Measurement and analysis of tourism economic contributions for sub-national regions through the Tourism Satellite Account

Central paper

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Summary: The World Tourism Organization (UNWTO) recognized the importance of standardizing measurement of the contributions of tourism to national economies more than 15 years ago. Its devotion to this task has borne fruit in the adoption of the methodological framework and supporting system of tourism statistics for the Tourism Satellite Account (TSA) by the United Nations Statistical Commission and other major multilateral organizations earlier this year. This is a considerable achievement.

Now that there is a recognized structure for national accounting of the economic contributions of tourism, it is fitting to address the need for sub-national or regional satellite accounts for tourism. This paper discusses the issues regarding such accounts, and recommends conventions for elaborating regional TSAs (R-TSAs), the appropriate outputs of such accounts, and steps to developing valid R-TSAs.

After acknowledging a number of obstacles to developing an R-TSA, the most notable being lack of a conceptual framework for regional economic accounts and a dearth of high-quality statistical information at the regional level in many countries, this paper identifies certain first principles for a valid national TSA and argues that these must be reflected in an R-TSA. Second, an R-TSA should duplicate the coverage characteristics and definitions of the TSA. Third, the R-TSA must produce at least 5 TSA tables and 3 of the TSA macroeconomic aggregates (Internal Tourism Consumption, Gross Value Added of the Tourism Industries, Tourism Gross Regional Product, and Employment in the Tourism Industries).

As a practical matter, one of three conditions will hold in a country where an R-TSA is to be elaborated: (1) there is a current, valid TSA, (2) there is an outdated TSA, or (3) a TSA has never been elaborated. The appropriate steps to developing an R-TSA under each of these conditions are presented, along with two options in a country with a current TSA: (A) elaborating the TSA based on Input-Output tables in the region or (B) distributing the TSA macroeconomic aggregates among the regions by some set of indicators. It is recommended here that if an R-TSA is to be developed for a region in a country without any TSA experience, this should involve the Central Statistical Office (CSO), regional authorities and the advice of the UNWTO on how exactly to proceed.

Finally, the unique analytical measures that an R-TSA provides are enumerated, and how they can shed light on the issues destination stakeholders face is elaborated.

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INTRODUCTION

Tourism is a ubiquitous human activity with social, environmental and economic consequences. Its essence is movement of individuals to places away from their normal, day-to-day milieux for short periods of time and then returning home. During such activities, these visitors consume goods and services from vendors requiring flows of funds from the visitors to vendor organizations. These expenditures by and on behalf of visitors produce economic consequences in the places visited, the visitor’s usual environment and elsewhere.

The World Tourism Organization (UNWTO) developed the Tourism Satellite Account (TSA) and its supporting System of Tourism Statistics over fifteen years to foster international understanding of the contribution of international and domestic tourism to national economies, consistency in their measurement and comparability in analysis of this important activity. Earlier this year, this effort resulted in adoption by the United Nations Statistical Commission and other respected multilateral institutions of two foundational documents: 2008 Tourism Satellite Account: Recommended Methodological Framework (TSA:RMF 2008) and 2008 International Recommendations for Tourism Statistics (2008 IRTS).

Interest has grown over the years in adapting the TSA to sub-national geographic areas, such as provinces, states, departments, cities and metropolitan areas for a number of reasons, as noted in TSA:RMF 2008 (Annex 7) and elsewhere:

- The worldwide trend toward decentralization of political power and management of public resources
- The beneficial role tourism can play in rural and other underdeveloped sub-national economies
- The unequal geographical distribution of tourism activity within many nations
- The labor intensity of a given tourism industry, the productivity of its employees, and the prevalence of part-time and seasonal jobs it offers, may vary across regions
- Tourism-related business interest in linkages among productive activities within their areas and the determinants of the effectiveness of such linkages
- Enterprise and government interest in identifying new business and investment opportunities

Acknowledging the legitimacy of these interests, it is the purpose of this paper to recommend conventions for defining regional Tourism Satellite Accounts for defined sub-national areas, the appropriate outputs of such regional TSAs and optimum approaches to developing such accounts.

CONCEPTS AND DEFINITIONS

A number of terms have been employed in the professional and scholarly literature for various aspects of the economic consequences of tourism in a defined area. “Economic consequences” here are understood to comprise the effects visitors and their expenditures have on the wealth, income, revenue and employment of the residents, establishments, government agencies and non-profit organizations in the geographic area under study. Most frequently, this area (called the “study area”) is a defined section of the combined geographic
areas the visitor physically spends time in (i.e., “visits”) while on a tourism trip. As utilized in this paper, “economic consequences of tourism” encompasses all of the economic impact, economic contributions, economic costs, economic benefits and similar concepts relating to visitor activities.

