



Tourism Satellite Account of Andalusia TSA 2000

© Junta de Andalucía. Consejería de Turismo, Comercio y Deporte
Calle Juan Antonio de Vizarrón, s/n. Edificio Torretriana
41071 Sevilla
Teléfono: 955 065 100
Fax: 955 065 164

Elaboración

Turismo Andaluz, S.A.

Sistema de Análisis y Estadística del Turismo de Andalucía (SAETA)

Calle Compañía, 40
29008 Málaga
Teléfono: 952 129 300
Fax: 952 129 315
correo-e: saeta@andalucia.org

www.juntadeandalucia.es/turismocomercioydeporte
www.andalucia.org

Diseño y Maquetación

innovalMAGEN Comunicación & Publicidad

Impresión

XXXXXXXXXXXXXXXXXX

Depósito Legal: XXXXXXXXX

Tourism Satellite Account of **Andalusia 2000**

Since 1995, the World Tourism Organisation has been developing the Tourism Satellite Account project, aiming to unify statistics from the sector, and to create international standards for concepts, classifications and definitions, to allow for valid comparisons with other industries and with other countries or regions. The methodology was approved by the United Nations in 2000.

The TSA (Tourism Satellite Account) is a fundamental instrument for economic analysis of tourism, providing tables, accounts and operations that quantify the economic activity of tourism in relation to other economic activities. The TSA 2000 signals the start of a series which will continue to be produced every five years, with the next being due in 2005.

The publication of the Andalusia Tourism Satellite Account 2000 (ATSA2000) is the culmination of a project defined in Spanish Law 8/2002 of 17 December, concerning the Andalusia Statistical Plan 2003-2006, for which the Regional Ministry of Tourism, Commerce and Sport is responsible. In this way, Andalusia is privileged to become a pioneering region, having an instrument by which to measure tourism according to international standards, with an integrated system that allows comparison with other economies (such as Spain as a whole, or other countries) which also follow these evaluation criteria, as recommended by the United Nations.

Paulino Plata Cánovas
Minister of Tourism, Commerce and Sport,
Regional Government of Andalusia

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01: introduction

Tourism Satellite Account of **Andalusia 2000**¹

Spanish Act 8/2002, of December 17, concerning the Andalusia Statistical Plan 2003-2006 provides for the drawing up of the Tourism Satellite Account of Andalusia. The organisation responsible is the Tourism, Commerce and Sports Ministry of the Regional Government of Andalusia, with the collaboration of the Andalusia Institute of Statistics.

The Tourism Satellite Account is an essential instrument for economic analysis of tourism activity, providing a series of tables, accounts and operations that allow tourism-related economic activity to be quantified, along with its relationship with other activities of the economy. A statistical source that appears for the first time acquires relevance and credibility if presented together with suitable methodology and a list of the sources used, and also if the adopted decisions are explained. This methodological document aims to achieve this.

Tourism plays a very important role in the economy of many countries, as it contributes to the development of activities that are either mainly or partially focused on satisfying tourist demand: accommodation services, the hotel and catering industry, travel agencies, trans-

¹ The Tourism, Commerce and Sports Ministry of the Regional Government of Andalusia would like to thank the Andalusia Institute of Statistics, the World Tourism Organisation, the Spanish National Statistics Institute and the Tourism Research Institute. The personnel of these organisations have contributed with their support and experience in replying to many methodological enquiries, and this document is a good opportunity to thank them for their willingness and help. These TSAs for Andalusia would have been difficult to achieve without the information and collaboration of the Andalusia Institute of Statistics. There have been many meetings, discussions, enquiries and petitions on both sides, and both are responsible for their corresponding part of this project.

port, leisure and culture, sales of food, souvenirs and crafts, to name but a few. It usually attracts foreign investment, can promote the improvement of infrastructures, and generates currency and employment. However, it is surprising that in most countries tourism information has so far been based only on flow statistics such as arrival and departure of travellers, and number of overnight stays, or on the information shown in the balance of payments. Only exceptionally have specific surveys about tourism consumption expenditure by overseas visitors been conducted.

Therefore, it is not surprising that the previously described gap has caused different international organisations, such as the World Tourism Organisation (UNWTO), the World Bank (WB), the Organisation for Economic Co-operation and Development (OECD), the International Monetary Fund (IMF) and the Statistics Office of the European Commission (EUROSTAT), amongst others, to repeatedly suggest new proposals for a broader, more complex and more systematic measurement of tourism. After many international meetings² it was decided that tourism should be one of the first activities for which standard satellite accounts would be developed.

As is to be expected, the UNWTO has dedicated special efforts to

² The recent origin of the TSAs are: the World Tourism Organisation (UNWTO), the International Conference on Travel and Tourism Statistics, Ottawa 1991, the World Conference on the Measurement or the Economic Impact of Tourism, Nice 1999, the Conference on Tourism Satellite Accounts, Vancouver 2001 and the UNWTO Conference, The Tourism Satellite Account (TSA): Understanding Tourism and Designing Strategies, Iguazu, Argentina/Brazil/Paraguay, 3-6 October 2005.

promoting these projects, and has obtained definitive methodologies and documents after working with several previous drafts. The final methodology has also benefited from the ongoing process, underway for years, between the methodology of the balance of payments (Fifth Edition of the IMF Balance of Payments) and the UN's national accounts (System of National Accounts, SNA-1993). The final recommendations for the drafting of a definitive manual of satellite accounts were made at the UNWTO's meeting in Nice in 1999 and in the subsequent approval by the United Nations Statistical Commission (UNSC) in March 2000. This includes a large number of definitions, concepts and conventions that make up the bases of Satellite Accounts in different countries.

TSAs have been implemented - whether project, initial study, execution or publication - in about 40 countries. First were Canada³ (1994) and the USA⁴ (1992 y 1996). Many others were then to follow: Spain, France, Austria⁵, Sweden, Norway⁶, Denmark, Finland, Australia⁷, New Zealand⁸, Singapore, Poland, Switzerland and

³ Statistics Canada (1994), The Tourism Satellite Account, National Accounts and Environment Division, Technical series No 31, Ottawa. Lapierre, Jocelyn (1991): A Proposal for a Satellite Account and Information System for Tourism: Discussion Paper, National Accounts and Environment Division, Statistics Canada.

⁴ David I. Kass and Sumiye Okubo (2000): U.S. Travel and Tourism Satellite Accounts for 1996 and 1997.

⁵ STATISTIK AUSTRIA & Austrian Institute of Economic Research (WIFO), (2001): A TOURISM SATELLITE ACCOUNT FOR AUSTRIA, The Economics, Methodology and Results.

⁶ Statistics Norway (2002): The tourism satellite accounts, 1997-2000.

⁷ Australian Bureau of Statistics (2000): Tourism Satellite Account 1997-98, Australian National Accounts.

⁸ Statistics New Zealand, (2003): Provisional Tourism Satellite Account 2000-2002.

Namibia⁹. In Latin America, the Dominican Republic came first, followed by Mexico and Chile.

In any case, the Spanish experience was different to the others because not only were different surveys of tourist expenditure promptly conducted, but also because a series of tourism Input-Output tables were produced - in 1970, 1974, 1978, 1982 and 1992. In addition to this, in 1998, difficulties resulting from the elimination of frontiers and the introduction of the Euro gave rise to the creation of a tripartite work group: the Bank of Spain, the INE (Spanish National Statistics Institute), and the IET (Spanish Tourism Institute). The main result of this was to encourage a renovation of Spanish tourism expenditure statistics. Spanish TSAs were put into place in 1999 by the NSI. NSI documents foresee quarterly, regional¹⁰ TSAs in the future.

A much smaller number of countries have regionalized their TSAs - or are currently doing so - by means of a top-down, or distribution, procedure. That is, the sharing of national data by regions according to certain criteria and indicators. This is the case with Denmark¹¹, Canada¹² and the United Kingdom¹³ and presumably, this will also be the case with Spain.

⁹ Helen Suich (Directorate of Environmental Affairs, Ministry of Environment and Tourism), (2001): Development of preliminary tourism for Namibia.

¹⁰ INE: Cuenta Satélite del Turismo de España (Tourism Satellite Account, CSTE).

¹¹ A good example of the sharing method or the top-down method can be found in: Akf (2005): Documentation on Regional Tourism Satellite Accounts in Denmark.

¹² Conrad Barber-Dueck and Demi Kotsovos (Statistics Canada), (1996, 1998): The provincial and territorial tourism satellite accounts for Canada.

¹³ DEPARTMENT FOR CULTURE, MEDIA AND SPORT (2004): UK Tourism Satellite Account First Steps Project.

On the other hand, only in a few countries or federal states are there independent accounts projects by direct estimation, like those in Andalusia. The UNWTO has always shown special interest in promoting the development of TSAs, even at a sub-national level¹⁴. For this reason, in 2003 this institution requested a document on the subject, which was produced by the work group on TSA development in Andalusia¹⁵. Given that the Autonomous Region of Andalusia's approach is the creation of a specific TSA, and not the regionalisation of a national TSA, many of the methodological questions detailed in this document are common to those relevant at a national level.

There are many different reasons that explain Andalusia's advantageous singularity in the preparation of TSAs. The immense economic importance of tourism in Andalusia, together with its autonomy in tourism policy and the dissatisfactory nature of methods based on conventional national accounting to analyse a series of fundamental aspects for understanding its true dimension, justify the creation of appropriate instruments for measurement and analysis, such as the Tourism Satellite Account. Moreover, its statistical development is considerable, being the most experienced Spanish Region in this field. Indeed, in Andalusia, there have been complex statistical analyses for decades, such as Input-Output tables since 1975, firstly by the univer-

¹⁴ This interest can be found in the 1st Regional TSA Meeting of the UNWTO in Paris, and the 2nd in Iguazu (1995).

¹⁵ Grupo de trabajo para el desarrollo de las CST en Andalucía (2003): The singularity of the territory in tourism accounting: Andalusia as a case study, OMT.

sities (1975 and 1980 tables), and later by the Andalusian Statistics Institute, founded in 1990 (1990, 1995 and 2000). In 1995, the Andalusian Public Administration created a specific statistical service to study tourism, called SAETA (Analysis and Statistics Unit of Andalusia Tourism), as part of the public company Turismo Andaluz. This unit has analysed and published data on the tourism sector, has collaborated in the development of a regional tourism expenditure survey, and even created a satellite account back in 1995 as a trial or pilot study¹⁶.

