1. Introduction

The Statistical Framework for Measuring the Sustainability of Tourism (SF-MST) is being developed as part of the broader program of work on Measuring the Sustainability of Tourism (MST) that is led by UNWTO in collaboration with the UN Statistics Division and leading countries.

A number of versions of the SF-MST have been released for review by the UNWTO’s Committee on Statistics and the Expert Group on Measuring the Sustainability of Tourism (the Expert Group). The most recent version, version 3.0, was presented for review to the Expert Group on the occasion of the 3rd meeting of the Expert Group (15-16 December 2022).

This note summarises the comments received on SF-MST version 3.0 during the period of consultation from 15 December 2022 to 31 January 2023, and proposes responses for the next version. The note is for the information of the Expert Group and discussion by the SF-MST Editorial Board which has been established to provide technical direction in the development of the SF-MST.

After taking into account the recommendations of the Expert Group and the Editorial Board, it is intended that the next version (v4.0) of the SF-MST be circulated for further consultation among relevant experts in late May 2023. A wider, global consultation process is envisaged for July-September 2023. Ultimately, a final version of the SF-MST will be presented to the United Nations Statistical Commission for its consideration at its session in March 2024.

Following a description of more general comments, this note is structured around key topics that have emerged in the comments and then more detailed comments for each chapter. Proposed responses are provided for each topic and chapter.

2. General comments

The following comments relate to the SF-MST as a whole. In general, all reviewers expressed a positive feedback about the current draft and recognised its potential to support measurement activity across many areas of tourism. In addition, it is noted that there was excellent engagement from the reviewers with 43 sets of comments in total and many responding to all questions across all five chapters. All comments were constructive and will support the redrafting and general improvement of the SF-MST and tourism measurement more generally.

More specifically the following points were made:

- Many comments highlighted the challenges of implementation and the need for “how to” guidance material. While statistical frameworks in general do not include this information,
therefore neither SF-MST, it is envisaged that this additional material will be progressively developed in time.

- Also concerning implementation, a number of comments highlighted the potential development and use of international datasets and also recognised the need for collaboration across agencies to ensure good implementation.
- From an editorial perspective, all editing suggestions will be considered in re-drafting and additional references will be included where possible. A number of reviewers called for examples to be included. This will be considered in the re-drafting process noting that it is not standard practice for this type of material to be included in statistical framework documents. Nonetheless, the collation of examples and distribution of this material should be considered as part of the wider MST process.

3. Key topics
The following key topics emerged from the feedback across the chapters.

3.1 Structure of the SF-MST
- Consider introducing a summary of the key points of the introduction since it is quite a long chapter.
- Consider better highlighting TSA in the introduction and identifying relevant accounting issues such as territory vs residence, produced vs non-produced assets, and describing relevant statistical practices and expectations e.g. timeliness, consistency, etc.
- Consider moving the section on the definition of sustainable tourism (section 1.4) to the start of chapter 1.
- Recognise and place in context a range of tourism “types” that are commonly linked to sustainable tourism – e.g. ecotourism, green tourism, responsible tourism, smart tourism, regenerative tourism, etc.
- Location of discussion on employment: There were a mix of views on the appropriate way in which the material on employment should be presented in the SF-MST. All agree that it is a multi-dimensional issue so that a discussion on the economic and social aspects, in particular, is needed. Indeed, the overall scope of discussion on employment was widely endorsed. Feedback on the question of where the material should be presented was sought in relation to Chapters 2 and 4. The overall finding is that the current split of material across the chapters being acceptable to most.
- Consider separately identifying governance as a fourth dimension of sustainability rather than having it placed under the social dimension.
- Consider further whether a separate section is needed in Chapter 4 (Social dimension) on spatial aspects when this is not separated in the same way in the economic and environmental chapters.
- Consider moving Chapter 5 forward in the overall structure.
- Ensure a glossary is included.

Proposed response: Reflecting on all of these comments, it is proposed to introduce a new chapter to follow the introduction. The new chapter 2 would (i) take some content from the current chapter 1 (primarily section 1.5 on the overview of the SF-MST content) and hence shorten the introduction; (ii) describe relevant accounting and statistical issues that apply across all chapters; (iii) discuss sub-national measurement approaches and principles. Related to this last change a discussion on sub-national measurement will be incorporated into each of the economic, environmental and social dimension chapters (as is currently done for the social dimension).

