



Environmentally extended tourism satellite accounts for Italy – Extended outline

Angelica Tudini, Istat

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The purpose of this extended outline is to describe the most relevant aspects to be covered in a case study on the interaction between tourism activities and the environment in Italy by means of an accounting framework integrating Tourism Satellite Accounts (TSA) and the System of Environmental-Economic Accounting (SEEA).

Linking the accounting frameworks of TSA and the SEEA is one of the three objectives of the work coordinated by the UN World Tourism Organization (WTO) project *Measuring Tourism for Sustainable Development (MTSD)*, that provides the general context of the study.

This extended outline is drafted for comments and suggestions at the October 2016 Meeting of the Working Group of experts on Measuring Sustainable Tourism at UNWTO.

The outline revised taking into account suggestions received at the meeting will provide the basis for the final report of the study.

Main objectives of the proposed case study are:

- to describe the most important policy issues in the field of interaction among tourism and environment in Italy (§ 1);
- to analyze the extent to which the existing policy demand concerning environment and tourism interaction can be answered by means of integrated accounting frameworks and specifically by linking TSA and SEEA (§ 2);
- to tailor the specific scope of the study to data available in the short term (§2);
- to produce estimates of the interaction between tourism industries and the environment with specific reference to the topics identified in the previous step (§ 3);
- to highlight possible future developments and extensions of the scope of the study to better meet existing policy demand (§4).

1. Tourism and environment in Italy: main facts and key policy issues

The first part of the case study will describe the main features of tourism in Italy by means of the latest available statistics both from a supply and demand perspective; Italy will be placed within the wider context of European and worldwide tourist flows. Emphasis will be given to statistics and indicators that can be used to describe the interaction of tourism with the environment such as, for example, statistics on the means of transport used by tourists.

Policy priorities in the field of tourism as highlighted in the latest Tourism Strategic Plan (2017-2022) will be analysed with specific reference to environmental issues within it.

The role played by key institutional actors in designing tourism policy in Italy - such as the Ministry of cultural heritage and activities and Tourism and the National Tourism Agency (Enit) - will be presented.

2. Describing tourism and environment in Italy by means of accounts: framework and scope

2.1. The framework: linking TSA and SEEA

Recognizing that accounting frameworks have a high potential for deriving a statistical framework for sustainable tourism, the study will be based on an integrated TSA and SEEA accounting framework. The latest methodological developments achieved as outcome of the November 2016 UNWTO MSTP meeting as concerns the definition of accounting frameworks for sustainable tourism will be presented. Reference will also be made for comparison purposes to the preliminary accounting framework for tourism and environment developed in Italy in previous studies (see Costantino C. – Tudini A. [2005] and Anzalone M. [2014]).

2.2. Data availability

The choice of a specific framework for the case study will depend on data availability in Italy on TSA data and environmental accounts data. A thorough review will be provided in both cases.

2.2.1. Italian TSA

The experience of the first TSA for Italy released in 2012 with reference year 2010 will be recalled and the scope and timing of the second Italian TSA with reference year 2014 will be described. Out of the 8 main tables of the Italian TSA (Table 1 Inbound tourism expenditure by products and classes of visitors, Table 2 Domestic tourism expenditure by products, classes of visitors and types of trips, Table 3 Outbound tourism expenditure by products and classes of visitors, Table 4 Internal tourism consumption by products, 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), the most relevant one for the purposes of extending the framework to environmental accounting is *Table 5 Production accounts of tourism industries and other industries*. The Table with reference year 2014 will be available by the end of the 2016 or early 2017. The methodology developed by Istat for producing the table, (similar to that applied for the first TSA, see Maresca et al, 2012) will be explained in detail, particularly with regard to how tourism industries’ output was singled out within broader national accounts aggregates, by selecting relevant ISIC rev4 classes – Table 1 below.

Table 1 - Tourism industries within TSA Table 5 and corresponding ISIC Rev. 4 classes

Tourism industries (TSA Table 5)	ISIC. Rev. 4 classes included in the tourism industries
1- Accommodation for visitors	5510-5520-5530-5590
	6810-6830
	6820
2- Food and beverage serving activities	5610-5629-5630
3- Railway passenger transport	4910
4- Road passenger transport	4932-4939
5- Water passenger transport	5010-5030
6- Air passenger transport	5110
7- Transport equipment rental	7711
8- Travel agencies and other reservation services industry	7911-7912-7990
9- Cultural industry	9001-9002-9003-9004
	9102-9103-9104
10- Sports and recreational industry	7721
	9200
	9311-9319-9321-9329

Source: adapted from Maresca et al. [2012]

2.2.2. Italian Environmental accounts

As a Member of Eu Italy regularly produces data for three environmental accounts covered since 2011 by Eu Regulation on European environmental economic accounts (Reg. 691/2011): air emission accounts, environmentally related taxes by economic activity and economy-wide material flow accounts. Data are under development for the three accounts added in 2014 to the Regulation, namely environmental protection expenditure accounts, environmental goods and services sector accounts and physical energy flow accounts (Reg. 538/2014 amending Reg. 691/2011).

Environmental accounts by NACE are the best suitable candidates for inclusion in a TSA-SEEA framework; the study will describe in detail data availability for the six accounts with specific reference to the breakdown by NACE.

The overview on data availability will allow to identify which accounts are the best candidates for an environmentally extended tourism satellite accounts for Italy in the short term and which ones can be included at a later stage; reference will be made to the range of policy topics listed in the MSTP project note¹, see table 2 below (to be filled in as outcome of the assessment).

