



UNWTO Statistics Department

**WORKING GROUP OF EXPERTS
ON MEASURING THE SUSTAINABILITY OF TOURISM
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**TOURISM INDICATORS FOR MONITORING
THE SUSTAINABILITY OF TOURISM**

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1. Preliminaries

The UNWTO Committee on Statistics, in partnership with the UN Statistics Division and with the support of the UN Statistical Commission, is propelling the development of the “**Statistical Framework for Measuring the Sustainability of Tourism**” (SF-MST) within the [MST project](#). This aims to expand the measurement of tourism, which currently is mostly focused on economics, to include also environmental and social considerations. This will become a valuable guiding tool for countries to produce credible, comparable and integrated data to better guide decisions and policy with respect to sustainable tourism - including the Sustainable Development Goals. This work is being led by the UNWTO/UNSD “[Working Group of Experts on Measuring the Sustainability of Tourism](#)” under the auspices of the UNWTO Committee on Statistics and UN Committee on Experts on Environmental-Economic Accounting (UNCEEAA).

In the most recent [Committee meeting](#) (27-28 February 2018) it has been decided – among others - to establish a sub-group to the Working Group of Experts on MST led by Statistics Austria on “**Tourism Sustainable Development Goals (SDGs) Indicators**” which will mainly focus on the conceptualization and development of SDG indicators in coordination with the formal process of the Inter-agency and Expert Group on SDG (IAEG-SDG) which concern:

- the **tourism relevant SDG-indicators** for which UNWTO is custodian agency, and
- the proposal of an additional indicator set comprising 10-15 indicators.

The document **considers some proposals and thoughts** in this respect for further discussion/decision in the Working Group of Experts on MST.

2. Targets and SDGs with direct link to tourism

Presently, the **tourism relevant indicators**, for which **UNWTO** is foreseen as the **Custodian Agency**¹) (responsible organization for collecting data related to the SDG indicators from countries), are:

- **8.9.1:** Tourism direct GDP as a proportion of total GDP and in growth rate (Tier II),
- **8.9.2:** Proportion of jobs in sustainable tourism industries out of total tourism jobs (Tier III), and
- **12.b.1:** Number of sustainable tourism strategies or policies and implemented action plans with agreed monitoring and evaluation tools (Tier III)²).

¹ Related to **14.7.1** (Sustainable fisheries as a percentage of GDP in small island developing States, least developed countries and all countries) the “United Nations Environment Programme – World Conservation Monitoring Center” (UNEP-WCMC) and the “Food and Agriculture Organization of the United Nations” (FAO) are foreseen as Custodian Agencies.

² The **Tier classification** classifies the adopted SDGs according to data availability and methodological developments as follows:

- Tier I: Indicator conceptually clear, established methodology and standards available and data regularly produced by countries
- Tier II: Indicator conceptually clear, established methodology and standards available but data are not regularly produced by countries
- Tier III: Indicator for which there are no established methodology and standards or methodology/standards are being developed/tested.

See also [IAEG-SDG, Tier Classification for Global SDG Indicators, as of 11 May 2018](#).

On 10 March 2017, at its forty-eighth session, the United Nations Statistical Commission (UNSC) adopted all the indicators proposed by the IAEG-SDG including the tourism relevant ones (see above). However, in order to implement future reviews of the indicator framework, the following processes are foreseen³):

- **annual minor refinements** (including specifying or correcting a unit of measurement, clarification of terms used in the indicator, spelling or other editorial changes and any other minor issues that do not substantively change the meaning of the indicator), and
- **two comprehensive reviews** of the indicator framework, whose results will be submitted for consideration and decision by the Statistical Commission at its 2020 and 2025 sessions.

