Comments to:

Statistical Framework for Measuring Sustainable Tourism

Consultation Draft

Draft prepared for initial round of consultation with the UNWTO Committee on Tourism Statistics and TSA and the Working Group of Experts on Measuring Sustainable Tourism

February 2018
Comments received and included here:

- **From countries**
  - Demi Kotsovos (Satellite Accounts and Special Studies, National Economic Accounts Division, Statistics Canada, Canada)
  - Miriam Blumers (Member of Academic Staff, Sustainable Development Indicators, Federal Statistical Office of Germany, Germany)
  - Ayad Aljbouri, Iraq
  - Gerry Brady (Senior Statistician, Environment Statistics and Accounts Division, Central Statistics Office, Ireland)
  - Silvia Giulietti, (Ministero dell’Ambiente e della Tutela del Territorio e del Mare, Italy)
  - Sarah Ma, Head of Research & Planning Division, Macao Government Tourism Office
  - Mazreha Ya’akub (Department of Statistics Malaysia, Malaysia)
  - Mat. Ariel Juárez Morales (Director General, Dirección General de Integración de Información Sectorial, Secretaría de Turismo, México) *(in spanish)*
  - Ms. Pilar García Velázquez (Director of International Affairs, DG Strategic Affairs and Data Communication, INEGI-Mexico)
  - Fabiola Velasquez Cuba, Coordinator of Cooperation and International Relations in Tourism, General Directorate of Tourism Development Policies, Vice Ministry of Tourism, Ministry of Foreign Trade and Tourism – MINCETUR, Peru
  - Cristina Ramos (Departamento de Contas Nacionais / National Accounts Department, Serviço de Contas Satélite e de Avaliação de Qualidade das Contas Nacionais / Unit for Satellite Accounts and Quality Assessment of the National Accounts, Diretora de Serviço / Head of Unit, INE, Portugal)
  - Faisal A. Al-Sleemi (Information Department Manager, Tourism Information & Research Center, Saudi Commission for Tourism and National Heritage, Saudi Arabia)
  - Fernando Cortina (Subdirector General Adjunto, S.G. Estadísticas de Turismo y Ciencia y Tecnología, Instituto Nacional de Estadística, Spain)

- **From Organisations**
  - Arturo De La Fuente (Environmental Statistics, European Commission)
  - Ana Moniche Bermejo (Andalucia Regional Government. NECSTouR Indicator Working Group. INRouTe)
  - Raúl Hernández Martín (Head of the Chair in Tourism, University of La Laguna, Canary Islands, Spain)
  - Dale Honeck, WTO

Due the extension and structure, see complete online documents for these comments:

- Angelica Tudini, Carolina Ardi, Emanuela Recchini and Cesare Costantino (Istat, Italy)
- Ms. Pilar García Velázquez (Director of International Affairs, DG Strategic Affairs and Data Communication, INEGI-Mexico) For General observations. Additional comments included in this document.
- Michael Bordt (SEEA expert)
Chapter 1 presents the context of MST quite well. The rationale for MST could be more explicitly stated - maybe a section could be includes on why this framework is important from policy perspective.

With respect to chapter 3 - we look forward to the discussion of the consumption versus the production perspectives. As well as further elaboration of the allocation of environmental flows to transportation - especially once one starts looking at spatial measurement at lower level such as local / tourism destination.

Chapter 5 is heading in the right direction. Defining the spatial area is definitely an important first step to integrating and interpreting data. The challenge will be articulating environmental dimension at these sub-national spatial areas such as local / tourism destination- maybe this area can be elaborated. How would a national table and tourist destination table reconcile. Pilot studies at lower levels of geography may be of interest.

A few of comments on how Statistics Canada’s Physical Flow Accounts (PFA) would currently be able to respond to the data requirements prescribed in the framework are included below.

- In section, 3.3.2 - For example, “Of particular interest for sustainable tourism are the seasonal patterns in water use since in specific locations there will be peaks in the demand for water that may not correspond to the patterns of water supply, e.g. across dry and rainy seasons.” (3.3.2 pg 40) . Currently the PFA do not have sub-annual flows. For the source data that does publish monthly water intake estimates “tourism industries” are not covered.
- For 3.3.3 , in example on the energy flows for tourism industries: “It contains information on the supply and use of energy by type of energy product including energy from renewable and non-renewable sources.” Energy from renewable sources (wind, solar, etc.) is currently not accounted for in the PFA. The PFA currently only includes own-account generation from non-renewable fuels.
- Estimates physical flows are produced at annual data as they are based on the supply and use tables,

Some minor points - on pg. 45: in Table 5.2: Tourism industries energy flow account, should the flows from the environment from natural resource inputs be highlighted red as a cell of “most likely importance”. On pg. 47: in Table 5.3: Tourism industries GHG emissions account, would Total CO2 equivalent not be a more “important” estimate to include on the supply side, both in terms on comparability as well as measuring the overall impact in the environment.
Structure

Overall, the structure of the framework is clear and comprehensive. At some points, links to tables or pursuing chapters are not correct and need to be revised at a final stage (e.g. p.20 link to chapter 6, which is chapter 5; p. 25 link to table 2 which is table 1 etc.). Furthermore, the intention of chapter “1.5 Structure of the SF-MST” document is not clear.

Approach

To base SF-MST on national accounting standards is beneficial and meaningful. The framework takes advantage of the common origin of the SEEA and the TSA which allows the environmental dimension of sustainable tourism to be coherently integrated with the economic dimension.

Even though the conceptual base is founded on existing statistics and accounting systems, the practical implementation is not straightforward. Practical challenges should be named and further practical assistance would be expedient. For example, the assets accounts are conceptually difficult. It would be problematic to distinguish between flows which are used by tourists and by residents.

In general, explanations on how the accounts will be compiled, data sources, compilation process etc. would be useful. Besides, a chart showing the interactions between the three dimensions economic, environmental and social would be helpful as well.

