

14th GLOBAL FORUM ON TOURISM STATISTICS

INRouTe Notes on R-TSA ¹

Contribution prepared by

Mr. ANTONIO MASSIEU

Chair of INRouTe



¹ This note has been drafted using as reference documents TSA As The Foundation For A Regional TSA (R-TSA): Measurement and Economic Analysis at Subnational Levels presented by the International Network on Regional Economics, Mobility and Tourism (INRouTe) to the MOVE 2015 Conference (Puerto Rico), the UNWTO 2005 document "Adapting the national Tourism Satellite Account project to subnational levels" and the 2013 UNWTO Statistics and TSA Issue Paper Series on "Regional Tourism Satellite Account" drafted by A.Cañada using as basic reference Madrid 2010 R-TSA.

Three questions that need to be answered when addressing a R-TSA:

- Why promoting a regional TSA?
- Could a feasibility study help to evaluate the requirements needed?
- What can a region where tourism is significant really do when the feasibility study reveals that there are no data and resources enough to support the development of a proper R-TSA?

The first question deserves four answers:

- The first answer might seem quite obvious: **tourism is essentially territorial**, since it involves specific territorial areas inside the country and it firstly and directly impacts on the regional community in terms of employment, income and socio-cultural and environmental effects
- The second reason that could justify the importance of a R-TSA is the **specificity that characterises every region** and that makes it desirable for them to develop their own measurement and analysis of tourism's contribution to the regional economy.

In this sense a simple regionalization of national sources and analysis could not be sufficient, because the role of some tourism components changes according to territorial scales; also because regional statistical data obtained to support a R-TSA development might be, *ceteris paribus*, of better quality than that derived from nation-wide surveys in terms of describing the structure of the tourism sector and demand.

According to this consideration, sub-national tourism cannot be considered as a mere disaggregation of national tourism, since analysis translates in a thematic singularity and technical complexity when it comes to measuring sub-national tourism. This is evident if we think that some themes such as the relevance of the inbound and the "domestic" component of Regional Tourism or of specific typologies of tourism (business tourism, cruise tourism, etc.) may not be so relevant at national level but be of priority interest in some specific regions.

Specificity refers not only to tourism demand but also to tourism supply, which from a sub-national perspective may include specific activities and products that are not considered at national level: this is the case for some industrial activities producing "souvenirs" and typical products, that, while at national level their involvement in tourism might be absolutely marginal, in the regional economy their production are supported by tourists' expenditure.

The specificity and uniqueness of every region not only stress the potential for the regional authorities to develop their own R-TSA, but also it emphasises the differences among regional experiences and the difficulty to give unique and standardised interpretation.

- The third answer to why promoting a TSA? is the need to provide regional stakeholders with useful information and indicators for raising awareness of tourism importance in the region, identifying possible business opportunities, attracting investments, etc.

Promoting an extension of TSA to sub-national level can reinforce the role of credible tourism economic analysis and effective modelling for destination management. In this sense the R-TSA and in particular the process that brings to the final R-TSA play a crucial role, by encouraging an effective accounting for tourism at regional level and supporting the development of tourism strategy for destination management. It is just at the regional level that an in-depth analysis of tourism contributes to many strategic issues, such as preservation vs fruition of natural and cultural resources, contribution to sustainable development, alternative use of resources, etc.

However, stakeholders' dissatisfaction due to a perceived inadequate tourism information system is common: for example information is frequently not available or not updated; data are difficult to be found or correctly interpreted; the nature and organisation of information are not consistent with stakeholders' needs and a long etc.

Then, the availability of comprehensive information required by the process that builds up the R-TSA can encourage a more concrete and valuable dialogue between technicians - with their statistical/analytical background - and decision- and policy-makers and private companies. Indeed a dialogue between these and other relevant stakeholders is important for favouring harmonization, coordination and a better understanding of tourism statistics, sharing common

languages and identifying information needed by private and public stakeholders, so that statistics and R-TSA can be a real support for decision-making process.

- Finally, the fourth answer is related to the important contribution that tourism gives to other disciplines, since its interconnection with many other economic sectors such as transports, agriculture or other activities and issues, such as culture, sustainable development, etc. It is then evident that a deep understanding of tourism characteristics and dynamics at the destination level, in particular in terms of economic impacts, is functional for better defining the size and nature of the linkages with the other regional activities and sectors developed in the region. Considering, for example, transport infrastructure and services, tourism analysis could generate growing awareness and understanding of the significance of tourist flows according to the typologies of transports (airplane, train, bus, etc.) and then support strategies for improving services and income.

