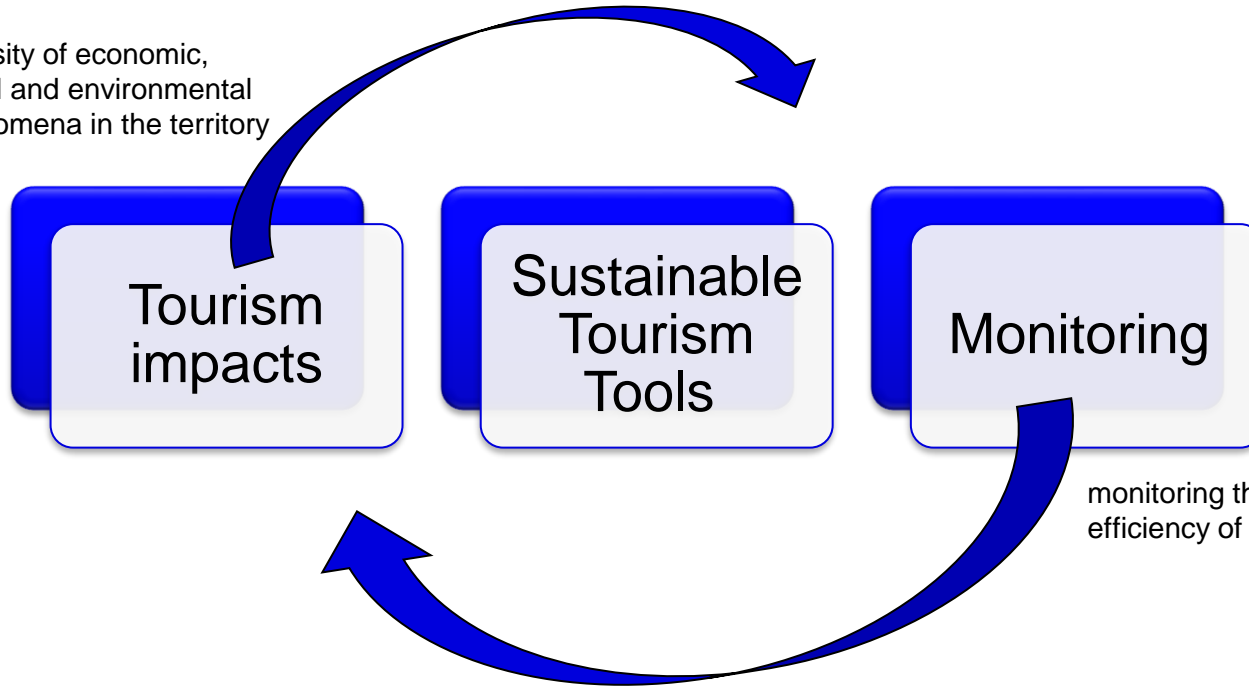MUNI
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Monitoring and measuring sustainable tourism performance

Markéta Novotná, Ph.D.

Monitoring and Measuring

intensity of economic, social and environmental phenomena in the territory

Tourism impacts

Sustainable Tourism Tools

Monitoring

monitoring the effectiveness and efficiency of individual measures

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Monitoring and Measuring

– The degree of success in achieving the goal measured by key quantitative indicators

– A controlled cyclic process based on continuous monitoring of impacts and change

– Monitoring of activities to determine if the targets set for environmental improvements are being met
  – If they are not, then strategies must be developed to rectify the situation.

Strategies for Assessing Progress

– Why Monitor and Measure Sustainable Tourism?

– To assess the environmental, social, and economic impacts of tourism.

– To ensure alignment with sustainability goals (e.g., SDGs, Green Deal).

– To support evidence-based decision-making and adaptive management.

– Key Questions:

– What is the current state of tourism sustainability?

– Are implemented measures working effectively?

– What areas need improvement?

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Core Principles of Monitoring

— Relevance: Indicators must align with objectives.