In particular, the exact formulation of the social dimension is not straightforward and the feasibility is currently questionable as in contrast to national and environmental accounts a “social accounting” does not exist in official statistics. A more explicit reference to the compilation would allow a better understanding.

Interpretation of the results

In general, the framework and the corresponding results can/will be “exemplary” for countries with a top-down approach of National Accounts. This is due to the assumptions that would have to be made. As a consequence, interpretations and analyses of the results of the MST have the potential of misleading in terms of

- Increasing size dimension of effects
- Responsibility of sustainable tourism for specific effect (e.g. shift of sectors)

Thus, the robustness of the results needs to be examined closely over time. Furthermore, it is advisable to add a section in which information and examples on result interpretation for policy makers and other user without deeper statistical knowledge is provided.

Spatial scale

It needs to be clarified if these accounts should be integrated in the economic, environmental and social dimension or if it is seen as a partial solution. Is the intention to set sustainable tourism of a region in relation to the one of the overall economy?

Recording the dimension at different spatial scales (regional, municipal or city-region, local) might not be feasible for many countries.
I would like to make some observations about the mechanism by which tourism sustainability can be achieved on the economic side.

In accordance with the basic ideas of schools in the economy of the relationship between producers and consumers, which are achieved through production and consumption through factors of production by labor, capital, land and organization, which represent the supply side and in which producers seek to maximize their revenues through the factors of wages and benefits and rent and profits, The factors of production depend on the demand side represented by the consumers of these products.

Therefore, I believe that starting to support sustainable tourism on its economic side can start from sustainability in factors of production through sustainability in its elements of work and capital, as well as land sustainability and regulation, to develop existing products or to produce new products.
1. A short section could discuss the type of data that are required. The text notes that time-series data are needed but this could be emphasised more. For example, there was a billboard poster in Manila that expressed concern that the average age of filipino farmers was 57 (who will feed us in the future!). What we need to know is what was the average age 10 and 20 years ago. If it was 52 and 47 years then there is cause for concern but not if it was 56 and 55 years. The tourism industry may by default be looking for short-term very timely data.

2. Does there need to be a section that discusses climate change. If sea levels rise, snowfall amounts change, etc. then these would have a serious impact on some tourism destinations such as low lying islands and Winter ski resorts. Badly located new hotels etc. because of a shortage of development space would become problematic if there is an increase in the frequency of extreme weather events e.g. higher sea levels.

3. On page 17 paragraph 1.3.3, there is a statement that sustainability can be inferred if the total wealth has not declined. This may be true but any degradation of the environment may be slower than the rate of recovery possible in the economic and social dimensions.

4. There are references to the marine and coastal areas throughout the framework but I think there should be a more focused reference to the marine ecosystem e.g. listing it separately in Table 1. There are many signs of degradation such as plastic pollution and damage to coral reefs. This would affect the attractiveness of marine recreation.

5. Some tourism destinations can cope better with increased demand by increasing capacity e.g. larger waste water treatment plants or introducing tertiary treatment. This notion of increasing or upgrading capacity as a means of managing rapid development is not really mentioned.

6. On page 52 paragraph 3.4.2, there is a reference to a list of assets that do not directly support tourism activity. Minerals is included in the list but the local availability of non-metallic minerals such as sand and gravel are important to the construction of new roads and hotels.
Silvia Giulietti, (Ministero dell' Ambiente e della Tutela del Territorio e del Mare, Italy)

They were elaborated by the colleagues in the European Topic Centre on Urban Land and Soil of the European Environment Agency which is supporting the TOUERM work already mentioned in the paper.

In particular sections on land (3.4.5) and ecosystem (3.4.6) accounting are very relevant to TOUERM work (e.g. impact of golf courses/ ski areas on land cover).

Since you asked for "suggestions for additional (a) areas of research and (b) relevant literature" we would suggest to include:

- (a) the need to improve land cover/use classification systems, including tourism specific uses (such as golf courses, marinas) as already done in some national land classifications and Copernicus components
- (b) references to
  - TOUERM report (http://uls.eionet.europa.eu/Reports)
  - the Copernicus Land programme (land.copernicus.eu) and its products, particularly the upcoming coastal service.

Additionally, for chapter 5 (Defining spatial areas) the TOUERM work also provides interesting aspects such as on downscaling of tourism statistics, data on grid level that can be aggregated at different administrative units (NUTS3, NUTS2, municipality), integration of environmental and socio-economic data.
1. The Global Code of Ethics for Tourism (GCET) is a comprehensive set of principles designed to guide key-players in tourism development and as a fundamental frame of reference for responsible and sustainable tourism. However, it is not be mentioned in this report.

2. Asides explaining the meaning or definition of sustainable tourism, it is also suggested to mention the importance of sustainable tourism and the long-standing work of UNWTO in advocating the sustainable tourism, for example, the history of sustainable tourism by listing out those milestone years when some relevant guidebook or policy being launched or implemented by UNWTO such as “The Global Code of Ethics for Tourism” and “Sustainable Development Goals (SDGs)”

