



ICELANDIC TOURISM
RESEARCH CENTRE



The Economic Benefits of Tourism in Iceland:

Boosting the Icelandic Tourism
Satellite Account Development

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The Economic Benefits of Tourism in Iceland: Boosting the Icelandic Tourism Satellite Account Development

*Icelandic Tourism Satellite Account (TSA) – A Conformity Assessment
with United Nations standards for TSA*

Part I

Cristi Frentz

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1. Introduction

Iceland has published tourism data through a Tourism Satellite Account (TSA) since October 2008. Since then, three TSA publications have been delivered by Statistics Iceland, the last one in December 2011. Now, two years on, an evaluation of the TSA development in Iceland is timely in order to improve possible future compilations. More reliable and internationally comparable data regarding the size of the tourism sector is necessary for both the public sector and private entrepreneurs, as tourism has experienced one of the fastest growths of any Icelandic economic sector in the last few years, and is seen by policy makers as one of the driving force of the Icelandic economy.

Under these conditions, this study aims to enhance the TSA development in Iceland. This report represents the first part of a conformity assessment of current practices in Iceland with international standards for tourism statistics and TSA. The conformity assessment is with international standards which are found in two documents endorsed by the United Nations and other international organizations in 2008: *International Recommendations on Tourism Statistics 2008* (IRTS, 2008) and *Tourism Satellite Account: Recommended Methodological Framework 2008* (TSA:RMF, 2008). In addition, in some cases Eurostat requirements for tourism statistics are also envisaged as a benchmark. It is important to note that as an EEA (European Economic Area) member, Iceland has also to comply with parts of EU legislation, including Regulation 692/2011 concerning European statistics on tourism. This regulation can be seen as a specific adaptation at the European level of the international standards in tourism statistics. At present, the implementation of the EU requirements is not fully completed by Statistics Iceland.

The general approach of this report is a comparison between what international standards foresee on the one hand and what the existing situation in Iceland is on the other hand. Through interviews from September – November 2013 with persons who are in most cases in charge of producing statistics in Iceland, invaluable insights were gathered on how statistics are compiled in this country (see Annex I for the list of interviewees).

As indicated, the conformity assessment with the United Nations standards for TSA is divided into two parts, each of them offering a gradual assessment of how tourism statistics and TSA in Iceland are coping with international standards as defined by IRTS 2008 and TSA:RMF 2008.

The **first part** of the conformity assessment, presented in this report is divided in three sections. The first section of this report (ch. 2) entails an in-depth documentation of existing data sources pertaining to the tourism sector that could support the TSA development in Iceland. A detailed evaluation of data needs is performed in order to meet the international standards in tourism statistics. Under these circumstances, data sources not specific to tourism (for instance employment or transportation) were not presented in great detail.

The second section of the current report (ch. 3) compares the concepts and definitions used by international standards with the current system of tourism statistics in Iceland (where this is

possible). Some measurement issues both for tourism expenditure and for the supply side of tourism are also included therein.

The last section of the current report (ch. 4) deals with the specificity of TSA. Firstly it provides a description of the classifications of tourism products and industries in the international standards. Secondly, a comparison with these standards is presented concerning the classification of tourism industries used by the Icelandic TSA published in 2011. A key aspect is related to establishing the so called “country-specific” tourism services and goods apart from the 10 categories proposed by TSA:RMF 2008 for international comparability. Finally some initial thoughts on how to approach this issue in the future compilation of TSA in Iceland are provided.

The **second part** of the conformity assessment (not included in this report) will deal with some TSA “special issues” as defined by TSA:RMF 2008 (e.g. vacation homes, tourism single-purpose durables, recording reservation services, same-day visitors’ consumption etc.). The second part will also deal with the methodological aspects related to TSA aggregates and the format and design of TSA tables. The same comparative approach will be used as in this report. While the first part of the study can be considered more tourism statistics oriented the second part will be more TSA focused.

The major output of the study here reported consists of a series of recommendations (25 in all). These are made in order to improve the measurement of tourism in Iceland according to international standards. In principle, where major gaps or non-conformances were observed, then recommendations were prepared. If implemented, the belief of the author is that these will provide the basis for making Icelandic TSA more compliant with international standards. As a consequence, Iceland will have significantly better tourism statistical data and a more reliable statistical characterization of the tourism sector.

2. Data sources for tourism in Iceland

The purpose of this section is to provide an overview of the data sources which are related to tourism and can support the elaboration of a Tourism Satellite Account (TSA) in Iceland. The section can be regarded as an inventory of data sources, but moreover it provides an assessment of data needs in order to conform to international standards on tourism statistics.

2.1. Statistics produced by Statistics Iceland (is. Hagstofa Íslands)

Statistics Iceland is the official producer of statistics in Iceland. Accordingly it plays “the leading role in the organization, coordination and conduct thereof, and also in cooperation with international organizations concerning statistics” (Statistics Iceland, 2013a). Tourism statistics is also part of their mandate.

2.1.1. Accommodation statistics

There is only one official survey specific for tourism carried out periodically by Statistics Iceland. This is a monthly accommodation survey entitled “Number of Accommodation establishments, guests and overnight stays” (is. *Fjöldi gististaða, gesta og gistinátta*). In addition two other tourism specific surveys have been carried out by Statistics Iceland in 2007-2008 and 1996 focused on travel demand of Icelandic residents.

It is important to note that the accommodation survey has a long tradition in Iceland, being carried out since 1984. Some improvements have been made. In 1995 the variable of arrivals was added in order to allow the calculation of average length of stay (Statistics Iceland, 2007). As of 2013, the survey also has captured number of overnight stays by purposes (private purposes, conference and business purpose) but only for hotels and guesthouses.

In terms of coverage, it covers all the accommodation providers in Iceland apart from summer houses/holiday cottages owned by trade unions (Statistics Iceland, 2007). The accommodation providers are usually licenced by the local constabulary (is. *Sýslumaður*). They collaborate with Statistics Iceland through sending data on the licenced units to Statistics Iceland. However, data regarding the accommodation units are also taken from regional authorities and/or professional associations such as Icelandic Farm Holidays (is. *Ferðapjónusta bænda*) and the Hostelling International in Iceland (is. *Farfuglar*). Therefore the coverage might also include non-licensed accommodation providers.

Statistics Iceland uses the following categorization for the types of accommodation units:

- Hotels and guesthouses
- Private home accommodation
- Holiday centres
- Youth hostels
- Sleeping-bag facilities
- Camping sites
- Lodges in the wilderness

The accommodation survey collects data on capacity (number of rooms and number of bed places) and occupancy (number of arrivals and overnight stays by citizenship of guests). Further, it allows for the calculation of occupancy rate of rooms and bed places (but only for hotels and guesthouses). No occupancy data for camping is provided as the concept of “pitches” proposed by Eurostat is not yet implemented in Iceland.¹

An important issue is the fact that both arrivals and overnight stays are collected by citizenship and not by country of residence. The concept of country of residence for a visitor is different from the concept of nationality or citizenship. A person can have a nationality or citizenship different from the country in which she/he currently resides. Moreover, there are persons holding multiple citizenships. That is why in tourism statistics the usage of country of residence is preferred. This is clearly specified by UNWTO: “International visitors should be classified according to their country of residence and not according to their nationality.” (IRTS, 2008, p. 9). Similarly, Eurostat’s Regulation on Tourism Statistics states that: “Arrivals are registered by country of residence of the guest and by month.” (Eurostat, 2012, p. 72).

It should be borne in mind that the monthly accommodation survey does not cover the whole accommodation sector in Iceland. It refers mainly to commercial accommodation provided on a market basis (traditionally called collective accommodation units). It does not include for instance, data about rental apartments or houses rented or otherwise leased by private individuals (e.g. airbnb.com), timesharing properties, apartments for rent from real estate operators, or accommodation provided free of charge by friends and/or relatives or the usage of own vacation home. In this case, other data sources should be applied and one solution is a household survey, preferably within a demand-side travel survey (see section 2.1.2)

In addition, it would be quite a challenge to identify data sources concerning tourist usage of real estate properties in Iceland. From the supply side they can be identified through the Icelandic Classification of Economic Activities (ISAT 2008) as codes “68.20.1 Letting of residential housing” and “68.32.0 Management of real estate on a fee or contract basis”.² However, this is not demanded by Eurostat whilst UNWTO recommends these categories.

¹ Information provided by Hildur Kristjánsdóttir, the person in charge of accommodation statistics at Statistics Iceland

² According to Statistics Iceland 365 enterprises were active under the ISAT code 68.20.1 and 1,085 enterprises under the ISAT code 68.32 in 2012 (Statistics Iceland, 2013h)

Recommendation 1: Statistics Iceland should drop the classification of arrivals and overnight stays by nationality/citizenship and use instead the country of residence variable.

Solution: A change in the electronic questionnaire relating to accommodation statistics is necessary to replace “þjóðerni” (Nationality) with “dvalarland“ (Country of residence). However, this replacement is not enough and has to be complemented with information sent by Statistics Iceland to all reporting units advising them to pay attention to the residence of guests and not their nationality when the guests are checking in. Usually, the residence of guest is not found in the passport but could be obtained either by asking directly the guests or by using the arrival form. Usually, each guest arriving in an accommodation establishment fills in an arrival form in which his/her address (including country of residence) is mentioned.

2.1.2. Demand side travel survey(s)

Two types of demand side surveys are necessary for Iceland. On the one hand a border survey for inbound tourism and on the other hand a household survey for domestic and outbound tourism. Regarding demand side travel statistics, there is a huge lack in this area at present. This fact is even recognized in a Eurostat report carried out in 2011:

*Iceland stated that its **Tourism statistics** are partially in line with the acquis and that the tourism supply statistics are already in broad compliance with Council Directive 57/1995/EC. However, the tourism demand statistics are not yet collected and the relevant survey was not implemented (Eurostat, 2011, p. 5).*

Firstly this lack is in terms of understanding the domestic demand side, i.e. on the travel behaviour of Icelandic residents. As mentioned above surveys were done in Iceland in 1996 and 2007 – 2008 having the support of EU funds. The most recent survey refers to May 2007 – April 2008. In this context it is important to mention that as of next year, Statistics Iceland has plans to continue carrying out such surveys depending on the availability of funds.

Recommendation 2: Statistics Iceland has to continue carrying out on a regular basis a demand side survey on travel behaviour of Icelandic residents.

Iceland has to implement a demand side survey amongst Icelanders which is **carried out regularly** for quantifying the domestic and outbound tourism in Iceland. This survey should learn from best practices of the earlier demand side surveys. As the survey carried out in 1996 is considered outdated for analysis, the focus will be on the 2007 – 2008 survey. It should be

noted that this survey targeted resident tourists aged 16-74 undertaking trips within Iceland and/or abroad. The main variables were number of tourists, number of trips, number of overnight stays, and average length of the trip. Included were both socio-economic variables (i.e. gender, age, household income) and characteristic of trips (i.e. main purpose, destination, type of accommodation, means of booking, type of transport).

However, it is important to mention that the survey conducted in 2007 – 2008 did not include same day trips (trips without overnight stays). Also, although data regarding tourism expenditure were included, they were considered unreliable and consequently not published.³ It is essential to have these data included in the survey in order to support the implementation of the Tourism Satellite Account.

Recommendation 3: The future demand side survey amongst Icelanders should publish detailed data on tourism expenditure as well as same-day trips undertaken by Icelandic residents in order to provide data for TSA development. Moreover, it has to fully comply with Eurostat requests more precisely the EU regulation on tourism statistics.

Another important point to be raised in this context is the inclusion of all accommodation types used by visitors. As current accommodation statistics do not cover summer houses owned by Labour Unions, these should be separately captured in the domestic demand side survey. Also other forms of paid for accommodation (e.g. houses/apartments rented from private individuals – e.g. airbnb.com) or not paid for accommodation (owned holiday homes) should be separately identified.

Recommendation 4: The future demand side survey amongst Icelanders should include all types of accommodations and separately identify summer houses owned by Labour Unions (not included in accommodation statistics), houses/apartments rented from private individuals and owned second home/holiday home.

The second set of demand side survey that needs to be considered in terms of conformity is survey of inbound tourism. The same considerations as named above do apply to this. At present Statistics Iceland is not part of producing demand side statistics for inbound tourism. The Icelandic Tourist Board (ITB) commissions a survey to different private subcontractors, which could qualify as a border survey, but does not produce demand side statistics (see section 2.2.2.). The best option is to have a border survey at Keflavík airport as the ITB currently does. The Icelandic Tourist Board estimates that over 95% of the total foreign visitors in Iceland use Keflavík airport. This is a very strong argument for having a border survey at the Keflavík airport. Another option would be to carry out a survey among foreigners staying in accommodation establishments. However, in this case, the coverage of the survey will be limited only to commercial accommodation providers. Nevertheless, the

³ Information provided by Hildur Kristjánsdóttir, the person in charge of accommodation statistics at Statistics Iceland.

percentage of foreign visitors staying with friends and relatives is relatively low (6-7%) according to the MMR survey conducted for Icelandic Tourist Board in 2011 (Icelandic Tourist Board, 2012).

Recommendation 5: The Icelandic Tourist Board together with Statistics Iceland should agree to carry out or commission a continuous border survey at Keflavík Airport for inbound visitors. Statistics Iceland should be formally involved in the border survey (at least by proving methodological and conceptual background).

2.1.3. External trade in services statistics

Since 2009, Statistics Iceland has had the responsibility of producing detailed information on exports and import of services from and to Iceland. Before this was the responsibility of the Central Bank of Iceland. Broadly speaking, the expenditure on non-residents in Iceland is considered an export of services while the expenditure of Icelandic residents made abroad is an import of services.

In this kind of statistics there are **Travel item** and **Passenger Transportation item** that can be deployed for tourism analysis. For each of these items there are two components, respectively credit side (exports) and debit side (imports). Travel credit covers:

goods and services for own use or to give away acquired from an economy by non-residents during visits to that economy,

while Travel debit covers:

goods and services for own use or to give away acquired from an economy by residents during visits to these other economies (IMF, 2009, p. 166).

Therefore, equivalence can be established between Travel credit and inbound tourism expenditure on the one hand and between Travel debit and outbound tourism expenditure on the other hand.

Passenger service “covers all services provided in the international transport of residents by non-resident carriers (credit) and that of non-resident by resident carriers (debit)” (IMF, 2009, p. 164). It is important to mention that passenger services provided within Iceland by residents to non-residents and provided or purchased separately from international transport are included in the Travel item (for instance, transport by bus within Iceland provided to foreign tourists).

However, it should be stressed that these statistics only give an approximation of inbound and outbound tourism expenditure, respectively. There are conceptual differences between Balance of Payments (in Iceland being particularly called External trade) and tourism

statistics. That is why caution should be taken when using this data. International Recommendations on Tourism Statistics 2008 (IRTS, 2008) clearly outline the scope of the two frameworks. In this regard, it is important to present what categories of non-residents are covered by the Travel item estimations but are not part of inbound/outbound expenditure (IRTS, 2008, p. 72):

- Border workers
- Seasonal workers
- Other short term workers
- Crews on public modes of transport (including cruise, airlines, ferries)
- Long term students (taking course more than one year)
- Long term medical patients (staying more than one year)
- Nomads, refugee and displaced persons staying less than one year

As regards the Passenger transportation item, this includes also transport between two points outside the country of reference in a resident to a non-resident transaction. In Iceland, this item would include for instance the airfare paid to Icelandair by non-resident tourists for a trip between Washington DC and London (the case of a transit passenger at Keflavík airport who does not exit the airport). As for Iceland this person is not entering the economic and legal territory, the person is not considered a visitor so therefore she/he should be excluded from inbound tourism expenditure.

It is important to specify also that cruise fares are included in the Travel item, not in Passenger Transportation. However, the value of services provided to non-resident passengers by resident carriers (the case of cruise passengers who travel in Iceland using local transportation companies) is also part of the Travel item as well as the expenditure of the members of a cruise crew. Nevertheless, as the crew members are not considered visitors according to IRTS 2008, their expenditure should not be part of inbound tourism expenditure.

Statistics Iceland publishes yearly data on External trade in services by service category (EBOPS⁴ classification). Here, the breakdown of Passenger Transportation is by sea and air transportation while the Travel item is split in Business Travel and Personal Travel, the latter being further split between Education-related travel and Other personal travel. However, it is important to mention that sea passenger transportation is not estimated as a separate item.

In Iceland, there is one ferry company that operates international passenger transportation, namely Smyril line using the seaport of Seyðisfjörður in the eastern part of the country. If Icelandic residents used the transport service of Smyril then the fare paid would be part of the debit side of Sea passenger transportation (considering that Smyril line is a non-resident company). However, due to the fact that only the debit side is covered by this situation it is problematic to estimate the Sea passenger transportation. A foreign visitor using Smyril is a non-resident to a non-resident transaction and therefore excluded from the calculations.

⁴ Extended Balance of Payments Service Classification (EBOPS)

An important remark has to be made as regards the calculation of tourism's share in the total exports of goods and services. Adding the Travel item with Air Passenger transportation to form a so called "tourism export" is not correct as it overestimates the size of tourism since airfares to Icelandic airlines transporting passengers who do not enter the economic and legal territory of the country (included in the Air Passenger Transportation item) are also taken into consideration. One could assume that the share of these passengers is rather important and can influence the results.⁵ Another reason would be the fact that theoretically the expenditure of seasonal and other short term workers (as well as other categories of travellers presented above) is also included in the Travel item. In order to comply with international standards these should be excluded from tourism statistics. Nevertheless, at present there is no separate estimation for the category of Expenditure by seasonal and border workers and moreover no plans are envisaged in the near future.⁶

Recommendation 6: The Icelandic Tourist Board should not calculate Tourism export as the simple sum of Travel and Passenger Transportation items (see: Icelandic Tourist Board, 2013a, p. 2). This is mainly due to the presence of transit passengers (transported by Icelandic airlines from Europe and America and vice-versa) not entering the legal and economic territory of Iceland. These cannot be considered visitors and consequently airfares paid to Icelandic companies are not considered tourism expenditure. If no data from Icelandic airlines is available for estimating this segment (in order to be subtracted from total Passenger transportation item), then "Tourism export" should be renamed as "Tourism and air passenger transportation export".

Regarding the data sources used in Iceland for compiling statistics related to international travel, Statistics Iceland states that:

Information on travel services are based on information retrieved from credit card transactions, information about buying and selling of banknotes from the Central bank and information from the enterprises (Statistics Iceland, 2009).

Surveying tourism enterprises provides data for the Travel Item compilation. There are two surveys. One is a quarterly survey only including the big companies (almost 100) while a yearly survey also covers Small and Medium Enterprises (SMEs) (almost 700). In 2012, the quarterly survey covered 17 companies belonging to the tourism sector (comprising accommodation providers, Food and beverage companies, Car rentals and Travel agencies) and the yearly survey covered 83 SMEs active in this sector.⁷

⁵ Icelandic airlines might provide monetary data on the airfares paid by those transiting Iceland on their travel from Europe to America or vice-versa. Then, the number of transit passengers not entering the territory of Iceland could be estimating using ISAVIA and ITB data. This data would be useful to calculate the portion of Air Passenger transportation item which is not considered as tourism expenditure.

⁶ Information provided by Vésteinn Ingibergsson from External trade department within Statistics Iceland.

⁷ *ibid.*

Estimating credit cards transactions, for foreign travellers in Iceland is done through the ID number of the Icelandic vendor (and by this the type of activity of the vendor is established), while for Icelandic travellers abroad the Merchant Category Code (MCC)⁸ codes of transactions used by card companies is used.⁹ However, it must be admitted that in the case of online purchasing (e.g. a book from abroad) this does not imply automatically a trip abroad of an Icelandic resident. Nevertheless, some MCC codes can be allocated to tourism. These particularly concern the following categories: Airlines, Car Rental, Lodging/Hotels, Caterers, Restaurants, Bar, Entertainment, Recreation Facilities (see: Merchant Category Codes Database, 2013).

Another data source to estimate travel services that is used in the case of Education-related expenditure is LÍN – The Icelandic student loan fund which provides information on student loans paid to Icelandic students studying abroad; in addition, data on the number of foreign students studying in Iceland is used – these data are taken from the Icelandic universities.

It has to be mentioned that at present making estimation of health related expenditure within the Travel item is impossible due to lack of data. In other words, although for Icelandic residents going abroad for health purposes some information could be used from the Icelandic health insurance scheme (which will provide data for the debit side) there is no data regarding the health purpose travel of non-residents in Iceland (credit side). In this regard a border survey is more than welcomed to provide such data.¹⁰

⁸ MCC is a 4-digit code that used to classify merchants based on their line of business activity. MCC is an International Standards Organization (ISO) standard for classifying payment card transactions by merchant business line. The code is assigned to a business by a credit card company (Visa, MasterCard, and American Express). In fact, it is a classification by types of goods and services provided by a business (Wikipedia, 2013).

