

Annex 33. Exploring an experimental approach to TSA “Other aggregates”

1. This Annex stresses the opportunity to advance in the development of Tables 8 & 9 of TSA (“Tourism Gross Fixed Capital Formation” and “Tourism Collective Consumption”). These tables lack guidance within the TSA:RMF 2008 document, where the territorial framework of reference is the nation. It could be a path to steer the project TSA at last.
2. Precisely, it would be reasonable to consider that at subnational levels in fact it makes sense to advance on the estimation of these other aggregates starting from the first Regional TSA exercises. This way, it would be given priority to the impact on analysis, over statistic rigor that in any case should be requested to estimate the main aggregates defined under TSA (such as internal tourism consumption, gross value added of tourism industries, internal tourism expenditure, etc), as it is mentioned in the following paragraph. In this sense, those exercises might be understood as useful statistical exercises although based on experimental basis.
3. TSA:RMF 2008 identifies four supplementary aggregates derived from TSA tables out of which two refer to Tourism Gross Fixed Capital Formation and Tourism Collective Consumption; although Tables 8 and 9 refer to “Tourism gross fixed capital formation of tourism industries” and “Tourism collective consumption, by product and level of government”, the corresponding aggregates derived from such tables are considered as potentially useful and in any case, “should be the object of a more advanced development of the Tourism Satellite Account” (TSA:RMF 2008, para. 4.99)

More precisely, paragraph 4.100 states that in the case of such aggregates, “the limited character of the estimations is not only the result of methodological issues but is also attributable to a lack of experience in defining operative solutions for the estimation of corresponding data by national statistical offices”.

4. It might be arguable that regional and sub-regional levels allow for a more sizeable approach as opposed to the national level for some very relevant topics for key tourism stakeholders; that would be the case of
 - Measurement of investments for attracting visitors and improve basic tourism related infrastructure
 - Support of regional as well as local authorities for holidays by targeted resident population segments (particularly youngsters and retired people)
 - Using cultural infrastructure, resources and initiatives for attracting visitors
5. In this section some guidance is provided in order to explore the feasibility of such approach in the understanding that case studies at the subnational level on such topics might contribute to advance on these TSA “other aggregates”. Before so doing (see sub-section *C/Fostering experimental approaches*), sub-sections A) and B) summarize first TSA key references.
6. This section builds on Frent (2014) which is a major contribution on this topic for different reasons:
 - a correspondence with CPC ver.2 for TSA table 8 is provided as well as correspondence CPC ver.2 and ISIC Rev.4 with TSA table 9
 - presents a breakdown on categories 4 and 5 of TSA table 8 and suggests new categories using the logic of UNWTO 2000 TSA doc already mentioned
 - suggest the inclusion in TSA table 9 of culture services as a kind of non-market tourism related collective services

1. TSA Tourism Gross Fixed Capital Formation aggregate

7. TSA:RMF (2008) proposes both the concept of Tourism Gross Fixed Capital Formation (TGFCF) and Gross Fixed Capital Formation of Tourism Industries (GFCFTI). It should be noted that these are different concepts. Actually, TGFCF is more encompassing than GFCFTI comprising both GFCFTI and the “net acquisition of tourism specific capital goods by all other industries” (TSA:RMF, 2008, para. 4.70) In fact, three main categories of “tourism driven investment” are proposed by TSA:RMF (2008): “Tourism-specific fixed assets”, “Investment by the tourism industries in non-tourism-specific fixed assets” and “Tourism-related infrastructure” (TSA:RMF, 2008, para. 2.46).

“There are a number of different perspectives on tourism gross fixed capital formation, and different aggregates could be proposed depending on the focus of analysis. Consequently, the estimation of a tourism gross fixed capital formation aggregate is suggested in order to guide further statistical development and research in those countries where tourism is especially relevant” (para 4.106 and 107 of TSA:RMF 2008).