Although the 1995 accounts were only partially completed, they were very useful from different perspectives. They did, of course, show that accounts of this type were feasible, but they also highlighted the existence of certain gaps and, therefore, the need to research and look for further information about particularly complex types of tourists - one-day visitors, business travellers, package tours... - or even about variables whose calculation, according to international system requirements, could yet be postponed for subsequent experience - expenditure of public administrations, capital formation, etc.

Quite rightly, the system or methodology of international organisations (specifically, the UNWTO and EUROSTAT), is already highly demanding with regard to the tourism consumption of households. For example, the methodology of TSAs requires the registration of expenses

¹⁶ Aproximación a la Cuenta Satélite Regional de Turismo a partir de las cuentas económicas regionales. Experiencia de Andalucía en base al marco input-output de 1995 (Approach to the Regional Tourism Satellite Account from Regional Economic Accounts. Experience of Andalusia based on the Input-Output table of 1995). Talk given at the Tourism Satellite Account (TSA) conference: reliable numbers for good business decisions, Vancouver 2001.

made by Andalusians before and after travelling, but also demands a distinction between journeys made inside or outside the Region. This would, in theory, mean that interviewees should be asked if a suitcase purchased before a trip had been used for travelling inside or outside the region. This would be a considerable statistical achievement.

Obviously, it has not been possible to meet such requirements in all cases and, perhaps, it would not have been worth wasting time, effort and public resources to do so. Nevertheless, in the case of this account, and as is to be expected, every effort has been made to follow the established international system - this is the only way it will be possible to compare the results with other regions or countries.

Therefore, and for the time being, tourism demand only includes household consumption demand, thus leaving the consumption of Public Administrations (both individual and collective) for later on. This is also the case with the purchase of capital resources. The Andalusian Tourism, Commerce and Sports Ministry has been working extensively on the possibility of including these variables, but in the end they have been excluded as they are difficult to estimate. These difficulties are due, in the case of the Public Administration, to the need to contact all the municipalities of the region (almost 800) to ask for specific information, that in many cases would need to be gathered from scratch. In the case of capital formation, and this is the most significant example, there is a need to differentiate new properties built for the tourism market from new residents' homes. Finally, while it has been possible to meet most requirements of the system, there have been some particularly

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complex cases. Here we should make special mention of transport, both on account of the difficulties in estimating it in the first place, and of the dependence that these accounts have on regionalisation criteria decided by the Andalusian Statistics Institute.

Another fundamental characteristic of this Andalusian TSA-2000 is its satellite nature as compared with the Andalusian I-O (Input-Output) Table 2000, recently produced by the Andalusia Statistics Institute. Here, special care has been taken over this.

In this account, as in many other previous experiences, the universities have collaborated. This has long been a vital, logical and habitual practice. Specifically, we should mention the collaboration of Professor Luis Robles Teigeiro, from the Department of Applied Economics (Economic Policy) of the University of Malaga. His support and work on this project provides an additional guarantee, due to his vast experience in the field of economic accounts.

Finally, the 1995 trial was also useful to train a team of statisticians who have remained essentially linked to this project over the course of time. Undoubtedly, their experience has also played a key role in producing these accounts.

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02: objectives

Objectives of the Andalusian TSA2000

Andalusia is one of the Spanish regions that receives most visitors. This generates major economic activity that must be properly measured. At the same time, the need to draw up Tourism Satellite Accounts (hereon in TSAs) stems from the fact that tourism activity is a *transversal* activity that directly or indirectly affects a highly varied group of branches that work towards meeting its needs either totally or partially. This implies that tourism as such does not correspond clearly with the official classification of economic activities (United Nations CEA and ISIC) given that there, branches are classified according to their resources or the service they render.

Rightly, therefore, it has been decided to explain tourism as a demand phenomenon, and to define it according to the specific characteristics of a type of consumer who demands prearranged tourism products: *the expenditure made by, or on behalf of, a visitor before, during or after travelling, which is related with the trip, this trip being outside the visitor's usual environment*¹⁷. This is why it is not initially easy to know the relevance or influence of tourism on important variables such as final production - GDP - or employment. Its specific nature demands a specific, original valuation procedure. The main objective of these accounts is, therefore, to measure tourism expenditure (demand) of residents and non-residents in an area, as well as identification and valuation of production by branches that provide the required resources and services (supply). However, its real strength comes not only from the compilation of

¹⁷ Definition included in UNWTO, OECD, Eurostat (2000): Tourism Satellite Account: Methodological References, chapter 2.

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information by means of auxiliary or annexe tables of national or regional accounts, but also by the processing and post-production of this information according to an internationally agreed system. This process guarantees its reliability and allows inter-territorial comparison of results.

Finally, TSAs, like any other large-scale statistical operations, are more than just a new statistical tool or a new source of information. They involve a complex production process, and a large amount of data and surveys are necessary. Gaps are soon apparent and therefore, the decision to carry them out often means initiating or fully renovating the statistical system of the country or region of reference.

A TSA provides:

- Macroeconomic aggregates to describe the economic importance of tourism, such as Tourism Added Value and Tourism GDP, aggregates compatible with other similar ones for the economic total (regional and national), or other productive activities.
- The tools required to evaluate the direct and indirect impact of tourism on an economy.
- Detailed information about visitor demand; estimation of tourism expenditure, both of final household consumption and business visitors. Also, as far as possible, about consumption

derived from Public Administrations and expenditure on capital formation.

- Production and operation accounts for the most characteristic branches of tourism activity.
- Estimation of economic flows with the rest of the world derived from tourism.
- Non-monetary information about visitors: number of trips, duration of the stay, reasons for travelling, etc.

In short, although the relevance of activity in the region is already known, and these accounts are not then a novelty in this respect, they do provide breakdowns, details and a wider, better study which is of undoubted interest. TSAs also correspond with a so-called change of base. Base has two meanings: firstly, it refers to the year in which a series of accounts starts or in which an existing one is renovated. Secondly, it is the year in which there is new census information, deaths are left out and samples have been redesigned, methodological changes have been included, and, summing up, all those tasks and improvements necessary for a suitable updating of information have been carried out.

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03: methodology

03.1 General features

As stated above, there are different publications¹⁸ that have helped develop the conceptual framework of TSAs, leading up to a basic document published by the UNWTO called "Tourism Satellite Account: Recommended Methodological Framework" (2001).

With regard to specific methodology included in accounts that have already been published, we should highlight those of a considerable number of countries, despite the fact that, as has been mentioned, regional cases are far fewer. In our case, from all the proposals, special mention should be made of the one by the INE carried out for the country as a whole: "*The Satellite Account: Methodology and First Estimations (1996-1999)*". We must bear in mind that although the Andalusian TSA 2000 accounts are satellites of the IO framework and Andalusian regional accounts, the latter also fall within national accounts to a great extent. Also, as is to be expected, the figures and methodological decisions of the Andalusian TSAs 2000 have come up against the framework established by the INE.

The general principle is that TSAs should be consistent with National or Regional Account Systems, depending on the case. This means starting from two premises: the already published global figures (from National or Regional Accounting), and a common methodological framework (the UN National Accounting System, the

¹⁸ The basic document is UNWTO (2001): Tourism Satellite Account: Methodological References. Also, the OECD has different documents such as OECD (2000): Measuring the Role of Tourism in OECD Economies. THE OECD MANUAL ON TOURISM SATELLITE ACCOUNTS AND EMPLOYMENT. The aforementioned document, annexed to the Spanish TSAs, is of great interest and quality.

European System of Accounts, ESA, which is derived from the former, and the contributions, clarifications and requirements of TSA methodology), a framework that guarantees, in turn, the national or international comparison of results. Therefore, we must understand that the TSAs derive from and complement national or regional accounts, and do not compete with or replace them. Both must be suitably integrated.

Finally, it must be stated that, although compatibility with the Andalusian statistical framework has been sought for, it has not been possible to do the same with the national framework, with Spanish National TSAs. Hypothetically, coherence between national and regional TSAs can be achieved using two procedures: by regionalising national data (top-down method) or by means of direct regional statistical information (bottom-up method) which, once aggregated and consolidated, then provides the national information. However, this second method is hardly used for a range of reasons. All this is applicable to regional accounting of the Spanish Autonomous Regions in relation to national data, but until now, no official attempt to link both experiences has been made. Therefore, if Andalusian regional accounting is coherent with the national totals, Andalusian TSAs should be coherent with Spanish TSAs, but this comparison is currently very difficult.

The preparation of Andalusian TSAs should be based on a sound estimation of tourism demand. This is so, not only because tourism is essentially a demand phenomenon, but also because the quantity and quality of available information requires precisely this.

Broadly speaking, the 2000 Andalusian TSAs focus on the study of tourism through demand, with direct questionnaires to visitors designated as the most adequate means to this end. As detailed below, the main source has been the Survey on the Tourism Situation of Andalusia (ECTA, conducted by the Andalusia Institute of Statistics), carried out in Andalusia since 1999. Its description is included in a specific section of this document. To delve deeper into some aspects of demand that the ECTA did not cover, the Andalusia Tourism, Commerce and Sports Ministry has included in the Tourist Monitoring Survey (EST) some breakdowns that are not included in the Spanish National TSA. The description of this survey can also be found below.

Once demand is known, its comparison with the Andalusian I-O framework and use made of the many databases accompanying this source, have allowed for an understanding of the contribution by different sectors to household tourism consumption, and, subsequently, the derivation of other variables such as added value, employment or income that are a consequence of tourism. A fairly good understanding of supply is also possible, as required by the system.

Several countries, generally lacking in proper demand information, have focused their TSAs on supply, by surveying a sample of producers or suppliers of resources and services to tourists. The goal has been to arrive at coefficients and percentages of tourist dedication. These percentages, when applied to total production, allow for the evaluation of tourist demand. However, this method presents sever-

al problems. On the one hand, on many occasions the producer does not know the end market because his/her products are commercialised by a third party. On the other hand, even when supplying final demand, the producer does not know if the customer is a tourist or a resident. Finally, even knowing this, it is difficult for the producer to distinguish the motive for or the nature of the trip, as required by the system, or to differentiate, for example, between tourists, one-day visitors and business travellers.

In this case, the study of supply in tourism-related activities, the so-called "characteristic activities", is based on information compiled for evaluating the 2000 TIOAN (Input-Output Table) by the Andalusia Institute of Statistics (IEA). An understanding of the remaining activities whose contribution to tourism is lower or much lower, has been obtained using the I-O, or Leontief, model of demand. This model specifically allows for an estimation of production to satisfy a predetermined, exogenous¹⁹ tourism demand.

¹⁹ This procedure has also been used by the INE for particularized estimation of the impact of tourism on the Spanish economy.

