

Annex 34. Fostering analysis: alternatives beyond the R-TSA

1. As stated by Statistics Canada Quality Guidelines, December 2009 (fifth edition), “data analysis is the process of developing answers to questions through the examination and interpretation of data. The basic steps in the analytic process consist of identifying issues, determining the availability of suitable data, deciding on which methods are appropriate for answering the questions of interest, applying the methods and evaluating, summarizing and communicating the results”.

“Data analysis is essential for understanding results from surveys, administrative sources and pilot studies; for providing information on data gaps; for designing and redesigning surveys; for planning new statistical activities; and for formulating quality objectives”.

“A good analysis of relatively poor quality data is often worth much more than a poor analysis of good quality data”

2. “Data from a survey can be used for descriptive or analytic studies. Descriptive studies are directed at the estimation of summary measures of a target population (for instance, the average daily expenditure of German tourist in a given tourist destination) while analytic studies may be used to explain behaviour of and relationship among characteristics.”

“Prior to conducting an analytical study the following questions should be addressed:

- *Objectives.* What are the objectives of this analysis? What issue am I addressing? What question(s) will I answer?
- *Justification.* Why is this issue interesting? How will these answers contribute to existing knowledge? How is this study relevant?
- *Data.* What data am I using? Why it is the best source for this analysis? Are there any limitations?
- *Analytical methods.* What statistical techniques are appropriate? Will they satisfy the objectives?
- *Audience.* Who is interested in this issue and why?”

3. If resources are unavailable to launch a project in the perspective of developing a proper R-TSA, this document suggests to consider the opportunity to launch instead some initiatives in line with the abovementioned guidelines:

- build on a descriptive type analysis identifying main characteristics of tourism supply using available data in line with the proposed estimates of regional employment in tourism industries as well as the use of Business Register for the national/regional articulation of a set of basic data and indicators
- start the set up of a R-TIS and identify information gaps that might be relevant for regional key tourism stakeholders (see 1.4)
- consider the opportunity to use other tools to foster economic analysis

4. Complementary to such recommended initiatives, a particular topic would be to identify possible shortcomings of national domestic surveys and consider the opportunity to prepare technical proposals for an improved national survey or an eventual design of a regional one; either initiative should deserve special attention and such analysis might require assistance of other key tourism stakeholders

Finally, as already mentioned (see chapter 4, section C.1), household surveys designed for tourism measurement is a complex task particularly when a national survey is designed for allowing the set up of an origin/destination matrix (see chapter 6, [sections 6/C.2](#) and [6/D.](#))

5. In fact, while at the national level UNWTO clearly indicates that household surveys should be the preferred option for measuring domestic tourism, this document has raised the attention that nevertheless, it should be kept in mind that sample size and design of such surveys are strongly related to the significance and accuracy of the variables to be estimated. Two different issues need to be taken into consideration when designing such national surveys: the unequal distribution of tourism over the national territory and the high degree of heterogeneity of the population in terms of tourism behavior.

Such warning is also pertinent when considering regional visitor surveys for tourism purposes; particularly at the regional level where tourism is a strongly consolidated phenomenon, it might happen that more than 75% of overnights is related with a very limited number of municipalities and consequently, traditional sample designs might not be as efficient as applied in other type of research areas.

6. Due to the fact that it is very data demanding, the design of a proper [R-TIS](#) would be justified under two circumstances: the significance of tourism in a given region (see Glossary) and the availability of a basic set of national statistical sources (such as border survey, domestic tourism household survey, statistical business register, structural business survey and population census)
7. Obviously, there are many things that could be done regarding descriptive type of analysis; a very different issue is to conduct analytical type of studies. In fact, it is pretty obvious that developing a tourism impact study for instance, might raise awareness in some key stakeholders about the importance to foster economic measurement and analysis of tourism
8. It should not be neglected that R-TSA becomes an input to economic models, and then a mean of appraising and evaluating investments and policy; it also provides a foundation for carbon and water foot-printing of tourism consumption, accounts of interest to regional environmental agencies in areas such as planning around natural resources

9-8 In this perspective, Douglas Frechtling has prepared for *UNWTO Issue Paper Series* (Frechtling, 2013) a useful text analyzing pros and cons of three tools that have been applied for macroeconomic analysis of tourism that could be also used at a regional level:

- Input-Output model
- Social Accounting Matrix (SAM)
- Computable General Equilibrium (CGE) models

Such document (which also includes some examples for each type of model) should be used as a reference document for those interested in the measurement of the economic contribution and impact of tourism and macroeconomic analysis. In fact, the application of such models to regional tourism analysis is well known in the academic literature