In addition to this proposed re-structuring, it is proposed that:
- Text on the different types of tourism – eco-tourism, green tourism, etc will be included in chapter 1;
• The definition of sustainable tourism be retained as section 1.4;
• Discussion of governance be kept under the social dimension;
• Discussion of employment remain spread across the chapters on the economic, environmental and social dimensions;
• A glossary will be included.

3.2 Local tourism destinations
Many comments indicated the relevance of expanding the discussion of SF-MST in relation to local tourism destinations. This proposed increase in focus came from a number of directions including:

• Highlighting the relevance of SF-MST to destination managers;
• Delineating more explicitly the distinction between regional and local tourism destinations, perhaps dropping the proposed municipal level, so that there is a clear focus for sub-national measurement;
• Consider a primary focus on local tourism destinations and the contribution of tourism to their sustainability;
• Recognise that the term destination is a tricky concept and more could be done to take on board existing work and discussion in this space;
• Recognise the relevance of measures such as tourism density and intensity at local tourism destination level;
• Observing that for the development of indicators, data at the destination level may be more important for sustainable tourism than data at national level;
• Highlighting the need to consider the impacts on host communities:
  o Prices
  o Social context
• Highlight the potential to use qualitative data at local scales if quantitative data is not available.

Proposed response: In moving the introduction to sub-national measurement to a new Chapter 2 (see above), it is expected that higher prominence will be given to local tourism destinations and sub-national measurement generally. As well, some of the challenges raised in these comments, including the challenge of defining destinations, can be considered up front in the document and can utilise the findings from the proposed research group (see Chapter 5 discussion below). It is not proposed to make local tourism destinations the primary focus of measurement in SF-MST.

3.3 Systems based framing
Many comments, albeit in different ways, encouraged SF-MST to further highlight the systems-based framing and to describe the links between tourism and sustainability more comprehensively. These comments included:

• Incorporating material on disasters and other crises (e.g. pandemics) reflecting their impacts on the tourism activity;
• Increase discussion on resilience, risk, vulnerability, diversification and related concepts;
• Making sure that the discussion of sustainability in each of the dimensions focuses not only on the measurement aspects but also on the systems connections related to sustainability and tourism activity and the associated conflicts of interest – e.g. air travel;
• Being more explicit about the range of dependencies between different parts of the system, e.g. transport infrastructure;
• Link to concepts of carrying capacity;
• The relevance of thresholds in measurement and the challenge that this implies for selecting indicators in different locations.
Proposed response: These comments are very appreciated in terms of speaking the underlying intent of SF-MST to present a set of data that can support integrated assessment of sustainability. Currently the discussion of that integration intent is focused in section 1.3 and in the introductory sections of chapters 2, 3 and 4 where the link between each dimension and the sustainability of tourism is described. Based on the comments received, the system-based framing for the approach and the linking to a range of concepts relevant, such as resilience and risk will be strengthen in the next version of the SF-MST.

3.4 Tourism indicators
There was a high interest in the development of indicators and strong support for the proposal to develop a core set of sustainable tourism indicators based on the SF-MST. At the same time, the following observations and points emerged that will need to be considered in taking this work forward.

- More consideration needs to be given to the derivation of tourism ratios and their application;
- Recognise the potential to leverage existing data and to use technology;
- Recognise the challenge of allowing for country specificity and allowing for sub-national variation;
- Understand the need to align with concepts;
- One response suggested the need to move toward developing a single composite indicator;
- Ensure a closer link to SDG indicators and their reporting requirements.

Proposed response: There is clearly strong support for the development of an SF-MST based set of indicators and given this and the levels of interest from other stakeholders, the development of such a set of indicators will be advanced within the broader MST project. The considerations listed above will be taken on board in advancing this area of work and the comment of ensuring alignment with the content of SF-MST will be a particular focus.

3.5 Sustainable tourism businesses
A number of comments pointed to the fact that there was no discussion in the current SF-MST on assessing the sustainability of individual businesses. The following comments point to the types of issues that might be considered under this topic.

- Consider adding material on quantifying the number of tourism businesses undertaking sustainable practices – “green businesses” e.g. via certification processes;
- There are opportunities to build clearer connections to corporate work on ESG e.g. through Global Reporting Initiative (GRI) and International Sustainability Standards Board (ISSB) reporting and industry certification practices;
- Consider identifying how many visitors select green/sustainable businesses;
- Describe barriers to entry for tourism businesses;
- Assess the extent of digitalisation;
- Develop the link between tourism businesses and the social dimension for example with respect to decent work and social licence to operate/corporate social responsibility;
- From a statistical perspective, clarify the distinctions between establishments and enterprises.