⁹ Information provided by Vésteinn Ingibergsson from External trade department within Statistics Iceland

¹⁰ *ibid.*

2.2. Statistics provided by Icelandic Tourist Board (is. Ferðamálastofa)

The Icelandic Tourist Board (ITB) is an independent institution under the authority of the Ministry of Industries and Innovation. In relation to tourism statistics the ITB is responsible for undertaking market research both for foreign and domestic visitors.

Broadly, there are two kinds of data produced and/or commissioned by the Icelandic Tourist Board:

- Counting the number of foreign visitors
- Figures from visitor surveys commissioned to external market research companies.

2.2.1. Counting foreign visitors in Iceland

Gathering statistical evidence of foreign travellers at Keflavík airport is the responsibility of the Icelandic Tourist Board. Here the nationality of travellers is also recorded:

Icelandic Tourist Board is responsible for the tallying of tourists who pass through the airport terminal at Keflavík International airport and registering their nationalities.”
(Icelandic Tourist Board, 2013b).

The process of counting visitors at Keflavík airport started in March 2002. Before that, it was the responsibility of the Icelandic immigration authorities. It should be borne in mind that Iceland became part of the Schengen Area in 2001, the year when no counting at the airport was performed due to the transition taking place from the immigration authority to the ITB.

It is important to mention that the counting of visitors at Keflavík airport is cross-checked with data provided by the airport authority. However, some inevitable non-concordances appear due to different factors (e.g. in the case of late flights there is a time lag between the registration of the ITB – just before midnight and the actual departure of the flight – after midnight).¹¹

Although the ITB only counts visitors at Keflavík airport, ITB also present in annual publications the total number of foreign visitors in Iceland. The total number of foreign visitors in Iceland is calculated as a sum of visitors counted at Keflavík airport security gate prior to departure, number of foreign visitors from Seyðisfjörður seaport thorough Smyril¹² ferry line and number of foreign visitors from other airports: Reykjavík, Akureyri or Egilsstaðir (Icelandic Tourist Board, 2013a, p. 3.) Nevertheless, it is important to note that the number of foreign visitors from Seyðisfjörður and the other airports are estimations based on sales figures and cannot be considered official statistical data. In addition, visitors are counted

¹¹ This information was provided by Oddný Þóra Óladóttir, Research Director at the Icelandic Tourist Board.

¹² This passenger ferry line has departures from Denmark and Faeroe Island.

when they leave Keflavík International airport. Therefore these numbers cannot be considered arrivals but departures.

One can assume that the number of foreign visitors departing the country is the same as the number of foreign visitors arriving in the country which in practice however is not true (e.g. immigrants and persons establishing residence in Iceland, refugees and migrant workers get included). This highlights the need to differentiate visitors from other categories of travellers, which could not be considered tourists (e.g. foreign nationals/citizens residing in Iceland, diplomatic and consular personnel, seasonal foreign workers, long term students).

Leaving aside the arrivals and departures dichotomy, an important remark has to be made with regard with the breakdown of nationality. While its importance is justified by the way data is collected (as the data is collected at the airport border control when the person presents a passport before entering the airport area), it is recommended that country of residence should be used instead of nationality. This is one of the recommendations found in IRTS 2008:

For inbound trips, it is essential to classify all arrivals by country of residence rather than by nationality (IRTS, 2008, para. 3.29).

or

Nevertheless, although frequently used in migration statistics, the concept of citizenship is not part of the requirements or definitions of tourism statistics (...) It is recommended that travellers (and visitors) be classified on the basis of their country of residence (IRTS, 2008, para. 2.19 - 2.20).

Also, Eurostat uses the concept of country of residence as a variable to be reported by Member States both for demand side and supply side of tourism statistics as detailed in section 2.1.1. Moreover, in the specific case of Keflavík airport, transit passengers should not be counted as foreign visitors as they do not enter the economic territory of the country. Only if they enter the country (e.g. a short visit to Blue Lagoon) can they be considered either same-day visitors (if there is no overnight in Iceland) or tourists (if they overnight in Iceland). Only in this case should they be counted as in transit visitors (this situation is more common for the persons who make a stopover in Iceland on their trip between Europe and America or vice-versa).

2.2.2. Commissioning Visitor Surveys

In the last few years the Icelandic Tourist Board has conducted/commissioned a lot of market research which provides very useful data and figures for the tourism industry, especially in surveying travel behaviour.

There are two kinds of surveys which seem to have been carried out somehow regularly (although not on a continuous base) in the last five years. On the one hand there is a survey called Travel Behaviour of Foreign Tourists (is. *Ferðavenjur erlendra ferðamanna*) for inbound tourism (herein referred as ITB's commissioned survey for inbound visitors) and on

the other hand, a survey called Icelandic Travel Patterns (is. *Ferðavenjur Íslendinga*) which encompasses domestic and outbound tourism (herein referred as ITB's commissioned survey for Icelandic residents). Table 1 details the periodicity of these surveys, their types and sample size.

Table 1: Main surveys commissioned by Icelandic Tourist Board, 2009-2013.

Source: Icelandic Tourist Board, 2013c

Forms of tourism	Period when the survey was conducted	Company in charge	Type	Sample size
Inbound tourism	Winter 2009 -2010	Tourism Research and Consulting (RRF)	Field survey	n.a.
	Summer 2010 (June 2010 – August 2010)	RRF	Field survey	n.a.
	Summer 2011 (June 2011 – August 2011)	Media and Market Research (MMR)	Internet survey	4,545
	Winter 2011-2012 (September 2011 – May 2012)	MMR	Internet survey	4,512
Domestic and outbound tourism	April 2009	MMR	Internet and Phone Survey	1,535
	January 2010	MMR	Internet and Phone Survey	1,559
	January 2011	MMR	Internet and Phone Survey	1,559
	January 2012	MMR	Internet and Phone Survey	1,610
	February 2013	MMR	Internet and Phone Survey	1,697

n.a. – data not available

It should be mentioned that due to lack of funds the ITB's commissioned survey for inbound visitors for the period June 2012-August 2013 was not carried out. However, it is foreseen that the period September 2013 - August 2014 will be included in the next survey for inbound visitors.¹³

These two surveys differ in terms of sample size. As a general rule, it can be observed that the surveys targeting inbound visitors have a sample almost three times higher than the ones addressing Icelandic residents. This should not be surprising in a country where inbound tourism dominates the tourism market. For example according to Statistics Iceland data, in 2012 77.3% of the total overnight stays were foreigners.

The technique used for the ITB's commissioned survey for inbound visitors mainly comprises the following steps:¹⁴

- A small survey is conducted at Keflavík airport and Seyðisfjörður port where persons are approached at random and asked if they want to participate in the

¹³ This information was provided by Oddný Þóra Óladóttir, Research Director at the Icelandic Tourist Board

¹⁴ *ibid.*

survey, and if so they will provide some basic information (gender, age, nationality, date of leaving the country) and their email address

- Further, an email is send to each person agreeing to take part in the survey
- Each person has to complete an online questionnaire. The questionnaire is available in English, Danish, German, French, Spanish and Italian.
- After completing the survey there is a chance to win a week trip for two persons to Iceland (flight and accommodation included) - the winner will be drawn from all submitted email addresses and notified by email.

ITB’s commissioned survey for Icelandic residents is a combination of Internet and phone survey using a panel of consumers. The phone survey is exclusively aimed at older people, for instance in 2013 this group included people between 70 and 80 years. The Internet survey is targeted to all other age categories. A case in point is the survey for Icelandic residents carried out in February 2013. It had a sample of 1,697 persons out of which 97 were in the age category 73-80 years and they were interviewed by phone (Icelandic Tourist Board, 2013c).

It has to be clearly specified that the data provided through these surveys is not official statistical data although some of it could prove useful for TSA development. In relation to the need for a TSA and meeting the international standards these two types of surveys are analysed in table 2 in order to outline the major lacks. It should be noted that only the most recent surveys carried out were taken into consideration: the 2013 survey for Icelandic residents and the 2011 summer survey for inbound visitors.

Table 2: Deficiencies of ITB’s commissioned surveys in relation with meeting the international standards in tourism statistics.

Type of survey	Deficiencies	Other comments
Survey for Icelandic residents	<ul style="list-style-type: none"> - No operationalization of usual environment concept in defining tourism trips - No data on purpose of trip - No data on means of transport - No information on package tour - No data on tourism expenditure and breakdown of tourism expenditure - No data on travel party 	<p>Recall bias could have great influence (as information is requested for one year). It is very hard for people to remember all trips during such a long period. Short trips and day trips would be definitely underestimated.</p>
Survey for inbound visitors	<ul style="list-style-type: none"> - The classification of purpose of visit does not integrally fit the international recommendations (i.e. the category “Business/Employment” should not be aggregated; the same for “Education/Research” category) - Travel party cannot be separately calculated (no data is captured on how many individuals are travelling together and have a common travel budget) - Icelandic nationals working/living abroad when visiting their home country should be viewed as inbound visitors. This does not happen in ITB’s commissioned survey for inbound visitors since in the initial stage of the survey nationality is required (both at Keflavík airport and Seyðisfjörður port) instead of country of residence 	<p>If the purpose of trip was employment, than this should not be considered as a tourism trip and should be excluded from calculation.</p> <p>When expenditures are pooled in case of travel parties it is difficult for the respondent to give information on each spending category per person</p> <p>Since nationality is the main variable differentiating between foreigners and Icelanders, there is no way to capture Icelandic residents working/living abroad (who should be considered non-residents)</p>

In the case of categories of tourism expenditure one can see that there is precise correspondence with the IRTS 2008 (see Table 3). This stands to reason as Statistics Iceland were partly involved in defining the variables to be used for the purposes of TSA. Moreover, some categories (i.e. Local transport, Shopping) are more detailed than the ones requested by IRTS 2008.

The ITB's commissioned surveys on Icelandic residents carried out for 2012 and 2011 captured domestic day trips. These were defined as "recreational trips lasting at least 5 hours and spent away from the home without staying overnight" (Icelandic Tourist Board, 2013a). Besides these, the survey provides data on the number of trips (abroad and domestic), number of overnight stays and means of accommodation used. However, no information is provided about expenditure be it day trips or overnight trips.

Compared with the survey for Icelandic residents, the ITB's commissioned survey for inbound visitors provides more data which could prove useful for TSA development. The following variables are of interest (Icelandic Tourist Board, 2012):

- Country of residence
- Purpose of visit (although the main purpose is not calculated)
- Mode of transport (at arrival and separately means of transport used in Iceland)
- Total length of stay in Iceland
- Number of nights by types of accommodations
- Organization of travel (package tour, individual arrangement, both)
- Cost of air ticket/ferry ticket per person
- Price of package tour and the components of it
- Expenditure in Iceland per person (excluding cost of air/ferry ticket and package tour)
- Breakdown of expenditure per person by:
 - o Transport (bus, car rental, domestic air/ferry)
 - o Other transport (fuel, repair services)
 - o Restaurant/bar/café
 - o Groceries
 - o Liquor shop
 - o Recreation/entertainment
 - o Shopping other

Table 3: Comparing categories of tourism expenditure: IRTS 2008 vs. ITB’s commissioned survey for inbound visitors.

Source: IRTS, 2008 and Icelandic Tourist Board, 2012

IRTS 2008	ITB’s commissioned survey for inbound visitors
Package travel, package holidays and package tours	Price of package tour
Accommodation	Lodging/accommodation
Food and drink	Restaurants/bar/cafes
Local transport	Transport (bus/domestic ferry fares, domestic airfares, rental car, etc.) Other transport costs (e.g. fuel, maintenance)
International transport	Air ticket / ferry ticket
Recreation, culture and sporting activities	Recreation/entertainment (e.g. admission fees, sightseeing tours)
Shopping	Groceries (e.g. food, beverages in supermarkets) Liquor shops Shopping (e.g. clothing, goods, souvenirs)
Others	Other

It is important to note that some observations made by the author were discussed with ITB’s Research Director in October 2013. Therefore, some proposals to modify the future questionnaire for ITB’s commissioned survey for inbound visitors (proposed to be carried out in 2014) were accepted. For example, it was accepted that “Study/Research” as a purpose of visit to be replaced with “Education/Training” in order to comply with IRTS 2008 classification of the main purpose of trip. It was also accepted to add a category of “private rented apartments/houses” (e.g. covering airbnb.com) in order to enlarge the types of accommodations and to cover what is not found in official statistics.

2.2.3. An exercise of comparing data: Civil Aviation Administration vs. Icelandic Tourist Board

As previously discussed, the Icelandic Tourist Board counts departing passengers at the security gate in Keflavík airport. However, the Civil Aviation Administration (called ISAVIA) at Keflavík Airport also provides data on the number of departures through Keflavík airport. These data are supplied to Statistics Iceland and published on their webpage (Statistics Iceland, 2013b; 2013c).¹⁵ The number of passengers is classified by destination in three categories: From Iceland, To Iceland and Transit passengers. For compatibility reasons, one can chose the category “Number of passengers from Iceland” as equivalent to number of departures counted by the ITB. It is obvious that these figures also include both foreigners and Icelanders. It should be noted that the figures exclude transit passengers who are also not counted by ITB. In table 4 a comparison between figures from two data sources is provided.

¹⁵ Also similar data are found on the Keflavík Airport webpage at <http://www.kefairport.is/English/Shortcuts/Statistics/Passengers-Statistics/Annual-Statistics/>

Table 4: Comparison between ISAVIA and ITB data on number of passengers departing from Keflavík airport, 2003-2011.

Source: Statistics Iceland, 2013b; 2013c

Years	Number of passengers from Iceland at Keflavik airport (Source: ISAVIA) (1)	Departures of passengers from Keflavík airport (Source ITB) (2)	Differences (3) = (1) – (2)	Share of difference (3)/(1) (%)
2003	572,760	600,369	-27,609	-4.8%
2004	672,196	693,883	-21,687	-3.2%
2005	752,774	747,534	5,240	0.7%
2006	864,996	830,158	34,838	4.0%
2007	937,315	927,689	9,626	1.0%
2008	867,922	879,122	-11,200	-1.3%
2009	706,027	719,073	-13,046	-1.8%
2010	717,921	753,022	-35,101	-4.9%
2011	835,078	881,915	-46,837	-5.6%

It can be seen that there are differences between ISAVIA’s data and ITB’s data as regards the numbers of passengers departing from Keflavík international airport. It seems that ITB’s data is overestimating the number of visitors in Iceland. This “overestimation” ranges between 1% and almost 6% assuming the figures of ISAVIA are the standard. Meanwhile, it should be noted that in the period 2005-2007, the figures provided by ITB are actually lower than the ones of ISAVIA.

Following talks with ITB and ISAVIA in October 2013, the author of this report was informed about a very important methodological note: Before February 2013, ISAVIA had counted passenger staying in Iceland less than 72 hours as being transit passengers. Therefore, the figures of ITB would be “increased” by these types of passengers which are not counted as “departures” by ISAVIA. Nevertheless, from March 2013 the ITB’s and ISAVIA figures should be closer as these passengers will not be considered as transit passengers anymore. On these grounds the author received revised figures from ISAVIA (see Table 5) together with some minor revisions of ITB data:¹⁶

¹⁶ Data provided by Oddný Þóra Óladóttir, Research Director at the ITB

Table 5: Revised comparison between ISAVIA and ITB data on number of passengers departing from Keflavík airport, 2003-2011.

Years	Number of passengers from Iceland at Keflavík airport (Source: ISAVIA) (1)	Departures of passengers from Keflavík airport (Source: ITB) (2)	Differences (3) = (1) – (2)	Share of difference (3)/(1) (%)	Departures of <u>foreign visitors</u> from Keflavík airport (Source: ITB)
2003	588,010	600,369	-12,359	-2.1%	308,768
2004	689,039	693,883	-4,844	-0.7%	348,533
2005	761,720	757,456	4,264	0.6%	361,187
2006	868,912	830,528	38,384	4.6%	398,901
2007	946,587	928,884	17,703	1.9%	458,999
2008	876,986	879,318	-2,332	-0.3%	472,672
2009	719,685	719,073	612	0.1%	464,536
2010	741,223	753,022	-11,799	-1.6%	459,252
2011	864,570	881,915	-17,345	-2.0%	540,824

One can see that the differences are now much lower but still ranging from 1-2%. The explanations for these are the following:¹⁷

- Passengers registered as transit but stayed some hours in Iceland (e.g. they go to the Blue Lagoon for example) then come again through security and are registered as departure passengers in ITB counting.
- Transit passenger which go by mistake down to the arrival store and need to go through security again.
- Flights that are cancelled: all the passengers already checked in but then need to go out and come again the day after.
- Human error.

The comparison of data has proved that inconsistencies between data sources are inevitable. The main lesson learnt is that the data producers should be aware of any differences regarding their data when comparing data between each other and moreover, **they should cooperate to provide more credible statistics**. This comparative exercise has also proven some limits to the ITB's visitor counting at Keflavík airport. This is why it is important to improve the existing method of counting.

¹⁷ Information provided by Grétar Már Garðarsson from ISAVIA

Recommendation 7: The Icelandic Tourist Board should revise the methodology of counting visitors at Keflavík airport by fully calibrating its estimates to ISAVIA data and use the International Recommendations on Tourism Statistics (IRTS 2008) for producing visitor numbers. Also some categories of travellers not considered visitors should be eliminated from the counting (i.e. seasonal, short term and/or long term foreign workers, long term students and medical patients, persons leaving the country to establish residence abroad, diplomats, consular staff, military personnel and their dependants, refugees).

It should be recalled that not all passengers leaving Keflavík airport are considered implicitly visitors. One should differentiate between some categories of travellers which are not part of tourism statistics and could not be considered visitors.

Elaborating a methodology for eliminating some categories of travellers which are not considered visitors is the main challenge that should be addressed by the ITB. Using other data sources such as migration and population statistics and/or labour statistics from the Directorate of Labour could be useful in this endeavour. Annex 2 presents a model of adjusting the counting of foreign departures at Keflavík airport using migration and population data. This model demonstrates that the real number of departures of foreign visitors should have been lower on average 4% at least, for each year in the period 2003-2012.

Another important fact is the use of the country of residence concept instead of nationality/citizenship in order to comply with international standards. The model proposed in Annex 2 could not solve this and that's why the smartest solution would be to carry out a border survey which has to be calibrated with the administrative data at the airport. Statistics Iceland should also participate in this survey, if not have the full responsibility of its implementation (see Recommendation 5).

2.3. Cruise statistics – a special case

It is important to mention that cruise passengers arrivals are not part of the total visitors arrivals in Iceland calculated by the Icelandic Tourist Board.

Basically, these statistics are provided by the Associated Icelandic Port (is. *Faxaflóahafnir*)¹⁸ and the administrators of other ports who record the number of cruise passengers. According to the Icelandic Tourism Board's *Tourism in Figures* publication, released in April 2013, apart from Reykjavík, the following ports were included: Akureyri, Ísafjörður, Grundarfjörður, Vestmannaeyjar and Seyðisfjörður.

It is important to note that Statistics Iceland also publishes data on cruises, more precisely number of ship arrivals and number of passengers from abroad on cruise lines by nationalities but only for the port of Reykjavík.

According with IRTS 2008 cruise ship passenger and yachters should be separately treated. However, taking into consideration that for some countries cruises are an important market, IRTS 2008 states that:

Because of the required consistency of the notions of residence and economic territory with those used in the national accounts and balance of payments their treatment in tourism statistics will depend upon the application of these concepts to the cruise ship on which they arrive and leave (IRTS, 2008, para. 2.63).

In other words, in Iceland's case if the cruise ship is not Icelandic, it is considered a non-resident entity.

Eurostat also recognises the fact that from a demand perspective, staying overnight in a cruise ship is to be considered rented accommodation but from the supply-side of tourism statistics there is no obligation for member states to transmit data to Eurostat on this, cruise ships being excluded from the category of accommodation providers.

The difficulty of measuring cruise tourism has to be recognized. In a hypothetical case the same cruise ship can call at different ports of the country. Visitors could be double or triple counted. In this case, it should be wise to treat this situation separately. Further analysis is necessary to identify such vessels which make multiple calls for Iceland and to create subcategories for:

- Ships calling at one port
- Ships calling at two port
- Ships calling at three ports etc.

By summing these categories the total number of ships calling in Iceland can be accurately counted. By adding also number of passengers to these subcategories, one can obtain the total number of cruise visitors in Iceland which will be an accurate and real figure for cruise visitors in Iceland.