Table 2 - Policy topics concerning for the environmentally extended tourism satellite accounts for Italy- feasibility - TO BE COMPILED

Environment and tourism policy topic as identified in MSTP	Feasibility within an environmentally extended tourism satellite account case study for Italy
The environmental impacts of tourism activity (e.g. energy use, greenhouse gas (GHG) emissions and climate change, solid waste, wastewater, disruption of ecosystems and biodiversity)	Short term: Medium/long term:
The dependency of tourism activity on the environment (e.g. land, water and energy requirements, healthy and good quality ecosystems – beaches, reefs, forests, etc.)	Short term: Medium/long term:
Responses of tourism businesses and visitors in relation to the environment (e.g. environmental protection expenditure, environmental taxes)	Short term: Medium/long term:
The social impacts of tourism activity (e.g. on local tradition and customs, on employment)	Out of scope
The dependency of tourism activity on “social” infrastructure including a suitably qualified workforce, transport infrastructure and public facilities.	Out of scope

¹ See WTO (2016).

2.2.3. Scope and deliverables of a case study on environmentally extended tourism satellite accounts for Italy

Based on the results of the data availability analysis the detailed scope of the study will be defined.

The preliminary idea is as follows:

- The adopted framework will be a combined TSA-SEEA table
- TSA variables included: output at current prices by tourism industry (TSA, Table 5)
- SEEA variables included: one or more of the following environmental accounting data depending on the results of the assessment: air emission, energy input, environmental taxes
- The spatial reference will be national
- The time frame will be annual
- Reference year: 2014
- Timing: 1st November 2016 to 30th May 2017

Deliverable: final report consistent with this extended outline

3. Empirical application: environmentally extended tourism satellite account for Italy – year 2014

The study will deliver estimates for all variables included in the scope of the study and according to the proposed accounting framework (see § 2.2.3). In addition to results, a detailed methodological description will be provided.

3.1. Description of methodology

The source of economic data, i.e. output at current prices by tourism industry, will be the Italian TSA for the year 2014.

Estimates for environmental data will be consistent with output estimates, particularly with regard to the content of tourism industries in terms of ISIC rev4 classes (see 2.2.1). To this purpose, bottom-up analysis will be performed to assess how best to relate available environmental accounts data by NACE to the tourism industries of the TSA. For example, the tourism industry ‘air passenger transport’ in the Italian TSA includes passenger air transport and not ‘freight air transport’; by contrast ‘Air transport’ (NACE 51) emissions in the Italian air emission accounts include both passenger and air transport. In order to estimate emissions stemming from the tourism industry ‘air passenger transport’, the emission intensity of NACE ‘Air transport’ will be analysed in order to assess whether it can be calculated separately for freight and passenger and whether the two components are significantly different.

A similar approach will be applied to all environmental variables covered in the scope of the study.

The study will also assess specific issues such as possible implications for the estimates of the related environmental variables of the net valuation of package tours (PT) applied in the Italian TSA.

3.2. Presentation of results

The main results will be presented consistently with the framework and variables defined in the scope of the study, most likely in the form of a combined TSA-SEEA table including output and the related selected environmental variables broken down by tourism industry for the year 2014.

Graphic representation will also be included.

Comparison with previous estimates (see Anzalone [2014]) will be provided.

4. Conclusions and possible future developments

The feasibility of producing regular estimates will be discussed along with possible extensions to environmental variables not covered in the present study.

References

Anzalone M. [2014] Paper "Tourism and sustainability: macro-accounting approach for measuring the links between tourism and environment", Global Forum on Tourism Statistics, Prague, Czech Republic, 15-16 May 2014.

http://www.tsf2014prague.cz/assets/downloads/Paper%204.4_Massimo%20Anzalone_IT.pdf

Castellari S., Venturini S., Ballarin Denti A., Bigano A., Bindi M., Bosello F., Carrera L., Chiriaco M.V., Danovaro R., Desiato F., Filpa A., Gatto M., Gaudioso D., Giovanardi O., Giupponi C., Gualdi S., Guzzetti F., Lapi M., Luise A., Marino G., Mysiak J., Montanari A., Ricchiuti A., Rudari R., Sabbioni C., Sciortino M., Sinisi L., Valentini R., Viaroli P., Vurro M., Zavatarelli M. (a cura di) [2014], *Rapporto sullo stato delle conoscenze scientifiche su impatti, vulnerabilità ed adattamento ai cambiamenti climatici in Italia. Ministero dell'Ambiente e della Tutela del Territorio e del Mare*, Roma.

Cammarota, M., Costantino, C. and Fångström [1999], 'Joint final report of the sectoral infrastructure project – Tourism', in Eurostat, Towards environmental pressure indicators for the EU: an examination of the sectors, Luxembourg.

Costantino C. – Tudini A. [2005], "How to develop an accounting framework for ecologically sustainable tourism", in Lanza A. – Markandya A. – Pigliaru F. (editors), *The Economics of Tourism and Sustainable Development*, The Fondazione ENI Enrico Mattei series on Economics and the Environment, Edward Elgar, UK, USA

Istat [2012], Il primo conto satellite del turismo per l'Italia, <http://www.istat.it/it/archivio/66113>

Manente [2016] *Scenari e tendenze dell'Italia turistica*, http://www.pst.beniculturali.it/wp-content/uploads/2016/04/Mara_Manente.pdf

Maresca S., Anzalone M., Piscitelli I. [2012] *Versus the first Italian tourism satellite account: the production approach*, Paper presented at the 20th IIOA conference, Bratislava.

Ministero dei beni culturali http://www.pst.beniculturali.it/?page_id=84

UNWTO [2015] Working Group on Measuring Tourism For Sustainable Development Terms Of Reference,

UNWTO [2016] Measuring Sustainable Tourism Project concept note, <http://cf.cdn.unwto.org/sites/all/files/docpdf/mstconceptnote17032016.pdf>