The specific economic consequences of visitor activities in a national or sub-national area have been distinguished in various studies as follows:

- Business receipts
- Employment (jobs, persons employed)
- Labor earnings
- Other factor earnings (dividends, interest, rent, profits)
- Government tax revenue
- Other government revenue (e.g., user fees, fines, receipts of government enterprises)
- Government spending
- Business investment in plant and equipment
- Value added or contribution to gross domestic or regional product

Note that visitor spending and visitor consumption are not classified among these tourism economic consequences as it is analytically useful to view these activities as comprising the major drivers of the economic consequences of tourism, rather than being among the consequences themselves.

A number of different methods have been employed to estimate the economic consequences of tourism including regional tourism impact models, cost-benefit models, input-output models and computable general equilibrium models (Croes and Severt 2007). Many of these have been focused on entire countries or national economies. Indeed, the Tourism Satellite Account has heretofore been defined only for national economies as is the focus of the System of National Accounts (SNA 1993 ¶2.22). It is the purpose of this paper to recommend conventions for defining regional Tourism Satellite Accounts for defined sub-national areas, such as provinces, states and metropolitan areas.

To facilitate discussion of these topics, the following definitions underpin this paper:

- Tourism Economic Consequences: the comprehensive term including all economic effects, both positive (benefits) and negative (costs), produced by visitors, their consumption expenditures and the reaction of business firms, nonprofit organizations and government agencies to visitors and their activities in the study area. This includes the specific economic consequences listed above and the TSA concepts of Tourism Direct Gross Value Added, Tourism Direct GDP, and Employment in the Tourism Industries.

- Tourism Economic Contribution: the direct, positive effects of visitor consumption expenditures, tourism gross fixed capital investment and tourism collective consumption on the study area; the TSA is designed to facilitate measurement of this contribution consistent with the System of National Accounts (SNA 1993).

- Tourism Economic Benefits: Tourism Economic Contribution plus the secondary effects (often termed “indirect effects” and “induced effects”) in the study area; the TSA does not include these secondary effects (TSA:RMF 2008 ¶1.16)

- Tourism Economic Costs: all costs, private and incidental, explicit and implicit, direct and secondary, represent the value that must be sacrificed in order to host
visitors in an area. An important category of these is external costs, those not borne by visitors or producers but by other individuals and organizations (Mak 2004, p. 128). These costs are not included in the TSA nor are they discussed in this paper (for a detailed discussion, see Frechtling 1994b).

- Net Tourism Economic Benefits: tourism economic benefits for an area less the tourism economic costs incurred in the area.

- Total Tourism Internal Demand: as suggested for the TSA, the sum of Internal Tourism Consumption, Tourism Gross Fixed Capital Formation, and Tourism Collective Consumption (TSA:RMF 2008, ¶4.114).

- Tourism Economic Impact: the sum of the direct and secondary effects of visitor consumption expenditures and other elements of Total Tourism Internal Demand on the study area; while the TSA does not include secondary effects, this recognizes that many studies have focused on these variables, acknowledging that the UNWTO does not recommend development of tourism fixed capital formation or tourism collective consumption for the TSA and international comparisons at this time (TSA:RMF 2008 ¶¶2.56, 2.65, 4.107, 4.112).

REGIONAL TSAs CAN PROVIDE USEFUL INFORMATION

The presence of visitors and volume of their consumption in an area, the response of businesses, governments and other suppliers, and the business investment in plant and equipment required to serve future visitors raises important issues for a number of stakeholder groups active in many areas visited on tourism trips. Accurately measuring the economic consequences of visitors can shed light on the following issues for the stakeholder groups in a sub-national area:

- For Public Officials
  - Benefits to residents of investing in tourism promotion
  - Benefits to residents of investing in visitor facilities
  - Benefits to residents of investing in tourism-related infrastructure
  - Importance of salutary visitor policies
  - Value of partnerships with business
  - Returns to investment in tourism development

- For Business owners and managers
  - Value of government funding of tourism promotion and development
  - Value of partnerships with government and each other
  - Extent of the network of tourism industries
  - Returns on investment, past and future

- For employees of tourism establishments
  - Role in contributing to economic health of the community
  - Career opportunities in tourism industries

- For other residents of host communities
  - Value to the community of receiving visitors
  - Returns to government funding and beneficial policies
OBSTACLES TO DEVELOPMENT OF REGIONAL TSAs

Accepting the merit of sub-national or regional TSAs (herein “R-TSA”), it is important to recognize that there are a number of obstacles to specifying the conventions for these accounts including:

- There is no conceptual framework specified for sub-national levels comparable to the System of National Accounts (SNA 1993 ¶¶19.95-96);
- Some measures of tourism’s economic contribution at the national level are not translatable to sub-national levels, such as the central administrative activities of national and multiregional producers (e.g., domestic and international air transportation), and central government services (SNA 1993 ¶¶19.90-94);
- The dearth of acceptable statistical information useful to elaborating the TSA for many sub-national areas, particularly on the demand side;
- The differing and distinctive characteristics of tourism demand and supply for individual regions; one can easily see how these might differ markedly for marine resort areas, montane developments, large cities and interior rural regions on the purpose of visit, length of stay, expenditure volumes per person per day, prevalence of informal accommodations, presence of distinctive attractions, and the like.