During the [most recent meeting of the IAEG-SDGs](#) (9-12 April 2018 in Vienna) the [following indicators](#) were proposed by Statistics Austria, in its capacity of chair of the UNWTO's Committee on Statistics:

Indicator for Target 8.9: Progress towards sustainable tourism

It is proposed to **substitute 8.9.1 and 8.9.2** with a single indicator: "Progress towards sustainable tourism". The indicator would be composed of 3 sub-measures that provide a good (conceptually precise and feasible) indication of the 3 dimensions of sustainable tourism (economic, social and environmental):

- **Tourism Direct GDP:** This is defined in an international statistical standard adopted by UNSC (Tourism Satellite Account: Recommended Methodological Framework 2008) and many countries are already producing data for this indicator. OECD collects it as part of its database, and UNWTO also has plans to include it as part of its worldwide data compilation from countries.
- **Employment in the tourism industries:** This is defined in an international statistical standard adopted by UNSC (International Recommendations for Tourism Statistics 2008) and several countries are producing data for this indicator which is currently being compiled by UNWTO as part of its worldwide database.
- **Energy use by the tourism industries:** This is defined within the "Statistical Framework for Measuring the Sustainability of Tourism" (SF-MST) under development and planned for discussion by the UNSC in 2020, as well as in the already developed Technical Note linking the [Tourism Satellite Account](#) and the [System of Environmental-Economic Accounting](#) (SEEA)⁴.

Indicator for Target 12.b: Stage of implementation of the Statistical Framework for Measuring the Sustainability of Tourism

³ UN 2017 (<https://unstats.un.org/unsd/statcom/48th-session/documents/2017-2-IAEG-SDGs-E.pdf>).

⁴ See also [SEEA 2012 Applications and Extensions](#) (tourism: see para 4.43-4.59).



3. Other indicators with link to tourism

The UNWTO Committee on Statistics considers that tourism may be relevant in many **more goals and targets beyond those that explicitly mention sustainable tourism**. An additional set of indicators around a “tourism theme” could be developed to complement the above indicators in order to support global and national monitoring for the SDGs. This would include indicators to monitor elements not covered in the existing indicators for targets 8.9, 12.b and 14.7 and for monitoring the contribution of tourism in other targets where tourism is not explicitly mentioned but relevant.^{5) 6)}

Therefore, the **proposed indicators should not be limited to the three SDG Targets** that explicitly mention tourism, but should include indicators to inform other Goals or Targets where tourism might be relevant. This is related to the IAEG-SDGs work stream on inter-linkages. This is in line with recent UN discussions to have a “core” global set of indicators applicable to all countries (approximately 100-120 indicators), complemented by a larger “thematic” set from which indicators can be “added on” and reorganized to more closely track national development priorities or certain themes (like tourism). The rationale behind this is to best cater to varying country circumstances and priorities.

In the Annex - based on “[Tourism Indicators for Monitoring the SDGs](#)” and **additionally proposed indicators** - selected tourism relevant indicators are discussed, taking into account the data sources, periodicity, classification issues and comment/practicability of the indicators.

Those indicators which are prioritized by the members of the “Sub-group on Tourism Sustainable Development Goals (SDGs) Indicators” (based on the received comments) are highlighted in **green**; these marked indicators meet the criteria of having a clear and precise definition as well as a calculation methodology in order to facilitate international comparisons and analysis. Those indicators highlighted **orange** are prioritized from some group members, but some (methodological) clarification is still need; those marked **red** are identified as not feasible, mainly due lack of data and methodological uncertainties. Non-highlighted indicators might be still under consideration and further discussion is needed. The MST Working Group is requested to assess the proposed indicators; furthermore, volunteering countries are asked to test the indicators according to their practicability and usefulness.

4. Conclusions

It is obvious that tourism is of great significance for the economy of many countries. Receiving a more detailed or concrete answer for policy makers related to its **sustainability, additional measures** have to be introduced getting more information on the ecological and social agreeableness of the tourism development. This is a prerequisite of tourism, its development and success in the (near) future.

⁵ [Report of the World Tourism Organization on tourism statistics](#), UNSC 2017.