3. At 2.3.3 Accounting for tourism infrastructure and investment, agreed that physical carrying capacity of tourism infrastructure is considered as a key aspect in assessing the sustainability of tourism activity. However, asides physical capacity, the social carrying capacity also importance to measure the tourism sustainability in social and cultural dimension, so suggest to include.
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<tr>
<td>1.</td>
<td>Page 4</td>
<td>Formatting for Table of Content – page no. (Annex #1)</td>
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<td>2.</td>
<td>Page 5</td>
<td>Formatting for Table of Content - alignment (Annex #2)</td>
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| 3.  | Page 8 | Definition of Sustainable Tourism (suggested to be included in Box 1 under UNWTO definition)  
The capability of tourism to be sustained in term of economic development/growth with the contribution of positive impact on the environment and local culture, while helping to generate income, job creation/employment, and the conservation of local ecosystems. |
| 4.  | Page 15 | To present the overview of SF-MST in diagram/infographic as presented in the 27-28 Feb 2018 meeting for better understanding. Comprehensive MST’s framework that can show all the linkages of indicator is integrated should be developed. |
| 5.  | Page 21 | To add Labor Input (hours worked) in Social Dimension, Table 1 for Base Accounts. Labor Input (hours worked) as compiled in the SUT (refer page 290, System of National Accounts (SNA) 2008). |
| 6.  | Page 23 | Suggestion to breakdown the category of age/experience and education/skill set in Table 2a (Annex #3)  
e.g :  
Experience: 0-5 yrs; 6-10 yrs; 11-15 yrs;.....  
Education: certificate; diploma, degree;..... |
| 7.  | Page 24 | Incomplete words in Table 2b (Annex #4)  
To add safety and security index for Visitor Satisfaction in Table 5c |
| 8.  | Page 21, 23, 24, 25, 42, 44, 45, 46, 52, 54, 56 | Suggestion to attach table completed with figure in each framework discussed (insert real country example with data & the interpretation of the data)  
Table 2a, 2b, 2c, 2d, 5.1, 5.2, 5.3, 5.4, 5.6, 5.7 and 5.8. (Annex #5)  
For instance manual with complete figure and interpretation: SNA 2008 and Eurostat Manual of Supply, Use and Input-Output Tables |
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<td>9.</td>
<td>Para 3 Page 38 &amp; 39</td>
<td>We suggest SEEA CF and SEEA-EEA accounts are illustrated in the diagram to facilitate the users’ understanding (e.g. Attachment)</td>
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<td>10.</td>
<td>Para 3.3.2 – 3.3.8 Page 40</td>
<td>This manual will be useful for SEEA PSUT if the step-by-step of estimation and adjustment procedure/methodology of the tourism data, including the treatment on how to split data for the international transport, tourism activity and flows from jointly owned assets is described.</td>
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| 11. | Page 66 | - Based on UNWTO presentation, we suggested to have standard concept and definition in measuring the social indicators for MST (monetary/non monetary social indicators).  
- To add job creation in tourism activity for potential aspects in social dimension. |

*See file: Main Accounts Tables of SEEA Accounts tools and linkages.pptx*
In general, it is an excellent effort for the purpose of reflecting on and analysing the existing gaps between the available statistical information and the desirable information that could provide answers for the measurement of the sustainability of tourism destinations, countries and entities with respect to its three dimensions: economic, environmental and social.

However, today’s data only respond to the statistical frameworks for which they were designed, and it is necessary to work on universally applicable concepts, scales and data collection processes of the 3 dimensions that allow comparability over time and between different countries, in order to generate capabilities to develop methodologies for estimating what part corresponds to tourism, for example, measuring the use of natural resources (water, energy, CO2 emissions) only by tourists.

The measurement of the social dimension is the most sensitive part given the dynamism of the same tourist populations in terms of mobility and migration. In turn, the effects can be measured in the long term, so it is not so evident which variables can be used to show the impact of tourism activities in order to implement monitoring. Additionally, measurements related to well-being are still in their very early stages and the results are very subjective, and difficult to standardize in order to achieve replicability and comparability, maintained over time.

Another great challenge is the geographic scope of the information since statistics are regularly produced at the national level. In the best cases they can reach administrative divisions down to the municipal level, but, as is known, they do not necessarily coincide with tourism flows and concentrations; so the indicators do not necessarily reflect the tourism reality.

In conclusion, the measurement of sustainability in tourism can contribute significantly to the Sustainability Goals, however, its complexity leads to an important challenge wherein the part corresponding to tourism must be approximated from the information available and the necessary breakdowns must be incorporated gradually in the information systems of each country in order to create primary information that contributes to the estimates made.

In Mexico we have formed a cross-cutting working group with the institutions in charge of the different variables that are related to the dimensions of sustainability. Initially, the ideal parameters to reflect sustainability were also defined and in a second step, work is being done on approaches to the available information in a given territory in order to identify the scope and information requirements necessary to establish a periodic and consistent measurement of sustainability.
Ms. Pilar García Velázquez (Director of International Affairs, DG Strategic Affairs and Data Communication, INEGI-Mexico)

For general observations see online document.

Additional comments

Mexico carried out a "quickly assessment" of MST tables (a few days ago), in order to assess the possibility that countries with availability of Tourism Satellite Account, Environmental Accounts and Culture Satellite Accounts, fill these tables. (http://cf.cdn.unwto.org/sites/all/files/pdf/18thmeeting_item_4.4.1.pdf)

In addition:

- It is suggested to include the cultural and social approaches of sustainable tourism (within the Word file, the proposal is included in track changes)

It is suggested to specify in which tables and variables it will be possible to develop and monitor the related SDGs indicators
The document of the World Tourism Organization (UNWTO) called “Statistical Framework for Measuring Sustainable Tourism. Consultation Draft. January 2018” had to cover three dimensions of study: economic, environmental and social, which seeks to compile coherent and comparable statistical information to develop, implement and evaluate policies and activities related to sustainable tourism.

In this regard we consider the following:

1) Economic dimension: Economic indicators to measure sustainable tourism, according to the document in mention, can be obtained from the Tourism Satellite Account (TSA). In Peru, through the MINCETUR and with the Multisectorial Working Group (GTM), four TSA have been prepared, whose evaluation years are 2001, 2002, 2007 and 2011. The importance of these works are based in the main indicators of tourism that would be used in the statistical framework of sustainable tourism such as Tourist GDP, Tourist Added Value, Tourism Spending and Employment in tourism.