Nevertheless, the high and rising interest in sub-national versions of the TSA noted above prompts the following discussion.

CENTRAL PRINCIPLES ANY REGIONAL TSA SHOULD FOLLOW

To begin with, an R-TSA must observe the first principles of a valid TSA at the national level. These have been enumerated by UNWTO for all national TSAs and comprise the following (TSA: RMF 2008):

- Measures the impact of tourism and only tourism;
- Employs predominantly account information, rather than estimates derived from models;
- Incorporates ten tourism characteristic products and industries at a minimum (see Appendix A);
- Produces estimates of certain macroeconomic aggregates – for sub-national purposes, these may be reduced to Internal Tourism Expenditure, Internal Tourism Consumption, Tourism Gross Regional Product and Employment in the Tourism Industries;
- Generates a defined set of tables and their relationships.

For sub-national purposes, this set of tables may be reduced from ten to five of specific value for assessing the economic contribution of visitors to a region (TSA:RMF 2008)

- Table 4: Internal Tourism Consumption by Product
- Table 5: Production Accounts of Tourism Industries and Other Industries
Table 6: Total Domestic Supply and Internal Tourism Consumption
Table 7: Employment in the Tourism Industries
Table 10: Non Monetary Indicators,

Second, an R-TSA should mirror the coverage of its national counterpart to the maximum extent possible. A review of the UNWTO documents suggests the items listed in Appendix B are an exhaustive set of TSA coverage characteristics. It is recognized that few, if any, TSAs now include all of these characteristics. Those elaborating an R-TSA should endeavor to cover the same characteristics as the national TSA extant for the country (WTO2005 ¶3.2).

Third, a valid R-TSA should reproduce at least the following four macroeconomic aggregates defined for the TSA, plus an additional important measure of tourism industry employment:

- Internal Tourism Consumption – the most inclusive measure of the acquisitions by visitors in an economy, equal to Internal Tourism Expenditure (i.e., internal to the region) plus imputed consumption of vacation home accommodations, temporary exchange of dwellings for vacation purposes, net costs of hosts receiving visitors in their homes, subsidized transportation and lodging provided by employers, and, at a later date when recommended by UNWTO, government financing of certain non-market services for visitors such as education and recreation services. (TSA:RMF 2008 ¶¶2.25-26)

- Gross Value Added of the Tourism Industries (GVATI) – value of a productive activity’s (i.e., industry’s) output minus the value of inputs purchased from other productive activities for the collection of industries whose main activities are tourism characteristic activities (“tourism industries”) (TSA:RMF 2008 ¶¶3.11, 32)

- Tourism Direct Gross Value Added (TDGVA) – for each industry and for all industries, the fraction of gross value added (at basic prices) generated in response to Internal Tourism Consumption (TSA:RMF 2008 ¶¶4.88, 4.95)

- Tourism Gross Regional Product – tourism activities’ contribution to a region’s GDP, or TDGVA plus net taxes on products and imports at purchasers’ prices (TSA:RMF 2008 ¶4.96)

- Employment in the tourism industries, in terms of jobs, hours and full-time equivalent employment

In the discussion thus far, it has been assumed that there is a current TSA upon which to build one or more R-TSAs in a country. This may not be the case for most sub-national areas desiring TSA estimates. We can identify three distinct conditions in this regard:

- There is a valid, up-to-date TSA (called herein the “Current TSA Condition”)
- A valid TSA was developed some years back but has not been kept up to date (“Outdated TSA Condition”)
- A valid TSA has never been elaborated for the country (“Nonexistent TSA Condition”)
REGIONAL TSA DEVELOPMENT UNDER THE CURRENT TSA CONDITION

In this case, there are two options for elaborating one or more R-TSAs. The first, and by far the closest in spirit to the TSA, is for the Central Statistical Office (CSO) of the country in conjunction with appropriate regional experts and authorities to develop the five TSA accounts for the region under study, as has been done for Andalusia, Spain (Ministry of Tourism, Commerce and Sport 2005, Working Group 2004,), the Canadian provinces (Barber-Dueck and Kotsovos 2004) and Wales, UK (Jones, Munday and Roberts 2003). We can call this the “regional account approach”, since TSA tables are built for the region following the TSA coverage characteristics and definitions.

