



UNWTO Asia-Pacific Workshop on Measuring the Sustainability of Tourism 14 – 15 December 2021



Overview of Statistical Framework for Measuring the Sustainability of Tourism

Developing a Statistical Framework



Development of SF-MST follows a standard UN process

Multidisciplinary stakeholder engagement

Innovation in statistics, First statistical framework to integrate:

- 3 pillars of sustainability – environment, social, economic dimensions
- Global, national, regional & local scales

Advantages of statistical approach: **trust, comparability, relevance, (spatial) coherence**

Build on existing statistical standards

- SNA, TSA, SEEA, Labour

Placing SF-MST in Context



Measuring the Sustainability of Tourism

Linking data and decisions

Why? Who?
Context

MST and sustainable tourism policies

What? Standard definitions, classifications & terms

Statistical Framework for MST

Economic

- Tourism industry value added
- Tourism establishments
- Tourism employment
- Visitor numbers
- Visitor expenditure
- Investment & infrastructure

Environmental

- Water
- Energy
- Waste
- GHG emissions
- Land
- Ecosystems
- Biodiversity
- Protected areas / parks
- Natural resources

Social

- Community
- Health outcomes
- Education
- Income & wealth
- Decent work
- Governance
- Human rights
- Accessibility
- Culture / heritage
- Security

Spatial scales: Global, National, Regional, Local

How? Data & methods

MST in practice: statistics, accounts & indicators

Proposed structure and coverage



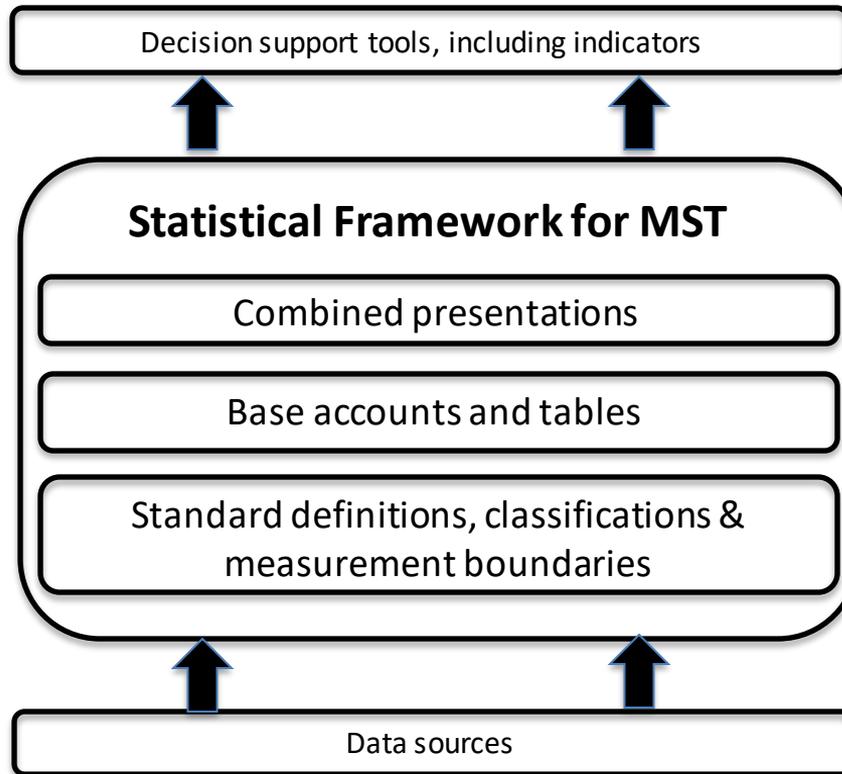
- Introduction (Chap 1)
 - What is sustainable tourism?
 - The nature and benefits of a statistical approach
 - Overview of the SF-MST
 - Principles of implementation and application (e.g. SDG indicators)
- Measuring the economic, environmental and social dimensions (Chap 2, 3 & 4)
- Defining spatial areas (Chap 5)
- Combined presentations, indicators and applications (Chap 6)
- Classifications, glossary, references

