



UK Tourism Satellite Account - First Steps Project

Prepared by the Cardiff Business School



UNITED KINGDOM TOURISM SATELLITE ACCOUNT

FIRST STEPS PROJECT

Final Report

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FOREWORD BY RICHARD CABORN, MP

I am very pleased to endorse this First Steps Report on Tourism Satellite Accounting. Commissioned by DCMS, it was also supported by VisitScotland, the Welsh Assembly Government, the Northern Ireland Tourist Board, and the European Commission. As well as the provisional estimates included, and recommendations for future work, the Cardiff Business School has presented the key issues in a non-technical and very readable way.

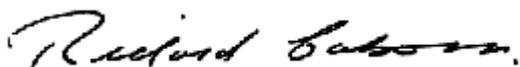
It has become very clear to me as Minister for Tourism that the availability of comprehensive and timely economic data is a prerequisite of effective decision-making. That goes not only for the public sector; businesses cannot invest with confidence without knowing who their domestic and inbound customers are, and how and where they spend their money.

We have long relied on our established tourism surveys. These are - and will remain - important. DCMS and its partners are currently working on improving their methodology and coverage, to ensure that the surveys fully reflect changing patterns of customer behaviour. But our traditional statistics have taken a fairly narrow view of the visitor economy, and as such they have not shown all the ways in which tourism makes a wider economic contribution.

This First Steps Report lays the foundations for putting that right. Tourism Satellite Accounting provides a fuller picture of Tourism's true impact in generating employment, foreign earnings and wider economic value. It also opens the door to more accurate estimates for other important economic quantities such as investment and tax receipts. As its authors rightly say, tourism's contribution is not just about the hotel and travel sectors. Tourists' other expenditure – for example, durable and consumable goods, as well as incidentals such as a newspaper bought by a visitor – all adds up to a substantial contribution to the economy.

This Government recognises tourism as a key economic driver at national, regional and local levels. And while this Report deals with data for the UK, a First Steps Project for the English Regions is also underway. The English Regions project will build on the findings of the UK project, and is due to report later in the year.

Better data provision is one of the five key priorities for tourism policy set out in Tomorrow's Tourism Today, which we launched in July. Tourism Satellite Accounting will make a significant contribution to this by deepening our understanding of the sector. In the longer term, its potential to inform policy-making and private sector investment should improve both our domestic and international promotional efforts, and our management of the tourism economy to the benefit of local communities.



THE RT HON RICHARD CABORN MP
Minister for Sport and Tourism

Guidance for Readers

This report addresses a wide range of user groups. For this reason some sections of the report will have particular interest to some reader groups as opposed to others.

For readers who are interested in the main headlines of the report, the executive summary should be read in conjunction with sections 1-2 and 7-8.

For readers, who are less interested in the technical details underpinning TSA construction, but who wish to have a better understanding of the structure of the TSA, its uses, and the main UK results we would suggest that sections 1-4, and 7-8 are read in conjunction with Appendix 1.

For those readers who are already familiar with tourism satellite accounts, the anatomy of the TSA tables, the concepts and problems underlying construction, but who would like the full story of the challenges faced in UK TSA construction, we would recommend that sections 1, and then 4-8 are read, in conjunction with Appendices 1-4.

As highlighted throughout this report the UK First Steps TSA project is part of a wider suite of work which encompasses TSA development in Scotland, Wales, and Ireland, and the English regions, and the scoping research in the Crown Dependencies of Guernsey, Jersey and the Isle of Man. Those readers interested in the problems and opportunities of developing TSAs at different spatial scales should also access these reports.

Finally, the authors would welcome further comments on any aspect of this report. Contact details are on the cover of this volume.

FIRST STEPS TOURISM SATELLITE ACCOUNT FOR THE UK

EXECUTIVE SUMMARY

AUGUST 2004

1. Introduction

The tourism sector is believed to be one of the fastest growing areas of the national economy. However, this cannot be affirmed with certainty. The direction of resources to tourism (and indeed other sectors) has rarely been accompanied by a full suite of statistical information with which to support decisions.

Tourism activity and output has historically been interpreted in terms of visitor trips and spending, and basic accommodation statistics. However the definition of Tourism, which is endorsed by the UN, covers the consumption of **all** goods and services by visitors to an area. Thus it embraces an extensive set of industries and services that is far broader than just hotels, restaurants, transport services, and travel agencies.

DCMS and its partners are working towards improving the statistical base on tourism in the UK. During 2003 DCMS led the National Statistics *Review of Tourism Statistics* as part of its *Tourism Statistics Improvement Initiative*. A wide consultation process examined users' needs, the statistical base, and areas for improvement.

The Review noted the need for Tourism Satellite Accounts, and this First Steps project has delivered a pilot Tourism Satellite Account (TSA), making best use of existing sources, as well as making recommendations for the future. Development was conducted in close cooperation with parallel work in Ireland (and with associated development and scoping exercises for the English Regions and the Crown Dependencies).

2. What is a Tourism Satellite Account (TSA)?

The Tourism Satellite Account has emerged as the recommended way of measuring tourism's economic significance for nations. The methodology has the approval of the World Tourism Organisation (WTO), the UN, OECD and EUROSTAT. It was developed initially in Canada in the 1980s and many countries are now moving towards the construction of a full TSA account.

A Satellite Account is an extension to a System of National Accounts (SNA) which enables an understanding of the size and role of economic activity which is usually 'hidden' with such accounts. For example an SNA will not distinguish between a newspaper purchase by a tourist or by a local resident. Within the TSA these purchasing groups are separated (usually tourists are further separated into different types). This enables the estimation of key

variables such as how much of UK industries are dependent upon tourists, and, by extension, how much value added and even employment is supported by tourists in the UK.

The TSA has several advantages over other more basic methods of valuing the economic impact of tourism, such as measuring employment in tourist related industries, or summing gross tourism consumption. A TSA can account for impacts across all industries, not just those traditionally thought to be tourist-related, and also discounts for that part of tourist expenditure which does not directly support UK jobs and incomes (for example spending on imported goods). The term ‘satellite’ has been used to describe other adjuncts to national accounting systems such as environmental accounts and household accounts and the conceptual basis is well established and widely accepted.

3. What does a developed TSA look like?

The TSA as suggested by WTO and EUROSTAT consists of ten tables, though only eight are recommended as suitable for development (as there remain unresolved issues with Tables 8 and 9), and only six are considered ‘core’ tables (Table 7, employment and Table 10, non-monetary indicators, are not directly linked to the SNA) The illustration below outlines what information is contained in the TSA

Tourism Satellite Account – The Constituent Tables

Table	Coverage	Notes
1	Inbound tourism expenditure	Part of aggregate demand; i.e. an export
2	Domestic tourism expenditure	Part of domestic total consumption
3	Outbound tourism expenditure	Not generally linked to other TSA tables so is often not estimated
4	Domestic ‘tourism final consumption’	Synthesised from Tables 1 & 2
5	Production of tourism commodities	For example the services and products of ‘tourist related’ industries but also of non-tourist related industries
6	Domestic supply & consumption by product	A reconciliation of Tables 4 & 5. The <u>heart</u> of the TSA
7	Employment & labour use	Structure not yet fully agreed
8	Tourism Fixed capital formation (investment)	Not currently reported
9	Tourism Collective Consumption	Not currently reported
10	Non-monetary Indicators	e.g. tourism volumes/nights; types of tourist etc. Structure can reflect most useful indicators

4. How are TSAs developing across the world?

There are a number of countries which have TSAs that comprise at least Tables 1,2,4,5 and 6. Canada remains the leader, having developed TSAs for its provinces and territories. Other countries with TSA projects that are well advanced include New Zealand and Australia, the USA and Mexico. Within Europe, countries that are well advanced in TSA development include Austria, Norway, Switzerland and Spain. Recent support from the European Commission, such as that for this project, has meant that many other EU nations are also in the process of developing TSAs.

Some nations are going further. As well as regionalising its account, Canada has a set of indicators benchmarked to the TSA which provide up to date information on tourism (due to the need for an extensive suite of data, TSAs are typically not published until several years after the reference year). Meanwhile, Spain and Norway have also developed regional tourism satellite accounts.

5. What were the steps necessary to develop the UK TSA?

The construction of a TSA requires the reconciliation of supply and demand for a range of tourism-related products including accommodation and food services, transport and travel agents and recreation, as well as for other products in aggregate. Tourists' expenditure on these commodities must then be estimated, as must the supply of these goods.

Tourism expenditure might arise from international arrivals, domestic holiday-makers or day visitors and these are often reported separately in the TSA. Meanwhile the supply of products might be from UK industries, or via imports, and it is also necessary to separate these sources of supply in the TSA.

TSA construction then requires two distinct steps; the estimation of the 'demand' side and the 'supply' side:

- a) on the **demand side**, tourist expenditure data must be adjusted to be statistically and conceptually consistent, inflated or deflated if reference years vary, and allocated to individual tourism-related products.
- b) On the **supply side**, the total supply of individual tourism products must be estimated, by UK industry and imports

This process is complex because the relevant data sources do not have the required level of detail on purchases of products. Therefore, the data must be disaggregated using a variety of information and some assumptions, based on e.g. tourism volumes and employment information.