— Transparency: Clear methods for data collection and analysis.

— Comparability: Consistent metrics to enable benchmarking over time.

Areas to Monitor – Examples

– Environmental Impacts
–   Resource use (water, energy, materials).
–   Biodiversity conservation.
–   Pollution (air, water, waste).

– Social Impacts
–   Resident well-being and satisfaction.
–   Community participation in tourism planning.
–   Preservation of cultural heritage.

– Economic Impacts
–   Contribution to local economies.
–   Distribution of benefits.
–   Overdependence on tourism.

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Tools for Monitoring

— Digital and ICT Tools:

— Sensors for tracking

— Mobile apps and platforms for visitor feedback

— Surveys and Audits:

— Resident and visitor surveys.

— Regular sustainability audits for businesses.

— Big Data:

— Social media platforms

— Digital platforms

— Mobile operators gathering real-time data on user location

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Indicators

— Predefined for monitoring specific phenomena

— Simplifies and objectively describes reality

— Evaluates the current state or continuous development over time

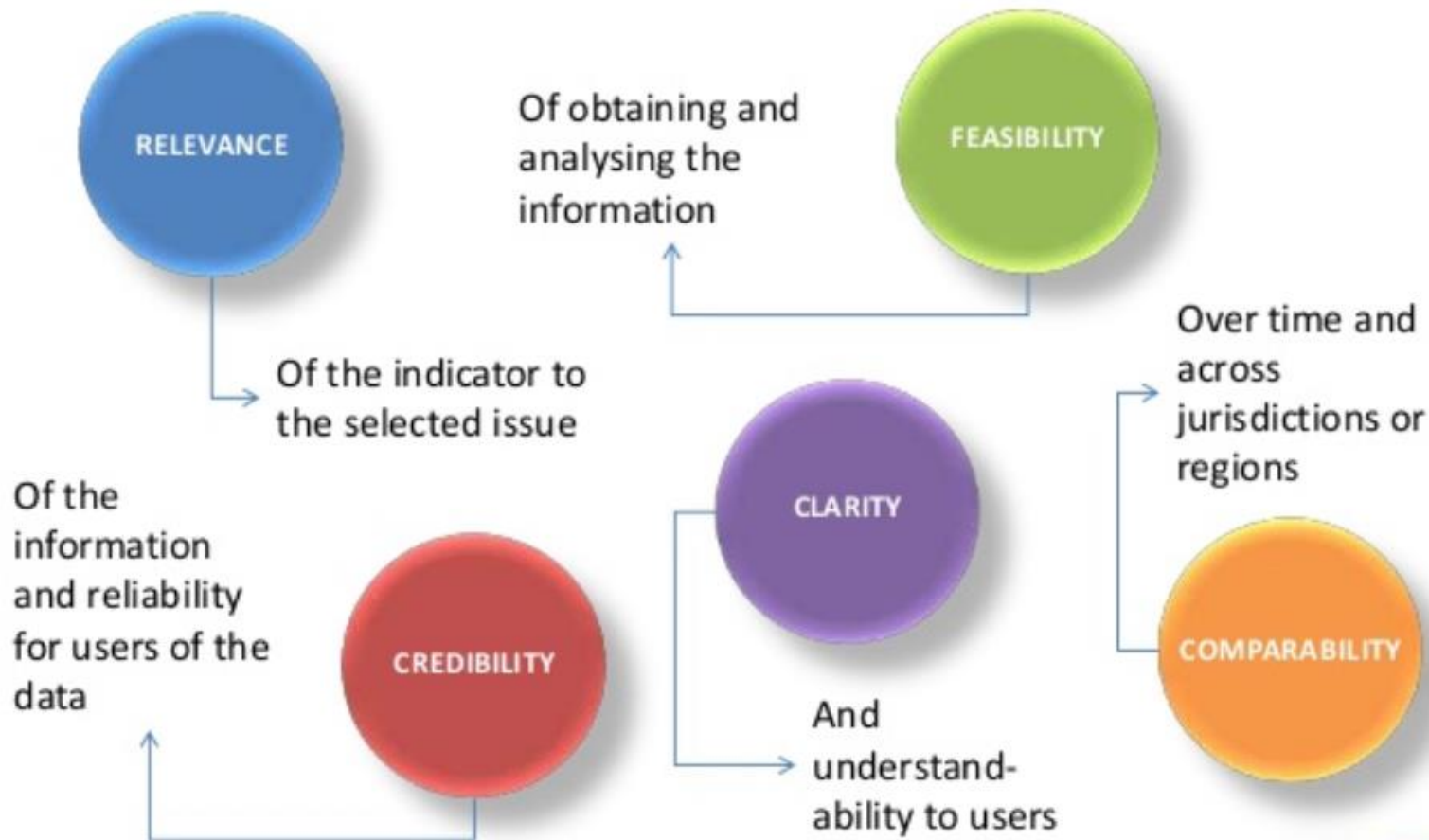— Represents the result of processing data