03.2 Some basic definitions and conventions

Tourist and tourism demand

Tourism demand is frequently identified with *tourism consumption*, but both concepts are wider and more complex than they may seem at first sight. On the one hand, tourism consumption is only a component of *final demand*, even if the most important one. However, there are also other variables or magnitudes that are also components of this demand: *collective consumption*, *capital formation* or investment and, finally, *exports* related to tourism. The methodology of TSAs, the aforementioned "Tourism Satellite Account: Recommended Methodological Framework" (2001), focuses on the study of consumption, and also suggests the creation of collective consumption accounts and capital formation accounts, although these are optional as yet. Exports, leaving aside consumption by non-residents included in consumption accounts, have not been deemed worthy of individual inclusion in an account, perhaps due to their predictable scarcity²⁰.

A complete quantification of tourism activity through demand would require an evaluation of all tourism final demand, and not only of consumption: however, in our case, this task will still require later efforts.

Also, the concept of tourism included in the Tourism Satellite Accounts needs a more detailed analysis. More theoretical considerations can be found below, but for now, suffice to say that rather

²⁰ As explained below, exports have been valued in transport-related activities. Also, they have been included - as is the case of the INE - in inbound tourism consumption magnitudes. However, this does not seem to be the best solution, as it is not very well placed in the TSA system.

than being called *tourists'* accounts in a strict sense of the word, they should be called *travellers'* accounts, or accounts of *visitors* to a region, given that these accounts, according to international methodological indications, are intended to evaluate expenditure on trips, the motive for the trip being less important or comprised of a varied range of motives: leisure, culture, sport, health, religion, visits to friends and family and, even business trips paid for by companies.

TSA methodology defines tourism as including "*the activities of people travelling away from their usual environment for leisure, business and other purposes for a time less than one year, not related to a paid activity in the visited place*". According to this, people whose expenses are the object of study in a TSA should be considered as "visitors" rather than tourists in the usual sense of the word. They, in turn, are classified in the system in different ways. The most important distinction has to do with the fact that the visitor spends the night in the place that he/she visits, in which case he/she is a "*tourist*", or not, in which case he/she is a one-day visitor. In addition to this, these visitors can be "international" or "inbound" (resident outside the visited country) or "domestic", if they visit their own country or area of residence. It should be stressed that in the case of a region like Andalusia, people who live in the rest of Spain must be called inbound visitors, while domestic visitors are the residents of Andalusia itself. Finally, the system makes special mention of visitors "in transit" towards their countries, as is the case of the North Africans who drive across the Iberian Peninsula to embark at Andalusian ports. Should they constitute a substantial source of

expenditure, the system allows for a specific subtraction from the accounts, but this has not been the case here.

The "*usual environment*" allows tourist visitors to be distinguished from other people that go to a place. This concept has similarities with that of "*residence*", but they are not strictly equivalent. So, when households are considered, it is appropriate to relate them with residence, but in the case of the environment, it must be individualised for each visitor. Several visitors can share a home and, nevertheless, go periodically to different environments depending on their workplaces or study places. Also, two factors allow the usual environment to be defined: the "frequency" with which it is visited and the "distance". This environment must be visited frequently. It is there that the person works or studies, and it also comprises all the area surrounding the place of residence (the same town, the same metropolitan area), whether it is frequently visited or not. The definition of "usual environment" is of great interest for the study of tourism, as soon as it allows for a differentiation between inbound, outbound and domestic tourism. In the case of Andalusia, the territory is divided into 25 tourist areas which allow for the identification of different tourist flows. As the definition of "usual environment" affects the aggregates obtained from the TSA, the use of different definitions of usual environment makes comparison of results²¹ difficult.

²¹ Here it is worth mentioning Research on National Practices Defining the Usual Environment: Basic Findings. Review: Enzo Paci papers on measuring the economic significance of Tourism. Volume 3, 2003. Spain (UNWTO), carried out by Spain and Canada.

The "*duration*" of the stay must always be less than one year, otherwise visitors would become residents of the area they are visiting - it would be their new usual environment. Finally, it is accepted that the "*motive*" behind a traveller's visit can be very varied: leisure, visiting family or friends, medical treatment, pilgrimage, cultural trip, congress, conference, business trip... Therefore, it is, perhaps, easier to opt for an exception: any reason other than "practising a paid activity in the visited place".

Besides this, according to the recommendations included in SNA (System of National Account) 93, the consumption of visitors can be classified in two different categories: as final consumption if made by households, or intermediary consumption if it is a business trip paid for by a company. Nonetheless, this is a considerable divergence from the TSA, as these expenditures are classified here as final tourist expenditure. Lastly, due to the changes introduced by the last SEA, in household consumption it is also possible to differentiate between consumption acquired by means of a price, the commonest form, that known as "effective", which is attained by adding the above to public consumption, and NPISHs made individually by them.

To clarify this point it is necessary to point out that what was previously called public consumption or consumption by Public Administrations, has been divided into two in the new SNA-1993, depending on whether its use is always collective in nature - for example, a police force, the defence of the nation, the administration and organisation of society, etc. - or whether it can be carried

out on a personalised or individual basis - mainly in the health and education services. These individualised services are now also called "transfers in kind"²² to households from Administrations, and their addition to traditional private consumption is now called "effective" final consumption by households.

It is also worth remembering that consumption includes the purchase of durable consumer goods, i.e. those whose use extends over time; however, as you would expect, it does not include the purchase of goods which may be equally durable but are used for production - this would be investment spending. In many cases, the borderline between these concepts is complex, and tends to depend on the value of the objects, or, to an even greater degree, on the use given to them. Thus, a sophisticated, expensive camera will be categorised as consumption if purchased by a household, but investment if purchased by a professional photographer. Dwellings, however, are a special case, as they should always be counted as investment, even when the dwelling is purchased by a household.

The system (2.50) distinguishes between two classes of consumer durables: those whose aim is always related to tourism, such as luggage, sleeping bags, caravans, etc.; those with multiple purposes,

²² In the case of tourism, it is thought that the most important individual government consumption expenditure is related to culture, health (produced when the visitor is obliged to use health services in Andalusia, maybe for emergency reasons), and travel subsidised by the government administrations. This fact has led to the regional government being asked about the health costs of services offered to non-residents, whether resident in the rest of Spain or in the rest of the world. However, at the moment this information is not available.

such as vehicles, sports equipment, etc. The convention is that tourism goods will always be included or evaluated in the TSAs, while those with multiple uses will only be so if acquired on a trip²³.

In relation to the place where spending takes place, the TSAs, like the ESA itself, distinguishes various cases which help define the concepts of *internal, inbound, outbound, domestic and national consumption*.

Internal consumption takes in consumption by visitors resident within the economic territory of the country or region in question: here, consumption by Andalusians in Andalusia.

Inbound consumption takes in consumption by visitors non-resident within the economic territory of the country or region in question: here, consumption by Spanish nationals and foreigners not resident in Andalusia.

Outbound consumption is consumption abroad by visitors from the economic area of the country or region in question: here, spending by Andalusia residents, Andalusians, in the rest of Spain and abroad.

Lastly, bringing together the aforementioned types of consumption, we get to *domestic tourism consumption*, which can be defined as the

²³ In our case, we have examined the INE's Household Budget Survey, trying to determine which are the exclusively tourist goods. However, it is impossible to have a sufficiently detailed breakdown to make a satisfactory decision in this respect. The exercise is, in fact, extremely difficult. We have also not included information on spending on these goods by people resident in the rest of the world.

sum of internal and inbound consumption. This would include all consumption by resident and non-resident visitors alike, within the economic area of Andalusia.

National tourism consumption for its part, in this case *regional tourism consumption*, is the sum of internal and outbound consumption. Thus it would include consumption by visitors resident both inside and outside the economic area of Andalusia.

Classification of tourist flows according to residence of the traveller and place where consumption takes place

Territory where the expenditure takes place			
Residence of the traveller	Inside economic territory	Outside economic territory	TOTAL
Residents in economic territory	Internal tourism	Outbound tourism	National tourism
Non-residents	Inbound tourism		
TOTAL	Domestic tourism		

In all these cases, what has to be borne in mind is that the spending related to a trip, even if it is outbound from the region, as long as it is before or after the trip is made, is tourist spending, although internal spending if it is carried out within the region²⁴.

Exceptionally, tourism consumption also includes travel expenditures by company employees when they are outside their usual environment. This would include expenditure on accommodation, travel tickets, car rental, etc. This inclusion represents a significant discrepancy between the TSA and the recommendations of the SNA - 1993, since these expenditures are classified here as intermediate consumption by companies, while the TSA considers them as final tourist expenditure. However, all travellers' expenditure should not always be included under this heading, since there are some exceptions, in accordance with the system. Thus, firstly, expenditure on employees' food paid for by employers is considered compensation in kind (ESA 3.68), and thus the expenditure on eating out for this visitor will be inbound or internal tourist consumption, but never intermediate. Secondly, everything that the employee may buy for himself during the trip, such as presents, will also be inbound or internal consumption, but not intermediate. Based on the above, one may conclude that the most important expenditure which a business trip includes are transport and accommodation, although it may also be possible to think of other kinds of expenditure paid

²⁴ Thus, for example, if a person from Andalusia who plans to go to London buys a guide for that city a month before leaving, the purchase is domestic tourism consumption. The rest of the spending in London will obviously be outbound tourism expenditure. Once the person returns, if he develops his holiday photos, the spending will once again be domestic.

for by employers, such as vehicle rental, or expenditure on something linked to transport: tolls, parking, etc.