⁶ [Tourism and the Sustainable Development Goals](#), UNWTO.

Relevant indicators and measures would help to understand the size of tourism, its structure and its **interrelation** with the **ecological, social and economic environment**; furthermore, they support to manage tourism components and their relationship to the environment. They permit decision makers (on local, regional, federal as well as national level) a broader view of the whole tourism system moving away from the traditional, one-sided economic approach.

Building on indicators beyond those already considered for tourism within the scope of the 17 SDG goals (8.9, 12.b, 14.7), more and additional work has to be done to

- clarify concepts,
- develop agreed measurement definitions,
- establish measurement boundaries and limits,
- describe potential measurement techniques, and
- support ongoing implementation and training.

Related to indicators the following has to be **considered**:

- **Sustainability can never be measured by indicators alone** (regardless of qualitative or quantitative or both): Profound knowledge of the whole region, its resources, geographic circumstances, economic pillars, (tourism) infrastructure, the cultural and historical framework etc. is necessary to interpret the figures and draw reasonable conclusions from them. Therefore, a solid group of experts is demanded in order to gain feasible results.
- **Establishment of a regular monitoring system**: Doing analysis based on sustainable indicators requires a regular monitoring system which provides information on continuous basis revealing trends over time. Based on indicators' results which signal unacceptable levels of impact or stress to the environment, standards governing tourism activities have to be developed.

Thus, the **development of indicators** should be built on a range of **existing statistical frameworks**, standards and classifications across the economic, social and environmental dimensions of sustainability of tourism. - There is no doubt this is an ambitious project; nevertheless, it can be counted on the **international tourism statistics network** of official statistics, guided by the UNSD and UNWTO, who have a long track record in facilitating the measurement of coherent pictures of economic, environmental and social change around the world.

Information society demands more and more data in shorter intervals than ever. In particular related to tourism for which nature and social stability is doubtless the prerequisite, MST is an important initiative to gain reliable information on tourism in its wider context.

5. Annex

Proposed indicators based on “Tourism Indicators for Monitoring the SDGs“

(see http://cf.cdn.unwto.org/sites/all/files/pdf/laimer_conf2017manila_central_paper.pdf)

Goal	Indicator	Data sources	Periodicity	Classification (ISIC Rev.4)	Comments/evaluation of practicability	
	“Tourism Direct Gross Domestic Product” (TDGDP), including the respective share related to overall economy	Tourism Satellite Accounts (TSA)	yearly	-	TSA is not available in all countries; “Flash Tourism direct GDP method” might be an alternative and feasible.	
	Persons employed (expressed by “Full-time equivalents”; FTE) in the tourism industries, including the respective share related to overall employment	TSA; Labour Force Survey (LFS); Structural Business Statistics /SBS)	yearly	-	Apart from TSA it is assumed that at least Labor Force Survey and Structural Business Statistics do exist in countries.	
	Share of tourism intermediate consumption by hotels, restaurants etc. from domestic agriculture	National Accounts (NA), Supply-Use-Table (SUT), Input-Output Statistics (IO); Economic Accounts for Agriculture	yearly	-	Agricultural products as intermediate consumption for hotels and restaurant.	
	Share of agricultural income from agro-tourism activity	Integrated Farm Survey (IFS), Economic Accounts for Agriculture, accommodation statistics	yearly	55 (Accommodation) 5610, 5629 and 5630 ⁷)	Definition of “agro-tourism activity” might be necessary.	

⁷ For more detail see [IRTS 2008](#), Annex 3.