Here, the most difficult challenge is to elaborate the commodity-by-industry direct requirements table of the Input-Output framework covering the ten tourism characteristic products and industries for the region, in order to produce the regional version of TSA Table 6: Total Domestic Supply and Internal Consumption. Careful attention must be directed toward mirroring the coverage of the TSA as described above (see the list in Appendices A and B), to ensure the macroeconomic aggregates produced are, indeed, comparable to their counterparts in the extant TSA.

Attention must be directed to the quality of the regional data. It seems best that these be provided by the CSO through development of its System of Tourism Statistics (IRTS 2008 ¶¶1.35-38; TSA:RMF 2008 ¶¶1.14-19). If such data of acceptable quality do not exist at the regional level, then regional governments under the guidance of the CSO may develop data specific to the R-TSA project. Indeed, the availability of valid, relevant data about tourism determines which sub-national areas can be feasibly defined for a country. This may mean in one country that the provincial or state level is the lowest for which an R-TSA may be articulated because data below this level are not valid. In another country, acceptable data may be available at the county, metropolitan or other sub-national region that permit elaboration of the R-TSA for these areas.

This is the governing principle. If valid data essential to the R-TSA are not available for a given sub-national geographical area, then a valid R-TSA cannot be elaborated for that area. In such cases, the CSO, with its experience in maintaining the System of Tourism Statistics, should be the final arbiter.

Second, the “regional allocation approach” uses a set of regional indicators to allocate the national output of the tourism industries to each of a set of regions covering the entire country, and a combination of survey data and regional indicators to allocate tourism consumption among these regions. Then, the output of the tourism industries (e.g., Gross Value Added of the Tourism Industries or Tourism Gross Value Added) is calculated for each of the regions. The sums of tourism consumption and tourism output must then be harmonized with the TSA totals for the country. Norway has applied this approach for each of its 19 counties (Braendyang et al. 2001). Presumably the approach could also produce estimates of Tourism Gross Domestic Product, as well. This approach does not produce proper TSAs at the regional level, as it is inherently a modeling exercise. We might term such R-TSA estimates as comprising an experimental regional TSA, or ER-TSA. By its nature, it will reflect the definitions and coverage characteristics of the TSA, and the aggregates will, by design, sum to no more than respective TSA macroeconomic aggregates. However, such aggregates may not accurately reflect the “peculiarities of the economic activity of each region” (Working Group 2004, p. 4).

Development of ER-TSAs must be under the guidance of the CSO, presumably in conjunction with regional experts and authorities. Moreover, those experts and authorities should always be encouraged to develop R-TSAs beyond this experimental stage.
REGIONAL TSA DEVELOPMENT UNDER THE OUTDATED TSA CONDITION

If a TSA was elaborated some years earlier, then the Regional Allocation Approach discussed above is not feasible. However, the Regional Account Approach will be facilitated by the fact that the definitions and coverage characteristics have already been established. The System of Tourism Statistics that fed the original TSA may also be available for the study period, further facilitating the development of the R-TSA. The principles and practices described for the regional account approach above may be productively employed here. The CSO experience in elaborating the TSA should also be drawn upon.

REGIONAL TSA DEVELOPMENT UNDER THE NONEXISTENT TSA CONDITION

This is by far the most challenging situation for developing a valid R-TSA. There may or may not be a developed System of Tourism Statistics for the country. Nevertheless, there may be good reasons for the CSO and experts and authorities in the region to undertake elaboration of one or more R-TSAs for sub-national areas. A regional TSA can be developed that follows the first principles of the TSA but then makes individual choices on coverage characteristics. There can be no interregional approach here, as the R-TSA must be built from the ground up. This emphasizes the importance of CSO guidance in the process. Should there be additional R-TSAs articulated in the country, they must follow the same principles and data use standards as the initial R-TSA, to ensure consistent comparisons. Of course, should the country elect to elaborate a TSA, all definitions and elements of the extant R-TSAs should be reviewed, and may be altered for this national exercise.

IMPLEMENTATION ACTIONS UNDER THE THREE CONDITIONS.

The steps to elaborating an R-TSA will differ somewhat depending on the TSA condition prevailing in the country. For a region in a country blessed with a current TSA that wants to pursue the Regional Account Approach, the steps in Appendix C are recommended. Here the context is preparing an R-TSA for a single region with developed product-by-use direct requirements tables from an Input-Output account.

For the region that pursues the Regional Allocation Approach for an ER-TSA, the steps in Appendix D have been prepared. This assumes the TSA tables and macroeconomic aggregates will be distributed among a set of regions that collectively cover the country.

