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Steps towards measuring the environmental aspects of the sustainability of tourism

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EUROPEAN SUSTAINABLE TOURISM AND CIRCULAR ECONOMY: Shifting tourism towards circular economy models

6 October 2022



The legal basis:

Regulation 692/2011 of the European Parliament and of the Council of 6 July 2011 concerning European statistics on the tourism

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:192:0017:0032:EN:PDF

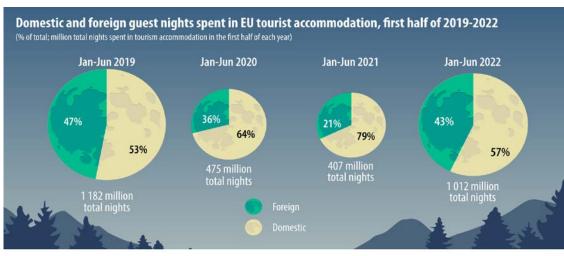
Supply side

 Accommodation statistics, data on capacity and occupancy of tourist accommodation establishments (NACE 55.1-55.2-55.3).

 Typically collected from businesses (or via local authorities, tourism board, ...)

Demand side

- Data on tourism trips made by EU residents: participation in tourism, tourism trips made, ...
- Typically collected via household surveys



The legal basis:

Geographical breakdowns for accommodation statistics (nights spent)

• By region

- NUTS 3 regional level annual data
- NUTS 2 regional level monthly data (sent to Eurostat once per year)
- Further improving the granularity is under discussion with the Member States (voluntary)

By type of locality

- Degree of urbanisation
- Coastal areas vs. non-coastal areas
- Data for selected cities

The legal basis:

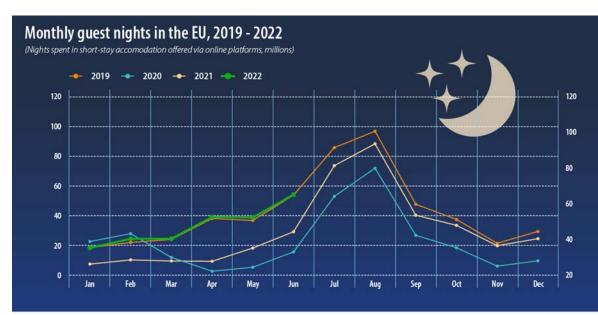
Impact on the environment of tourism

- Not directly covered in the Regulation
 - Article 5: "[...]draw up a programme for pilot studies which may be carried out by Member States on a voluntary basis in order to develop a system for the compilation of data showing the effects of tourism on the environment"
- Indirectly (but very partially!) covered
 - Flows and volume indicators
 - ... but not covering all dimensions and not sufficiently granular

Other output (≠ Regulation)

Data on short-term rentals via online collaborative economy platforms

- Based on agreements with Airbnb, Booking.com, Expedia Group and Tripadvisor
- Data available since reference year 2018
- Quarterly release, monthly breakdown
- Output similar to the 'traditional' accommodation statistics
- ⇒ Timely and granular data



Other output (≠ Regulation)

Tourism Satellite Accounts (TSA)

- Methodological framework internationally agreed with UNWTO, OECD and UNSD
- Stage of implementation across Europe is very different and very fragmented
- Every 3 years, countries send TSA data to Eurostat on a voluntary basis (next release: December 2022)
- ⇒ Focuses on the macro-economic importance of tourism
- ⇒Linking to SEEA (environmental accounts) is a long term goal in measuring the sustainability in tourism

Coverage of accommodation statistics:

- ⇒ often a main source for tourism related indicators
- By definition excludes same-day visitors
 - Can be adding to the peaks and pressure in tourism destinations
- Usually limited to rented accommodation
 - Not covering tourists staying at non-rented accommodation (e.g. second home, staying with relatives and friends)
- Usually limited to rented accommodation above a certain number of beds
 - Official statistics now complemented with data from four platforms

Temporal granularity of the existing data

- The possible impact of tourism is variable throughout the year
 - \rightarrow e.g. seasonality in coastal destinations
 - \rightarrow e.g. peak moments in water and energy uses during the day
 - Official data at annual level or even monthly level can average possible issues linked to sustainability
 - Limitations of traditional data collection methods such as (sample) surveys
 - ⇒ Use of auxiliary information from non-traditional sources (e.g. big data)?