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Goal	Indicator	Data sources	Periodicity	Classification (ISIC Rev.4)	Comments/evaluation of practicability
	Share of health tourism related to total tourism	accommodation statistics; border surveys; household surveys	yearly	-	Estimates based on health related accommodation; survey on purpose of trip, if available; health tourism has to be defined 
	Change in average skills (years of training) of employees/or persons employed in tourism industries	Ad hoc surveys; statistics on formal and non-formal education	irregular	-	Kind of education: <u>Formal education</u> : Active learning processes during school education, vocational training and continuing education, mostly within an institutional framework and success is formally confirmed by certificates. Learning activities outside formal education are classified as <u>non-formal education</u> or informal learning. Availability and comparability among countries might be questionable. 
	Proportion of employed persons/employees in tourism industries with school education compared to the share of overall population	Labour Force Survey (LFR); statistics on education; TSA (Table 7 “Employment in tourism industries“)	yearly	-	Definition of “school education”: i.e. kind of vocational schools, universities of applied sciences, etc. 
	Share of women in tourism jobs (compared to the overall economy)	TSA (Table 7 “Employment in tourism industries“)	yearly	-	TSA-Table 7 is not available in all countries; “Tourism jobs“ refers to “tourism industries“; UNWTO compile data on FTE by status in employment and by gender 

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Proposed indicators based on “Tourism Indicators for Monitoring the SDGs“

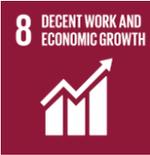
(see http://cf.cdn.unwto.org/sites/all/files/pdf/laimer_conf2017manila_central_paper.pdf)

Goal	Indicator	Data sources	Periodicity	Classification (ISIC Rev.4)	Comments/evaluation of practicability
	Share of women in tourism management roles	Particular surveys in companies/ businesses	-	55 (Accommodation) 5610, 5629 and 5630	“Tourism management role“ has to be defined (in 55 and 56). 
	Final water use in tourism industries / TDGDP	SEEA-Water ⁸) Technical note linking TSA and SEEA	yearly	-	Analysis of tourism related final water use might be additionally useful; data hardly available. 
	Share of treated waste water from tourism industries	SEEA-Water Technical note linking TSA and SEEA	yearly	55 (Accommodation) 5610, 5629 and 5630	Data availability might be questionable; “tourism businesses“ might refer to 55 and 56. 
	Waste water per guest in the accommodation industry	SEEA-Water; SBS; accommodation statistics; border survey Technical note linking TSA and SEEA	yearly	55 (Accommodation)	Data availability might be questionable; in addition separation of general and tourism related waste water might be difficult. Best estimates based on average waste water per day/person in general and duration of stay could be helpful. 

⁸ SEEA-Water: <https://unstats.un.org/unsd/envaccounting/seeaw/>; International Recommendations for Water Statistics (IRWS): <https://unstats.un.org/unsd/envaccounting/irws/irwswebversion.pdf>.

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Goal	Indicator	Data sources	Periodicity	Classification (ISIC Rev.4)	Comments/evaluation of practicability
	Waste water per day and capita for tourists	SEEA-Water; SBS; accommodation statistics; border survey Technical note linking TSA and SEEA	yearly	-	Data availability might be questionable; in addition separation of general and tourism related sewage water might be difficult. Best estimates based on average sewage water per day/person in general and duration of stay could be helpful. Comparing waste per capita of visitors and residents (high and low season) might be another possibility. 
	Share of final energy use related to Tourism Direct GDP (TDGDP)	Energy Balances, Energy Accounts, TSA Technical note linking TSA and SEEA	yearly	Final Energy Use: Private households Industries (ISIC Rev.4)	Availability of detailed energy accounts and TSA might be questionable. 
	Share of renewable energy in total tourism energy use	Energy Balances, Energy Accounts Technical note linking TSA and SEEA	yearly	55 (Accommodation) 5610, 5629 and 5630	Separation of renewable energy use in tourism might be critical; restriction to ISIC 55 and 56, only, might be feasible. 
	SDG 8.9: Tourism direct GDP (TDGDP)	Tourism Satellite Accounts (TSA)	yearly	-	TSA is not available in all countries; “Flash Tourism direct GDP Method” might be an alternative and feasible. 