2) Environmental dimension: In this regard, it is proposed to work together with institutions specializing in the environment. Particularly, in the peruvian case, Ministry of Foreign Trade and Tourism (MINCETUR) could combine its efforts with the National Institute of Statistics and Informatic (INEI), responsible of producing and disseminating the country’s statistics, including environmental statistics, and Ministry of the Environment, whose misión is “to ensure the sustainable use, conservation of natural resources and environmental quality for the benefit of people and environment, in a normative, effective, decentralized manner and articulated with public and private organizations and civil society, within the framework of green growth and environmental governance” and that in turn is part of the Sustainable Development Goals (SDG) by 2030 of the United Nations and the implementation of the recommendations of the Organization for Economic Cooperation and Development (OECD).

3) Dimension social: In this case, there are several variables that the SF-MSM propose. According to this point, joint work with specialized institutions that can contribute with information about poverty, health, education, employment, human rights, access and use of infrastructure, culture and heritage, visitors’ perceptions on destinations and provide the methodology for measuring each one of them in such a way that it incorporates measurements aimed at sustainable tourism.

4) Fictitious or real cases or models of measurement should be added as annexes to get an idea of what UNWTO expects from the countries on sustainable tourism, mainly with the variables that determine the concept, for example, the use of water, recycling, shrinkage of products, greenhouse effect, etc. Each country will make the pertinent measurements with the available data or will appeal to the sources with indirect information.

It is everything for the corresponding purposes.
The importance of sustainability and the importance of measuring it is beyond discussion; the discussion usually follows on the method.

The Statistical Framework for Measuring Sustainable Tourism (SF-MST) presented in the document is a good picture of what a perfect statistical system to measure sustainability (within the tourism context) should be. Thus, it looks like a distant goal. It is predictable that even countries with somehow developed Tourism Satellite Account (TSA) and System of Environmental-Economic Accounting (SEEA) will find the SF-MST a comprehensive but also very ambitious and demanding framework.

2. The rationale and context of the Statistical Framework for Measuring Sustainable Tourism (Chapter 1);

Realizing that sustainability isn’t a “one dimension issue” makes the SF-MST the natural answer to measure it, since it appears as being “an organizing structure for integrating statistics on the economic, environmental and social dimensions of sustainable tourism”. It also, as the document mentions, “responds directly to the increasing demands for information that takes in account the various aspects of sustainable development and is relevant at different scales of analysis from local to global levels. These demands are most highlighted in the need for measures of progress towards the internationally agreed Sustainable Development Goals (SDGs) as part of the 2030 Development Agenda.”

3. The structure and the coverage of issues;
(The comments overcome those on the coverage of topics on point 4)

4. “The rationale of adopting an accounting and system based approach”
The reference to an accounting system is a very useful approach since it is the easiest way of “merging” the several accounting systems or frameworks in which is based: the tourism satellite account, the environmental accounts (and other possible to assess the social dimension). Those frameworks have in common the National Accounts (NA) references (concepts, accounting rules and classifications), that are a good anchor for a new framework; many issues are answered within the system of accounts and do not need to be addressed within this specific framework.

5. The coverage of topics in Chapters 2 (economic), 3 (environmental) and 4 (social) and whether you have suggestions for additional areas of research and relevant literature;

As already mentioned, SF-MST is a very comprehensive framework, it has a great coverage. However, for the same reason it is also very ambitious and demanding. All the transactions that already exist within the existing frameworks (TSA, SEEA) are reasonable to ask for in a short term, but those are few cases; those that fall out of the central core tables and ask for “extra-projects” efforts need to be carefully addressed and assess the amount of resources that they would take.

Only a case-by-case analysis to a specific indicator/set of indicators will allow assessing the possibility of compiling it. Although knowing that the project is not mandatory, it would be useful to know which are the most relevant indicators or information (as those references to the red cells within the tables). Alternatively, should we simply use the SDGs as a reference to determine the most important ones?
In Portugal, for instance, there is no Water flow account or Solid waste account. Therefore, tables 5.1 or 5.4 (page 42 and 46) will not be possible to compile at all, presently. The GHG emissions account and the Energy flow account are compiled. Therefore Tables 5.3 Tourism industries GHG emissions account (page 45) or table 5.2 Tourism industries energy flow account (page 44) are more viable, even though the definition of the industries would need some adjustments.

Another field of “completely new work”, both in terms of tourism or environment, would be the analysis on the establishment level as pointed out in “2.3.6 Extending the TSA to record environmental transactions and eco-tourism operations” as a possible extension of the TSA.

Also in the case of Gross Fixed Capital Formation (GFCF), mentioned under “2.3.3 Accounting for tourism infrastructure and investment” as a way of measuring sustainability in a simple way, just using the TSA, we must remind that TSA table 8 on GFCF is not a core table. It is not considered a central table to assess tourism impact on the economy; it is itself considered as a TSA extension since it does not comply with the “final demand expenditure” that defines tourism expenditure.

The same comment could be made on Employment, which is seen in the SF-MTS as a potential “source” to explore or expand the social dimension. However, in order to have that social dimension, further breakdowns to what the TSA foresees are needed: gender, education level, etc., that would implicate to use a set of new data sources.

The reference to an environmental asset account, Water resources asset account (page 52), a Tourism land account (page 55), Accounting for tourism related ecosystem assets, is not possible in a near future and, possibly, not within the national statistical offices.

6. Whether discussion of measurement in spatial terms (Chapter 5) is heading in an adequate direction and any comments on this.

- When discussing sustainability, especially within a tourism context, the spatial dimension is an essential part of the analysis. Reaching a common terminology on the spatial scales is, therefore, a natural “first step”, as the document proposes.

- Integrating data that crosses several spatial levels or breaking it down to a specific spatial area in a consistent and coherent way is a statistical challenge. In fact, ecosystems don’t “respect” administrative boundaries and statistical systems do. Even when those terms are clearly defined, some questions may remain. For instance, is it wrong to compare some national statistic of a small country to a sub-national statistic of a big country (supposing that both spatial areas are equivalent in area)?