Finally, for the region in a country with no TSA experience, no action plan for developing an R-TSA is presented here, as this requires UNWTO elaboration of the steps to developing a TSA in a country that does not have one.

CONCLUSION AND IMPLICATIONS

Now that the methodological framework of the Tourism Satellite Account and its supporting statistical systems have been accepted by the United Nations Statistical Commission, it is quite appropriate that the growing interest in elaborating the requirements of valid sub-national TSAs be addressed. Among the tourism macroeconomic aggregates that can be estimated, the TSA focuses on six, of which five are most useful for the R-TSA: Internal Tourism Consumption, Gross Value Added of the Tourism Industries, Tourism Direct Gross Value Added, Tourism Gross Regional Product and Employment of the Tourism Industries. These are produced by elaboration of five TSA tables for the region.
In producing these tables, an R-TSA must mirror the definitions and characteristics of the TSA for its country, as detailed in Appendix B. In planning the account elaboration process, this paper describes three conditions a country might find itself in regarding its TSA: there is a current one, there is an outdated one, or no TSA has been developed. A country’s TSA circumstances determine the approach to developing a valid R-TSA for it. Describing the characteristics and approaches to a sub-national TSA in each of these three conditions is the outcome of this paper.

Before closing this topic, some consideration should be given to the role of the R-TSA in providing measures of the economic consequences of tourism, as defined above. Following the TSA, the R-TSA or ER-TSA will measure a portion of the Tourism Economic Contribution to a defined sub-national area. It will not measure all of the Tourism's Economic Benefits or Tourism Economic Impact, as these include the indirect or secondary effects of tourism consumption. And it does not measure Tourism Economic Costs at all.

However, in contrast to modeling methods that do aim at estimating Tourism Economic Impact, the measures of a valid regional TSA will show:

- the contribution of tourism to gross regional product in absolute and percentage terms,
- this contribution compared to other industries so measured for the region,
- the absolute and relative contribution tourism in the region makes to the national tourism contribution to gross domestic product,
- the absolute and relative contribution of tourism industry employment to all employment in the region,
- the region’s tourism industry employment as a proportion of the national total, and
- The region’s tourism consumption relative to the national value and to the values for other regions.

And if the R-TSA is annually updated, changes in the above will be shown to track tourism’s economic contribution to the region and the country. These are important aggregates that suggest the contribution tourism makes to regional and national economic health over time. Assuming such updates are annual, the R-TSA can shed light on the issues identified in paragraph 10 by providing measures specific to each issue. The major measures for each of the issues are suggested as the following Table 1 shows.
Table 1: Economic Issues Related to Hosting Visitors and Related TSA Measures, by Stakeholder Group

<table>
<thead>
<tr>
<th>Issues Arising for Stakeholder Groups from Hosting Visitors in a Sub-national Region</th>
<th>Regional TSA Measures Contributing Information About These Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>For public officials</td>
<td></td>
</tr>
<tr>
<td>Benefits to residents of investing in tourism promotion</td>
<td>Tourism Direct Gross Value Added (TDGVA), by industry promoted</td>
</tr>
<tr>
<td>Benefits to residents of investing in visitor facilities</td>
<td>TDGVA, by industry benefiting from such facilities</td>
</tr>
<tr>
<td>Benefits to residents of investing in tourism-related infrastructure</td>
<td>Total TDGVA</td>
</tr>
<tr>
<td>Importance of salutary visitor policies</td>
<td>TDGVA by industry benefiting from such policies</td>
</tr>
<tr>
<td>Value of partnerships with business</td>
<td>TDGVA by industry benefiting from such partnerships</td>
</tr>
<tr>
<td>Returns to investment in tourism development</td>
<td>TDGVA by industry benefiting from such development</td>
</tr>
<tr>
<td>For business owners and managers</td>
<td></td>
</tr>
<tr>
<td>Value of government funding of tourism promotion and development</td>
<td>GVATI by industry benefiting from such promotion and development</td>
</tr>
<tr>
<td>Value of partnerships with government and each other</td>
<td>GVATI by industry benefiting from such partnerships</td>
</tr>
<tr>
<td>Extent of the network of tourism industries</td>
<td>Table 6: Total Domestic Supply and Internal Tourism Consumption</td>
</tr>
<tr>
<td>Returns on investment, past and future</td>
<td>Returns in terms of GVATI and employment by industry</td>
</tr>
<tr>
<td>For employees of tourism establishments</td>
<td></td>
</tr>
<tr>
<td>Role in contributing to economic health of the community</td>
<td>TDGVA by industry, Employment by industry</td>
</tr>
<tr>
<td>Career opportunities in tourism industries</td>
<td>Employment by industry</td>
</tr>
<tr>
<td>For other residents of host communities</td>
<td></td>
</tr>
<tr>
<td>Value to the community of receiving visitors</td>
<td>Total TDGVA and Employment in the Tourism Industries</td>
</tr>
<tr>
<td>Returns to government funding and beneficial policies</td>
<td>TDGVA by industry benefiting and employment by industry benefiting</td>
</tr>
</tbody>
</table>