Supply

Although the main focus of the study of tourism is on demand, it is also relevant and necessary to take a look at the supply side, i.e. those who provide the goods or services to tourists. The system has defined tourist supply according to the nature of the goods and services provided, distinguishing between the most and least typical according to a classification which aims to be possible or pragmatic: *"The first step is to define the goods and services that are considered specific to this field. It is convenient to distinguish two types of specific goods and services in this context: characteristic goods and services and connected goods and services. The first category covers the products which are typical for the field under study... The second category, connected goods and services, includes products in whose uses we are interested because they are clearly covered by the concept of expenditure in a given field, without being typical, either by nature or because they are classified in broader categories of products... The precise borderline between characteristic and connected products depends on the economic organisation in a given country and the purpose of the Satellite Account."*

Thus the initial classification will be between specific and non-specific products, with specific products being broken down in turn into

characteristic and connected. Characteristic products are understood to be those *"which, in the absence of visitors, in most countries would probably cease to exist in meaningful quantity or for which the level of consumption would be significantly reduced and for which it seems possible to obtain statistical information."* The connected products would be: *"a residual category, including those that have been identified as tourism-specific in a given country but for which this attribute has not been acknowledged on a worldwide basis."* ²⁵

To support countries when it comes to determining lists of products, the UNWTO has developed a provisional list of Tourism Characteristic Products (TCA/TCP). The list is provisional and will be updated periodically to reflect experience gained in drawing up TSAs. Conceptually, the list includes goods and services. However, for the time being *"it concentrates on services which have been traditionally considered as tourism services because they respond to the more general needs and wants of visitors, such as accommodation, food- and beverage-serving services, long-distance transportation and associated services (including car rentals), travel arranger services, tourism guides, and cultural and recreation services."*

Having established the group of characteristic or connected tourism products, tourist activities are those which mainly produce a product included there, although the procedure is not without its problems. In any case, the large number of possible tourism goods or services

²⁵ In the case of TSA 2000 for Andalusia no connected goods or services have been taken into account.

has required lists and descriptions to be designed allowing the supply of goods and services to be determined. *The Standard Industrial International Classification of Tourism Activities* (SICTA) has been drawn up for this purpose, designed jointly by the Statistical Office of the United Nations and the UNWTO. This classification is also compatible with the *Central Product Classification* (CPC) and the *International Standard Industrial Classification of All Economic Activities* (ISIC) revision 3.

List of tourism characteristic activities:

1. Hotels and similar
2. Second home ownership (imputed)
3. Restaurants and similar
4. Railway passenger transport services
5. Road passenger transport services
6. Water passenger transport services
7. Air passenger transport services
8. Transport support services
9. Transport equipment rental
10. Travel agencies and similar
11. Cultural services
12. Sporting and other recreational services

Once the tourism activity has been defined, its supply-side study is carried out traditionally through a production account and generation of income account. The production account includes the production process, as resources or income, taking away as uses the intermediate consumption needed to produce it and leaving the added value as a difference or balance. The generation of income account, for its part, registers or includes payment for land, labour and capital, the production factors which have been involved in the process. In this way the gross added value, the operating surplus, is included on the resources side and the remuneration of employees, payment to wage labour, as uses together with payment for the remaining factors.

To sum up, the contribution of units of production is measured, as is usual, by the Gross Added Value (GAV) they generate, i.e. the difference between the value of their production (output) and the value of intermediate consumption required (inputs). The statistical unit used in this case is *establishment*, understood to mean the homogeneous unit of production of goods and services. *The branch of tourism activity*, for its part, may be defined as the group of companies providing goods and services to tourism. The GAV of tourism activity will thus be the sum of the GAV of the tourism companies, to the extent that they are dedicated to tourism²⁶.

To ensure consistency with the methodology of the SNA, or ESA,

²⁶ Thus, for example, not all GAV generated by eating out will be included, but only GAV generated by the fraction for which tourists are responsible, excluding the GAV of the service provided for residents.

TSA's apply the same accounting principles and rules included there for valuation and prices, in terms of the moment at which they are recorded. The rule applied to the moment of recording economic transactions is accrual: "*Transactions between institutional units have to be recorded when claims and obligations arise, are transformed, or are cancelled - that is, on an accrual basis.*" (SNA 1993 paragraph 2.64).

The SNA and TSA's themselves recommend quantifying production at basic prices, that is to say, calculating only any taxes and subsidies applicable to the production (most of these are municipal in Spain: licences, property rates (IBI), tax on business activities (IAE), etc., not including the rest of the taxes to which products are subject (VAT, special taxes, etc.). Intermediate consumption, final consumption and gross fixed capital formation should be valued at *purchasers' prices*. This price is composed of the basic amount plus trade and transport margins and after calculating any taxes and subsidies applicable to the products.

Accounts

UNWTO TSA methodological references suggest a variable number of accounts, although just some of them are compulsory, in accordance with the information available in the different countries or regions. From the supply side, there is an account -5- showing the production (total output, intermediate consumption and, as a balance, the added value), and the *operating* (allocation of the added value among the production factors: wages and operating surplus,

plus an adjustment of taxes and subsidies) of the characteristic activity branches. From the demand side, there are private consumption accounts (from 1 to 4), a collective consumption account (9) and a capital formation account (8). Finally, there is an account that adjusts the supply and demand (6), another one showing the number and distribution of employees (7), and another one showing non-monetary indicators such as tourist flow and hotel beds, (10), whose aim is to properly show the economic magnitudes.

Tables that make up the Tourism Satellite Accounts

Name	Content
1 Inbound tourism consumption by products and categories of visitors (visitor final consumption expenditure in cash).	Consumption data for non-residents differentiating by characteristic products; rest of expenses.
2 Domestic tourist consumption by products and categories of visitors (visitor final consumption expenditure in cash)	Consumption data for residents in the region differentiating by characteristic products; rest of expenses.
3 Outbound tourism consumption, by products and categories of visitors. (visitor final consumption expenditure in cash).	Consumption data for residents outside the region differentiating by characteristic products; rest of expenses

4 Internal tourism consumption, by products and categories of visitors.	Summary of tables 1 and 2, adding the tourist consumption of the production units.
5 Production accounts of the tourism industry.	Breakdown of production by products and of intermediate consumption. Adaptation of part of the origin/destination tables to the TSA.
6 Domestic Supply and internal tourist consumption by products.	Approximation of the supply/demand interrelations, combining tables 4 and 5, including a breakdown of production and inputs linked to tourism consumption.
7 Employment in the tourism industry	Employment data, differentiating between salaried and non-salaried workers, hours worked... for the characteristic branches of activity.
8 Tourism gross fixed capital formation of the tourism industry	Breakdown by product type: material and immaterial investments.
9 Collective tourist consumption by functions and levels of administration	Data of consumption made by the Public Administrations in the region, differentiating the characteristic products; other expenses.
10 Non-monetary indicators	No. of visitors, travellers and nights spent, with breakdowns according to: tourism categories and means of transport used. No. of establishments and capacity by size.

In practice, while TSAs already published in other fields do include the information demanded by the system, they have not followed such a rigorous monitoring procedure in presentation forms, and it is not often that you find publications with systems accounts strictly replicated. The Spanish National Statistics Institute (INE) has added two more - one including the weight of tourism on the Spanish economy; another one detailing its relationship with balance of payments. In the case of the 2000 Andalusian TSA, it was more operative to bring together and summarise some of the accounts, without any information being lost.

The number of accounts produced in Andalusia has depended on existing possibilities, but in any case, the "compulsory" requirements of the system are sufficiently severe in themselves. There is a consumption account that brings together the four first accounts of the system without information loss, except for inbound consumption - account 3 - which could not be broken down as suggested by the system, and therefore its total had to be estimated with a global figure²⁷. However, tourist expenditure as per business trips has been estimated and individualised so that users can easily compare the results with those of Regional Accounts, given that there, in accordance with the ESA, this type of trips are treated as intermediate consumption and not as final consumption. This attempt to avoid the discrepancy between different methodologies has forced the non-inclusion of business tourists in the "one-day visitors" column, but rather to include them in the "Other components of visitors' con-

²⁷ The calculation has been made with the information taken from the FAMILITUR survey (on tourist movement of Spaniards) conducted by the Spanish National Statistical Institute.

sumption" column, which thereby includes the total expenditure of one-day visitors and business tourists. Finally, the supply account and that of adjustment between supply and demand has been made, as well as the employment account and the non-monetary indicators account.

TSA 2000

03.3 Main information sources related to the 2000 Andalusian TSAs

The main information on tourist demand is taken from the Survey of the Tourism Situation of Andalusia that the Andalusian Statistical Institute (IEA) conducts on a quarterly basis. As this does not include a breakdown of expenditure adapted to the information required by the TSA and does not supply data on one-day visitor flows either, two parallel actions have been carried out:

- Survey of Tourist Monitoring in Summer and Easter week, conducted by the Andalusian Tourism, Commerce and Sports Ministry
- Survey of One-day visitors in Andalusia, conducted by the Andalusia Study Centre Foundation (centrA), dependent on the Regional Government of Andalusia

As far as supply is concerned, the System of Economic Accounts of Andalusia, carried out by the Andalusia Institute of Statistics, provides the information required to analyse supply in the TSA. Although it is true that on some occasions this information is not published with the breakdown the TSA demands, the Andalusia Institute of Statistics, by request of the Andalusian Tourism, Commerce and Sports Ministry, increased the sample of the information units on each activity linked to the TSA that do not appear as such in the System of Accounts.

The following table shows a description of all the sources used to make the 2000 Andalusian TSA:

TSA 2000

TSA	Sources of information	Body
Demand	ECTA	Andalusian Statistics Institute
	EST	Andalusian Tourism, Commerce and Sports Ministry
	Survey of one-day visitors	CentrA
	AENA report	AENA
	Yearbook of State Ports	Ministry of Public Works
	Survey of Hotel Occupancy	INE
	Survey of Family Budgets	INE
	Tourist movement at borders (FRONTUR)	IET
	Tourist movement of residents (FAMILI-TUR)	IET
Andalusian fleet of vehicles	Andalusian Statistics Institute	
Supply	System of Economic Accounts of Andalusia 2000	Andalusian Statistics Institute
	Register of Tourist Activities	Andalusian Tourism, Commerce and Sports Ministry
	Airport Movement Statistics	AENA
	Travel agency and tour operator services module	INE

Survey of the Tourism Situation of Andalusia (ECTA)

The improvement of the information available on the tourist situation of Andalusia is particularly important due to the relevance of this sector in the regional economy.

In addition to this, the fact that there are gaps of information regarding some relevant aspects of tourism in Andalusia, underline the need to have tools that make the knowledge of the regional tourist situation easier, particularly with regard to three sections:

- Knowledge of the number, distribution and characteristics of the tourists who travel in Andalusia.
- Total and composition of the tourist expenditure in the region.
- Reasons for tourists to travel around Andalusia and their opinion on the tourist supply and the services they received during their stay.

In order to meet the needs and gaps above, the Andalusia Institute of Statistics (IEA), in collaboration with the Tourism, Commerce and Sports Ministry, has developed the Survey of the Tourism Situation of Andalusia (ECTA).

This statistical operation is carried out by means of a personal interview with tourists in Andalusia, and its essential characteristics are

the following ones:

1. Continuous quarterly survey limited to the whole Autonomous Region of Andalusia.
2. Indicator of the situation, interested in short-term trips in the variables it researches.
3. The aim of the survey is getting to know the profile of the tourists who visit Andalusia, their expenditure and opinion about their travelling experience.
4. This is done by means of establishing points to survey in order to gather information.