- Global, national, regional and sub-national (regional, municipal/city-region, local) are the terms proposed under **5.2 Terminology with respect to spatial areas**. *(Note: there is the reference to “five scales”, in paragraph 8, is not clear since it appears to be only 4.)*

- Under “5.3 The statistical challenge in defining spatial areas” the term “data set” is used often, for instance: “… i. ensuring that for each data set the spatial boundaries are internally coherent”; it should be clearer to what “data set” refers to, does it refers to data sources, result tables, both? Examples would probably help.
• Under 5.6, the recommendation or the forwarded pathway in reconciling different spatial levels by “the delineation of spatial areas at very fine levels” should (also) alert to the trade-off between “level of detail” and “data quality” or “data representativeness”. Also the delineation of “fine levels” of spatial areas must be justified by the relevance of the tourism phenomenon/project; statistics are not a final goal by themselves.

• Even if “the accounting principles [in the SNA] are independent of the scale”, that doesn’t mean that the data sources that allow to measure those NA aggregates are. Methodological aspects must be considered in order to have representativeness data whenever smaller/bigger area is to be statistically relevant. The usage of National Accounting principles is not a guarantee per se that the phenomenon or the aggregate is well measured.

• About Possible characteristics and criteria for delineating sub-national spatial areas, it seems that the presented criteria (tourism supply/visitor demand) are complementary and not independent or mutually exclusive, at least within macro statistics context, like the TSA. If there is a visitor demand there is a counterpart of tourism supply; the main goal of the TSA is to find the balance between them within a territory.
Faisal A. Al-Sleemi (Information Department Manager, Tourism Information & Research Center, Saudi Commission for Tourism and National Heritage, Saudi Arabia)

We review the SF-MST and we do not have major notes except this one in Page.37, In Measuring the employment aspects of tourism:

In Tourism Satellite Account: Recommended Methodological Framework 2008 in Para 3.36. Employment is an important variable in the economic analysis of productive activities..etc.).

So, I think if we add the below note for this section:

1. **Compensation.** (to identify quality of life that job gave to employees how work on tourism industries)
2. **National & Non-National.** (to identify the equity of local citizens how tourism impact to his life)

**Another point:**

I think if we have add formula like what is in TSA tables below (Red Color), to understand what is the conclusion index we use after final result of combined index. This will make it clear for countries.
First of all, we want to send our congratulations for this initiative, which we believe is very interesting, especially for a country like Spain in which the tourism sector has such a relevant and growing weight, which undoubtedly makes it necessary to have consider sustainability at all times.

As general comments to the document we send you the following:

- The absence of part 1.5 is an important lack in the structure of the document. The content of this part should frame the debate because without this global view some parts of the document might seem unconnected.

- Chapter 5 focus the analysis of the SF-MST in the definition of the spatial areas, this is a core matter because this definition determine the concept of sustainability, for this reason this part could be better located before chapter 2.

- In this part the definition of tourism destination is very important but this concept is not easy to define, in the context of sustainability some criteria could be added to this reference of “spatial areas defined at the local or municipal level”, (like geographic or climatic criteria, etc.)

- The introduction of a total amount for the whole economy in tables 5.1 to 5.4 implies an estimation of these flows for the economy as a whole, this estimation might not be available and have to be done, and this task may exceed the purpose of the SF-MST. The same consideration is extended to the assets accounting.

- The reference to the ethnic and religious minorities in the proposed population groups involved in the social and cultural dimension of the sustainable tourism, implies the implementation of statistics that collect this type of variables. The compilation of variables related to the privacy, is not straightforward and could be not considered by the law in some countries. In this context the document could include a reference or an alternative way to take into account this groups like establish contact directly to this minorities.

Below we send you some comments that the Unit of environmental statistics of the INE of Spain has sent us. This department is in charge of environmental satellite accounts.

- We see that the manual has focused on the measurement of certain physical flows (water, energy, emissions and solid waste), leaving aside environmental monetary aspects (spending on environmental protection, environmental taxation, ..).

- The environmental accounts proposed for these flows follow the scheme proposed by the United Nations in its manual Environmental and Economic Accounting System 2012, Central Framework (SCAE2012), is a scheme similar to the Tables of Origin-Target of National Accounts, in which the Environment is incorporated as one more sector, focusing on tourism activities. We find it very interesting, especially because of the complete vision given to this type of satellite accounts.

- However, the accounts that we are preparing the INE and the rest of the countries of Europe have a somewhat different scheme. For example, the emissions to the atmosphere account only reflects the origin of the emissions, differentiating between branches of activity and households as final consumers, the destination is not specified, it is understood that it is the
Environment. In the waste account the approach is Generation of waste by activities and households (where the waste is generated or surfaced) and what treatment is given to that waste.

- Another issue that seems important when we want to analyze tourism by regions and want to make accurate estimates of the different variables (water and energy consumption, waste generation, emissions, etc.), it is important to have the equivalent tourist population (ETP). In some surveys, such as water surveys, it is possible that "strange" data may appear for per capita water consumption by autonomous communities, considering only the resident population, without including the tourist population. As there is no internationally accepted methodology for the calculation of ETP, UNWTO could be suggested to address this issue, even to present international recommendations for the calculation of ETP.

- In relation to the environmental accounts related to the assets, of course, they are very interesting, but right now, they are in a very initial phase, although they are metodologically part of what we want to measure, right now we see very difficult to have data for to be able to extract the tourist part.
Arturo De La Fuente (Environmental Statistics, European Commission)

General comments:

- It is debatable whether the SF-MST is actually about sustainable tourism. It is actually a conceptual framework about the economic dimension of tourism ('tourism' defined in the conventional way) supplemented with additional information about environmental and social aspects. Enriching the economic dimension with information on environmental and social aspects is welcome, but it is not strictly speaking about ‘sustainable tourism’. For instance, the SF-MST framework could not answer the question ‘which share of the total tourism is sustainable’. Moreover, it is uncertain to me that it could provide estimates for the SDG indicators listed in section 1.4.4.

