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Methodological manual on the design and implementation of surveys on inbound tourism

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METHODOLOGICAL MANUAL ON THE DESIGN AND IMPLEMENTATION OF SURVEYS ON INBOUND TOURISM

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FOREWORD

Since 1990 the European Council (Decision 90/655) has stressed the need to establish a Community reference framework for the compilation of tourism statistics, by harmonising the concepts and methods used by Member States. The main objectives of the action, which was developed during the two-year programme 1991-92, were to analyse and evaluate long-term users' needs, to collect and distribute existing data on tourism, to analyse the collection methods used by Member States and by international organisations (OECD, WTO, UN, etc.) and, finally, to prepare a Community methodological manual for the compilation of Community tourism statistics.

This led to the publication in 1998 of the Community Methodology on Tourism statistics and the development of Council Directive 95/57. The Directive aims at establishing an information system on tourism statistics at Community level. It allows for the collection, compilation, processing and transmission of harmonised Community statistical information on tourism demand and supply. Considering the demand side, the data to be collected relate to internal guest flows (domestic and inbound) in collective accommodation establishments and national tourism demand, i.e. domestic and outbound tourism.

Nevertheless, the analysis of inbound tourism to an area is increasingly important and complex all over Europe, in terms of both physical and economic impact. The increasing economic and political role of single regions inside each Member State points out the need to measure the volume and characteristics of tourism both within and from these areas.

Needs for information and the number of potential users of such data are growing rapidly. But in spite of a rising demand for an adequate information system on inbound tourism, able to provide reliable and up-to-date information on the distribution and concentration of tourist flows and on the tourism expenditure in an area, official statistics are usually limited and can only be partly integrated by using secondary data. Furthermore, the opening of borders inside the EU has transformed each of the Community countries into an open region, thus preventing administrations from recording arriving and departing visitors between them.

The *Methodological Manual on the design and implementation of surveys on inbound tourism* represents a comprehensive document for the collection and processing of comparable statistics on inbound tourism, coherent with the Community Methodology on Tourism Statistics and the Council Directive on Tourism Statistics.

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CONTENTS

PART I

THE REFERENCE MANUAL

1. Introduction

The crucial importance of collecting homogeneous statistical data on tourism demand and supply at national and international level is generally acknowledged. The Council Directive 95/57 takes the establishment of an information system on tourism statistics at Community level a step forward. On the demand side data collection includes:

1. internal guest flows (domestic and international) in collective accommodation establishments;
2. national tourism demand, i.e. domestic and outbound tourism.

For internal tourism, only the volume of arrivals and nights of residents and non-residents in accommodation establishments is to be recorded, while there are no indications about the collection of information on visitor and trip characteristics and on visitor's consumption behaviour. This data is only to be collected for outbound tourism.
On the other hand, if a quite detailed analysis of national tourism demand — and specifically of outbound demand — may be obtained from the data collected through the Directive, volume and characteristics of inbound tourism should be derived by summing outbound flows to that country recorded by each origin country.
Furthermore, the geographical breakdown of data both at national and regional NUTS II level is only required in counting the total volume of inbound tourist flows (number of trips and nights), while it is not mentioned in the collection of qualitative information, such as the characteristics of trip (length of stay, mode of transport used, etc.), on outbound flows.

Considering the fact that inbound tourism analysis is increasingly important, this methodological manual constitutes a basic document giving practical guidelines on the collection and processing of comparable statistics on inbound tourism, coherent with the recommendations of the EC Directive.
Before focussing on the Manual contents, a basic analysis and understanding of inbound tourism to an area requires the following four topics to be developed:

1. Quantitative and qualitative analysis of total visitors' flows: tourists and same-day visitors

Just considering the volume of visitor flows, current official statistics count overnight tourists, but omit same-day visitors. In the cases when the counting of same-day visits is carried out, the evaluation is generally rough and non-systematic and is obtained by using non-homogeneous methodologies, so that the results are not comparable with similar estimates. The rising economic, social and environmental impact of same-day visitors on European tourist destinations, and the feeling that they cause common problems in highly-frequented sites, point out the need to promote a network between local bodies entrusted to analyse and estimate such phenomenon. The co-operation should be based on a common set of recommendations and methodologies that can ensure homogeneous and comparable results and give answers to questions like "Are there enough common problems in highly-frequented sites to enable us to tackle them in a uniform and co-ordinated manner? Do these problems fall within the same context in all the major sites? Should common solutions be pinpointed?"

2. Analysis of tourism consumption behaviour and of tourist expenditure pattern

The centrality of tourist in different fields of research explains why the most common statistics on tourism demand, those founded on the definition of arrivals (at borders or at accommodation establishments) and nights, are traditionally devoted only to measuring volume and characteristics of tourists. Such data, which is crucial for the estimation and analysis of tourist flows, is completely useless as indicators of the economic performances of tourism, especially if researchers are interested in comparing them with those of the other production sectors. To this end, the same variables used in evaluating the economic trend of other industries — such as production, revenue and employment — have to be taken into account. In that context, it is crucial to implement a data bank on tourist expenditure.

3. Economic impact of tourist expenditure estimate

It is generally acknowledged that travel and tourism is becoming the world's largest industry both in terms of turnover and employees. However, this belief frequently faces a careless, partial and discordant conceptualisation of the

identity and structure of this aggregate. The definition of its characteristics and performances is still inadequate if compared with its real importance.
Furthermore, the attention paid to its economic impact does not always go hand in hand with similar attention to the development of an integrated information system, able to show the complexity and the crosswise character of the tourism production, and adequate to the analysis of features and performances of the phenomenon seen as an industry. Improvements in this field come first of all from major accuracy and homogeneity of data collected at an international level. Such methodologies would provide a common solution to the following issues: a) the definition of "travel and tourism industry" and the estimate of the tourist product as a whole and by single items; b) the assessment of its total macroeconomic impact in terms of income, employment, balance of payments, and the best methodology to reach this aim.

4. Short-to-medium-term forecasts of tourist flows

Modelling and forecasting inbound tourist flows to an area is a crucial task. This information is very relevant to a large number of local public and private operators. Detailed information on the volume of arrivals in each tourist region would allow a more effective and efficient planning of public actions by regional authorities as well as of marketing strategies by hotels, travel agencies and local transport.

The *Reference Manual* focuses on the first two topics, which are crucial for any analysis on inbound tourism at any territorial level.

It concentrates on:
- the recording of inbound visitors to regions and to highly-frequented sites inside the same regions;
- the monitoring of visitor and trip characteristics (age, socio-economic status, destination, accommodation chosen, etc.);
- the study of consumption behaviour, expenditure items and economic impact.

In detail, the Manual aims at:
- providing complete guidelines for the collection of statistics on inbound tourism to regions, through the setting up of a flexible system of surveys which can be shaped according to researchers' needs;
- building a common logical and analytical framework which is able to collect and process information and variables on inbound tourism to regions;
- creating a homogeneous information system useful for managing inbound tourism at a regional level;
- facilitating the adoption and implementation of common international standards for definitions and classifications which apply to tourism statistics, developed by EUROSTAT and WTO;
- serving managers and professional users of tourism statistics at regional and local level;
- providing, for each destination country, a control system to check the total volume of inbound tourism flows obtained as a sum of outbound tourism flows collected by each origin country, according to the Directive principles.

Two further developments of the Manual would concern:

1. the arrangement of a simple PC software for the data input and the production of tables for the presentation of the surveys' results;
2. the arrangement of a methodological guide to integrate the information on inbound tourism collected through the system of surveys shown in the Manual and the data on domestic and outbound tourism gathered by following the recommendations of the EC Directive.

2. Users' needs of tourism statistics

The definition of the user groups of tourism statistics and the analysis of their needs play a crucial role in choosing the data to be collected and in planning an adequate methodology for the collection of such data.
As discussed above, tourism is a growing and complex phenomenon, strictly linked to national and international economic and social trends.
The collection of statistics on tourism is relatively recent, but its importance is now acknowledged by all organisations and individuals that are directly or indirectly involved in this industry.

Tourism statistics usually provide information on both supply and demand. Considering tourist demand, current official sources only present data on tourist flows (arrivals and nights) generally divided by nationality/country of residence and by accommodation establishment. Further information on tourist characteristics and consumption behaviour has generally to be collected through appropriate surveys. The same applies to the analysis of volume, characteristics and expenditure of same-day visitors, who are usually excluded from official statistics.
Due to the very nature of tourism, which by definition is an activity implying a high mobility rate, the general problems related to the implementation of a demand-side sample survey are even more difficult to overcome when dealing with tourists and same-day visitors. Furthermore, in spite of the fact that the major international organisations (EUROSTAT, OECD, WTO) have developed common international standards for definitions and classifications related to tourism statistics, there is still a lack of homogeneity in the data collection procedures used in different countries, both on the supply and the demand side.

2.1. The users

The heterogeneity of data is a real issue for a large number of public and private users of tourism statistics, such as organisations, professionals and statisticians. Among the most important ones, we can identify:

- **National and local administrations.** For these bodies, data on tourism supply and demand is usually of interest to a wide range of ministries and departments: that is not only tourism, but also transport, culture, environment, foreign trade, and many others. This information guides their policies and actions as well as their investments. It should be noted that national governments are generally more keen to measure inbound tourism rather than outbound tourism. Inbound tourism is seen, on one hand, as a source of revenue with a positive impact on the local economy and the balance of payments; on the other, as a source of public costs and, consequently, as a phenomenon to be carefully monitored and managed so as to prevent any negative effect from spreading.

- **National and regional tourism organisations** (based in the country and abroad). These organisations need data on inbound tourism to their area of interest in order to effectively plan their marketing and promotional strategies.

- **National and international economic operators** (accommodation establishments, restaurants, transport, tour operators, travel agencies, employers' associations, etc.). According to their activity, these operators may be interested in different kinds of data. For instance, a tour operator or a travel agency which specialises in outgoing tourism will be mainly interested in information about domestic tourists travelling abroad, whilst tour operators and travel agencies which specialise in incoming tourism will be mainly interested in data on inbound tourism to countries, areas or resorts they include in their catalogues. In both cases, the purpose of these operators is to have better knowledge of their target markets, so as to better focus their marketing activities.

- **National and international research institutes.** This category includes institutions such as research centres, universities and specialised schools. The needs of these users are usually the most complex among those of the categories taken into account, since the studies they carry out may be made on behalf of other bodies (e.g. national and local administrations, economic operators, etc.) or can have a purely scientific aim. In both cases, their needs may be related to any aspect of tourism, to any category of tourists and to any geographical area.

- **National and international sectors of activity related to tourism.** These sectors include all the operators who do not strictly belong to the tourism industry but who produce some goods and services which are also used by tourists: typically, banks (travellers' cheques, credit cards), insurance companies (travel insurance, luggage insurance), etc. As in the case of tourism enterprises, the purpose of these operators is to have more information on these target segments, so as to better focus their marketing activities.

- **Other national and international organisations**, such as consumers associations, media, WTO, OECD, EC organisations, etc. Also in this case, due to the variety of this category, the needs may be multifold.

- **Individuals**, such as statisticians, marketing managers, politicians, managers, researchers, students, journalists, teachers, advisors, etc.

As already mentioned, each user generally requires a specific kind of information, which may differ to that requested by other categories of users, according to their purposes and activities.

However, given the large variety of bodies and individuals directly and indirectly involved in tourism, there is a high chance that data collection on a specific topic may be of interest to many categories of users. For example, information on visitors' characteristics may be useful to tourism organisations as well as to economic operators and research institutes.

Before starting some research, the organisation of a meeting would therefore be advisable. There, all potential users interested in the study can exchange their views, the purpose being to arrange a common survey plan which satisfies the requirements of most users.

The creation of joint ventures or other types of co-operation agreements on a specific topic would allow each user to join economies of scale by reducing investment costs. The organisation of common research, rather than a number of separate data collections on the same subject, allows for expenses to be shared by a larger number of users taking part in it.

As will be discussed in Part II, costs are a crucial variable in deciding what information to be collected and how to collect it. Users' needs tend to be infinite when the cost of obtaining such information is not taken into account. It is therefore necessary to rate the data required on a priority scale, on the basis of which every user can distinguish between effective and potential needs.

The co-operation between different users also applies to data collections whose main purpose is not directly related to tourism: for instance, a survey undertaken by the ministry of immigration at entry/exit points of a country may be planned in a way so as to collect data also on tourists and same-day visitors.

2.2. The information

Users' needs for data on tourism in an area may cover both the supply and the demand side.
Supply-side data concerns both primary resources and the tourism industry as a whole. For the former, a census of total attractions in an area may be available. Furthermore, information on their carrying capacity and the optimum level of use is fundamental for an effective management of visitor flows. However, this is a very complex field of analysis which implies an estimate of "shadow prices".

Data on economic operators is easier to obtain, in that it may be derived by measuring some structural and economic indicators such as the number and capacity of accommodation establishments, the volume of turnover and costs, the number of employees, and other financial data on businesses related to tourism (restaurants, tour operators, travel agencies, renting of transport and equipment, transport services, retail businesses, congress and conference activities, non-profit oriented organisations, etc.). As far as collective accommodation establishments are concerned, information needs to be better integrated between different countries, and the EC Directive 95/57 gives precise instructions about which data to collect and how to collect it.

As far as **demand-side data** is concerned, users are generally interested in obtaining information on domestic and inbound tourism and, in detail, on both tourists and same-day visitors (basically, for leisure and business purposes).

For example, at present most countries put a high priority on measuring the number of visitors crossing their borders from abroad: such visitors are an important source of revenue for most national governments. They stimulate national and local economies in the country, contribute to the increase in the balance of payments assets, often provide needed foreign exchange and help finance amenities which can also be enjoyed by the country's citizens.

Apart from inbound visitors to a country, however, local organisations are interested in analysing inbound visitors (international and domestic) to a specific region, destination, attraction, etc. This information allows them to evaluate the economic, social and environmental impact of tourist flows in the area under study, giving evidence of the pressure that local resources are subjected to. Furthermore, it is also very useful to analyse the characteristics of both the visitors and the trip and to study their motivations and holiday behaviour. These

elements form the basis of suitable marketing strategies and management plans. Statistics on inbound visitors are used by public and private operators to develop market segmentations, to plan promotional campaigns and to evaluate the results of such campaigns.

In detail, demand-side data on inbound tourism mainly concerns:

- the volume of tourist flows (number of arrivals and nights);
- the volume and breakdown of tourist expenditure;
- the travel habits of tourists (e.g. accommodation, means of transport, destination, length of stay, etc.);
- the use of travel agencies and, consequently, the weight of "organised" tourism.

Another set of important variables includes the main reason for taking a holiday (e.g. relaxation, visiting friends and relatives, sport, health, culture, education, etc.), information on groups of visitors (e.g. number of people, age, composition of the travel party, etc.), the number and type of activities undertaken during the trip and the time of holiday planning.
Apart from direct data about supply and demand, user groups also need information about the trend of other indicators which in some way can influence the tourism demand, such as economic factors (changes in income, price levels, etc.), environmental factors (climate, pollution, etc.), demographic factors (family size, age, etc.) and major changes in transport infrastructures.

Another crucial data set, especially for national and international public users, deals with the impact of tourism on local economy, and particularly on employment, import and exports, balance of payments, national income and taxation revenue.

Once the data to be used has been selected, users may also need a suitable method of data collection, with respect to: the timing and frequency of collection, the venue where the survey should be carried out, the statistical unit of reference, the questionnaire, etc. About the frequency, the importance of having yearly data both on tourism supply and demand is generally recognised. However, some users may need to record monthly, quarterly, seasonal or six-monthly data for the most crucial variables. As for the geographical level of data collection, most national users need at least national and regional data, while international organisations are also interested in data on composite supranational regions such as the EC, the Mediterranean region, Eastern Europe etc.

If some of the data mentioned above is available from official sources, the collection of the rest implies the organisation of specific surveys on visitor flows.
As already discussed, the needs of all potential users may be very composite. For example, information on inbound tourism in an area represent only a part of the total information needed by private and public operators, which may include also data on outbound flows, on tourism supply and on exogenous variables which may influence the evolution of tourism demand.
The creation of a homogeneous and flexible information system on tourism is therefore necessary in order to provide each user with an effective tool of analysis. In accordance with these considerations, the Manual aims at being a simple but complete tool for collecting the data on tourism demand needed by most users.

3. The Reference Manual. Aims and structure

The *Methodological manual on the design and implementation of surveys on inbound tourism* provides complete guidelines for the collection of statistics on inbound tourism — both in quantitative and qualitative terms (visitor flows, visitor and trip characteristics, consumption behaviour) — in an area (closed or open), through a flexible system of surveys shaped according to the researchers' needs.
The aim is to build a common logical and analytical framework which is able to collect and to process information and variables on inbound tourism. This framework is of primary importance for the creation of a homogeneous informative system at European level useful for inbound tourism management.

The Manual is thought to guarantee the integration of different experiences carried out in Europe and in the countries of the Mediterranean basin, and to facilitate the adoption and the implementation of the common

international standards for definitions and classifications which apply to tourism statistics, developed by EUROSTAT and WTO.
It is meant to serve tourist survey managers of E.U. countries and professional users of tourist statistics at any territorial level.

Difficulties in implementing such a common system of surveys come first of all from the **type** and the **size** of the area where the information should be collected and from the kind of data to be collected.

Considering, for example, a **closed area**, there are three types of area according to whose borders we take into account:

- *political* borders: e.g., a country;
- *geographical* borders: e.g., an island;
- a*rtificial* or *administrative* borders: a museum, a theme park, an archaeological area, etc.

For an **open area**, this can be:
- a macro-region;
- a region;
- a single tourist destination (e.g. a city) or tourist site (e.g. a monument).

The **size** of the area can be considered both in:

- *geographical terms*, as the width of the territory under study;
- *tourist and economic terms*, as the volume of tourist flows and consequently the tourist pressure which interests the area.