6. UK Data sources supporting TSA development, and their limitations

On the **demand side** the major sources of information are the United Kingdom Tourist Survey (covering domestic trips with an overnight stay), International Passenger Survey and GB Day Leisure Day Visits Survey. Each has its own problems and issues. These are the results of under-resourcing over an extended period. Typically, only broad categories of expenditure are collected, which is the greatest reason why the results reported here are experimental and illustrative only.

The **supply side** is slightly better served, as National Accounts make a reliable estimate of industrial production, imports and so on. However the problem is again one of disaggregation. For example, National Accounts do not distinguish between accommodation and food services, or between travel agents and other transport services, as different products or industries. These distinctions are crucial to the TSA and the separate product supplies must be estimated for each. This is a major problem – for example, there is no information available in the UK for example how much restaurant food services are purchased from the hotel industry. These proportions must be estimated, and this had to be based in part on the results of other countries' TSAs, and following consultation with tourism industry experts.

7. Results of the First Steps TSA Estimation

The TSA tables contain data for 2000. These are then used as the benchmark for more up-to-date estimates.

a) Results from the TSA tables (year 2000)

The First Steps TSA project estimates that tourists consumed goods and services worth £89.6bn in 2000. A total of £16.1bn was attributable to **inbound tourism** in the year 2000. This total was split almost equally between holiday visitors (£5.5bn), business (£4.9bn) and visiting friends and relatives/other (£5.6bn). Of total expenditure, over half was shared between accommodation services (28%) and eating and drinking out (25%). Retail margins accounted for 15%.

Tourism-connected products accounted for 7% of all expenditure. These services, which account for a substantial proportion of tourists' expenditure, and comprise post and telecoms, financial and insurance services, rental services and health services which are paid for by tourists, and as such this expenditure is an export. Meanwhile, almost a fifth was spent on non-tourism connected goods and services highlighting the wide range of activities upon which tourism impacts. Expenditure varied considerably by type of tourist. For example, business visitors spent the highest proportion on accommodation, at around 37%, and the least on recreation.

Domestic tourist expenditure in the UK comprises UK residents who stay overnight on a tourism visit, and those who are day visitors. The latter were the most important element of domestic tourism demand, comprising £31.8bn or 35% of total tourist spend. Meanwhile, spending by overnighing visitors in the UK totalled just over £26bn. UK residents travelling abroad spent an estimated £14.7bn on travel costs and travel agents' margins before they departed (this is part of domestic tourism consumption). The largest portion of expenditure was transport (24%) closely followed by eating out (20.5%). Accommodation accounted for only 7.7% of gross expenditure, partly due to the importance of day visitors in overall tourism consumption.

Domestic tourist expenditure is therefore several times greater than that of inbound tourists (£72.6bn compared to £16.1bn). Additional to the elements noted above, which relate to expenditures in cash, tourist consumption also includes a notional total for tourism-related second home services. This was estimated at around £890m in 2000, making a total of **£89.6bn** tourism consumption in the UK for that year. This £89.6bn comprised around 4% of all final demand in the UK economy. Meanwhile, the £16.1bn attributable to inbound tourism demand comprises 6% of all export demand in the UK for year 2000. For the **supply side**, TSA construction enables an estimation of 'tourism dependency' for UK industries. For example, the accommodation sector sold around 70% of its products to tourists. Somewhat under half (43%) of the output of restaurants, bars and canteens is demanded by tourists, be they day visitors, UK tourists or those from overseas. Air transport is the transport product most highly dependent upon tourist demand (63%).

Applying these ratios of '*tourism dependence* to industries' gross value added can provide an approximation of how much value added is supported by tourists' expenditure in the UK economy. This estimate was **£32bn** for 2000, comprising **3.8%** of all industry value added.

First Steps Tourism Satellite Account – Some Key Results (2000)

Total tourism consumption (of which...)	£89.6bn
<i>Inbound tourists</i>	£16.1bn
<i>Domestic (UK resident) overnight tourists + spending before/after trip abroad</i>	£41.8bn
<i>Day visitors</i>	£31.7bn
Tourism balance of trade	-£11.4bn
Total Tourism Gross Value Added (percent of UK industry GVA)	£32.0bn (3.8%)

b) Results from the TSA tables (years 2001 to 2003)

To ameliorate the problems involved in the long period between the reference year and time of publication, TSAs can be used to provide forward estimates of headline tourism indicators on a more timely basis. The UK First Steps Project applied changes in tourism consumption to the estimate of tourism gross value added in 2000 to obtain estimates for 2001 to 2003.

Tourism Gross Value Added, 2000 – 2003				
	2000	2001	2002	2003
TGVA (£current)	£32.0bn	£31.5bn	£32.2bn	£32.8bn
Percentage change	-	-1.5%	2.1%	1.9%
As percent of UK GVA	3.8%	3.6%	3.5%	3.4%

As the table above shows, tourism gross value added declined between 2000 and 2001 (in nominal as well as inflation-adjusted and terms). As a proportion of whole economy value added, tourism was estimated to have accounted for 3.6% in 2001. Nominal increases in 2002 and 2003 were not large enough to stop this proportion declining further, to 3.5% in 2002 then 3.4% in 2003.

These results are driven by the growth of the UK economy by around 5% per annum in nominal terms between 2000 and 2003, over a period during which total tourism receipts overall fell or largely remained static in real terms.

The publication of employment data in TSA Table 7, along with forward estimates for 2001 to 2003, will follow later in the year.

8. Recommendations for ‘Next Steps’

The construction of the First Steps TSA has highlighted a number of issues which need attention and investment for more accurate accounting of tourism’s economic impact in the future. These relate to organisational issues as well as more specific problems with data and surveys.

In large part, the recommendations in this TSA First Steps reports echo and develop the recommendations of *the Review of Tourism Statistics* undertaken as part of the DCMS *Tourism Statistics Improvement Initiative*. In terms of structure and institutions, First Steps recommendations include;

(a) institutional & structural developments:

- moves to improve the UK TSA be continued and intensified, such accounts having been shown to be of policy use in other countries, and as demanded by users in the UK;
- that, however, a second iteration of the TSA should not be undertaken in advance of data improvements and institutional developments;
- that if data cannot be improved in the medium term then similar estimation be repeated in 4-5 years using the best available data;
- a ‘user survey’ be carried out in the context of the TSA First Steps dissemination process;
- moves to involve private sector tourism providers (or their representatives) in TSA development be investigated;
- the conceptual development of the TSA internationally continue to be closely monitored
- ONS be centrally involved in TSA development, both providing technical support and aiding strategic direction. This assumes ONS will be unable to develop the TSA in-house which is the ideal scenario;
- the creation of a Tourism Statistics Unit for the UK, as recommended in the Review of Tourism Statistics, be urgently investigated

(b) data quality improvements:

- the collection of information on tourists’ expenditure be carried out in more detail, and given more prominence in the surveys of tourists in the future;
- that if existing surveys are to continue, the improvements suggested in the *Review of Tourism Statistics* be undertaken as far as is practicable;
- moves to harmonise the expenditure disaggregations and conceptual framework of International Passenger Survey, UK Tourism Survey and GB Day Visits Survey be explored.

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1 INTRODUCTION – FIRST STEPS

1.1 UNDERSTANDING TOURISM?

1.1.1 The tourism sector is believed to be one of the fastest growing areas of the national, and many UK regional economies. However, quantifying the scale and growth of the sector is difficult. The very definition of tourism causes problems, and the growth profile of the ‘sector’ is often based on partial elements of tourism services, such as accommodation provision, or merely on anecdote. The paucity of information on tourism is of particular concern with government (both nationally and regionally) devoting significant policy resources to the sector. Indeed in some regions of the UK, tourism has been identified as a key growth sector. Regrettably, the process of directing scarce resources to tourism (and indeed other sectors) has often been undertaken without a full suite of statistical information with which to support decisions.

1.1.2 At the UK level there is very limited information on the role of tourism in the generation of gross value added, in supporting foreign earnings, in the generation of tax returns, or in the creation of investment and employment, both directly and indirectly. Tourism activity and output is usually understood in terms of visitor trips and spending, and basic accommodation statistics. Much of the difficulty in understanding the sector then relates to a narrow view of what tourism represents. Ultimately, tourism embraces an extensive set of industries and services that just includes hotels, restaurants, transport services, and travel agencies (although not all of the output of these industries is ‘tourist related’). Tourism is more than just these. It is a ‘demand side’ definition that covers the consumption of all goods and services by visitors to an area that falls within the sector’s scope.

1.2 FIRST STEPS

1.2.1 The Department for Culture, Media and Sport (DCMS) and its partners are working towards improving the statistical base on tourism in the UK and its regions. During 2003 DCMS led a *Review of Tourism Statistics* as part of its *Tourism Statistics Improvement Initiative*. This was carried out in conjunction with the regional development agencies and the tourism industry, involving a wide consultation process examining user needs, the extant statistical base, and areas for improvement.