¹⁸ The following ports and harbours are included: Reykjavík, Grundartangi, Akranes and Borgarnes.

It should be recalled that crew members of the cruise ship are not considered visitors from a tourism statistics point of view. Therefore, they should be eliminated from visitors' counting. However "all passengers on board a cruise ship, except the residents of the country of reference, should be considered as visitors (inbound visitors)" (UNWTO, 2011, p. 31).

It should be borne in mind that Statistics Iceland publishes cruise statistics only for the port of Reykjavík. Nevertheless, the inclusion of other ports and more importantly, the compilation of the total number of cruise passengers following the method proposed above are necessary.

Recommendation 8: Statistics Iceland should publish cruise passengers statistics for the whole country and consider the compilation of total number of cruise passengers by categorizing the number of ships calling to ports. In this endeavour, data from Icelandic Tourism Research Centre could be helpful.

2.4. Other data sources not specific to tourism statistics

There are plenty of data sources that “feed” the TSA construction not specific to tourism activity. Undoubtedly the National Accounts represent a core as TSA is in fact an extension or a “satellite” to the national accounts statistics.

2.4.1. National Accounts

It is important to mention that data from National Accounts are indispensable for the implementation of the TSA-system (Eurostat, 2001). In fact, TSA is structurally linked with the System of National Accounts 2008 and its recommendations for the establishment of satellite accounts should be followed (IRTS, 2008, para. 5.7).

In Iceland, the compilation of National Accounts is largely based on administrative registers. The following registers are used (Statistics Iceland, 2011a, p. 28):

- The Enterprise Register (Business Register)
- Enterprise Accounts Register (EAR)
- VAT Register
- Payroll Register
- Pay-as-you-earn Register (PAYE)

Enterprise Register (Business register) is administered by the Directorate of Internal Revenue (is. *Ríkisskattsjóri*) and it is the only register having a legal status. In this register each enterprise has a unique identification code that is common in all the other registers mentioned above. Each enterprise is classified with a 5 digit Icelandic Standard Industrial Classification (ISAT 2008) code. It has to be noted that this register is not establishment oriented but enterprise oriented meaning that if an enterprise is operating in more than one activity, only the activity which contributes the most at value added production is recorded. From this perspective the usage for statistical purposes, particularly in tourism is rather limited.

Enterprise Account Register (EAR) is the main data source used in compiling production in National Accounts, including the Hotels and Restaurants sector. EAR also includes unincorporated enterprises, practically covering all legal units in Iceland excepting financial institutions such as banks and insurance corporations (Statistics Iceland, 2011a). This register is also an enterprise oriented one, providing a rather detailed standardized disaggregation of the revenue and operating costs of enterprises similar for all the industries, which has disadvantages for some industries while some advantages for others.

The VAT Register refers to enterprises, with an annual turnover over 500,000 ISK (in 2010). Data are based on VAT¹⁹ returns from enterprises to tax authorities. The most important figures refer to turnover subject to VAT, by various tax rates as well as data for VAT exempted activity. Practically, it covers all the sales of goods and services that are VAT taxable regardless if the sale is to a final user or for resale. However the usage for National Accounts purposes refers only to analysis of percentage change at the level of some industries.

The VAT register provides also data on turnover for some tourism industries (see Table 6). One can see that Air transportation is by far the biggest industry in terms of turnover, the opposite being the Travel agencies industry.

Table 6: Turnover (in millions of ISK without VAT) according with VAT returns for some* tourism industries in Iceland, 2010-2012.

Source: Statistics Iceland, 2013d

Tourism industries	2010	2011	2012
Air transport	121,245.4	136,040.1	166,672.2
Accommodation and food service activities	61,829.1	68,606.5	78,749.9
Travel agency, tour operator reservation service and related activities	598	655.5	823.1
Creative, arts and entertainment activities; libraries, archives, museums and other cultural activities, gambling and betting activities	1,198.8	1,925.7	1,330.3
Sport activities and amusement and recreation activities	2,056.7	1,762.4	1,782

* Only the industries (at NACE 2 digits level) which are mostly related to tourism. However, in case of Air transport, one must be aware that freight transportation is also included while Libraries and archives are not considered part of tourism industries.

Payroll register contains data which are collected from the enterprises that have to complete a form and send one copy to the tax authorities and one to employees. Actually, it is based on tax returns for each employer. It is important to note that the Payroll register has not been used in National Accounts in the last years. However, this source provides important information which is useful for TSA such as imputed benefits to employees for the usage of business cars or mileage allowances and related deductible expenses to employees for using their own car (Statistics Iceland, 2011a).

The Pay-as-you-earn Register (PAYE Register) has been used from 1998 and now replaces the Payroll Register. This register is also administrated by the Directorate of Internal Revenue and data on wages and salaries and percentage of full-time equivalence are required for every employee and self-employed person. However, the publication of data from this register has been restricted to an aggregate level (ISAT two digits), although data are collected at ISAT 5 digits level.

¹⁹ There are three VAT levels applicable in Iceland at current, 25.5% which is the general rate, 7% is among others for food and accommodation and 0% for exports of goods and services (Statistics Iceland, 2011a, p. 32).

Besides using registers, mainly for the production and compilation of National Accounts, Statistics Iceland also include a consumption side (the so-called expenditure approach). One of the data sources used to approach the National Accounts from this side is the Household Expenditure Survey. An important macroeconomic aggregate is calculated therefrom represented by Household final consumption. Following international standards, this aggregate is composed of 69 items classified according to Classification of Individual Consumption by Purpose (COICOP). Annex 3 presents a bridge table between TSA's tourism products and COICOP classification used in Iceland. This classification is very helpful for the TSA compilation.

The household expenditure survey is a sample survey of 1,200 household per year providing data on detailed items of consumption, disposable income, housing (rented or owned) and possession of consumer goods (Statistics Iceland, 2012). Certainly for tourism purposes, with regard to consumption some items of interest will be:

- Package holidays,
- Hotels, cafe and restaurants,
- Recreation and cultural services,
- Transportation services (see Annex 3).

It should be borne in mind that not all of these are "pure tourism consumption" (for instance transport for commuting and meals served in restaurants where the household's members reside etc.).

A very important component of National Accounts statistics is the production of Supply and Use Tables (SUT). These tables provide detailed data:

... in the form of matrices that record how supplies of different kinds of goods and services originate from domestic industries and imports and how those supplies are allocated between various intermediate or final uses, including exports (SNA, 2008, para. 1.24).

Supply and Use tables have been constructed for Iceland for the years 1992, 1997 and 2002. It seems there was continuity for the years 2002-2005 but no information is provided for the years after. One must observe the very detailed breakdown of activities in SUT as in 2003 there were 449 activities from ISAT 95 (classification according with NACE rev. 1). The 2004 and 2005 SUT provided the same breakdown as the one for 2003 (Statistics Iceland, 2011a, p. 171).

It is important to note that currently Statistics Iceland is working to improve the National Accounts data, in particular with reference to the SUT, creation of quarterly accounts and compilation of employment data. This is done in order to meet the European acquis in the field of national accounts, estimated to come into effect in 2014 (Ministry of Foreign Affairs, 2011). Moreover, it's worth mentioning that regional statistics are not produced yet by Statistics Iceland in accordance with EU Regulation, i.e. on the basis of a classification of territorial units for statistics (NUTS). It was understood that there is work in progress in terms

of future division of Iceland into statistical regions according with NUTS (Ministry of Foreign Affairs, 2011). Nevertheless there are no plans (at least in the near future) to produce regional estimates for National Accounts in Iceland.

Even though there are a lot of registers used as data sources, at present Iceland has no business register according with EU regulation (Regulation 77/2008/EC of the European Parliament and the Council establishing a common framework for business registers). In this field there is work in progress and the first results are expected in 2014. This register will allow the identification of establishments of enterprises.

In sum, it is foreseen that starting with 2014, a Supply and Use Table will be produced for Iceland for each year. For instance²⁰, in 2014 a SUT will be available for the reference year 2009 in current prices and in 2015 for the years 2010 and 2009 in current and constant prices. Starting with 2015, this data will also be provided to Eurostat (it is important to note that Eurostat requires these data every fifth year). An approximate number of 560 products and 140 industries will be included in SUT. Nevertheless, no Input-Output table is foreseen to be constructed, at least in the near future.

2.4.2. Employment statistics

It is widely known that tourism is a labour intensive activity. Therefore, the characterization of tourism in terms of employment generated is important for the tourism industry. Most commonly, the variable used is persons employed.

At present there are two major data sources in Iceland from which employment figures can be derived: **Labour Force Survey** and **Pay-as-you-Earn Register (PAYE)**.

A Labour Force Survey has been carried out twice per year in Iceland starting with 1991 and it has been done quarterly according to European regulations starting with 2003 (Statistics Iceland, 2013e). This is a sample survey using the CATI technique (Computer Assisted Telephone Interview) having as a sample frame the persons found in the National Registry. 4,000 individuals are surveyed per quarter and the response rate is 80%.²¹ The survey provides data on main job and second jobs, status, average number of working hours per week and it also allows for gender and status of employment breakdown (employees and self-employed).

Starting with 2001, Statistics Iceland has also published quarterly data on the number of employed persons based on PAYE register of the Directorate of Internal Revenue. The following data are provided on a monthly basis for every single employee and self-employed (Statistics Iceland, 2011a):

²⁰ All these information in this paragraph were provided by Stefán Jansen, responsible for Supply and Use Tables within Statistics Iceland.

²¹ According to Ólafur Sigurðsson within the employment statistics division of Statistics Iceland.

- The percentage of full time equivalence
- The 5 digit activity classification of the employee according to ISAT
- Wages and salaries subject to Pay-as-you-earn

There are some limits of using this data source which are recognized by Statistics Iceland:

Problems have also arisen in counting the labour force in full-time equivalents because this type of information has been sparsely provided by employers. Although only some aggregated results have been published already, this source has been used internally at Statistics Iceland for data from 1998 onwards (Statistics Iceland 2011a, p. 34).

It is recognized by Statistics Iceland that its usage is still work in progress at this moment:

... the processing of this register for statistical purposes is not yet completed and still there exist some discrepancies in classification of many companies in this register and other registers like the Enterprise Accounts Register and the VAT register (Statistics Iceland, 2011a, p. 177).

However, it is hoped that this data source will provide more reliable data in the future and will make the transition from enterprise bases statistics to establishment based ones.

It is important to mention that in Iceland, PAYE register is the main data source for employment statistics for the compilation of National Accounts (OECD and Eurostat, 2006). In addition, it has to be underlined that the document *Tourism Satellite Account: Recommended Methodological Framework* (TSA:RMF, 2008) recommends the compilation of employment only for tourism characteristic industries leaving aside the other industries where theoretically tourism employment can also occur due to the diversity of tourism expenditure.

The following variables are requested in TSA table 7:

- Number of establishments
- Number of jobs
- Number of hours worked
- Number of full-time equivalent jobs

As it was understood, at present Statistics Iceland does not count number of jobs in their National Accounts procedures. Also, the number of full-time equivalent jobs is not published although it can be calculated using the Labour Force Survey.

2.4.3. Transportation statistics

Although these data are not specific to tourism, these should be used for tourism purposes as well. Particularly, number of passengers is the most important variable which could serve as a benchmark for arrivals and/or departures of tourists.

Due to the geography of Iceland as an island in the middle of Northern Atlantic, there are only two means of transport to reach the country, by air and by sea. Theoretically, by subtracting Icelandic resident's arrivals and/or departures from passengers by air and sea should give the upper limit of the number of foreign visitors to country. However, it should be reminded that not all the foreign passengers can be considered tourists as detailed in section 2.1.3.

Nevertheless, reaching Iceland by sea is only operated by the Smyril line ferry at Seyðisfjörður port. Using the passenger number provided by this company is a good start to compile arrivals by sea. Both data on arriving and departing passengers with breakdown by nationalities can be used as well as total number of vehicle arrivals and departures. Tourists can reach Iceland also by cruise ship but these should be treated separately (see section 2.3).

By air, Iceland can be reached by 4 international airports: Keflavík, Reykjavík, Akureyri, and Egilsstaðir. Nevertheless, in 2012, Keflavík airport accounted for 97.5% of the total international passengers to Icelandic airports; Reykjavík airport ranked second (2.1%) followed by Akureyri (0.3%) and Egilsstaðir (0.1%) (ISAVIA, 2012). It should be remembered that the Icelandic Tourist Board published only aggregated data on total number of foreign visitors departing from these 3 airports, in 2012 a total of 13,072 foreign visitors being estimated, representing just 1.9% from the total number of foreign visitors (Icelandic Tourist Board, 2013, p. 4).

3. Concepts, definitions & measurement issues for tourism statistics

This section begins by explaining the concepts and definitions in international standards of tourism statistics and at the same time demonstrates existing linkages with the current system of producing tourism statistics in Iceland. Secondly, the section will assess how measurement of tourism expenditure meets international standards. Where improvements are necessary, a set of recommendations are provided.

3.1. Concepts and definitions

In Iceland, the usage of concepts and definitions specific to tourism is rather limited in the existing system of producing statistics for tourism.

As there is no official demand-side survey for tourism carried out regularly, internationally recognized concepts and definitions in tourism statistics are not implemented. The ITB's commissioned surveys for inbound visitors and Icelandic residents do not refer to the IRTS 2008 concepts, which stands to reason as they are performed by market research companies and not by an official producer of data.

Nevertheless it should be borne in mind that the first TSA published in Iceland in 2008 makes reference to the following concepts (Statistics Iceland, 2008):

- tourists (i.e. visitor),
- usual environment (called “everyday environment” – is. *Hversdagsumhverfi*),
- length of stay,
- purpose of visit,
- classification of tourists (is. *Flokkun ferðamanna*),
- tourist consumption (is. *Neysla ferðamanns*),
- classification of tourism into characteristics and related tourism services (is. *Flokkun í einkennandi og tengdar ferðaþjónustugreinar*).

However, here it should be noted that only a brief general explanation of these concepts is provided in relation with TSA:RMF 2008. For instance, the definition of tourists follows broadly the UNWTO international definition.

3.1.1. Travel and tourism

One should distinguish between travel and tourism, tourism being only a part of travel. Travel designates the movement of people for any duration and/or purpose between different locations. Tourism is defined as an:

activity of visitors taking trips to a main destination outside their usual environment, for less than a year, for any main purpose, including business, leisure or other personal purpose, other than to be employed by a resident entity in the place visited (IRTS, 2008, para. 2.9)

A more schematic presentation of this definition is presented below (figure 1) in relation with identifying all the concepts which are part in defining tourism.

What?	Activity
Who?	Visitor taking trips
Where?	To a main destination outside usual environment
Duration	Less than one year
What for?	Any main purpose including business, leisure or other personal purposes other than to be employed by a resident entity in the place visited

Figure 1: Defining what tourism is according with IRTS 2008.

Source: based on IRTS, 2008

Note: green colour designates other concepts while the red one is used for underlining the constraints.

Each of the concepts presented in figure 1 will be detailed in the following sections.

In addition there are three forms of tourism defined by UNWTO. The following definitions are provided (IRTS, 2008, p. 15):

- **Domestic tourism**, which comprises the activities of a resident visitor within the country of reference, either as part of a domestic tourism trip or part of an outbound tourism trip.
- **Inbound tourism**, which comprises the activities of a non-resident visitor within the country of reference on an inbound tourism trip.
- **Outbound tourism**, which comprises the activities of a resident visitor outside the country of reference, either as part of an outbound tourism trip or as part of a domestic tourism trip.

Three other forms of tourism are derived in an additive manner from the three above, namely **Internal tourism** (domestic tourism + inbound tourism), **National tourism** (domestic

tourism + outbound tourism) and **International tourism** (inbound tourism + outbound tourism).

The future compilation of TSA in Iceland should include these terms in order to ensure conformity with international standards.

3.1.2. Visitor, tourist and same-day tourist

The visitor concept is defined in close relation with the definition of usual environment and the definition of tourism. Tourism is basically considered the activity of visitors. Hence a *visitor* is:

a traveller taking a trip to a main destination outside his/her usual environment, for less than a year, for any main purpose (business, leisure or other personal purpose) other than to be employed by a resident entity in the country or place visited (IRTS, 2008, para. 2.9).

It should be kept in mind that, in international tourism, not all travellers are implicitly considered visitors, and some examples of “non-tourist travellers” are seasonal and long term workers, crew members of public transportation, persons entering/leaving the country to establish residence and/or to work, long term students and medical patients, diplomatic and consular staff and their dependents.

It is important to mention that a *visitor (domestic, inbound or outbound)* is classified as a *tourist (or overnight visitor)*, if his/her *trip* includes an overnight stay, or as a *same-day visitor (or excursionist)* otherwise (IRTS, 2008, para. 2.13).

There is no definition of the visitor concept (neither for tourists nor same-day tourists) in the Icelandic statistical procedures outlined in the previous sections (notably ITB’s visitor counting at Keflavík airport). However, the first TSA publication for Iceland released in 2008 provides a definition of tourist (is. *Ferðamaður*) as being:

a person who travels beyond everyday environment, stays there for less than one year and is not engaged in paid work by entities in the environment in which he visits. The purpose of the trips can be multiple such as entertainment, recreation, holidays, visit to friends, business, health treatment, rituals and so on (Statistics Iceland, 2008, p. 14, translated from Icelandic).

One must admit that this broadly complies with IRTS 2008 definition. Nevertheless, no definition of same-day visitor is provided. In addition, the first publication of TSA in Iceland in 2008 states on the classification of tourists:

In TSA tourists are classified into domestic tourists and foreign tourists depending on whether they reside domestically or abroad. Domestic tourists can be further classified according to whether they represent households, businesses or other the public sector in their tourism consumption (Statistics Iceland, 2008, p. 14, translated from Icelandic).

It has to be noted that the classification of domestic tourists into the three further categories (household, business and other public sector) is not specifically required by international standards. Most likely, this was done in Iceland in order to comply with National Accounts classification from a demand side perspective.

3.1.3. A tourism trip and its characteristics

Trips taken by *visitors* are *tourism trips* (IRTS, 2008, para. 2.29). A key component in distinguishing these from other trips is the temporal dimension of a tourism trip. Different approaches are used in the case of domestic and outbound trips on the one hand and inbound trips on the other hand:

A domestic or an outbound tourism trip refers to the travel of a visitor from the time of leaving his/her usual residence until he/she returns: it thus refers to a roundtrip. An inbound tourism trip refers to the travel of a visitor from the time of arriving in a country to the time of leaving (IRTS, 2008, para. 2.30).

It should be noted that the term tourism trip is different from the term tourism visit as it is understood that during a tourism trip several visits can be undertaken. More, precisely:

the term tourism visit refers to a stay in a place visited during a tourism trip. The stay does not need to be overnight to qualify as a tourism visit (IRTS, 2008, para. 2.33)

These concepts should be adopted and implemented in Iceland, also in the demand side travel surveys.

A tourism trip has the following characteristics:

- main purpose
- modes of transport
- types of accommodations
- duration
- origin and destination
- organization of trip

Each of these characteristics will be discussed in the following.

Main purpose of trip

The international standards in tourism statistics define main purpose of trip as “the purpose in the absence of which the trip would not have taken place” (IRTS, 2008, para. 3.10). It is important to mention that the main purpose of trip is one of the criteria used to establish if a trip is a tourism trip or if a traveller could be considered visitor. IRTS 2008 proposes also a classification of main purpose of trips (see Table 7).

The **purpose of trip** (is. *Tilgangur feðar*) is also mentioned as a concept in the first TSA publication for Iceland released in 2008 but no classification of purposes is provided. Instead purpose of trip is seen as condition for a person to be considered tourist (which is true).

However, it is the ITB’s commissioned survey for inbound visitors which provides a classification of the purpose of trip. The categories of purpose of trip recommended by international standards are to some extent found in ITB’s commissioned survey for inbound visitors. Nevertheless, some observations should be made (see Table 7).

Table 7: Purpose of trip in ITB’s commissioned survey for inbound visitors and IRTS 2008.
Source: based on IRTS, 2008 and Icelandic Tourist Board, 2012

IRTS 2008	ITB’s commissioned survey for inbound visitors	Comments/Critique
1. Personal		
1.1. Holiday, leisure and recreation	Vacation/holiday	
1.2. Visiting friends and relatives	Visiting friends/relatives	
1.3. Education and training	Study/research	If research is paid and part of an employment contract with a resident entity in Iceland then it should be excluded as tourism related purpose.
1.4. Health and medical care		One should agree that these purposes are not common for Iceland and don’t need to be surveyed. However, in order to meet the needs of External trade statistics compilation, at least Health and medical care should be included among purposes of visit.
1.5. Religion/pilgrimages		
1.6. Shopping		
1.7. Transit		It could be established only for passengers with a stopover at Keflavík and having a short trip in Iceland entering the economic territory of Iceland (see section 2.2.1.).
1.8. Other	Other	
2. Business and professional	Conference/meeting Event in Iceland Business/Employment	If the purpose is employment then it should be excluded from tourism trips. Under no circumstances should “Employment” be aggregated with business and considered as a purpose of trip.

