for infrastructure changes to encourage energy and water savings.

Rationale behind recommendations

1. GOVERNANCE - The EC should improve the coordination among European institutions tasked with collecting official statistics on the environment and tourism

It is important to reduce data fragmentation, thus enhancing synergy in data governance at the European level among the main institutions tasked with collecting official statistics on the environment and tourism. In addition to Eurostat, the EEA and JRC should be involved for the environment-related statistics.

2. GREEN CLAIMS DIRECTIVE - The EC should develop guidance and tools on substantiation of green claims in the tourism industry

The green claims directive (once adopted) mandates the use of life cycle assessments to evaluate the environmental impact of products and services. Conducting LCAs can be complex and costly, requiring specialized knowledge and tools that many tourism businesses may not currently possess. The Commission has already mandated the development of Product Environmental Footprint Category Rules (PEFCRs) specifically for the hospitality sector, but further PEFs are needed for other tourist services.

3. CARBON FOOTPRINT - The EC should agree on and provide a common methodology and metrics to measure carbon footprint

Different Carbon Footprint measurement methods / tools are currently being developed targeted to specific tourism stakeholders and products (e.g. accommodation, transportation, events, experiences, etc.) and tourist packages. However, these measurements do not follow all the same methodology and therefore lead to different results. Once a common methodology has been developed to measure the impacts of different tourism stakeholders, there will be a solid basis for measuring sustainability at the level of tourist destinations.

Examples of such Carbon Footprint measurement methodologies are:

- For passenger air transport (ICAO Carbon Emissions Calculator, IATA CO2 Connect, MyClimate Calculator, etc.).
- For tourism businesses (Hiilikuri, widely in use in Finland [Carbon footprint calculator Hiilikuri - Visit Finland](#))
- For tour packages (eg Carmacal, Klimalink (Germany), [MEET Ecological Footprint Calculator of Ecotourism Itineraries](#))
- For destinations (eg KlimDest (Switzerland))

4. WATER FOOTPRINT - The EC should promote water footprint measurements for the tourism industry and agree on a common methodology and metrics to measure it

As water scarcity for certain locations and seasons is becoming more dramatic due to climate change, measuring the tourism water footprint and taking measures to reduce water stress exacerbated by tourism is becoming a crucial step toward ensuring the sustainability of the

tourism industry. Being aware of the impact that tourism has on water resources will help with implementing corrective measures.

5. BIODIVERSITY FOOTPRINT - The EC should promote biodiversity footprint measurements for the tourism industry and foster a common methodology and metrics to measure it

Biodiversity footprint refers to the impact that human activities, such as tourism, have on the biodiversity of a specific area. It encompasses changes in species populations, habitat loss, and ecosystem degradation because of tourism-related activities. Special attention must be paid to monitoring habitat alteration, wildlife disturbance and the spread of invasive species.

Impacts on biodiversity from tourism have been overlooked for a long time. However, the current biodiversity loss crisis, which is globally affecting tourism itself – not only nature-tourism, requires us to assess and minimise these impacts.

There are some initiatives already working on that:

- Finland [Biodiversity, leadership, and resilience in a national sustainable tourism program \(tandfonline.com\)](https://tandfonline.com)
- Futouris - German tourism industry

6. NATURE POSITIVE IMPACT – The EC should promote environmentally positive tourism practices and adapt the narrative to highlight them. Measuring positive impact of tourism activities should have EU-level guidelines.

Nature positive tourism refers to tourism that directly contributes to, and advances, the protection of habitats and wildlife; supports rewilding or regeneration of natural ecosystems. It is about making a positive impact on the destination, protecting and restoring environment through responsible tourism practices.

As the tourism industry grows, so does the pressure on natural ecosystems in the places visited. The changes to destination's natural environments will affect the local biodiversity, and cause biodiversity loss. The five greatest drivers of biodiversity loss with the largest global impact are:

- changes in land and sea use
- direct exploitation of organisms
- climate change
- pollution
- invasive species

Traditionally, the tourism actors have focused on minimising their negative impact on the environment. However, tourism has an opportunity to increase its positive impact on the environment, and this opportunity should be explored better and indicators created to measure tourism industry's positive impact on the environment.

Tourism is traditionally minimising its negative impact to environment; reducing footprint, but focus should also be on maximising positive impact; increasing handprint.

Tourism has an opportunity to have a positive impact on the local environment and biodiversity, and this opportunity should be better communicated, and behaviour encouraged. SMEs can, for instance, utilise nature-based solutions to climate change adaptation, develop experiences that support and restore local biodiversity or help nature regenerate. Activities can be as simple as cleaning litter from land and waters or harvesting alien species, or more complex like restoring natural ecosystem.

Handprint is very difficult to measure and can be overwhelming for SMEs. Measuring positive environmental impact of tourism activities should have EU-level guidelines.

It should be noted that positive environmental impact also creates better acceptance of the tourism industry, which is oftentimes criticized due to its negative impacts on places visited

Reference: [State of Sustainable Tourism 2023 \(businessfinland.fi\)](https://businessfinland.fi)

7. A COMMON INDICATOR SYSTEM FOR SUSTAINABLE TRANSITION

ETIS is an EC supported "system of indicators suitable for all tourist destinations, encouraging them to adopt a more intelligent approach to tourism planning". It was developed with the sponsorship of EU funds and achieved a minimum consensus among MS.