- 1.2.2 This First Steps project moves towards creating a Tourism Satellite Account (TSA) for the UK in close cooperation with parallel development in Ireland (and with associated development and scoping exercises for the English Regions and the Crown Dependencies of Guernsey, Jersey and Isle of Man). Work is also being carried out in Scotland and Wales to produce TSAs to a similar specification and timetable. The respective project teams have worked together closely to ensure consistency. More information on the Scottish project can be found at <http://www.scotland.gov.uk/about/ASD/OCEA/00018300/TSAproject.aspx> whilst the authors of this report can provide detail on developments in Wales.
- 1.2.3 The UK system of published national accounts provides a great deal of policy-relevant information for government department decision-making. However, the scope of the published national accounts is not always adequate to meet the increasingly complex demands of policymakers and other stakeholder groups. Satellite accounts are developed to build upon the standard system of national income accounting. The term ‘satellite account’ was adopted from French use by the United Nations. A satellite account allows an understanding of the size and role of activities which are not separately identified in the conventional national accounting framework. The term ‘satellite’ has been used to describe other adjuncts to national accounting systems such as environmental accounts and household accounts.
- 1.2.4 The TSA then is an instrument through which the goods and services associated with tourism can be measured and assessed in line with internationally acceptable standards of concepts, classifications, and definitions, which will subsequently allow for inter and intra-national comparison of tourism sectors. There are then clear parallels to systems of national accounts which measure aggregate production of goods and services, and which are an important means of international comparison, and estimation of global output.

Figure 1.1 – National and Satellite Accounts

UK System of National Accounts	UK Tourism Satellite Account
Framework for the systematic compilation and reconciliation of statistical data from a variety of sources and relating to supply and demand of all goods and services in the UK.	Framework for systematic compilation and reconciliation of statistical data from various sources concerning demand by visitors (domestic and foreign) and supply of tourism products in the UK.

- 1.2.5 A number of nations have seen value in developing TSAs, and in a standardised framework of construction, led by the World Tourism Organisation in collaboration with other international agencies. An improved accounting of tourism sector transactions and activity at a national level would undoubtedly provide important information for policymakers, in particular in terms of directing scarce resources, and in identifying critical elements in sector success or failure. In the UK, work has begun in several regions aimed at developing pilot tourism satellite accounts.

1.2.6 In summary a developed UK TSA would mean that the tourism industry can be better included in the mainstream of economic analysis. A TSA then provides information relating to the following:

- The contribution of tourism to UK gross value added;
- Tourist consumption spending;
- The role of tourism in employment generation and in earnings generation;
- The contribution of tourism to UK trade balances;
- The linkages between the tourism sector and other UK industry groups;
- The tax receipts attendant on tourism activity;
- Tourist industry capital spending;
- A means of comparing the scale, scope and performance of the UK tourist industry with those in other states.

1.3 FIRST STEPS UK PROJECT OBJECTIVES

1.3.1 The UK TSA First Steps project has the following objectives:

- To describe the nature of a TSA, and its uses for policymakers.
- To review literature relating to best practice on the construction of a TSA, and to examine previous research and reports highlighting the uses of TSAs.
- To undertake a wide ranging consultation with potential users and other stakeholders with the objective of gaining access to statistical expertise, highlighting user priorities, and disseminating the findings from the research process.
- To interrogate the current data available in the UK to construct a basic tourism satellite account framework, highlighting information gaps, and providing recommendations for new data acquisition which balance issues of marginal costs to practical use within the TSA framework.
- To use the results of the research review and data interrogation to recommend a transparent methodology for constructing a UK TSA framework.
- To construct a pilot TSA for the UK making clear the assumptions used, and estimation bases.
- To provide a strategic action plan of further research steps to improve the TSA.

1.4 STRUCTURE OF THE REPORT

1.4.1 This sub-section summarises the structure of the report. Given the nature of the stakeholder and steering groups for this project it is necessary to strike a balance between text dealing with the underlying policy usefulness of a TSA, and the detailed technical methodology. Thus, some elements of the technical methodology and assumptions are placed in appendices to the main report.

1.4.2 The second section of the report presents an introduction to TSAs. The section describes the ‘anatomy’ of the TSA, and deals with issues including how economic activity in the tourism sector is measured. The section describes the TSA conceptual framework, the constituent tables of a TSA, and then reviews the practical issues involved in the construction. This is followed by a review of the scope and limits of a TSA.

- 1.4.3 The third and fourth sections provide a review of TSA development and construction methodology. This comprises an examination of TSA developments in other countries, and an appraisal of the technical and institutional characteristics of TSA developments across the globe, highlighting common themes and techniques. These sections then go on to examine the ways in which TSAs have been used to inform policy and resource directions. An important part of this project is to highlight how a developed pilot TSA for the UK might be used, and the findings from this review have been used to inform the report's strategic recommendations on future steps.
- 1.4.4 The fifth section comprises the data review and provides a checklist and commentary on the current data available to inform construction of a UK TSA. The section draws on the findings from the DCMS Tourism Statistics Improvement Initiative, and the Allsopp Review of Economic Statistics. Key data sources are reviewed in a structured format as follows:
- Statistical data source,
 - Timeliness and description of scope,
 - Compilation method and sample sizes,
 - Use within TSA construction,
 - Limitations of data source and comparison with the 'ideal'; potential for improvement, and research practicalities.
- 1.4.5 The data review also summarises the main data gaps in the UK context, and draws up a list of critical priorities which informs the strategic recommendations for the next steps.
- 1.4.6 The sixth section of the report draws together the findings from sections 2-5, and describes the methodology and assumptions that are used to construct the pilot UK TSA. This section is supported by technical appendices. The section outlines the TSA tables that can be constructed, and then shows how the supply and demand side of the tourism sector in the UK can be brought together in an experimental account¹.
- 1.4.7 The seventh section of the report reveals the main findings of the pilot TSA construction process. Section eight concludes with recommendations for future TSA construction in the UK, and reviews the issues that must be considered in conjunction with the *Review of Tourism Statistics*.

¹ The First Steps work undertaken here falls within the WTO nomenclature of 'experimental accounts'.

2 THE ANATOMY OF THE TOURISM SATELLITE ACCOUNT

2.1 THE ECONOMIC MEASUREMENT OF TOURISTS' ACTIVITY IN THE UK

“Tourism comprises the activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes”

- 2.1.1 The economic consequences of the activity of visitors to a particular nation or region has never been easy to measure. This is because tourists (or any other visitors) require a wide range of goods and services during their visit. It is extremely difficult to trace the expenditure of tourists in a rigorous and thorough manner. A visitor will demand products obviously associated with ‘tourism’ including accommodation and travel services and also will demand other services, whether purchased directly or not. For example, a newspaper bought by a visitor is part of tourism ‘impact’, as is a portion of the heating and lighting supplied to hotels through electricity distribution networks.
- 2.1.2 Further complicating matters, some of the goods demanded are sourced from within the region and some are imported from outside. This distinction has important consequences for the level of economic activity that tourism sustains within an economy. Due to these difficulties, a number of proxies for tourist-related economic activity have historically been used by responsible agencies. These can be broadly categorised as *expenditure based* estimates and *employment based* estimates².
- 2.1.3 **Expenditure based estimates** have reported the importance of tourism as equating to the gross tourism receipts within the given region over a given year. Whilst this may be a reasonable measure of tourism turnover or ‘output’ for an economy, it is a less useful way of thinking about the economic importance of tourism in, for example, supporting incomes and jobs. Gross receipts can overestimate resultant activity for two key reasons.
- 2.1.4 Firstly, some of the monies spent within a region will be used to purchase goods manufactured outside the region. Secondly, a portion of gross expenditure is taken in taxes by government and cannot be considered a direct economic injection to the economy, although the resultant disbursement by government may of course comprise an eventual benefit.

² Tourism activity has also been subject to economic impact modelling on numerous occasions, but these ‘multiplier’ analyses do not avert the many data difficulties and introduce a whole new set of conceptual issues which are not related to a ‘simple’ account of activity and thus are not discussed here.

- 2.1.5 Thus, in the most extreme example, take the tourist visiting the UK who purchases £10 of petrol. Around £7.50 of the purchase will go to the UK government in tax, £2.00 to the oil and refining industries (wherever based) and only the distribution margin of around 50p will be a direct and definite addition to economic activity within the region of purchase. Whilst this is an extreme example, similar 'leakages' will be present to a lesser extent as tourists make various purchases during their visits.
- 2.1.6 The over-estimates of 'economic importance' inherent in a crude tally of expenditures or receipts have often been compounded when agencies have attempted to contextualise tourism within the wider economy. It has been common practice to divide gross tourism receipts (a rough measure of turnover) by the Gross Value Added of the reference economy to obtain a measure of 'tourism dependence'. This alone is likely to overstate true tourism dependence (in value added terms) by at least a factor of two for most economies.
- 2.1.7 **Employment based estimates** of tourism significance have continued in parallel with expenditure measures for an extended period. Here, a sector or industry view of tourism is taken. Employment in 'tourist related' activities such as accommodation, attractions and travel services is summed to estimate how much employment is tourist-dependent.
- 2.1.8 Such approaches raise their own set of issues and difficulties. As noted earlier, tourism is not an industry-specific activity. It demands goods and services from across the economy. Thus, employment-based approaches usually fail to count that portion of employment in 'non-tourist related' sectors which is nevertheless tourist dependent (retail is a good example).
- 2.1.9 Conversely, a tally of employment in tourism industries or occupations ignores the fact that not all such employees will rely upon tourism for employment. For example a portion of accommodation services are purchased by local residents (for example locals drinking in a licensed bar, wedding functions etc.) and this portion should properly be discounted from employment totals. In practice, this discounting is extremely difficult.
- 2.1.10 Added to the conceptual issues above, employment-based measures of tourism encounter great practical difficulties. Definitions of the industries or occupations which are 'tourist related' vary greatly across time, and between studies and geographies. Meanwhile, established employment surveys are rarely suited to accurately measure employment in sectors where part-time and seasonal working is common, or to assess levels of owner-management and self-employment. Underestimations of employment in tourism may also result from failure to account for hidden or informal workers, whose outputs are, however, notionally included in the national accounting systems.

