



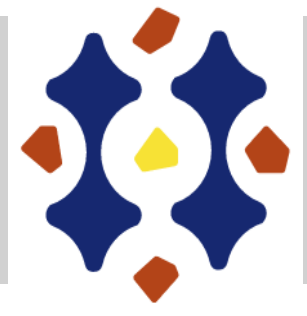
# Measuring and monitoring the sustainability of tourism at the regional level: Catalonia's tourism sustainability indicators project

Generalitat de Catalunya  
Departament d'Empresa i Treball

Generalitat de Catalunya  
Institut d'Estadística de Catalunya

Jordi Galter, M. Carme Saborit, Mercè Escrichs, Cristina Rovira

Catalonia launched the **National Commitment for Responsible Tourism** in 2023 to promote **sustainable growth** in the tourism sector. Due to the limited number of indicators at the regional level, **the OECD and the EU** have been supporting Catalonia and three other Spanish Autonomous Communities in developing a **common set of sustainable tourism indicators**. The project has reviewed existing frameworks to measure sustainability, and the piloting phase has allowed for the testing of the proposed set of indicators.



## Catalonia's strategy: Commitment for Responsible Tourism

*The future of tourism will be sustainable, or it won't be*  
A Commitment with 67 challenges and objectives



**01**  
Environmentally  
sustainable  
tourism

**02**  
Socially  
just  
tourism

**03**  
Territorially  
balanced  
tourism

**04**  
Tourism  
based on  
innovation



### Key Indicators 2023

Number of foreign visitors (millions)	<b>26,1</b>
% of Spain	<b>20,8</b>
Contribution of tourism to employment (%)	<b>13,3</b>

Sources: Idescat, based on FRONTUR/EGATUR (INE), Labour Force Survey

[https://empresa.gencat.cat/web/.content/20\\_-\\_turisme/compromis\\_turisme\\_responsable/enllacos-destacats-article/Commitment\\_EN.pdf](https://empresa.gencat.cat/web/.content/20_-_turisme/compromis_turisme_responsable/enllacos-destacats-article/Commitment_EN.pdf)

## TSI Project: towards a more sustainable and resilient tourism



Support to the tourism ecosystem:  
towards a more sustainable, resilient and digital tourism

- Definition and development of a **joint and a comparable** methodology for a **regional** sustainability monitoring system.
- Developing pilots for implementing these approved and easily accessible indicators to measure the sustainability of tourism: **Andalusia, Catalonia, Navarra and Region of Valencia**.
- Monitoring of tourist destinations over time in relation to the pillars: **governance, environmental, social and economic resilience**.

### Overview of the activities that took place for the indicator set development

October 22	March 23	Jul 23	Sep 23- Feb 24	Apr 24-Aug 24
Kick-off meeting and roundtable	Joint, coherent system of indicators for measuring and monitoring the sustainability of tourism at regional level	Draft compilation guide to implement a core set of sustainable tourism indicators	Pilot implementation in selected destinations	Compilation guide to implement a core set of sustainable tourism indicators

### Core indicators to measure the sustainability of tourism in the regions

Dimension	Policy issue	Indicator		
Governance	Sustainable tourism management	A.1 Sustainable tourism development strategy		
		B.1 Tourism employment		
		B.2 Tourism value-added		
		B.3 Tourist expenditures		
		B.4 Bed occupancy		
		B.5 Tourism seasonality		
		B.6 Tourist satisfaction		
		B.7 Market dependency		
Economic	Benefits to the local economy	B.8 Access to online bookings and ICT training		
		C.1 Population under risk of tourism saturation		
		C.2 Gender equality		
		C.3 Youth employment		
		C.4 Job security		
		C.5 Accessibility in tourism		
		D.1 Air travel greenhouse gas emissions		
		D.2 Green mobility infrastructure		
Socio-cultural	Equal opportunities in tourism	D.3 Use of renewable energies		
		D.4 Accommodation businesses with relevant and verified sustainability certification		
		D.5 Tourism water use		
		D.6 Bathing-water quality		
		D.7 Tourism pressure in protected areas		
		D.8 Monitoring and information systems in natural parks		
		Environmental	Climate change mitigation	D.9 Sustainable business practices
				D.10 Water management
D.11 Protected areas management				

### Example of a table with key compilation details: Tourism seasonality

Compilation information: B.5 Tourism seasonality		
Metrics and units	B.5.1 Gini coefficient of monthly overnight stays	Between 0 - 1
	B.5.2 Share of the top 3 months in total annual nights spent in the region	%
Formula	B.5.1 $G = \frac{2 \sum_{j=1}^M j y_j}{M \sum_{j=1}^M y_j} - \frac{M+1}{M}$ Where G is the value for the Gini index; M is the number of time periods in a year (12 for monthly data); j is an index for time period (from 1 to 12); y <sub>j</sub> is the number of monthly overnight stays.	
	B.5.2 $\frac{\text{Nights in all means of accommodation for the three top months}}{\text{Annual total nights in all means of accommodation}}$	
Data sources	INE – Occupancy surveys: Hotels, Campsites, Holiday Dwellings, Rural Tourism Accommodation, Youth Hostels <a href="https://www.ine.es/dynqs/INEbase/en/categoria.htm?c=Estadistica_P&amp;cid=1254735570703">https://www.ine.es/dynqs/INEbase/en/categoria.htm?c=Estadistica_P&amp;cid=1254735570703</a>	
Target direction	B.5.1: Negative. Ranging from 1 (perfect inequality) to 0 (perfect equality). B.5.2: Negative. The lower the share, the better the overall distribution.	
Frequency and recommended granularity	Annually (with monthly data); Municipal (selected municipalities, 'puntos turisticos'), Regional	
Benchmarking and comparability	A.5.1: would need own calculations; EU Tourism Dashboard estimates coefficient of variation, which is slightly different; A.5.2: EUROSTAT Tourism statistics - seasonality at regional level throughout the EU: <a href="https://ec.europa.eu/eurostat/databrowser/view/tour_occ_nin2m/default/table?lang=en">https://ec.europa.eu/eurostat/databrowser/view/tour_occ_nin2m/default/table?lang=en</a> , SDG Monitoring report	

### The graphics below provide some preliminary results of the compiled sustainability indicators for Catalonia, (2023\* with respect to 2019)