It functions as a:

- Management tool, supporting destinations in sustainable transition
- A monitoring system with indicators and data collection methodology
- Information tool indicating success rate towards sustainable transition

Key advantage of ETIS system is high awareness of its objectives and functionalities among key tourism stakeholders across the EU.

This prevents the need of DG GROW to invest into developing new system of indicators and the confusion among tourism stakeholders by adding yet another sustainability system. It allows the application of a number of existing sustainability schemes and labels which follow the ETIS; hence, contributing towards better adoption of EU GREEN CLAIMS directive.

While acknowledging that ETIS may not be 100% holistic; therefore, requiring adaptations, it is at a stage where less resources are needed for the adaptation than for developing a completely new system. Thus, the "restored" ETIS system should be updated with the new EU legislation and be in line with the Corporate Sustainability Reporting Directive (CSRD) and its European Sustainability Reporting Standard (ESRS), the Corporate Sustainability Due Diligence Directive (CSDDD) in addition to EU the Green Claims and Empowering Consumers for the Green Transition directives. In its review of the new EU legislation, the ETIS system should identify what applies directly to the tourism industry and propose those indicators that are relevant for the travel and tourism industry. Also to be mentioned, that the

globally adopted GSTC standard does not have an EU background and therefore does not necessarily react agilely to changes in EU legislation. Furthermore, the GSTC is cumbersome and bureaucratic and very expensive process. We recommend that the indicator system (like ETIS) is developed primarily within the European framework yet aligning with UNTWO Measuring the sustainability of tourism (SF-MST) and GSTC standard.

Finland has a Sustainable Tourism Indicator System in place, based on ETIS. The public dashboard reports economic, social, cultural and environmental indicator data on national, regional and business level, and partly in destination level. In addition, the indicator data is enriched and analysed in annual State of Sustainability report, which also provides the full list of indicators in use (see appendix). However, without benchmark and lack of international comparison, it is difficult to set threshold values.

While ETIS is primarily focused on Tourist destinations it needs to be acknowledged that tourist destinations comprise of a group of SMEs and other types of organizations where “footprint” occurs. Hence; 1) the ETIS guides DMOs on how to encourage SMEs and other tourism stakeholders to adopt activities contributing to the above points 3-6 and 2) indicates actions which DG GROW needs to take in order to support sustainable transition.

8. *SMEs – DG GROW should empower SMEs in measuring impacts*

SMEs are the backbone of tourism industry. They should get more attention and be more empowered to be able to perform impact measurements. Financial support needs to be scaled up.

The COSME programme, now under the Single Market Programme, aims to improve SME competitiveness and entrepreneurship. The COSME programme should make funding available to tourism SMEs to help them measure environmental impact and substantiate environmental claims.

9. *TOURISM DIVERSITY- DG GROW should acknowledge the hidden regionality and diversity in the MS and regional tourism systems*

10. *TOURISM STATISTICS REGULATION – DG GROW should review the regulation on tourism statistics to incorporate the need to collect data that facilitate the measurement of the environmental dimension of tourism sustainability.*

This change is essential to address existing informational gaps and to identify the basic data needed at the European level to develop relevant and comparable indicators on tourism and the environment.

It is important to promote awareness of the environmental aspects of tourism, with a specific focus on environmental pressures and impacts, as well as measurement methodologies.

This effort is vital for Europe, given that the current EU Tourism Statistics Regulation (REGULATION (EU) No. 692/2011 of the European Parliament and of the Council of 6 July 2011) lacks substantial references to the environment or sustainability in general.

To Tourism Industry

1. CERTIFICATIONS

To ensure real impact, certification schemes should include both **process-based criteria** (e.g. existence of sustainability strategies, designated responsible persons, training opportunities for staff) and **evidence-based indicators** (e.g. water consumption, waste generation and reduction). Without this balance, many certifications risk focusing primarily on awareness-raising rather than driving concrete action.

Regardless of their basis (e.g. GSTC or others), certifications should be aligned with EU directives, and actively supported and promoted across the European tourism industry. Such alignment would facilitate EU-wide comparability in the application of certifications. In parallel, the scope of certifications in each country (i.e. the number of tourism businesses eligible or suitable for certification) should be assessed. This would allow for percentage-based comparisons and benchmarking of certified tourism establishments across Member States.

REFERENCES

WTO - Statistical Framework for Measuring the Sustainability of Tourism (SF-MST)
chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://unstats.un.org/UNSDWebsite/statcom/session_55/documents/BG-4a-SF-MST-E.pdf

EC - Green Claims Directive
[https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI\(2023\)753958](https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2023)753958)

Biodiversity, leadership, and resilience in a national sustainable tourism program
[Full article: Biodiversity, leadership, and resilience in a national sustainable tourism program \(tandfonline.com\)](#)

The Hidden Power of Sustainable Tourism Indicator Schemes: Have We Been Measuring Their Effectiveness All Wrong?
[The Hidden Power of Sustainable Tourism Indicator Schemes: Have We Been Measuring Their Effectiveness All Wrong? - Gloria Crabolu, Xavier Font, Graham Miller, 2023 \(sagepub.com\)](#)

[State of Sustainable Tourism 2023 \(businessfinland.fi\)](#)

[Webinar. Measuring EU Tourism Environmental Impacts. Setting the frame.](#)