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Goal	Indicator	Data sources	Periodicity	Classification (ISIC Rev.4)	Comments/evaluation of practicability
	SDG 8.9: Number of jobs in tourism industries Share tourism employment related to total employment	TSA (Table 7 “Employment in tourism industries“)	yearly	-	TSA-Table 7 is not available in all countries. Best estimates based on SBS data might be another opportunity. 
	SDG 8.9: Energy use in tourism: Net domestic energy use by tourism industries	Energy Accounts Technical note linking TSA and SEEA	yearly	55 (Accommodation) 5610, 5629 and 5630	Intermediate energy consumption in industries 55 and 56 might be available. 
	Total international receipts and taxation from international visitors	Travel Balance of Payment (TBoP; Central Bank/IMF); Tax statistics	quarterly	-	Tourism credit figures; tourism related taxation has to be defined ⁹) 
	Occupancy rates for accommodation industry (based on beds)	Accommodation statistics, SBS	yearly	55 (Accommodation)	Commercial and non-commercial accommodation (both paid) should be considered. 
	Share of investment in transport infrastructure related to total infrastructure investment	NA (Gross fixed capital formation), SBS, data from respective ministry	yearly		Availability of detailed data on budget issues might be questionable; “transport infrastructure“ have to be defined (passenger transport). 

⁹ See OECD Tourism Trends and Policies 2014, Chapter 3 „Taxation and tourism“.

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Goal	Indicator	Data sources	Periodicity	Classification (ISIC Rev.4)	Comments/evaluation of practicability
	Number of trips made by mode of transport to and from the tourist destination	Border surveys; household surveys	yearly	-	Household surveys/border surveys might be sample surveys; sample error has to be taken into account. 
	Net tourism exports (net inflow from tourism)	Travel Balance of Payment (TBoP; Central Bank/IMF)	quarterly	-	Calculation of credit/debit and its difference. 
	Average earnings in tourism compared to national average	Structure of Earnings Survey (SES; social statistics)	irregular	55 (Accommodation) 5610, 5629 and 5630	Focus on accommodation and food&beverage sector is recommended 
	Share of travel exports related to total service exports	TBoP, BoP (current account; Central Bank/IMF)	quarterly	-	TBoP concept is broader than that of tourism statistics. Indicator is showing how much the tourism sector is compensating a deficit of the current account. 
	Average income of persons working in tourism industries compared to residents (by region)	Structure of Earnings Survey (SES), personal income statistics	irregular	-	Data availability on tourism industry level might be questionable. 

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Goal	Indicator	Data sources	Periodicity	Classification (ISIC Rev.4)	Comments/evaluation of practicability	
	The accessibility of tourism facilities	Transport statistics	irregular	-	The terms “tourism facilities“ and “accessibility“ is unclear: “tourism facility“ has to be defined (sightseeing attractions, beaches, cultural sites, etc.) the “accessibility“ might be defined by number of transport connections available, timetable, etc.	
	Tourism intensity: The number of visitors per 100 residents	Tourism Statistics, population statistics	yearly	-	Visitors: overnight tourists (same-day visitors´ data is hardly available); UNWTO compiles data at national level in the Compendium of Tourism Statistics: visitors arrivals/ country population	
	The number of beds in tourist accommodation facilities per 100 residents	Tourism Statistics, population statistics	yearly	-	Commercial and non-commercial accommodation (both paid) should be considered.	
	SDG 12b: Stage of implementation of the Statistical Framework for Measuring Sustainable Tourism	Separate survey necessary	yearly	-	I.e. number of filled in tables (major part) available, part of statistical program of NSIs, etc.	