Proposed response: It is proposed to include a short section on this topic in the chapter on the economic dimension covering all of the points raised in the comments above. The distinction between establishments and enterprises will be discussed in the new Chapter 2 in the section on statistical treatments. In due time, a reference will be made in SF-MST to the ESG framework for tourism businesses that UNWTO is developing under the umbrella of MST.
4. Chapter 1: Introduction

Overall, there was very good support for the material presented in Chapter 1 and most comments were focused on improving and strengthening the messages in the chapter. More specific comments to improve the discussion in Chapter 1 were the following:

- Highlight why measuring sustainable tourism is important and any differences from other sectors;
- Consider building links to the 12 aims of sustainable tourism from the 2004 UNWTO Guidebook *Indicators for Sustainable Development of Tourism Destinations*;
- Highlight more clearly that SF-MST is not the only source of information and should be considered part of a toolkit to support decision making;
- Build further the value added of SF-MST, for example reinforcing the benefits of a consistent conceptual model, clarifying a capitals-based / integrated approach, building links to the Driver-Pressure-State-Impact-Response (DPSIR) framework;
- Provide an overview (perhaps as a figure) of the links across chapters for all indicators and the links to policy;
- Recognise that for many potential users of MST, statistical frameworks are not well known and so the use of statistics needs to be well explained;
- Refine discussion of the links to past work on sustainable tourism to be more positive;
- Strengthen the discussion on the relevance of international comparability especially as it pertains to cross-border effects;
- Incorporate a more explicit definition of sustainable tourism summarising the longer “discussion” in para 1.34;
- Update the content of Box 1 to have more current examples and better link to current policy discussion, e.g. include the EU tourism dashboard;
- Clarify the stakeholders and likely users of SF-MST among data producers, disseminators and end-users;
- Explain that accounting-based solutions will not apply in all cases.

*Proposed response*: All these comments will be included in the redrafting of the chapter.

5. Chapter 2: Economic dimension

There was good support for the content of chapter 2. Overall, it was felt the chapter covered the relevant material and explained the topics well. A range of suggestions were made for improving the chapter beyond those listed under the key topics above.

- Ensure coherence with discussion under the other dimensions;
- Include discussion on economic efficiency being an appropriate objective and hence the need to assess trade-offs;
- Highlight further issues around seasonality;
- Consider further measures of tourism ratios especially the implications of not using them in the case of food and beverage activity (i.e. potential to overstate the tourism contribution);
- Clarify further the links to non-resident ownership (e.g. of accommodation) and tourism leakage with regard to the implications for sustainability;
- Better describe the situation concerning the “sharing” economy using more current language;
- Incorporate material on government revenues and expenditures concerning tourism;
- Concerning tourism GFCF consider further highlighting:
  - Short term rental accommodation
  - Measures of depreciation
  - Links to land use
Describing sources of finance, including foreign direct investment, recognising the guidelines already developed in this area and the country-level UNWTO investment reports
- Differentiate GFCF needs at local level
- Identify relevant corporate investment themes
- Describe potential incentives and barriers to investment
- Consider links to human capital and investments in education facilities
- Innovation and R&D

Additional topics for consideration for inclusion concerning the economic dimension:
- Labour productivity
- Residence of employment
- Tourism collective consumption
- Discussion on treatments with respect to major events (e.g. Olympics)
- Links between outdoor recreation and tourism impacts
- Expand number of categories considered in relation to employment and training
- Activity associated with ensuring accessibility
- Role of tour operators
- Business economic fragility (e.g. debt levels)
- Expand discussion on measurement of indirect and induced effects including trade in value added analysis
- Highlight further connections to local production effects
- Expand discussion on leakages and supply chain effects
- Clarify what is already in TSA:RMF andIRTS and what is new/extended.

Proposed response: Text on many of these issues will be developed for inclusion in the re-drafted version of the economic dimension. Particular note is made of the relevance of including material on government revenues and expenditures related to tourism and extending the material on GFCF. Mention of many of the additional topics is also envisaged but likely to a limited extent in each case. It is not intended to have a long discussion on the measurement of indirect and induced effects or other analytical applications of data from SF-MST but a short introduction to the topics is relevant.