2.1.11 In summary, expenditure-based measures of tourism seek to enumerate ‘tourism demand’. Employment based approaches can be thought of as a flawed approximation for ‘tourism supply’ of goods and services. Neither, alone provides an adequate representation of the variety and scale of tourism impacts upon an economy. A Tourism Satellite Account, properly constructed, seeks to marry tourism supply and demand within a consistent and balanced framework, using the same definitions and approaches as those agreed for the measurement of any other economic activity.

2.2 THE TSA CONCEPTUAL FRAMEWORK

2.2.1 The Tourism Satellite Account is intended to measure economic activity consequent on tourism in a way which enables comparison with other economic activities taking place in the same region or nation. Hence, tourism must be contextualised and visible within the accounting frameworks of the area in question, as indeed will be other industries.

2.2.2 The solution is therefore to add complexity to existing systems of national accounts³ (called SNAs) in order to reveal tourism activity more fully. This can be done in a number of ways. Crucially, in order to amend the SNA some preliminary work must usually be undertaken, for example, estimating the scale of tourism demand and supply.

2.2.3 There are a number of advantages to placing a measurement of tourism within national frameworks, additional to the ability to compare tourism with other economic activity.

- The measurement of tourist related economic activity is greatly enhanced;
- Dual use of statistical methodologies and data brings cost savings and improved understanding;
- The methodology of TSA derivation can be referenced within the wider and longstanding methodology associated with national accounting;
- Some international/inter-regional comparability may be possible.

2.2.4 The process of adding complexity to national accounts has been characterised as the creation of a ‘satellite’ to the SNA (hence TSA). It leads to the development of the set of tables which comprise the TSA. The full set of ten tables include inbound and outbound tourism consumption, tourism dependent employment, tourism capital expenditure, and common (public sector) expenditure on tourism (e.g. through direct purchases or grants etc.).

³ The term national accounts is used here but the application and process would be similar for a region with a set of regional accounts.

2.2.5 Crucial to the national accounting process is the reconciliation of the total *supply* of products and services (either through domestic production or imports) with total consumption *demand*. This reconciliation is crucial in both national accounts generally, and the TSA. It ensures there is no double counting of activity, and headline indicators, such as value added and employment (if derived) are then comparable with other industries.

2.3 THE TSA TABLES IN DETAIL

2.3.1 As noted above, a full TSA as currently agreed by WTO, EUROSTAT and OECD comprises ten tables. No country yet has fully estimated all ten tables and the detailed structure of several tables are not finalised. For example, discussions continue within and between these agencies regarding both the concept of common consumption of tourism goods, and of tourism capital investment.

2.3.2 There are, nevertheless, clear guidelines on which tables might reasonably be estimated, and upon the most appropriate priority for this process. Furthermore, EUROSTAT has produced a manual for the implementation of a TSA which explains in some detail how a TSA might be estimated within accounting structures which are compliant with the European System of National Accounts (ESA95) (EUROSTAT, 2003a). Figure 2.1 shows the agreed structure of the full TSA. Each of the agencies involved agree that a gradualist approach is appropriate. Some tables are easier to estimate than others, and it is usual that a TSA is published incrementally as data and estimation methods allow. Elements of each table may also be subject to revision as data improves or estimation methods are revised and refined.

Figure 2.1 – Tourism Satellite Account – The Constituent Tables

Table	Coverage	Notes
1	Inbound tourism expenditure	Part of aggregate demand; i.e. an export
2	Domestic tourism expenditure	Part of domestic total consumption. i.e. Not an export
3	Outbound tourism expenditure	Not generally linked to other TSA tables so is often not estimated. Comprises imports of services
4	Domestic 'tourism final consumption'	Synthesised from Tables 1 & 2
5	Production of tourism commodities	For example the services and products of 'tourist related' industries but also of non-tourist related industries
6	Domestic supply & consumption by product	A reconciliation of Tables 4 & 5. The <u>heart</u> of the TSA
7	Employment & labour use	Structure not yet fully agreed
8	Tourism Fixed capital formation (investment)	Not currently reported
9	Tourism Collective Consumption	Not currently reported
10	Non-monetary Indicators	e.g. tourism volumes/nights; types of tourist etc. Structure can reflect most useful indicators

2.3.3 In many cases countries have found it difficult to reliably estimate TSA Table 6, the reconciliation of supply and demand. Hence, headline figures for tourism activity, including gross value added due to tourism, cannot be derived. As an interim step WTO suggest the estimation of those tables which are easiest. A country will usually have good information on inbound tourism expenditure as this is necessary to estimate the balance of payments. Additionally, other elements of tourism consumption may be estimated. It will often be necessary to adapt existing information to make it 'fit' the TSA structure and, unless data sources are of particularly high quality, this process may also involve an element of imputation and educated guesswork until data sources can be improved or restructured.

2.4 PRACTICAL ISSUES IN THE CONSTRUCTION OF A TSA

2.4.1 There are substantial problems inherent in moving from an existing set of tourism statistics to an SNA-integrated account. Whilst some of these are conceptual and methodological in nature, the most difficult issues tend to be those related to the availability and reliability of data, usually tourism data. The construction of a fully-fledged TSA requires;

- information on the nature of tourists' expenditure by individual commodities;
- information on how the economy supplies the commodities that tourists buy, for example whether through imports or local production;
- the ability to place the above information consistently within an accounting framework such that demand can properly be equated to supply for every commodity which is of interest.

2.4.2 Different countries will have different statistical priorities; thus one country may have very good information on tourists' spending, but less good information on how the economy in general operates. Alternatively, there may not be a well developed and thorough system of national accounts within which to place the available data.

2.4.3 In the UK it is the case that whilst information on the economy in general is very good, and whilst national accounting systems are also of high quality, tourism data is of lower quality and its collection and analysis has been under-resourced over a number of years (see Chapter 4).

2.4.4 Consequently in the UK, the construction of a TSA will involve a number of distinct steps, each with its own challenges. For example, for policy and statistical purposes, it might be desirable to distinguish inbound (international) tourists, domestic (overnight) tourists and day visitors. Each of these groups will demand a distinct set of commodities and their expenditure levels per capita and per day will be markedly different. Moreover, different agencies might be interested in the spending patterns of different groups. A common result is that the information on expenditure by these groups will typically be sourced from different surveys, using different methodologies, with different levels of reliability and aimed at different user groups.

- 2.4.5 The expenditure of tourists may also be reported for only a small number of different commodities, whereas a TSA might report on 15-20 ‘tourism specific products’. There will therefore be a stage of analysis where information is collated from a variety of sources to support the further disaggregation of tourist expenditure data into specific commodities. Once this has been achieved, the data can be amended to reflect the treatment of expenditure in national accounts.
- 2.4.6 A linked analysis must be made on the supply (or production) side of the ‘tourist economy’. Whilst there may be fairly good information regarding how the economy supplies the goods consumers purchase, care must be taken that the supply of tourist-related products is estimated reasonably. For example, tourists may buy different types of product from different outlets than the ‘average’ consumer. This may have implications for key variables such as value added and the level of imports that are linked to tourists’ consumption. Moreover, the existing product structure of the national accounts may not be adequate and a decision must be made on whether and how to separate distinct tourism products from within broad industry groups⁴. Such decisions will likely depend upon the level of information which exists to support such disaggregations, and the perceived policy benefits of the more refined data.
- 2.4.7 The above implies that, for most countries a two pronged approach to the derivation of a tourism satellite account is appropriate. The first strand of a project might construct an ‘experimental’ TSA. This would use existing data sources and require some estimation to derive an experimental account. At this stage, use would be made of existing product (and industry) definitions. This initial ‘account’ might provide some information regarding the importance and nature of tourism within an economic area, but might be subject to error from a variety of sources, be these data-related, structural or conceptual.
- 2.4.8 The second strand of the TSA project should seek to improve the reliability of the account in the longer term. Areas to be addressed might include
- Improvements in the reliability, timeliness, scope and disaggregation of tourists’ expenditure data;
 - Similar improvements in the quality and disaggregation of data regarding the supply of tourism-specific products;
 - Construction and design of primary surveys that reflects national accounting methodologies and processes to make integration more efficient;
 - Involvement of qualified national statisticians in the estimation and data validation process.
- 2.4.9 It is evident that substantial improvements cannot be achieved without, firstly, more resources being allocated to the collection of tourism data and secondly, the involvement of a variety of stakeholders (both public and private). The World Tourism Organisation has attached importance of the development of a suitable ‘inter-institutional platform’ to carry forward the development of the TSA.

⁴ Not forgetting this has implications for the estimation of tourism demand which must be reported in terms of the same commodities.

2.4.10 Without the development of this inter-institutional approach any experimental TSA developed in the short term will be of limited use. It will lack stakeholder ‘buy in’ and may be regarded with scepticism by potential users. A TSA programme which is purely statistical in nature and cannot influence its statistical and institutional context will likely be effort and opportunity wasted.

2.5 THE SCOPE AND LIMITATIONS OF THE TSA APPROACH

2.5.1 It is important to realise that even a fully estimated Tourism Satellite Account will not service all tourism policy data needs. There are a number of areas and issues which mean that alternative or complementary resources must also be used or developed in support of tourism policy. A number of these are summarised below.

