Statistical Framework for measuring the Sustainability of Tourism

AUTHOR
Elena Manzanera

ORGANIZATION
INE
Spain

Total visitors
1999: 1999
2023: 2023
+64.7%

Total hotels
1999
2023
+52.1%

Total overnights hotels visitors
1999
2023
+32.2%

Appartments/tourist dwellings
1999
2023
multiplied by 3
Overtourism

- Environmental degradation. Resource depletion. Overuse of water or other natural resources
- Economic disparities and social inequalities: overtourism benefits are not unevenly distributed. Local businesses and workers barely take benefits
- Popular tourist destinations often face severe overcrowding, straining local infrastructure and services: public transportation, healthcare...
- Non-availability of long-term rental dwellings or available at very high prices. Local population cannot rent/purchase homes
- Illegal market of touristic dwellings (competing with hotels)
- Effects on the day-to-day of residents (noise, littering, traffic jam, local electricity or water shortages... >> problems for living together...
Anti-tourist protests could bring busy airport to a ‘standstill’ during summer holidays

A ‘citizen’s assembly’ discussed the next steps in the island’s fight against mass tourism

Tens of thousands protest against Canary Islands’ ‘unsustainable’ tourism model

Organisers say 50,000 turn out to call for limit on tourist numbers, saying model makes life unaffordable and puts strain on resources

Could Madrid turn into New York, a city without short-term rentals?

Which European cities are trying to cut back the number of cruise ship visits?
ESTO NO ES TURISMO ES INVASIÓN
People claims for changing tourism model,
The future is to secure progress towards ...

More Sustainable Tourism

Statistical framework for the measurement of sustainable tourism (SF-MST)
Linking data and decisions
Statistical Framework MST

Common language for measurement and presentation of data

- Common **concepts** and **definitions**, expected to be stable over the time
- **Classifications**, standard

- **Reporting rules**, tanking into account Information needs of users, aligned with decision making and policy level

- **Methods** and **data sources**, from traditional to innovative, not standard. Guidance, science-based and consensus-backed

- **Indicators**

- **Stakeholders**: data producers, data analysts, decision makers

- **3 dimensions**: economic, environmental, social, but at spatial scales: global, national, regional, municipal, local destinations...
Economic dimension

GDP
Employment
Productivity
...

Measurement
Sustainability
Tourism
GHG EMISSIONS BY TOURISM ACTIVITIES. Year 2022(A)

- Travel agencies: 66.2
- Real estate activities: 17.8
- Other: 8.4
- Accommodation: 5.8
- Water transport: 2.3
- Land transport: 1.3
- Air transport: 0.5

ENERGY CONSUMPTION TOURISM ACTIVITIES. Year 2021(A)

- Travel agency: 57.7
- Real estate activities: 17.2
- Other: 13.6
- Accommodation: 7.3
- Water transport: 2.3
- Land transport: 1.3
- Air transport: 0.6
Total urban waste collected in Balearic Islands (mtons)

2019: 669.8 mtons
2020: 494.3 mtons

-26.2%
Inclusiveness
Decent work
Inequality, Satisfaction
...

Social dimension

Measurement
Sustainability
Tourism
Economic dimension

GDP
Employment
Productivity
...

Social dimension

Measurement
Sustainability
Tourism

Environmental dimension

GHG emissions
Energy consumption
Water use
Consumption materials
Waste generation
...

Inclusiveness
Decent work
Inequality, Satisfaction
...

MST

Inclusiveness
Decent work
Inequality, Satisfaction
...

Economic dimension
Standard MST: UN Tourism

Economic dimension: SNA, NU recs for TSA

Environmental dimension: SEEA

Social dimension: surveys (disability, characteristics of employment, education ...)

Challenge: combine core statistical frameworks of the 3 dimensions > MST indicators
GHG EMISSIONS OF THE ECONOMY (%). Year 2022 (A)

- Tourism Industries: 92.5%
- Other activities: 7.5%

GHG emissions by touristic industries (%). Year 2022

- Air transport: 55.3%
- Land transport: 14.9%
- Water transport: 7.0%
- Accommodation: 4.9%
- Other tourism activities: 1.5%
- Indirect tourism activities: 16.5%
ENERGY OF THE ECONOMY (%). Year 2022 (A)

Tourism Industries: 97.2%
Other activities: 2.8%

Energy consumption by touristic industries (%). Year 2021

- Air transport: 43.1%
- Land transport: 7.1%
- Accommodation: 6.8%
- Water transport: 2.7%
- Other tourism activities: 1.9%
- Indirect tourism activities: 38.4%
<table>
<thead>
<tr>
<th>Industry</th>
<th>GHG Emissions (tons CO2)</th>
<th>Energy Consumption (TJ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>14.199</td>
<td>15.045</td>
</tr>
<tr>
<td>Touristic industries</td>
<td>4.258</td>
<td></td>
</tr>
<tr>
<td>Other industries</td>
<td></td>
<td>11.787</td>
</tr>
</tbody>
</table>
Emissions per overnight stay

- 2016
- 2017
- 2018
- 2019
- 2020
- 2021
- 2022
Statistical Framework MST. Some challenges...

- Link economic indicators to other environmental domains: waste, consumption of materials, water use, biodiversity and effects to ecosystems (cultural tourism, nature tourism ...)

- Address the social dimension on MST by i.e. breakdowns of employment linked to tourism by categories, wages and salaries or measuring the satisfaction of tourists...

- Discuss how innovative sources may be introduced to compile MST indicators, as data from smart electricity and water meters

- At EU level, use of data from the Corporate Sustainability Reporting Directive (CSRD)

- ... and many others ...

- Key role of the MST Group of Experts
Thank you for your attention