

## **Statistical Framework for Measuring Sustainable Tourism**

### **Draft prepared for the UNWTO Committee on Tourism Statistics and TSA and the Working Group of Experts on Measuring Sustainable Tourism**

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#### **1 Introduction**

While, specifically in a European context, the issue of social sustainability has received increased policy attention, measurement and practical application has proven difficult. Some of the important challenges related to the measurement of the social sustainability dimensions are:

- The need for a multi-stakeholder approach, including hosts, guests, and employees;
- The idea that tourism can work transformational, and therefore needs a long-term measurement component;
- The fact that social issues are often normative and attitudinal;
- The variability of contexts in which host-tourist encounters can take place, influencing generalizability.

The first issue is not a problem in itself but leads to the need for multiple indicators, while the latter issue similarly might require the establishment of a 'cookbook' of indicators, allowing for flexibility in choice depending on the specifics of the destination. The second and third issue are more complicated since this (a) can lead to instability of indicator scores, (b) complicates the cause-effect relationship and (c) influences aggregation possibilities.

One additional issue that ought to be covered – and one not limited to the social dimension – lies in the fact that sustainable development indicators need to be evaluative. In other words, indicator scores ought to be compared to acceptable values in order for values to offer direction.

## 2 A practical approach to measure the social dimension

The paper by Tanguay, Rajaonson and Therrien (2013) offers a good conceptual framework to approach the development of indicators, acknowledging both an academic perspective and a need for policy involvement in order to create key indicators that are both robust and practical.

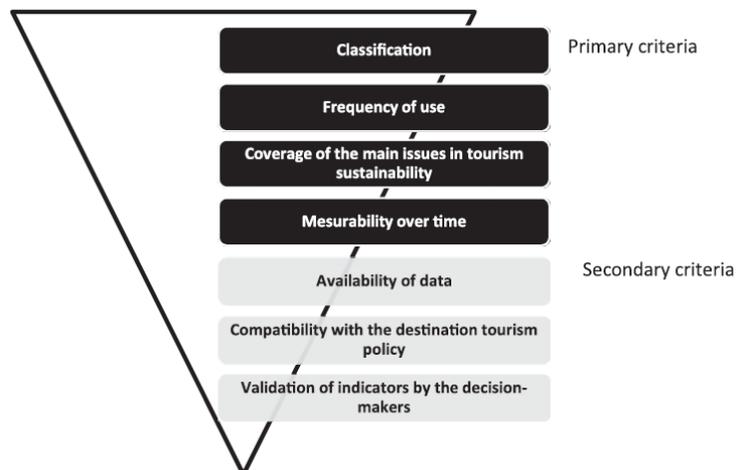


Figure 1: Indicator selection criteria (Tanguay et al., 2013, p.866)

In the same paper, the authors start from UNWTO's guidebook on indicators of sustainable development for tourism destinations. Starting with 507 potential indicators, Tanguay et al. identify 67 that are uniquely social, 25 that combine the social and environmental dimension, 123 that combine the social and economic dimension, and 125 that sit in the centre of the sustainability diagram. Through a case study approach, just 12 social indicators are ultimately identified as being commonly (in at least 4 cases) used. On first reading, in terms of the multi-stakeholder approach, this collection does offer a rather full cover (see Table 1). However, none of the other three points of attention are particularly well-covered and the choice of indicators seems influenced by ease of collection more than by validity of the indicators. Therefore it might be needed to start from a higher-level, theoretical conceptualization prior to looking for most-used (as opposed to best-practice) indicators.

*Table 1: Common indicators on social sustainability dimensions (Tanguay et al., 2013, p.871)*

<b>Hosts</b>	<b>Tourists</b>	<b>Employees</b>
<ul style="list-style-type: none"> <li>- Level of satisfaction of local population</li> <li>- Ratio of tourists and local population at cultural events</li> <li>- % of new real estate developments intended for tourism</li> </ul>	<ul style="list-style-type: none"> <li>- Volume of tourists</li> <li>- Level of tourist satisfaction</li> <li>- Number of tourists per km<sup>2</sup></li> <li>- Average stay of tourists</li> <li>- % of return visits of tourists</li> <li>- Total number of tourist arrivals (annual average and in high season)</li> </ul>	<ul style="list-style-type: none"> <li>- % of jobs in the tourism sector held by local residents</li> <li>- Local unemployment rate during low season</li> </ul>

### **3 Key themes in the social sustainability conceptualization**

We start from the main idea that social sustainability pertains to a normative concept that identifies well-being thresholds for hosts, tourists, and employees.