Nature of an accounting based approach



- SF-MST builds on existing measurement frameworks of TSA, SNA and the SEEA which are all accounting based
- Extends to cover the scope imagined in wealth accounting with multiple capital – produced, natural, human, social
- Uses accounting as a platform for organising data, especially distinguishing stocks and flows and hence consistently framing a discussion of sustainability, capacity & resilience
- SF-MST does not aim to define a “triple bottom line” or make assumptions on the nature of sustainability

Elements of the SF-MST



Measuring Sustainable Tourism

Linking data and decisions

Statistical Framework for MST – Core tables

Economic

ECO1. Value added by tourism industries

ECO2. Employment by tourism industries

ECO3. Tourism establishments by tourism industry by tourism region

ECO4. Visitor numbers by tourism region

ECO5. Visitor expenditure by product by tourism region

Environmental

ENV1. Water use by tourism industries

ENV2. Energy use by tourism industries

ENV3. GHG emissions by tourism industries

ENV4. Solid waste from tourism industries

ENV5. Land cover type by tourism region

Social

SOC1. Community capacity by tourism region

SOC2. Income distribution by tourism region

SOC3. Decent work measures by tourism industries

SOC4. Cultural heritage by tourism region

SOC5. Visitor perceptions by tourism region

SF-MST Tables: Economic structure

		Tourism industries					
		Accommodation for visitors	Food & beverage serving	Passenger transport	Travel agencies & reservation services	Other tourism industries	Total tourism industries
Number of establishments							
Size of establishments (# jobs)							
	1-9						
	10-49						
	50-99						
	100-500						
	>500						
Ownership (# establishments)							
	Resident						
	Non-resident						
Legal entity type (# establishments)							
	Corporation						
	Household (unincorporated)						
	Government						

SF-MST Tables: GHG emissions

Tourism industries GHG emissions (Mass units - '000 tonnes)												
Supply table for GHG emissions												
Generation of emissions										Accumulation	Flows from the Environment	Total supply of emissions
Tourism industries							Other industries	Households	Emissions from landfill			
Accommodation for visitors		Food & beverage serving	Passenger transport	Travel agencies & reservation services	Other tourism industries	Total tourism industries						
Tourism	Total	Tourism	Total	Tourism	Total	Tourism	Total	Tourism	Total	Tourism	Total	
Type of substance												
Carbon dioxide												
Methane												
Dinitrogen oxide												
Nitrous oxides												
Total CO2 equivalent												
[Bar chart area with vertical lines]												
[Redacted row]												
Use table for GHG emissions												
											Flows to the Environment	Total use of emissions
GHG Emissions released to the environment (CO2 equivalent)										[Bar chart area with vertical lines]		

SF-MST Tables: Employment

		Tourism industries					Total tourism industries
		Accommodation for visitors	Food & beverage serving	Passenger transport	Travel agencies & reservation services	Other tourism industries	
		Number of jobs					
Sex	Female						
	Male						
Age (years)	<20						
	20-29						
	30-39						
	40-59						
	>60						
Education level (ISCED-11 classes)	Basic						
	Intermediate						
	Advanced						
Occupation (by ISCO major groups)	Managers						
	Professionals						
	etc						
Job tenure (months)	<6						
	6-12						
	13-24						
	>24						
Salary (relative to average earnings)	<30% average earnings						
	30-50% average earnings						
	50-70% average earnings						
	>70% average earnings						

Integrating spatial areas

- SF-MST recognises that supporting decision making on sustainable tourism must go beyond only national level data
- Underlying concepts are scale independent: question of relevance and feasibility as to scale of measurement in practice
- Not all concepts need to be measured at every spatial scale
- Proposed hierarchy of spatial areas to consider **tourism destinations**
 - Global
 - Supra-national
 - National
 - Regional
 - Municipal / City-region
 - Local



SF-MST: Spatial data



SF-MST recommends developing, progressively, a **regional tourism information system (R-TIS)**

Core themes of interest within an R-TIS:

- Visitor flows including both international and domestic visitors
- Accommodation
- Characteristics of tourism businesses in the region
- Visitor expenditure
- Employment and jobs in tourism industries
- Decent work
- Resident population
- Household income (average and distribution)
- Environmental flows: water use, energy use, GHG emissions, solid waste
- Land use and land cover



**Innovation.
Consensus.
Information.**

Measuring tourism for the betterment of people, planet and prosperity