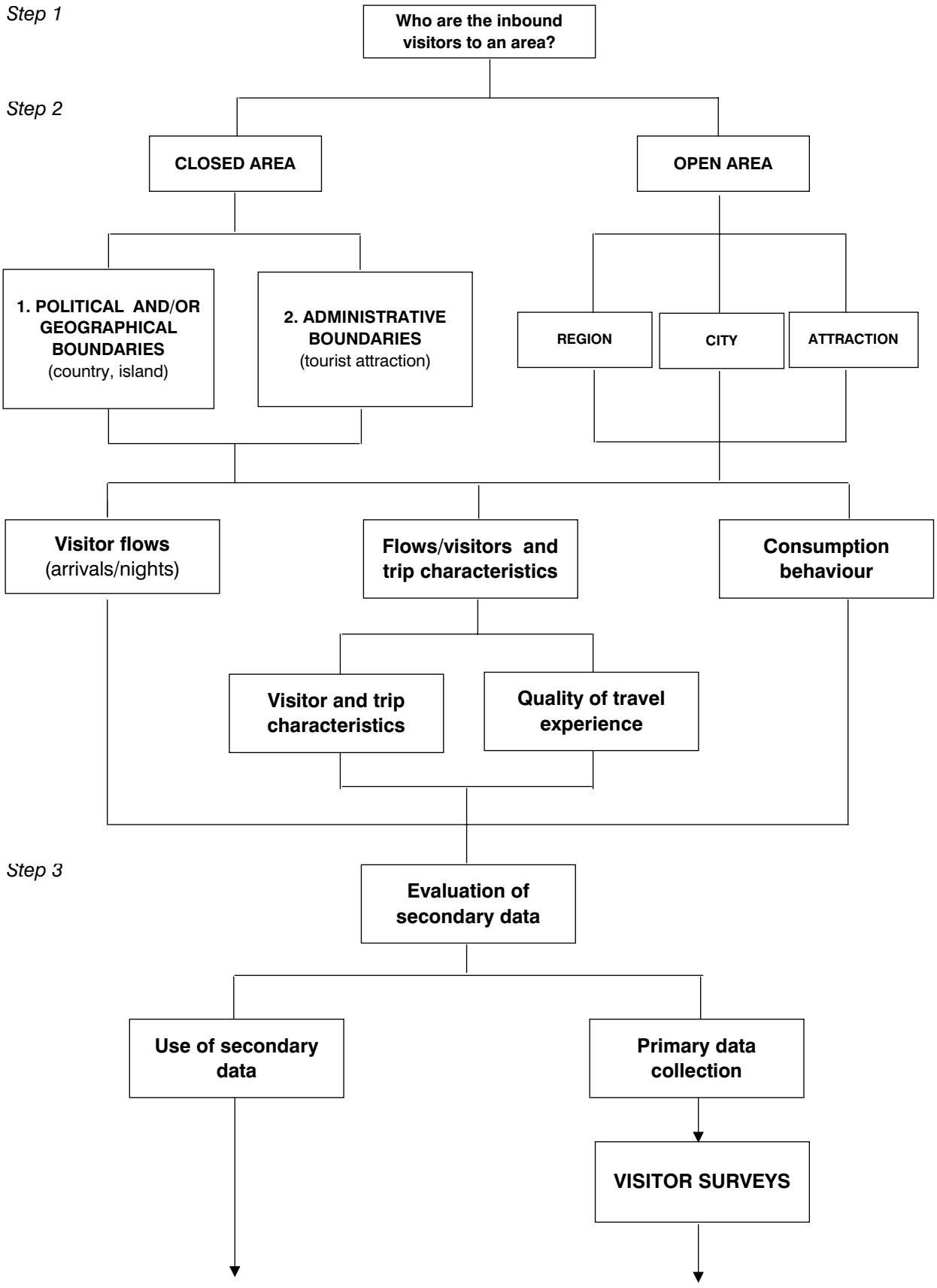
For example, a small area may host a large number of tourists, while a wide territory may be affected by a low volume of tourist flows.

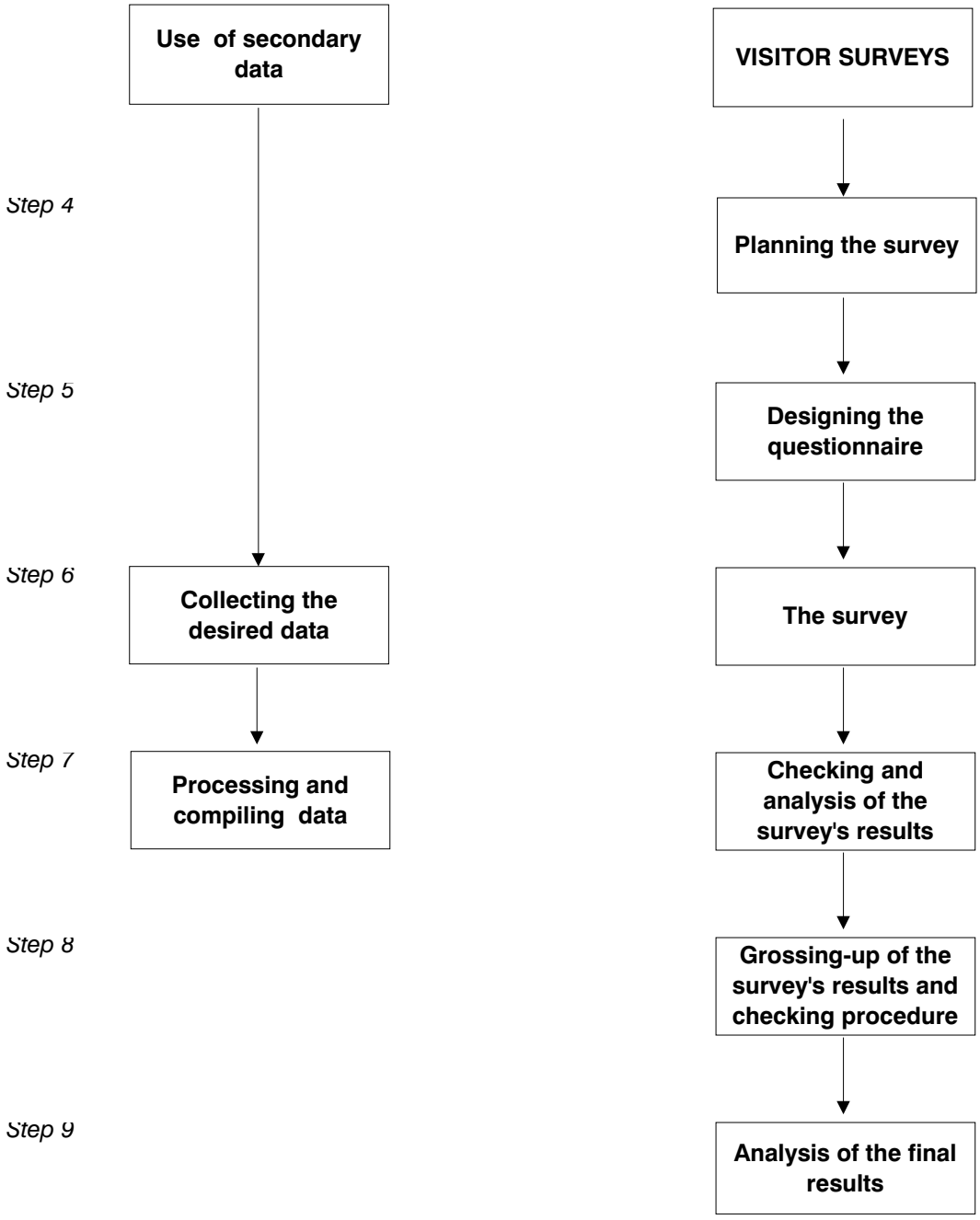
With reference to the information which has to be collected for economic, marketing and promotional purposes, the researchers may be interested in:

- *counting inbound visitors* (tourists/same-day visitors);
- *counting inbound visitors* and monitoring the *characteristics of the visitor and the trip* (age, socio-economic status, destination, means of transport used, etc.);
- studying the *consumption behaviour* and the visitor's expenditure items.

In this context, it is important to evaluate not only **tourists** staying overnight in the area under study, but also **same-day visitors**. They have a different impact — both in economic, environmental and social terms — on the local economy. The monitoring of these two kinds of visitors influences the choice of the survey to be carried out and its organisation.
Chart 1 shows the logical research process which is analytically explained by the Manual.

Chart 1 - Inbound tourism statistics collection. The research process





3.1. Main characteristics

The main features of the Manual are:

- **To be strongly tutorial and user-friendly**
  As shown in Chart 1, the research process is structured in nine steps in order to drive the user through the different phases which characterise the collection and elaboration of inbound tourism statistics: from the definition of the data needs (Steps 1 and 2) and the survey plan (Step 4) to the analysis of the final results (Step 9). The Manual is written in simple language so as to be easily accessible both to statistical experts and researchers and to professional users who do not feel at home with the collection of statistics.

- **To be arranged for informatisation**
  Although the Manual has been built for a paper print, the language and the layout have been planned bearing in mind also the typical structure of a hypertext.

The hypertext includes the creation of a number of tutorial windows which have both an informative and a practical function. They help the user to better understand concepts and definitions and provide him/her with useful suggestions for the questionnaire design.
In the first case, by clicking on the key-word representing these concepts, the user may open a number of windows which refer to EUROSTAT standard definitions and classifications included in Appendix A (identified with *(E)*) or, where they are not available, to WTO definitions (identified with *(W)*) or, if not specified, to statistical concepts related to tourism or to other issues discussed in the Manual. For example, if we are talking about *same-day visitors*, the EUROSTAT standard definition for same-day visitors will appear.
As far as the questionnaire design is concerned (see Appendix B), by clicking on the variable to be measured a window appears which contains an example on how the corresponding question may be expressed. For example, considering the trip characteristics, if the researcher wants to measure the number of persons in the travel party, the corresponding question may be: "How many members are in your travel party, including yourself?".

However, the paper version of the Manual represents the fundamental basis for the arrangement of the informatic framework.

- **To be practical and operative**
  For each step shown in Chart 1, the Manual combines theory with useful instructions for translating theory into practice.
  For example, considering the *survey plan* (Step 4), the Manual shows how to organise the different persons and bodies involved in the survey and how to train the interviewers.
  For the *questionnaire design* (Step 5), it shows how to produce a questionnaire, the different typologies of questions (key-questions, optional questions and basic questions) to be used and how to express them. Appendix B includes a list of variables useful for collecting information on visitors and some examples of questionnaires, according to the combination visitor-area chosen.
  As far as the *checking and analysis of survey's results* is concerned (Step 7), the user is led through the review of responses, the data input and the production of the tables for the presentation of the survey's results.

- **To be extremely flexible**
  The Manual presents a modular structure permitting the choice of the most suitable path according to the specific information needed and the type and size of the area to be monitored, within the suggested general system of surveys.

3.2. A general overview

As discussed above, the purpose of the Manual to be strongly tutorial and practical has prompted us to divide it into four main parts.

Part I describes the aims of the research and the characteristics of the Reference Manual. In detail, it analyses:

- the general structure of tourism statistics: available and lacking information;
- the final users of tourism statistics and their needs;
- the structure and the characteristics of the Manual.

Part II shows the general research process implemented for the collection of inbound tourism statistics. There are nine fundamental steps a researcher has to follow carefully in order to obtain reliable data on the visitors' characteristics and consumption behaviour, which are crucial for planning suitable marketing strategies and policies.

In detail:

- *Step 1* defines the object of the analysis: inbound visitors as a whole; inbound visitors as the sum of tourists and same-day visitors; inbound tourists or inbound same-day visitors only. The choice influences the kind of information to be collected and thus the kind of primary data collection to be implemented.

- *Step 2* specifies the data needs. It identifies the pattern of the area in which the analysis has to be carried out (closed or open) and the information needed (visitors flows, visitors and trip characteristics, visitors consumption behaviour).
- *Step 3* stresses the importance of checking the existence of secondary data before undertaking any collection of data. If none of the existing sources prove adequate to the interests of the researchers, it is advisable to gather primary information through a sample survey of inbound visitors.
- *Step 4* describes the different phases which characterises the survey plan, that are: the choice of the survey venue; the sampling design; the definition of the survey organisation structure; the choice of the survey period and the organisation of the interviews.
- *Step 5* deals with the questionnaire design. It provides instructions for asking questions, designing the forms, specifying answer coding and planning the editing.
- *Step 6* defines how to plan the pilot survey and the final survey, to monitor the interview process and to collect the questionnaires.
- *Step 7* shows how to review responses, to solve some problems which can invalidate the survey's results (e.g. non-response), and to process and analyse the data.
- *Step 8* provides the grossing-up methodology for balancing the sample and expanding the sample's results up to the population. It includes a checking of data available from other sources.
- *Step 9* explains how to proceed to a thorough evaluation of the final results.

Parts III and IV deepen the analysis of the methodology for the collection of inbound tourism statistics, with specific reference to a **closed area** and to an **open area**. Their organisation follows the same logical process described in Part II. For each step, only the different procedures that should be applied to the two cases are specified (e.g. the sampling selection method, etc.). On the other hand, for common procedures which can be implemented in both cases (e.g. the interviewers' training) the reference is Part II.

Appendix A includes a glossary of terms and a number of classifications, coherent with EUROSTAT definitions, that has to be used for the questionnaire design. They represent the paper version of the tutorial windows provided in the hypertext.

Appendix B includes four charts providing, for each combination visitor-area and for each type of survey, the variables useful for collecting the required data. Such data are used for segmenting the tourism market, choosing target market segments and/or measuring the impact of visitor flows on local economies. In each chart, variables are grouped in four forms, according to the main categories of information on inbound visitors usually collected through a survey:

- the *visitor characteristics* (country of residence, age, socio-economic status, etc.);
- the *trip characteristics* (package tour or not, main purpose, means of transport, etc.);
- *opinions and impressions on trip*;
- *expenditure behaviour*.

Every questionnaire may be composed of a combination of two or more forms and each of them can be more or less detailed, considering the number of questions (variables) included. In each form, two levels of questions are shown: *key* or *basic questions* and *optional questions*. Some basic questions may become optional questions and vice versa, according to the information needed.

For each chart an example of the corresponding questionnaire (produced using basic questions only) is included.

As discussed above, the informatic version of the questionnaire is arranged in a way that just by clicking on the variable to be measured a window appears which contains an example on how the corresponding question may be expressed.

PART II

INBOUND TOURISM STATISTICS COLLECTION. THE RESEARCH PROCESS

Most countries put a high priority on measuring the number of visitors crossing their borders from abroad, i.e. international flows or, in other words, inbound movement. Such visitors are an important source of revenue for most national governments. They stimulate national and local economies in the country, contribute to the increase of the Balance of Payments assets, often provide needed foreign exchange and help finance amenities which can also be enjoyed by the country's citizens.

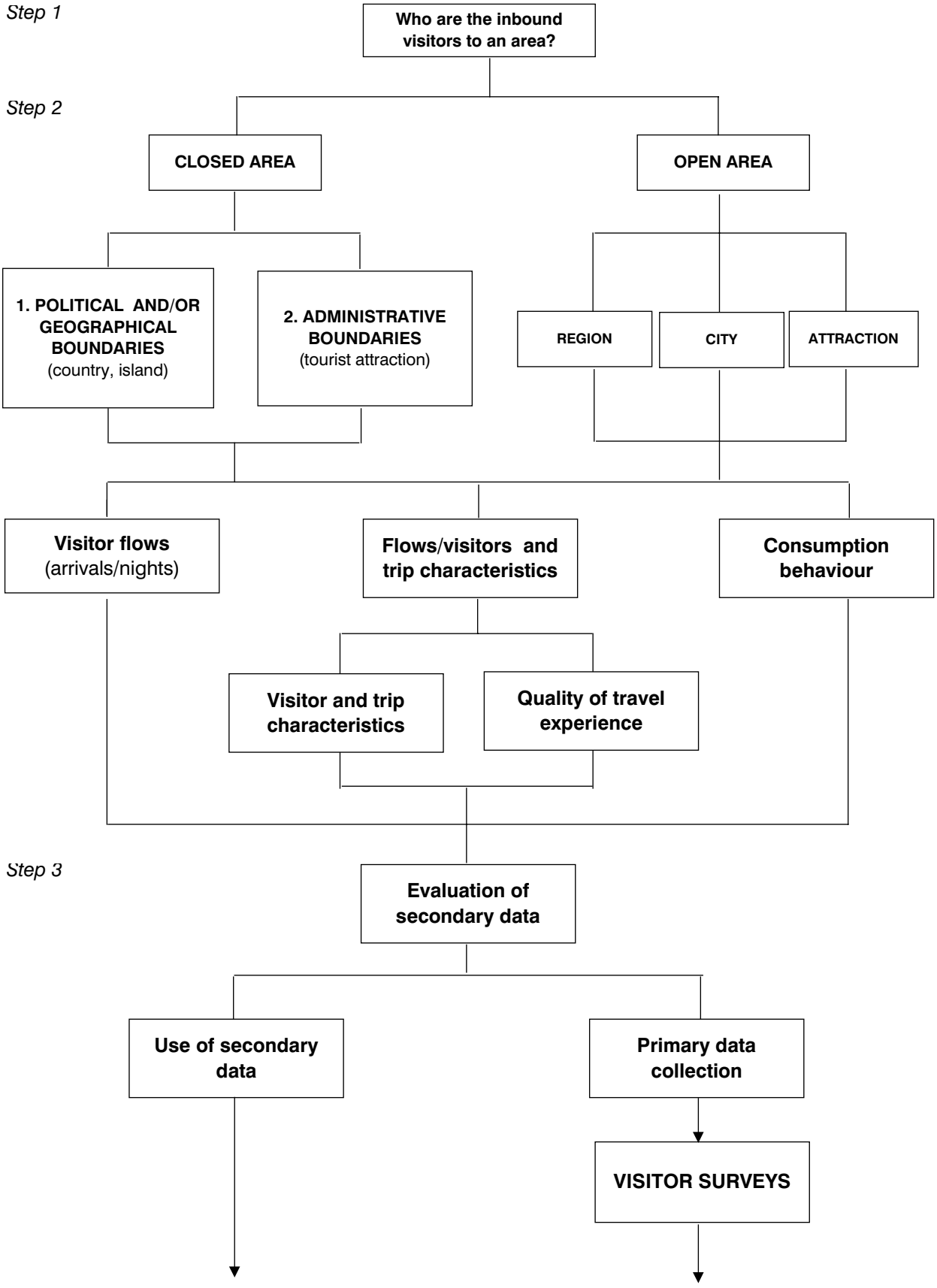
But it could be interesting to measure the inbound visitors (international and domestic) for a specific area, region, destination, attraction, etc. inside a country as well.