The second question refers to the evidence that the **process behind the development of a R-TSA is extremely demanding of information** and a body of detailed statistics is needed to complete all TSA's elements.

Before a region decides to set up a R-TSA, a feasibility study should be required, in order to verify the availability of basic statistical data and indicators derived from national and regional sources, the existence of an appropriate statistical infrastructure and of a professional team and the availability of resources for developing supplementary data

Of particular interest is the development of the professional team, that can be conceived as an inter-institutional and multi-disciplinary network. It should be emphasised that such a team is vital not only for setting up a R-TIS, but also because it stimulates the creation of the necessary knowledge and expertise on tourism economic analysis through the cooperation and integration of a pool of experts – practitioners and researchers - in different disciplines: statistics, geography, economy, etc.

Since many regional statistics are very often produced by the National Statistical Offices, as a regionalisation of national data, it is recommended that official statisticians should be involved in the development of the R-TSA in order to promote the use of national instruments to collect tourism data at regional level using a common set of concepts, definitions, classifications, accounting rules, etc.; in a second phase, the regional authority can then decide to supplement national statistics with other sources specifically tailored to their own territorial specificities.

Finally, the third question What can the region do when the feasibility study reveals that there are no data and resources enough to support the development of a proper R-TSA?

The answer suggested is invite the region not to give up and to find alternative solutions. Although it might not be possible to set up a proper R-TSA, it is however recommended to promote a descriptive analysis that identifies the main characteristics of regional tourism from the supply and demand side.

This recommendation, in order to be translated in operational terms, implies the setting up of a complex governance structure.

It is suggested to identify information gaps (in order to start the setup of a more appropriate regional tourism information system, supporting in the future the development of a proper R-TSA), and develop statistical Supply/Demand checking –using national and regional data- regarding overnights/ occupation of establishments providing accommodation for visitors/ number of arrivals/number of visitors/employees in the tourism sector/ average expenditure/ etc. . Some of such issues will be addressed in the following paragraphs

Complexity of the regional measurement of tourism

There are many aspects of the measurement of tourism at the national level that are quite different when compared to cases of sub-national scope: this is true both for demand and supply. That is to say that the scope of sub-national tourism is not a mere disaggregation of national tourism; it also has its own thematic singularity and technical complexity when it comes to its measurement.

Regarding regional demand, the following ones are particularly relevant:

- Tourism trips undertaken by the resident population has greater importance because the measurement and analysis of domestic tourism can only be improved from a sub-national perspective (and this implies setting a link between tourism and territory)
- In fact when considering the adaptation of national TSAs to subnational levels, it becomes evident that the use of data derived from national household surveys used for measuring domestic tourism are not so robust (in statistical terms) as assumed; a main reason could be that the use of such surveys are more short term oriented and lack of a proper sample size so as to derive the main indicators needed for setting up an estimate of the economic contribution of such form of tourism
- Demand side surveys at the national level have not always been designed to provide regional estimates. In the case of domestic tourism surveys, the possibility or not to generate an Origin/Destination matrix of intraregional flows of trips/visitors makes the difference. The IRTS2008 states “for sub-national analysis of domestic tourism, it is also essential to characterize trips according to the place of usual residence of the visitor, his/her personal characteristics and the main destination of the trip. This information, usually collected through household surveys, is often represented in matrices showing the number and duration of trips by origin and destination”;

Regarding regional supply ,the following issues should be sufficient to raise the need for setting up an agenda for improving its measurement:

- the concept of “tourism sector” is not always appropriate at sub-national levels due to the fact that a cluster of existing number of production units in different tourism industries might not be significant at such territorial level
- the identification of tourism industries at the regional level might justify, in some cases, the consideration of, for example, the producers of souvenirs, jewelry and handicraft as tourism related activities, while this would not necessarily be the case at the national level (in the case that the associated expenditure were marginal or scarcely significant);
- also vacation homes (or more precisely, accommodation services associated with all types of vacation home ownership), as a peculiar type of tourism industry, might deserve special attention in some regions
- the measurement of passenger transport is almost impossible to approach exclusively from the regional perspective (as it is normally necessary for the national information to be disaggregated using some kind of ad hoc indicators or parameters); also interregional trade in tourism characteristics products (both goods and services) should be mentioned as very problematic because it is not so easy to measure what one region produces and which part of it is consumed by visitors in another region
- while at the national level it would be possible to justify not prioritizing certain issues (like the measurement of the tourism contribution of special events, the Meetings Industry and its tourism connection, the expenditure associated with the maintenance of vacation homes, the phenomenon of same-day visits, linking tourism expenditure to the main purpose of the trip, etc.), these could be of priority interests for certain regions were tourism is significant;