2.5.2 **Cost and Timeliness** – Full TSAs are relatively expensive to construct and require a high level of involvement by stakeholders to maintain accuracy over time. This means that they are unlikely to be fully updated every year, but rather be on a rolling basis as resources and data allow. This means that even in a highly developed TSA, any given cell might be several years out of date. There is also a definite limit to how recent the ‘reference year’ can be, this being linked to the timeliness of the national accounts themselves. For example, in late 2003 the Office for National Statistics released national accounts data relating to 2002, and many government surveys and statistics have much longer lead times. This means that the TSA will never completely reflect the ‘current’ context, and complementary indicators must be developed to give more timely insights into tourist-related economic activity.

2.5.3 **Geographic Coverage** – A full TSA which adheres to WTO and EUROSTAT definitions can only be constructed for areas which have a set of economic accounts preferably supported by Input-Output tables. This, together with cost issues means that full TSA development is (for the foreseeable future) likely to be limited to nation states and those constituent regions which have well developed regional accounts. The contribution of TSAs to the analysis of the effects of tourism activity at very local levels is likely to be very limited, and here alternative arrangements must be made. A TSA which covers a greater geographic area may of course be used as a check on the reliability of more local analyses.

2.5.4 **A Top Down Approach** – The link to national accounts makes the TSA essentially a ‘top down’ approach. This is to say that the process is driven by macro, economy-wide variables, and these variables are used to constrain the account. It can be difficult to incorporate micro data referring to very specific geographies, or very particular activities, into a TSA (although the construction process should seek to use all available and appropriate information). Where suitable ‘bottom up’ approaches exist, data may be far richer than that reported in the TSA even if it cannot be incorporated into the account.

2.5.5 **Tourism Impact Analysis** – The development of a TSA and the consequent improvement in the understanding of the tourism economy improves the data upon which tourism forecasts are made. However, the TSA is not a modelling tool. Economic modelling involves a number of assumptions regarding the impact of *changes* in activity, which are not needed when developing a tourism satellite account.

3 TOURISM SATELLITE ACCOUNTS: THE STATE OF THE ART

3.1 THE HISTORY AND DEVELOPMENT OF THE TSA AS A STATISTICAL TOOL

- 3.1.1 As early as 1983 the WTO emphasised the importance of contextualising the economic consequences of tourism within established systems of national accounts (WTO, 1983). Subsequently, the Organisation for Economic Cooperation and Development (OECD) took up the baton, examining distinct technical issues relating to supply and demand in its *Manual on Tourism Economic Accounts* (OECD, 1991).
- 3.1.2 Throughout the 1980s, pioneering work was undertaken by Statistics Canada, who investigated the practical application of satellite accounting techniques to tourism. The culmination of these efforts was the WTO International Conference on Tourism and Travel Statistics in Ottawa in 1991. Following the Ottawa conference, and with many definitional and conceptual issues resolved (although by no means all), an increasing number of countries have moved towards the development of TSAs.
- 3.1.3 In 1994 the United Nations and WTO published *Recommendations on Tourism Statistics*, subsequently superseded for TSA purposes by the *Tourism Satellite Account: Recommended Methodological Framework* of 2001 (EUROSTAT et al 2001). This latter document was agreed not only by the UN and WTO but also OECD and EUROSTAT, the statistical directorate of the European Union. EUROSTAT has subsequently published an *Tourism Satellite Account Implementation Manual*, invaluable helping statisticians with the detail of compiling a TSA within ESA95 compliant national accounting systems (EUROSTAT, 2003a)⁵.
- 3.1.4 In parallel, the (private sector) World Travel and Tourism Council (WTTC) has championed the economic evaluation of tourism. They too have recognised satellite accounting as the most suitable approach (albeit called ‘travel and tourism satellite accounting’). The WTTC has suggested that a synthetic, or modelled approach may be appropriate as a ‘first stage’ for those countries wishing to construct a TSA but which are not able to do so, for reasons of lack of resource expertise or suitable data.

⁵ Henceforth ‘WTO compliant’ will refer to TSA developments which aim to be compliant under the WTO, UN, EUROSTAT and OECD agreed Recommended Methodological Framework (RMF) and other relevant documents. Additionally, references to the RMF can be taken to refer also to the EUROSTAT Implementation Manual which is equally as important for the technician looking to develop a TSA.

3.1.5 In summary, then, the 1990s and early 21st Century have seen all relevant international organisations agree on the TSA as the most appropriate method of measuring the economic value of tourism. This developing consensus has, firstly, encouraged an increase in the number of countries attempting to construct a TSA specified to international standards, and secondly, justified the faith of those countries which invested substantial time and effort in TSA development before any such consensus was apparent – and by so doing influenced the course of TSA development across the world.

3.2 TOURISM SATELLITE ACCOUNTS: THE CANADIAN PIONEERS

3.2.1 Much work has been undertaken by the relevant agencies in agreeing objectives and definitions between countries. Additionally, the work undertaken by Canada through the 1980s and 1990s has been instrumental in cementing the position of the TSA as the primary tool for the economic measurement of tourism. It is likely that without the demonstration of practical application provided by Statistics Canada and the Canadian Tourism Commission, TSA development worldwide would be far less advanced.

3.2.2 In 1984, the Canadian National Task Force on Tourism Data took up the French idea of ‘satellite accounting’. By 1989 the Task Force recommended that Canada develop a TSA, and 1994 saw the release of the first Canadian TSA, publishing data for 1988. For the first time, definitive estimates could be made for important economic variables. For example, the initial TSA results for Canada revealed information on;

- The full inter-related economic structure of Canadian tourism activity;
- Tourism contribution to value added (which was greater than expected);
- The portion of employment dependent upon tourism, even greater than for value added;
- The importance of tourism as an export driver;
- The importance of domestic tourism, comprising 80% of all tourism consumption.

3.2.3 Additional to the above, policy relevant information was also revealed by the TSA, which suggested, for example, that innovative marketing alliances could spur tourism competitiveness. Figure 3.1 provides some indicative results from the Canadian TSA for 1988. From the initial TSA results, policymakers could also judge the level of taxes dependent upon tourism activity, and discern other features. For example, Canada was revealed as having a ‘negative balance of tourism trade’, with outbound tourism constituting a greater leakage than monies generated from incoming tourists.

3.2.4 Moreover, the TSA confirmed anecdotal evidence that tourism employment was ‘low value added’ with productivity significantly lower than for ‘non-tourism’ sectors. However, even here the TSA showed additional detail, for example that productivity in the tourism-related transport services was actually above the economy average. This additional information regarding the position of tourism in Canada was instrumental in a change of government policy; just two months after the release of the TSA, tourism was identified as a key strategic industry (Meis, 1999).

Figure 3.1 – Tourism Satellite Account for Canada, 1988

Variable	
Tourism Consumption – Final Demand	\$22.7bn
Tourism Consumption – Intermediate (business tourism etc.)	\$7.6bn
Total Tourism Consumption	\$30.3bn
Tourism Value Added (% of total value added)	\$13.3bn (2.5%)
Tourism Exports (% of total exports)	\$6.5bn (4%)
Tourism Employment (% of total employment)	467,000 (5%)
Tourism Balance of Trade	-\$3.9bn

Source: Meis (1999)

3.2.5 The immediate availability of rich detail regarding the Canadian ‘tourism economy’ (albeit from six years previous) encouraged Statistics Canada and its partners to continue investment into the TSA process. Extensions have included the development of the National Tourism Indicators, providing quarterly and annual data on 300 variables linked to the TSA, and development of a tourism impact model (see 3.5.4. and 3.5.5.). The update of the national TSA information to a 1996 reference year was followed by the development, in 2002, of TSAs covering the provinces and territories of Canada, and this has latterly been updated to 1998 (Barber-Dueck and Kotsovos, 2003). Canada therefore remains at the forefront of TSA development, having published fully integrated sub-national tourism accounts⁶.

3.3 TOURISM SATELLITE ACCOUNTS – THE GLOBAL PICTURE

3.3.1 The efficacy of the TSA in enumerating the economic importance of tourism has been accepted by WTO and non-WTO members alike. For example, the USA has adopted an approach which is largely OECD and WTO consistent in its Travel and Tourism Satellite Account, with results available for 1992 and 1996/7.

3.3.2 Other countries which have developed and published TSAs include Norway, Australia, New Zealand, Chile, Switzerland and Mexico. These have varying levels of detail and reliability, and in each case development of the TSA is seen as a process rather than a ‘one off event’.

⁶ There, are however, numerous instances of pilot and experimental works at smaller spatial scales.

- 3.3.3 The increasing level of conceptual agreement between international authorities does not mean that published TSAs are necessarily comparable between nations on a consistent basis. The level of data available across countries in support of TSA development varies markedly, and some differences continue with regard to definitional and conceptual issues (for example over the boundaries of ‘tourism consumption’). Efforts by international agencies to keep TSAs as consistent as possible will necessarily continue as the accounts grow more complex and complete, for example with the inclusion of consumer durables or tourism-related investment.
- 3.3.4 Despite the above, there is, in practice, a high level of interaction between agencies and individuals charged with the development of TSAs. Thus, for example, the New Zealand TSA references developments in Norway and Australia, and shares much of its classification structure with the latter. There is therefore an iterative process, whereby updates of a country’s TSA tend toward the WTO-EUROSTAT accepted ‘norm’. This is evident, for example again in New Zealand where advice was sought from WTO on the treatment of overseas students, with the latest version of the TSA suitably amended following that advice (Statistics New Zealand, 2004).
- 3.3.5 As noted earlier the WTTC produces synthesised TSAs, covering 160 countries. Its coverage goes beyond the WTO Recommended Methodological Framework, including collective (government) expenditure, public investment and multi-purpose consumer durables. Thus, results from WTTC accounts are not directly comparable with national accounts for the same country⁷. More information is available on the WTTC project at www.wttc.org.