In reviewing these measures, it is important to note that Tourism Direct Gross Value Added of the tourism industries is not only an unduplicated measure of output in the region contributing to tourism consumption, but with an adjustment, constitutes a measure of income generated by production paid to the following factors: households for labor, landlords for use of land, and businesses for profit. This adjustment is to subtract from TDGVA “other taxes, less subsidies, on production” as defined by SNA 1993 (¶6.229). In many countries, such taxes “consist mostly of current taxes (or subsidies) on the labour or capital employed in the enterprise, such as payroll taxes or current taxes on vehicles or buildings.” (SNA 1993 (¶6.229). This adjustment will produce a measure of the income generated for residents of the region by tourism consumption.

In Table 1, public officials, employees of tourism industries and residents of the host communities will most likely be interested in the income directly related to visitor consumption as represented by Tourism Direct Value Added. Business owners/operators, on
the other hand, will be how government funding, partnerships and their own capital investments increase Gross Value Added of the Tourism Industries. This latter aggregate will better indicate how such efforts are growing incomes in the region, accounting for any offsetting reactions to increased visitor presence and consumption such as due to crowding out local demand or even repeat visitors at peak periods.

Moreover, R-TSA measures will permit regions to compare themselves to the national situation and to other regions in their contributions from tourism. Such information can positively inform future planning and tourism policy development to help achieve maximum economic benefits from tourism.
REFERENCES


## APPENDIX A

### Figure A1: Classification of Products and Tourism Industries for TSA Tables 5 and 6

<table>
<thead>
<tr>
<th>Internationally Characteristic Products</th>
<th>Internationally Characteristic Industries</th>
<th>Tourism</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Consumption Products</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.1. Tourism characteristic products</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Accommodation services for visitors</td>
<td>1. Accommodation for visitors</td>
<td></td>
</tr>
<tr>
<td>1.a. Accommodation services for visitors other than 1.b</td>
<td>1.a. Accommodation for visitors other than 1.b</td>
<td></td>
</tr>
<tr>
<td>1.b. Accommodation services associated with all types of vacation home ownership</td>
<td>1.b. Accommodation associated with all types of vacation home ownership</td>
<td></td>
</tr>
<tr>
<td>2. Food and beverage serving services</td>
<td>2. Food and beverage serving industry</td>
<td></td>
</tr>
<tr>
<td>3. Railway passenger transport services</td>
<td>3. Railway passenger transport</td>
<td></td>
</tr>
<tr>
<td>4. Road passenger transport services</td>
<td>4. Road passenger transport</td>
<td></td>
</tr>
<tr>
<td>5. Water passenger transport services</td>
<td>5. Water passenger transport</td>
<td></td>
</tr>
<tr>
<td>6. Air passenger transport services</td>
<td>6. Air passenger transport</td>
<td></td>
</tr>
<tr>
<td>7. Transport equipment rental services</td>
<td>7. Transport equipment rental</td>
<td></td>
</tr>
<tr>
<td>8. Travel agencies and other reservation services</td>
<td>8. Travel agencies and other reservation services industry</td>
<td></td>
</tr>
<tr>
<td>9. Cultural services</td>
<td>9. Cultural services industry</td>
<td></td>
</tr>
<tr>
<td>10. Sports and recreational services</td>
<td>10. Sports and recreational services industry</td>
<td></td>
</tr>
<tr>
<td>Country Specific Tourism Products</td>
<td>Country-specific Tourism Industries</td>
<td></td>
</tr>
<tr>
<td>12. Country-specific tourism characteristic services</td>
<td>12. Related industries</td>
<td></td>
</tr>
<tr>
<td><strong>A.2. Tourism connected products</strong></td>
<td><strong>A.2. Related industries</strong></td>
<td></td>
</tr>
</tbody>
</table>

| B. Non consumption products            | X                                        |         |
| B.1. Valuables                         | X                                        |         |
| B.2. Other non-consumption products    | X                                        |         |
| B.2.a. Tourism fixed gross capital formation | X                                |         |
| B.2.b. Tourism collective consumption  | X                                        |         |
| B.2.c. Other non-consumption products  | X                                        |         |