What is and what is not a R-TSA

The estimation procedure and the methodological approach to set up a TSA for a specific region (identified as a R-TSA) is just as one would calculate a national-level TSA; consequently, it would be of interest and helpful for defining a feasibility study to adapt the WTO 2005 chapter 1 “What is the National TSA (TSA) and what is it not?”. Such chapter starts with a very clear recommendation: “Before putting forward

proposals for adapting the TSA to subnational levels it would seem helpful to draw on the experience that WTO has gained in fulfilling its statistical remit". (para.1.3 within WTO 2005)

Ten years later, the following four statements included in the UNWTO 2005 document seem particularly appropriate to be discussed whether they apply or not to a R-TSA; and for those that apply, it is recommended how they should be adapted.

***I The development of the TSA should be an end in itself** in that it would enable both the NTA and the CSO to meet their own aims in their respective spheres of competence. For NTAs, it would highlight the value of tourism as a factor of economic development and improve the design of tourism policies, and for CSOs it would help to strengthen the General Statistical System of which they are the custodians. (WTO, 2005, para.1.5)*

Such a statement does not apply to a R-TSA.

Nevertheless, it could be appropriate to say that not being an end in itself the perspective of developing a R-TSA in a region in which tourism is significant, will greatly contribute to foster and improve regional economic measurement, policy design and analysis (being more end-oriented than analyses from a national perspective); although costly, a project of this kind should have as an intermediate objective the development of a R-TIS and the use of Input/Output or Supply/Use tables.

***II Another important aspect of this new framework is its formal structure: the TSA is a set of interrelated accounts.** These are expressed in tables, where the accounting aggregates (tourism consumption, value added of the tourism industries, tourism value added, tourism GDP, etc.) are obtained by aggregating the individual headings. The individual data are as important as, or more important than, the aggregates obtained. (para. 1.9 within WTO 2005)*

Such a statement also applies to a R-TSA

The proposal made by Agustín Cañada (2013) regarding the convenience to use a more compact format and limited number of TSA tables, as shown in the following table, is a serious proposal

TSA:RMF tables	Proposal for an RTSA	
	Title	Details
Table 1. Inbound tourism expenditure	---	(Included in summarized form in Table 1)
Table 2. Domestic tourism expenditure	---	(Included in summarized form in Table 1)
Table 3. Outbound tourism expenditure	(*)	Not included (*)
Table 4. Internal tourism consumption	TABLE 1. Internal tourism consumption	Breakdown by consumption products and components: inbound tourism expenditure; domestic tourism expenditure; other components of tourism consumption.
Table 5. Production accounts	TABLE 2. Production accounts of characteristic industries	Breakdown: production and operation accounts by branch of tourism activity.
Table 6. Domestic supply and internal tourism consumption	TABLE 3. Supply and internal tourism consumption	Minimum proposal: a) Totals for supply operations: production; imports; taxes net of subsidies; commercial and transport margins. b) Production matrix based on supply table, plus "indirect" or "endogenous" product ratios
Table 7. Employment in the tourism industries:	TABLE 4. Employment in the tourism industries.	Minimum breakdown: employment positions, differentiated according to: a) salaried or unsalaried; b) full or part time. Hours worked.
Table 8. Gross fixed capital formation of tourism industries	TABLE 5. GFCF of the tourism industries. <i>(Voluntary)</i>	Minimum breakdown: asset categories.
Table 9 Tourism collective consumption	---	Not included
Table 10. Monetary and nonmonetary indicators of demand and supply	Table Annex 1. Indicators of demand and supply <i>(Voluntary)</i>	Suggested minimum proposal: - Inbound tourism: no. of arrivals and overnight stays. - No. of establishments and collective accommodation capacity. - No. of establishments in the tourism industries.
	Table Annex 2. The region's external balances for tourism consumption <i>(Voluntary)</i>	- Best: Complete matrix of tourism consumption by region of supply/use. - Second-best: Inbound and outbound tourism consumption according to principal regions of supply/use.