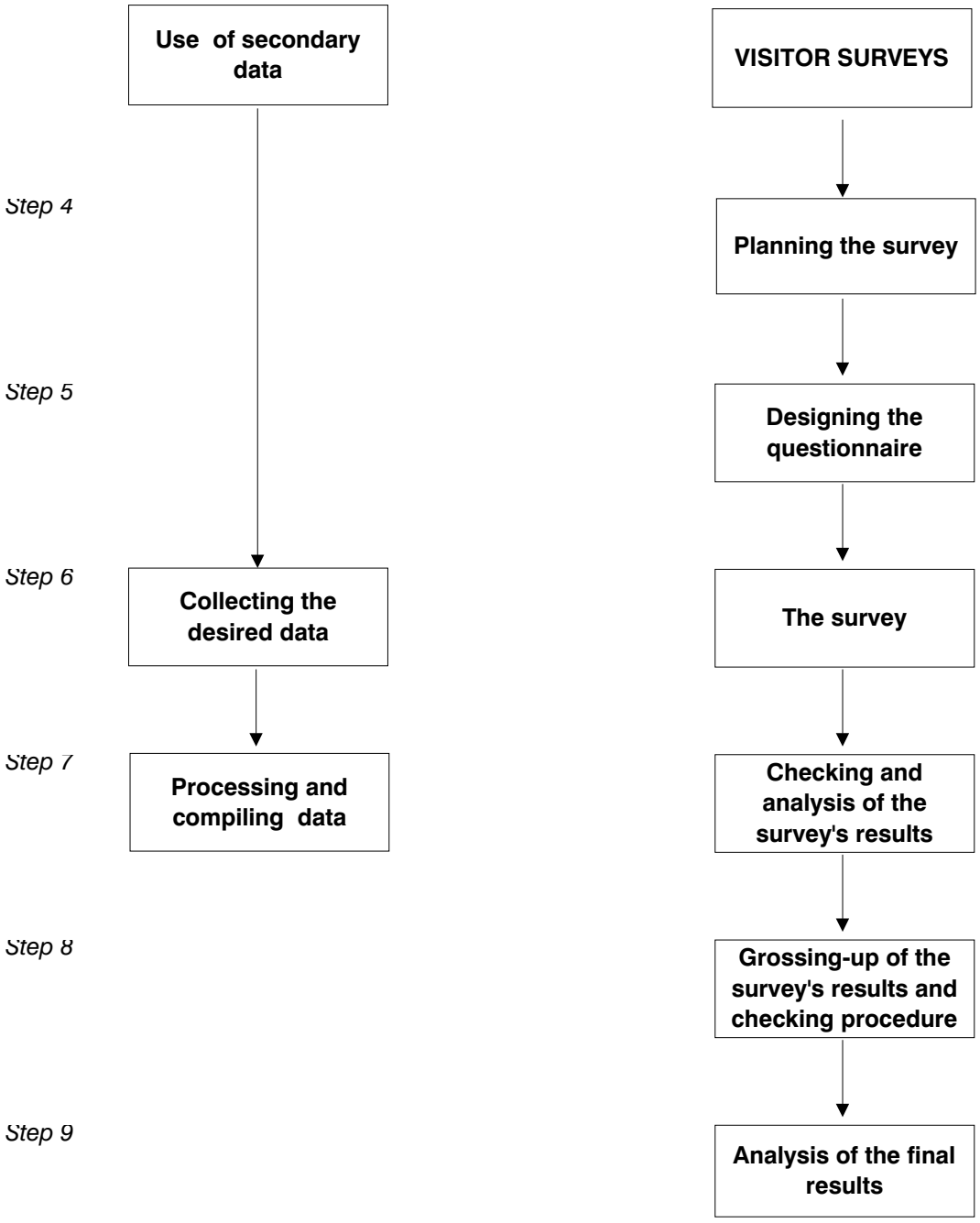
The information collected allows us to evaluate the economic, social and environmental impact of tourist flows in the area under study. It gives evidence of the pressure that local resources are subjected to and, consequently, suggests the best management and promotional strategies which may be adopted.

Generally speaking, the information about inbound tourism is crucial not only in estimating foreign exchange earnings, the balance of international payments and, in general, the economic impact of those visitors. It is also very useful in analysing the characteristics of both the visitors and the trip and studying their motivations and holiday behaviour. These elements are at the basis of suitable marketing strategies and management plans; statistics on inbound visitors are normally used to develop market segmentations, to design promotional campaigns and to evaluate these campaigns.

Chart 1 presents the logical and sequential process to be followed for collecting and compiling statistics on inbound visitors.

Chart 1 - Inbound tourism statistics collection. The research process




Use of secondary data
VISITOR SURVEYS
Step 4
Planning the survey
Step 5
Designing the questionnaire
Step 6
Collecting the desired data
The survey
Step 7
Processing and compiling data
Checking and analysis of the survey's results
Step 8
Grossing-up of the survey's results and checking procedure
Step 9
Analysis of the final results

1. Inbound visitors to an area. The main issue

Step 1

Who are the inbound visitors to an area?

Before starting any analysis on inbound visitors, it is necessary to define the purpose of the analysis.
For example, researchers may be interested in measuring and describing all international visitors entering a country or all visitors (international and domestic) going into a region, a city, a tourist site, etc.
Given the area, they can analyse:

- inbound visitors as a whole;
- inbound visitors as the sum of tourists and same-day visitors;
- inbound tourists or inbound same-day visitors only.

The choice influences the kind of information to be collected and, consequently, the kind of primary data collection to be implemented.

The aim is to carry out a method for the collection of inbound tourism statistics which is consistent with the recommendations of the European Council Directive 95/57 on the collection of statistical information in the field of tourism. According to the Directive "the collection of data on tourism demand shall cover national tourism, i.e. domestic tourism and outbound tourism" (art. 2). Since outbound statistics collected by country X record tourist flows provided by residents in country X travelling abroad, the volume of country X's tourist flows recorded by each country of destination has to be comparable with the counts made in each origin country. Considering the difficulty of doing this in a consistent way, it may be necessary to plan a procedure for the collection of inbound tourism statistics which is able, on the one hand, to ensure homogeneity of international flow statistics, whilst on the other hand, to complete the analysis when it must be carried out at different territorial levels.

But who is the visitor? What are the differences between an inbound international visitor and an inbound domestic visitor?

Who is the tourist? What are the differences between an inbound international tourist and an inbound domestic tourist?

Who is the same-day visitor? What are the differences between an international same-day visitor and an inbound domestic same-day visitor?

1.1. Definitions

According to the Eurostat definitions, we can define:

VISITOR

Any person travelling to a place other than that of his/her usual environment for less than twelve consecutive months and whose main purpose of travel is other than the exercise of an activity remunerated from within the place visited.

Inbound international visitor

A visitor travelling to a place outside his/her country of residence.

Inbound domestic visitor

A visitor travelling to a place inside his/her country of residence but outside his/her usual environment.

OVERNIGHT VISITOR or TOURIST

Visitor who stays at least one night in collective or private accommodation in the place or country visited (overnight visitor).

Inbound international tourist

A tourist who overnights in a place outside his/her country of residence.

Inbound domestic tourist

A tourist who overnights in a place inside his/her country of residence but outside his/her usual environment.

SAME-DAY VISITOR

A visitor who does not spend the night in collective or private accommodation in the place or country visited.

Inbound international same-day visitor

A same-day visitor who does not spend the night in the place visited, which is outside his/her country of residence.

Inbound domestic same-day visitor

A visitor who does not spend the night in the place visited, which is inside his/her country of residence but outside his/her usual environment.

As far as inbound international visitors and tourists are concerned, it is very important to count separately the 'ethnic' flows of the ***emigrants*** who return to their native countries for holidays.

They have to be registered separately because the characteristics of their trip (means of accommodation chosen, means of transport used, places visited, etc.) and their consumption behaviour are, generally, different from those of visitors and tourists native to other countries.

Furthermore, for inbound (international and domestic) visitors it is necessary to evaluate **same-day visitors** as well as **tourists** staying overnight in the area under study. Given their characteristics and consumption behaviour, they have a different impact — both in economic, environmental and social terms — on the local economy.

As far as ***same-day visitors*** are concerned, there are at least four different types of visitors to be taken into account according to the place they leave from and return to:

- ***True same-day visitor***, describing those who visit the tourist destination during the day leaving from and returning to their usual place of residence, inside the country or abroad. For example, a family living in Orlando (Florida) who visit Disneyland on Sunday and go back home on Sunday night (domestic) or a family living in San Diego who spend Sunday in Tijuana (Mexico).

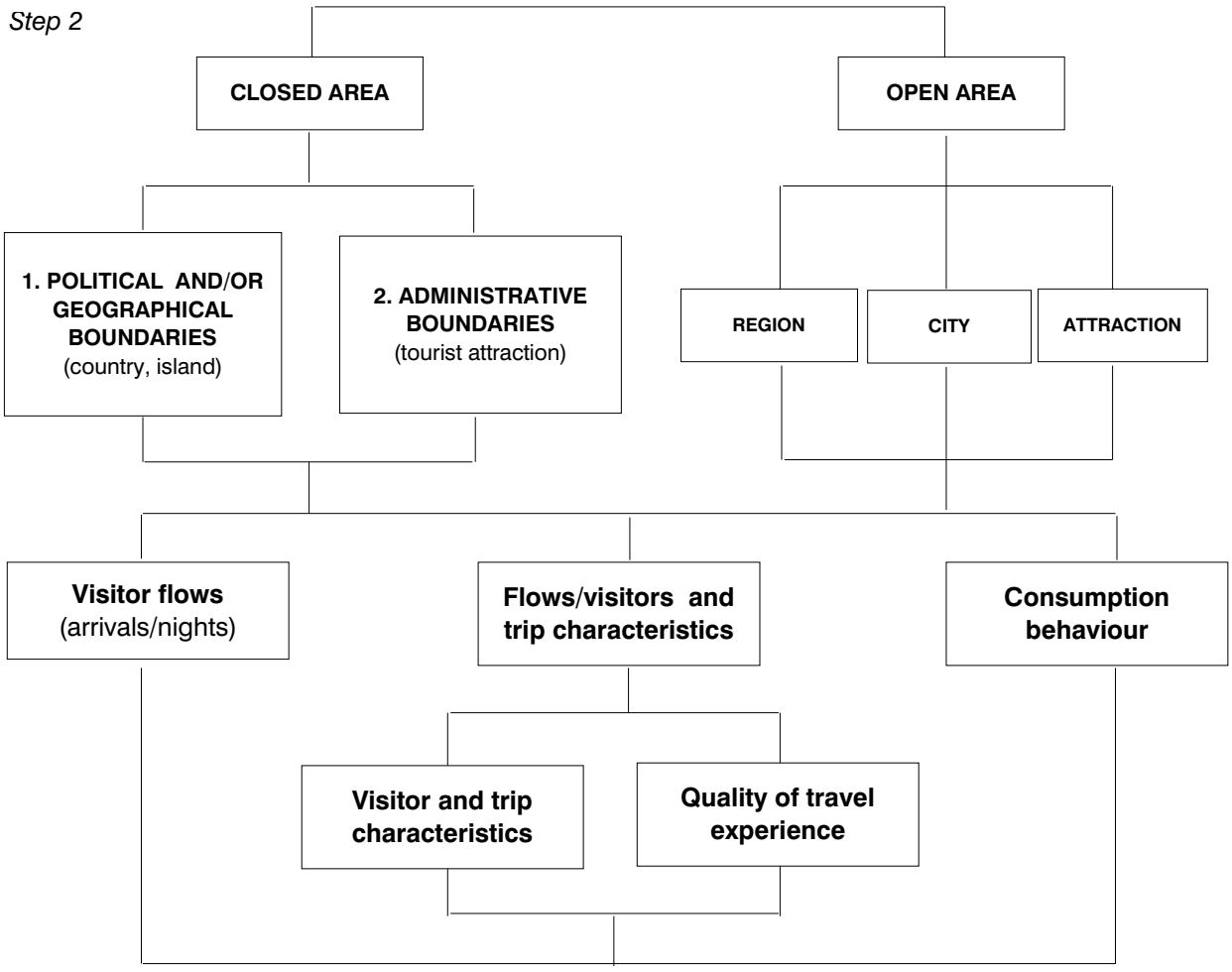
- ***Indirect same-day visitor***, describing those who visit the tourist destination leaving from and returning to (round trip) the same vacation site, where they are counted as overnight visitors. For example, a family who is spending the holiday in Palm Beach, near Miami, and decide to visit Disneyland or a family who is on vacation in San Diego and decide to spend a day (and not the night) in Mexico.

- ***In transit same-day visitor***, where those visiting the tourist destination leave from a (residence or vacation) site different from the (residence or vacation) site towards which they are directed, inside the same country or abroad. The visit may be a stopover as part of transit travel. For example, a group of friends making a tour of Florida and decides to visit Disneyland on their way from Jacksonville to Miami.

- ***False same-day visitor***, where visitors with a specific tourist destination as their principal vacation objective are lodging in the neighbourhood or in the surrounding area, either due to insufficient supply in the main destination or, more likely, to save money. For example, a couple of tourists whose main destination is Paris but who spend the night in St. Denis, which is in the Paris surroundings.

A different definition of tourist region corresponds to each type of same-day visitor, which is the different-sized area from which the visitor originates. In this area, tourist receipts and generally the economic, social and environmental impact that tourism generates depend strictly on the proximity to the main destination (see Step 9). The definition of the tourist area is very important for planning co-ordinated management policies and strategies.

2. Specification of data needs. The area and the information



When specifying the data needs, the researcher has to ask him/herself some questions which reflect the problems he/she will have to face in the research process:

The questions

⇒ What type of data are required and in how much detail?
⇒ Are the required data already available?
⇒ Can the data be obtained by putting statistics from current collections together?
⇒ Which surveys/collections that are already being carried out could be used to collect the required data?
⇒ What are the available financial and manpower resources?

⇒ What is the scope for compromise on data coverage, detail and quality?

These are the main issues which should be considered before the selection of the appropriate statistical collection methodology to be used.
The recommendations of the European Council Directive outline that the collection should "ensure that the results meet the necessary minimum accuracy requirements", and that "Member States shall take whatever measures they deem appropriate to maintain the quality and comparability of the results" (art. 4).

2.1. The area

Once the object of the analysis has been defined, it is necessary to identify the pattern of the area (closed or open; large or small) in which the analysis has to be carried out and the information to be collected.

Considering a **closed area**, there are three types of boundaries which define three different types of areas:

- *political* boundaries: e.g., a country;
- *geographical* boundaries: e.g., an island;
- a*rtificial* or *administrative* boundaries: a museum, a theme park, an archaeological area, etc. In this case, there is a control mechanism for entry and visitors have to pay a ticket for admission.

Considering an **open area**, this can be:

- a *macro-region*: e.g., Northern France;
- a *region*: e.g. the Ile de France (which includes Paris);
- a *tourist destination*: e.g. a town, a monument. Here there is not any sort of control mechanism and the persons visiting the site have to be counted physically.

As you can see in the following Chapter, different problems in the collection of tourism statistics may arise according not only to the *type* but also to the *size* of the area under study. You can deal with, for example, a large closed area (a country) or a small closed area (an island), or you can choose to analyse visitor characteristics and consumption behaviour in a large open area (a macro region) or in a small open area (a tourist attraction).

Generally speaking, in the case of a closed or open tourist attraction, the analysis allows you to evaluate visitor flows as representative of the tourist pressure both on the tourist site and on the surrounding area (e.g. the city in which it is located).

Furthermore, it should be taken into account that **size** may be considered both in:

- *geographical terms*, as the width of the territory under study;
- *tourist and economic terms*, as the volume of tourist flows and consequently the tourist pressure which affects the area.

For example, an important tourist attraction with a control mechanism for entry (e.g. the Louvre Museum in Paris), may be considered a small closed area in geographical terms, as the space it occupies is limited. But since it hosts a large amount of visitors every year (e.g., let's suppose that almost 80% of tourists who visit Paris also visit the Louvre), it can be considered a large closed area in tourist and economic terms.

2.2. The information

As far as the information which has to be collected for economic, marketing and promotional purposes is concerned, the researchers may be interested in:

- counting inbound visitors (tourists/same-day visitors);

- counting inbound visitors and monitoring the characteristics of the visitor and the trip (age, socio-economic status, destination, means of transport used, etc.). At this stage, it can also be useful to evaluate the quality of the travel experience and consequently the level of satisfaction experienced by each visitor;
- studying consumption behaviour and the visitor's expenditure items.

2.2.1. Visitors flows

Counting visitors is useful if you only want to know the volume of people who visit the country or the area. In terms of cost-efficiency, it is not worth carrying out a specific survey just for this aim. So, it would be better to use secondary data provided by other sources.
In general, this counting is usually part of a more complex analysis of visitors (at entry/exit points or at popular tourist attractions); it is generally used in the grossing-up process or it would be aimed at quantifying the 'physical' tourist pressure in specific places (see Chapter 4).