It is important to note that the ITB's commissioned survey for inbound visitors does not capture the main purpose of trip but all purposes (no single purpose being captured). Under these conditions, no concordance with international standard exists.

No classification of purposes of trip is provided by ITB's commissioned survey for Icelandic residents. Also, the last travel demand survey carried out by Statistics Iceland in 2007-2008 is rather limited in detailing purposes of trips, only three aggregated categories being provided: Holiday (including visits to friends and relatives), Business and Other purposes. However, the Statistics Iceland survey asks for the main purpose of trip.

Modes of transport

Modes of transport are an important characteristic of a trip and it could refer both to the means of transport used to reach the country and used within the country. In either case a differentiation between these should be made.

The main mode of transport can be established based on (IRTS, 2008, p. 27):

- The mode by which the most miles/kilometres are travelled
- The mode by which most time is spent
- The mode which has the highest share of the total transport costs

IRTS 2008 clearly states (see para. 3.33) that in case of island countries the mode used to cross the border of these countries should be considered the main mode of transport. Therefore, for Iceland only two modes of transport are considered: air and waterways.

ITB's commissioned survey for inbound visitors distinguished both between transport type used by tourists to reach the country (two categories being provided "Flight" and "Smyril line") and means of transport used during stay in Iceland. In the latter case a multiple answers question is asked so no main mode of transport can be established.

UNWTO uses and has proposed a standard classification for modes of transport. This should also be adopted and used in Iceland. In this regard, a correspondence table has been established between this UNWTO classification and the classification used by ITB's commissioned survey for inbound visitors.

Table 8: Modes of transport: correspondence between UNWTO classification and the classification in ITB’s commissioned survey for inbound visitors.

Source: based on IRTS, 2008 p. 28 and Icelandic Tourist Board, 2012

UNWTO classification	ITB classification
1. Air	
1.1. Scheduled flights	Domestic Air
1.2. Unscheduled flights	
1.3. Private aircraft	
1.4. Other modes of air transport	
2. Waterway	
2.1. Passenger line and ferry	Domestic ferry
2.2. Cruise ship	
2.3. Yacht	
2.4. Other modes of water transport	
3. Land	
3.1. Railway	Not applicable
3.2. Motor coach or bus and other public road transportation	Coach (regular routes) Coach (organized tour)
3.3. Vehicle rental with driver	
(i) Taxis, limousines and rental private motor vehicle with driver	Taxi
(ii) Rental of man or animal drawn vehicle	Not applicable
3.4. Owned private vehicle (with capacity for up to 8 persons)	Car (private)
3.5. Rented vehicle without operator	Car (rented)
3.6. Other modes of land transport: bicycle, horseback, motorcycle, etc.	Bicycle Other

One can see that ITB’s commissioned survey for inbound visitors covers pretty well the UNWTO classification. More precisely, the classification in case of the land category is fully covered. Air and waterway categories respectively are aggregated but this is not a problem as some subcategories are not very common (e.g. private aircraft, yacht).

The ITB’s commissioned survey for Icelandic residents did not capture the modes of transport and neither did the last travel demand survey carried out by Statistics Iceland in 2007-2008.

Types of accommodation

In identifying types of accommodations, it is necessary from the very beginning to distinguish between market (paid) accommodation and unpaid forms of accommodations (e.g. staying at friends and relatives or staying in own vacation home). It is important to mention that market accommodation covers also the case when the price of accommodation is subsidized by a third party (e.g. employer).

Another point is that it is necessary to establish a consistency between supply-side and demand-side surveys with reference to types of accommodation used. The Statistics Iceland surveys and ITB’s commissioned survey for inbound visitors and Icelandic residents are compared in table 9.

Table 9: Correspondence between different types of accommodations used by Statistics Iceland and Icelandic Tourist Board in their surveys.

Source: based on Statistics Iceland, 2013f; 2013g and Icelandic Tourist Board, 2012; 2013c

Statistics Iceland accommodation survey classification	Statistics Iceland 2007-2008 Travel demand survey	ITB's commissioned survey for inbound visitors	ITB's commissioned survey for Icelandic residents
Hotels and guesthouses	Hotel and guesthouses	Hotels/guesthouses Farm holiday accommodation*	Hotels/guesthouses or similar accommodation
Youth hostels	Youth hostels	Hostels/lodges in wilderness and similar	
Holiday houses	Holiday houses owned by travel operators Other holiday houses	Summer cottages/guest residence and similar Farm holiday accommodation*	
Lodges in the wilderness	Lodges in the wilderness	Hostels/lodges in wilderness and similar	Huts and wilderness lodges
Sleeping bag facilities	Sleeping bag facilities		Sleeping bag accommodation or similar
Private home accommodation	Private home accommodation	Farm holiday accommodation*	
Camping	Camping Trailers Caravans Mobile homes	Camping/caravan sites	Tent/Trailer/Motorhomes
	Holiday houses owned by trade or company unions		Holiday houses owned by unions, companies for their employees or NGOs
	Private holiday houses		Privately owned holiday home, second home or apartment for holiday purposes
	With friends and relatives	With friends/relatives (unpaid)	Stayed with friends and relatives
	Other	Other types	Other

*- defined by Icelandic Farm Holidays as comprising four categories: farmhouse, farmer's guesthouse, country hotel and cottage/apartment (Icelandic Farm Holidays, 2013)

One can see that there is little consistency among the types of accommodation used in the surveys by these two parties. Unpaid forms of accommodation are covered in surveying residents both from 2007-2008 Statistics Iceland's travel demand survey and ITB's commissioned survey for Icelandic residents. While market accommodation is completely covered by Statistics Iceland, ITB presents a more aggregated typology. This is for instance the case with hostels which are either aggregated with the category "Lodges in the wilderness" for inbound visitors' survey and lacking in case of the survey for Icelandic residents. Nevertheless, both Statistics Iceland and the Icelandic Tourist Board fail to include the renting of apartments or houses from private individuals (e.g. airbnb.com), a form of accommodation becoming popular in the last years, especially in the Reykjavík area.

A special remark has to be made concerning the category Farm Holiday accommodation, which is found in the ITB's commissioned survey for inbound visitors. This category is very heterogeneous and inside it one can find different types of accommodations (hotels, guesthouses, cottages, etc.). This creates great difficulties in establishing a correspondence

with Statistics Iceland's categorization of accommodation establishments. Further, it becomes impossible to compare data for different type of accommodations between Statistics Iceland and the Icelandic Tourist Board.

Recommendation 9: In order to establish a certain level of consistency with Statistics Iceland, Icelandic Tourist Board should drop including "Farm holiday accommodation" as a type of accommodation in its commissioned survey for inbound visitors. Instead, the categories (or aggregations) from Statistics Iceland can be used.

Duration of a trip

Duration of a trip is expressed as the number of nights the visitor spent at the destination. If there is not at least one overnight stay then the trip is considered a same-day trip. Obviously, if the number of nights exceeds 365/366 (a year) then it cannot be considered a tourist trip.

Usually a categorization of the number of nights is provided in both the ITB and Statistics Iceland surveys, however with different names.²² This could hamper the comparability of data between these surveys.

No recommendation is provided by UNWTO on how to categorize trip duration. Each country should establish the categories according to its context. In this regard, in the purpose of establishing consistency with other data sources in Iceland (e.g. statistics on population), the threshold used in case of the residence concept (i.e. 6 months) could be envisaged (see 3.1.5).

The first TSA publication for Iceland released in 2008 presents the concept of "Dvalarlengd" as a condition for tourism:

Another condition for being a tourist is to stay for less than a year in an environment beyond everyday environment that he goes to. If he stays longer than a year in the environment it is considered everyday environment. The TSA distinguishes between one-day trip and trips that take more than a day. (Statistics Iceland, 2008 p. 15, translated from Icelandic).

Ironically, TSAs in Iceland do not provide data on same-day trips although these are mentioned in the definition.

²² For instance the following categorization is used by ITB's commissioned survey for inbound visitors, in terms of number of nights: 1-2, 3-4, 5-7, 8-11, 12-14, 15 and more; Statistics Iceland in its 2007-2008 Travel demand survey used the categorization: 1-3, 4-7, 8-14, 15-28, 29-60; Also ITB's commissioned survey for Icelandic residents used: 1-3, 4-6, 7-10, 11-13, 2 weeks, 3 weeks or more (Icelandic Tourist Board, 2012; 2013c and Statistics Iceland, 2013g).

Origin and destination of a trip

For each trip two main variables need to be established, “origin” which is actually the country or the place of usual residence of the visitor and “main destination”. Main destination is defined by IRTS 2008 as:

the place visited that is central to the decision to take the trip. However, if no such place can be identified by the visitor, the main destination is defined as the place where he/she spent most of his/her time during the trip. Again, if no such place can be identified by the visitor, then the main destination is defined as the place that is the farthest from the place of usual residence. (IRTS, 2008, para. 2.31).

International trips on the one hand should be distinguished from domestic trips on the other hand. For inbound trips, origin is designated by the country of residence of the visitor and consequently arrivals should be classified by country of residence. For outbound trips main destination country should be provided. In domestic trips, the place of usual residence is established as origin, while the main destination is considered a geographical location within the country, which is practically central to the decision to take a trip to that location.

ITB’s commissioned survey for inbound visitors captures the origin of guests, in terms of country of residence and nationality. As regards the destination of visitors, data is collected on overnight stays in each region of Iceland (Reykjavik and surrounding area, Reykjanes, West, Westfjords, North, East, South and the Interior).

Statistics Iceland’s 2007-2008 travel demand survey also includes data on the main destination. For the outbound trips the country of destination is queried and for the domestic trips the region of Iceland (Capital region, Southwest, West, Westfjords, Northwest, Northeast, East, South and Highland area) that is visited is queried. The ITB’s commissioned survey for Icelandic residents does the same, but additionally includes origin data by three categories: Capital area, Communities near the capital and Rest of Iceland.

Organization of trip

In tourism statistics, it is important to distinguish between trips organized by a tour operator, travel agency or other organizer and trip organized by the visitor himself. This distinction is very important when quantifying tourism expenditure as visitors are not aware of the cost of each service included in a package tour.

In the ITB's commissioned survey for inbound visitors there is a variable on "type of trip (package tour, individually arranged, mixed of both)" which is broadly referring to the organization of trip. However, the ITB's commissioned survey for Icelandic residents does not capture data on the organization of trip. Also, Statistics Iceland in its 2007-2008 travel demand survey publish some data on the organization of trip but only for outbound trips.

3.1.4. Travel party

A travel party is defined as "visitors travelling together on a trip and whose expenditures are pooled" (IRTS, 2008, para. 3.2). This concept is very important for establishing tourism expenditure. In a questionnaire, data on expenditure should refer to the travel party and not to each member of it. Also, travel party is an important variable when establishing for instance, average expenditure per person per day, since in a travel party some expenses are shared (e.g. sharing a room or a rented car).

No data about the size of travel party is provided by the ITB's commissioned survey for inbound visitors, nor did the commissioned survey for Icelandic residents provide this information. Without this concept, the gathering of good data in terms of expenditure is rather problematic.

Recommendation 10: All the surveys (present and future) capturing tourism expenditure in Iceland should include data on the composition of travel party. This is mandatory in order to avoid biases in reporting accurate tourism expenditure.

Nevertheless, it should be mentioned that the future ITB's commissioned survey for inbound visitors for winter 2013/2014 foresees to capture data on travel party.²³

3.1.5. Country of residence/Place of usual residence

For tourism, the concepts of **country of residence** and **place of usual residence** are particularly important. It should be noted that the concept of place of usual residence is used only within a country (in our case with reference to domestic tourism) while the concept of country of residence is only used in relation to inbound and outbound tourism.

The concept of **country of residence** is not used in Iceland, neither in accommodation statistics nor in ITB's counting of foreign visitors at Keflavík airport. Instead, the concept of

²³ According to the draft questionnaire sent by Oddný Þóra Óladóttir, Research Director at the Icelandic Tourist Board.

nationality is used. Nevertheless, the country of residence is used in National Accounts as well as in Balance of Payments (External trade) compilation in Iceland, which is carried out according to international standards. The concept of **place of residence** (which is broadly similar with place of usual residence) is met in the Household Expenditure Survey carried out by Statistics Iceland.

In Iceland, according to the Act on Legal Domicile (21/1991), resident refers to any individual permanently resident in Iceland, irrespective of nationality. The same act stated that a person residing in Iceland for six months or longer has to obtain a legal domicile in Iceland. This threshold is 3 months for EEA citizens who have stayed or intend to stay in Iceland for more than 3 months.

It is important to remember that the concept of place of residence should only be used in domestic tourism analysis. In fact, this is recommended by IRTS 2008:

within the context of the study and measurement of domestic tourism at a subnational level, it is recommended that residents in a given country be classified according to their place of usual residence, as determined in household surveys (IRTS, 2008, p. 11).

Instead, for inbound and outbound tourism, the country of residence should be defined in the same manner as in National Accounts and Balance of Payments (IRTS, 2008, para. 2.17)

Recommendation 11: The future compilation of TSA in Iceland should use for the domestic tourism survey the same concept of place of usual residence as defined in the actual Household Expenditure Survey carried out by Statistics Iceland. For inbound visitors, the country of residence concept should be defined following National Accounts rules in Iceland.

It is important to mention that ITB's commissioned survey for inbound visitors, in an initial stage does not capture country of residence of visitors at Keflavík airport and Seyðisfjörður port (but only nationality). Nevertheless, in a further stage of this survey (i.e. the Internet survey) country of residence is required²⁴. Data are presented by 12 countries of residence of visitors (Icelandic Tourist Board, 2012).

²⁴ The fact that only in the Internet survey country of residence is required is not very useful since following "nationality approach" in the first stage of the survey Icelandic citizens residing abroad are already excluded (as they are Icelandic nationals). They should be considered as nonresidents and consequently regarded as foreign visitors.

3.1.6. Usual environment

A key variable among the concepts used for tourism analysis, is the **usual environment**. According to IRTS 2008, usual environment is defined “as the geographical area (though not necessarily a contiguous one) within which an individual conducts his/her regular life routines” (IRTS, 2008, para. 2.21). It is important to mention that being outside one’s usual environment is one of the basic conditions for a trip to be qualified as a tourism trip. Actually, the concept of usual environment is only used in tourism statistics and complements the concept of usual place of residence (IRTS, 2008, p. 11).

Without an official demand side-survey carried out regularly in Iceland, there is no operational definition of usual environment in tourism statistics. It should be noted that this concept is only applicable in Iceland for domestic tourism as there are no neighbouring countries bordering the island to provide for flows of visitors as inbound tourists.

Nevertheless, it is necessary to adapt this concept to Iceland. In other words, there is a need to have some precise criteria for establishing in a practical manner what usual environment actually means in Iceland. It is important to mention that the questionnaire for domestic travel survey carried out by Statistics Iceland in 2007-2008 does not mention the concept.

Eurostat recommends using a so called “cascade system”, meaning that one by one, the criteria are applied and if one of the criterion is not fulfilled, then the trip should not be considered tourism trip (Eurostat, 2012):

- *The crossing of administrative borders (i.e. visits outside municipality)*
- *The duration of the visit (>=3 hours in case of day trips and less than 12 months for overnight stays)*
- *The frequency of the visit (i.e. not every week)*
- *The purpose of the visit (not in the current life routine or to maintain daily living)*

Recommendation 12: Statistics Iceland has to agree with the major tourism stakeholders to have a commonly accepted definition of usual environment and to adopt it to its tourism demand side surveys. As an alternative, the Eurostat criteria for usual environment could be adopted by Iceland as well.

It is necessary to have a consultation process with the Ministry of Industries and Commerce, Icelandic Tourist Board, Icelandic Travel Industry Association (SAF) and the Icelandic Tourism Research Centre representing the universities in order to establish the meaning of usual environment in the Icelandic context.

UNWTO recommends also establishing criteria at national level for countries in case of usual environment:

... in order to ensure comparability between responses, within the country, and over time, it is recommended that national statistical offices, tourism authorities and/or other organizations with direct responsibility for tourism statistics are encouraged to establish national criteria to operationalize the concept of “usual environment” (IRTS, 2008, para. 2.50).

Having a consensus on the usual environment definition represents a key element for the level at which tourism activity is measured. International experience²⁵ has demonstrated that variations in defining usual environment can lead to different results in term of measuring the size of tourism.

The first version of TSA in Iceland published in 2008 makes a reference to the concept of usual environment, particularly called in Icelandic “Hversdagsumhverfi”, which is in English “Everyday environment”. The following conceptual clarification is provided:

Everyday environment is the environment that an individual performs their routine activities, but there are places like home and immediate environment, workplace, school or other places visited regularly. It goes without saying that the boundaries between everyday environment and other environment are not always clear, although much of the travel cases is easy to classify. Doing this analysis the focus is upon the frequency and distance but frequency refers to an environment visited on a regular basis (at least weekly), even if the distance is long. Distance refers to the immediate environment of the person belonging to the everyday environment despite distances, up to 40 to 50 km from home. (Statistics Iceland, 2008, translated from Icelandic)

One must admit that formally these clarifications comply with the international standards. However, these specifications are only theoretical with no practical relevance while these are not applied in the demand side surveys in Iceland.

A particular case within the usual environment concept refers to trips to vacation homes. In principle trips to vacation homes are usually considered tourism trips. A separate measurement is necessary in the case of second homes due to specificities in estimating tourism consumption and its particular importance for TSA.

However, Eurostat recommends that if the vacation home is within the same municipality as the place of residence of the visitor, then by default these trips should not be considered tourism trips. Actually all the “cascade system” conditions should apply also to trips to vacation homes (Eurostat, 2012).

The first version of TSA in Iceland published in 2008 recognized the particular case of vacation homes.

Doing the settlement of TSA it is important to analyse whether a trip to summer houses or holiday home (or second homes) is outside the everyday environment or not. In

²⁵ In 2002 a joint study was carried out by Instituto de Estudios Turísticos (Spain) and Canadian Tourism Commission in order to analyze different country experiences in defining usual environment (United Nations World Tourism Organization, 2011).

most cases these houses are considered to be outside the everyday environment if they are not used as a working places or work is not attended from them. (Statistics Iceland, 2008, translated from Icelandic)

Nevertheless, one can see that the exclusion of trips to vacation homes is made only in relation with work as an activity performed there. This is not enough and the other Eurostat, criteria for its “cascade system” should be applied as well (i.e. frequency, duration, administrative border).

3.1.7. Tourism expenditure

According to IRTS 2008 (para. 4.2) tourism expenditure is the:

... amount paid for the acquisition of consumption goods and services as well as valuables, for own use or to give away, for and during tourism trips. It includes expenditure by visitors themselves as well as expenses that are paid for or reimbursed by others. (IRTS, 2008, para. 4.2)

This is the definition that should be embraced also by Iceland. According to SNA 2008 standards, valuables are defined as:

... expensive durable goods that do not deteriorate over time, are not used up in consumption or production and are acquired primarily as stores of value. They consist mainly of works of art, precious stones and metals and jewellery fashioned out of such stones and metals. (SNA, 2008, para. 9.57)

It is important to note that there are some types of payments that do not correspond with the concept of acquisition of goods and services and these should be excluded from tourism expenditure. These include payment of taxes, interest, purchasing of land and real estates, donations to charities or to individuals (particularly friends and relatives) or purchasing of goods for resale purposes.

There is no definition of tourism expenditure in Iceland in order to follow international recommendations. Again, this is due to lack of an official demand side travel survey.

<p>Recommendation 13: The future compilation of TSA in Iceland should adopt the definition of tourism expenditure as it is in the international standards and moreover, to effectively operationalize its scope (for instance, by clearly specifying in the questionnaire what kind of payments should be excluded) in the demand-side surveys both for inbound and domestic visitors.</p>

An important aspect refers to the moment when expenditure is considered tourism expenditure. In principle, all acquisitions of goods and services, including valuables acquired

during the trip are included in the tourism expenditure concept (IRTS, 2008, para. 4.11). Also services and goods purchased before the trip and to be used on the trip (case of clothes, medicines etc.) are included in the tourism expenditure concept; this is also the case of tourism single-purpose consumer durable. Expenditures incurred after the trip are not considered tourism expenditures.