Source: TSA:RMF 2008 ¶4.16
APPENDIX B

TOURISM SATELLITE ACCOUNT COVERAGE CHARACTERISTICS
A Checklist

1. Definition of “usual environment”

2. Excludes trips to places to earn an income

3. Includes day-visitors as well as overnight visitors

4. Elaboration of “tourism expenditure” to include –
   a. Monetary expenditures on all consumption goods and services
   b. Monetary expenditures on valuables purchased on a trip
   c. Monetary expenditures paid for directly by the employer for business trips
   d. Monetary expenditure by the visitor refunded by a third party: either employers or other households or social insurance programs
   e. Employer-financed subsidies for employee transport, accommodation, other
   f. Purchase of tourism single-purpose consumer durables not on a trip

5. Elaboration of “tourism consumption” to include –
   a. Tourism expenditure
   b. Value of services associated with vacation accommodation on own account
   c. Imputed value of barter transactions, e.g., exchange of vacation dwellings
   d. Imputed value of goods (vegetables, game, fish, etc.) produced in vacation home gardens or gardening, fishing etc on a trip
   e. Value of Financial Intermediation Services Indirectly Measures (FISM) on tourism expenditures
   f. Net cost of hosts receiving visitors in their homes on food, utilities, presents, etc.
   g. Cost of producers’ subsidizing transportation, accommodation, meals, etc.
   h. Part of the value of government consumption expenditure on individual non-market services considered to benefit visitors, such as education, social services, health and museums.

6. Classification of tourism products and industries – See Appendix A for minimum for international comparisons.

7. Package tourism unbundled to the appropriate characteristic product plus tour operator margin

8. Consumption valued at purchasers’ prices and production valued at basic prices
9. Transactions recorded on accrual not cash basis.

10. TSA Tables

   a. Table 1: Inbound tourism expenditure by products and classes of visitors (not recommended for sub-national TSA at this time: data entered in Table 4)
   b. Table 2: Domestic tourism expenditure by products, classes of visitors and types of trips (not recommended for sub-national TSA at this time: data entered in Table 4)
   c. Table 3: Outbound tourism expenditure by products and classes of visitors (not recommended for sub-national TSA at this time)
   d. Table 4: Internal tourism consumption by products
   e. Table 5: Production accounts of tourism industries and other industries (at basic prices)
   f. Table 6: Total domestic supply and internal tourism consumption (at purchasers’ prices)
   g. Table 7: Employment in the tourism industries
   h. Table 8: Tourism gross fixed capital formation of tourism industries and other industries (not recommended by UNWTO at this time)
   i. Table 9: Tourism collective consumption by products and levels of government (not recommended by UNWTO at this time)
   j. Table 10: Non Monetary Indicators – trips, arrivals, overnight stays, tourism industry establishments (capacities and jobs)

11. Outputs – macroeconomic aggregates

   a. Internal Tourism Expenditure
   b. Internal Tourism Consumption
   c. Gross Value Added of the Tourism Industries (GVATI)
   d. Tourism Direct Gross Value Added (TDGVA) (TSA:RMF 2008 ¶3.35)
   e. Tourism Direct Gross Domestic Product (TDGDP)
   f. Employment: jobs, total hours worked and full-time equivalent jobs
### APPENDIX C

**Action Plan for the Regional Account Approach to Regional TSA Development**

**Context:** single identified region

<table>
<thead>
<tr>
<th>Action proposed</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Constitution of an Interagency Coordinating Council including the Central Statistical Office and other interested national and regional authorities</td>
<td>Responsibility for overseeing and monitoring the process.</td>
</tr>
<tr>
<td>2. Formation of a Technical Committee and of a Regional Technical Execution Team</td>
<td>Technical supervision of the process and formation of regional unit to implement programs and procedures</td>
</tr>
<tr>
<td>3. Review of TSA concepts and methods and requirements for R-TSA</td>
<td>Terms of reference for Regional Account Approach for the study region</td>
</tr>
<tr>
<td>4. Enumeration of the definitions and coverage characteristics of the current TSA</td>
<td>Specify the R-TSA characteristics necessary for compatibility with TSA</td>
</tr>
<tr>
<td>5. Technical Committee specification of detailed scope and elements of R-TSA elaboration</td>
<td>Detailed conceptual framework for R-TSA that is compatible with TSA</td>
</tr>
<tr>
<td>6. Technical Committee evaluation of TSA sources of tourism consumption data suitable for region</td>
<td>Identification of deficiencies in data for regional application: gaps and unacceptable quality</td>
</tr>
<tr>
<td>7. Technical Committee approves Regional Technical Execution Team tourism consumption data collection program design</td>
<td>Program implementation and securing of regional tourism consumption data of acceptable quality and scope</td>
</tr>
<tr>
<td>8. Technical Committee evaluation of regional commodity-by-industry direct requirements I/O table</td>
<td>Identification of deficiencies in covering tourism characteristics products and industries at regional level: gaps and unacceptable quality</td>
</tr>
<tr>
<td>9. Technical Committee approves Regional Technical Execution Team commodity-by-industry data collection program design</td>
<td>Program implementation and securing of regional commodity-by-industry data of acceptable quality and scope</td>
</tr>
<tr>
<td>10. Technical Committee approves Regional Technical execution Team employment data collection program design</td>
<td>Program implementation and securing of regional employment data linked to output for each characteristic industry</td>
</tr>
<tr>
<td>11. Technical Committee review of the quality of the statistical information collected</td>
<td>Implementation of further improvements in quality and scope of data collected</td>
</tr>
<tr>
<td>12. Technical Committee evaluates Regional Technical Execution Team elaboration of R-TSA tables and estimate of macroeconomic aggregates</td>
<td>Approval of R-TSA tables and macroeconomic aggregates for the year</td>
</tr>
<tr>
<td>13. Consistency and technical compatibility of the regional TSA and TSA: assessment and consistency test</td>
<td>Identification of possible inconsistencies or anomalies and their sources; correction if possible</td>
</tr>
<tr>
<td>14. Review of R-TSA results by the Interagency Coordinating Council</td>
<td>Final approval before release to the outside parties.</td>
</tr>
<tr>
<td>15. National level technical workshop prior to the dissemination of results.</td>
<td>Build understanding and support for R-TSA.</td>
</tr>
<tr>
<td>16. Publication of results</td>
<td>Dissemination of results, solicitation of technical comments from outside for consideration in next estimation program.</td>
</tr>
</tbody>
</table>