2.2.2. Visitor and trip characteristics

Socio-economic data describing visitors are crucial for determining which segments of the visitor market are currently travelling to a country or, more generally, to an area. Studying the visitor and the trip characteristics, the visitors' opinions on the quality of the travel experience, his/her impressions of the area visited and the services offered is very important for public and private operators. Such data can suggest the optimal marketing mix to be used — advertising, public relations, personal selling and other promotional tools —, to attract more visitors of the same segment or to stimulate a differentiation in the demand. More generally, this information is fundamental for planning suitable policies for the management of demand and for the control and marketing of the supply.

The researcher has to choose the most important information on the visitor and the trip that helps him/her achieve the objectives of the survey (see Appendix A).

2.2.3. Visitor's consumption behaviour and economic impact

In addition, the National Tourist Administrations and their regional and local counterparts may be interested in measuring the expenses made by visitors and their impact on the national, regional or local economy. This evaluation allows them to estimate the tourism receipts and to focus on the target segments that return the highest net economic benefits to the residents of the area. These latter markets are the most profitable for the NTA or for other public organisations to seek to attract with marketing programs.

An important distinction has to be made between domestic and international tourist expenses.

The economic importance of *international inbound tourism expenditure* comes from the fact that, being similar to exports to the destination country, it has to be added *in toto* to the residents' final demand. This leads to the study of the expenditure behaviour of inbound international tourism as separate from that of domestic tourism.

Domestic inbound tourism expenditure denotes consumption made by domestic visitors inside the country of residence but outside their usual environment. It represents an increase in economic activity and a redistribution of national income. Thus, this expenditure includes two elements:

- an increase in production which would not otherwise have taken place;
- activities which would have taken place anyway, but which are transferred from one area (the origin area) to another (the destination area).

In many countries this latter element has the important effect of transferring income from richer areas of the country to less well-off areas.

The importance of collecting tourism expenditure statistics and the complexity of the collection procedure need a more in-depth description, which is given in the Annex at the end of this Chapter.

ANNEX TO CHAPTER 2
The collection of tourism expenditure

Definition

According to the literature available on this subject, the evaluation of the economic impact of tourism on the production system of a country starts from the analysis of the tourism expenditure behaviour of tourists on holiday in that country (demand-side approach).

The definition of tourism expenditure is closely linked to that of tourism consumption. *Tourism expenditure* is defined as "the total consumption expenditure made by a visitor or on behalf of a visitor for and during his/her trip and stay at the destination" (WTO, 1996). The word "destination" is construed broadly here to include any significant place visited on a trip. This definition presumes that:

1. the consumption of goods or services *may not necessarily* be by the visitor him/herself. While in most cases the consumption is by the visitor, in some cases the consumption is by a friend or relative, as in the case of a gift or a souvenir purchased by the visitor on the trip and given to someone else. This is the only exception to the general rule that the visitor must consume the product him/herself in order for it to be counted as tourism expenditure;
2. the expenditure *may not necessarily* be undertaken by the visitor him/herself. In the case of a group, such as a family, expenditure may be undertaken by one person, such as a parent, on behalf of another, such as a dependent child. The person undertaking the expenditure may or may not be accompanying the visitor. An example of the latter case is where the trip is being funded by the family in the case of a student on holiday alone, by the employer or some other body in the case of a business visitor.

Expenditure items and timing of collection

In general, before recording any visitor's expenditure, you have to take into account two important factors:

1. the *timing* of the expenditure, depending on whether these expenses are made in preparation for the trip, during the trip or after the trip;
2. the *items* which have to be included or excluded from tourism expenditure.

The various components making up tourism expenditure can be divided into three large groups:

- advance outlays necessary for the preparation and undertaking of the trip (*pre-trip expenditure*);
- expenses arising when travelling and at places visited (*on-trip expenditure*);
- travel-related outlays made in the country/place of residence after returning from a trip (*post-trip expenditure*).

Tourism expenditure is considered to occur at the time at which the visitor purchases a product, i.e. when he/she acquires legal title to the goods or, for lack of such a title, when a service is rendered.

Problems may arise when the visitor has purchased a package tour or international transportation from a tour operator or a company based in another country. In particular, he/she may apply to an operator which is resident abroad but has an office in the visitor's country of origin. For example, an English tourist who buys a package sold by the Nouvelles Frontieres' branch office in London.

According to the WTO, for the purchase of a package tour or international transportation to another country, the title is generally assumed to be acquired in the visitor's residence (origin) country.

Only those expenditures made on goods and services purchased for the trip but paid in advance ("pre-trip", e.g. transport, package tours, accommodation, travel insurance), and all the expenses met during the stay in the reference country ("on-trip") are of interest for studying the impact of travel on the national or local economy. There is no possibility of evaluating expenses made after the trip; the tourist cannot know the amount in advance or he/she can only provide a rough estimate.

However, it should be noted that the definition of international inbound tourism expenditure excludes pre-trip expenditures on goods and services received in the home country, or rather (considering international comparison purposes) it only includes those expenditures which represent a transfer of expenditure from one

economy (i.e., a country) to another. For example, it includes a package tour purchased before the trip in the origin country (which implies remittances from local travel agencies to tourist operators of the destination country), but excludes personal expenditures made by the visitor for the trip (e.g. the purchase of a tourist guide). For other research purposes, however, it may be necessary to collect all expenditures relating to the trip, including expenditures on goods and services received in the home country. Where this is required, this expenditure should be identified separately.

In recording expenditure items, it should be taken into account that the level of detail reached in the data collection may also be different according to the *point of time* at which the researcher records the visitor's expenditures. Specifically, the researcher may decide he wants to know:

1. *all the expenses* met by the visitor *before and during the trip*. In this case the registration has to take place at the end of the trip before going back home (for international inbound visitors) or even after the trip when going back home (for domestic inbound visitors only);
2. *all the expenses* met by the visitor *before the trip* and those made *from departure to the time of the registration*;
3. *all the expenses* met by the visitor *before the trip* and those made *the day before the registration* (average daily expenditure).

There are advantages and disadvantages to all three methods. The first two call for the visitor's remembering all the expenses he/she has met. However, the advantage is that the average and total expenditure can be calculated from a larger number of items. The last method, which asks the visitor to remember the expenditure made the day before, can be applied more easily, especially in an open area.

The concept of tourism consumption encompasses a wide variety of expenditure items, ranging from the purchase of goods and services inherent to travel and stay to the purchase of small durable goods for personal use, souvenirs and gifts for family and friends.

To make the definition of tourism expenditure operational, strict rules about which items should or should not be included must be drawn up. This, however, is not easy for a number of reasons:

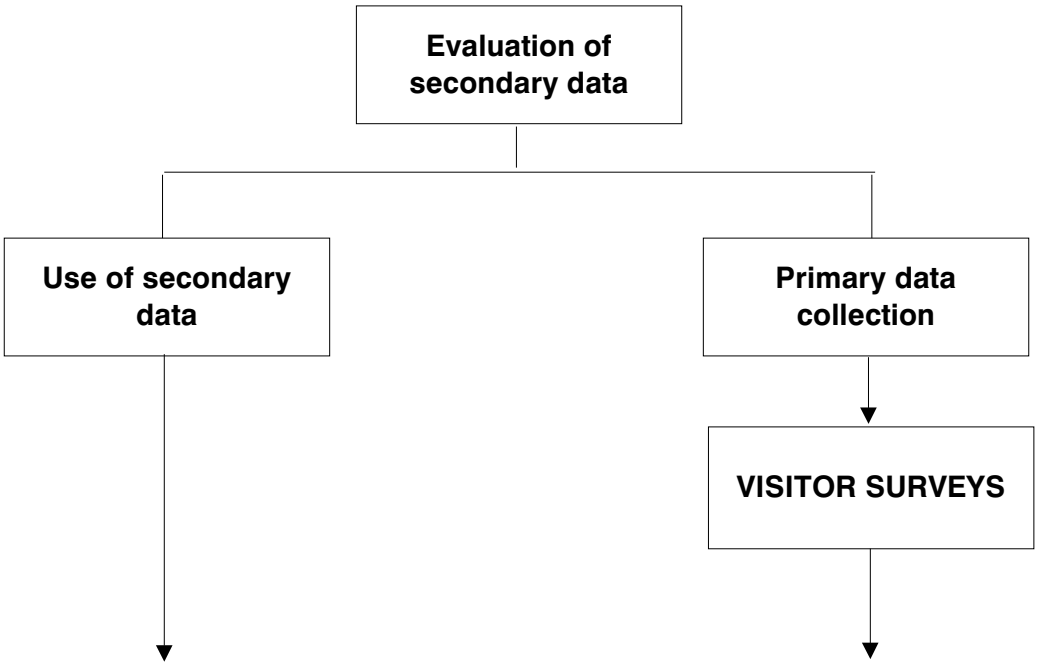
- the number and type of expenditures to be included in any particular collection may be influenced by the aims of the study. For example, the required scope may be different for someone collecting data to develop tourism economic accounts than for someone requiring market research information;
- strict rules about items' inclusion and exclusion would require the establishment of definitions which would involve some arbitrary distinctions;
- strict rules, covering all cases, would have to be highly complex;
- the rules may be too complex for respondents to be able to supply the data even when they understand them.

Given these difficulties, the best solution is to use existing international classifications (EUROSTAT and WTO) which outline a set of general guidelines able to minimise inconsistencies among collections and to ensure international comparability of data between countries.

Finally, other important elements to consider are the *means of payment* visitors use to purchase goods and services before, during and after the trip. The rapid growth of forms of payment alternative to currency (credit cards, traveller cheques, etc.) make the estimates carried out by the Central Bank more complex.

3. Choosing between secondary data and primary data collection

Step 3



Before undertaking any collection of data, it is essential to check whether the required data, or similar data, are already available. As stated in art. 5 of the European Council Directive, "Member States may, where appropriate, base the collection of the statistical information... on existing data, sources and systems".

The National Statistical Office and the National Tourism Administration are likely sources of such data. Other research agencies, e.g. universities and relevant international agencies, should also be investigated as possible sources.

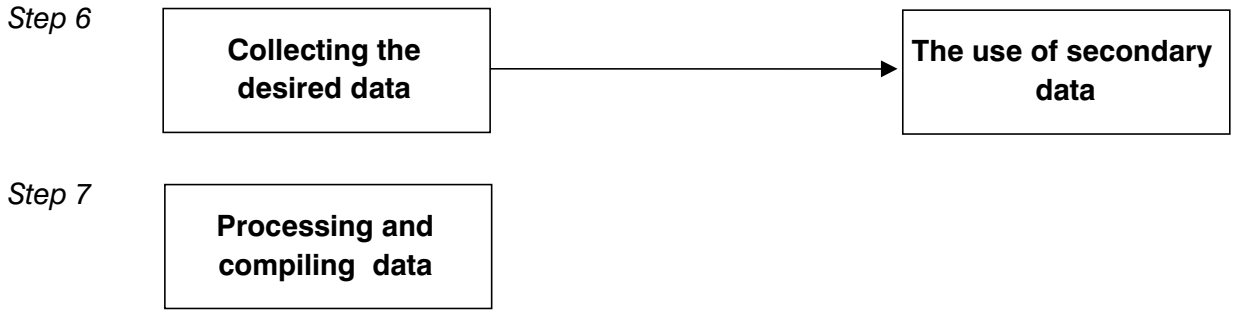
The general *advantages* of ***secondary data*** are that it is immediately available and at minimal cost.
The *disadvantages* are that:

1. such data usually provides limited and specific information, which often only partially matches the researcher's needs in that it is collected for purposes other than those for which he/she may use it;
2. there is no control over the coverage and quality of the data;
3. there is no control over the timing of the data;
4. the data may not be available in useful form, e.g. electronic database.

The most typical existing data available is:

- for a country, the information recorded by border control officials from the passports of departing or arriving inbound visitors for immigration control purposes, or collected through embarkation/disembarkation cards;
- for both a closed and an open area, the administrative and fiscal controls carried out at accommodation establishments;
- for a closed attraction, the counting of both free tickets and paid tickets (in some cases divided by category of visitor: e.g. students, retired persons, etc.), or the number of tolls or passenger taxes paid by visitors.

If the existing sources prove adequate to the interests of national and local authorities and operators, you can pass directly to Step 6 and collect the desired data, and then to Step 7 to process and compile it, following the same suggestions given in Paragraph 7.5.



If none of the existing sources proves adequate, then you will have to consider gathering primary data through a ***sample survey of inbound visitors***.
The main *advantages* of a sample survey are that it is specifically planned to provide all the information necessary for research purposes. If the general organisation of the survey (the survey plan, the questionnaire design, the checking and analysis of the survey's results, etc.) follow a specific and pre-coded methodology (see Steps 4 to 9), the information collected is usually reliable (compared to secondary data) and able to provide a valuable framework of visitor characteristics and consumption behaviour.

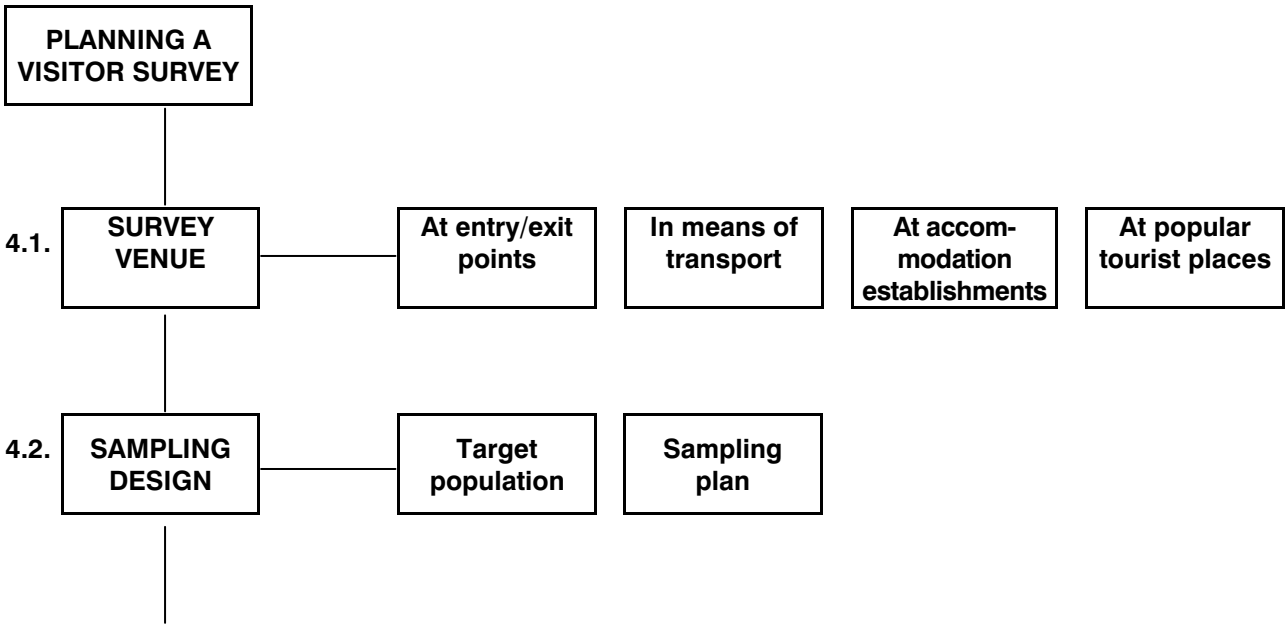
The *disadvantages* are that the survey is usually more expensive than using secondary data, in terms of money, staff and time. Given the target area and an acceptable level of data reliability, the researcher should choose from all the available alternatives the ones that allow the costs to be minimised.

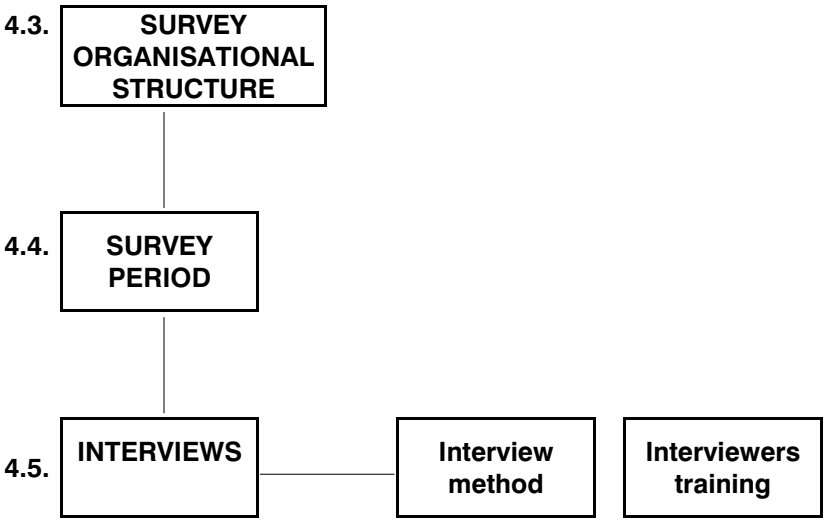
In this context, considering that a survey may be implemented for several purposes, a solution may be a joint project taking into account the interests and needs of different bodies, who could share the cost of the research. For example, a survey on visitor's consumption behaviour and expenditure items in a country, which is the most costly among visitor surveys, could be implemented by national statistical offices that develop both statistics on the balance of payments and on tourism demand and supply.

The relationship between survey's cost and data reliability will be thoroughly discussed in Step 4, when dealing with sampling design (the sample size).

4. Primary data collection. Planning a visitor survey

Step 4





The survey plan describes all the stages which characterise the survey organisation and implementation. It deals with all the aspects related to the choice of the survey venue, the definition of the target population and sample, the time period during which the survey will be carried out and the interview method.

The larger the survey size (both in geographical and tourist terms) and the higher the level of detail required in the analysis, the more sophisticated the survey plan and the general organisation of the survey.

In this context, it is most useful to talk about a ***flexible system of* surveys**, in that it may be necessary or convenient, considering the kind of area and the kind of information to be collected, to proceed with the organisation of one or more data collections.