Following the classification of visitors, tourism expenditure is classified into inbound tourism expenditure, domestic tourism expenditure and outbound tourism expenditure. However, caution should be taken as there is no one-to-one relation between the classification of visitors and classification of tourism expenditures. This is especially the case of domestic tourism expenditure which includes also the domestic part of an outbound trip and consequently, the outbound tourism expenditure excludes this part. For instance, a resident from Höfn leaving abroad for a holiday will overnight in Reykjavik before taking the plane. In this case, even though the person is on an outbound trip, all the expenditure made before leaving the country (the domestic part of this outbound trip) is considered domestic tourism expenditure and not outbound tourism expenditure.

The first version of TSA in Iceland published in 2008 does not provide a clear and separate definition for tourism expenditure. Rather, tourism expenditure is embedded in the tourism consumption concept:

Expenses are considered tourism if they are made by the tourist or the above mentioned parties on his behalf. It is possible to incur such expenditures during the trip as well as before or after the trip as stated above. These expenditures are first and foremost due to the purchase of goods and services but also the purchase of valuables (e. valuables) for personal use or for gifts. (Statistics Iceland, 2008 translated from Icelandic)

While the definition recognizes the inclusion of valuables, these specifications do not clearly indicate the monetary terms characterizing tourism expenditure, which is the acquisition concept. Another difference is in relation to expenditure made after the trip which according to the new IRTS 2008 should not be included anymore. Indeed the 1993 *Recommendation on Tourism Statistics* included post-trip expenditure but now with the 2008 recommendation this item has been removed.

3.1.8. Tourism consumption

It is worth mentioning that tourism consumption is a concept specific to TSA. More precisely, it is used in TSA tables 4 and table 6 and it is the main pillar in calculating the TSA aggregates of Tourism Direct Gross Value Added and Tourism Direct Gross Domestic Product.

Although this concept has formally the same meaning as tourism expenditure, it goes beyond the monetary transaction which characterizes the tourism expenditure concept. Basically, it contains besides tourism expenditure, “the services associated with vacation accommodation on own account, tourism social transfers in kind and other forms of imputed consumption” (TSA:RMF, 2008, p. 12).

According to SNA 2008 social transfer in kind are defined as “goods and services provided by general government and Non-profit institutions serving households (NPISHs) that are delivered to individual households”(SNA, 2008, para. 3.83). In tourism this would include the subsidized ticket to a museum or subsidized health services provided on short term basis in health establishments.

Other forms of imputed consumptions refer in particular to:

- Temporary exchange of dwellings for vacation purposes (barter transactions).
- The imputed value for goods (vegetables, fruits, mushrooms, fish etc.) produced on own account from the vacation home or resulting from recreational activities outside usual environment.
- The net costs for hosting visitors in terms of increasing expenditure on food, utilities, presents etc.
- The costs for producers (e.g. businesses, governments) of expenditure of employees on business trips that do not involve a monetary disbursement by the employee (transport services provided free of charge or at subsidized price to their employees by carriers, accommodation or meals provided free of charge or at subsidized price to employees by hotels etc.) (TSA:RMF, 2008, p. 13)

With reference to the last category, in Iceland there are some forms of “in kind payments to employees” which are mentioned by Statistics Iceland in its National Accounts methodology (see: Statistics Iceland, 2011a, p. 178). From a tourism perspective, the following types are of interest:

- Travel tickets supplied free of charge or at reduced priced to employees.
- Travel allowances and per diems.
- Accommodation provided free of charge or at reduced prices to employees.

The first category was estimated in Iceland once the European System of Accounts (ESA 95) was introduced in August 2000. However, due to the fact that the value of these tickets was considered too low (e.g. 25 million ISK in 1999), no imputation of this kind has been performed by Statistics Iceland since then (Statistics Iceland, 2011a). The travel allowance category is practically registered as expenses for employees and in the Enterprise Accounts Registers this item is separately distinguished as Other expenses. However in many cases this category involves a monetary transaction and thus is considered business travel expenses and not imputed consumption. The third category has tourism implications only in the case of renting vacation homes for employees. It is important to note that rent-free dwelling as an income in kind was estimated by Statistics Iceland as “2.7% of the real estate evaluation of the corresponding dwellings per annum and proportionally for shorter periods of time”

(Statistics Iceland, 2011a, p. 180). Nevertheless, these are only estimations as there is no direct information available to identify such benefits and moreover, to separate vacation homes from other types of dwellings.

The first publication of TSA in Iceland provides a definition on tourism consumption (is. *Neysla ferðamanns*)

Tourist consumption is defined as expenditures yet is broader as it includes services due to cottages or other recreational housing and other calculated consumption as well as barter exchange. (Statistics Iceland, 2008, translated from Icelandic)

One can see that this definition is largely compliant with international standards although the case of social transfers in kind and imputed consumption are not specifically mentioned. Nevertheless, the term “other calculated consumption” can be accepted as a proxy for these concepts.

Similarly with tourism expenditure, the categories of tourism consumption can also be established. This is based on the country of residence of the visitor, on the one hand and on the provider of goods or services acquired by the visitor, on the other hand. Thus, there is domestic tourism consumption, inbound tourism consumption, outbound tourism consumption, internal tourism consumption and national tourism consumption (see Table 10).

A comparison between the definitions of these categories in TSA:RMF 2008 and the ones found in the first TSA publication in Iceland is provided in table 10 below.

Table 10: Defining categories of tourism consumption in TSA:RMF 2008 and in Iceland (in the first TSA publication in 2008).

Source: TSA:RMF, 2008, p. 15 and Statistics Iceland, 2008, p. 16 – translated from Icelandic

Categories of tourism consumption	TSA:RMF 2008	The first TSA publication in Iceland
Domestic tourism consumption	The tourism consumption of a <u>resident</u> visitor <u>within</u> the economy of reference.	Consumption of domestic tourists domestically.
Inbound tourism consumption	The tourism consumption of a <u>non-resident</u> visitor <u>within</u> and the economy of reference.	Consumption by foreign tourists domestically.
Outbound tourism consumption	The tourism consumption of a <u>resident</u> visitor <u>outside</u> the economy of reference.	Consumption of domestic tourists abroad.
Internal tourism consumption	The tourism consumption of both resident and non-resident visitors within the economy of reference. It is the sum of domestic tourism consumption and inbound tourism consumption.	Tourism consumption domestically includes consumption of domestic and foreign tourists.
National tourism consumption	The tourism consumption of resident visitors within the outside the economy of reference. It is the sum of domestic tourism consumption and outbound tourism consumption.	Residents Travel Consumption includes consumption of domestic tourists domestically and abroad.

One can see that the categories of tourism consumption are more or less the same. Nevertheless Icelandic TSA uses the terms “domestic tourists” (is. *innlendra ferðamanna*) instead of “resident visitors” and in the same manner “foreign tourists” (is. *erlendra ferðamanna*) instead of “non-resident visitors”. Although one can consider this a small difference, it can have implications in relation with the inclusion of same-day visitor consumption and in the correct usage of the residence concept.

Recommendation 14: The future compilation of TSA in Iceland should adopt the exact definition of tourism consumption and its forms as stated in the international standards.

3.2. Measurement of tourism expenditure

One of the core issues in tourism statistics but also in TSA is the measurement of tourism expenditure. An assessment of conformance with international standards is performed in table 11 where three levels of compliance are proposed (see Frent and Frechtling, 2013). “Yes” means the IRTS 2008 recommendation is fully found in Iceland, “Partially” means that only some pieces of recommendation are met or only by some data sources and “None” means that this recommendation is not at all implemented in Iceland.

Table 11: Conformance with international standards in measuring tourism expenditure in Iceland.

Source: based on IRTS, 2008, pp. 36-38

No	IRTS 2008 recommendations	Paragraph Reference	Compliance in Iceland	Comments/Explanations
1.	To include a specific expenditure module in surveys of inbound visitors.	4.28	Yes	The ITB’s commissioned survey for inbound visitors does contain expenditure questions which are separately coded.
2.	Border surveys to be carried out on an ongoing basis (monthly, quarterly, annually), or conducted only at certain moments (high season, low season).	4.29	Partially	The ITB’s counting at Keflavík airport could not be considered a border survey. However, the ITB’s commissioned survey for inbound visitors was conducted in the last 5 years but not on a continuous base (see Table 1).
3.	For domestic and outbound tourism expenditure, either a tourism-specific household survey or a periodic module (monthly, quarterly, annually) attached to general household expenditure survey can be used.	4.31	None	The annual ITB’s survey for Icelandic visitors does not capture tourism expenditure. Moreover, Statistics Iceland has no such survey carried out regularly.
4.	In the measurement of domestic tourism expenditure	4.32	None	There is no survey performed to make this kind of differentiation.

No	IRTS 2008 recommendations	Paragraph Reference	Compliance in Iceland	Comments/Explanations
	the economy from which services and goods are delivered / acquired should be identified in order to assign the economic effects associated with the movement of visitors to the economies concerned.			
5.	To consider alternative estimations methods based on different types of administrative data (such as bank reporting systems, credit card reports, transportation expenditure provided by travel agencies, companies or transportation regulatory authorities).	4.33	Yes	Statistics Iceland used credit card reports data in order to compile Travel Item in External Trade Service Statistics.
6.	Special attention to be paid to ensure an adequate degree of accuracy when asking visitors to report in detail their expenditure, especially when recall bias can occur.	4.34	None	There is no such assessment with reference to recall bias. This is rather problematic for ITB's commissioned survey for Icelandic visitors.
7.	Identifying clearly the key characteristics of visitors and their trip in order to be linked with the universe of visitors observed in other statistical procedures and to expand properly the data that have been collected.	4.36 a)	Partially	The ITB's commissioned survey includes the characteristics of visitors only for inbound visitors. In the case of the survey for Icelandic residents some key characteristics of visitors (i.e. purpose of trip, means of transport, usage of package tours) are not identified. In addition in none of the ITB's commissioned surveys data are expanded to the total universe of visitors.
8.	Identifying the country of residence of visitor and of the provider of service in order to allocate to inbound, domestic and outbound tourism expenditure (this is very important for acquisition made before trip, especially the case of air transport).	4.36. b)	None	At Keflavík airport and Seyðisfjörður port country of residence is not requested in an initial stage of ITB's commissioned survey for inbound visitors. Also, the country of residence of the provider of the services is not identified in any of the ITB's commissioned surveys. However, this issue will be partially addressed in the new ITB's commissioned survey for inbound visitors and planned to be carried out for winter 2013/2014 (according to the draft questionnaire).
9.	Only for tourists travelling on a package tour to collect information on total amount paid and the components of the package tour and the country of residence of the tour operator or travel agent from	4.36. c)	Partially	Although the price paid for a package tour and its components were already provided by ITB's commissioned survey for inbound visitors, no data was provided about the residence of tour operator and travel agent. However, this

No	IRTS 2008 recommendations	Paragraph Reference	Compliance in Iceland	Comments/Explanations
	whom the package was purchased.			issue will be addressed in the new ITB's commissioned survey for inbound visitors and planned to be carried out for winter 2013/2014 (according to the draft questionnaire).
10.	The modes of transport used to arrive, travel within and leave the country should be clearly stated.	4.36 d)	Partially	The ITB's commissioned survey for Icelandic residents does not request data on modes of transport used during the trips. Nevertheless, this data are found in the ITB's commissioned survey for inbound visitors.
11.	To make frequent measurement of flows of visitors and their characteristics (i.e. on monthly basis), but to survey their expenditure less frequently and to use a modelled approach using price indexes and extrapolations in order to estimate tourism expenditure.	4.36 e)	None	Although the ITB counts the visitors at Keflavík airport and reports the figures on a monthly basis, no estimation procedure is used for having the indicator of tourism expenditure.
12.	To obtain also the expenditure made by others for the benefit of visitors.	4.36. f)	None	There is no question distinguishing between the expenditure made by the visitor and the expenditure made by others for his benefit. One must note the relevance of this differentiation only for domestic and outbound trips.
13.	To present separately the expenditure on accommodation and transport by visitors on business and professional trips, because the national accounts considers these a part of intermediate consumption.	4.36 g)	Yes	These were presented separately in the last TSA for Iceland.
14.	To present separately the acquisition of valuables and consumer durables whose value is above the country's customs threshold.	4.36 h)	None	It is likely that this situation is not very specific for tourism in Iceland. However, this issue can be at least covered in a survey.
15.	To pay attention to travel parties when reporting expenditure.	4.36 i)	None	No data on travel parties is captured in the current surveys. However, this issue will be addressed in the new ITB's commissioned survey for inbound visitors and planned to be carried out for winter 2013/2014 (according to the draft questionnaire).

Table 11 demonstrates that out of 15 international recommendations for measuring tourism expenditure only 3 were found as being “compliant” for Iceland while 8 were not in

compliance. At the same time, there were 4 recommendations that were considered partially compliant.

Recommendation 15: The future compilation of TSA in Iceland should envisage all the non-conformance as regards measuring tourism expenditure identified in table 11. These are summarized once again:

- At least ITB's commissioned survey for inbound visitors should be on a continuous basis; it is recommended that country of residence to be required in the initial stage of the survey at Keflavik airport and Seyðisfjörður port
- A household survey for measuring domestic and outbound tourism expenditure is needed and should be carried out on a quarterly basis. However, if funds are not available, at least the annual survey of the ITB of Icelandic visitors has to be largely improved in relation to:
 - o Assessing the recall bias
 - o Presenting some key characteristics of trip (e.g. purpose of trip, means of transport)
 - o Identifying the residence of tour operator and travel agency and also the airline company when flying abroad
 - o Identifying what kind of expenditure were made by others (business, government) for the benefit of visitors
 - o Addressing the case of acquisition of durables and valuables
 - o Identifying travel parties
- Using statistical procedures in order to expand the results of the surveys (both for inbound visitors' survey and the Icelandic residents' survey) to the total universe of visitors.

3.3. Supply-side measurement issues

Measuring the supply-side of tourism is equally as important as measuring the demand side. It has to be admitted, as a general rule, that in National Accounts, supply-side data are more reliable than demand side data.

Generally, tourism industries are implicitly included in the economic data provided by a country. In Iceland, as administrative data (mainly registers) are largely used for National Accounts purposes, data for tourism industries can be extracted as well from these registers (e.g. Enterprise Accounts register, VAT register, PAYE register). The only condition is that the data needs to be identified at least at ISAT 2008 four digits level. Usually, this data is used to calculate production, intermediate consumption and value added by National Accounts.

In Iceland, the registers can provide useful non-monetary data such as number of enterprises, although it would be preferable to have data on the number of establishments. Table 12 compiles the number of enterprises and organizations in tourism industries according to the Enterprise register of the Directorate of Internal Revenue.

Table 12: Number of registered enterprises and organizations activating in tourism industries in Iceland, 2008-2012.

Source: Statistics Iceland, 2013h: figures derived from Enterprise Register of the Internal Revenue Directorate (updated 31st January 2013)

No	UNWTO categories of tourism industries*	2008	2009	2010	2011	2012
1.	Accommodation for visitors**	390	406	422	437	456
2.	Food-and beverage-serving industry	880	916	927	922	921
3.	Road passenger transport	130	139	137	142	151
4.	Water passenger transport	20	21	24	27	30
5.	Air passenger transport	37	36	39	44	48
6.	Transport equipment rental	71	80	101	107	124
7.	Travel agencies and other reservation services	305	381	460	511	595
8.	Cultural industry	1,201	1,234	1,262	1,292	1,309
9.	Sports and recreational industry	313	333	350	356	369
10.	Retail trade of country-specific tourism characteristics goods	30	27	26	22	21
11.	Other country-specific tourism characteristics activities	1,174	1,208	1,245	1,275	1,308
Total tourism industries		4,551	4,781	4,993	5,135	5,332
Total Iceland		57,525	59,753	60,945	61,734	62,961
Tourism industries share - international comparability only (1-9)		5.8%	5.9%	6.1%	6.2%	6.4%
Tourism industry share - including country-specific industries (1-11)		7.9%	8.0%	8.2%	8.3%	8.5%

* see Annex 4 for the industries included in these categories**

In the period 2008-2012, tourism industries in Iceland accounted for around 6% of the total number of enterprises and organizations in Iceland (if only the data for international comparability are considered) and in general more than 8% (if also data for country-specific tourism industries is added).

Apart from these, one can use some data provided by specific surveys or other statistical procedures from the supply side. In Iceland, there is one survey for the Accommodation industry, which is in fact the only official data source specific to tourism (see subchapter 2.1.1. for more details). However, once again it should be remembered that these accommodation statistics do not include the rental of apartments and houses from private individuals, including the rental of vacation homes from their owners.

Other supply-side measurements include other data from the tourism industries, both monetary and non-monetary indicators. The following monetary indicators are proposed by UNWTO (IRTS, 2008, p. 51):

- Total value of output, at basic prices.
- Total value of intermediate consumption, at purchasers' prices.
- Total value of gross value added, at basic prices (as a difference between output and intermediate consumption).
- Total compensation of employees which means the value of wages and salaries (in cash and in kind) and social contribution.
- Gross operating surplus.
- Gross fixed capital formation (Investments).

Indeed, all of these are compiled within National Accounts in Iceland using data coming from administrative registers. However, the data published is only at two digit level in the ISAT 2008 classification, which is insufficient for tourism analysis. Nevertheless, as exemplification, some data are presented at a more aggregated level in table 13.

Table 13: Monetary data (in millions of ISK) for some* tourism industries in Iceland in 2011.
Source: Statistics Iceland, 2013i

Tourism industries	Gross output	Intermediate Consumption	Gross Value Added	Consumption of fixed capital	Compensation of employees	Operating surplus
Air transport	183,914.4	159,040.4	29,041.9	4,590.3	22,600.7	-2,317.1
Accommodation and food service activities	74,430.3	45,388.4	6,587.7	2,762.1	24,975.9	1,304
Travel agency, tour operator reservation service and related activities	39,194.3	32,606.6	9,607.7	596.7	4,322.1	1,668.9
Creative, arts and entertainment activities; libraries, archives, museums and other cultural activities, gambling and betting activities	17,413	7,805.3	10,269.4	1,005.4	4,247.5	4,354.8
Sport activities and amusement and recreation activities	19,857	9,587.6	10,269.4	1,245.3	8,086.9	937.1

* - only the industries (at NACE 2 digits level) which are disaggregated enough to be almost completely related to tourism. However, in case of Air transport, one must be aware that freight transportation is also included, while Libraries and archives are not part of tourism industries.

Caution should be taken as slightly different terminology is used by Statistics Iceland. For instance, “Consumption of fixed capital” instead of “Gross fixed capital formation”.

The usage of non-monetary indicators from the supply-side can also be used. In general they refer to the capacity and utilization of capacities (as meeting the demand). In the accommodation industry in Iceland, one should remember the following indicators produced by Statistics Iceland:

- Number of rooms
- Number of bed-places
- Number of units
- Occupancy rate (of rooms and of beds)
- Arrivals
- Overnight stays
- Average length of stay

Transportation statistics also provide useful information on the number of passengers and capacities (number of registered aircrafts, number of motor vehicles, number of passenger ships and ferries). Indicators such as the number of decked vessels (leisure boats) or number of aircraft movement could also be mentioned and are calculated in Iceland.

For other tourism industries such as the Food and beverage industry, Travel agencies and other reservation services, Transport equipment rental, Sports and recreational services, there are no supply-side specific surveys in Iceland.

4. Classifications of tourism products and related activities/industries

This section will firstly provide an explanation of the classifications of tourism products and industries used in international standards. Then a conformity evaluation with the standards in the case of the tourism industries found in the latest Icelandic TSA (2011) is performed. In the end some preliminaries are presented for establishing country-specific tourism services and goods.

4.1. Classifications according with international standards

One of the pillars of the TSA construction is the classification of products and the activities that produce the products. These classifications are used to describe both tourism consumption and the supply side of tourism. It is important to mention that the references of the United Nations international classifications are used. These are the Central Product Classification (CPC Ver. 2) and International Standard Industrial Classification (ISIC Rev. 4).

UNWTO developed a classification of tourism products in IRTS 2008 based on CPC Ver. 2. Firstly, it distinguishes between consumption products and non-consumption products. The latter category includes;

... all products that by their nature cannot be consumption goods and services and, therefore, can neither be part of tourism expenditure or tourism consumption, except for valuables that might be acquired by visitors on their trips (TSA:RMF, 2008, p. 24).

Opposed to these are consumption products which belong to the individual consumption expenditure of households as identified in the National Accounts.

Consumption products comprise two large categories “Tourism characteristic products” and “Other consumption products”. Further, “Tourism characteristic products” are made up of two subcategories: “Internationally comparable tourism characteristic products” and “Country-specific tourism characteristic products”. Meanwhile, “Other consumption products” comprises “Tourism connected products” and “Non-tourism related consumption products”. The definitions of all these categories/subcategories are presented in table 14 below:

Table 14: Classification of tourism consumption products according with international standards.