8. It is stated that tourism-specific assets are: used exclusively or almost exclusively in the production of tourism characteristic goods and services. If tourism did not exist, such assets would be of little value as they could not easily be converted into non-tourism tourism applications. (TSA:RMF, 2008, para. 2.47)

TSA:RMF (2008) presents a list of such assets which is stated to be consistent with the classification of tangible produced fixed assets used in the System of National Accounts 2008 (TSA:RMF, 2008 para. 2.48) (see table 3). Mainly, there are five categories proposed: each of them can be associated with National Accounts categorization of fixed assets (SNA 2008) and international classification of products (CPC Ver.2) See [Annex 24](#)

Table 13 Classification of tourism specific fixed assets according to TSA:RMF (2008). Source: Frent (2014, table 1) adapted from TSA:RMF (2008), p.98.

No.	Categories	No.	Subcategories
1.	Accommodation for visitors	1.1.	Hotels and other accommodation facilities for visitors
		1.2.	Vacation homes under full ownership
		1.3.	Vacation homes under other types of ownership
2.	Other non-residential buildings and structures proper to tourism industries	2.1.	Restaurants and similar buildings for food-and beverage-serving services
		2.2.	Buildings and infrastructure for the long distance transport of passengers
		2.3.	Buildings for cultural and similar services mainly for use by visitors
		2.4.	Facilities for sport, recreation and entertainment
		2.5.	Other facilities and structures
3.	Passenger transport equipment for tourism purposes	3.1.	Land (including road and rail)
		3.2.	Sea
		3.3.	Air
4.	Other machinery and equipment specialized for the production of tourism characteristic products		Not provided by TSA:RMF (2008)
5.	Improvements of land used for tourism purposes		Not provided by TSA:RMF (2008)

9. Regarding the second category (“Investment by the tourism industries in non-tourism-specific fixed assets”) this is considered tourism related not “because of the nature of assets themselves, but because of the use which is made of them by a tourism industry” (TSA:RMF, 2008, para. 2.49). Laundry facility in a hotel is an example, which falls within this category. Recognizing that at present there is a diversity of assets which can be part of

this category, TSA:RMF (2008) does not make any recommendation to classify these assets but encourages countries "when feasible, to identify some specific classes of such assets that might be significant in their economy" (TSA:RMF, 2008, para. 2.49). Only the two first categories are included in TSA:RMF (2008) table 7.

10. The third category ("Tourism-related infrastructure") is not included in table 8 because of the "difficulties in identifying elements of tourism investments" (TSA:RMF, 2008, para. 2.54). Despite this, TSA:RMF (2008) encourages countries to work on this issue and to include "tourism-related infrastructure" to TGFCF ("countries that are able to estimate all or part of it are encouraged to include it as an additional category") (TSA:RMF, 2008, para. 4.70).
11. It is considered that tourism-related infrastructure either has been developed for a touristic purpose or tourism was not necessarily the main purpose of investment (TSA:RMF, 2008, para. 2.50). Anyway, in the category of "Tourism-related infrastructure", three cases were identified by World Tourism Organization in the previous version of the TSA international standard (WTO, 2000, p. 73):
 - The asset might have been produced or acquired with the purpose of being used exclusively or principally by visitors, such as development of areas specifically for tourism purposes;
 - At the time the investment was made, it might have been done with the view of its exclusive or principal use by visitors at a given point in time (e.g. investments for a special event such as the Olympic Games, an important international meeting, etc.), but a later non-tourism use is taken into consideration in the decision making process for this investment;
 - It might be directed generally to all activities and also favour tourism (e.g. an airport open to all type of traffic, a non-toll road, a hospital in an area visited by visitors), because in its absence tourism would probably be of a lesser intensity.

Nevertheless, in each case the public sector has the responsibility to put in place this "tourism-related infrastructure" in order to facilitate tourism development. In addition, the measurement of "tourism-related infrastructure" can be further complicated specially in the case of basic infrastructure which tourism is a beneficiary of and where "the process of identification and allocation to tourism might present more theoretical and practical difficulties" (WTO, 2000, p. 74)

2. TSA Tourism Collective Consumption aggregate

12. Collective consumption of the general government would include provision of legislation and regulatory framework for tourism or related to tourism (i.e. cultural heritage), tourism promotion, security and public order in the places visited by tourists, cleaning services of beaches, ski resorts or other areas visited by tourists and the production of tourism statistics.