For the purpose of the survey, the target population for survey comprises tourists travelling in Andalusia. In order to decide which types of travel should be considered as within the usual environment and which not, Andalusia is divided into 25 areas that cover the whole region. hence, for the aims of this survey, the following people are considered as tourists:

- a) All those people who do not live in Andalusia but visit the region for a reason other than to carry out an activity they are paid for;
- b) All those people who live in Andalusia but travel to a different area within the region for a reason other than to carry out an activity they are paid for.

This survey includes one-day visitors who can be considered as tourists but do not spend the night in the place they visit within the region.

The variables that are studied by the ECTA fall into three groups:

Factors that make up tourism. These variables are intended to get to know the profile of tourists that visit Andalusia. They are the following ones:

- Residence. The objective is to get to know the place where the interviewee lives. In the case of foreigners, they are asked the country of residence, whereas Spaniards -non-Andalusian- are asked the region where they live.
- Nights spent in the region. This question asks the number of nights that the interviewee will spend in the same place where he/she slept the night before, whether in a different part of Andalusia or in another region.
- Social-demographic profile of tourists. This includes the variables of sex, age, work situation and profession.
- Travelling habits. This point includes variables of behaviour such as accommodation, means of transport or organisation of the journey.

Total and factors that make up expenditure. Tourist expenditure is any expense made by a person that is considered as a tourist during his/her stay and travelling in his/her destination.

There are two types of expenses:

- Expenses at the departure point. This is the amount paid at the usual place of residence for travel in Andalusia and other paid items: accommodation, half/full board or B&B basis, transport to the destination and around the destination, car rental, and other services

- Expenses at the destination point:
 - Total expenditure of the stay. Any expense made during a tourist's stay in Andalusia.

 - Daily expenditure. Tourists are asked how much they spent at their destination the day before the survey is conducted.

In both cases, the following items are broken down:

- Accommodation.
- Food purchases
- Non-food purchases
- Organised trips/tours
- Restaurants, bars, coffee bars, ...
- Transport within Andalusia (bus, taxi, petrol, toll, etc.)
- Car rental
- Leisure (night clubs, sports, culture, ...)
- Others

Opinion and level of satisfaction. The objective is to get to know the reasons why tourists come to Andalusia, as well as the level of satisfaction for the services they have received. The variables to do so are:

- Reason for travel. There are three possible reasons: business, fairs-congresses, and holidays and leisure. If the main reason for travel is holiday or leisure, then the interviewee is asked why he/she chose Andalusia.
- Qualification of certain aspects related to the trip to the area where the survey is conducted.
- Aspects that have changed with regard to the tourist's previous visit/trip. The interviewees who have been to Andalusia before are asked if those aspects have improved, worsened or are different: accommodation, communications, environment, etc.

In studies carried out prior to establishing the sample to be surveyed there was not exact information about the population that is the object of the study, their distribution around the region and the time. This is why in order to establish the sample and its distribution, the information included in "Encuesta de Movimiento de Viajeros en Establecimientos Hoteleros" (survey of travellers staying at hotels) conducted by the INE was used, and complemented by other information sources (registered properties in Andalusia, 1991, Holidays of the Spaniards, etc). Moreover, the results of the survey have been

essential in establishing mechanisms to fit the sample, and correct the deviations showed in the first sample design.

In the last few years, new data sources on Andalusian tourism have appeared and there is now information about the number of travellers, their distribution around Andalusia, and other important variables. As a result of that, and in order not only to improve the population setting and the sample distribution, but also to have information that shows current needs better, the Andalusia Institute of Statistics and the Tourism, Commerce and Sports Ministry of Andalusia are carrying out a methodological review that will be effective as from the second quarter of 2006.

Survey of Tourist Follow-up

The objective of the survey of Tourist Follow-up conducted by the Tourism, Commerce and Sports Ministry of Andalusia with homogeneous methodology to the ECTAs, is to continuously monitor tourism in Andalusia during the peak season, that is summer and Easter; in order to do so, the main variables of demand are analysed, and this way the behaviour of this sector during such periods can be monitored closely.

This survey has been conducted so as to obtain certain information on demand that the ECTA does not provide, specifically regarding a more detailed breakdown of tourist expenditure, thus covering the items that refer to products that are typical of the Tourism Satellite Account, TSA.

Survey of One-day visitors in Andalusia

One-day visitors are a part of the tourist demand as they are people who travel from their usual residence and consume at the destination point but do not spend the night there. The difficulty in measuring this phenomenon, together with its lesser significance with regard to tourism, has reduced to a minimum the attention paid to it by statistical systems. In the case of Europe, the directive on the gathering of tourism information (D95/57 EC) does not state that it is compulsory for countries to supply information about one-day visitors. All this has resulted in the fact that information about this phenomenon is scarce.

However, it is necessary to know this part of tourist demand in order to produce a TSA; the methodological framework also offers the possibility to tell the difference between one-day visitors and people that are only in transit. These are visitors who do not go immediately back to their places of origin, though they stop at the place or country of reference on their way to a different destination.

As part of the framework of the work necessary for the Andalusia 2000 TSA, the General Directorate of Andalusian Studies, part of the International Relations Ministry of Andalusia, has managed the operations that allow expenditure per products to be brought closer to the list of products that are typical for one-day visitors.

The calculation of the total spent by one-day visitors in Andalusia is one of the main problems ²⁸. In order to work it out, the information provided by Frontur and Familitur, surveys conducted by the Institute of Tourism Studies, was used.

The survey of One-day visitors in Andalusia has allowed for the calculation of expenditure structure for one-day visitors in Andalusia. This research was intended as a survey of expenditure at the point of destination, just like the survey of the Tourist Situation of Andalusia.

The survey is conducted in a series of selected tourist points, whether they are at the arrival or departure point of tourists, or at a tourist attraction. The list of places where the survey is conducted has been changed, with regard to the ECTA, in order to adapt it to the type of visitors that are researched into, hence airport, hotels, etc have not been included. Therefore, the places where the survey has been conducted are those where a high number of one-day visitors are expected, such as restaurants, train and bus stations, monuments, etc. The key is to be able to approach one-day visitors once they have made most of their expenditure; as spending the night is not part of the excursion or tour, they cannot be asked how much they spent the day before the survey, and the research has to focus on the research on the second half of the day (restaurants) and the moment prior to the departure.

²⁸ In the Andalusian statistics, the operation designed to quantify tourist demand, the ECTA, does not include one-day visitors as part of the surveyed population.

System of Economic Accounts of Andalusia²⁹

The System of Economic Accounts of Andalusia is a statistical activity carried out by the Andalusia Institute of Statistics (IEA), whose aim is to show the economic behaviour of the subjects that are part of the Andalusian economy, their inter-relationships and the results of their economic activity.

Andalusia has some tradition in making regional accounts, as its first one dates back to 1975. That year the first input-output table and the first regional accounts were made by the teams of the universities of Malaga and Cordoba. Later, the Andalusian TSAs for 1980, 1990, 1995 and 2000 were made. The idea was to guarantee the methodological uniformity in the elaboration process and the macroeconomic coherence of the results.

The Input-Output framework is a statistical accountancy tool, which shows all the production and distribution operations that take place in an economy in one year, and it is therefore a very important instrument for economic analysis.

The concepts and criteria of valuation and imputation that are used are the result of an international consensus (ESA-95), which makes comparison between the different economic fields easier.

The current central framework of reference for economic and

²⁹ For a more detailed description of the input - output system, see chapter 9 of the ESA -95.

social statistics of the European Union, ESA -95, divides the Input-Output framework into three tables:

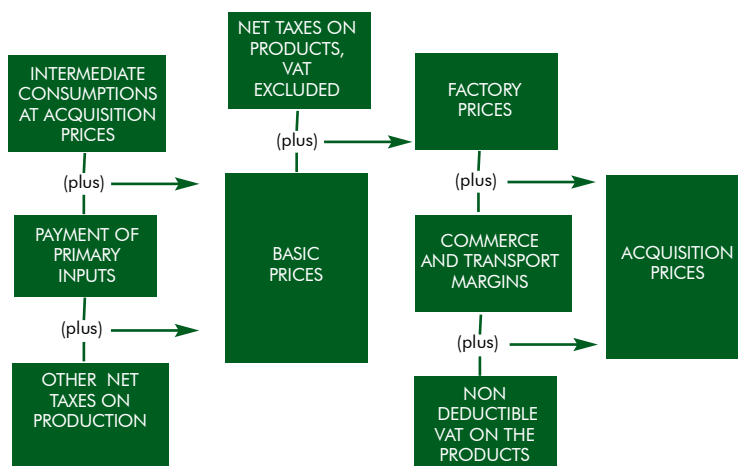
- Origin, which shows the supply of goods and services arranged by product and type of supplier, and distinguishes between production of domestic activity branches and imports.
- Destination, which shows the use of the goods and services that the economy makes, arranged by product and type of use.
- Symmetry, which is a matrix that includes the detailed processes of domestic production and operations of goods and services of the domestic economy; columns and rows are classified by product or activity.

In the ESA -95, one of the most important aspects, in principle, is the valuation of the goods and services that are part of the economy. There are three valuations allowed by the system: basic prices, producer prices, and acquisition prices. The objective of this approach is to show the differences among the different paid prices, depending on the agent involved in the economy.

Acquisition prices are obtained adding producer prices or factory prices to the commerce and transport margins, from their production to their consumption. Also, the factory prices are the sum of

basic prices and taxes (clear of subsidies) on the products. Therefore, the acquisition prices are the sum of basic prices, commerce and transport margins and net taxes on the products.

VALUATION CRITERIA



TSA 2000

03.4 Estimation methods for the 2000 Andalusian TSAs (ATSA's)

Although, as is to be expected, a large number of information sources were used to produce the 2000 ATSA's, there are two of them that can be underlined. For demand, there is the ECTA, conducted since 1999. For supply, the recently published Input-Output tables of Andalusia, with their major database, for year 2000.

As indicated, the best way to estimate tourist demand is, essentially, with a demand survey. Consequently, most of the calculations in Andalusia were done in this way. However, due to various different circumstances, the necessary information was not always available, either because expenditure was mainly made at the point of origin and not at the destination, or because expenditure was low and therefore did not figure in the ECTA, or for other reasons that will be looked at later on. In the case of a lack of demand data, supply data was used, or otherwise data from companies, with the proportion of production destined to tourism having to be estimated subsequently.

The activities included in the estimation of demand are in accordance with this methodology:

Accommodation services. Hotels and similar.

Accommodation services comprise two different activities: hotels and property rental.