Source: TSA:RMF, 2008, p. 24

Categories	Definition
Tourism characteristic products	
Internationally comparable tourism characteristic products	These are the core products for international comparison of tourism expenditure. Ten products are proposed by UNWTO (see Table 15).
Country-specific tourism characteristic products	These are determined by each country according with the criteria established in IRTS 2008, para. 5.10.
Other consumption products	
Tourism connected products	Other products with relevance for tourism analysis but do not satisfy the criteria mentioned in IRTS 2008, para. 5.10.
Non-tourism-related consumption products	All other goods and services that not belong to the previous categories.

It is important to explain the criteria established in IRTS 2008 to differentiate characteristic products from other consumption products. Tourism characteristic products have to satisfy one or both of the following criteria (IRTS, 2008, para. 5.10):

- *Tourism expenditure of the product should represent a significant share of total tourism expenditure (share-of-expenditure/demand condition);*
- *Tourism expenditure of the product should represent a significant share of the supply of the product in the economy (share-of-supply condition). This criterion implies that the supply of a tourism characteristic product would cease to exist in a meaningful quantity in the absence of visitors.*

Besides products, the TSA:RMF 2008 defines tourism characteristic activities as those that typically produce tourism characteristic products (TSA:RMF, 2008, para. 3.8). Similarly with product classification, tourism characteristic activities are subcategorized into “internationally comparable tourism characteristics activities” (categories from 1 to 10 in table 15) and “country-specific” tourism characteristic activities (categories 11 and 12 in table 15).

The correspondence between tourism characteristic products and tourism characteristic activities is presented below in table 15.

Table 15: List of tourism characteristic products and tourism characteristic activities (tourism industries).

Source: TSA:RMF, 2008, p. 25

No	Products	Activities
International comparable tourism characteristic products/activities		
1.	Accommodation services for visitors	Accommodation for visitors
2.	Food- and beverage-serving services	Food-and beverage-serving industry
3.	Railways passenger transport services	Railways passenger transport
4.	Road passenger transport services	Road passenger transport
5.	Water passenger transport services	Water passenger transport
6.	Air passenger transport services	Air passenger transport
7.	Transport equipment rental services	Transport equipment rental
8.	Travel agencies and other reservation services	Travel agencies and other reservation services activities
9.	Cultural services	Cultural industry
10.	Sports and recreational services	Sports and recreational industry
Country-specific tourism characteristic products/activities		
11.	Country-specific tourism characteristic goods	Retail trade of country-specific tourism characteristic goods
12.	Country-specific tourism characteristic services	Other country-specific tourism characteristic activities

Another concept introduced is that of “tourism industries” which represents “the grouping of all establishments whose main activity is a particular tourism characteristic activity that serves visitors directly” (IRTS, 2008, para. 6.16). It is necessary to understand the concept of establishment in this context. According to international standards an establishment is:

an enterprise, or part of an enterprise, that is situated in a single location and in which only a single productive activity is carried out or in which the principal productive activity accounts for most of value added (SNA, 2008, para. 5.14).

It should be borne in mind that there is a clear difference between an activity which is a pure process of production and an industry which is a grouping of establishments (TSA:RMF, 2008, p. 83).

This definition of an establishment has important consequences for tourism. Secondary activities of an establishment (e.g. a rent a car office operating inside a retail centre which is the owner of it), is embedded in the retail trade activity and it is not part of tourism industry according to the definition. In a similar manner, tourism industries might have secondary activities which are not tourism characteristic (e.g. shopping galleries operated by a hotel). In other words;

the output of tourism industries might not exclusively consist of tourism characteristic products and the output of other non-tourism industries may include some characteristic products (IRTS, 2008, para. 6.20).

Excepting the 10 categories proposed by UNWTO for international comparability (see Table 15), it is difficult to say at this moment which products are considered tourism characteristic in Iceland and which are not (more details about this issue will be provided in section 4.3). Nevertheless, one can propose by default that e.g. the “Retail sale of automotive fuel” should

be considered a country-characteristic product considering that car rental is very common among foreign tourists. For instance, the ITB's commissioned survey for inbound visitors for the summer of 2011 showed that car rental accounts for 46% of transport means used in Iceland. Certainly, tourists will buy gasoline so this is a product that should be considered in tourism analysis. Other specific goods purchased by tourists are souvenirs and handicrafts but these are not separately identified in the ISAT 2008 classification.

Meanwhile, there are many goods purchased by tourists in retail trade activities/establishments (e.g. groceries, clothing). Lack of research of what kinds of goods are purchased by tourists makes it impossible, at this stage, to identify the tourism characteristic goods specific to Iceland. Nevertheless some preliminaries have been presented (see section 4.3).

Recommendation 16: The Icelandic Tourist Board should introduce an open question in its commissioned surveys to ask for what kind of goods have been bought during the trip in Iceland. In this way, a categorization of the most commonly purchased goods in Iceland will be made. This can establish a base to analyse the tourism characteristic goods specific to Iceland.

The same approach should be made in case of services which are provided to tourists (excepting the 10 categories for international comparability in table 15). Nevertheless, the author assumed, by default that by way of the inclusion of ISAT 2008 activity "93.12 Activities of sport clubs (e.g. golf)" these were country-specific tourism characteristic industry (see Annex 4).

The reason for including this activity category is twofold and is mainly related to golf. On the one hand there are golf clubs that are operated under ISAT 93.12 activity and golf infrastructure is rather well represented in Iceland.²⁶ On the other hand, according to the ITB's commissioned survey for Icelandic residents, golf was the fifth most popular paid for activity mentioned by Icelandic residents as a recreational activity paid for during their domestic trip having a share of 12.7% (Icelandic Tourist Board, 2013a).

²⁶ There are 65 golf courses in Iceland and 15 of them are 18 hole golf courses (Golf Iceland, 2013).

4.2. Assessing compliance for tourism industries in the Icelandic TSA

In assessing the compliance with TSA:RMF 2008 for the Icelandic TSA in terms of classifications, only tourism industries are envisaged as there is no product classification presented in the Icelandic TSA publications.

Recommendation 17: The future compilation of TSA in Iceland should provide, if possible, also a product classification in addition to the classification of tourism industries. This product classification should be compatible with the classification of products used by National Accounts (particularly in the Supply and Use Tables).

It should be mentioned that none of the three TSA publications in Iceland clearly specifies the ISAT codes used for creating tourism industries. This creates evident difficulties in identifying some residual categories such as Miscellaneous tourism services or Miscellaneous tourism retail services (see Table 16).

Table 16: Classification of tourism industries in Icelandic TSA and its conformance with international standards.

Source: based on TSA:RMF, 2008 and Statistics Iceland, 2011b

No.	Icelandic TSA classification of tourism industries	Conformance with TSA:RMF 2008 classification of tourism industries for international comparability (Yes/No)
Tourism characteristic industries		
1.	Accommodation services	Yes
1.1	Hotel services	Yes
1.2	Other accommodation services	Yes
2.	Food and beverage serving services	Yes
3.	Passenger transportation services	Yes
3.1	Land passenger transportation	Yes
3.2	Ocean passenger transportation	Yes
3.3	Air passenger transportation	Yes
3.4	Transport equipment rental	Yes
4.	Travel agencies services	Yes
Tourism connected industries		
5.	Automotive fuel and repairs	No
6.	Other supportive transport activities	No
7.	Cultural services	Yes but this should have been defined as a tourism characteristic industry
8.	Recreation and entertainment	Yes but this should have been defined as a tourism characteristic industry
9.	Miscellaneous tourism services	No
10.	Miscellaneous tourism retail services	No

It seems that the Icelandic TSA was mainly based on the old version of TSA:RMF (the one from 2001). This is substantiated by the following:

- the usage of term “connected industries”,
- the usage of term “miscellaneous tourism services”,
- the inclusion of “supportive passenger transportation services” among tourism industries.

The TSA:RMF 2008, when referring to the classification of tourism industries does not use the term “connected” but the term “country-specific”. The inclusion of “cultural services” and “recreation and entertainment” to the “tourism connected industries” category is not correct as they are considered tourism characteristic industries according to the TSA:RMF 2008. These two industries should belong to tourism characteristic industry categorization.

Recommendation 18: The future compilation of TSA in Iceland should consider Cultural industry and Recreation and entertainment as being distinct tourism characteristic industries in order to facilitate international comparability of data.

Another remark refers to “Automotive fuel and maintenance industry”. The retail trade of automotive fuel should be separated from maintenance service as in the first case one deals with selling of a good, which is fuel, while in the second case it is a service.

Recommendation 19: The future compilation of TSA in Iceland should differentiate between goods and services and no tourism industry should be aggregated to include both. One might consider automotive fuel as a country characteristic good and consequently separated from repair service (which one can assume is not considered a tourism characteristic service).

With regards to the category “Other supportive transport activities” it is questionable whether this should be considered connected to tourism and if it has relevance for tourism analysis. This category is identifiable in ISAT 2008 in the category 5229 “Other supportive activities for transport” (is. *Önnur þjónusta tengd flutningum*). The corresponding NACE category 5229, which is identical with the ISAT category, comprises the following items (Eurostat, 2008, pp. 241-242):

- forwarding of freight,
- arranging or organizing of transport operations by rail, road, sea or air,
- organizing of group and individual consignments (including pickup and delivery of goods and grouping of consignments),
- issue and procurement of transport documents and waybills,
- activities of customs agents,
- activities of sea-freight forwarders and air-cargo agents,
- brokerage for ship and aircraft space,
- goods-handling operations, e.g. temporary crating for the sole purpose of protecting the goods during transit, uncrating, sampling, weighing of goods.

Admittedly these activities have nothing to do with tourism as there is no direct contact between tourist and the providers of such services. Nevertheless, by extension it can be speculated that this category includes the operation of road services (e.g. a tunnel), services related to operation of airports (e.g. passage baggage handling, air traffic control), operation of bus stations, in fact all the 522 ISAT 2008 code, namely Support activities for transportation (is. *Stoðstarfsemi fyrir flutninga*).

Again, due to the fact that there is no direct provision of these services to tourists (excepting the toll charged to pass through the Hvalfjörður Tunnel), this category should not be considered a distinct tourism industry. In other words, to be clearly understood, the term “direct provision” is synonymous with tourist direct purchase of that service.

Recommendation 20: The future compilation of TSA in Iceland should not consider “Other supportive transport activities” as a distinct tourism industry (nor as a connected tourism industry) as its relevance for tourism analysis is rather questionable.

Regarding the category “Miscellaneous tourism services” none of the three TSA publications in Iceland details what kinds of services are related. One might assume that this is a residual category of services provided for tourists. Nevertheless, the inclusion of it in the category of “tourism connected industries” would be justified only by the “relevance for tourism analysis” which is questionable as it is a residual category.

Recommendation 21: The future compilation of TSA in Iceland should not consider the category of “Miscellaneous tourism services” as being a tourism connected industry.

In fact, the usage of “connected tourism industries” should be avoided as these are not very clearly identified in Iceland and can hardly be at this stage of TSA development. Only after the list of characteristic goods and services is identified (see Recommendation 16), can one further differentiate between characteristic and connected products and by extension industries.

In the same manner, the category “Miscellaneous tourism retail services” cannot be considered a tourism connected industry. This category refers in principle to retail trade of goods. Among all the retail trade of goods, there are goods that could fit into the category of “country-characteristic goods”. Until research will be undertaken (see Recommendation 16) to include more goods in this category, it should be reminded that one can consider automotive fuel as being a country characteristic good.

Recommendation 22: The future compilation of TSA should consider initially at least Automotive fuel as a separate category among country characteristic goods and present separate estimates for other retail trade goods purchased by tourists.

Another aspect of the analysis relates to the identification in the ISAT 2008 of the corresponding tourism industries defined by UNWTO at four digits ISIC Rev. 4 level. In this regard, a table of correspondence was elaborated (see Annex 4). One might consider this table as the basis for approaching any new TSA development.

It should be mentioned that ISAT 2008 is compliant with NACE Rev. 2, the classification employed by the European Union which is also harmonized with ISIC Rev. 4.

Recommendation 23: The future compilation of TSA in Iceland should consider the correspondence table between tourism industries as defined by UNWTO and ISAT 2008 classification (see Annex 4). This will completely ensure the compliance with international standards in terms of classification of industries.

An important fact is that a residual category of all the other goods and services circulated in the economy should be included in the TSA tables, as a distinct product. These could be both consumption products, on the one hand and non-consumption products on the other hand. This is done in order to meet the values found in the country's national accounts bearing in mind that the TSA is a subsystem of the National Accounts.

Unfortunately, the TSA tables in Iceland do not include the residual category of all other goods and services that circulate in the economy. Without doing that, practically no integration with the National Accounts estimates is seen in the Icelandic TSA tables.

Recommendation 24: The future compilation of TSA in Iceland should present as residual categories, all other goods and services that circulates in the Icelandic economy distinguishing between "Other consumption products not related to tourism" and "Other non-consumption products".

The first publication of TSA in Iceland in 2008 provides an explanation of what characteristic tourism industries means (is. *Einkennandi ferðapjónustugreinar*):

A branch of industry is defined as characteristic tourism industry if its main activity is the selling and providing of services directly to tourists. In this way a domestic firm is counted as characteristic tourism branch (enterprise) if its principal activity is to sell a product/service to tourists or in other words large part of the firms earnings are based on tourism. If tourists would decrease significantly, it would soon register in much less business and even the disappearance of this company/branch of industry will occur from the market. Respective tourism firms must on the one hand fulfil the condition of selling goods and services to the tourist directly (the end user) and its customers are mostly tourists (Statistics Iceland, 2008, p. 16, translated from Icelandic)

However, there is no clarification on how "tourism connected industries" are defined in the TSA publication. Instead, the definition for "Other industry branches related to tourism" (is.

Aðrar atvinnugreinar tengdar ferðaþjónustu) is provided which can be accepted as a proxy for the concept of “tourism connected industries”:

It is well known that a large part of the expenditure of tourists in this country goes to other industries than those that fall within the definition above and some companies do not sell “tourism products” but still benefit somewhat from the trade with tourists. Examples of such companies are the ones that deal in groceries, alcohol, gasoline, repairs and the like.⁶

⁶ *In certain periods of the year a firm can be considered a characteristic tourism firm as most of its business is with tourists but in other times of the year it is not (Statistics Iceland, 2008, p. 16, translated from Icelandic).*

While one can accept that there is nothing wrong with the definitions above, one important remark has to be made as regards the second definition. In this case, an emphasis should also have been placed on the selling and providing of services directly to tourists even if the tourists are not the main customers of these firms. Following this rule, once again, one can consider that the inclusion in the Icelandic TSA of the “Other supportive transport activities” as separate tourism connected industry is rather problematic as it does not meet the criteria to provide services directly to tourists (excepting the operation of Hvalfjörður Tunnel).

4.3. Towards establishing a list of country-specific tourism characteristics products

IRTS 2008 recommends, besides the 10 categories of products for international comparability (see Table 15), that each country should establish “country-specific tourism characteristic goods” and “country-specific tourism characteristic services” (IRTS, 2008, para. 5.16). Definitely, this is not an easy task for any country and Iceland is no exception.

The basic rule that has to be followed is that goods have to be separately treated from services.

The purpose of this section is to provide some basic preliminaries on this matter. As previously shown (in section 4.1), three products have been recommended by default to be considered as country-specific:

- Activities of sport clubs (e.g. golf)
- Retail sale of automotive fuel
- Handicrafts and souvenirs

Regarding the last category, once again it should be mentioned that this is not defined in terms of the CPC ver. 2 classification and can hardly be identified with the classification of products. That is why Handicrafts and souvenirs are not separately proposed in this section.

IRTS 2008 makes a clear reference to the products that qualify as internationally comparable characteristic products. However, it leaves aside other categories of products that might be acquired by tourists. More precisely, IRTS 2008 provides a list of the products defined in CPC ver. 2 subclasses;

provisionally identified as potential tourism consumption products [while] those not previously identified as the basis for international comparison ... constitute a set from which countries may determine their national list of tourism characteristic and connected products (IRTS, 2008, p. 46).

It is important to mention that only services are presented in detail in IRTS 2008, Annex 2 while goods are not detailed there but only found in an aggregated “Shopping” category.

Therefore, a list of possible country-specific services is presented (see Annex 5) in relation to IRTS 2008 and the Icelandic classification of activities ISAT 2008. Goods will be separately treated and a similar list is also included, but only in relation with ISAT 2008 (see Annex 6).

4.3.1. Services

As mentioned before, IRTS 2008 presents a classification of consumption products, grouped by purpose and identified as CPC ver. 2 including also an indication whether those products are qualified or not as internationally comparable tourism characteristic products (see IRTS, 2008, Annex 2, pp. 105-109). Consequently, those who do not qualify as international

comparable tourism characteristic products are the starting point for establishing the country-specific tourism products.

An aggregation of those products in 18 categories was carried out as well as the linkage with the ISAT 2008 classification was established (see Annex 5). One can consider that these categories are the basis for further investigations in order to establish whether that service is important or not for tourism in Iceland. The details of these investigations for each category is presented below (see Table 17). According to the table, there are six out of 18 categories of tourism services that are not likely to have great importance.

Table 17: Further investigations necessary for establishing Iceland's specific tourism services.

No	Tourism services	Further Investigations in Iceland
1.	Local public transport	Research the tourist usage of local transport (only inside the same locality or within capital area) with Strætó bs company or other municipalities (i.e. Akureyri, Ísafjörður and Fjarðabyggð).
2.	Rental of transport means <u>with operator</u>	Research the recreational activities associated with renting of an aircraft or a vessel <u>with operator</u> by tourists directly from companies providing these services (and not through intermediation of a travel agency).
3.	Support services for transport	Research whether there are tips paid by tourists to baggage handlers, the importance of fees paid by tourists for parking lots and to use Hvalfjörður tunnel.
4.	Rental of other means of transport <u>without operator</u> : vessels, aircraft (excepting cars and vans)	Research the tourist demand for rental <u>without operator</u> of other means of transport such as aircraft or vessels.*
5.	Maintenance and repair services of motor vehicles	Research whether tourists are demanding maintenance and repair services for their motor vehicles before, during and after tourism trips.*
6.	Motion picture projection services	Research tourist attendance at cinemas or other similar facilities with motion picture services.
7.	Sport related services (event promotion, sports clubs, support services)	Research tourist personal involvement in sport events offered by sport clubs (e.g. golf, bowling, football etc.) – not as spectators but as players.
8.	Credit card loan services	Research the holiday credit loans given by banks in Iceland.
9.	Insurance services	Research the purchasing of travel insurance in Iceland and its significance.
10.	Foreign exchange services	Research the total gains from commissions received for foreign exchange.
11.	Rental of goods (e.g. clothing, footwear)	Research if there are separate services for rental of clothing or footwear and if these are significant for tourism.*
12.	Photography related services	Research whether tourists demand printing of pictures during tourism trips or whether there is a tourist demand for services of photography.*
13.	Document preparation and other specialized office support services	Research whether tourists are demanding such services (transcription of documents, secretarial services and similar).*
14.	Assistance and organization services for conventions and trade shows	Research the importance of fees directly paid by tourists to attend conventions and trade shows.
15.	Maintenance and repair services of other goods not elsewhere classified (n.e.c.)	Research whether tourist demand exists for repair of bicycles, repair for articles for sport and camping or for repair of photo and video camera.*
16.	Education and training services	Research expenditure by visitors on specific educational

No	Tourism services	Further Investigations in Iceland
		services when the main purpose of trip is short-term education (less than one year).
17.	Health-related services	Research expenditure by visitors on specific health services when the main purpose of trip is short-term medical treatment (less than one year).
18.	Physical well-being services	Research the tourist usage of this kind of services (sauna and steam baths, spas, solaria, Turkish baths, fitness centres) when this kind of services are provided independently from a hotel.

* not likely to have a great importance according with the author assumption and considering the direct provision of that service to visitors

Once again, it should be reminded that in order to be recognized as a tourism characteristic product, each of the 18 services proposed above has to fulfil the conditions established by IRTS 2008 (share of supply condition or/and share of demand condition). If not, they can either be considered tourism connected services if some relevance for tourism is found or non-tourism related consumption services, in this case being part of an aggregate category such as “Other services provided to visitors”.