The *main survey* is aimed at providing the data for which the whole research has been carried out. It allows researchers to collect both basic and optional information on the visitor and the trip. Basic and optional questions are defined according to the researcher's needs (see Chapter 5 and Appendix B). The optional questions may go into more detail about the information already asked (e.g. more facts about the journey) or they may collect further information (e.g. additional questions on tourist expenditure). It may be necessary to carry out such a survey at different sites located in the same closed or open area or in different areas (closed and/or open). For example, considering a country, a survey at entry/exit points can be matched with a survey at accommodation establishments (or at popular tourist attractions), this latter carried out in the country as a whole or in the main tourist regions (open area). This organisation can be adopted when large areas, either in the physical sense (territorial range) or in the tourist-economic sense (high tourist flows), are investigated. It improves the analysis of tourism demand, capturing more types of visitors (e.g. not only international but also domestic), and allows different information to be studied more thoroughly (e.g. more details about tourist expenditure items).

But before implementing this survey, it is necessary to select the appropriate sample size, i.e. to determine a sample which is truly representative of the target population under study. Statistically speaking, this means to select a number of facts which allow you to study the characteristics of the population you are interested in, by respecting the level of accuracy and precision stated a priori.

If no information is available (e.g. secondary data provided by official sources) a *preliminary or pilot survey* may be a valid help (see 4.2.2.2., the sample size). Apart from sample size determination, a preliminary survey should, in any case, be carried out just before starting the main survey, to test both the whole survey planning and the questionnaire design (see Chapter 5).

Furthermore, the main survey may be supported by two *supplementary surveys* in the following cases:

1. no data is available on total volume of visitor flows or it does not meet the researcher's needs or is not reliable;
2. the probability of each visitor being interviewed and the consequent representativeness of the sample have to be estimated and verified.

In the first case, the supplementary survey is usually carried out at the same time of the main survey; in the second case, when secondary data is not available, it coincides with the preliminary survey used for determining the sample size.
In more detail, the two supplementary surveys can be described as follows.

The first one counts systematically all the people passing through the collection point, also during non-sampled periods. It provides an estimate of the size of the target population useful for the grossing-up of the main survey's results. The survey may be conducted by installing an automatic recording mechanism (electronic eye). But, whenever the installation costs or the location of the collection point make the use of the electronic eye impossible (that is the most common situation), the survey is usually conducted by an interviewer, who manually records on suitable forms all the people passing through the collection point. As this is done only during sampled periods, it is then necessary to select a suitable method for expanding the results in order to calculate the size of the reference population.

The second survey tests the representativeness of the sample interviewed against the tourist population visiting the area under study. It may happen that: a) not all visitors in the area pass through the collection point; b) some visitors who pass may do this more than once and so have a higher probability of being interviewed than others. This is particularly true in the case of an open tourist attraction. Given these elements, that survey should be carried out at the main access points to the area (car and coach terminals, railway stations, and so on). Here visitors are asked whether they have gone through the central surveying point or not and, in the latter case, how many times they have done so. This "passage rate" may be calculated for every segment of demand researchers are interested in analysing (e.g. by origin, length of stay, etc.).

To sum up, independent of the kind of area under consideration (closed or open) and according to user needs and information available, the basic system of surveys should consist of three or four surveys which can be carried out in different areas or venues (Chart 2):

- a *preliminary survey* for testing the survey plan and the questionnaire design;
- the *main survey* for data collection on visitor flows and characteristics;
- one or two *supplementary surveys:* the first one aimed at determining the probability of a visitor being interviewed (and then the appropriate sample size, when no other information is available); the second one aimed at measuring the volume of visitor flows.

Parts III and IV give both an in-depth description of such a system of surveys and an example of the application to a closed and an open area.

So, it is clear that, depending on the number of surveys to be carried out, the number of sites where they are conducted and the kind of visitors to analyse, a different structure of the survey system will be arranged and, consequently, a different combination of the questionnaire(s) used. For the questionnaire design, see Paragraph 5.3. and Appendix B.

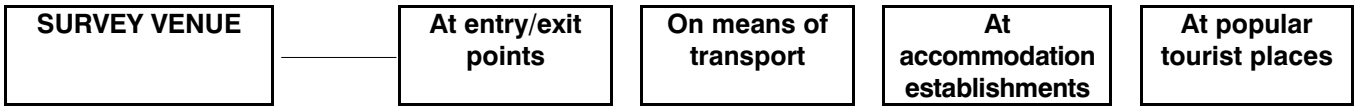
The flow charts illustrated in Appendix B for the design of the questionnaire suggest the basic and optional questions with regard to the four main categories of information that may be collected (see Paragraph 5.2.). Depending on how the research has to be carried out and on the different survey combinations, the questionnaire to be used may be composed by putting together the forms and, within these, the basic and optional questions, in various ways. Generally, however, the organisational process follows the same logical structure and is explained in the next Paragraphs.

Chart 2 - User needs and information available. The system of surveys

USER NEEDS	INFORMATION ON VISITOR FLOWS	
	Available data	**Not available or unreliable data**
• determination of the sample size	No survey	Preliminary survey [1]
• testing of the survey plan	Preliminary survey	Preliminary survey
• data collection in one or more venues (open and/or closed)	Main survey	Main survey
• counting of visitor flows	No survey	Supplementary survey
• evaluating the probability of the visitor being interviewed	Supplementary survey	Supplementary survey [1]

[1] In these cases it is possible to carry out only one survey which allows researchers to collect both kinds of information.

4.1. Choosing the survey venue



Once you have decided to carry out a visitor survey or a system of surveys, you have to choose where to conduct it/them, according to the area investigated (closed or open) and the information to be collected. This choice influences the sampling design, the organisational structure and, in some cases, the interview method directly. As we will discuss later on, the definition of the target population and the sampling plan depends on the survey venue. For example, the sampling selection method adopted (e.g. the number of visitors to be interviewed, the site of the interview, the time of the interview, etc.) changes according to where the visitor may be contacted.

There are four alternative and/or complementary survey venues where interviews can be conducted among inbound visitors:

- at entry/exit points (by road, air, sea and railway);
- on means of transport;
- at accommodation establishments;
- at popular tourist places.

The *diary method* is not suitable for inbound visitors in that it allows data to be collected only on outbound domestic visitors (and particularly expenditure data). This method involves identifying visitors before or at the beginning of their trip, and asking them to complete a diary during their trip recording details of their daily expenditures.

The choice of any one or a combination of the other four methods has to be based on the following four elements.

The choice of the survey venue for the main survey

a. the ultimate use of such estimates;
b. operational convenience;
c. level of accuracy desired (reliability of outcomes) and
d. resources available (survey cost).

The best survey is one that meets all of these aims and makes optimal use of the available production means. In practice, this goal is never met, because the survey process is a human operation and errors are possible at each stage. The survey results include every imperfection of the process. Therefore, the quality of the survey can be measured as the degree of approximation between the best feasible survey results and the results actually achieved.

The different methods along with their relative merits and demerits in meeting specific objectives will be discussed in Parts III and IV.

Considering the *ultimate use of such estimates* and the *level of accuracy desired* (points a. and c. above), the choice depends on:

1. the kind of area in which you want to analyse visitor flows (closed or open; large or small);
2. the visitor you want to investigate (tourist, same-day visitor or both);
3. the kind of information you want to collect and how detailed it should be.

As far as the *kind of area* is concerned, in a large closed area (such as a country) a survey at entry/exit points and on means of transport may be the most appropriate, taking into account that the larger the country the more difficult (and probably more expensive it will be) to have a reliable evaluation of international visitor flows at a sample of registered establishments or of popular tourist places.

In the case of an island (either an independent country or a part of a country), the small size usually allows you to choose between interviewing visitors at entry/exit points (on means of transport) or during their stay (at accommodation establishments or at popular tourist places). In the first case, you will probably contact visitors (tourist/same-day visitor) while they are entering or leaving the area. In the second case, they are interviewed just before leaving the accommodation or the attraction. Generally speaking, a survey at entry/exit points or on means of transport is usually preferable as it provides complete data on tourists and same-day visitors visiting the island. When the island is so far away from the mainland to discourage same-day visits, the results obtained from a survey at entry/exit points or at accommodation establishments are very similar.

As regards a single attraction, you can opt for a survey at the popular tourist place itself; in this case you will probably contact visitors (tourists/same-day visitors) on their trip in order to know their characteristics, whilst the volume of visitor flows recorded by means of ticket control may represent an estimate of the tourist pressure which affects the single attraction.

In large or small open areas (e.g. a region, a city, etc.) a survey at accommodation establishments or at popular tourist places is the best solution.

In general, a survey at a closed or open popular tourist place can be used to monitor the single attraction itself, or it may be representative of the tourist pressure which affects all the surrounding area (this is true above all for the most important attractions, which are usually visited by all first-time tourists and same-day visitors).

The suggestions given here may be considered as a standard guide: the choice of the survey venue may be modified according to the real size of the area under study. For example, in the case of a small country the same solutions shown for an island may be applied. Chart 3 summarises the kind of survey venue recommended for each type and size of area under study.

Chart 3 - The suggested survey venue according to the kind of area

Survey venue \ Area	CLOSED AREA			OPEN AREA		
	LARGE	SMALL		LARGE	SMALL	
	Country	Island	Attraction	Region	City	Attraction
At entry/exit points	YES	YES	NO	NO	NO	NO
On means of transport	YES [1]	YES	NO	NO	NO	NO
At accommodation establishments	NO	YES	NO	YES	YES	NO
At popular tourist places	NO	YES	YES	YES	YES	YES

[1] In the case of a country, the survey at entry/exit point may be combined with a Survey in means of transport for specific means (e.g. rail transport) (See Part III).

As far as the *kind of visitor* is concerned, the analysis of total inbound visitors (tourists + same-day visitors), or same-day visitors only, requires a survey at border crossings, on means of transport or at popular tourist places. On the other hand, a survey at accommodation establishments is only useful for measuring tourists in registered accommodation.

Finally, considering the *kind of information* to be collected, if you are interested in counting inbound visitors and you wish to measure the volume and the characteristics of inbound visitor flows (age, socio-economic status, destination, means of transport, etc.), the choice depends on how much information you want to collect and, consequently, on how long it takes to interview each person. In general, a border survey (closed area) or a survey at tourist attractions (open area) will be the best solution; but if your interest is in a detailed estimate of tourists' expenditure, a survey at accommodation establishments is recommended (Chart 4).

Chart 4 - The suggested survey model according to the kind of information to be collected

Area / Information	CLOSED AREA			OPEN AREA		
	LARGE	SMALL		LARGE	SMALL	
	Country	Island	Attraction	Region	City	Attraction
Volume of visitor flows	EXIT	EXIT or TRANS	PLACE	PLACE or ACCOM	PLACE or ACCOM	PLACE
Visitor and trip characteristics	EXIT	EXIT or TRANS	PLACE	PLACE or ACCOM	PLACE or ACCOM	PLACE
Quality of travel experience	EXIT	EXIT or TRANS	PLACE	PLACE or ACCOM	PLACE or ACCOM	PLACE
Expenditure behaviour	EXIT	EXIT or TRANS	PLACE	PLACE or ACCOM [1]	PLACE or ACCOM [1]	PLACE

Note:
EXIT = survey at entry/exit points
TRANS = survey in means of transport
ACCOM = survey at accommodation establishments
PLACE = survey at popular tourist places
[1] The last survey provides a detailed estimate of expenditure met by tourists only.

All these issues will be discussed in-depth when we operatively analyse each specific combination of visitor and area of analysis (see Parts III and IV).

Generally speaking, it is important to get permission from the companies or authorities managing the survey venues before conducting the survey. As we will see later on, their co-operation is a basic condition not only in carrying out the survey but also in obtaining reliable results. In some cases, transportation or lodging personnel may be helpful in handing out and collecting the questionnaires.

As mentioned at the beginning, the study of inbound tourism in a country usually represents the first stage of analysis carried out by a national tourist administration. In countries where this analysis is already developed, public and private organisations may be interested in collecting data on inbound tourism (both international and domestic) in specific closed or open areas within the country (a island, a region, a popular tourist site, etc.). So it is necessary to arrange a suitable methodology, considering that, in most cases, there is no secondary data available, or it is not reliable.

Furthermore, the complete opening of frontiers within the EC will transform every country into a European region and so the same methodology used for an open area inside a country has to be applied.
However, it should be taken into account that the administrative and regulatory systems prevalent in a country may not permit the use of some of the methods described above to measure inbound tourism, or they may not permit the collection of complete information on inbound visitors both in a closed and in an open area.

The choice of any particular method and of the kind of information to be collected for a statistical programme on inbound tourism is, thus, restricted by their admissibility in terms of cost and organisation.

In general, the national and local tourist administrations may not have the required statistical equipment and resources to undertake statistically complex surveys. In some cases, a statistical programme on inbound tourism may not even exist. Nevertheless, these administrations are obliged to obtain reliable statistics on inbound tourism to guide their own activities and their policy and actions on tourism at national and local level. The development of a statistical programme consistent with the general system of statistical administration in a phased manner is, therefore, unavoidable.

As far as the type of information to be collected is concerned, the primary interest at the initial stages of development of inbound tourism is in the number of people entering the area. A fairly simple method for obtaining such statistics is to use secondary data (e.g., information recorded by border officials or for administrative controls, in the case of a country; data collected through previous surveys, in the case of an open attraction) or, if it is not available, to carry out a specific survey (e.g. counting visitors while going out of the country or the attraction). The national and local tourist administrations may take up such surveys at the first stage of their development of a statistical programme on inbound tourism.

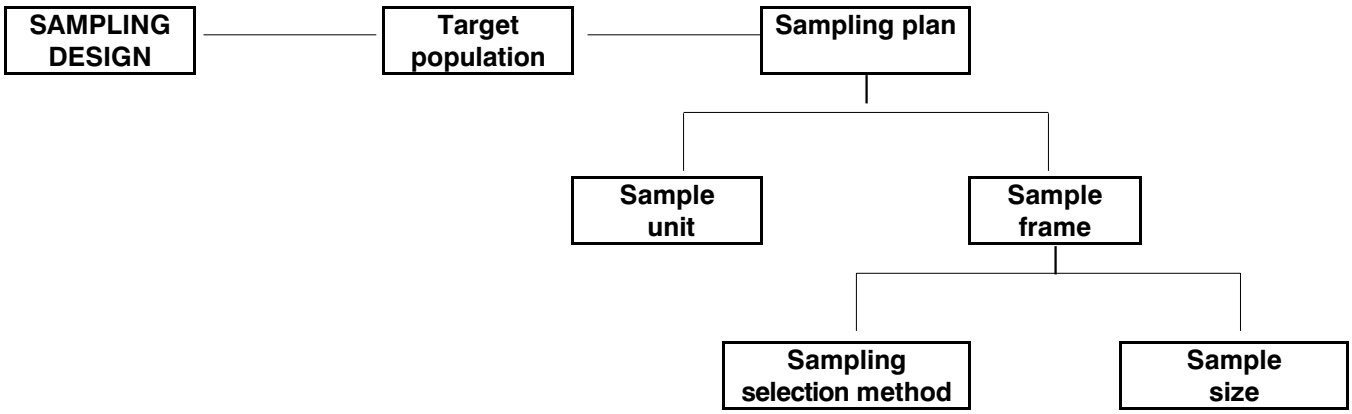
As mentioned in Section 2.2.1., counting is usually part of a more complex analysis of visitors. The second stage is therefore represented by the analysis of visitor profile (age, socio-economic status, etc.) and travel characteristics (length of stay, type of accommodation chosen, etc.), while the last stage consists of the evaluation of visitor consumption behaviour, according to type of visitor (tourist, same-day visitor) and expenditure items. In the last two cases, suitable information may be obtained by conducting a visitor survey.

So we can identify three different stages representing the different steps in the evolution of a national or a local statistical programme, which can be applied both to a closed and an open area:

Data collection. The different stages of analysis

- Basic stage: measurement of visitor flows.
- Intermediate stage: analysis of visitor profile and travel characteristics, evaluation of travel experience.
- Advanced stage: evaluation of visitor consumption behaviour.

4.2. The sampling design



Given the site where you are going to contact visitors, the sampling design is a set of specifications which define the target population and the sampling plan. It identifies the whole process for obtaining a sample which provides consistent and reliable information on the population you want to analyse.

4.2.1. The target population

Your first step here is to specify the population from which you will draw your sample in order to measure and describe visitors. Ideally, in the case of inbound visitors, the target population should be defined as all people (international and domestic visitors) who enter the area under study for tourism purposes: leisure, visiting friends and relatives, business and professional, health treatments, religion and pilgrimage and other (see Appendix A1). The ideal target population perfectly agrees with the concepts and definitions of the statistical system. In reality, the target population from which the sample is drawn does not necessarily meet all demands of the ideal population. In practice, it will often suffer from both undercoverage and overcoverage. So here we refer to the target or frame population as the population which reflects the survey objectives[1].

4.2.2. The sampling plan

The sampling plan describes the methodology you have to follow in order to select a sample that is truly representative of the population you have just identified, i.e. a sample whose results may be extended to the target population by respecting the level of accuracy and precision stated a priori. In plain language, the sampling plan describes "the activity of selecting a few from the total and using characteristics of the few to estimate the characteristics of the total. How the selection of the few is done largely determines the accuracy of the estimates derived from the sample" (Cannon, 1994).

[1] In statistical literature, this population is also denoted as the *survey population*, so as to distinguish it from the ideal target population.

4.2.2.1. The sample unit

Since "tourism is primarily a demand-side oriented concept, i.e. oriented by those persons engaging in tourism. These persons are called visitors" (Eurostat, "Community Methodology on Tourism Statistics"), the statistical unit for the collection and presentation of tourism statistics is usually the *visitor* (which includes tourists and same-day visitors). This general rule also applies to tourism expenditure statistics. However, there are situations when the collection unit is more appropriately the *travel party*. This is the case when the group's expenditure is from a common pool, and an individual member's expenditure cannot be separately identified. For example, a family group where a parent is responsible for the finances of the whole group's expenditure.
The person usually interviewed is the head of the travel party (family or group of friends) travelling together and with collective spending during the trip.
This method is used to calculate daily average expenditure per visitor.