Types of Indicators

— early warning indicators (species disappearance)

— indicators of stresses on the system (crime rates)

— measures of current state of tourism (occupancy, satisfaction)

— measures of tourism impacts (deforestation rates, change in property prices)

— measures of management efforts (cleanup cost, repairs)

— measures of management effect and performance (changed pollution levels, more returning tourists)

Indicators

– An effective indicator should have the following characteristics:

– directly related to the phenomenon or goal it is intended to measure and provide meaningful insights for decision-making.
– be quantifiable, using reliable and accurate data that can be tracked over time.
– simple to understand and interpret by stakeholders with varying levels of expertise.
– allow for comparisons over time, across locations, or between groups.
– etc.

Characteristics of Good Indicators.
a) **S**pecific – focused and clear
b) **M**easurable – quantifiable and reflecting change
c) **A**ttainable – reasonable in scope and achievable within set time-frame
d) **R**elevant – pertinent to the review of performance
e) **T**ime-Bound/Trackable – progress can be charted chronologically
Also be **CREAM**: **C**lear, **R**elevant, **E**conomical, **A**dequate and **M**onitor-able.

RELEVANCE

Of the indicator to the selected issue

Of obtaining and analysing the information

FEASIBILITY

Over time and across jurisdictions or regions

CLARITY

Of the information and reliability for users of the data

CREDIBILITY

And understand-ability to users

COMPARABILITY

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OECD tourism indicators

Core indicators	
Tourism performance and impacts	1 *Tourism Direct Gross Domestic Product* A leading international measure of the tourism contribution to GDP
	2 *Inbound tourism revenues per visitor by source market* A measure of the economic activity of visitors
	3 *Overnights in all types of accommodation* A measure of tourism flows in accommodation
	4 *Exports of tourism services* A measure showing the contribution of tourism to exports
Ability of a destination to deliver quality and competitive tourism services	5. *Labour productivity in tourism services* A measure providing evidence of the productive potential of the tourism economy
	6. *Purchasing Power Parity (PPPs) and tourism prices* A measure showing tourism price competitiveness using PPPs
	7. *Country entry visa requirements* A measure of entry visa requirements including methods of visa issuance
Attractiveness of a destination	8. *Natural resources and biodiversity* A measure of a country's stock of natural assets
	9. *Cultural and creative resources* A measure of a country's cultural and creative attractions, activities and events
	10. *Visitor satisfaction* A measure of demand side attractiveness value, based on current and future competitiveness
Policy responses and economic opportunities	11. *National Tourism Action Plan* A measure indicating effectiveness in assisting to improve the competitiveness of tourism

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UNWTO tourism indicators

Over **50** issue areas and a wide range of specific indicators responding to each of them:

- **Socio-cultural** (issues related to community wellbeing, cultural assets, community participation, tourist satisfaction)
- **Economic** (capture of benefits, sustaining the tourist product, seasonality, leakages)
- **Environmental** (protection of valuable natural assets, managing env. resources: water, energy, waste)
- **Tourism planning and management** (destination planning and control, design of products and services, controlling use intensity, transport, marketing, branding)
- **Responding to Global issues** (e.g climate change, epidemics, sex tourism)

European Tourism Indicators System for sustainable destination management

— management tool, supporting destinations to take a sustainable approach to destination management

— a monitoring system, easy to use for collecting data and detailed information

— an information tool useful for policymakers, tourism enterprises and other stakeholders.