3.4 THE TSA IN THE EUROPEAN UNION

- 3.4.1 The adoption by EUROSTAT of the TSA as a preferred methodology, and its harmonisation with OECD and WTO standards in 2000, has provided a spur and a resource for European countries wishing to develop an account. Moreover, the implementation of the *European System of National Accounts (1995)* has meant that the comparability of any developed TSAs should be relatively high.
- 3.4.2 A small number of EU member states have published Tourism Satellite Accounts, notably Sweden, France, Spain and Austria. There is some variance between the structure, coverage and presentation of the accounts (as might be expected with ‘early adopters’).

⁷ See for example, Laimer and Smeral (2001)

- 3.4.3 A number of other countries are in the process of developing accounts. Feasibility studies have been funded for Belgium, Germany, Italy and Netherlands the European Union DG Enterprise in the 2002 round of grants. For 2003, nine projects have been awarded, including that for the UK and Ireland, three of which relate to accession countries⁸.
- 3.4.4 To date, with the exceptions mentioned above, EU countries have not been to the fore in the development of TSAs. This is expected to change following the strong guidance given by EUROSTAT in its collaboration with WTO on the usefulness of results arising from accounts already under development and considering the usefulness to the TSA project of the already standardised systems of national accounts between EU countries.

Figure 3.2 Summary of TSA development in Europe 2002-03	
State	TSA development
Austria	TSA available for 1999, with some information updated to 2000 and 2001.
Norway	Well developed TSA framework for intervals between 1988 and 1997. Good progress towards regional framework and modelling tools.
Switzerland	TSA pilot study completed for 1998, and published in 2003.
UK	No national TSA framework, but several UK regions have pilot TSAs, or have attempted to develop tourism industry vectors in Input-Output tables. National framework now in development with EU (DG Enterprise) support.
Finland	Began process on constructing pilot TSA accounts in 2002/3.
Spain	TSA implementation projects under way in 2002-03.
France	TSA implementation projects under way in 2002-03.
Italy	Feasibility study under way to develop TSA with EU grant support (DG Enterprise) provided in 2002 to assist Istituto Nazionale di Statistica with project.
Belgium	Feasibility study under way to implement TSA with EU grant support provided in 2002 to Toerisme Vlaanderen.
Netherlands	Feasibility study under way to implement TSA with EU grant support provided in 2002 to Central Bureau voor de Statistiek.
Sweden	TSA fully implemented.

⁸ <http://europa.eu.int/comm/enterprise/funding/grants/index.htm>

3.5 HOW ARE TSAS BEING USED?

- 3.5.1 The preceding sections have shown that TSAs are being developed in a large number of countries albeit with only a dozen or so states succeeding in moving towards full sets of accounts. Clearly the use to which TSAs are put is partly a function of the stage of TSA development reached. Moreover, the pattern of revealed use also links closely to the nature of the underlying TSA institutional platform. The WTO recommends that this co-operative ‘platform’ includes tourism-relevant government institutions, the central bank, the private sector, national accountants, and that such an overarching group is chaired by an individual at ministerial level (i.e. the Minister of Tourism, (WTO, 2003)). The more inclusive the developmental platform, the more likely it is that the TSA is incorporated into the thinking of government and tourism industry decisions makers.
- 3.5.2 The vast majority of publications that discuss the methodology and development of TSAs, and that report core results, do not tend to highlight precisely how such accounts have been used to inform debate and influence policy. Whilst the integration of tourism activity alongside a system of national accounts is an interesting statistical exercise, the development of the satellite should have practical implications, for example, by being connected to a series of timely industry monitoring indicators.
- 3.5.3 The overall impression from the reviewed statistical sources and associated commentary is that the predominant role of the TSA has been in terms of pure advocacy i.e. showing the economic significance of the industry at a moment in time, and whether the industry should be considered key for developmental purposes. Clearly, a satellite account is not a complete basis on which to decide whether an industry is key or not for economic development purposes with dangers in using ex-post accounting information for ex-ante analysis.

- 3.5.4 Canada is a good example of where TSAs have been a starting point for more complex policy-relevant analysis⁹. In the Canadian case the prime objective underlying development was to demonstrate the 'legitimate, visible and significant standing of tourism in the Canadian national economy'. As noted earlier in the Canadian case, a short term result of the publication of the 1994 TSA was that it provided evidence that tourism should be considered a key industry sector (with ramifications for the flow of government funds to the sector), and influenced the creation of a new tourism institutional framework (i.e. the Canadian Tourism Commission). However, the developed framework in Canada has also allowed the later development of a national and regional tourism indicator series. Policymakers in Canada required timely indicators of the development of different tourism sectors because full TSAs are only available at infrequent intervals.
- 3.5.5 The Canadian TSA has also provided a foundation for a Tourism Economic Impact Model, which can be used, for example, to examine the effects of changes in patterns of tourism consumption, and changes in the marketing mix (i.e. effects of more intense promotion to different national visitors). Moreover, the Canadian TSA has been linked to the future development of benchmarking tools, and micro-economic tourism indicators allowing private sector operators to compare their performance with industry norms in terms of productivity, growth, and earnings. The development of such micro-economic tools also links through to a risk-assessment tool for both the public and private sector (Meis, 1999).
- 3.5.6 As noted above, Canada has recently published tourism satellite accounts for its provinces (Statistics Canada, 2002). Few other states have progressed beyond the national TSA, although in Norway regional satellite accounts have been estimated, together with methods for regionalising satellite accounts for tourism¹⁰.
- 3.5.7 Geographically focused TSAs have a clear value, with tourism commodities, visitor spending patterns etc. varying spatially, and with regional and national governments and agencies requiring specific information to tailor policy and resource flows.
- 3.5.8 Developments in Wales are a good example¹¹. A partial TSA for Wales has been developed for the Wales Tourist Board for 1996, and is currently being updated to 2000. The Welsh TSA has been used in a number of ways by public and private sector users:
- To highlight the significance of tourism value added in Wales and how it is distributed between profits, wages and other categories with industry concern about the amount of value-added that is retained in the region.
 - To demonstrate the nature of tourism employment in Wales, and how effective growth of tourism might be in reducing unemployment and increasing activity rates.

⁹ See e.g. Meis (1999).

¹⁰ See for example, Braendevag, Dybedal, Johansen and Sorenen (2001).

¹¹ A full account of the method, and development of the Welsh TSA project can be found in Jones, Munday and Roberts (2003).

- 3.5.9 In Wales an important way in which the TSA has been developed is through modelling frameworks to examine the estimated regional effects of tourism and sporting events. For example, the TSA framework has informed analysis of the economic impacts of the Rugby World Cup 1999, the Brecon Jazz Festival, the WRC Rally of GB, and the development of the Blaenavon World Heritage site (Jones and Munday, 2004).
- 3.5.10 The underlying message from the above is that the development of a TSA should be seen as part of a wider process in providing useful policy-relevant tourism sector information for the public and private sectors. The static TSA has a role in advocacy, marketing, informing new policy on investment, education and training. However, the static account is merely the basis for other relevant development including timely tourism sector indicators, a framework for national and sub-national modelling, and micro-level benchmarking.

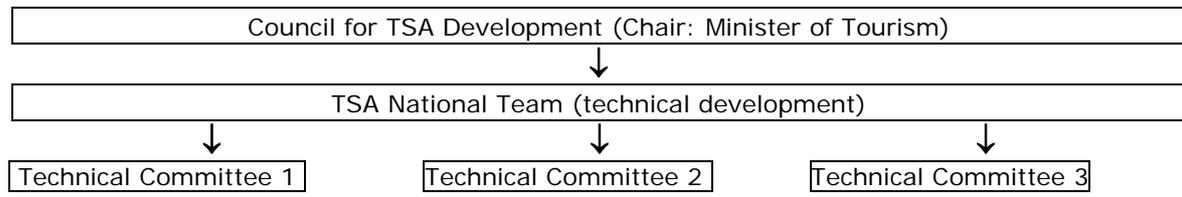
3.6 INTER-INSTITUTIONAL PLATFORM

- 3.6.1 The WTO in its review of the elaboration of a TSA sets much store on the nature of the inter-institutional platform that underpins both pilot construction and then more complex analysis¹². There are good reasons for this with the nature of the inter-institutional platform having ramifications for the technological expertise required to develop the TSA, the setting of TSA priorities, and the provision of the necessary quantitative and qualitative data to inform the construction process. The WTO recommend that at the very least this platform should include individuals from:
- Private and public sector bodies that provide general and specific statistics, and other tourism information. In the UK this might then include the ONS, the DCMS, VisitBritain and industry bodies.
 - Key expected users of information including government and regional policymakers, the academic community, and tourism operators and groups.
- 3.6.2 It is recognised that it is difficult to be dogmatic about the structure and role of the institutional developmental platform. The evolution of the platform will be dependent on factors such as extant institutional relationships, the nature of existing tourism statistics, the history of inter-institution co-operation, and the specific state political and cultural background.
- 3.6.3 A possible template for co-operation is suggested by the WTO whereby there is first a Council for TSA Development chaired by a Minister of Tourism (or equivalent). The Council might be composed of the heads of key institutions involved (i.e. perhaps representatives from national accountants, central bank, main tourism industries, key ministries), and would have a role in policy setting, developing a research plan, statistical validation and ensuring institutional commitment.