4.2.2.2. The sample frame

The sample frame is a complete list of sampling units to be included in the actual sample or a list of instructions indicating how to select them. In the second case it is used to draw the sample for the survey.

For the sake of cost-efficiency, it is important that the sample frame is representative of all the elements which characterise the population selected for study, that is the target population, and only this population. This relationship is crucial for accurately inferring the characteristics of the population from the characteristics of the sample.

Kish (1965) mentions three problems associated with a sampling frame:

- *incomplete frames*. For example, samples of visitors to attractions may cover only a part of total visitors (e.g. a sample of visitors during peak seasons may not be representative of visitor profiles during 'shoulder' months or the off-peak season);
- *clusters of elements*. With questions asked to groups of visitors, i.e. family groups, doubts may arise that answers provided by one member of the group, perhaps a parent, may reflect the cluster opinions (visitor group);
- *blank foreign elements.* This occurs when sampling units included in the sample are not present in the original population. For example, a survey might include large numbers of visitors travelling by coach because on the day of the survey a series of coach parties were present.

The sample frame as a list of instructions on how to select the sample includes two stages: the choice of the sampling selection method and, consequently, the determination of the sample size.

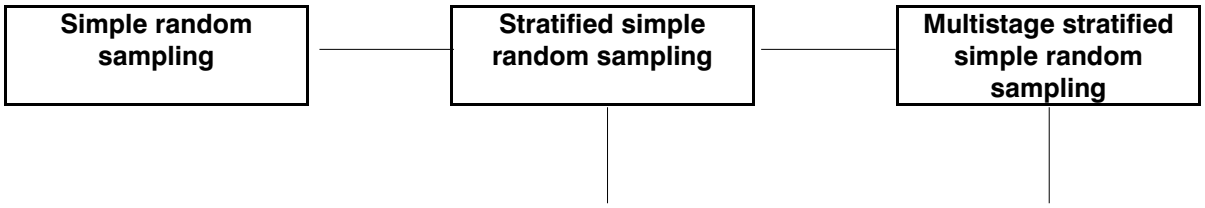
4.2.2.3. The sampling selection method

The sample selection method describes the mechanical selection of a sample according to the chosen design. The most common method is ***simple random sampling***, where every member of the target population has a known, non-zero chance of being included in the sample (Chart 5).

In the case of **repeated sampling** — where each unit may be observed more than once (e.g. visitors passing along a street in a famous art city) —, each unit included in the universe has the same probability of being selected. For example, if we consider a population of N units and the required sample size is n<N, the chance for each unit to be chosen is equal to 1/N at each selection step.

More generally, in the case of **unrepeated sampling** (e.g. visitors to a museum, tourists in an accommodation establishment), the total probability of a unit being included in the sample is constant. Referring to the former example, the total probability is equal to n/N.

Chart 5 - Probability sampling. The common selection methods



The main advantage of this method, in comparison with systematic random sampling (see further on) is that it allows for measuring the accuracy of the selected sample, that is the variability of the estimates among all possible samples you can draw. The error you make in selecting only a sub-set of the population units is called *sampling error*.
The common measure of this sampling error is called *standard error* and is statistically defined as the square root of the sum of the square deviation of each possible sample estimate (sample mean) from the population parameter to be estimated (spread or distribution of values). An example may help to explain this concept.

Sampling error and confidence interval

Suppose you have a population composed of four holiday-makers u_1, u_2, u_3, u_4 of different nationalities; let's say, u_1 is German (G), u_2 is French (F), u_3 is German (G) and u_4 is Spanish (S). Thus the probability P of drawing a German is 0.5 (2/4), which can be seen as the proportion in which the characteristic G is present within the population.
Now suppose you draw a sample of two elements from the target population. There are six possible samples and each of them has a different probability of including a German holiday-maker:

Samples	Nationalities	Probability of G
(u_1, u_2)	(G, F)	0.5
(u_1, u_3)	(G, G)	1
(u_1, u_4)	(G, S)	0.5
(u_2, u_3)	(F, G)	0.5
(u_2, u_4)	(F, S)	0
(u_3, u_4)	(G, S)	0.5
	Total probability of G	0.5

If we assign a value of 1 to each German element and a value of 0 to each non-German element, we can interpret the probability of G related to each sample as the sample mean p (that is, the sum of the sample values divided by the number of values), as appears in the following Table:

Samples	Sample values	Sample means (p)
(u_1, u_2)	(1, 0)	0.5
(u_1, u_3)	(1, 1)	1
(u_1, u_4)	(1, 0)	0.5
(u_2, u_3)	(0, 1)	0.5
(u_2, u_4)	(0, 0)	0
(u_3, u_4)	(1, 0)	0.5
	Population mean (P)	0.5

The *sampling error* is evaluated through the *mean squared error (MSE)*, defined by the mathematical formula:

$$MSE = \frac{PQ}{n}\frac{N-n}{N-1} \qquad (1)$$

where:
n = sample size
N = population size
P = proportion in which the characteristic under study (G) appears in the target population
Q = 1-P
The expression PQ is the variance of the target population in the cases in which the population elements can only take value 0 or 1.

The square root of this figure is called *standard deviation of the sample mean* (std):

$$std = \sqrt{MSE} \qquad (2)$$

Substituting values in formula (1) we get:

$$MSE = \frac{0.5 * 0.5}{2}\frac{4-2}{4-1} = \frac{0.25}{3} = 0.083$$

and from formula (2):

$$std = \sqrt{MSE} = 0.29$$

In our example, the population is known, hence we can list all possible samples which can be drawn from it. However, in real surveys, the population is unknown, so this procedure is generally impossible to follow. The information available about the target population is usually represented by just one sample. In this case the mean squared error and the standard deviation of the sample mean have to be estimated from the values of that specific sample.

Following the same example shown above, suppose you do not know the actual proportion P in which the characteristic G appears in the target population and you choose one sample of two elements, let's say the fourth of the above list (u_2, u_3). The proportion p in which the characteristic G appears in this sample (i.e. the sample mean) is 0.5, which is identical with the unknown population mean.
In this case estimating the standard deviation of the sample mean is a two-step operation. First of all we estimate the unknown population variance PQ by the sample variance s^2, defined as:

$$s^2 = \frac{n}{n-1}pq \qquad (3)$$

where:
n = sample size
p = proportion in which the characteristic under study (G) appears in the chosen sample
q = 1-p

Next, we substitute this figure for the unknown value of PQ in the above formula of MSE (1) getting the formula for the sample estimate of MSE:

$$MSE\hat{} = \frac{s^2}{n}\frac{N-n}{N-1} \qquad (4)$$

The sample estimate of the standard deviation of the sample mean therefore is:

$$std\hat{} = \sqrt{MSE\hat{}} \qquad (5)$$

Substituting values in formulas (3), (4) and (5) we obtain:

$$s^2 = \frac{2}{1} * 0.5 * 0.5 = 0.5$$

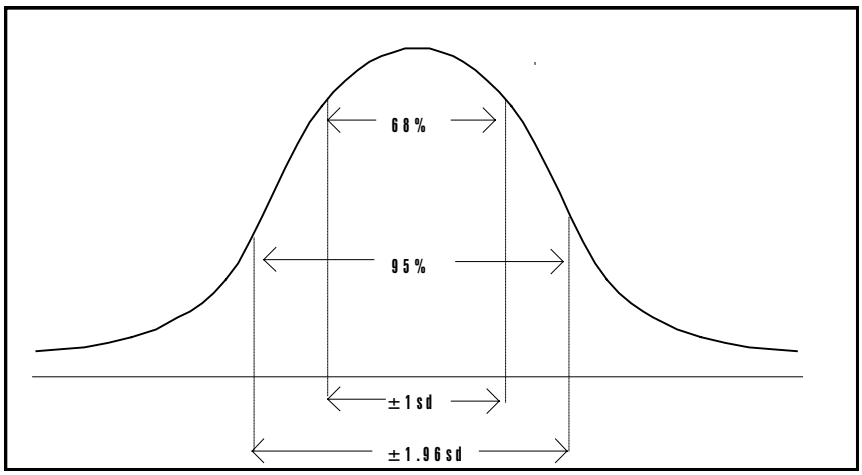
$$MSE\hat{} = \frac{0.5}{2}\frac{4-2}{4-1} = \frac{0.5}{3} = 0.167$$

$$std\hat{} = \sqrt{MSE\hat{}} = 0.41$$

which represents the sampling error, i.e. the error you make in choosing the fourth sample.

The determination of the standard deviation of the sample mean allows for calculating a *confidence interval*, that is a range of values within which, given a sample, the actual population mean lies with a known probability.
This is an application of the celebrated Central Limit Theorem: if the sample size is high, then the sample value of the mean can be thought of as a number drawn at random from a normal distribution.
A *normal distribution* is characterised by its central tendency and dispersion: sample scores cluster around a mean value, expressed by the arithmetic mean (the sum of all the observations divided by the number of observations), and are included in a range which goes from a minimum to a maximum value (dispersion).
Any normal distribution has the following property (see figure below):

- 68% of values will lie within the mean plus or minus the value of 1 multiplied by the value of the standard deviation of the mean;
- 95% of values will lie within the mean plus or minus the value of 1.96 multiplied by the value of the standard deviation of the mean;
- 99% of values will lie within the mean plus or minus the value of 2.6 multiplied by the value of the standard deviation of the mean.



This means that, if we choose one sample, we will have a *confidence level* (a probability) of 68% that the actual population mean lies within the interval which goes from the value of one standard deviation below the sample mean to the value of one standard deviation above the sample mean. The probability rises if the interval considered becomes larger. We will have a confidence level of 95% that the actual population mean lies within the sample mean plus or minus the value of 1.96 multiplied by the standard deviation; and a probability of 99% that the actual population mean lies within the sample mean plus or minus the value of 2.6 multiplied by the standard deviation:

$p - (1 * std\hat{}) < P < p + (1 * std\hat{})$	68% confidence level	(6)
$p - (1.96 * std\hat{}) < P < p + (1.96 * std\hat{})$	95% confidence level	(7)
$p - (2.6 * std\hat{}) < P < p + (2.6 * std\hat{})$	99% confidence level	(8)

These critical scores (1, 1.96, 2.6) are obtained from normal distribution tables, given by all statistics textbooks. Such tables assign to each possible probability value its relative score and allow for calculating the intervals related to every possible confidence level.

To simplify, in our example the sample size is 2: this value is not high enough to apply the property of the normal distribution. Let's suppose, however, we wish to apply it to calculate the three confidence intervals with the values obtained above; we should substitute the value 0.5 for p and the value 0.41 for std^ in formulas (6), (7) and (8).
Calculating confidence intervals in the case in which the sample size is very small, besides being theoretically wrong, is of no use: the intervals we would obtain are very large and give no information at all about the target population mean P (in fact, we already know by definition that P lies between 0 and 1).

This example is only meant to be a very basic introduction to the concept of random samples and confidence intervals. For further information on the procedure to follow for estimating unknown population values in many different cases see an appropriate statistics textbook. The basic concept is that, given any random sample drawn from a population, the mean of the population will be in a region of the sample mean within definite limits. The confidence interval associated to those limits defines the probability that this happens.

Usually, the larger the sample size, the smaller the sampling error and, consequently, the narrower the corresponding confidence interval. So, in order to reduce the sampling error, you can increase the sample size which, at the maximum limit, can equal the target population. But as the standard error is a function of a square root, increasing the sample size (e.g. doubling it) does not result in a comparable decrease in the sampling error. A better solution would be to keep the original sample size and improve the efficiency of the estimate by stratifying the population (Cannon, 1994).

An alternative to simple random sampling is ***systematic random sampling***. In this case, you have to create a list of all units in the universe and then select "one out of every so many on the list in a predetermined, systematic fashion. The selection is made by dividing the number of units in the universe by the sample size" (Cannon, 1994). Following the former example, we select every $(N/n)^{th}$ unit on the list once a randomly selected starting-point is chosen (this is called *sampling rate*). For example, if the number of units in the universe is 100 and the sample size is 10, the sample is selected by taking 1 out of every 10 units on the list. The proper procedure would be to randomly select a number between 1 and 10 as a random start and then select every 10^{th} unit on the list. In many areas of tourism research this is a common method of carrying out a survey. For example, it may be used in a survey at entry/exit points or at popular tourist places where you select every n^{th} visitor who crosses either the border or an imaginary line at airport or seaport lounges or while going out of a museum, an exhibition, etc. The principal advantages of this technique are its simplicity and precision. It is easier to draw a sample and often easier to execute it without mistakes than in simple random sampling.

However, for systematic sampling to be an acceptable alternative to simple random sampling, researchers have to be sure that the units in the universe are arranged in a nearly random order. In the case of a cyclical phenomenon, this method may cause distortions and so must be avoided. For example, consider the manager of a 200-unit hotel who wants to select a sample of 20 units and interview their occupants to learn more about the characteristics of hotel guests. The manager selected the sample by listing all the hotel rooms in room-number order and then drawing a 1 in 10 sample. In this case, let's suppose that all the rooms with number ending in "0" are luxury suites, while all the rooms ending in "5" are very small, inexpensive rooms. Depending on the random start chosen, the manager could have a sample of all luxury suites, a sample of all single rooms, or a sample that included neither of them. Although these results may also be obtained by using simple random sampling, in this situation systematic random sampling guarantees that the sample will not be representative as long as the unit are arranged by room number (Cannon, 1994).

The ***stratified simple random sampling*** (see Chart 5) is the most appropriate selection method for inbound visitors. It consists of:

1. dividing the target population into small sub-populations according to a given characteristic (e.g. country of residence), so that the units within each group present the same value of that characteristic (e.g. all German visitors, all French visitors, etc.);
2. making each group as dissimilar as possible;
3. placing the units within each group together on a list before selecting the sample and then;
4. drawing a random sample from each group.

In statistical terms, this methodology consists of dividing the target population N into mutually exclusive, exhaustive and homogeneous sub-populations, called *strata*, N_h. The division is made on the basis of one or more stratification characteristics (h), that are assumed to affect the trend and the pattern of visitor flows (e.g. country of residence, purpose of trip, means of accommodation chosen, seasonality, etc.). "Stratification overcomes the problem of the uniqueness of certain elements within the universe but does require a prior knowledge of the key characteristics of the elements" (Cannon, 1994). The choice of the characteristics depends on the purpose for which stratified sampling is applied. Some reasons for stratification are:

- to increase precision;
- to produce estimates with a specified precision for separate strata or for sub-populations consisting of more than one stratum;

- to control fieldwork efficiently;
- to use different frames for different parts of the population.

As we will discuss below, the problem of the *optimal allocation* of the total sample size to each of the strata depends on precision and cost. If overall precision of the estimates is fixed, then the sample size may be allocated to the strata in a way that the total costs are kept to a minimum. On the other hand, if the total cost is fixed then the overall precision has to be maximised.

If each stratification characteristic presents different levels, the number of strata is equal to the product of the number of levels each characteristic has. Subsequently, a simple random sample of visitors is drawn independently from each sub-population. The final sample is therefore composed of as many sub-samples as the number of strata. For example, if two stratification characteristics, country of residence and accommodation establishments, are chosen and are subdivided respectively into European and Non-European countries, and hotel and non-hotel accommodation, the final sample is composed of 2*2 = 4 sub-samples: European visitors staying in hotels, European visitors staying in non-hotel accommodation; Non-European visitors staying in hotels; Non-European visitors staying in non-hotel accommodation.

Stratified random sampling allows the researcher to obtain estimates of the characteristic under analysis (and referred to the target population) that are more efficient than those given by simple random sampling[2]. Another version most used in tourist research is the ***stratified systematic random sampling*** (Chart 5). In this case — after having divided the target population N into a number of strata N_h and drawn a sample of size n_h from each N_h — we select, within each strata N_h, every $(N_h/n_h)^{th}$ unit on the list, once a randomly selected starting-point is chosen. The probability of extraction, $f_h=n_h/N_h$, is equal to the inverse of the sample rate.
Referring to the former example, suppose we consider a target population N of 1 000 visitors divided into two sub-populations according to nationality (European, Non-European) and type of accommodation establishments (hotel, non-hotel):

Characteristics	Hotel	Non-hotel	Total
European	N_{11} = 400	N_{12} =100	N_E = 500
Non European	N_{21} = 300	N_{22} =200	N_{NE} = 500
Total	N_H = 700	N_{NH} = 300	N = 1 000

Then we take a sample of 100 people, drawing a sub-sample from each of the four sub-sets. Suppose that the sub-samples are selected by taking 1 out of every 10 units on each list (N/n=10)[3]. The proper procedure would be to randomly select a number between 1 and 10 as a random start and then select every 10^{th} unit on each list. Consequently, the probability of extraction is equal to 1/10 for each sub-sample and the sample will be selected by drawing 40 units from N_{11}, 10 units from N_{12}, 30 units from N_{21} and 20 units from N_{22}.

In practice, when dealing with large populations, such as tourist populations, the researcher rarely knows the right size of each sub-group. He/she may have information on the total number of visitors by nationality (N_E and N_{NE}) or by accommodation establishments (N_H and N_{NH}), but not, for example, on how many European visitors stay in hotels. In this case, he/she carries out a supplementary survey in order to gather further information on the sub-populations. However, this method may be very expensive. A good alternative may be to choose the most important characteristic on which you have reliable information, e.g. nationality, to select an accurate sample and then to use it also for analysing the distribution of the other characteristic under study.