While admitting the benefits and the usefulness of the framework SF-MST proposed, a proper framework to measure ‘sustainable tourism’ would require a proper focus on the subset of the ‘tourism’ activities fulfilling certain conditions (to be spelled out) taking account of the dimensions economic, environmental and social.

- I wonder if the level of ambition is too high. At this stage it does not seem to make any concession to practical challenges and limits to resources. It is not obvious to me that implementation is feasible even in the most advanced countries.

- I miss explanations more in the SF-MST of how the accounts will be compiled, data sources, compilation processes, etc. in particular for the environmental dimension and social dimension. For the environmental dimension, section 3.3.6 is welcome but it represents a small share of the SF-MST handbook. There is no equivalent to section 3.3.6 for the social dimension in chapter 4. A more explicit reference to the compilation of the system, even if not fully detailed, would allow a better understanding of the feasibility of the framework.

Specific comments:

Pg 10: “wealth accounting”. The statistical language on this page looks very far apart from section 1.2.3. The latter looks much better. Also in this paragraph, better known examples than the IHDP-UNU may be the SEEA or SNA.

Pg 16: Sentence “all of the statistical standards and guidelines just described, including the national accounts, can be applied at all levels of spatial detail”. This is not fully true. Try to compile GDP at the level of one city or one street. Some statistical standards, including the national accounts, assume that the entity under study is big enough to make sense as a self-contain entity (say, a country or a region) and afterwards it can be considered as interacting with other similar entities (say, other countries or regions) with imports, exports, income flows, etc. If the entity under study is very small, say a street, there are conceptual problems because hardly any variable under study, say production or consumption, can take place integrally inside the entity under study. E.g. residents in the street will go to work to other streets, earn their income in other streets and consume or invest in yet other streets, thus their economic behavior inside the street is very limited. All this may sound very academic but the problem is real when attempting an accounting framework at very local scale.

Pg 18: The ILO research on decent work is rather recent and it is unproven yet that it is operational and feasible (i.e. how to operationalize the measurement of ‘decent work’). Dir F may want to comment on it (or may not).
Section 1.3.4 or 1.3.5: integration of spatial information: I would propose to use an approach similar to SEEA Experimental Ecosystem Accounts. This consists of starting with raw data geolocalised, which can be visualized in maps being part of the standard, and then the information is aggregated in base accounts and tables (having supply-use tables and asset accounts as proposed in section 1.3.5 is OK to me).

Pg 21: Not fully clear if the distinction between base accounts and base tables is relevant or justified. It seems to be a device to make clearer distinction between the status of development of accounting in the economic and environmental domains and the social domain. In the former there are proper national accounts and environmental accounts (methodologies and data) whereas in the social domain where there is no comparable social accounting.

P 27: indicators vs models. I would propose to talk about ‘model-based estimates’ rather than ‘models’. I see the models as an input to produce an output, but not as an output themselves. Instead the indicators are an output.

Pg 38 and section 3.4: the accounts on water, energy, GHG emissions and solid waste are clear to me. They are all flows created by tourism activities (or is it ‘sustainable tourism’, see my general comment above?). However the asset accounts are more problematic, from a conceptual viewpoint. A certain asset, say a stock of water resources or an ecosystem, can be used for tourism-related activities (flows) or for non-tourism activities (e.g. water consumption by local residents). How are they going to be distinguished? Which part of the asset or its use is to be recorded in the SF-MST?

Idem for land accounts: I see uncontroversial the land extension occupied by hotels, some blur borderline in special areas, e.g. national parks (which may be used by tourists and non-tourists) but how to account e.g. the streets in a typically touristic city? Which part is accounted to tourists and to non-tourists? I find it an impossible task.

Chp 3: PSUT for water, energy, GHG emissions, solid waste: the columns for Households are not necessary, because all the flows are attributed to the industries producing tourism activities, but it is probably OK to leave them in the tables to enhance resemblance with other frameworks such as SEEA. The column ‘flows to the rest of the world’ would be meant for international tourists, which would require knowing the share of international tourists over the total tourists, as part of the SF-MST.

Pg 45: account for GHG emissions: it would be useful for compilation (see e.g. section 3.3.8) and for analysis to distinguish in the rows the emissions by type of emitter, e.g. road transport vehicles (rented by tourists), international aviation (tourist flights), accommodation facilities (for heating), etc.

Chp 3: The proposed PSUT for water, energy, etc. for tourism activities are by themselves not too informative if they are not transformed into derived indicators such as share of the GHG emissions in the country stemming from tourism, emissions per visitor (compared to emissions per resident), etc. The framework proposed is good but without summary indicators it will not be fully informative. Those indicators would require similar PSUT for the non-tourism activities in the country, which in principle is no problem if PSUT for (whole economy) emissions exist and for the tourism activities exist.
This document provides a highly necessary and relevant framework for the measurement of environmental sustainability of the Tourism Sector at all territorial levels.

It identifies the aspects necessary to measure when it comes to measure tourism environmental sustainability that have already been worked for the development of SEEA (pg.39):

The SEEA can be separated into four broad types of accounting:

- **Accounting for environmental flows** in physical terms, into, within and from the economy. This includes accounting for flows of water, energy, air emissions, solid waste and emissions to water; and can be extended to account for individual elements and substances such as carbon and nitrogen.

- **Accounting for natural resources** in terms of stocks and changes in stocks (e.g. discoveries of resources, depletion). This includes accounting for stocks of mineral and energy resources, timber, fish, water and soil.

- **Accounting for environmental transactions** that are included in the SNA but not specifically identified as “environmental”. This includes accounting for environmental protection and resource management expenditure, environmental taxes and subsidies and the supply and use of environmental goods and services.