Hotels

Hotel activity, as in the CNAE 55 (Spanish national classification of economic activities), includes accommodation services provided by:

55101	Hotels and motels
55102	Hostels and guesthouses
552	Camping and other types of short-term accommodation
5521	Youth hostels and mountain huts
55231	Tourist apartments
55232	Holiday camps
55233	Other tourist accommodation

In this section, the Satellite Account only includes accommodation services, separating other services that can be provided by hotels, such as: catering, night clubs, shops, etc., which are included under their own corresponding activity. As we can see, hotel activity does not therefore have delimitation problems, but it must be remembered that the apartments it includes are those usually referred to as "regulated" apartments with a clear use for tourism, and does not include apartments that are rented to residents or those purchased by proprietors as their second home.

In addition to this, the Input-Output tables for Andalusia (TIOAN-2000) include the activity in a specific branch offering estimations made by the Andalusia Institute of Statistics. To this, we must add the completely tourism-based nature of the activity, given that almost all

accommodation services are for tourists. The Spanish Institute of Statistics has taken into account that a small number of people could live at a hotel, this being their usual address, and that some residents could sporadically use a hotel in their usual environment³⁰, but these uses are clearly marginal ones and do not contradict the previous statement.

The estimations made by the Andalusia Institute of Statistics include information taken from the ECTA regarding national results, showing figures that, due to the satellite nature of these ATSA's, had to be accepted. The only change is that magnitudes were marginally reduced in line with the non-tourist use referred to above.

Property Rental

It is necessary to distinguish two different cases of property rental: real and "fictitious". With regard to the first, they present no major problems for comprehension or estimation. A tourist visits the region and rents a property from a private owner or a company, whether directly or through an agency, for a certain period of time, and pays a price for said service. As can be seen, this is a simple, day-to-day occurrence.

However, the European System of Accounts (ESA), derived or adapted from the UN's System of National Accounts, adds conventions that have a special repercussion in these accounts. On the one hand, it

³⁰ The people invited to a wedding who decide to spend the night at the hotel where the wedding banquet takes place - all this happening in the usual environment of the persons and establishment-, New Year's Eve parties including a hotel room, etc.

indicates that the acquisition of properties by households is an investment expenditure. In fact it is the only capital formation possibility attributable to such homes, given that the remaining expenses will be due to consumption - including durable goods that can be used for long periods of time: the purchase and use of a car, a domestic appliance, a camera, etc.

Secondly, in accordance with or resulting from the above, this investment resource, a property, generates production, an income, and a fictitious consumption for the proprietor that can be estimated by the rent payable if he/she were the tenant of his/her own property. This rent is called "imputed rent", that is, a fictitious rent, but with unquestionable economic repercussions³¹.

The reasons to impute this rent are included in the ESA itself, where it says that by not doing so, the income equivalent to the real rent would not be shown, which the proprietor would otherwise have to support. In addition to this, there are also reasons concerning comparison between states or regions, given that: *the ratio of properties occupied by their owners can perceptibly change from one country to another and even from one period to another within the same country; thus, international and inter-periodical comparisons of the production and consumption of services per home can be distorted if no imputation is*

³¹ Proprietors of homes are considered as quasi-companies that produce accommodation services. It is a production for their own final use and so is their expenditure - final consumption of households-. The income in kind produced by the rent is considered, by agreement, as gross operating surplus and not mixed income. Rents imputed to properties in a specific area do not specify if the proprietor is a resident or not, and all of them are part of the tourist magnitudes in that area.

made to the value of the accommodation services in owned properties (SNA 93 p.6.29).

As mentioned, the estimation of imputed rent must be done with the rent that the proprietor "saves"³² throughout the year. While at first sight this criterion may seem easy to apply, we should bear in mind the small size of the rental market in Spain, and consequently, the lack of information available on prices and other characteristics.

A case particularly relevant to tourism is that of second homes or holiday homes, places where proprietors stay on a regular basis at weekends and during holidays. Their "imputed rent" must be estimated in these accounts, but to the previous difficulty we must add the lack of a census that brings together the exact number and location of these properties. All this makes it very difficult to evaluate.

The lack of information means that this magnitude has been exceptionally calculated using the top-down method, regionalising the national figure to obtain the proportion relevant to Andalusia³³. This estimation refers to imputed rents, as the "real" rents were assessed through the ECTA.

³² According to the ESA, it is calculated with the estimated value of the rent that a tenant would pay for the same accommodation, taking into account factors such as location, facilities in the area, etc... as well as the size and quality of the property in question. (SEC95, Par. 3.64).

³³ The INE document on TSA specifies the estimation criteria and methods of these rents.

Food and drinks supply services

Catering activity falls within code 55 of the CNAE, and therefore offers a perfect correlation between this classification and the branch and characteristic services proposed in the TSAs.

553	Restaurants
554	Drink establishments
555	Group dining rooms and provision of pre-prepared meals

Global data on consumption and production in the region are known, once again, thanks to the TIOAN 2000; however, as not all these food supply services are aimed at tourists, it is necessary to make an accurate estimation of their proportion of the total.

The sources used to calculate expenditure figures were the ECTA and the survey made of one-day visitors; a special effort was made as this is one of the most important areas to be estimated in the tourism accounts.

The resulting data was the average obtained from the tourist survey, and was high, as you would expect. It showed two interesting facts. The first was that the sum is very stable and coherent with other years available since 1999, the effects of inflation apart. The second fact is not so favourable though also expected. Tourists' responses were very varied, and do not concentrate on any specific area.

Transport

Due to its nature, expenditure on transport has been one of the most difficult to estimate. In most cases, companies' addresses are more theoretical than real, given that their activity can be carried out inside or outside the region, with residents or non-residents, and in many other circumstances. However, the major problem in this case is the regionalisation of national companies that operate throughout Spain; They were regionalised by the Andalusia Institute of Statistics and this information is included in the 2000 TIOANs.

Tourism figures are mainly concentrated in three or four important expenditures: accommodation, catering, transport and shopping, making transport an essential part of the final result, in tourist magnitudes or a state or region.

Tourists may travel to their destination, Andalusia, with a transport operator from their own region or country, and in this case the expenditure is not attributable to Andalusia. However, they can also do it with a national company, and in this case the expenditure does affect the region proportionally to the percentage that this company is Andalusian. Hence, it is vital to regionalise the figures, even if this is not easy.

It must be noted that all air transport and most of sea transport (passenger transport only) are considered tourist transport provided that they are used by one single day-visitor, at least, who travels outside

his/her region and then goes back in the same day, without spending a night away, but leaving his/her usual environment for one day. Also, rail transport is considered as tourist transport in the cases of long-distances and for many inter-regional routes. Suburban rail transport alone is considered as having minor relevance. Finally, road transport is more irregular, and its proportion of importance in tourism can be estimated adequately with figures from the ECTA.

The "statistical tradition" of the region has been very prudent and conservative when it comes to regionalising these and other national companies, as it was originally thought that their economic repercussion in the region would be very small and its calculation very difficult to make. Of course, when there was information available, salaries of those workers resident in the region could be regionalised, but in hardly any case was Andalusia attributed any part of the running surplus, the other component of a company's added value. This explains the fact that transport has traditionally shown very moderate figures in the region, as far as its domestic side is concerned, and comparatively high ones with regard to imports.

Nonetheless, this criterion has been changed in recent years as Andalusia has been attributed a larger part of national companies, in accordance with indications made by Eurostat and the Spanish Institute of Statistics. The idea is for the regions to have a greater weight in the activities dominated by national companies and, especially, for this to bear more relevance to reality. In spite of everything, the part assigned to Andalusia in some transport is still very moderate, which goes to show the difficulty of the assignment, especially

concerning passenger air traffic. All this has obviously had an effect on the relative importance of transport in the region's tourist magnitudes, and on Andalusian as compared to national tourism.

Rail transport was estimated using supply information, as in the case of passengers there is only one company, RENFE. There is adequate information available in the 2000 TIOANs. The regionalisation criteria were set by the Andalusia Institute of Statistics, while the Andalusian Tourism, Commerce and Sports Ministry estimated its tourism proportion. This was not especially difficult according to considerations made regarding the train routes, and efforts were focused on the use of suburban trains by tourists and one-day visitors. To this end, information about demand came from the ECTA and the specific tourist survey.

Consumption on road transport was mainly calculated using demand surveys, although the results were obviously affected by the enormous amount of information available on supply, on passenger road transport companies. Perhaps the most complex estimation referred to the use of taxis by tourists, as many surveys did not include this much detail.

Expenditure on maritime transport is not relevant in the region as there are very few tourists who travel to Andalusia using this means of transport. Also, there are not many relevant companies with a registered office in an Andalusian port. Obviously, the Strait of Gibraltar crossing is important, but this is run by companies based at ports outside Andalusia, and in these cases, the ESA specifies that

they should be treated as non-resident³⁴ "In the case of maritime and fluvial transport, production and fleet will be associated to the port that is the operational base of the unit" (free translation of ESA 13.26). Therefore, it is not possible to estimate relevant exports of maritime transport services by Andalusian operators to non-residents, whereas if Andalusians purchase these services they would be considered as imports, as part of domestic tourism, or more frequently, they will be part of outbound tourism.

The case of air transport is unique both for its important proportion of total activity, and also because its assignation criteria to the territory are not in the ESA. The national proportion attributed to Andalusia has to do with the number of flights run by national companies whose point of departure or arrival is this region, but the low resulting ratio has raised doubts about its representativeness.

Moreover, there is no doubt that some Andalusians buy their air tickets from external companies when travelling to another part of Spain or the world, which implies the importation of these services to the region. However, the 2000 TIOAN does not include these items due to difficulties in estimation.

Transport-related activities

Transport-related activities, as their name suggests, are those services that complement the different types of transport. Many of them are

³⁴ This way, if a tourist who is on holiday in Andalusia goes on a tour to Ceuta in a ship run by the company Transmediterránea, for example, the only expenditure affecting the region is the use of the port but not the actual maritime transport expenditure.

services to companies or "intermediary" services, though in many cases final consumers can purchase them directly. The current classification of activities is as follows:

63	Transport-related activities; travel agencies' activities
631	Handling and storage of goods
632	Other activities related to transport
63211	Train terminals and stations
63212	Passenger bus station terminals
63213	Toll motorways and other toll roads
63214	Car parks
63221	Operating of ports and port services
63231	Operating of airports
633	Activities of travel agencies, tour operators, ...
634	Organisation of goods transport

Due to their intrinsic importance for the tourist sector, the activity of travel agencies has a special, separate treatment, and therefore is not included here.

The activities with most relation to end consumers and tourists are those concerning motor vehicles: car park and motorway services. However, as is to be expected, this does not avoid the fact that they can be acquired by companies, thus becoming of an intermediate nature.