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Goal	Indicator	Data sources	Periodicity	Classification (ISIC Rev.4)	Comments/evaluation of practicability	
	Share of solid waste¹⁰ generated by tourism industries related to total solid waste	Waste statistics Technical note linking TSA and SEEA	yearly	55 (Accommodation) 5610, 5629 and 5630	Separation of solid waste due to tourists might be critical; tourism shares (TSA) by product might serve as an estimation basis.	
	Share of solid waste recycled in the tourism industries	Waste statistics	yearly	-	Separation of “waste recycled“ might be critical.	
	Sewage produced per tourist compared to sewage produced per resident	Water account; TSA	yearly	55 (Accommodation) 5610, 5629 and 5630	Separation of sewage due to tourists might be critical; restriction to ISIC 55 and 56, only, might be feasible. Tourism shares (TSA) by product might serve as an estimation basis (i.e. in particular relevant for 56).	
	“Green-House-Gas” (GHG) emissions from tourism industries compared to total economy	Air emissions accounts; Technical note linking TSA and SEEA	yearly	55 (Accommodation) 5610, 5629 and 5630	Separation of GHG by tourism industries might be critical; restriction to ISIC 55 and 56, only, might be feasible. Tourism shares (TSA) by product might serve as an estimation basis (i.e. in particular for 56).	
	SDG 14.7: The economic impact of sustainable fisheries, aquaculture, tourism and other coastal marine resources uses	Agricultural statistics (fishery, aquaculture, etc.), TSA			Definition of “sustainable fisheries, aquaculture, tourism and other coastal marine resources uses“ is still missing, as for “other coastal marine resources“.	

¹⁰ UNSD environmental Indicators: <https://unstats.un.org/unsd/envstats/indicators.cshtml>.

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Goal	Indicator	Data sources	Periodicity	Classification (ISIC Rev.4)	Comments/evaluation of practicability
	Growth in TDGDP for SIDS (small island development states) and LDCs (least developed countries)	Tourism Satellite Accounts (TSA)	yearly	-	TSA might not be available in SIDS and LDCs; “Flash Tourism Direct GDP“ might be an alternative and feasible. 
	Change in coastal ecosystem condition, including reef and beach condition	Separate surveys and studies necessary, data from NGOs (WWF, Greenpeace), national environment agencies SEEA experimental ecosystem accounting	irregular	-	Quality of water might be measured (see EEA) 
	Change in protected areas in tourism destinations	Data from local governments, e.g. national environment agencies, NGOs (WWF, Greenpeace), governmental National Park administration, etc.	-	-	Measurement according to changing protected areas sizes. 
	Contribution of national parks to “TDGDP”	Data from local governments, e.g. national environment agencies, NGOs (WWF, Greenpeace), governmental National Park administration, etc.	-	-	“Contribution of national parks“ has to be defined (GVA, expenditure of tourists visiting national parks, etc.) 
	Share of protected areas related to total area of a country	Data from local governments (e.g. national environment agencies), NGOs	-	-	Measurement according to size of protected areas in relation to total area size of a country. 

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Goal	Indicator	Data sources	Periodicity	Classification (ISIC Rev.4)	Comments/evaluation of practicability
	Number of visitors registering complaints with police	Criminality statistics, ministry of interior	irregular	-	Data availability is questionable, in particular related to separation of tourism related complaints from overall complaints.
	Change in rates of crime in tourism destinations	Criminality statistics, ministry of interior (e.g. local police statistics)	irregular	-	Data availability on tourism destination level might be difficult.
	Number of offenses according to high/low seasons	Criminality statistics, ministry of interior (e.g. local police statistics)	irregular	-	Data availability on seasonal level might be questionable. 
	Rates of crime in tourism destination compared to the ones in non-tourism regions	Criminality statistics, ministry of interior (local police)	irregular	-	Data availability on tourism destination level might be questionable; non-tourism regions have to be defined. “Rates of crime“ might be defined as reported offenses according to resident population.
	Number of countries advancing implementation of the “Statistical Framework on Measuring Sustainable Tourism” (SF-MST)	Separate survey necessary	irregular	-	Part of statistical programme (NSIs) Part of political programme (Ministries)

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Goal	Indicator	Data sources	Periodicity	Classification (ISIC Rev.4)	Comments/evaluation of practicability
	Number of countries implementing TSA and SEEA based frameworks	Separate survey by UNWTO and UNSD	irregular	-	Based on availability of TSA/SEEA results. 
	Share of budget available for statistical tools for MST related to total statistical budget/total tourism budget	Separate survey necessary	irregular	-	Data availability might be questionable; separation of “budget for statistical tools for MST“ might be challenging. 