In the last Icelandic TSA published in 2011, there is an aggregate category called “Miscellaneous tourism services” (is. *Ýmis önnur þjónusta við ferðamenn*). No details are provided on what services are included in this category in terms of correspondence with the ISAT classification. Nevertheless, in the first publication of TSA for Iceland in 2008, this category is mentioned:

The TSA methodology takes into account tourists' expenditures for the purchase of insurance and financial services. No data is available for this expenditure and highly difficult to assess at this time (Statistics Iceland, 2008, p. 26, translated from Icelandic)

However, it is surprising that while recognizing that there is no data available, an estimation of the consumption of these services is provided. This category accounted for 1.98% of total internal tourism consumption in Iceland in 2009.²⁷

4.3.2. Goods

As regards goods, one must admit that tourists can purchase a diversity of goods before and during their trips. It is very hard to make a categorization of them and UNWTO recognizes this:

It is not possible to establish a standard list of tourism-related goods acquired for and during trips that would be meaningful worldwide because it is not possible to achieve sufficient homogeneity among countries in terms of the goods purchased by visitors. (IRTS, 2008, para. 5.39)

Indeed, there are a lot of retail trade activities that could apply to tourists also. Icelandic classification (ISAT, 2008) identifies 47 different retail trade activities. Nevertheless, not all

²⁷ calculated from Statistics Iceland, 2011b, p. 17

these activities have tourists as customers. In this regard, the “likelihood to have a tourist purchase” has been assessed by the author (see Annex 6), revealing that for 26 retail trade activities there is great probability to have a tourist purchase while for 20 there is not. By default, the acquisition of gasoline was considered very likely to be made by a tourist.

Even so, one can hardly analyse all 47 categories in a TSA. That is why an aggregation of those categories is proposed in relation to the types of goods provided to tourists. The following classification of goods in 7 categories is proposed to be adopted by Iceland (see Table 18). The correspondence with ISAT 2008 is also highlighted.

Table 18: Proposed classification of goods acquired by visitors in Iceland and its correspondence with ISAT 2008 classification.

Source: based on identification from ISAT, Statistics Iceland, 2013j

No	Proposed categories of goods acquired by visitors	ISAT 2008
1.	Food and beverage (from retail sale – supermarkets, groceries, liquor shops etc.)	4711, 4719, 4721, 4722, 4723, 4724, 4725, 4726, 4729
2.	Automotive fuel (gasoline)	4730
3.	Clothing and footwear	4771, 4772, 4782*
4.	Sporting and recreational equipment	4764
5.	Valuable goods (i.e. jewellery, works or art)	4777*, 4752.2, 4778.3
6.	Durable goods (cars, boats, motorhomes or recreational vehicles, camper vans)	4511*, 4519.1, 4614*
7.	Other goods (residual category)	The rest of Retail trade (47) not mentioned above

* part of respective category

One can see the existence of a category for food and beverages acquired from retail trade (and not from restaurants, bars and similar units). The acquisition of gasoline is also a distinct category, proposed to be considered by default a country tourism characteristic good. Clothing and footwear also forms a category due to its likelihood to be purchased by tourists. The creation of a Sporting and recreational equipment category is justified by the usage of these goods for tourism purposes forming the so called “tourism single-purpose consumer durables”.

According to international standards, the inclusion of valuable and durable goods is a specific TSA issue and should be treated separately. Also, Eurostat recommends a separate category for these kinds of goods which has to be reported distinctly within tourism expenditure of visitors (Eurostat, 2012, p. 131). Taking this into consideration, separate categories were proposed for valuables and durables.

No souvenirs and handicrafts are included at this stage as these are not defined as distinct products in the international classification of products. In Iceland they are not separately identifiable in the ISAT 2008 classification, souvenirs being embedded in the industry “4778.9 Other retail sale of new goods in specialised stores, n.e.c.” which includes the following activities:²⁸

²⁸ In translation from Icelandic based on ISAT 2008 classification available at: <http://www.hagstofa.is/Pages/1830> (Statistics Iceland, 2013j).

Retail sale of souvenirs and religious items, Retail sale of children's prams and equipment for toddlers, Retail sale of fuel oil, bottle gas, coal and firewood for household, Retail sale of weapons and ammunition, Retail sale of stamps and coins, Retail sale of other unaccounted new products in specialized stores (Statistics Iceland, 2013j).

Evidently, it is almost impossible to separate souvenirs within this very heterogeneous category. In addition, souvenirs may theoretically belong to various other categories of goods, not specifically named souvenirs. Under these conditions, more research is necessary in order to see what kinds of goods are purchased in Iceland as souvenirs.

It is important to mention that for each of the six categories proposed above, the IRTS 2008 criteria (share of demand criteria and/or share of supply criteria) should be applied to see if they qualify as country characteristic products. No such determination has been done in the last TSA for Iceland, published in 2011, and only one aggregate category entitled “Miscellaneous tourism retail service” is there to be found. This category accounts for 15.0% of total tourism consumption (share of demand criteria).²⁹

Recommendation 25: The future compilation of TSA should envisage analysing six categories of goods acquired by visitors (Food and beverage, Gasoline, Clothing and Footwear, Sporting and recreational equipment, Valuables and Durable goods) and if possible, to present them separately (or at least the significant ones).

²⁹ calculated from Statistics Iceland, 2011b, p. 17.

References

- Eurostat (2001). *European Implementation Manual on Tourism Satellite Account*. Final draft version 1.0. On: http://epp.eurostat.ec.europa.eu/portal/page/portal/tourism/documents/TSA_EIM_FINAL_VE RSION.pdf. Viewed 23rd October.
- Eurostat (2008). *NACE Rev. 2 Statistical classification of economic activities on the European Community*. On: http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-RA-07-015/EN/KS-RA-07-015-EN.PDF. Viewed 20th November.
- Eurostat (2009). *Tourism Satellite Accounts in the European Union, volume 3: Practical Guide for the Compilation of a TSA: Directory of Good Practices* (Luxembourg: Office for Official Publications of the European Communities).
- Eurostat (2011). *Screening Report Iceland – Chapter 18 Statistics*. On: http://ec.europa.eu/enlargement/pdf/iceland/key-documents/screening_report_18_is_internet_en.pdf. Viewed 6th September.
- Eurostat (2012). *Methodological Manual on Tourism Statistics*, Version 1.2 (Luxembourg: Publication Office of the European Union).
- Frent, C. and Frechtling, D.C. (2013). *Evaluating Compliance with United Nations Standards for Tourism Satellite Accounts. The Case of the U.S. Travel and Tourism Satellite Account* (International Institute of Tourism Studies, Washington, DC, USA).
- Golf Iceland (2013). *18 Hole Golf Courses*. On: <http://golficeland.org/introduction/18-hole-golf-courses.html>. Viewed 28th November .
- Icelandic Farm Holidays (2013). *Accommodation categories*. On: <http://www.farmholidays.is/Accommodation/farm-categories>. Viewed 19th November.
- Icelandic Tourist Board (2012). *International visitors in Iceland – Visitor survey Summer 2011, January 2012*. On: http://www.ferdamalastofa.is/static/files/upload/files/Erlendir%20gestir_2011_10_English_fi nal2.pdf . Viewed 14th November.
- Icelandic Tourist Board (2013a). *Research and Statistics – Tourism in Iceland in Figures*. On: <http://www.ferdamalastofa.is/static/files/ferdamalastofa/talnaefni/tourism-in-iceland-in-figures-april-2013.pdf>. Viewed 16th September.
- Icelandic Tourist Board (2013b). *About us*. On: <http://www.ferdamalastofa.is/en/recearch-and-statistics>. Viewed 4th September.
- Icelandic Tourist Board (2013c). *Kannanir og rannsóknir*. On: <http://www.ferdamalastofa.is/is/tolur-og-utgafur/kannanir-og-rannsoknir>. Viewed 14th September.

International Monetary Fund (2009). *Balance of Payments and International Investment Position Manual, Sixth Edition (BPM6)* (Washington D.C.: International Monetary Fund)

ISAVIA (2012). *Aviation Factfile 2012*. On: <http://www.isavia.is/english/about-isavia/statistics/annual-aviation-fact-file/>. Viewed 30th September.

Merchant Category Codes Database (2013). *List of all MCCs*. On: <http://mcc-codes.findthedata.org/>. Viewed 10th December.

Ministry of Foreign Affairs (2011). *Intergovernmental Conference on the Accession of Iceland to the European Union. Negotiating Position of Iceland, Chapter 18, Statistics*. On: http://eu.mfa.is/media/ESB/samningskaflar/18/NegPosIceCh18_FINAL.PDF. Viewed 5th November.

OECD and Eurostat (2006). *Joint OECD / Eurostat questionnaire on national accounts employment and hours worked*. On: http://epp.eurostat.ec.europa.eu/portal/page/portal/national_accounts/documents/employment/IS_questionnaire.pdf. Viewed 16th October.

OECD (2013). *Education at a Glance 2013: OECD Indicators*. On: http://www.oecd-ilibrary.org/education/education-at-a-glance-2013_eag-2013-en. Viewed 22nd October.

SNA (2008). *System of National Accounts 2008* by Commission of the European Communities, International Monetary Fund, Organization for Economic Co-operation and Development, United Nations and World Bank (2009). (Brussels/Luxembourg/New York/Paris/Washington D.C.).

Statistics Iceland (2007). *Metadata description: Accommodation, guests and overnight stays*. On: http://www.statice.is/pages/1730/?src=../vorulysingar_en/v_transporter.asp?filename=V10189.htm. Viewed 3rd September.

Statistics Iceland (2008). *Ferðaðjónustureikningar 2000-2006 Tourism satellite accounts in Iceland 2000-2006*. On: <http://www.statice.is/Pages/452?itemid=2589eb1b-e856-408f-8489-5deeb4b55c02>. Viewed 4th September.

Statistics Iceland (2009). *Metadata description: External trade in service*. On: http://www.statice.is/pages/1549/?src=../vorulysingar_en/v_transporter.asp?filename=V28199.htm. Viewed 10th September.

Statistics Iceland (2011a). *Gross National Income Inventory (ESA 95) Iceland, April 2011 Version 4*. On: <http://www.hagstofa.is/lisalib/getfile.aspx?itemid=12687>. Viewed 24th October.

Statistics Iceland (2011b). *Ferðaðjónustureikningar 2009-2011 Tourism satellite accounts in Iceland 2009-2011*. On: <http://www.statice.is/Pages/452?itemid=f6fd551f-dad6-4c4c-aa73-91b7af3f182a>. Viewed 4th September.

Statistics Iceland (2011c). *Metadata description: Population 1 January*. On: http://www.statice.is/pages/1821/?src=../vorulysingar_en/v_transporter.asp?filename=V10174.htm. Viewed 15th October.

Statistics Iceland (2012). *Metadata description: Household Expenditure Survey*. On: http://www.statice.is/pages/1548/?src=../vorulysingar_en/v_transporter.asp?filename=V01031.htm. Viewed 24th October.

Statistics Iceland (2013a). *About Statistics Iceland – Laws and regulations - Act on Statistics Iceland and official statistics*. On: <http://www.statice.is/lisalib/getfile.aspx?itemid=15335>. Viewed 16th September.

Statistics Iceland (2013b). *Transport through Keflavík airport 1960-2011*. On: <http://www.statice.is/?PageID=1237&src=https://rannsokn.hagstofa.is/pxen/Dialog/varval.asp?ma=SAM04202%26ti=Transport+through+Keflav%EDk+airport+1960%2D2011+%26path=../Database/ferdamal/Flug/%26lang=1%26units=Number/tonnes>. Viewed 10th September.

Statistics Iceland (2013c). *Passengers through Keflavík airport by citizenship and month 2002-2012*. On: <http://www.statice.is/?PageID=1235&src=https://rannsokn.hagstofa.is/pxen/Dialog/varval.asp?ma=SAM02001%26ti=Passengers+through+Keflavik+airport+by+citizenship+and+month+2002-2012%26path=../Database/ferdamal/FartheGAR/%26lang=1%26units=Number>. Viewed 10th September.

Statistics Iceland (2013d). *Enterprises and turnover - Turnover*. On: <http://www.statice.is/Statistics/Enterprises-and-turnover/Turnover>. Viewed 17th October.

Statistics Iceland (2013e). *Labour force survey – metadata*. On: http://www.statice.is/pages/1786/?src=../vorulysingar_en/v_transporter.asp?filename=V00611.htm. Viewed 30th September.

Statistics Iceland (2013f). *Tourism, transport and Information Technology – Accommodation*. On: <http://www.statice.is/Statistics/Tourism,-transport-and-informati/Accommodation>. Viewed 20th November.

Statistics Iceland (2013g). *Travel survey - Type of accommodation in domestic trips 2007-2008*. On: <http://www.statice.is/?PageID=2440&src=https://rannsokn.hagstofa.is/pxen/Dialog/varval.asp?ma=SAM09105%26ti=Type+of+accommodation+in+domestic+trips+2007-2008%26path=../Database/ferdamal/ferdavenjur/%26lang=1%26units=Percentage%20of%20trips>. Viewed 15th November.

Statistics Iceland (2013h). *Enterprises and turnover – Registered enterprises and organisations 2008-2012*. On: <http://www.statice.is/?PageID=1198&src=https://rannsokn.hagstofa.is/pxen/Dialog/varval.asp?ma=FYR01001%26ti=Registered+enterprises+and+organisations+2008-2012%26path=../Database/fyrirtaeki/fjoldi/%26lang=1%26units=number>. Viewed 5th September.

Statistics Iceland (2013i). *National Accounts and public finance – Productional approach*. On: <http://www.statice.is/Statistics/National-accounts-and-public-fin/Productional-approach>. Viewed 18th November.

Statistics Iceland (2013j). *ÍSAT 2008*. On: <http://www.hagstofa.is/Pages/1830>. Viewed 15th November.

Statistics Iceland (2013k). *Population by origin and citizenship - Foreign citizens gaining Icelandic citizenship by former citizenship, sex and age 1991-2012*. On: http://statice.is/?PageID=1174&src=/temp_en/Dialog/varval.asp?ma=MAN04119%26ti=Foreign+citizens+gaining+Icelandic+citizenship+by+former+citizenship%2C+sex+and+age+1991-2012%26path=../Database/mannfjoldi/Rikisfbr/%26lang=1%26units=Number. Viewed 30th September.

Statistics Iceland (2013l). *Population by country of citizenship, sex and age 1 January 1998-2013*. On: <http://statice.is/?PageID=1174&src=https://rannsokn.hagstofa.is/pxen/Dialog/varval.asp?ma=MAN04103%26ti=Population+by+country+of+citizenship%2C+sex+and+age+1+January+1998-2013%26path=../Database/mannfjoldi/Rikisfang/%26lang=1%26units=Number>. Viewed 30th September.

Statistics Iceland (2013m). *External migration by sex, countries and citizenship 1986-2012*. On: <http://statice.is/?PageID=1171&src=https://rannsokn.hagstofa.is/pxen/Dialog/varval.asp?ma=MAN01404%26ti=External+migration+by+sex%2C+countries+and+citizenship+1986-2012++++%26path=../Database/mannfjoldi/Buferlaflutningar/%26lang=1%26units=Number>. Viewed 30th September.

IRTS (2008). *International Recommendations on Tourism Statistics 2008* by United Nations World Tourism Organization (New York: United Nations Publications).

TSA:RMF (2008). *Tourism Satellite Account: Recommended Methodological Framework* by United Nations, Statistical Office of the European Communities Eurostat, World Tourism Organization, Organization for Economic Co-operation and Development (Luxembourg, Madrid, New York, Paris 2010).

United Nations World Tourism Organization (2011). *International Recommendations on Tourism Statistics 2008 Draft Compilation guide*. On: <http://unstats.un.org/unsd/tradeserv/egts/CG/IRTS%20compilation%20guide%207%20march%202011%20-%20final.pdf>. Viewed 17 September.

Wikipedia (2013). *Merchant category code*. On: http://en.wikipedia.org/wiki/Merchant_category_code. Viewed 15th October.

Annex 1. List of meetings and correspondences with key persons

No	Location/Organization	Date	Hours	Name of person and position/department	Topic discussed
List of meetings					
1.	Statistics Iceland	11 September, 2013	14.00 – 16.30	Böðvar Þórisson , Director Business Statistics (Rögnvaldur Ólafsson – chairman of the board of ITRC also participated)	General introductory aspects related to business statistics and particularly tourism statistics and TSA.
2.	Icelandic Travel Industry Association – SAF	12 September, 2013	13.00 – 15.30	Gunnar Valur Sveinsson , Project Manager (Rögnvaldur Ólafsson – chairman of the board of ITRC also participated)	Tourism industry in Iceland and data needs from the private sector perspective.
3	Statistics Iceland	25 September, 2013	09.30 – 11.00	Hildur Kristjánsdóttir , Business Trends and Structure	Accommodation statistics.
4.	Statistics Iceland	14 October, 2013	13.00 – 14.30	Vésteinn Ingibergsson , External Trade Sigrún Valdimarsdóttir , External Trade	Balance of Payments compilation.
5.	Icelandic Tourist Board	15 October, 2013	15.00-16.30	Oddný Þóra Óladóttir , Research Director	ITB's commissioned surveys and visitor counting at Keflavík airport.
6.	Statistics Iceland	18 November	15.00-16.30	Ólafur Már Sugurdsson , Labour market, living conditions and demography	Employment data – Labour Force Survey.
7.	Statistics Iceland	22 November	15.00-16.30	Stefán Þór Jansen , Leading Statistician, Projects in Economic Statistics	Supply and Use Tables and other National Accounts issues.
Correspondences (by email and/or phone)					
8.	ISAVIA	30 October – 7 November, 2013	-	Grétar Már Garðarsson , Project Manager for Business Development	Air Passenger transportation statistics (particularly at Keflavík airport).
9.	Smyril line company	28 October – 1 November, 2013	-	Jóhann Jónsson , Managing director Sófus Jóhannsson , Travel consultant	Data on arrivals and departures of passengers using Smyril line ferry.

Annex 2. A model for adjusting departure count using population statistics in Iceland

Premises

Iceland provides data on the number of foreign citizens living in the country. According to Statistics Iceland, a total of 20,957 foreign citizens resided in Iceland in 2012. One can assume that these persons, when travelling abroad, will use their passports as means of identification at the airport. According to the existing way of counting visitor number at Keflavík airport, these persons will probably be counted as visitors/tourists which is definitely not true, as from a legal point of view they are considered residents of Iceland (i.e. through the fact that they are found in the National Registry). On the other hand, throughout a year not all foreign citizens living in the country will keep their status as residents of Iceland. It is likely that some of them will leave Iceland to establish residence abroad or repatriate and this is reflected in the number of emigrant foreign citizens (data which is also available from Statistics Iceland). This category should definitely also be excluded from foreign visitor counting.

Construction

It is important to mention that from a statistical point of view, population is a stock variable. Therefore, Statistics Iceland provides data on population 1st January for each year (which will be used in the proposed model). So we can assume that theoretically, each year from this “stock of population” there will be persons emigrating. It has to be mentioned that migration data (including external migration) is captured when the individual reports his/her change of residence. In the case of changed residence to abroad, from a theoretical point of view, the reporting time is before leaving abroad. Therefore, one might consider that a change of residence to abroad by a foreign citizen from Iceland in one particular year occurs after January the 1st of that year.

New immigrants coming to Iceland are not considered in the model as it is presumed unlikely that they will make a trip abroad in the same year they arrive in Iceland (for which the analysis is made). Also, for simplicity no change in citizenship is considered as well as deaths among foreign citizens.³⁰

Two scenarios are considered which might influence the number of foreign visitors counting. The first one, when each foreign citizen living in Iceland is taking one trip abroad, for instance to visit family or friends. The second scenario envisages two trips abroad for foreign citizens living in Iceland. It is important to mention that the rule of two trips abroad could not

³⁰ In 2012 only 413 changes in citizenship were registered (Statistics Iceland, 2013k), more precisely representing foreign citizens gaining Icelandic citizenship by former citizenship (only persons with domicile in Iceland being included in the figures). This represents only 2% of the total foreign citizens registered in Iceland at January the 1st. No data is provided by Statistics Iceland regarding number of deaths by citizenships.

be applied for Polish citizens in the period 2009 – 2012 as it would have exceeded the number of departures of Polish citizen registered at the border (a maximal limit); only in this case and for this period, as an exception 1.25 trips abroad was applied.

Obviously, it is assumed in both scenarios that foreign citizen emigrants in a given year have to be excluded from the departure figures. At the same time, it is assumed that these persons will not undertake trips abroad in the reference year so they should also be excluded as persons traveling abroad (most likely to their citizenship countries). In other words, both their departure abroad (as emigrants) and their inclusion in the population number at January the 1st have to be deducted from departure figures.

The results

The impact on departure figures is presented in the table below.