- **Accounting for land and ecosystems**. In this type of accounting the focus is on understanding the changing composition of the area of a country in terms of land use and land cover and the quality of the land in terms of the condition of its ecosystems. Accounting for ecosystem also involves the measurement of ecosystem services and evaluating the capacity of ecosystem to continue to generate market and non-market ecosystem services.

The aim of this document that is to include relevant compilation guidance is therefore completely fulfilled.

The same proper identification of aspects to be measured in order to account for social and cultural sustainability could be approach by using the work already developed for other fields and/or sectors, such as Cultural Satellite Accounts, Social Account Matrix, etc...

Therefore, conceptually and with the aim of having a methodological framework, the integration of different accounting perspectives is extremely useful in order take full account of the aspects that we need to measure and the necessary guidelines, definitions and methodology. This framework will help the compilation of data and figures more homogeneous.

With respect to the feasibility, the timeliness and, therefore the use for supporting decision makers there are some intermediate steps correctly identified in this document (pg. 10) that would be very interesting also to have support from UNWTO (indicator sets and composite index) in order to have a correct process towards the full wealth accounting framework.

This could be the focus of the forthcoming toolkit, which could provide an integration of simple indicators coherent with this document that provides a Statistical Framework for Measuring Sustainable Tourism.

Following the same very practical logic of the document “Proposals for estimating Tourism Direct GDP with limited data”, some proposals for estimating the relevant indicators that we would have if we had a full integration of TSA-SEEA could be proposed in the toolkit.
Some very relevant information would be incomplete with a simple system of indicators (i.e. not fully accounting for the “tourism share”), but it will provide a more feasible tool easier to use by tourism stakeholder, but with a strong statistical support behind.

This focus for estimates guidelines could also build a bridge between national accounting based figures and sub-national estimations.
Raúl Hernández Martín (Head of the Chair in Tourism, University of La Laguna, Canary Islands, Spain)

Strong points:

1. This draft supposes a great advance on the road to the final document.
2. The document follows a realistic approach looking for a balance between relevance and feasibility, including different scales of analysis.
3. It is an important issue to recognize the role of national statistical offices in the process, including establishing criteria for identifying the boundaries at the local scale. This process may be somehow similar to what national statistical offices have done to operationalize the concept of usual environment.
4. This realistic approach recognizes the relevance of spatial scale and time as two relevant aspects. Seasonality is strongly related to environmental issues. Therefore, yearly based statistics (or even quarterly) may not be appropriate in some cases. The scale dimension is considered throughout the paper, particularly in chapters 1 and 5 (not in the intermediate chapters dedicated to accounting).
5. The policy-oriented approach is very necessary as mentioned in the Draft.
6. To build a statistical framework is important if we want to provide credible numbers that can be compared with other sectors.
7. The document is clear and readable. The use of figures is in this sense very useful. Even more figures should be used to communicate the message to tourism stakeholders.
8. The 5th section on “defining spatial areas” includes most of the issues that emerge from MST at the local level, what definitely enriches the document.

Critical insights and suggestions

1. As the document assumes the relevance of a policy-oriented focus, a clear reference to the sustainability problems we are dealing with should be made explicit at the beginning. This is very important because of proposed balance between relevance and feasibility. To clarify the problem demanding policy intervention, two main sources should be followed. First, the SDGs of the UN should be a main reference. To this respect, a strong link between the content of the document and SDGs is not still observed throughout the paper. The second main source of information for identifying the problem that is being addressed in MST should be the tourists and stakeholders of the industry, including local populations. In this respect, there is at last one specific tourism problem that should be considered. As the recently released IPK report for ITB Berlin 2018 states: “around 25% of all international tourists had the feeling that their destination had been “overcrowded” this year, according to a special World Travel Monitor® representative survey of 29,000 international travelers in 24 countries in Europe, Asia and the Americas conducted in September 2017”. At the same time, reactions of local population in the destinations against tourists or the tourist industry are becoming common, as a signal that the impact of tourism concentration in certain spots can endanger sustainability if there is not a sound management of the destinations.

2. The six spatial scales are a good starting point for the analysis, but not all them are equally useful or relevant in MST. Anyway, it is important to distinguish between the spatial scale of the subject of analysis and the spatial scale of the object of the analysis. It is clear that because of the expertise, the availability of data, the financial resources and to guarantee coherence and comparability, the national statistical offices should play a central role in MST. Nevertheless, there is a consensus that as an object of analysis for sustainability issues the national scale is not
so relevant. To decide which is the most interesting scale of analysis for MST we should go back to the policy-problems mentioned. There is a clear global sustainability problem to face (climate change, depletion of resources, world heritage conservation, etc.) and there are local problems to deal with, as tourism activity is highly spatially concentrated (congestion, effects of global warming, scarcity of water or energy, sewage, labour conditions, quality of life, etc.). This means that these two scales should be focused as the object of analysis. The local scale of analysis takes into consideration the most genuine characteristic of tourism, the tendency of tourism destination to sooner or later put in danger their own sustainability. Attractive places tend to lose attraction when demand provokes crowding and congestion. The relevance of the global and local scales as an object of analysis is outlined in the figure.

Figure 1. Local and global scale in measuring sustainable tourism

3. Spatial scales influence on all the rest of the analysis, particularly the economic, environmental and sociocultural accounting sections. Therefore, it is suggested that the chapter on “Defining spatial areas...” is presented before the chapters related to the accounting of sustainable tourism. The chapters devoted to the accounting of the three dimensions include the existing accounting tools to provide statistics for such dimensions, particularly at the national scale, but is not integrated with several critical questions raised in the introduction and in the chapter related with spatial scales.