A further specification of stratified sampling is represented by the ***multistage stratified random sampling***, which is recommended when dealing with very large populations of which you do not know the real size or whose size varies over time (this is usually the case of the tourist population). It consists of identifying two or more populations which respect a sort of hierarchical order. For example, in a survey at entry/exit points or at accommodation establishments, a two-stage random sampling can be drawn, where the first stage is

[2] This method is more efficient the more homogeneous the units are and the more different the sub-populations are. In other words, stratified random sampling is recommended when the value of the standard deviation inside the sub-populations is low and that between the sub-populations is high. The more homogeneity inside the subsets the better the efficiency of the estimates related to the variables considered.

[3] In statistical literature, this is called *proportional allocation* of the sample size among the strata. It consists of applying to each stratum the total sampling rate (100/1 000).

represented by the type of border crossings (air, road, rail, sea) or by the type of accommodation establishments (hotel and non-hotel) and the second stage by the visitors to be interviewed.

A multistage sample is usually stratified in the first stage, randomly or systematically; for example, in the case of a border survey, a stratification may be made considering a sub-sample of means of transport (vehicles, railway coaches, aeroplanes and boats/ships) at each type of border crossing considered. For a survey at accommodation the stratification is represented by the different type and categories of establishments (5 star hotels, 4 star hotels, ..., camping sites, tourist villages, etc.) at each of the tourist resorts considered.

This choice is due to the fact that it is more convenient to stratify these populations than the population of primary units. The information needed to stratify the population is easily available and reliable for the first stage units; the stratification of the other stages affects the efficiency of the estimates more than the stratification of the target population. It is worth applying this method "only if the gain in estimates precision from stratification more than offsets the loss in precision due to the reduction in the size of the main sample" (Cochran, 1977).

As discussed above, the choice of the sampling selection method depends on the survey venue or the location where the survey will be carried out. For example, the stratification characteristics are usually different if you choose an entry/exit point survey or an accommodation survey (see Parts III and IV).

4.2.2.4. The sample size

The choice of the optimal sample size depends above all on the trade-off between the maximum efficiency and quality of the data to be collected and the available resources — in terms of money, staff and time — for collecting these data (Cannon, 1994).
In detail, *precision* and *costs* are the two elements which play a fundamental role in the selection of theS sample size.

Precision

If precision is the most important factor, researchers will try to minimise the costs, once the desired level of estimates' accuracy and reliability, and consequently of the allowable error, has been fixed. The determination of the optimum sample size depends on the sampling selection method chosen: the more efficient this method is, the smaller the size of the sample should be. In detail, according to statistical theory, once the precision of the estimate has been fixed, the sample size needed to ensure this precision is lower for stratified random sampling than for non-stratified sampling.

Costs

Often the sample size is decided by the total budget. In this case, researchers have to ensure the maximum level of precision (and the minimum level of the standard error) given the limited funds available. If the type of information required at an acceptable level of statistical reliability can only be obtained at a cost well beyond the money available, other alternatives have to be explored: for example, increasing funds; reducing the reliability requirements; collecting information from another, or existing, source; or deciding that the information was not really needed anyway.

In statistical terms, if researchers know the size of the target population but have no information on the distribution of the characteristic under study inside the same population (e.g. the number of tourists out of the total visiting a country who travel on a package tour), the literature shows that the formula for calculating the sample size is (Ryan, 1995, et al.):

$$n = \frac{NPQ}{\frac{(N-1)E^2}{K^2} + PQ} = \frac{K^2NPQ}{(N-1)E^2 + K^2PQ} \qquad [1]$$

where:
n = sample size
N = population size
P = proportion in which the characteristic under study appears in the population (share of tourists travelling on a package tour)
Q = 1-P

E = allowable error, i.e. the maximum error accepted in estimating the characteristic under study [4]
K = Normal score based on desired confidence level

When the size of the population is not known either, the formula becomes:

$$n = \frac{K^2 PQ}{E^2} \qquad [2]$$

An application of formula [1], which implies an evaluation of sample size based both on data quality and costs, is provided in the following example.
As shown in Table 1, with a fixed confidence level of 95% (K = 1.96), the simulation of the sample size has been made for different ranges of the target population and different values of the allowable error E for the most unfavourable case (P = Q = 0.5)[5].
The sample size chosen by the researchers for each range would be that corresponding to a level of error E which ensures a better relationship between the desired data quality and the available budget.

Table 1: Determination of the sample size for different ranges of the population size and different values of allowable error

Error (E)	1%	2%	5%	8%	10%
Population (N)					
1 000	906	706	278	130	88
2 500	1 984	1 225	333	142	92
5 000	3 288	1 622	357	146	94
10 000	4 899	1 936	370	148	95
25 000	6 939	2 191	378	149	96
50 000	8 057	2 291	381	150	96
100 000	8 762	2 345	383	150	96
150 000	9 026	2 363	383	150	96
200 000	9 164	2 373	384	150	96
250 000	9 249	2 378	384	150	96
500 000	9 423	2 390	384	150	96
750 000	9 483	2 393	384	150	96
1 000 000	9 513	2 395	384	150	96

Of course, in the case where you have additional reliable information on P (from supplementary surveys, for example), you can use it.

The sample size has to be proportionate to the size of the target population and, specifically, to the size of the smallest sub-populations or *strata* which present the characteristic(s) the researcher wants to measure. Statistically speaking, this means that the sample size has to be determined by observing the spread of each characteristic within the corresponding stratum, so as to be sure that the estimates obtained respect the level of accuracy and precision stated in advance.
The size of each single sub-set may be derived from administrative records, such as embarkation/ disembarkation forms, border controls, counting of tickets at tourist attractions, etc., or from supplementary surveys. If this is the case, the optimum sample size is determined as the sum of a number of sub-samples, each one representing a characteristic to be analysed, calculated as a proportion of the sub-populations. The term of reference for the determination of sub-samples size is provided by the characteristic which is present in the smallest segment of the target population.

For example, many researchers place the highest priority on analysing the characteristics of annual visitors by country of residence and purpose of trip. If they know from prior information the proportion of total visitors in a year made up by the smallest segment to be investigated, they can determine roughly the total number of completed interviews needed. For example, if they know that business visitors (purpose of trip) from France to their country make up 4 percent of total visitors, and that they need to obtain at least 200 completed interviews to

[4] E is the absolute error. However, it is also important to take into account the relative error you can make in estimating the characteristic, which is equal to: $|P^{\wedge} - P|/P$, where $P^{\wedge}$ is the estimate of the characteristic under study.

[5] A similar procedure has been applied by the Istituto Nacional de Estatistica of Portugal in their survey at border crossing points.

make a useful analysis of this smallest segment, then the total number of completed interviews for the year will be equal to 200/0.04 = 5 000.

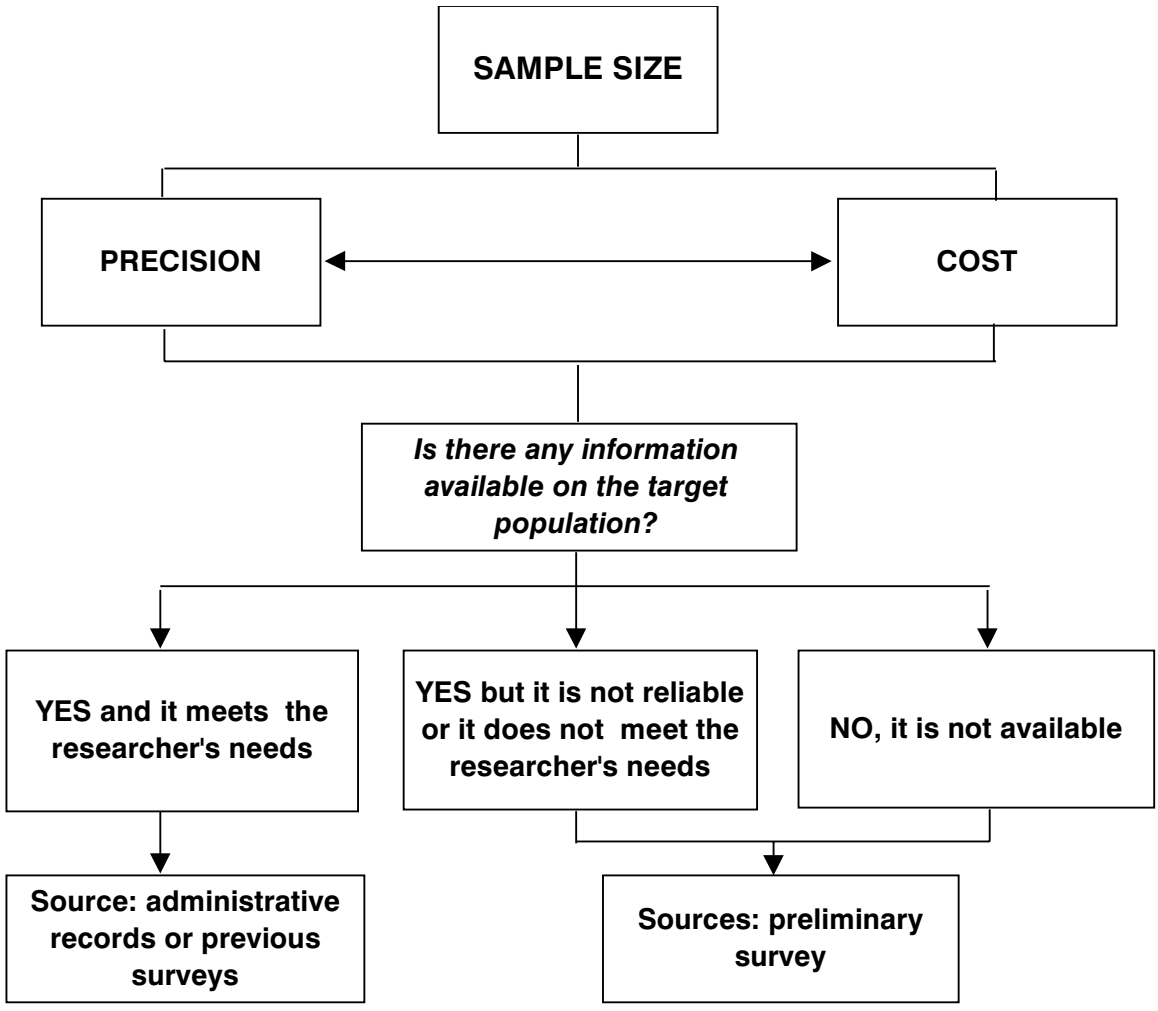
However, the following cases may occur (Chart 6):

- the available information is not reliable or it does not satisfy the researcher's needs (e.g. data on the total population but not on the sub-populations);
- there is no information available.

In these two cases, the optimum sample size may be obtained by carrying out a preliminary survey on a small sample for testing the likelihood of interviewing a visitor who has the characteristics the researcher wants to analyse. That means measuring the frequency of one or more characteristics inside the target population.
This survey may also be used for balancing and grossing-up the results of the main survey (see Chapter 4).

When the researchers have no available funds for supplementary surveys, it is, however, possible to provide a general reference for the sample size which ensures the representativeness of the sample, according to the level of detail required. For example, if researchers are only interested in the characteristics of total inbound visitors to the country, then a sample of 1 500 to 2 000 completed interviews for the year would be correct. If they would rather analyse the specific features by main purpose of visit (e.g. leisure, business, etc.), or the seasonal variations of visitor flows by country of residence and by demographic characteristics, a larger sample for the year is needed (e.g. 6 000 to 7 000 completed interviews).

Chart 6 - The determination of the sample size



Non-response

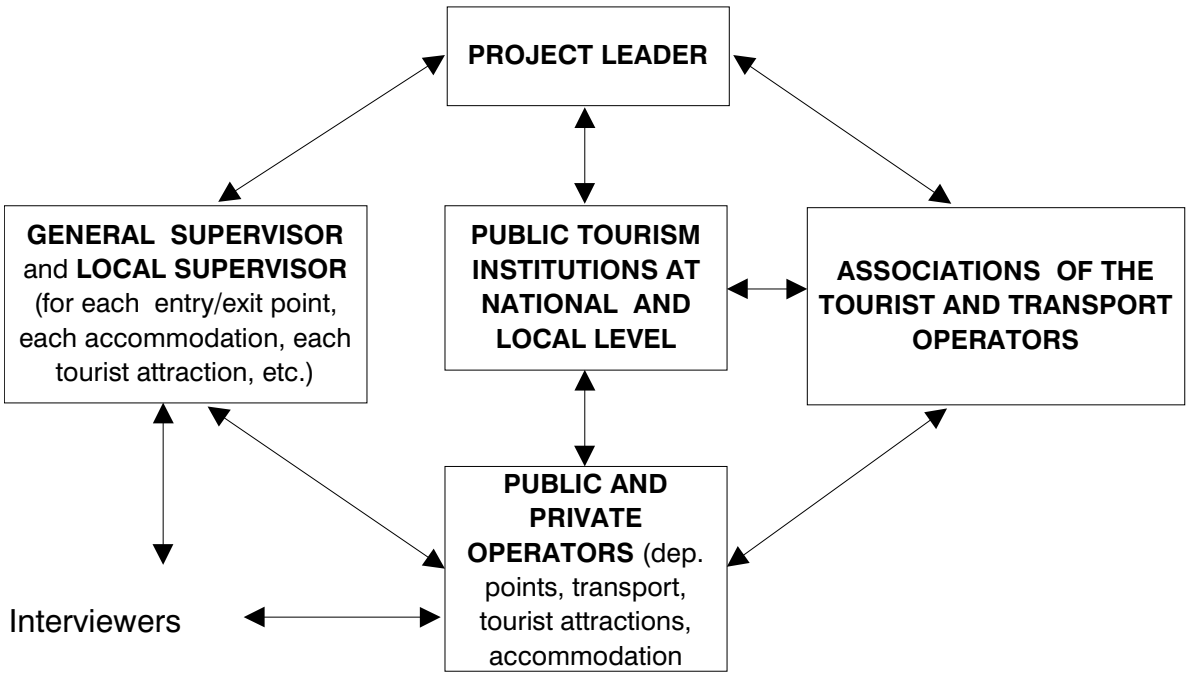
Above, we indicate the approximate number of completed interviews you need. The stress on 'completed' is due to the fact that the chosen sample size must be adjusted for *anticipated non-response*.

The non-response rate is the probability that one or more visitors included in the sample refuse to answer the questionnaire. This situation introduces at least two flaws into the survey process. Firstly, those failing to respond may differ systematically from the respondents and the survey will consequently be biased. Secondly, non-response implies increased costs necessary in locating additional respondents, in printing and distributing extra questionnaires and, in the case of direct surveys, in using interviewers.

The level of non-response depends on how the survey is conducted.
In surveys carried out by mail, when each person can decide freely whether to answer or not, the rate of response is generally around 15-20 percent.

As for a direct survey, an on-going check can allow the interviewer to quickly substitute non-respondents with other persons (see 4.5.1. about the interview method) so as to attain the number of interviews stated at the beginning. A response rate of less than 60-70 percent casts serious doubts on the reliability and validity of the survey's results (WTO indicates 75%). In general, the researcher should divide the optimum sample size by the percentage response expected, based on earlier surveys or on expert judgement. The result is the number of questionnaires that should be distributed during the year. For example, if the optimum sample size is 4 500, but you expect only 60 percent responses, then about 7 500 (4 500/0.6) questionnaires should be distributed or interviews carried out to get the 4 500 completed ones.

4.3. The survey organisational structure



After choosing the survey venue, it is very helpful to draw up the organisation plan, in order to have a clear framework of the people involved in the survey and of their tasks and duties. This plan provides references for people to whom operators and interviewers may refer if some problems arise during the survey.
The diagram above suggests a hypothesis of an organisation plan.

The project leader may be a public institution (e.g. the National Tourist Administration) or another body in charge of the research (e.g. a private research centre). For instance, we can consider a visitor survey ordered by the

NTA from a national market research Centre. The people in charge of the Centre and of the public institution discuss together the needs the latter has in terms of tourism statistics and decide the type of survey (the system of surveys) to be carried out, according to the information to be collected and to the cost of such collection. Once the choice has been made, the project leader, in co-operation with the customer, organises all the phases of the research process, from the survey planning (step 4) to the carrying out and analysis of the results (step 9). This organisation also requires the co-operation of the operators directly involved in the survey as well as of public and private associations.

More details about the organisation plan are given in Part III for a closed area and in Part IV for an open area.

4.4. The survey period

In order to maximise the probability of obtaining an exhaustive framework of the target population, the survey should be planned over a year. Then this period has to be divided into sub-periods taking into account the seasonality which characterises visitor flows. Note, in fact, that seasonality affects visitors' characteristics and consumption behaviour and it is one of the main stratification variables used in stratified random sampling.
The timing of the interview, i.e. the time to contact the visitor during his/her trip, depends on the information the researcher wants to collect.

As far as travel characteristics, opinions on trip and consumption behaviour are concerned, it would be better to wait until the end of the trip (e.g. when the visitor is leaving the country, the accommodation establishment, etc.) since these characteristics may change during the holiday. As for the visitor's characteristics, they can be analysed at any time.

Considering specifically tourism expenditure, the choice to record it at the end of the trip, just before the tourist's departure (at accommodation establishments) or on his/her way back home (at exit points), allows researchers to have complete information on all the expenses made during the travel and to overcome, or significantly reduce, *recall problems*. In fact, previous research has indicated that the visitor's ability to remember the expenditure he/she has met declines as the period between the time the expenditure was made and the time of the interview lengthens. In general, it can be expected that the reliability of data based on recall decreases as the length of time since the expenditure was incurred increases. The effect of recall difficulties is usually, but not necessarily, that expenditure is underestimated. The two main levels of difficulty are:

- recalling correctly the amount and details of expenditure undertaken during the trip, and
- recalling the details of these trips such as places visited and accommodation and means of transport used.

