



COMMITTEE ON STATISTICS

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The tourism demand perspective and allocating environmental flows associated with transport activity

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Introduction

The consumption and the production perspectives

A statistically sound principle for the attribution of environmental flows is established in SF-MST with regard to the production perspective: official statistics account for and allocate to industries the flows directly caused by enterprises residing in the country of reference that directly serve visitors. In the case of air emissions associated with transport, attributing them is more complex based on the consumption perspective.

Chapter 3 of SF-MST and the consumption perspective

How to allocate GHG emissions associated with international air passenger transport. Specific cases can be particularly complex: e.g. when both the visitor and the airline do not reside either in the country of departure or in that of arrival of the flight.

Official statistics' basic criteria

Complexity of dealing with transport

Basic concepts in SF-MST reflecting important criteria generally followed in official statistics are crucial to disentangle complexities.

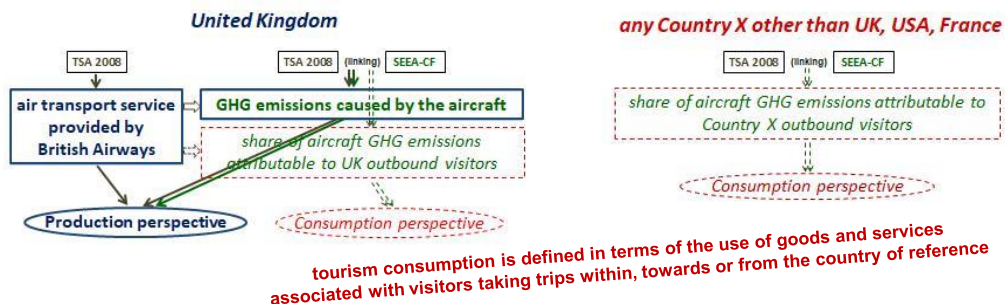
Direct flows first

- . to measure direct flows so that the phenomena of interest – economic, environmental – are described in terms of observable facts;
- . the consumption perspective:
 - . to measure the environmental flows that consumption processes generate directly; the use of services by visitors never causes per se environmental flows to occur;
 - . to attribute to visitors the environmental flows indirectly triggered by visitor consumption along the whole supply chain linked to visitor activity, which in the first instance are attributed to enterprises.

Allocation of the GHG emissions from international air transport to visitor consumption: linking TSA 2008 and SEEA-CF – 1

Example: GHG emissions from a British Airways aircraft traveling between New York and Paris and carrying visitors that are residents of different countries

Cases in which the reference country for official statistics is neither the country of departure nor of arrival of the flight and the visitors are partly residents while the airline is resident in one of the cases (the UK)



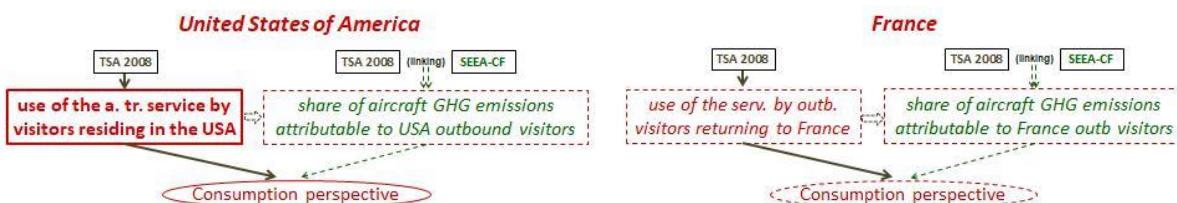
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Allocation of the GHG emissions from international air transport to visitor consumption: linking TSA 2008 and SEEA-CF – 2

Example: GHG emissions from a British Airways aircraft traveling between New York and Paris and carrying visitors that are residents of different countries

Cases in which the reference country for official statistics is the country of departure or arrival of the flight and the visitors are partly residents while the airline is not



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Going beyond TSA 2008?

Limitations from relying on TSA 2008 and SEEA-CF data

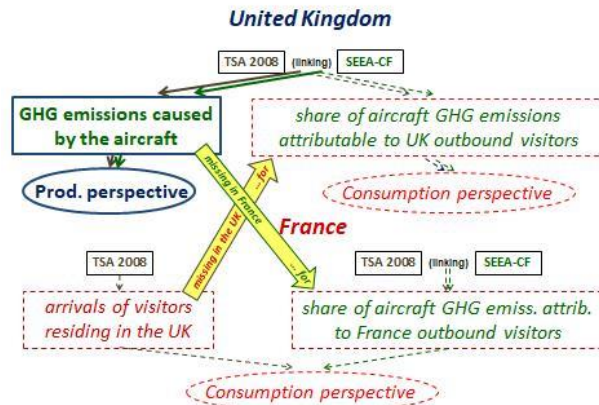
There would be difficulties in the calculation of the shares of GHG emissions attributable to the resident visitors using an airline international service. Even in the case that the tourism data were based only on IRTS 2008.

Going beyond the conceptual constraints of TSA 2008

In order to attribute, in cases such as the one in the example, shares of aircraft GHG emissions to visitors, the visitors traveling on the international route should not all be taken into account in SF-MST based on the consumption perspective? The proposal is yes, and each national statistical system should account for those visitors who would be residing in the reference country.

A data gap in a given national statistical system could be filled through data available in a foreign NSS

Example: GHG emissions from a British Airways aircraft traveling between New York and Paris and carrying visitors that are residents of different countries



Should Chapter 3 be complemented with detailed further guidance?

Learning from international research experiences

. World Tourism Organization and United Nations Environment Programme (2008): “Climate Change and Tourism - Responding to Global Challenges”;

. Lenzen, M. et al. (2018): “The carbon footprint of global tourism”; study financially supported by the Australian Research Council.

SF-MST responds to two convergent needs: NNSs; UNWTO

Should collection of data on visitors’ residence be recommend in SF-MST? What about leaving NNS without operational further guidance and relying on centralized work at UNWTO (statistical work on a global scale)? What is an optimal solution, considering also the cost-efficiency aspect with reference to the global statistical system?

Thank you for your attention!

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