6. Chapter 3: Environmental sustainability

There was good support for the material presented in the chapter on the environmental dimension. The following comments were highlighted to improve and refine the chapter:

- Introduce links to key environmental policy themes including climate change, circular economy, sustainable production and consumption, and consider use of a DPSIR type framing of the connections;
- Better highlight/explain the linkages of tourism to biodiversity and ecosystems, including for example endangered species; noting also the need to clarify the value added of SF-MST relative to SEEA;
- Consider providing a broader introduction for newer reader to environmental issues including explanation of key terms (e.g. net zero);
- Clarify the coverage of SF-MST with regards to the environment and the links to tourism;
- Provide additional guidance on the allocation of environmental stocks and flows to tourism considering:
  - Scale issues – national versus local allocations
  - Effects related to second homes
  - Issues of territory and residence
  - The relevance of non-tourism passenger transport
• Undertake additional work on GHG emissions while accepting that it is challenging. Develop an appropriate range of indicators and measurement options and provide recommendations;
• Recognise that issues of data collection and modelling will both be relevant depending on scale, the focus on direct or indirect/embodied effects, the availability of data from different agencies, the types of indicators and the significance of the issues;
• Consider further the issue of green jobs and their definition – perhaps focus more on response of tourism businesses, for example with regard to certification/green schemes;
• Extend the various accounts to incorporate data on both production and consumption perspectives;
• Clarify the role/expectations of SF-MST in terms of measurement at sub-national and sub-annual frequencies for environmental data;
• Incorporate discussion of environmental footprints, e.g. Scope of GHG emissions;
• Consider development of forward-looking measures – e.g. use compared to future availability – and other analysis (e.g. tourism multipliers);
• As additional topics or areas to better highlight:
  o Emissions to water and air, and quality
  o Sanitation / wastewater
  o Determining tourism specific ecosystems
  o Built environment connections
  o Material flows
  o Tourism incentives for conservation and associated government activity (revenues and expenditures)
  o Definition of spatial areas relevant for environmental effects
  o Make links to land accounts and land use (e.g. zoning and planning)
  o Food waste
  o Overtourism

Proposed response: Many of these suggestions will be incorporated in the re-drafted version of the chapter on the environmental dimension. Beyond those comments focused on improving the introduction and context setting for the chapter, particular note is made of improving the discussion of (i) the allocation of environmental stocks and flows to tourism including GHG emissions; (ii) the links to biodiversity and ecosystems; and (iii) the definition of green jobs. Among the additional topics proposed, it should be possible to include some reference to all of these topics although it would be expected to be introductory in nature. It is proposed that a small research team be formed to provide guidance on the methods to allocate environmental flows. As for the economic dimension, it is not intended to have a long discussion on the measurement of indirect and induced effects or other analytical applications (e.g. forward looking measures) of data from SF-MST but a short introduction to the topics is relevant.

7. Chapter 4: Social sustainability

It was recognised that, more than the other dimensions, the social dimension is the least statistically developed and hence the current content of SF-MST Chapter 4 is a first step. At the same time, the content is seen as a very good start towards providing a common language and framework and provides a good platform for more development. Suggested areas of refinement and improvement were:
• Clarifying more precisely the measurement requirements/expectations beyond listing of relevant themes, particularly with regard to perception measures;
• Build the connections to the other dimensions and the potential of tourism to contribute to poverty alleviation, quality of life, crowding, congestion, etc;
• Realign/adjust framing with respect to accessibility to highlight what is being done to support increased accessibility;
• Build discussion of wellbeing and satisfaction measurement including perceptions of environmental performance. For example, consider the role of the Planet Happiness wellbeing framework;
• Create a distinct focus on host communities including:
  o Their perception of tourism (keep separate from visitor perceptions)
  o Their ability to participate in decision making at destination level in particular
  o Build links to destination planning (e.g. UNWTO 2020 Alula framework)
  o Links to local traditions, identity and development of mutual understanding
  o Effects on city centre living
  o Density of available holiday accommodation
• Consider further the relevance/intent in including the section on culture tourism;
• Links measurement of tourism intensity with issues of seasonality and non-permanent populations;
• Recognise the challenges of comparability across countries with different cultures and expectations;
• Build further the area of governance and its importance in driving sustainable tourism;
• Refine the discussion on decent work to ensure alignment with current measurement approaches in this area.

Proposed response: It is agreed that this chapter needs further development to provide recommendations for measurement beyond identifying relevant measurement themes. This will be a key focus for the next version of the chapter. It is proposed that a small research team be formed to support the development of the chapter. Other key areas of focus will be (i) improving the discussion of host communities; (ii) clarifying the discussion of culture tourism, (iii) incorporating additional text on governance; and (iv) ensuring discussion of decent work is in line with current standards. The other suggestions will also be considered in the re-drafting of the chapter.