Adjusting departures of foreigners from Keflavík airport, 2003-2012

Years	Departures of foreigners from Keflavík (Statistics Iceland, 2013c)	Population with foreign citizenship in Iceland at January 1 st (Statistics Iceland, 2013l)	Emigrants foreign citizens (Statistics Iceland, 2013m)	Adjusted departures of foreigners from Keflavík		Share of modifications	
				Case 1 ONE TRIP ABROAD	Case 2 TWO TRIPS ABROAD	Case 1	Case 2
				A	B	C	$D = A - 1x(B-C) - C$
2003	308,768	10,221	873	298,547	289,199	-3.3%	-6.3%
2004	348,533	10,180	1,544	338,353	329,717	-2.9%	-5.4%
2005	361,118	10,636	938	350,482	340,784	-2.9%	-5.6%
2006	398,625	13,778	1,535	384,847	372,604	-3.5%	-6.5%
2007	458,999	18,563	4,019	440,436	425,892	-4.0%	-7.2%
2008	472,672	23,421	5,850	449,251	431,680	-5.0%	-8.7%
2009	464,536	24,379	5,761	440,157	427,722*	-5.2%	-7.9%
2010	459,252	21,701	3,419	437,551	425,381*	-4.7%	-7.4%
2011	540,824	21,143	2,847	519,681	507,495*	-3.9%	-6.2%
2012	646,921	20,957	2,210	625,964	613,449*	-3.2%	-5.2%
Average modification 2003 -2012						-3.9%	-6.6%

Note: * - these figures do not respect the formula as they were further adjusted only for Polish citizens (1.25 trips abroad were used instead of 2)

These figures have proved that to some extent one should be aware that there is a sort of “overestimation” of the number of foreign citizen visiting Iceland. The figures show that in the last 10 years Iceland should have had on average 4% fewer foreign tourists.

It is important to analyse also the country breakdown of departures of foreigners and this is pursued below. Although constructed by assumptions the model provided that for countries such Poland (which has by far the largest diaspora in Iceland accounting for over 43% of the total foreign citizens living in Iceland),³¹ it is not reliable to assume that 2 trips will be made

³¹ Calculate from the figures provided by Statistics Iceland in the table below.

abroad by these citizens in one year, therefore a supplementary adjustment was made in order to keep with the departure figures. Nevertheless, further data would be necessary to better understand this market.

Adjusting departures of foreigners at Keflavik airport by nationalities in 2012

Countries	Departures of foreigners from Keflavik (Statistics Iceland, 2013c)	Number of foreign citizen registered in Iceland at January 1 st (Statistics Iceland, 2013l)	Foreign citizens who emigrated in these countries* (Statistics Iceland, 2013m)	Adjusted departures of foreigners from Keflavik		Share of modifications	
				Case 1 ONE TRIP ABROAD	Case 2 TWO TRIPS ABROAD	Case 1	Case 2
				A	B	C	D = A-1x (B-C)- C
Canada	18,760	109	28	18,651	18,570	-0.6%	-1.0%
China	14,036	210	18	13,826	13,634	-1.5%	-2.9%
Denmark	40,906	900	73	40,006	39,179	-2.2%	-4.2%
Finland	13,684	110	27	13,574	13,491	-0.8%	-1.4%
France	41,570	295	61	41,275	41,041	-0.7%	-1.3%
Germany	65,179	919	194	64,260	63,535	-1.4%	-2.5%
Italy	13,841	173	37	13,668	13,532	-1.2%	-2.2%
Japan	10,343	64	20	10,279	10,235	-0.6%	-1.0%
Netherlands	21,305	164	22	21,141	20,999	-0.8%	-1.4%
Norway	51,534	241	82	51,293	51,134	-0.5%	-0.8%
Poland	14,936	9,049	740	5,887	3,810**	-60.6%	-74.5%
Russia	4,724	166	6	4,558	4,398	-3.5%	-6.9%
Spain	15,278	217	42	15,061	14,886	-1.4%	-2.6%
Sweden	35,601	322	72	35,279	35,029	-0.9%	-1.6%
Switzerland	12,838	60	13	12,778	12,731	-0.5%	-0.8%
United Kingdom	94,599	600	81	93,999	93,480	-0.6%	-1.2%
USA	95,026	477	69	94,549	94,141	-0.5%	-0.9%
Other countries	82,761	6,881	625	75,880	69,624	-8.3%	-15.9%
Total foreigners	646,921	20,957	2,210	625,964	613,449	-3.2%	-5.2%

* the model assumed that these persons already have the citizenship of that country, in other words they are citizens of that country

** figure adjusted with 1.25 instead of 2

The model demonstrates that there are small variations in visitor numbers for major inbound markets for Iceland in both cases/scenarios presented (e.g. -0.5% and -0.9% for USA, -0.6% and -1.2% for UK, -1.4% and -2.5% for Germany, -0.5% and -0.8% for Norway, -0.7% and -1.3% for France).

Limits of the model

Like any model this one is based on assumptions. While everyone should agree that the departures of foreign citizen emigrants from Iceland should definitely be excluded from foreign visitors counting (and there are available data of foreign citizens emigrants), it is not certain that they will return to their country of citizenship although the model presumed that this is most likely to happen (when nationalities/countries are analysed). Another assumption is that it is not likely that the persons who will emigrate from Iceland will undertake a trip abroad in the same year they will leave Iceland although it has to be admitted that this might happen in some limited cases.

Another limit is the fact that it is assumed that all departures of foreign citizens abroad are made through Keflavík airport. Theoretically, some of them could be made also from the seaport of Seyðisfjörður or even the airport of Akureyri (via Keflavík), although one must admit that the traffic from these exit points is very low compared with Keflavík airport.

However, maybe the most important limitation is given by the fact that it is likely that people going abroad will not wish to declare their intention of changing the residence:

It is likely that a large proportion of those going abroad for a shorter or longer period of time, to study or work, choose to stay registered in the National Register of Persons, either to retain rights within the social security system or simply due to apathy. It is therefore to be expected that a greater number of people is registered in the National Register of Persons than are actually residing in the country (Statistics Iceland, 2011c).

Under these conditions, a bias in the final results could appear. Nevertheless, the influence of this bias could not be estimated based on the existing data.

Conclusions

This model has proved that counting visitors departures at Keflavík airport needs further adjustments. It is obvious that registering nationalities at the airport has some limitations due to the existence of foreign citizens living in Iceland who are in fact residents of this country. Registering their departures as being foreign visitors for Iceland is evidently a major shortcoming of ITB's work at the Keflavík airport. But this is a consequence of using the concept of nationality instead of country of residence. Only a border survey carried out at the airport would provide data on country of residence of the persons leaving Iceland.

It must be admitted that the ITB's counting of departures of foreigners from Keflavík is in fact a counting of flows of persons not all of them being considered visitors to Iceland from a tourism statistics point of view. The model tried to overcome this deficiency by eliminating from counting the foreign citizens establishing residence abroad (emigrants) using the existing data on external migration. Further, two cases were considered: when the "remaining stock" of foreign citizens will undertake one trip abroad and when they will have two trips abroad.

The impact on the existing figures of total departures of foreigners at Keflavík airport is ranging from 2.9% in 2003 and 2004 in case 1 to 8.7% in 2008 in case 2. **In order words, Iceland should have less foreign visitors with percentage ranging between 2.9% and 8.7%.**

Also, the model did not consider other categories of international travellers that are not considered visitors, for instance, foreign students having courses more than one year in Iceland. In this case, these persons should be considered resident in Iceland according to international standards in tourism statistics (see IRTS, 2008, para. 2.66). According to OECD, 2013 5.8% were international students in Iceland in 2011, of total enrolment in tertiary education – at university level.³² Meanwhile, according to Statistics Iceland in 2011 there were 19,334 students enrolled in tertiary education. Therefore, one can calculate the number of foreign students enrolled for tertiary education in Iceland at 1,121 persons in 2011. If we were to divide this number into the total number of departures in 2011 (540,824), this will represent 0,2% so even if one can assume 2 trips abroad undertaken by foreign students in Iceland then the possible impact on total number of departures might be neglected (it will be 0.4%). Anyway, for obtaining a greater accuracy of the data, the figures of foreign students should also have been included in the model.

Other categories of international travellers that should not be considered visitors but theoretically are included in departures figures are diplomats, consular staff, military personnel and their dependants. Again, one can assume that this number is not so high as to influence greatly the number of foreign citizens' departures at Keflavík airport.

Overall, it can be concluded that using population data in tourism statistics in the case of Iceland could be an option to be considered in order to obtain more accurate figures on the number of foreign tourists. This model has proven this fact. However, being a model, it has assumptions and therefore it is not a very reliable statistical source. Only a good border survey would provide better data on the number of foreign visitors coming to Iceland: this is the only statistical instrument to gather reliable data without any assumption involved.

³² It is certitude that all students enrolled in a tertiary education program (most commonly in a university) are in fact long term students, having classes more than one year.

Annex 3. Constructing a bridge table between TSA:RMF 2008 product classification and COICOP classification used in Iceland

*- signifies parts of that category

No.	UNWTO categories of tourism consumption products	Corresponding COICOP classification used in Iceland
A.1.	Tourism characteristic products	
1.	Accommodation services for visitors	
1.a.	Accommodation services for visitors other than 1.b.	Restaurants and hotels*
1.b.	Accommodation services associated with all types of vacation home ownership	Actual and imputed rentals and maintenance of housing*
2.	Food-and beverage-serving services	Restaurants and hotels*
3.	Railways passenger transport services	Not applicable
4.	Road passenger transport services	Transport services*
5.	Water passenger transport services	Transport services*
6.	Air passenger transport services	Transport services*
7.	Transport equipment rental services	Operation of personal transport equipment*
8.	Travel agencies and other reservation services	Package holidays
9.	Cultural services	Recreational and cultural services*
10.	Sports and recreational services	Recreational and cultural services*
11.	Country-specific tourism characteristics goods	Not exhaustively identified but proposed: Operation of personal transport equipment* (for acquisition of gasoline)
12.	Country-specific tourism characteristics activities	Not exhaustively identified but proposed: Recreational and cultural services* (for golf club activities)
A.2	Other consumption products	All other goods and services not included before. Nevertheless part of the most common aggregate categories which are likely to be consumed by tourists are: <ul style="list-style-type: none"> - Food and non-alcoholic beverage - Alcoholic beverages and tobacco - Clothing and footwear - Medical care and health expenses - Transport (i.e. Maintenance and repair services) - Recreation equipment, - Newspaper, books and stationary items - Communication - Miscellaneous goods and services

Source: compiled by the author from TSA:RMF, 2008 and Statistics Iceland, 2011a

Annex 4. Table of concordance between UNWTO classification of tourism industries for international comparability and Icelandic classification of activities ISAT 2008

*- only a part what is related to second homes and timeshare properties

No.	UNWTO categories of tourism industries	Icelandic categories	
		ISAT codes	Name
1.	Accommodation for visitors	55.10.1	Hotels and similar accommodation, without restaurants
		55.10.2	Hotels and similar accommodation, with restaurants
		55.20.0	Holiday and other short-stay accommodation
		55.30.0	Camping grounds, recreational vehicle parks and trailer parks
		55.90.0	Other accommodation
		68.20.1	Letting of residential housing*
		68.31.0	Real estate agencies*
2.	Food-and beverage-serving industry	56.10.0	Restaurants and mobile food service activities
		56.29.0	Other food service activities
		56.30.0	Beverage serving activities
3.	Railways passenger transport	Not available in Iceland	
4.	Road passenger transport	49.32.0	Taxi operation
		49.39.0	Other passenger land transport not elsewhere classified (n.e.c.)
5.	Water passenger transport	50.10.0	Sea and coastal passenger water transport
6.	Air passenger transport	51.10.1	Scheduled air transport
		51.10.2	Non-scheduled air transport
7.	Transport equipment rental	77.11.0	Renting and leasing of cars and light motor vehicles
8.	Travel agencies and other reservation services	79.11.0	Travel agency activities
		79.12.0	Tour operator activities
		79.92.0	Other reservation service and related activities
9.	Cultural industry	90.01.0	Performing arts
		90.02.0	Support activities to performing arts
		90.03.0	Artistic creation
		90.04.0	Operation of arts facilities
		91.02.0	Museums activities
		91.03.0	Operation of historical sites and buildings and similar visitor attractions
10.	Sports and recreational industry	91.04.0	Botanical and zoological gardens and nature reserves activities
		77.21.0	Renting and leasing of recreational and sports goods
		92.00.0	Gambling and betting activities
		93.11.0	Operation of sports facilities
		93.13.0	Fitness facilities
		93.19.0	Other sports activities
		93.21.0	Activities of amusement parks and theme parks
93.29.0	Other amusement and recreation activities		
11.	Retail trade of country-specific tourism characteristics goods	47.30.0	Retail sale of automotive fuel in specialized stores
		**	Retail trade of handicrafts
		**	Retail trade of souvenirs
12.	Other country-specific tourism characteristics activities	93.12.0	Activities of sport clubs (e.g. golf)

Source: adapted from IRTS, 2008 and Statistics Iceland, 2013j

** - no ISAT codes could be separately identified

Annex 5. List of possible country-specific tourism services for Iceland and their linkages with ISAT 2008

No	Proposed categories to be investigated	CPC categories (according with IRTS 2008)		ISIC Rev.4 categories (according with IRTS 2008)	ISAT 2008
1.	Local public transport	64111, 64112, 64113		4921	4931 Urban and suburban passenger land transport
2.	Rental of transport means <u>with operator</u>	66011, 66031	66021,	4922, 5011, 5110	4910 – Other passenger land transport n.e.c.* 5010 Sea and coastal passenger water transport* 5110 – Air passenger transport*
3.	Support services for transport	67190, 67420, 67440, 67512, 67522, 67532, 67620,	67410, 67430, 67511, 67521, 67531, 67610, 67630	5224, 5221, 5222, 5223	5224 – Cargo handling 5221 – Service activities incidental to land transportation 5222 – Service activities incidental to water transportation 5223 – Service activities incidental to air transportation
4.	Rental of other means of transport <u>without operator</u> : vessels, aircraft, (excepting cars and vans)	73114, 73116	73115,	7730	7734 – Renting and leasing of water transport equipment 7735 – Renting and leasing of air transport equipment
5.	Maintenance and repair services of motor vehicles	87141, 87143,	87142, 87149	4520, 4540, 3315	4520 – Repair and maintenance
6.	Motion picture projection services	96150		9514	5914 – Motion picture projection activities
7.	Sport related services (event promotion, sports clubs, support services)	96511, 96620	96512,	9319, 9312	9319 – Other sports activities* 9312 – Activities of sports clubs
8.	Credit card loan services	71134		6419, 6492	6419 – Other monetary intermediation 6492 – Other credit granting
9.	Insurance services	71331, 71337	71334,	6512	6512 – Non life insurance
10.	Foreign exchange services	71592		6612	6612 – Security and commodity contracts brokerage
11.	Rental of goods (e.g. clothing, footwear)	73260, 73290		7729	7729 – Renting and leasing of other personal and household goods
12.	Photography related services	83811, 83820		7420	7420 – Photographic activities
13.	Document preparation and other specialized office support services	85954		8219	8219 – Photocopying, document preparation and other specialised office support activities
14.	Assistance and organization services for conventions and trade shows	85961, 85962		8230	8230 – Organisation of conventions and trade shows
15.	Maintenance and repair	87290		3313, 9529	3313 – Repair of electronic

No	Proposed categories to be investigated	CPC categories (according with IRTS 2008)		ISIC Rev.4 categories (according with IRTS 2008)	ISAT 2008
	services of other goods n.e.c.				and optical equipment 9525 – Repair of watches, clocks and jewellery 9529 – Repair of other personal and household goods
16.	Education and training services	92330, 92410, 92510, 92911, 92919,	92340, 92420, 92520, 92912, 92920	8521, 8522, 8530, 8541, 8542, 8549, 8550	8531 – General secondary education 8532 – Technical and vocational secondary education 8541 – Post-secondary non-tertiary education 8542 – Tertiary education 8551 – Sports and recreation education 8552 – Cultural education 8553 – Driving school activities 8559 – Other education n.e.c.
17.	Health-related services	93111, 93113, 93121, 93123, 93192, 93194, 93196,	93112, 93119, 93122, 93191, 93193, 93195, 93199	8610, 8620, 8690	8610 – Hospital service 8620 – Medical and dental practice activity 8690 – Other human health activities
18.	Physical well-being services	97230**		9609**	9604 – Physical well-being activities 9609 – Other personal services activities

Source: compiled from IRTS 2008, pp. 105-109, Statistics Iceland, 2013j and Eurostat, 2008 (ISAT 2008 classification cross-classification with NACE rev. 2 and ISIC Rev. 4)

* - these industries are already recognized as tourism industries (see Annex 4)

** - not proposed by UNWTO

Annex 6. List of possible country-specific retail trade activities for tourism in Iceland

No.	Retail trade activities from ISAT 2008 (codes and names)	The “likelihood” to have a “tourist purchase”
1.	47.11.1 Supermarkets and convenience stores	Likely
2.	47.11.2 Kiosks	Likely
3.	47.19.0 Other retail sale in non-specialised stores	Likely
4.	47.21.0 Retail sale of fruit and vegetables in specialised stores	Likely
5.	47.22.0 Retail sale of meat and meat products in specialised stores	Likely
6.	47.23.0 Retail sale of fish, crustaceans and molluscs in specialised stores	Likely
7.	47.24.0 Retail sale of bread, cakes, flour confectionery and sugar confectionery in specialised stores	Likely
8.	47.25.0 Retail sale of beverages in specialised stores	Likely
9.	47.26.0 Retail sale of tobacco products in specialised stores	Likely
10.	47.29.0 Other retail sale of food in specialised stores	Likely
11.	47.30.0 Retail sale of automotive fuel in specialised stores	Very likely
12.	47.41.0 Retail sale of computers, peripheral units and software in specialised stores	Not so likely
13.	47.42.0 Retail sale of telecommunications equipment in specialised stores	Not so likely
14.	47.43.0 Retail sale of audio and video equipment in specialised stores	Not so likely
15.	47.51.0 Retail sale of textiles in specialised stores	Not so likely
16.	47.52.1 Retail sale of hardware in specialised stores	Not so likely
17.	47.52.2 Retail sale of paints and glass in specialised stores	Not so likely
18.	47.53.0 Retail sale of carpets, rugs, wall and floor coverings in specialised stores	Not so likely
19.	47.54.0 Retail sale of electrical household appliances in specialised stores	Not so likely
20.	47.59.1 Retail sale of furniture in specialised stores	Not so likely
21.	47.59.2 Retail sale of lighting equipment in specialised stores	Not so likely
22.	47.59.3 Retail sale of musical instruments in specialised stores	Not so likely
23.	47.59.9 Retail sale of other household articles in specialised stores, n.e.c.	Not so likely
24.	47.61.0 Retail sale of books in specialised stores	Likely
25.	47.62.0 Retail sale of newspapers and stationery in specialised stores	Likely
26.	47.63.0 Retail sale of music and video recordings in specialised stores	Likely
27.	47.64.0 Retail sale of sporting equipment in specialised stores	Likely
28.	47.65.0 Retail sale of games and toys in specialised stores	Likely
29.	47.71.1 Retail sale of clothing (except children's clothing) in specialised stores	Likely
30.	47.71.2 Retail sale of children's clothing in specialised stores	Likely
31.	47.72.1 Retail sale of footwear in specialised stores	Likely
32.	47.72.2 Retail sale of leather goods in specialised stores	Likely
33.	47.73.0 Dispensing chemist in specialised stores	Not so likely
34.	47.74.0 Retail sale of medical and orthopaedic goods in specialised stores	Not so likely
35.	47.75.0 Retail sale of cosmetic and toilet articles in specialised stores	Likely
36.	47.76.1 Retail sale of flowers, plants, seeds and fertilisers in specialised stores	Not so likely
37.	47.76.2 Retail sale of pet animals and pet food in specialised stores	Not so likely
38.	47.77.0 Retail sale of watches and jewellery in specialised stores	Likely
39.	47.78.1 Retail sale of glasses and optical equipment	Likely
40.	47.78.2 Retail sale of photographic equipment	Likely
41.	47.78.3 Activities of commercial art galleries	Likely
42.	47.78.9 Other retail sale of new goods in specialised stores, n.e.c.	Likely
43.	47.79.0 Retail sale of second-hand goods in stores	Not so likely
44.	47.82.0 Retail sale via stalls and markets of textiles, clothing and footwear	Likely
45.	47.89.0 Retail sale via stalls and markets of other goods	Not so likely
46.	47.91.0 Retail sale via mail order houses or via Internet	Not so likely
47.	47.99.0 Other retail sale not in stores, stalls or markets	Not so likely

Source: Statistics Iceland, 2013j and *author judgment*



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