4. The scale of analysis is relevant from the point of view of feasibility. If we are interested in global sustainability it is a realistic way to build a “national statistical framework for MST”, that can provide information that could be internationally aggregated to obtain an approximation to global scale. At the same time, this national statistical framework can contain some information to help to identify and analyse tourism sustainability at the local level, but this information would not be relevant enough at this local scale, because the lack of detail and due also local sustainability issues are very heterogeneous among destinations in a country. When we want to analyse local problems there is a diversity of situations and a lack of resources (what makes impossible to use a complete statistical framework).

5. The major challenge of MST initiative should be integrating and looking for consistency between the local destination statistical information on sustainability (tables and indicators) with the national sustainable tourism accounts. This would be a way of improving the quality, the credibility and the usefulness of the entire statistical framework. For the national sustainable tourism accounts, it is an opportunity, of having a spatial distribution, given that it is common that only a few dozens of destinations may account for the majority of tourism activity. It seems clear that at the local level some indicators related to the national accounting framework would be needed, along with a set of common indicators for local destinations. Local destinations
should be integrated into the MST analysis through the following figure where the tourism industry and the tourist consumption both at “identified” local destinations (and in the rest of the country) affect and are influenced by global sustainability. At the same time it is necessary to recognize and consider the tendency of tourism destinations to follow a cycle that finishes with stagnation or decline, following Butler (1980) model, in other words, destinations have often the tendency to put in danger their own sustainability.

6. **Feasibility suggests that the local scale should be considered in a very specific way.** The local scale in tourism should not be approached through the division of the territory into myriads of tiny areas. By contrast, every country should identify its local destinations following relevance and feasibility conditions, with the help of some criteria internationally defined of significance (see later). It is very important to note that most of the territory of a country lies outside local destinations but it is probably that a relevant share of the tourism industry and a relevant share of visitors are concentrated in these places. A relevant share of tourism sustainability issues may be related to these particular areas. This way of approaching the local scale has the advantage of being able to provide comparisons between local tourism areas but has the difficulty of obtaining an aggregation of the figures for the next spatial scale.

7. **Feasibility suggests that the local scale (destinations) should be analysed through several indicators included in tables, that should be consistent with the national scale base accounts, but base accounts cannot be applied in a local scale context.**

8. **Aggregation of spatial scales is not a straightforward process.** This is due to both the availability of information and for methodological reasons. For example, air purity, working conditions or quality of the water of beaches, are local indicators that cannot be easily aggregated in a country. At the same time, this means that the statistical framework can work at the national (or even regional scale), but not in a local context. In a local context, an additional set of indicators is needed. Qualitative indicators obtained through surveys should be relevant at the local level. But again, these figures should be consistent with national values.

9. **Demand perspective, supply perspective and the need of a new dimension (the territorial perspective).** This complementary dimension requires the extension of the present statistical framework for tourism statistics (2008 IRTS & 2008 TSA: RMF). One of the most important
methodological contributions of the existing statistical framework for tourism is to distinguish between the supply perspective and the demand perspective. The Statistical Framework for MST document does not clarify enough this point, i.e. we are not always completely aware if our object of analysis is just the tourism industry, or it is the activities of visitors (consumption of both tourism products and non-tourism products). Nevertheless, to fully integrate the national and the local scale with coherence and consistency we need to define the concept of destination. Beginning with the existing methodological framework shown in next figure.

**Figure 3. Existing conceptual perspectives in tourism statistics**

...we can build an extended framework. This extended framework would include a new leg, the tourism destination, defined through the economic significance from both a supply and a demand perspective (INRouTe, 2017). Visitors are defined as known, by the concept of usual environment. Tourism characteristic products (activities) are defined through their ratio in tourism consumption and through their dependency on tourists. Tourism destinations could be integrated into this existing account framework through the concept of economic significance of tourism activities. This is because a large share of tourism characteristic products (activities) are produced in the destinations and at the same time a large share of the production and consumption of tourism products (activities) is consumed in the destinations. By analogy, a large share of destination production is oriented to visitors and a large share of visitor consumption takes place in the destinations. The next figure outlines this extended framework (more detailed in the Annex).

**Figure 4. Integrating the territory in tourism statistics**

The main consequence of this new framework is that now tourism sustainability at the local destination can follow:
a) Destination demand perspective (analysing tourist behavior).

**Figure 5. Destination demand perspective**

b) Destination supply perspective (analyzing only the tourism industry)

**Figure 6. Destination supply perspective**

c) Integrated destination perspective (analyzing all the dimensions of sustainability in a place with high concentration of tourists and tourism activities but including also the impacts of the non-visitors and the noncharacteristic activities.

**Figure 7. Integrated destination perspective (supply + demanda)**
10. Dealing with local destinations requires following an enhanced perspective to consider that tourism is entangled at the local destination with other economic activities and with local population. Analyzing sustainability at the local level requires a new perspective as the sustainability of tourism in a local place is dependent on the sustainability of the area (including local population) as much as on the sustainability of the main activity.

The suggestion is to consider the implications of this extended framework including its integration with the national statistical framework for MST in chapters 2 to 4 of the document.

P.S. We are building a “Statistical framework for sustainable tourism” without a complete framework for sustainable development. That is really complex!

Annex: an extended framework for tourism statistics integrating the local scale
Dale Honeck, WTO

I think it is an excellent start, and look forward to making further comment on more advanced drafts. In terms of the current structure, I agree that the main statistical focus should be on using the TSA for measuring economic effects. Nonetheless, I think a major element is missing, and that is Value Chain Analysis. The use of VCA as an interim step, when the TSA is incomplete or not yet available, should be recognized and strongly recommended by the MST. At the moment, I can find only 2 minor references to tourism value chains, on pp. 73 and 75.

I think it must be recognized that many UNWTO Members are still far from having a complete and up to date TSA, and consequently VCA can provide highly useful information in the meantime. I've just returned from St Kitts and Neavis, which is very interested in the simplified TSA, and has benefitted from an ecotourism VCA carried out by the IAB in 2014.