Source: [Tourism Indicators for Monitoring the SDGs](#); indicators with direct link to tourism and for which UNWTO is the custodian agency are written red.

Additional indicators

Indicator	Calculation	Data sources	Availability	Classification (ISIC Rev.4)	Comments/evaluation of practicability	
Economic sustainability						
Productivity in tourism industries	Gross Value Added per persons employed	Labour Force Survey (LFS), Structural Business Statistics (SBS)	yearly	55 (Accommodation) 5610, 5629 and 5630	Persons employed, expressed by "Full-time equivalents" (FTE)	
Equity ratio of hotels	Share of borrowed capital on total capital of the hotels	Particular surveys on hotel level might be necessary	irregular	55 (Accommodation)	Data availability might be critical.	
Gross operating surplus (GOS)	GOS is gross output less the cost of intermediate goods and services, and less compensation of employees and taxes and subsidies on production and imports.	Structural Business Statistics (SBS)	yearly	55 (Accommodation) 5610, 5629 and 5630	-	
Occupancy rate of rooms	Share (in %) of actual roomnights related to total possible roomnights (days*rooms)	Night spent statistics and accommodation capacity statistics	yearly	55 (Accommodation)	-	
Seasonal distribution according to months	Index values based on monthly nights spent related to total nights spent by year/season	Tourism statistics (accommodation statistics, border surveys)	monthly	55 (Accommodation)	The indicator is showing the fluctuations of tourism demand by months; tourism concentration in particular months might become visible.	

Additional indicators						
Indicator	Calculation	Data sources	Availability	Classification (ISIC Rev.4)	Comments/evaluation of practicability	
Environmental sustainability						
Energy use per night spent	In Joule	Energy accounts by energy commodities	yearly	55 (Accommodation)	Data availability on accommodation level might be questionable.	
Use of renewable energy in hotels	In Joule	Energy accounts by energy commodities	yearly	55 (Accommodation)	Data availability on accommodation level might be questionable.	
Intensity of greenhouse gas (GHG) emissions	Share of GHG emissions on Gross Value Added	Environmental statistics, air emission account	yearly	55 (Accommodation)	Data availability on accommodation level might be questionable.	
Duration of stay	Nights spent per guest (arrival)	Accommodation statistics, border surveys	yearly	55 (Accommodation)	Short-term stays of guest (i.e. 1-3 days) contributing more to environmental pollution due to arrival and departure by car/airplane, in particular if periodicity of trips is high.	

Additional indicators

Indicator	Calculation	Data sources	Availability	Classification (ISIC Rev.4)	Comments/evaluation of practicability	
Social sustainability						
Low wage share by gender	The low wage rate refers to the share of persons employed whose earnings are less than two-thirds of the average earnings (Median) of total persons employed.	"Structure of Earning Survey" (SES)	irregular	55 (Accommodation)	Data availability on accommodation level might be questionable.	
Proportion of women employed in tourism industries	Proportion of women employed shows how women are compared to their share of the population of one paid activity pursue (15 years and older).	Labour Force Survey (LFS); TSA (Table 7)	irregular	55 (Accommodation) 5610, 5629 and 5630	Data availability might be questionable, if TSA is not available.	
Migration of local population from tourism destinations	The indicator might indicate "overtourism", in case the local population is migrating from tourism intensive destinations to tourism less intensive regions.	Population statistics, migration statistics	Yearly	-	Data availability on regional disaggregated level might be questionable; tourism intensive destinations have to be defined (i.e. by tourism intensity). Changes of population according to population census might be the basis.	