Nevertheless, tourism promotion can be considered a special case when there is a public/private partnership involved and the private sector provides part or all the funds required. In this case, one cannot consider it as "a collective non-market service but as a service provided by a market producer (which might receive support from general government under the form of a current transfer) and are considered as an intermediate consumption of the private sector" (TSA:RMF, 2008, p. 20).

13. At the same time, it is important to mention that services provided by national parks and museums are excluded since they are considered individual non-market services and already included in tourism consumption as social transfer in kind. This is because “their beneficiaries can be identified separately” (TSA:RMF, 2008, para. 4.73). There is no definition of Tourism Collective Consumption in TSA:RMF (2008) but an earlier publication of the World Tourism Organization (WTO, 2000) did present an important clarification: Tourism collective consumption is comprised of those collective non-market services which unambiguously benefit visitors and/or those activities that serve them directly (i.e., the [tourism industries](#)) (p. 74).
14. Tourism Collective Consumption is found in the TSA:RMF (2008) table 9 entitled “Tourism collective consumption, by product and level of government”. In this table the rows are in fact “a proposed list of non-market services that are to be considered as tourism collective nonmarket services in terms of the corresponding CPC subclasses” (TSA:RMF, 2008, para. 4.72). Some of these services can be considered entirely related to tourism (e.g. tourism promotion) while others are only partly related to tourism (see table 4). It is specifically mentioned by TSA:RMF (2008) that “countries are encouraged to increase this list with further proposals” (TSA:RMF, 2008, p. 100).

Table 14 The proposed classification of Tourism Collective Consumption according to CPC classification in TSA:RMF (2008). Source: Frent (2014, table 3) adapted from TSA:RMF (2008), p.100.

CPC code	Name of products
85561	Tourism promotion services
85562	Visitor information services
91135	Public administrative services related to the distributive and catering trades, hotels and restaurants
91136	Public administrative services related to tourism affairs
Part of	
83700	Market research and public opinion polling services
91260	Police and fire protection services
92919	Other education and training services, n.e.c. ²
92920	Education support services

15. In addition to the classification of products, a classification by levels of government is also proposed within TSA:RMF (2008) table 9 as three separate columns for each of the CPC subclasses of table 3. Three levels are suggested: national, regional and local; each of the corresponding governmental authorities in charge of tourism might provide subsidies to foster tourism.

TSA:RMF (2008) also comprises a supplementary column, in fact a “memorandum item”, entitled “Intermediate consumption by the tourism industries”, which reflects the expenditure by the tourism industries in tourism promotion or other services related to the products described in such table (TSA:RMF, 2008, p. 70).

3. Fostering experimental approaches to TSA tables 8 and 9

16. Following Frent (2014), the proposal of extending TSA table 8 is considered a suggestive proposal. Such table considers the five categories of tourism –specific fixed assets included in TSA 2008 official document as well as other categories (4) using the logic of UNWTO 2000 TSA DOC as previously mentioned. Below table 5 presents a new proposed classification of tourism-specific fixed assets following CPC ver2. products and a better integration with the classification of assets from National Accounts. by Frent (2014, table 6).

Table 15 A new proposed⁵⁴ classification of tourism-specific fixed assets following CPC ver2. Products and a better integration with the classification of assets from National Accounts. Source: Frent (2014, table 6)

