



Tourism Satellite Accounts: What are they and what data is needed?

Introduction

A Tourism Satellite Account (TSA) is a standardised framework for measuring the direct economic impact of tourism by capturing detailed data such as tourism-related expenditures, supply, and employment. TSAs are essential in informing sustainable policy making related to tourism and help facilitate international comparisons. TSAs can also be further segmented to consider ocean reliant tourism and its economic impact. These ocean TSAs form an important component of ocean accounts.¹ Many countries have already implemented TSAs such as the Bahamas, Aruba, Trinidad and Tobago, Indonesia and the Maldives.²

TSA methodological summary

A Working Group convened by the United Nations Statistics Division created a methodological framework for the design of a TSA, with the latest update published in 2008.³ There are ten tables that make up a TSA which are derived from, and related to, the supply and use tables of the System of National Accounts 2008. These tables reconcile the most relevant economic information related to tourism. The methodological framework advises the ten tables to be created in two stages: the first stage consisting of the development of tables 1-7 and 10, and the second stage consisting of the development of tables 8 and 9. This brief focuses on the data needed to support the first stage. A summary of stage one tables is provided in the paragraph below with further detail given in the following section.

In summary, tables 1-3 focus on tourism expenditure that should be observable from visitors. They include not only what visitors pay out of their own pocket but also what businesses,

governments and others may spend for the visitor's benefit. The tables are split out to cover inbound tourism expenditure⁴ (Table 1), domestic tourism expenditure⁵ (Table 2), and outbound tourism expenditure⁶ (Table 3). Table 4 looks at total internal tourism consumption through summing up inbound (Table 1) and domestic tourism expenditure (Table 2) with other relevant consumption components (i.e., it goes beyond tourism expenditure in the country of interest to include other consumption components). Table 5 is the supply table that focuses on the supply of tourism characteristic products across industries. For example, it considers the supply of accommodation products from the accommodation industry. Table 6 brings together the supply of tourism goods and services (Table 5) and tourism consumption (Table 4). Table 7 focuses on employment in tourism industries, with a focus on the number of jobs and hours worked in a specific period. Lastly, Table 10 includes non-monetary indicators such as the number of trips by forms of tourism, classes of visitors and their duration of stay, types of accommodation and transport used, and number of establishments belonging to tourism industries. Across the tables, 'tourism' encompasses leisure trips and some business travel where the sole purpose of the trip is not for business but earning income could be incidental.

Detailed data requirements

The following pages set out the data required under each table and suggest potential sources. This list is not exhaustive, and it is likely the country of interest could have other data sources of relevance.

¹ Ocean accounts are integrated records of regularly compiled and comparable data concerning ocean environment assets, economic activity and social conditions.

² See sources at the end of the brief.

³ Found at:

https://unstats.un.org/unsd/publication/seriesf/seriesf_80rev1e.pdf

⁴ Inbound tourism expenditure: spend of non-resident visitors (i.e., travelling from a foreign country) in country of interest.

⁵ Domestic tourism expenditure: spend of residents (those who live in the country of interest) from day trips and overnight trips in country of interest and in preparation of trips abroad.

⁶ Outbound tourism expenditure: spend of resident visitors (i.e., those who live in the country of interest) in foreign countries (i.e., outside of country of interest).



1) Table 1: Inbound tourism expenditure by products and classes of visitors

Inbound tourism expenditure reflects the spend of non-resident visitors (i.e., travelling from a foreign country) in the country of interest. This table therefore allows us to understand how much foreign visitors are spending in the country of interest⁷. This includes spend on products related to accommodation, food and beverages, transportation within the country of interest, entertainment, shopping, and any country-specific tourism products. The spend on these products should also be broken down by classes of visitors including tourists (overnight visitors) and excursionists (same-day visitors).

- Data required: Expenditure by non-resident visitors within the country of interest by product and classes of visitors.
- Potential sources: Visitor surveys (border surveys from entry/exit including airports, seaports, and land borders), business records/surveys (hotel and accommodation, transportation companies such as airlines or road transport services, and other business establishments e.g., tourist attractions and activity providers), national data, and other sources e.g., World Bank or OECD.