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In principle, the consumption account of TSAs incites the evaluation of final consumption specifically because their nature is clear. To this end, certain estimators have had to be produced, so as to attribute to tourism its corresponding proportion, in the case that demand surveys do not reach that level of detail.

With regard to motorways, there are two in the region - one from Seville to Cadiz, and another one that runs along the western Costa del Sol. In both cases, invoicing information has been taken into account, taken from the surveys required for the 2000 TIOA. In order to assign the proportion of use attributable to tourism on these motorways, their monthly traffic was looked at; it was then determined that in the least busy months people used this route to get to their workplace or their usual residence, and were not therefore tourists. Under this hypothesis, the number of travellers registered over and above this figure during the rest of the year were deemed to be tourists.

In the case of car parks, their estimation was also made by means of supply information. In this case there was a large, representative sample of car parks in the region, and it was only necessary to proportionally attribute a part to tourism. The number of vehicles was used as an indicator, comparing the figure of tourists that came in their own vehicles, plus the number of vehicles rented by tourists - and considering the length of their stay -, in relation to the total fleet of vehicles in Andalusia. In short, the same criteria that were used to impute the use of repair garages for these same cars.

The last final consumption that should be imputed here refers to air-

port use by travellers, provided they specifically pay a specific tax or price in their air tickets. This information was supplied by AENA and classification of residents and different types of non-residents was made according to their proportions as presented in the ECTA.

Once the final and intermediate consumption of motorways, car parks and airport fees have been estimated, there is no doubt that there is still a wide range of activities related to passenger traffic whose use is not paid for directly by travellers. These services are used both by transport from Andalusia and from the rest of the world, and this distinction is important when it comes to evaluating them. Indeed, if an Andalusian company or a company registered in Andalusia purchases them, they are classified as intermediate consumption, whereas if an external company purchases them they are considered as exported services.

It is difficult to evaluate these exports, which have an unquestionably close relation to tourism, or rather than evaluating them, to situate them within framework of the TSAs, as they are not easy to place. Perhaps the system, the methodology, so demanding and strict in most cases, has a small gap here given that it does not seem to distinguish adequately the best way to include these exports. We must add to this the traditional problem of differentiating between consumption by non-residents in the region and exports, concepts whose delimitations are shady.

The solution used by the INE³⁵, which was applied to the 2000 ATSA,

³⁵ INE, Cuenta Satélite del Turismo de España (Spanish Tourism Satellite Account), page 28.

consists of including the exportation of related services within the consumption account, specifically placing them under non-resident consumption, although without differentiating their amount. This solution, however, has advantages and disadvantages.

On the one hand, it is interesting and necessary to include these exports of services - together with the rest of them - in the TSAs, as they intend to show the whole final tourist demand, even if the consumption of Public Administrations and expenditure in capital formation or investment is optional for difficulty in estimation, and under no circumstances for methodological reasons, as their inclusion is clear enough. On the other hand, although their addition to consumption may well avoid them being excluded or not evaluated, it makes this concept a more confusing one, thus making its comparison with the remaining final consumption for regional or national accounts more difficult. This is why it would seem more appropriate, when possible, to identify it exclusively as part of the independent magnitudes that make up final tourist demand.

Therefore, in our case these intermediate consumptions have been valued and included, provided they have been purchased by non-resident companies, i.e. that they have been considered as exports for Andalusia, thus valuing the use of airports, ports and activities related to RENFE. In all these cases, once again, supply information from the 2000 TIOAN was used. The abundant information on airports and their marginal dedication to goods transport has not made their valuation very difficult, whereas in the other cases mentioned it has been necessary, first of all, to divide related activities between cargo and

passenger. The number and type of ships arriving at Andalusian ports was the ratio used to estimate the tourism proportion of port-related activities, whereas in the case of RENFE we had to distinguish between more cases. However, in short, the weight of passenger traffic leaving the region seemed to be the best indicator for the correct assignation of the activities related to RENFE, which is also an essential part of this public company's activity.

Rental of capital resources for passenger transport

The rental of vehicles and boats is included in the CNAE 71 (Spanish national classification of economic activities): *Services of renting machinery and equipment without a machinist, and personal effects and household goods*, however, due to its relevance for tourism, it is broken down into a characteristic activity. The demand and expenditure for vehicle rental has been obtained from demand surveys, whereas production has been taken from the estimations of the Andalusia Institute of Statistics to produce the 2000 TIOAN tables.

Travel agencies and similar

Just like the previous activity, the production of travel agencies falls into a classification of the CNAE - that of transport-related activities - from where it is extracted due to its specific importance.

The difficulties found in estimating it by means of the demand resulted in it being estimated by supply or production of agencies with establishments in Andalusia. We must bear in mind that the system requires that agencies' activity be estimated by their margin, as is usual

in other branches such as commerce, and not by gross production. This means that if the client purchases a transport ticket in an agency and the agency invoices him/her both the ticket and its margin/commission, then it is only the latter that must be considered as the agency's sale, not the total - meanwhile the transport service will, of course, be noted under transport activity. Likewise, when a tourist purchases a travel "package", this must be split up or subdivided into all its component parts, adjudicating in this case the agency's margin, and, if applicable the wholesaler's, to this activity, and the remaining parts to their respective branches.

Cultural services, sports activity services and recreational services.

Activities that fall into the CNAE 92 Recreational, cultural and sports services category are split by the system into two characteristic branches, which is not always easy to do, as the expenditure surveys do not usually go into such detail. In any case, the Ministry carried out some extensions and enlargements to its ASTAs during the most important months seasonally for tourism, foreseeing the production of these accounts. This has allowed for a proper distinction to be made between the purchase of cultural services, on the one hand, and recreational services, on the other³⁶.

³⁶ The activities related with each of these items and the CNAE (Spanish national economic activities classification) can be checked in: Eurostat, European Implementation Manual on Tourism Satellite Accounts (TSA), annex 3.

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04: tables of results

Tables of results

The Conceptual Framework of the Tourism Satellite Account suggests the creation of 4 tables for demand, which describe the consumption of visitors. Table 1 focuses on inbound tourism, Table 2 on domestic tourism, Table 3 on outbound tourism and Table 4 on visitors' domestic consumption in cash and in kind³⁷.

In Andalusia Table 4 has been made. It is the one that shows the total on account of the difficulties in removing one-day visitors from consumption by nationalities as required in the first three tables. Also, with regard to table 3, which focuses on outbound tourism, the statistical operations necessary to supply such information have not been available for the required breakdown, and this is why only the global figure is provided.

The demand table this document includes, called "*Domestic tourism consumption by products and types of tourism*", shows information on domestic consumption by visitors at acquisition prices, distributing the total between one-day visitors and tourists who, in turn, are divided between the rest of the world, the rest of Spain, and domestic. The table also contains a column with other components of visitors' consumption (one-day visitors and tourists) defined as business tourism expenditure and a transfer in kind that corresponds to expenditure on food. The last column is presented globally and is not separated according types of tourism, due to the difficulty in attributing these components.

³⁷ TSA: Recommended Methodological Framework. Chapter 4, section A.4

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The results of each row in this table are expressed net of travel agencies' and tour operators' margins, which are shown in the travel agencies row.

The supply table, called Production accounts for tourism and other branches of activity, shows the production accounts of characteristic branches of tourism defined in the Conceptual Framework, and of the remaining branches of the Andalusian economy. This is shown in such a way that it can be compared with the demand table later, and consists of three parts:

1. Breakdown of production by products at basic prices, according to the valuation criteria of the Spanish system of national accounts, SNA 93.
2. Sample of intermediate consumption broken down by branches.
The difference between the values of the first two parts provides the Gross Added Value (GAV) at basic prices.
3. Components of the Gross Added Value (GAV).

Finally, the settlement table is suggested, which compares supply with domestic tourist consumption by products; it is in this table where tourism macro-magnitudes, such as Added Value and tourism GDP, are calculated.

The rows in this table are the same as those corresponding to the supply table; the first section details production of characteristic tourism products, separating certain tourism services specified in the Conceptual Framework of the TSA. The second section includes intermediate consumption.

The columns represent the branches of activity characteristic of tourism; the remaining activities of the Andalusian economy are in a column that includes those not classified as tourism activities. Each column representing supply has a systematic comparison with domestic tourism consumption by products.

After the columns representing each branch of activity, there is one that includes total supply of Andalusian products at basic prices, with the production total (corresponding to branches of tourism and non-tourism activities). There is a column added to the latter showing imports of goods and services, and another with the value of the net subsidies taxes on products related to both domestic production and imported production, in order to obtain the domestic supply total at acquisition prices. Once supply at acquisition prices has been obtained, it is compared with tourism consumption product by product, thus obtaining the tourism ratio against supply.

Finally, there are tables showing non-monetary indicators of tourism in Andalusia. The number of trips and nights spent in Andalusia by type of tourism and category of visitors has been obtained, whereas the breakdown by means of transport has been

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made bearing in mind the prevailing types of transport in Andalusia. With regard to supply, information on Private Tourism Accommodation has been omitted, as there are no official figures.

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05: annex

OTHER METHODOLOGICAL ASPECTS

Gross capital formation

Capital Formation has undergone a number of changes as a result of the new ESA-95 which have not altered its nature but have widened its field. There are now three large breakdowns: gross *fixed* capital formation, *stock variation* and acquisitions minus transfers of *valuable objects*, whereas certain expenditure, such as mining prospecting or development of IT software, are no longer considered as intermediate consumption, but rather as investment. Data published in Spain, whether for the whole country or certain regions, reveal that of the three types of formation, that of fixed capital stands out for its volume, and within it, that of construction, representing over 50% of the total.

Investment figures have been published with different focuses:

- Input-output tables show the production branch of investment resources (rows), and necessary inputs for their production (columns). The purchaser is not identified, as the destination was the capital formation vector as part of the final demand.
- The capital accounts of institutional sectors (*companies, public administrations, households...*) show net acquisitions (purchases minus sales) of investment resources in each sector. The consolidated figures formed part of the country's simplified accounts, of the macro-economic charts and of GDP itself.

- Annexes of National and Regional Accounting show additional information on investment by type of products (supply): *Agricultural products, Metallic products and machinery, Transport equipment, Housing and other contritions, and others* -see annexe.