¹² See WTO, 2003.

3.6.4 Sitting 'below' the Council would be a TSA National team comprising senior technical staff from the main institutional partners. The National team would have roles including defining the process for TSA implementation, providing technical advice, and reviewing the work undertaken by various technical committees involved in statistical compilation.

Figure 3.3 Potential Institutional Platform



3.6.5 The WTO stress the importance of the private sector in terms of providers and users of key information, and as a conduit for further public-private sector co-operations. The boxed sections below summarise the different platforms of development that have been adopted.

Canada: Key Factors

- During 1980s Canadian National Task Force on Tourism Data (made up of key government stakeholders, industry representatives, academic institutions etc) – developing mechanisms to ensure provision of information to enhance strategic planning, management and profits of the tourism industry.
- Task Force recommends Statistics Canada develop TSA, first accounts developed for 1994.
- Partnership between stakeholders a key element of successful development and application of Canadian TSA. Strong relationships between Statistics Canada departments, between Statistics Canada and industry users, and Canadian Tourism Commission.
- Canadian Tourism Commission national marketing agency made up of government and business representatives. Strong leader for Canadian TSA project, client user committee and source of development funds.
- Partners recognise their inter-dependence and importance of the developed TSA.

Austria: Key Factors¹³

- Development of TSA a joint project by Statistics Austria and the Austrian Institute of Economic Research.
- Statistics Austria develops basic conceptual and statistical work and data validation.
- Austrian Institute for Economic Research responsibility for economics of the TSA, and developing extensions and forecasting methods.
- Project supported by National Accounts Department at Statistics Austria, Austrian Central Bank, Austrian National Tourist Board, Tourism section of Austrian Chamber of Commerce, and Institute for Tourism and Leisure (higher education sector).

¹³ Laimer and Smeral, 2001

Norway Key Factors (Regional and National TSAs)¹⁴

- Good extant set of national Input-Output tables, and regional tables.
 - Norwegian TSA integrated with national accounts supply and use tables and produced by Statistics Norway (TSA 1988-99, The Importance of Tourism for the overall Norwegian economy, Oslo, 2000).
 - Norwegian Research Council (public body financing research) initiates new programme on travel and tourism in late 1990s, to develop tourism data, and modelling tools.
 - Norwegian Institute for Urban and Regional Research, Statistics Norway, and Institute for Transport Economics applied for funding to develop regional TSA, to develop data to construct regional TSA, and develop modelling techniques.
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Kenya Key Factors¹⁵

- TSA Policy Committee (Council) and TSA Technical Committee
 - Policy Committee includes Secretary, Ministry of Tourism; Director of Tourism, Director Central Bureau of Statistics, Director of Kenya Tourist Board, Central Bank of Kenya, Principal Immigration Officers etc.
 - Technical Committee includes TSA co-ordinator, Head of Planning at Ministry of Tourism, and then technical representation from organisations on the Policy Committee
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Iran Key Factors¹⁵

- Policy level:
 - Coordination and Policy Making Council includes Head of Statistical Centre or Iran, Head of Tourism and Touring Organisation (ITTO), Head of Bureau of Economic Accounts, DG Dept of Foreign Resident Affairs, DG of Economic Accounts Department.
 - Technical coordination level:
 - Committee for the study and compilation of TSA includes senior experts from Statistical Centre or Iran, national accounts division, and representatives of Tourism and Touring Organisation and the Iran central bank.
 - Operating level (Tourism statistics groups):
 - Representatives of the study and compilation committee; sectoral technicians from Statistical Centre of Iran, ITTO, and Economic Accounts department, and from tourism and recreation centres.
-

3.6.6 The form of institutional platform to develop a TSA differs markedly from state to state, with the above cases highlighting the institutional arrangements are partly a function of national development, and whether or not there is a sound framework of Input-Output tables already in existence (see Canada, Austria and Norway). However, there are common themes in the above including the involvement of the national statistics organisations at an early stage of development, and with universities and specialist institutions more often involved in the development of other applications including modelling economic impacts.

¹⁴ See Braedevag et al., 2001.

¹⁵ See WTO (2003).

4 THE TSA: TECHNICAL AND INSTITUTIONAL CHARACTERISTICS

4.1 INTRODUCTION

4.1.1 The preceding chapter has shown that there is a discernable trend with regard to TSA methodology and technical development. There are clear international guidelines on the actual construction of the TSA, which nevertheless provide for a measure of flexibility on the part of individual countries.

4.1.2 This section examines the actual development of TSAs in different countries and contexts. It will examine how far TSA construction adheres to WTO guidelines, what sorts of data sources are used, and how TSAs relate to their linked national accounting frameworks. Importantly, countries face different institutional structures and thus responsibility for TSA construction is not necessarily the same.

4.2 BASIC CONCEPTS OF THE TSA

4.2.1 The major success of the WTO programme in support of TSA development has been the agreement, in large part, over the basic conceptual issues relating to the economic measurement of tourism. Thus, perusal of the developed TSAs between different countries reveals a commonality of concepts and broad definitions. For example, crucial to a common understanding of the economics of tourism is agreement on the definition of the terms visitors, usual environment and visitor consumption (Figure 4.1). Also crucial are the methods by which direct linkages between visitors to an area, and producers within an area are traced.

Figure 4.1 – Central Concepts in the TSA

Concept	Description
Visitor	A person travelling to a place other than that of their <i>usual environment</i> for less than twelve months and whose main purpose of trip is not an activity remunerated within the place visited.
Usual Environment	The usual environment corresponds to the geographical boundaries within which an individual travels during the regular routine of life, both the direct vicinity of home and place of work or study, and other places frequently visited. The term has two dimensions: frequency – places which are frequently visited by a person (on a routine basis) are considered as part of her/his usual environment even though these places may be located at a considerable distance from her/his place of residence; distance – places located close to the place of residence of a person are also a part of her/his usual environment even if the actual spots are rarely visited.
Visitor Expenditure	Expenditure that is made by, or on behalf of, the visitor <u>before, during and after</u> a trip, that trip being outside the visitor's usual environment.

Source: Derived from WTO:RMT and UN TSA

- 4.2.2 Each of these apparently straightforward definitions of terms which might be commonly understood has raised a number of issues which have only recently been resolved. This includes a concept as understandable and important to the TSA as a **Visitor**. The definition of a visitor used in TSA developments is very broad. For example, many of those whose trips are in no way leisure-related fall within this category. Thus, within the TSA is included, additional to all 'leisure visitors', all economic activity consequent upon the expenditures of;
- Those visiting friends and relatives;
 - Foreign students resident in a country for less than one year;
 - Business travellers who are paid by companies outside the reference economy;
 - Those staying in a country for health treatment for less than one year;
 - Religious pilgrims.
- 4.2.3 This conceptual point has significant methodological consequences, with many visitor surveys only covering the expenditure of 'traditional' tourists, leaving significant data gaps which can be difficult to fill in the short term¹⁶.
- 4.2.4 Linked to the above is the concept of **Usual Environment**, which is more conceptually difficult, yet just as important for a consistent measure of tourism activity. Here, rather than be definitive, WTO have largely left the designation of usual environment to responsible national agencies. This is intended to reflect the differing geographies and habits of the reference country which make a 'one size fits all' definition difficult to apply. The intention here is to remove those expenditures which originate from the resident consumer base of the reference economy, and which can be thought of as 'routine'. This is an important distinction as many 'tourism characteristic' products may well derive a significant proportion of their turnover from 'resident' demand¹⁷.
- 4.2.5 The concept of 'outside the usual environment' is easy to understand for overnight visitors. It becomes more important for day visitors, who may well be classified as being on a tourism trip (and thus with expenditures included in the TSA) or a leisure trip (and thus within their usual environment and properly outside the TSA).
- 4.2.6 The classification of day visits which are 'touristic' in nature will likely depend upon such factors as the length of the trip from home (in time or distance), the frequency of visits to the destination, or the crossing of regional or administrative boundaries.
- 4.2.7 As can be imagined, there is wide scope for differing interpretations and treatment of day visits within TSA structures, and such issues are a major reason why TSAs are not always comparable across countries.

¹⁶ For an example of how such issues are resolved, see Statistics New Zealand (2004).

¹⁷ Consider the village hotel with a licensed bar and a trade in local wedding functions.

- 4.2.8 As can be seen from Figure 4.1, the TSA also takes a reasonably broad view on **Visitor Expenditure**, including all purchases within the reference economy which are made for the purpose of the trip whether this is before, during or after the trip in question. This itself raises a number of issues. For example, expenditure by businesses on behalf of employees who travel is properly part of TSA consumption¹⁸. More problematic is expenditure on durable goods which may have a lifespan greater than a single trip, or indeed be multi use (such as a mountain bike used on tourist trips and also during general leisure activities).
- 4.2.9 The conceptual, definitional and indeed measurement difficulties inherent in an estimate of ‘tourism related’ consumer expenditure on durable goods has meant that, hitherto, TSA developments have concentrated upon expenditure on ‘consumable’ goods. Discussions regarding the proper treatment of consumer durables continues.
- 4.2.10 TSAs report headline indicators not just for total tourists, but also for different types of tourists. There is a high degree of commonality regarding how the tourist economy should be divided between types of tourist (Figure 4.2). However, in different economies, different tourist types will be of primary importance in driving activity, and TSA structures may reflect these characteristics. For example, a country which is highly dependent upon international arrivals may sub-divide inbound tourism by country of origin, whilst giving less attention to domestic tourism or day visits.