Source: based on UNWTO 2005, pp. 24-25.
### APPENDIX D

**Action Plan for the Regional Allocation Approach to Regional TSA Development**

**Context: exhaustive set of sub-national regions**

<table>
<thead>
<tr>
<th>Action proposed</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Formation of a Technical Committee and of regional executing units in the network of the national inter-institutional units</td>
<td>Technical supervision of the process and formation of regional technical teams</td>
</tr>
<tr>
<td>3. Assessment, from a national and regional perspective, of the tourism statistics available and analysis of their quality and consistency</td>
<td>Updated inventory of statistical resources available at national level and regional level</td>
</tr>
<tr>
<td>4. Formulation of a National Program of Statistical Research on Tourism with a view to regionalization</td>
<td>Harmonization of methodologies and definitions based on the needs of information on regional tourism supply and demand</td>
</tr>
<tr>
<td>5. Analysis of the terms of reference of the program defined in (iii) above and incorporation of relevant adjustments; development of the Regional Allocation Program</td>
<td>Exchange of technical views and development of consensus</td>
</tr>
<tr>
<td>6. Familiarization of the national and regional technical teams with the terms of reference of the Regional Allocation Program defined in (v) above with a view to its orderly execution</td>
<td>Guidelines for the orderly execution of the National Program of Statistical Research on Tourism</td>
</tr>
<tr>
<td>7. Determination of characteristics of regional and national tourism trends and seasonality</td>
<td>Design of the corresponding indicators that should be homogenous among different regions and relate to TSA macroeconomic aggregates at regional levels</td>
</tr>
<tr>
<td>8. Specification of characteristics on trends in regional/national tourism employment, full- and part-time jobs, output, etc.</td>
<td>Design of the corresponding indicators that should be homogenous across different regions.</td>
</tr>
<tr>
<td>9. Specification of characteristics for determining visitor expenditures at regional levels</td>
<td>Design of the corresponding indicators that should be homogenous across different regions.</td>
</tr>
<tr>
<td>10. Analysis of the quality of the statistical information collected</td>
<td>Upgrading of the statistical information collected</td>
</tr>
<tr>
<td>11. Centralization of regional information and construction of a national/regional database.</td>
<td>Use of the statistical information collected and definition of a preliminary set of homogenous indicators</td>
</tr>
<tr>
<td>12. Analysis for consistency and quality of derived indicators, with participation of bodies responsible for regional data collection and analysis</td>
<td>Agreed specification of indicators for use in the regional allocation of the TSA macroeconomic aggregates.</td>
</tr>
<tr>
<td>13. Decentralization of information: construction of one or more experimental regional tourism satellite accounts (ER-TSA)</td>
<td>Estimation of experimental accounts</td>
</tr>
<tr>
<td>14. Consistency and technical compatibility of the regional and national levels: assessment and consistency test</td>
<td>Review and improvement of experimental accounts</td>
</tr>
<tr>
<td>15. National level technical workshop prior to the dissemination of results to the public</td>
<td>Build understanding and support for ER-TSA.</td>
</tr>
<tr>
<td>16. Publication of results</td>
<td>Final terms of reference of the project and acceptance of technical comments from outside</td>
</tr>
</tbody>
</table>