2) Table 2: Domestic tourism expenditure by products, classes of visitors and types of trips

Domestic tourism expenditure reflects the spend of residents (i.e., those who live in the country of interest) from day trips and overnight trips in the country of interest, but also the spend of residents in advance of any foreign trips. This table therefore allows us to understand how much residents are spending in the country of interest related to tourism overall. For example, if a resident bought a suitcase or travel insurance in the country of interest for a trip abroad, this spend would be captured by this account and not the outbound tourism expenditure account below. This table should include spend on accommodation, food and beverages,

transportation within the country of interest, entertainment, shopping, and any country-specific tourism products. As it considers spend on products for domestic tourism and in advance of outbound tourism, the spend should be broken down by domestic and outbound (i.e., abroad) trips. Like Table 1, the spend on these products should also be broken down by classes of visitors including tourists (overnight visitors) and excursionists (same-day visitors).

- Data required: Expenditure by residents within the country of interest on domestic tourism (by product type) or products that support foreign trips.
- Potential sources: Visitor surveys (household or domestic travel surveys), business records/surveys (hotel and accommodation, transportation companies such as airlines or road transport services, and other business establishments e.g., tourist attractions and activity providers), national data and other sources e.g., World Bank.

3) Table 3: Outbound tourism expenditure by products and classes of visitors

Outbound tourism expenditure reflects the spend of resident visitors (i.e., those who live in the country of interest) in foreign countries (i.e., outside of the country of interest). This table therefore allows us to understand how much residents in the country of interest are spending outside of the country of interest. This includes spend on accommodation, food and beverages, transportation to the foreign destination, entertainment, shopping, and any other expenses on tourism products abroad. Like Table 1 and 2, the spend on these products should also be broken down by classes of visitors including tourists (overnight visitors) and excursionists (same-day visitors).

- Data required: Expenditure by residents occurring outside of the country of interest (by product type).
- Potential sources: Visitor surveys (border surveys from entry/exit including airports, seaports, and land borders or household

⁷ Note, if multiple TSAs were created for different counties, what is on one country's inbound tourism expenditure account could

well be what is on another country's outbound tourism expenditure account.



travel surveys), business records/surveys (travel agencies or tour operators), national data, and other sources e.g., World Bank.

4) Table 4: Internal tourism consumption by products

Total internal tourism consumption reflects the total tourism spend in the country of interest, including inbound and domestic tourism expenditure but also other relevant consumption components that are not captured by these tourism expenditures (i.e., it goes beyond tourism expenditure in the country of interest to include other consumption components). For example, other components of tourism consumption include services associated with vacation home ownership and tourism social transfers in kind (e.g., net cost for hosts receiving visitors such as increased food and utilities expenditure). In other words, it is not direct expenditure from visitors but is an expense incurred via a third party, such as family or friends, related to the presence of the visitor. This table therefore allows us to understand the size of tourism consumption in the country of reference from both resident visitors and non-resident visitors (i.e., those travelling from outside the country of reference).

- **Data required:** Data from tables 1 and 2 and for other tourism consumption components.
- **Potential sources:** Real estate and property management records, Government social transfer records, and national data.

5) Table 5: Production accounts of tourism industries and other industries (at basic prices⁸)

Production accounts consider the supply of tourism characteristic products across industries (both tourism and non-tourism

industries) and value these at basic prices. The list of tourism characteristic products and tourism industries are provided in *Table B*, where the type of tourism products considered are the same as those considered for tables 1- 4. For example, it considers the value of supply of accommodation products from the accommodation industry, where accommodation is classified as a tourism industry. The account will need to include individual products' supply across industries, where these are used to estimate total output. It also considers total intermediate consumption⁹ (at purchasers' prices – see footnote no. 6 for a definition) to estimate total gross value added¹⁰ (at basic prices), compensation of employees, other taxes less subsidies on production, gross mixed income¹¹ and gross operating surplus¹².

- **Data required:** Supply of tourism products across tourism industries and other industries (by product and industry). Compensation of employees, other taxes less subsidies on production, gross mixed income, and gross operating surplus. *Note, data will need to be valued at basic prices as required except for total intermediate consumption.*
- **Potential sources:** National data such as Supply and Use tables and industry surveys such as business and economic surveys.