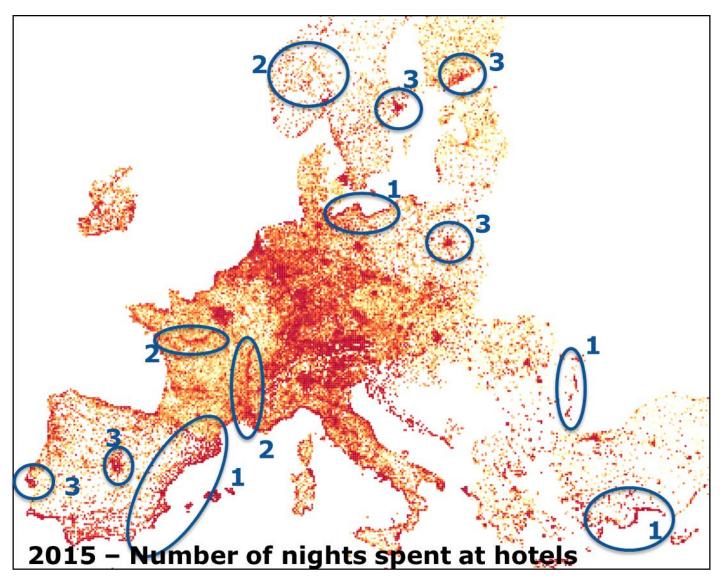
Geographical granularity of the existing data:

- Tourism is a regional or even destination level phenomenon
 - \rightarrow e.g. coastal tourism seasonality in Mediterranean France \neq Atlantic France
 - \rightarrow e.g. over-tourism is typically concentrated in only few areas
 - Official data at national level or even
 - Regional level (= 'administrative areas') can't capture the possible issues linked to sustainability
 - Limitations of traditional data collection methods such as (sample) surveys
 - ⇒Use of auxiliary information from non-traditional sources (e.g. big data)?

Geographical granularity

Example:

Use of Points of Interest datasets as auxiliary information to refine occupancy data at hotels from NUTS level to 10km grids (Eurostat, 2015)



Recent international initiatives

Statistical Framework for Measuring the Sustainability of Tourism (MST)

⇒UN World Tourism Organisation, 2015-...

European Tourism Indicators System for sustainable destination

management (ETIS)

⇒European Commission (DG GROW), 2013-2016

EU Tourism Dashboard

⇒European Commission (JRC, DG GROW), 2021-2022

Environmental impact

- · Air travel emission intensity
- Tourism GHG intensity
- Tourism energy intensity
- Share of trips by train
- Excellent bathing water
- Dependence on long-distance tourists

Tourism digitalisation

- E-commerce sales
- Enterprises using social media
- Personnel training on digital skills
- Internet speed at tourism destinations
- Accommodation internet listings

Socio-economic resilience

- Tourism intensity
- Tourism seasonality
- Dependence on top 3 origins
- Tourism diversity
- Share of tourism employment
- Average tourism expenditure

Country composite index

Country composite index

Country composite index

Basic tourism descriptors

- Nights spent
- Tourism capacity

- Average duration of stay
- Share of foreign tourists

- Progress of tourism recovery
- Main tourism typology

Development of a system of indicators

• Feasible, clear, comparable

- as much as possible based on existing, harmonised data
- making better use of existing data or combining datasets.

Organic

- first phase: starting with a 'lowest common denominator'
- next: widening (adding more indicators) and deepening (better granularity for the existing indicators).
- combination of traditional data (1st phase) and innovative sources and methods (2nd phase)

Development of a system of indicators

- Comprehensive, covering different dimensions of sustainability
 - Economy (monetary, volumes)
 e.g. share in GDP, international position, international dependency
 - Labour market e.g. number of persons employed, share of lower educated workers, hourly earnings
 - Social and cultural impact e.g. participation in tourism, seasonality in demand
 - Environmental dimension e.g. share of trips by train, bathing water quality
 - Digitalisation e.g. growth of platform tourism, share of e-commerce sales in turnover

Development of a system of indicators

Work in progress

- General supports by the NSIs for the approach, joint effort
- Discussions will continue at the forthcoming annual meeting with tourism statisticians from the NSIs in the European Statistical System (12-13 Oct 2022)

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Thank you