Figure 4.2 – Types of Tourism

Type	Description
Inbound	The tourism of non resident visitors within the economic territory of the country of reference.
Domestic	The tourism of resident visitors within the economic territory of the country of reference in their non-usual environment, both as day visitors and overnight tourists.
Outbound	The tourism of resident visitors outside the economic territory of the country of reference.
Internal	The tourism of visitors, both resident and non resident, within the economic territory of the country of reference.
National	The tourism of resident visitors, within and outside the economic territory of the country of reference.

Source: Derived from WTO; www.world-tourism.org

¹⁸ The treatment of expenditures by businesses within the TSA is a complex issue and is fully dealt with in McNicoll (2004).

4.3 THE 'HEADLINE OUTPUTS' OF THE TOURISM SATELLITE ACCOUNT

- 4.3.1 Whilst the structure and presentation of Tourism Satellite Accounts vary between countries and over time, there is a high degree of commonality in the types of headline outputs and indicators which are used to indicate the size and importance of the tourism economy.
- 4.3.2 There is, in essence, a two-stage 'hierarchy' of tourism economic indicators which can be extracted from TSA development at different stages. Initial estimation of TSA Tables 1 through 4 will give the user a 'broad brush' estimation of the size of tourism activity based on tourism consumption, often by different types of tourist and by tourism characteristic products. However, this initial rendering does not enable a proper comparison with other industries within the reference economy or with tourism in other economies.
- 4.3.3 This is because an element of this consumption is attributable to sectors and activities which do not add value in the reference economy. This would include sales taxes payable by tourists, and that portion of supply to tourists which is imported into the economy before being sold. These 'leakages' (which vary from economy to economy) mean that measures of tourism consumption are not good measures of economic activity, and, consequently, of the income and employment which arises from tourism spending.
- 4.3.4 An interim stage on the road to a full suite of indicators is a measure of the value added of tourism industries (VATI). This estimate can be derived from TSA Table 5, and simply sums the value added of all those industries which are defined as 'tourism characteristic'. This is a very different measure of activity than those based on tourism consumption noted above, and has the benefit of relating to value added produced within the reference economy. However, the use of this measure brings manifold difficulties. As the "tourism character" of a particular output is not defined by its nature but by the purpose pursued by the consumer, there is a larger gap between the output of tourism industries (domestic supply) and internal tourism consumption (domestic demand) than for other 'functional activities' such as health or education. Moreover, the definition of 'tourism characteristic' industries varies between countries. For these reasons VATI, similarly to consumption based measures, should be considered only an interim measure of tourism activity.
- 4.3.5 There are several indicators relating to the tourism economy which are only available following a developed TSA (i.e. where Table 6, the reconciliation between demand and supply, has been fully estimated). Probably the single most important of these is tourism value added (TVA). This is defined by WTO as the value added generated by tourism industries and other industries of the economy in response to internal tourism consumption.

- 4.3.6 TVA includes the proportion of value added generated by all industries in the process of provision of goods and services to visitors or would be visitors, or to third parties for their benefit. It includes the tourism-dependent output of industries which are not traditionally thought of as tourism connected. Additionally, because value added consists in large part of compensation to labour, TVA can be disaggregated to show the impact of tourism upon workers’ incomes within the reference economy.
- 4.3.7 Despite its importance, TVA should not be thought of as a complete measure of ‘tourism economic impact’. For example, it does not include the indirect impacts of tourism along the industry supply chain, or impacts due to extra spending by households/workers involved in tourist-related activities. Additionally, value added is a measure of current activity and does not include tourism related capital investment or (typically) the expenditure on durable goods mentioned earlier. Figure 4.3 describes some of the outputs of the TSA process.

Figure 4.3 – Headline Outputs of the TSA Process

Output	TSA Table	Notes
Tourism Consumption	1-4	Interim measure. No direct link to economic activity within the reference region.
Value Added of Tourism Industries	5	Interim measure. Includes the output of tourism characteristic industries which is not due to tourism demand.
Tourism Value Added	6	A central output of TSA process. Enables comparison with other industries within reference economy.
Tourism Ratios	6	Ratio of supply which is due to tourism demand. Can refer to industries or products.
Tourism Direct Employment	7	The employment generated directly by the activity of tourism industries in response to visitor consumption. Problematic due to lack of employment statistics in many systems of national accounts.

Source: Derived in part from WTO; www.world-tourism.org

- 4.3.8 The estimation of Table 6 in the TSA structure also allows the derivation of tourism ratios. Tourism ratios indicate the extent to which an industry or product is dependent upon the demand of tourists, and can be defined in industry or product terms. A tourism product ratio represents the proportion of supply of that product which is purchased by tourists. A tourism industry ratio represents the proportion of that industry’s output consumed by tourists¹⁹.

¹⁹ Products and industries differ; for example the hotel industry sells restaurant products. This distinction is crucial in TSA Table 5.

4.3.9 Adding complexity, tourism ratios are often assumed to refer to the proportion of value added within an industry which is due to tourism. However, due to measurement and data difficulties, it is usually assumed that the ratio of industry output to value added does not change for tourist and non-tourist related demand.

4.3.10 The use of tourism ratios allows users to classify industries or products in a variety of ways as tourism characteristic, tourism-related etc. An example of how this is done by Statistics New Zealand is given in Figure 4.4. Whilst different countries may derive classifications slightly differently, the basic concepts are the same.

Figure 4.4 – Tourism Industry/Product Classifications : New Zealand

Classification	Description
<i>Tourism Characteristic Product</i>	A product that would cease to exist in meaningful quantity, or for which the level of consumption would be significantly reduced, in the absence of tourists. In the TSA a tourism characteristic product has a tourism product ratio greater than or equal to 0.25.
<i>Tourism Related Product</i>	A product for which tourists purchase greater than 0 and less than 25 percent of its production (i.e. a tourism-related product has a tourism product ratio that is greater than 0 and less than 0.25).
<i>Tourism Specific Product</i>	Either a tourism characteristic product or a tourism related product.
<i>Tourism Characteristic Industry</i>	An industry that meets the following criteria: <ul style="list-style-type: none"> • At least 25 percent of the industry's output is purchased by tourists (i.e. the tourism industry ratio is greater than or equal to 0.25); or • The industry's characteristic output includes a tourism characteristic product.
<i>Tourism Related Industry</i>	An industry where: <p>The industry is not a tourism characteristic industry and where;</p> <ul style="list-style-type: none"> • Between 5 percent and 25 percent of the industry's output is purchased by tourists (i.e. the tourism industry ratio is greater than 0.05 and less than 0.25); and • A direct physical contact occurs between the industry and the tourist buying its products (hence manufacturing and wholesaling industries are not tourism-related industries).

- 4.3.11 Tourism ratios are conceptually important as they enable policymakers to see which industries are most affected by changes in tourists' consumption. However there are limits to the information contained in such ratios. For example, whilst retail and wholesale are important industries in terms of tourists' expenditure, they would not be classed as tourism-related due to their extremely large size, and the same may well be true for many industries which might be thought of as important to tourism, such as transportation, should resident demand be very high. Additionally, tourism ratios do not trace indirect links to tourism demand. For example, purchases by tourists of food products may have a significant indirect impact upon agriculture but this is not necessarily obvious if intermediate processing sectors stand between the originator and final consumer.
- 4.3.12 The headline indicators discussed so far exclude one which is often given primary importance in public policy circles: employment. There are a number of reasons why employment variables, whilst incorporated into TSA Table 7, have often not been included in the first iteration of TSA development.
- 4.3.13 The first reason why employment has not been foremost in the outputs of many TSAs is that employment is not reported in most systems of national accounts. For example, in the UK Input-Output framework, part of industries' output is allocated to Compensation of Employees, but here there is no attempt to enumerate how many employees, full time equivalent or otherwise, are involved in producing industry output. Thus, there can be no link using these established SNA networks between tourism demand and employment. Substantial extra work must therefore be undertaken to create this link²⁰.
- 4.3.14 Additional to the above are difficulties with the nature of tourism-related employment itself. It is far more likely to be seasonal and/or part-time than for other types of employment, and in many tourism sub-sectors, owner-managers are an important source of labour, with the returns to this labour very poorly measured²¹. This means that the most suitable structure for Table 7 is open to some debate, even if suitable links to variables contained in systems of national accounts can be provided.
- 4.3.15 The WTO therefore present a suggestion for the structure of Table 7, but allow that it is provisional. This has not stopped certain countries (for example Canada and New Zealand) estimating the employment impacts of tourism within their TSA structure. In the Canadian case, the impact of tourism upon employment was proportionally greater than for output or value added, due to the labour-intensity of most tourism-dependent industries.

²⁰ There is additional complexity because the reward for the labour of company owners is reported as part of gross operating surplus, although this too implies a labour element.

²¹ See Jones, Munday and Roberts (2003).