New categories of tourism fixed assets proposed	CPC ver. 2 code	CPC ver. 2 name	SNA (2008) classification by types of assets
1. Dwellings – vacation homes. (referred as TSA c1 in TSA RMF 2008)	5311*	Residential buildings	Dwellings
	3870*	Prefabricated buildings	
2. Buildings for tourism industries. (ibid TSA c2)	53129*	Other non-residential buildings	Other buildings and structures – Building other than dwellings & Other structures
	53122*	Commercial buildings (in this case it includes only passenger terminals)	
3. Structures mostly related tourism	53270*	Outdoor sport and recreation facilities	
4. Passenger transport equipment mostly related to tourism	49222	Trailers and semi-trailers of the caravan type, for housing or camping	Machinery and equipment - Transport equipment
	49311	Cruise ships, excursion boats and similar vessels, principally designed for the transport of persons; ferry boats of all kinds	
	494	Pleasure and sporting boats	
	49116	Motor vehicles, for the transport of persons, specially designed for travelling on snow, golf cars and similar vehicles	
5. Other passenger transport equipment (ibid TSA c3)	49113*	Motor cars and other motor vehicles principally designed for the transport of persons (except public-transport type vehicles, vehicles specially designed for travelling on snow, and golf cars and similar vehicles)	
	495*	Railway and tramway locomotives and rolling stock, and parts thereof	
	4991*	Motorcycles and side-cars	
	49921*	Bicycles and other cycles, not motorized	
	4961*	Balloons and dirigibles; gliders, hang gliders and other non-powered aircraft	
	4962*	Aeroplanes and helicopters	
6. Equipment mostly related to tourism	384*	Sport goods	Machinery and equipment - other machinery and equipment
7. Civil engineering works used by tourism	5321*	Highways (except elevated highways) streets and roads, railways and airfield runways	Other buildings and structures - Other structures
	5322*	Bridges, elevated highways and tunnels	
	53232*	Harbours, waterways and related facilities	
8. Other machinery and equipment used to supply goods and services to visitors (ibid TSA c4)	43*	General-purpose machinery	Machinery and equipment - ICT equipment & Other machinery and equipment
	44*	Special purpose machinery	
	45*	Office, accounting and computing equipment	
	46*	Electrical machinery and apparatus	

⁵⁴ This table is based upon Table 8 of the TSA:RMF 2008, and in this version Frent (2014) addresses a further breakdown for categories 4 and 5.

New categories of tourism fixed assets proposed	CPC ver. 2 code	CPC ver. 2 name	SNA (2008) classification by types of assets
	47*	Radio, television and communication equipment and apparatus	
	48*	Medical appliances, precision and optical instruments, watches and clocks	
	381*	Furniture	
	383*	Musical instruments	
9. Land improvements for tourism (ibid TSA c5)	54320*	Site formation and clearance services	Other buildings and structures - Land improvements

*-part of

Note: the shaded area designates categories which are difficult to be allocated to tourism

17. The above classification introduces a sort of fine-tuning with three categories being named as “mostly related to tourism”: “Structures mostly related to tourism”, “Equipment mostly related to tourism” and “Passenger transport mostly related to tourism”. The assumption behind them is that they are more related to tourism consumption. Together with the categories of “Dwellings-Vacation homes” and “Buildings for tourism industries” they can form a sort of “core classification” very close to tourism. To some extent, the category of “Other passenger transport equipment” can also join this classification, if passenger transportation can be distinctly identified.

18. At the same time, the author mentions that three categories are difficult to allocate to tourism: “Civil engineering works used by tourism”, “Other machinery and equipment used to supply goods and services to visitors” and “Land improvements for tourism”. “This is a domain where further research is indeed necessary. However, their importance for tourism shouldn’t be neglected”. (Frent, 2014 p. 21)

19. On the other hand, as explicitly mentioned in TSA:RMF 2008, proposing more non-market collective services in tourism is particularly encouraged; in fact, when referring to the classification of tourism collective consumption following CPC ver. 2 it states that “countries are encouraged to increase this list with further proposals” (TSA:RMF, 2008, p. 100). This could be the case of culture.

Table 16 The correspondence between products (CPC Ver.2) and industries (ISIC Rev.4, NACE Rev.2 and ISAT 2008) that make up tourism collective consumption. Source: partial reproduction from Frent (2014, table 7) from TSA:RMF 2008, p.100 and United Nations Statistics Division, 2013.