(*) This concept can be approximated if the RTSA includes the table in Annex 2.

Consequently, R-TSA should

- recognize that the setting up of data and indicators needed will use the IRTS2008 as the common reference framework
- adapt the set of interrelated accounts as in TSA (at least TSA tables 4,5,6 and 7) using elementary data obtained from surveys and modeled data
- generate tourism macroeconomic aggregates as an accounting outcome (internal tourism consumption, gross value added of the tourism industries, tourism direct gross value added for each industry and for all industries, tourism gross regional product and employment in the tourism industries)
- be considered, at least for the first exercise, as an experimental exercise.

III *The TSA may or may not be comprehensive (most of the countries that start the TSA project confine their efforts to an incomplete experimental exercise), but **by no means can these accounts be simulated or modeled** for one simple reason: the headings obtained on the basis of elementary data drawn from surveys and existing records cannot be simulated. It is however possible to simulate or model aggregates by performing economic modeling and impact assessment exercises, but this has nothing whatsoever to do with the statistical procedure used for obtaining these aggregates in the TSA. (para 1.10 within WTO 2005)*

Such a statement also applies to a R-TSA

"However, the lack of a common conceptual and statistical framework has resulted in a wide heterogeneity of approaches, methods and results, making it difficult to compare the different products, with each other or with the national framework of a TSA. An additional consequence has

been a surge in “competing” alternatives to the TSA, based on modeling procedures. All of this definitely affects the verisimilitude of tourism measurements, and by extension that of the TSA itself.” (Cañada, 2013, para 1.7)

Consequently, it should be clarified that a R-TSA is an extension of the TSA accounting framework, not a stand alone account; consequently, it should not be compiled in a country that does not have a current or prior TSA

IV Priority must be given to developing the STS, it is absolutely essential that the NSO be involved in formulating the relevant project, for three obvious reasons: because of its technical skills and its institutional responsibilities (which confer the necessary legitimacy on the exercise as a “satellite” of the National Accounts) and because its participation is vital to the continuity of the project, which is not merely a one-off exercise but the institutionalization of TSA preparation as part of a country’s ongoing statistical work. (para. 1.18 within WTO 2005)

Such a statement also applies for a R-TSA

In order to contribute to the sustainability of the efforts (both financial and technical) necessary to develop a R-TIS and eventually a R-TSA, an inter-institutional network for the setting up of a Regional Tourism Information System should be set-up; such network should be integrated by key tourism stakeholders (both at the regional and sub-regional levels) and supported technically by a multi-disciplinary group of experts in statistics, geography, economics and tourism as well as other practitioners and researchers. Such group might request the cooperation of any type of national or subnational institution.

Consequently such a network should be understood as the support for a proper governance structure decided by those stakeholders in order to guarantee the sustainability of such medium-long term initiative.

Setting up a R-TSA: Feasibility Study

Carrying on a feasibility is a project by its own

The following paragraphs are extracted from UNWTO guidelines 2005:

“Consequently, one of the project’s initiatives is to ascertain exactly what regional information exists (i.e. statistics and administrative records from national and regional sources), which would preclude some of the problems that might arise in certain Regional Tourism Administrations, for instance:

- lack of knowledge of exactly what statistics are available, where to obtain them or how to access them; It is absolutely essential to have a minimum amount of information to be able to assess tourism’s contribution to the economy, especially from the demand side; otherwise, most of the information would be mere estimations;
- inefficient use of resources, especially in regions where they are particularly scarce;
- inconsistency of data collection over time and between geographical areas. Statistics need to be produced on the basis of classifications that are consistent over time and from area to area: this is especially important if data sources are restricted, in which case the maximum benefit may be gained by integrating two or more data sources to generate a derived set of statistics.”(para 5.5 within WTO 2005)

“This analysis should serve to build up a kind of checklist of basic variables and indicators (number of trips, visitors, overnight stays, average daily expenditure of visitors, main purpose of the visit, etc.) according to the various territorial levels (national, regional, sub-regional and municipal) and the corresponding statistical or administrative unit responsible for their production”. (para 5.6 within WTO 2005)