8. Chapter 5: spatial perspective

The importance of the discussion of measuring the sustainability of tourism at sub-national levels was well recognised and appreciated by the majority of reviewers. In this regard, there was general support for the content of the chapter and the proposed measurement approaches. Specific comments on the content of chapter 5 were:

• The need to recognise the challenge of applying the proposed approaches across countries;
• Highlighting the need to distinguish domestic visitors travelling across regions within a country;
• To consider whether to limit measurement to two sub-national scales – regional administrative areas and local tourism destinations – and make clearer links to classifications of spatial areas (e.g. NUTS). One option in this respect is to incorporate findings from OECD and other agencies’ work on functional areas;
• Provide additional detail on the principles for recording at sub-national levels, including for example whether the concepts can be applied consistently across scales;
• Consider defining a local tourism destination statistically – as has been done for visitors;
• Ensure a link is made to existing guidance/content on sub-national measurement in IRTS and TSA:RMF;
• While there is general support for the approach to delineation of sub-national areas as described a number of comments highlighted that:
  o Defining destinations can be challenging and clear-cut boundaries might be difficult to draw
  o More explanation might be required that will include examples. For example, stronger recommendations on the use of supply criteria versus demand criteria could be included,
thresholds for delineation might be introduced, more consideration might be given to social, environmental and planning/management criteria for delineation,

- Some additional focus on coherence of the discussion would be positive
- Some discussion of the extent to which local tourism destinations should be nested within larger sub-national areas is needed, and more generally on whether clear cut boundaries are needed
- Different types of local tourism destinations could be included (e.g. coastal, mountain, etc)
- Consider a flexible approach to measurement at the sub-national level

- Material could be included on the importance of linking governance (i.e. coordination) to the collection of data at sub-national level;
- Need to balance the comparability across sub-national areas with ensuring data fits the local information requirements, in particular recognising the need to ensure the input from local stakeholders is taken into account;
- Concerning the link to ecosystem accounting, the comments were:
  - That all accounting at sub-national scales can be challenging
  - More is needed to clarify the distinctions between tourism areas and ecosystem spatial areas
  - Consider linking more closely to measures of land use and land cover
  - Recognise that more is needed to link ecosystem accounting and the measurement of tourism’s sustainability, i.e., what is the relevance/value added
  - Consider treating specific ecosystems as functional zones

- Additional material might be added on collecting data at different spatial scales and some, minimum data set or core themes, might be proposed;
- At the same time, some comments recognised that data will develop over time and the key issue was all starting from the same framework even if at different scales. Also the data context will be very different in different countries;
- Stronger links could be made in each chapter (2-4) on the links to sub-national data;
- Other comments highlighted:
  - Work by INRouTe on INSTO on sub-national measurement could be incorporated
  - The relevance of connecting to mapping agencies in each country as part of implementation
  - The challenges of measuring visitor movements as distinct from levels
  - Recognise that at the level of official statistics there has been more limited support for sub-national statistics and hence need to ensure clear expectations of the framework at sub-national level
  - Recognise that at local tourism destination level non-monetary (e.g. environmental and social indicators) may be much more powerful.

Proposed response: From the extensive set of comments on this chapter, it is clear that further work is required to establish a clear and common baseline for measurement at sub-national levels. In general, the comments point to the need for additional detail on the intent of SF-MST in relation to sub-national measurement. In this respect all of the comments listed above are relevant considerations in improving the chapter.

It is also clear that the precise solution to delineation of sub-national areas has not yet been determined. Some comments suggested a completely nested system of areas, while others have suggested more flexibility be allowed for. Related issues concern the number of levels to be included and approaches to classification. Given the range of possibilities, it is proposed that a small research team be formed to prepare a set of options for further discussion by the Expert Group.
9. Research agenda

A range of proposals were made for inclusion in the research agenda of SF-MST, these are:

- Biodiversity based tourism
- Sub-national measurement
- Resilience and risk
- Increasing the number of case studies, especially islands
- Material on implementation
- Building the link to the SDGs and beyond GDP measurement
- Developing an early warning system of indicators
- Encouraging community participation
- Increasing discussion of methods

Some of these topics will be included in the SF-MST but it is expected that in many cases further, on-going research will be required. A research agenda will be prepared as part of the finalisation of the SF-MST for ongoing management by the Committee on Statistics.

10. Supporting resources

A range of resources were identified to support the further development of SF-MST. These included:

- OECD Local Economic and Employment Development (LEED) reports