6) Table 6: Total domestic supply and internal tourism consumption (at purchasers' prices¹³)

Table 6 brings together the supply of tourism goods and services (Table 5) and tourism consumption (Table 4), allowing the supply and use of tourism products to be compared. It also estimates tourism ratios of products to understand how much of a product's total domestic supply is consumed by internal

⁸ Basic prices: calculated by taking the purchaser's price and then removing any taxes payable and any subsidy received from the good or service.

⁹ Intermediate consumption measures the value of the goods and services consumed as inputs by a production process.

¹⁰ GVA: the value that producers have added to goods and services they have bought (i.e., intermediate products purchased).

¹¹ Gross Mixed Income: profit of the self-employed after they have paid for raw materials, overheads, and workers they employ.

¹² Gross Operating Surplus: the profit of businesses on the products they produce after they have paid their workers.

¹³ Purchaser's price refers to the amount actually paid by the purchaser for goods or services.



tourism. The reconciliation of supply and consumption values can be used to create the aggregate indicators Tourism Direct Gross Value Added¹⁴ (TDGVA) and Tourism Direct Gross Domestic Product (TDGDP)¹⁵

- Data required: Table 4 (internal tourism consumption), Table 5 (total supply of goods and services in the country of interest) and imports of the products, taxes less subsidies on products nationally produced and imported, and trade and transport margins. *Note, data will need to be valued at purchasers' prices as required.*
- Potential sources: National data such as Supply and Use tables

7) Table 7: Employment in the tourism industries

Employment in tourism industries focuses on the number of jobs and hours worked in a specific period for specific industries that are classified as tourism industries. This does not include industries that produce tourism products but also other non-tourism products (i.e., if they are not solely a tourism industry). This data will need to be broken down by sex (male or female) and employment status (employed or self-employed).

- Data required: Number of jobs, hours worked and full-time equivalent jobs in tourism industries, broken down by sex and employment status. Number of establishments in tourism industries. *Note, there should be at least two data collections per year (one at peak and one at low tourism seasons to capture the seasonal variability in employment). Informal employment in tourism industries should also be considered.*
- Potential sources: Labour force/labour market surveys, business surveys and national employment or tax records.

10) Table 10: Non-monetary indicators

Non-monetary indicators include the number of trips by forms of tourism (inbound, domestic or outbound), classes of visitors (tourists or excursionists) and their duration of

stay, types of accommodation and transport used (e.g., air, waterway, land, and breakdowns within these - e.g., waterway modes include passenger line and ferry, cruise ship, yacht and other), and the number of establishments belonging to tourism industries.

- Data required: Number of trips and overnights by forms of tourism and classes of visitors. Number of arrivals and overnights by mode of transport used by non-resident, inbound visitors. Number and size of tourism establishments by rooms and bed capacity, and capacity utilisation, split by different types of tourism establishments (real estate activities – real estate activities with own or leased property or real estate activities on a fee or contract basis, or visitor accommodation– short term accommodation activities or camping grounds, recreational vehicle parks and trailer parks). Number of establishments in tourism industries
- Potential sources: Visitor surveys, accommodation and transport provider records, industry data, labour force/labour market surveys, national tourism data, and other sources e.g., World Bank and UNWTO.

References (TSA links):

1. The Bahamas: <https://www.bahamas.gov.bs/wps/wcm/connect/7b3692c3-2886-462c-83a5-9d9de9d7fa4c/National+Accounts+Annual+Report+2020.pdf?MOD=AJPERES>
2. Aruba: https://cbs.aw/wp/wp-content/uploads/2022/07/TSA_Aruba_CBS_Referenceyear2013.pdf
3. Trinidad and Tobago: <https://slideplayer.com/slide/4713751/>
4. Indonesia: <https://www.bps.go.id/id/publication/2022/07/05/b3c824a618fff5f53bab4d8e/tourism-satellite-account-indonesia-2016-2020.html>
The Maldives: https://statisticsmaldives.gov.mv/nbs/wp-content/uploads/2021/09/TSA_Tourism_InputOutput_Indicators-ofTheMaldives2017-1.pdf

Contact GOAP Secretariat for more details
info@oceanaccounts.org

¹⁴ TDGVA adds together the part of gross value added generated by tourism industries and other industries of the economy that directly serve visitors in response to internal tourism consumption.

¹⁵ TDGDP takes TDGVA and adds the amount of net taxes on products and imports included within the value of the expenditure at purchaser's prices.