Within tourism literature, host communities have probably received most attention. Boley, McGehee, Perdue and Long (2014)'s research provides a good indication on how positive empowerment can broaden the basis for support, thus necessitating the inclusion of indicators on psychological, social, and political empowerment via attitudinal surveys. Additionally, a large strand of research has focused on the benefit of tourism as contributing to the protection of culture and heritage. Indicators on the level of cultural events and the ratio of tourists-host in event participation and heritage visitation might therefore be needed. Furthermore, a long-term transformational indicator ought to look at legacy effects of tourism-driven investments (e.g. for European Cultural Capitals) for locals. On the other hand, considering recent issues in European heritage cities, pricing indicators of real estate and growth of hospitality networks ought to be monitored in order to ensure adequate levels of residential building stocks in touristic regions.

At least indirectly linked to the host community is the position of tourism-sector employees. While overlapping with the economic dimension, social sustainability of tourism employment should specifically relate to job safety and job satisfaction. To this extent, the effect of seasonality on tourism jobs needs to be measured. Furthermore, sustainable jobs would imply the possibility of growth and career development, while salaries in tourism-related jobs would ideally be compared to salaries in different sectors. Other indicators of importance here relate to the inclusivity of the workforce while also accounting for potential issues on sexual harassment which have been noted in a hospitality context.



For the tourist-dimension, obvious variables to include relate to personal security at the destination and trip satisfaction. In this dimension, quantitative indicators on tourism-host ratios, overnight versus day visitors, and concentration versus spread of tourists are also needed. Since governments are increasingly aware of the need to provide holidays for people living in impoverished situations, a social equity indicator on tourist types and the ratio of low income groups as compared to high income groups could be a useful addition.

*Table 2: Indicators on actors and time-scale*

	<b>Short-term</b>	<b>Long-term</b>
<b>Hosts</b>	<ul style="list-style-type: none"> <li>- Psychological empowerment</li> <li>- Social empowerment</li> <li>- Political empowerment</li> <li>- Tourist-local ratio in cultural events and attractions</li> <li>- Comparison of real-estate prices in tourist versus non-tourist areas</li> </ul>	<ul style="list-style-type: none"> <li>- Evolution in tourism support indicator</li> <li>- Growth in hospitality supply</li> <li>- Percentage of local use in tourism legacy developments</li> </ul>
<b>Tourists</b>	<ul style="list-style-type: none"> <li>- Local crime rate aimed at tourists</li> <li>- Ratio of tourists to hosts</li> <li>- Ratio of overnight versus day visitors</li> <li>- Concentration of tourism</li> <li>- Ratio of low versus high income tourists</li> </ul>	<ul style="list-style-type: none"> <li>- Loyalty variable measuring willingness to return or recommend</li> </ul>
<b>Employees</b>	<ul style="list-style-type: none"> <li>- Seasonality in employment</li> <li>- Job satisfaction in tourism jobs</li> <li>- Salaries in tourism jobs as compared to average salaries in the destination</li> <li>- Sexual harassment complaints in tourism sector</li> <li>- Percentage of employment of vulnerable social groups</li> </ul>	<ul style="list-style-type: none"> <li>- Possibility of career development</li> <li>- Amount of local employment in higher management positions</li> </ul>



## References

Boley, B.B., McGehee, N.G., Perdue, R.R., & Long, P. (2014). Empowerment and resident attitudes toward tourism: Strengthening the theoretical foundation through a Weberian lens. *Annals of Tourism Research*, 49, 33-50.

Tanguay, G.A., Rajaonson, J., & Therrien, M.-C. (2013). Sustainable tourism indicators: selection criteria for policy implementation and scientific recognition. *Journal of Sustainable Tourism*, 21(6), 862-879.