“This assessment should be seen as something more than placing the appropriate crosses in a matrix: first of all, it will necessitate some form of statistical debate about the main national sources to be used and the scope of the specific methods of regionalizing variables; it will also be necessary beforehand to adapt the definitions of those variables and indicators to the various territorial levels. Because tourism is an activity that is defined from the demand side, the concept of “visitor” is a good

example of what the adaptation of national definitions to a regional context entails.”(para 5.7 within WTO 2005)

“The tourism statistical unit, on the demand side, is the “visitor”, but in order to apply to the regions the definition and national classification of “non-resident visitor” it is necessary to define for each territorial level and the region as a whole two categories, i.e. that of non-resident foreign national and that of “domestic visitor from elsewhere in the national territory”. For any given region, therefore, there are three subsets of visitors: foreign nationals not resident in the national territory, nationals resident in another part of the national territory, and residents in the region of reference”. (para 5.8 within WTO 2005)

“This segmentation of visitors affects the coverage of regional aggregates such as regional consumption of inbound and outbound tourists in each of the territorial levels selected for analysis. (Obviously, if the aim is to analyze the region as a whole without any kind of territorial breakdown, it is far less difficult to obtain the necessary information.)”. (para 5.9 within WTO 2005)

“ It must be pointed out that the identification of the new statistical unit “domestic visitor from elsewhere in the national territory” (the number of such visitors, their classification as tourists or same-day visitors, their associated expenditure and the corresponding disaggregation at sub-regional levels) raises the problem of access to possible sources of statistical information (especially for the same-day visitor category), as well as questions about the reliability of the data sought. For this reason it will be necessary to develop a set of regional indicators that will serve to estimate these flows as an appropriate step in developing the base series for inclusion in an R-TSA.”(para 5.10 within WTO 2005)

“ Carrying out an assessment of the national/regional linkage of the STS is strongly recommended: this task should be the first step in developing a set of computer databases (which could, if appropriate, be integrated within a shared database) that would serve to centralize the national/regional data available in relation to those variables and indicators. The use of these data by the various regions and also by the national unit responsible for regionalizing the TSA should be specified beforehand”. (para 5.11 within WTO 2005)

In addition to such suggestions, the following initiatives might also be considered:

- If the conditions are given, a person must be responsible for drafting the feasibility study and consult with the technical team of the regional inter-institutional network; such person should also qualify as a dedicated person
- Availability of data and a number of associated characteristics (quality, completeness, statistical robustness, statistical source, etc.) should be documented using a Metadata format.
- Storage of data in a database to be used for a future R-TSA might be also explored; such database should be geo-referenced
- Because it will be an issue the need for modify / supplement existing surveys, a sort of catalog of questions already included in different surveys about the main topics should be drafted and circulated

A relevant case study is the R-TSA developed for the Region of Madrid in Spain. As explained by Cañada (2013, *Regional Tourism Satellite Account, UNWTO Statistics and TSA Issue Paper Series STSA/IP/2013/02*), Madrid’s regional TSA could be used as the basis for proposing what sources should be required for an R-TSA.

“This example is sufficiently complete but is also – it must be recognized – extremely unusual, because apart from the wide availability in Spain of national sources with regional breakdowns, a number of specific activities have been initiated for the regional project:

- A resident household expenditure survey, to determine the behavior and spending patterns of Madrid residents– within that same territory and on travel to a second residence.
- A survey taken in tourism areas designed to capture traveller flows and their characteristics in the region’s principal tourism areas. In addition to other information, this source, together with the

regional expenditure survey, provides a certain level of information and helps to reduce the margin of uncertainty that characterizes the always-difficult area of excursionism.

- The introduction of a travel expenditure module in the survey on the intermediate consumption of regional enterprises (a biannual survey to gather detailed information about this variable for the estimation of regional supply and use tables, which are prepared annually).”(para.3.67 within Cañada, 2013)

“In other words, the efforts were focused on covering fields not covered by other sources but that fundamentally affect demand. With respect to supply, information compiled at the national level provides the basis for the TSA supply tables (especially the annual Spain’s National Statistical Office Survey, as well as specific SO), together with regional administrative sources, permits coverage of most of the requirements of the R-TSA. A similar case is employment, for which national sources (workforce survey, Social Security records) are generally available with a sufficient degree of regional disaggregation so as not to need additional specific sources”.(para.3.68 within Cañada, 2013)