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Section B: Economic value

Criteria	Indicator reference#	ETIS core indicators
B.1 Tourism flow (volume and value) at destination	B.1.1	Number of tourist nights per month
	B.1.2	Number of same-day visitors per month
	B.1.3	Relative contribution of tourism to the destination's economy (% GDP)
	B.1.4	Daily spending per overnight tourist
	B.1.5	Daily spending per same-day visitors
B.2 Tourism enterprise(s) performance	B.2.1	Average length of stay of tourists (nights)
	B.2.2	Occupancy rate in commercial accommodation per month and average for the year
B.3 Quantity and quality of employment	B.3.1	Direct tourism employment as percentage of total employment in the destination
	B.3.2	Percentage of jobs in tourism that are seasonal
B.4 Tourism supply chain	B.4.1	Percentage of locally produced food, drinks, goods and services sourced by the destination's tourism enterprises

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Section C: Social and cultural impact

Criteria	Indicator reference#	ETIS core indicators
C.1 Community/social impact	C.1.1	Number of tourists/visitors per 100 residents
	C.1.2	Percentage of residents who are satisfied with tourism in the destination (per month/season)
	C.1.3	Number of beds available in commercial accommodation establishments per 100 residents
	C.1.4	Number of second homes per 100 homes
C.2 Health and safety	C.2.1	Percentage of tourists who register a complaint with the police
C.3 Gender equality	C.3.1	Percentage of men and women employed in the tourism sector
	C.3.2	Percentage of tourism enterprises where the general manager position is held by a woman
C.4 Inclusion/accessibility	C.4.1	Percentage of rooms in commercial accommodation establishments accessible for people with disabilities
	C.4.2	Percentage of commercial accommodation establishments participating in recognised accessibility information schemes
	C.4.3	Percentage of public transport that is accessible to people with disabilities and specific access requirements
	C.4.4	Percentage of tourist attractions that are accessible to people with disabilities and/or participating in recognised accessibility information schemes
C.5 Protecting and enhancing cultural heritage, local identity and assets	C.5.1	Percentage of residents that are satisfied with the impacts of tourism on the destination's identity
	C.5.2	Percentage of the destination's events that are focused on traditional/local culture and heritage

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Your Activity

– Setting Tourism Indicators for Sustainable Management

    – develop specific tourism indicators tailored to different types of destinations

– Provide a brief introduction about the challenges faced by each destination type in terms of sustainability and climate change, including examples like:

- **Mountain Destinations:** Over-tourism, infrastructure pressure, melting glaciers.

- **Natural Protected Areas:** Habitat degradation, visitor overcapacity.

- **Urban Destinations:** Carbon emissions, overcrowding.

- **Rural Destinations:** Loss of traditional livelihoods, limited resources.

- **Coastal Destinations:** Rising sea levels, water quality degradation.

Your Activity

— Identify **key challenges** relevant to your destination type

— Propose **5 measurable tourism indicators** to address these

challenges, focusing on sustainability and climate change

mitigation, specify: **What it measures** and **Data sources**

Your Activity

https://ec.europa.eu/docsroom/documents/21749

https://unstats.un.org/unsd/tradeserv/Workshops/Madrid/UNWTO%20presentation%20-%20item19.pdf

Conclusion

– Effective monitoring is key to ensuring sustainable tourism development.

– Indicators and tools must be tailored to the destination's specific challenges.

– Collaboration among governments, businesses, and communities is essential for success.