However, another novelty of the current ESA is the proposal for the publication of additional information that, although largely carried out as part of the input-output tables, was not usually published. Therefore, it is recommended that charts or tables be drafted, including not only the production branch of investment resources, but also the purchasing branch (demand): *gross capital formation by "products" and "purchasing or proprietary branches"*. In order to comply with these requirements, these data have been published, combining supply of investment resources (products) with demand (purchasers by branch of activity) thus offering a more complete presentation. It can be assumed, however, that this information will also be available for years ending in 0 and 5, that is, in the years when tables are produced. In the remaining years, the figures corresponding to investment expenditure may need to be updated in the following ways:

- The most obvious and also the most expensive way is by surveys, a procedure that will also be necessary to estimate investment expenditure in the years with TIOs.
- As far as production units are concerned, a second way could be the search for and use of lower quality informa-

tion, which would allow an estimation of expenditure, and hence the most economical source available would be the Trade Registry. This source has several limitations but is, nevertheless, the one most currently available:

- Companies, not establishments, present their accounts with the Trade Registry, meaning that tourist establishments in the region could have their head office in a different region, or vice versa.
 - Self-employed people do not present their accounts, generally small establishments such as bars, guesthouses, etc.
 - The registered information is not always truthful, generally showing economic results lower than the real ones, influenced by fiscal pressure.
 - The valuation criteria of the balance (whose annual variation would be closer to the value of capital formation) are not always uniform among the different companies and, sometimes, not even among the companies themselves over the course of successive years.
- Regarding the investment in housing (second homes, apartments for rent to tourists...) the best available source is the population and housing census, the main drawback being that they are only published every ten years.

With the information described above, there is a second phase consisting of defining the proportion of capital formation that is attributable to tourism. The methodology of the Tourism Satellite Accounts (TSA) suggests three types of breakdown:

- a) Estimation of capital formation of tourism industries.
- b) Estimation of capital formation in tourism infrastructures made by the public administrations or any other agent.
- c) Estimation of the remaining capital formation, which is necessary to provide goods or services to tourists.

With regard to sections b) and c), and, to a lesser extent, a), the difficulty in these breakdowns is not only the estimation of the figures, but also the actual designation of the capital goods necessary to ensure supply of tourism services, as well as the intensity of their useage by tourists. For example, a road running up to a ski resort that ends there with no connections to any town, could be considered as tourist infrastructure, but a road that goes along the coast is not only for tourism, and its relevance to tourism could vary according to the season, more in summer and less in winter - this an obvious difficulty in itself.

The Spanish national statistics institute, the INE, in its publication titled *National Satellite Accounts*³⁸, suggests the draft of a "crossed product/activity branches table" in the field of tourism.

³⁸ INE, *La Cuenta Satélite del Turismo de España: Metodología y Primeras Estimaciones* (The Spanish Satellite Tourism Account: Methodology and First Estimations) (1996-1999), Madrid, 2002.

Gross formation of Fixed Tourism Capital in tourism industries and other industries					
	CHARACTERISTIC BRANCHES OF TOURISM ACTIVITY			Others branches	Total Economy
	Hotels and similar	Restaurants and similar		
A. Non-financial produced assets					
A.1. Fixed tangible assets: accommodation, other constructions, machinery, etc.					
A.2. Intangible fixed assets					
B. Improvement of plots used for tourism purposes					
TOTAL					

Here (page 63), the acquisitions of each characteristic branch of activity are to be broken down in a first section, whereas the remaining ones, whether carried out by the public administrations or by the remaining branches of activity, are to be included in a single column titled "other branches". This table, while practical, may seem a little too simple, and it may be necessary to break down the *others* group further. It may then be appropriate to make a sub-group with expenditure on public capital and public tourism infrastructure, according to information sources, provided that the decision to break it down is made on a basis of budget. Secondly, expenditure made on tourism investment by the real estate sector

could also be broken down. This is an activity that includes households as producers of services for their own consumption (housing), an important expenditure which would also require appropriate, alternative information sources.

The INE proposes relating capital formation to tourism production of branches as a way to delimit it in the following terms (pages 65 and 66):

"if there is a matrix of Gross Fixed-Capital Formation (GFCF) arranged by products and branches, as is the case of Spain, the part related to tourism could be easily obtained by applying the same percentage of the tourism production to the matrix, that is, assuming that the proportion of tourism investment to the total investment is identical to the proportion of tourism production with regard to total production. In short, as there is no optimum solution, a very pragmatic, straightforward proposal is suggested based on the remaining calculations made in the TSA. The weak point of this procedure, from a conceptual point of view, is that the lack of relation between expenditure on GFCF and the relevance of tourism in a specific period of time. However, there is no other possible solution and this pragmatic proposal could initially be considered in order to produce the TSA".

However, although this procedure has the considerable advantage of producing results, and even accepting a strong correlation

between expenditure on investment and GDP in a country or region, it also seems true that the correlation between these magnitudes will have to be much lower when considering certain lower branches. The problem, then, is not only conceptual but also factual, and this is why the procedure raises serious questions, which the INE itself admits and underlines.

In any of the cases, the estimation of the investment of characteristic branches would be an important starting point; this estimation will have to be made, as indicated, by means of direct sources or other sources such as the Trade Registry.

Collective consumption

Collective consumption, previously called public consumption, has been perceptibly modified in the last version of the ESA. The main objective of this change was to split this magnitude so as to distinguish between the consumption of public services that are obtained on an individual basis: *individual consumption* (health, education ...) and consumption that is enjoyed jointly and simultaneously: *collective consumption* (national defence, legislation and legal ordinance...). This way, international comparison between different types or grades of "welfare states" can be made more easily.

According to the ESA (3. 85), individual and collective services are:

By agreement, any expenditure towards final consumption that the public administrations make under each of the following

epigraphs must be considered as expenditure on individual consumption services, except for expenditure on general administration, ordinances, research, etc. in each category:

- 04 Education
- 05 Health
- 06 Social security and social care
- 08.01 Sport and recreational services
- 08.02 Cultural services

Moreover, any expenditure under the following sub-epigraphs must be also considered as individual expenditure when important:

- 07.11 (part) supply of accommodation
- 07.31 (part) home rubbish collection
- 12.12 (part) running of transport systems

Expenditure on collective consumption by public administrations corresponds to their remaining expenditure on final consumption. It specifically comprises:

- social administration and order
- security and defence
- maintenance of law and public order, legislation and ordinance
- maintenance of public health
- protection of the environment

- research and development
- infrastructure and economic development

With regard to individual consumption, also called transfers to households in kind, an estimation of the expenditure on health, and sports, recreational and cultural services enjoyed by tourists will have to be made; expenditure on education and social security seem to be less important. Also the estimation of the cultural and recreational services requires procedures that are not dissimilar to those of public services, given that, even tickets for these services (museums, theatres, etc.) are paid for, no distinction is usually made in the price for residents and tourists.

Budget information available from the public administrations does not allow for immediate estimation of collective consumption attributable to tourism. Indeed, even if we have the "functional" budget including a classification of programs (here more suitable than an economic classification), these programs are too generic to attribute them immediately to tourism³⁹. On the other hand, the methodolog-

³⁹ The items included in the Budgets are classified according to three criteria (organic, functional and economic). Their articulation results in the budget applications. Specifically, the distinction of budget credits is made according to:

- organic units or expenditure management centres (organic classification).
- the goals or objectives that are expected to be achieved with the assigned resources (functional classification or by Programs). In this second option, you can work with "groups of functions", "functions", "sub-functions", "programs", and "subprograms", depending on the level of specification you would like to have. The "group of function" and "function" levels are closed and compulsory.
- the economic nature of the expenditure to be made (economic classification). This classification comprises five successive levels, depending on their specification; two of them are closed and compulsory: "chapters" and "articles", and can be expanded to the three remaining ones: "concepts", "sub-concepts" and "items".

ical reference of the TSA includes the different functions associated with tourism that the Public Administrations can carry out:

- Tourism promotion.
- General coordination and planning of tourism-related issues.
- Drafting of statistics and basic information on tourism.
- Administration of tourist information offices.
- Control and regulation of the establishments in contact with tourists.
- Specific control of resident and non-resident visitors.
- Civil protection services related to the protection of visitors
- Other services

Having listed all the functions above - both budget-related and in the TSAs - it seems clear that the estimation of collective consumption by Public Administrations could, at least, start with the following tasks:

- An investigation of the budgets of all the administrations: state, autonomous regions and local bodies - county councils, municipalities, etc. - for an appropriate establishment

of the programs that could be attributable, totally or partially, to tourism.

- Classification of the municipalities in the region according to the tourism flows they receive. This scale would be useful later to be able to attribute a proportion of public consumption of the different administrations considered as being related to tourism.

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06: siglas

Abbreviation index

- AENA: Aeropuertos españoles y navegación aérea (Spanish Airports and Air Traffic Control)
- ATSA: Andalusia Tourism Satellite Account
- centrA: Andalusia Study Centre Foundation
- CNAE: Clasificación Nacional de Actividades Económicas (Spanish national classification of economic activities)
- CPC: Central Product Classification
- ECTA: Encuesta de coyuntura turística de Andalucía (Survey of the Tourism Situation of Andalusia)
- ESA: European System of Accounts
- EST: Estudio de Seguimiento Turístico (Tourist Monitoring Survey)
- EUROSTAT: Statistics Office of the European Commission
- FAMILITUR: Spanish tourism movement study
- FRONTUR: Tourism movement at frontiers
- GAV: Gross Added Value
- GDP: Gross Domestic Product
- GFCF: Gross Fixed-Capital Formation
- IAE: Impuesto sobre Actividades Económicas (Spanish tax on business activities)
- IBI: Impuesto sobre bienes inmuebles (Spanish property rates)
- IEA: Instituto de Estadística de Andalucía (Andalusia institute of statistics)
- IET: Instituto de Estudios Turísticos (Spanish tourism institute)
- IMF: International Monetary Fund
- INE: Instituto Nacional de Estadística (Spanish national statistics institute)
- I-O: Input-Output
- ISIC: International Standard Industrial Classification of All Economic

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Activities

NPISH: Non-profit Institutions Serving Households

NSI: National Statistics Institute

OECD: Organisation for Economic Co-operation and Development

RENFE: Red Nacional de los Ferrocarriles Españoles (Spanish Railways)

SAETA: Sistemas de Análisis y Estadística del Turismo de Andalucía (Analysis and Statistics Unit of Andalusia Tourism)

SICTA: Standard Industrial International Classification of Tourism Activities

SNA: System of National Accounts

TCA: Tourism Characteristic Activities

TCP: Tourism Characteristic Products

TIO: Input-Output Tables

TIOAN: Input-Output tables for Andalusia

TSA: Tourism Satellite Account

UNSC: United Nations Statistical Commission

UNTWO: World Tourism Organisation

VAT: Value Added Tax

WB: World Bank

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07: tables