No	CPC Code	Product Name	ISIC code	ISIC industry name
1.	85561	Tourism promotion services	7990*	Other reservation service and related activities
2.	85562	Visitor information services	7990*	Other reservation service and related activities
3.	91135	Public administrative services related to the distributive and catering trades, hotels and restaurants	8413*	Regulation of and contribution to more efficient operation of businesses
4.	91136	Public administrative services related to tourism affairs	8413*	Regulation of and contribution to more efficient operation of businesses
	Part of			
5.	83700	Market research and public opinion polling services	7320	Market research and public opinion polling
6.	91260	Police and fire protection services	8423*	Public order and safety activities
7.	92919	Other education and training services, n.e.c.	8549	Other education n.e.c.
8.	92920	Education support services	8550	Educational support activities
14.	91124	Public administrative services related to recreation, culture and religion	8412*	Regulation of the activities of providing health care, education, cultural services and other social services, excluding social security

20. Operating at industry level poses difficulties due to the fact that an industry usually produces more than one product. In this regard for a better understanding of what kind of products are excluded from the industries related to collective consumption in tourism on the one hand and, what kind of products are included on the other, a summarizing table was created by the author (see [Annex 24](#)).
21. Anyhow, Frent (2014) proposed another generic category entitled "Economic affairs envisaging some tourism industries" to include the economic activities which concern the businesses in the main tourism industries. It refers here to hotels and restaurants, transport, recreation and *culture*.

Table 17 A new proposed structure for classifying collective consumption “largely related” to tourism according with COFOG and the related CPC Ver.2 and ISIC Rev.4. Source: partial reproduction from Frent (2014, table 8)

No.	Category	Related CPC Ver.2		Related ISIC Rev.4	
		Code	Name	Code	Name
1	Specific tourism affairs	91136	Public administrative services related to tourism affairs	8413*	Regulation of and contribution to more efficient operation of businesses
		85561	Tourism promotion services	7990*	Other reservation service and related activities
		85562	Visitor information services	7990*	Other reservation service and related activities
2	Economic affairs envisaging some tourism industries	91135*	Public administrative services related to the distributive and catering trades, hotels and restaurants	8413*	Regulation of and contribution to more efficient operation of businesses
		91134*	Public administrative services related to transport and communication	8413*	Regulation of and contribution to more efficient operation of businesses
		91134*	Public administrative services related to transport and communication	8413*	Regulation of and contribution to more efficient operation of businesses
		91134*	Public administrative services related to transport and communication	8413*	Regulation of and contribution to more efficient operation of businesses
		91134*	Public administrative services related to transport and communication	8413*	Regulation of and contribution to more efficient operation of businesses
		91124*	Public administrative services related to recreation, culture and religion	8412*	Regulation of the activities of providing health care, education, cultural services and other social services, excluding social security

22. The inclusion of culture refers to the following codes:

- CPC 91124* Public administrative services related to recreation, culture and religion
- ISIC 8412* Regulation of the activities of providing health care, education, cultural services and other social services, excluding social security

It should be highlighted that CPC Ver.2 code 91124 includes:

- Public administrative services related to cultural facility support and individual artists and organizations engaged in promoting cultural activities
- Public administrative services related to national, regional or local festivities and the maintenance and running of religious institutions

Also ISIC Rev.4 code 8412 includes:

Regulation of the activities of providing health care, education, cultural
(Interested readers see [Annex 25](#))

23. As previously mentioned, one of the reasons for which the reference document (Frent, 2014) can be considered a major contribution on the topic addressed in this sub-section is that it suggest the inclusion in TSA table 9 of culture services as a kind of non-market tourism related collective services.
24. Culture as a sector has no standardize statistical definition (the most relevant step being UNESCO adopting statistical standards in 2012) but there is some type of understanding that it includes different economic activities associated to cultural domains such as archives, libraries, books & press, performing arts, audiovisual & multimedia, arts & craft, etc.
25. Besides specific socio-economic characteristics to culture and tourism sectors, there are nevertheless two shared characteristics that explain why measuring the public and private economic initiatives to support both sectors is a relevant issue particularly at sub-national levels; the fact that culture and tourism are territorial based activities and labour-intensive sectors.