4.5. The interviews

4.5.1. Specifying the interview method

There are three alternative data collection methods available for inbound visitors.
The most preferable is to conduct *personal face-to-face interviews among departing visitors*. This encourages high response rates (see Section 4.2.2.4. about sample size) and gives maximum assistance to respondents in understanding questions. However, this approach is the most expensive in terms of interviewer's time, and limits the number of completed interviews per interviewer in departure lounges or in other locations (e.g. hotel hall, etc.) where visitors are waiting to depart or are in transit. So it is necessary to recruit an adequate number of people in order to maximise the interview rate over a specific time period (e.g. in an hour). Furthermore, the success of the interview strongly depends on the environment in which it takes place. For example, weather conditions are crucial in the case of outdoor interviews; bad or cold weather may affect the willingness of the interviewees to co-operate in the survey and, consequently, the level of response rate and the quality of the information collected.

The next most preferable method is that interviewers *greet potential respondents*, determine if they qualify as inbound visitors, ask for their co-operation and hand them a questionnaire to complete. All questionnaires should

be picked up by the same interviewers before the visitors leave the venue. This method can be used, for example, at accommodation establishments or at popular tourist attractions; the questionnaire is handed out on the tourist's arrival and the interviewer picks it up just before his/her departure. Interviewers have to keep careful count of the questionnaires handed out so they can compute response rates.

The least preferable interview method is to hand questionnaires to potential respondents and *ask them to complete the forms and mail them back* or give them back to a common collection point arranged in the same place. The advantage is that this method is cheaper than the previous two. You only have to print the questionnaires, to pay some people to hand them out and, in the first case, to provide respondents with envelopes and stamps for reply.

The disadvantage is that it ensures very low response rates since visitors often lose the questionnaire or forget to mail or give it back. Another common situation is that they accept the questionnaire at first and then throw it away.

If this method is employed, you should consider promising a reward or incentive for returned questionnaires (e.g. a prize-winning contest planned among those who have mailed back the questionnaire).

However, it has to be taken into account that also when visitors give back the questionnaire, you are not able to verify the reliability of the answers included (e.g. characteristics of the visitor and the trip, etc.) directly.

The choice of one of these methods depends on an evaluation of quality/costs for the results the researcher wishes to achieve.

4.5.2. Recruiting and training interviewers

Since one of the key-factors of interviewing is communication, the interviewers selected have to be able to approach respondents considerately. They should have a kind attitude and use polite expressions in order to create a friendly atmosphere and put the interviewee at his/her ease.
They have to interview visitors effectively and to help them to understand questions, solving their doubts rapidly and listening carefully to their responses. Of course, an ability to speak one or more of the languages they are likely to encounter (considering international inbound visitors) is clearly an advantage.
The recruiting and training of interviewers is crucial since people selected have to fulfil their role ("interviewer role behaviour": see O'Muircheartaigh (1976b)) in every situation. The interviewer training must include:

- a thorough analysis of the questionnaire enabling them to answer whatever questions the respondents may ask them. For the respondents, the interviewers represent the researchers who have planned the questionnaire. It is as if they were the researchers, so they have to be sure of what to say and to answer;
- how to locate, identify, contact, greet and qualify respondents;
- how to interview them;
- how to record responses;
- how to end the interviews.

Above all, it is necessary to instruct interviewers on why it is so important to follow instructions and procedures for interviewing. They must respect the sampling plan (the location of the survey, the number of interviews to be made, etc.) and before taking any decision they should ask their supervisor (see Section 4.3.). For this, it may also be useful to provide them with a handy brochure where they can find all the instructions on how to carry out the survey and an exhaustive explanation of each question.

The interviewers should also be able to minimise the intrusive effect of personal factors, such as his/her age, sex, social class, religion and opinions ("extra-role characteristics")(O'Muircheartaigh, 1976b), which in some cases may seriously bias the attitude of the respondent. Furthermore, nothing in his/her words or manner should imply criticism, surprise, approval or disapproval. He/she should maintain a plain and friendly tone of voice and a careful way of listening, so as to increase the respondent's interest in co-operating.

A random and unexpected control of interviewers during their job is in any case advisable.

5. Designing the questionnaire

Step 5

QUESTIONNAIRE	Questions	Form(s) design	Use of Eurostat and WTO definitions	Answers coding	Planning the editing

The questionnaire is the data collection instrument used in sample surveys to gather information from sample units. It is the package that presents the questions and ultimately contains a record of responses. The questionnaire also includes 'coding aids' that assist the process of data entry into a computer program.
The design of the questionnaire is a critical step in the survey planning. You may have made an optimum sampling plan, chosen the best location and trained a team of skilled interviewers, but if the questionnaire is not well planned the survey has a high chance of failure. The representativeness of responses in comparison with the primary objectives will be very low and the results collected will not be reliable.

As stated by Ryan (1995), "successful questionnaire design must therefore include consideration of:

1. the subject matter of the questions;
2. the lay-out and design of the questionnaire;
3. the actual wording and sequence of questions;
4. the underlying theoretical constructs with reference to both the nature of the investigation and the methods of analysis to be used".

Very often discussions on questionnaire planning concentrates on the first three points whereas they neglect the fourth item. The kind of survey to be carried out and, consequently, the methodology to be implemented represent the basis on which the questionnaire has to be constructed.
As for the formulation and the layout of the questionnaire, either on paper or on a computer screen, the following points have to be considered.

The questionnaire design. Main elements

- a *broad introduction* for the interviewee, which shows the why, how and when of data collection;
- *ease of interpretation*: the questionnaire has to be clear, understandable and concise;
- *motivation*: the questionnaire has to be interesting, attractive and readable;
- *guidance* (flow): the logical development of the matter from section to section and from question to question aids both interest and consistency of reply.

Ease of interpretation, motivation and guidance should also characterise the introductory letter (if arranged) and any other accompanying material.
Given these premises, there are six phases to follow.

The questionnaire design. The planning

1. Providing clear instructions for the interviewer and the interviewee.
2. Focussing on the questions according to purpose, clearly and concisely.
3. Ordering questions to encourage correct and objective answers.
4. Using Eurostat and WTO definitions and classifications.
5. Specifying answers coding.
6. Planning the editing.

In order to verify that these six steps are carried out correctly, it is a good idea to pre-test the questionnaire through a pilot survey (see Step 6).

5.1. Providing clear instructions

The survey respondent needs to be instructed on:

- the purpose of the survey;
- how to answer the questions;
- which questions to answer, and
- if it is a self-administered questionnaire, how to return the form to the processing centre.

Such instructions should appear at the very beginning, in the body of the form or questionnaire where helpful, and at the end, where necessary. They should be phrased in relatively simple language, avoiding specialised words and abbreviations. Of course, the language that the respondent is likely to be most comfortable with should be used.

It is necessary to bear in mind that the respondent's participation in the survey is voluntary; therefore, if such instructions are not extremely clear he/she will be less motivated to answer the questionnaire and this will seriously affect the response rate.

5.2. Focussing on the questions according to purpose

Every question included in the questionnaire should support the overall purpose of the survey and must relate to the respondent's ability to provide data.

Moreover, each question should address a single, specific topic. When two or more topics are addressed in a single question, respondents are often confused and researchers cannot tell which topic is being addressed.
Plain words and an appealing, easy and direct language should be used. This implies avoiding technical terms and too formal expressions as well as ambiguity. As the purpose of any question is to communicate a certain exact meaning, which should be understood by each respondent in the same way, clearness is essential to avoid any misunderstanding. A typical example, in the English language, is given by the three modal verbs *might*, *could* and *should*, which are often used as synonyms, despite their different meanings.

Furthermore, questions should not be "dealing", i.e. suggest a desired answer. They should not contain words with an emotional meaning (e.g. positive or negative) and abbreviations which may be unfamiliar to respondents.
There are several reasons for keeping the questions as brief as possible. The longer the question, the more difficulty the respondent has in focussing on it. Short questions are easier for both the interviewer and the respondent to understand. Long questions are more likely to lack focus and clarity. Finally, long questions often lead to long questionnaires, which tire the respondents and increase the chance of non-response.

There are four main categories of information on inbound visitors usually collected through a survey:

- the *visitor characteristics* (country of residence, age, socio-economic status, etc.);
- the *trip characteristics* (package tour or not, main purpose, means of transport, etc.);
- *opinions and impressions on trip/stay/resorts visited, etc.*;
- *expenditure behaviour*.

We will discuss below the organisation of the forms and consequently the order in which such issues should be dealt with in the questionnaire (see 5.3. and Appendix B).
In general, within all the questions which may be asked for each category it is important to distinguish some key-questions, some optional questions and some check-questions.

Key- questions

The key-questions or basic questions are those which focus immediately on the basic information you are interested in collecting about respondents. For example, if you want to know the characteristics of visitors and their trip, some key-questions are: the purpose and the organisation of the trip (individual or package tour), the means of transport used to reach the destination, the means of accommodation chosen and the primary destination visited.

Optional questions

These questions allow you to collect further information on inbound visitors for each category shown above. For example, if you want to further your knowledge of the characteristics of the trip, you can also ask the other destinations visited, the length of stay at these destinations, the activities undertaken during the visit, etc.

Including optional questions is advisable if you want to collect data on some specific issues only, such as the characteristics of the visitor and the trip. On the other hand, if you are interested in collecting information on all four aspects listed above, including consumption behaviour, it is more appropriate to include basic questions only. The aim is not to make the questionnaire too weighty for the respondent to complete.

Check-questions

Check-questions are those which allow researchers to check some responses already given by interviewees. Check-questions usually have the same meaning as other questions. For example, analysing the characteristics and the expenditure behaviour of visitors, you can include first of all a question on the kind of accommodation chosen, divided into category (5 star hotels, 4 star hotels, ..., campsites/tourist villages, etc.) and then repeat this distinction when you ask the respondent to indicate how much he/she has spent for the accommodation. These questions are very useful when inputting responses into the computer program (first step of the run edit checks).

If there is also a need to filter out certain categories of respondents — for example, you may be interested in distinguishing migrants from visitors or tourists from same-day visitors, who usually have different characteristics and holiday behaviour — such questions, named **filter questions**, should be placed at the very beginning of the questionnaire.

5.3. The form(s) design

There are no rules of form(s) design which are universally valid, but in general it may be helpful to obey the following.

The form(s) design. Main rules

1. Avoid abbreviations.
2. Be as specific as possible and feasible.
3. Be specific about the reference frame: time and place, units, things to be excluded or included.
4. Avoid double-barrelled questions (two in one).
5. Choose closed questions rather than open questions.
6. Provide separate forms (and the whole questionnaire) with clear titles.
7. Make clear where to find instructions.
8. Put explanatory notes and instructions as close as possible to where they may be needed (as close to the questions as possible).
9. Use layout to enhance important concepts, instructions, etc.
10. Use layout for a clear 'picture' of what is required.
11. Avoid as much as possible questions that the respondent will not perceive as relevant and avoid other excesses.
12. Number the questions in a logical way.

All these rules together should make completion of the form(s) by the respondent as "enjoyable" as possible. How the rules are put into practice depends furthermore on the method used for the data collection. For example, the rules can differ for data collection by mail or through face-to-face interviews.

As far as closed or open-ended questions are concerned, although the former may imply a loss of qualitative information, they give an advantage in terms of efficiency and speed. Closed questions are more apt to communicate the same reference frame to all respondents and consequently to collect a standardised, comparable answer.

As for the organisation of the form(s), difficulties encountered by respondents and their adverse reactions to individual questions reduce response rates and the reliability of the replies given. It is important to minimise the

response burden, not only in terms of time and money but also in terms of the respondent's perception. A response burden policy should explicitly involve the latter aspect, because in the end it is perception which is, more than workload, decisive in the respondents' willingness to co-operate.

It is possible to reduce these negative effects by placing questions in an order that puts the interviewee at his/her ease, encouraging him/her to be careful and record his/her response accurately. As mentioned above in Section 5.2., there are four main categories of information you can collect through a visitor survey, which refer to visitor characteristics, trip characteristics, opinions and impressions on trip/stay/resorts visited and expenditure behaviour.

Consequently, questions should be grouped by issue: for example, those on visitor characteristics are placed together but separate from questions on the characteristics of trip or on the consumption behaviour.

Also in this case no rule is universally valid, but in general there are some suggestions which may be useful.
Questions that are difficult but not disagreeable, such as long lists or ranking of choices, should be placed near the beginning of the questionnaire. Questions that might be offensive to some respondents, such as about age and income, should be placed at the end of the form. The questions which are most important to the researcher should be placed near the beginning in the case the respondent tires and ends the interview. Remember to keep the number of questions and their wording as brief as possible.

However, the order also depends on the different information you are interested in. If you want to collect data on the visitor and his/her trip, it would be better to put general questions (such as country of residence and nationality) at the very beginning and personal questions (such as the family income) at the end. If you want to analyse the consumption behaviour, it is advisable not to put these questions at the beginning of the questionnaire, even if they are quite difficult to complete. In this way, the interviewer has time enough to put the visitor, who is usually reluctant to indicate his/her expenses, at his/her ease.
As mentioned at the beginning of this Chapter, in addition to the form(s) containing questions it is important to include:

- a letter which introduces the survey and its aims;
- an introductory page in which the interviewer writes down the date and time of the interview, the location of the interview and three code-numbers identifying:
  - the interviewer him/herself;
  - the kind of survey venue (e.g. border crossings in a survey at entry/exit points, type of accommodation in a survey at accommodation establishments, etc.);
  - the single survey venue (e.g. a specific border crossing point or a specific hotel).

These code-numbers are very useful in the checking phase when you have to control the consistency of responses.

5.4. Using Eurostat and WTO definitions and classifications

Eurostat has designated specific definitions of many tourism-related terms and a list of tourism-related classifications[6]. Similar information is implemented by WTO's publications whose peculiarity is the in-depth presentation of tourist expenditure definitions.

Use these concepts and classifications where appropriate to your survey to allow valid comparisons with other surveys and to avoid confusing definitions and classifications (see Appendix A).

5.5. Specifying answer coding

Coding is the process of assigning values (codes) to various alternative answers to survey questions. Numerical codes should be printed alongside close-ended or structured answers on the questionnaire (precoding), to facilitate data entry and processing (postcoding).

[6] See for example the *Community Methodology on Tourism Statistics*, Eurostat (1998).

The precoding of questions may imply the use of different scales. In questions concerning visitor and trip characteristics (for example, the age of the respondent or the means of transport used), a progressive code-number is put for each age class or for each means of transport listed.

Code-number

What means of transport did you use to reach the country/region?

- Private car 1
- Rental car 2
- Coach 3
- Train 4
- Plane 5
- Other (specify) 6

In questions referring to opinions on trip, the Likert scale is the most common solution. The respondents are asked to rate some tourist services on a scale which ranges from 1=very poor to 5=very good.

Likert scale

From your experience in this region/resort, how would you rate the following local aspects?
(1 is for very poor, 5 for very good)

	1	2	3	4	5
• Cleanliness of public areas	☐	☐	☐	☐	☐
• Safety	☐	☐	☐	☐	☐
• Health services	☐	☐	☐	☐	☐
• People's friendliness	☐	☐	☐	☐	☐
• Airport facilities	☐	☐	☐	☐	☐

After data collection, analysts assign codes to answers to open-ended or unstructured questions, so they can be better entered into the computer and tabulated (for more details, see 7.1.). The codes and the answers to which they correspond are kept in a 'code list', which is either printed or in the computer.

If the interviewee refuses to answer a question, it is appropriate to use a specific code-number to identify the non-response. The same applies to the case in which the respondent is willing to answer but has little or no knowledge to do it. For example, considering the evaluation of the services provided by the tourist resort, he/she may have not experienced some of them so he/she is not able to express an opinion. For a distinction between a valid answer and a non-response see Section 7.2.

5.6. Planning the editing

At this stage, researchers should establish editing procedures to ensure that the survey's results are complete, correct and appropriate. They are used for the examination of data for the purpose of error detection.
The planning is done when designing the questionnaire because it is at this stage that the researcher has to select some control mechanism of responses (e.g. check-questions).

The procedures are then applied after the collection of questionnaires and involve reviewing completed forms to determine whether they are suitable for data entry.

The most common checks are:

- *completeness checks*: questionnaires with mostly illegible answers or where most questions are not answered should be excluded from processing;

- *range/valid values checks*: after the survey data have been entered, researchers should run "edit checks" to find incorrect or inappropriate responses (see 7.4.). Analysts may want to set upper or lower limits according to common sense (such as no more than 10 in a family travel party or no more than 50 overnight leisure trips in a year). Responses outside these limits are highlighted by the computer and examined by the researcher for possible exclusion from tabulations;
- *relational/arithmetic checks*: they show the presence of inconsistencies between answers related to one another. For example, the interviewee may list a length of stay of four nights but indicate accommodation for seven nights.

6. The survey

Step 6

Once Steps 4 and 5 are completed, you have all you need to carry out the survey. The organisation of the survey is as fundamental as a correct questionnaire design in guaranteeing the most efficient and valid results.

6.1. The pilot survey

As discussed in Chapter 4, before conducting the main survey it is crucial to test the survey planning and the questionnaire design through a preliminary or pilot survey.

The pilot survey is a rehearsal of all the elements of the survey before its actual performance and it is meant to give a clear insight into costs and effects of the data collection process and of the data quality. This survey is the basis for final decisions on the general survey conditions and on the basic question of whether to proceed with conducting the survey or not. Experience from the pilot survey will not only lead to final modifications in the questionnaire or in other general survey conditions, but may also lead to a reduction in the level of expected output, both in terms of content and purpose.

In practical terms, interviewers contact a sub-sample of qualified respondents at the chosen venues and interview them as if this were the final survey.

The results of the pilot survey should be analysed and the interviewers should be asked about confusing or offensive questions and anything else about the survey process and the questionnaire that should be improved to obtain valid responses and high response rates.

This therefore suggests non-response rates that can be expected once the actual survey is completed. This is critical in determining how many respondents to contact and questionnaires to distribute.

As mentioned in Chapter 4, a carefully conducted pilot survey can also indicate the variance of important mean values, and assist in determining the appropriate size of the sample drawn for the final survey (see also 4.2.2.4. about the sample size).

Finally, the processing and analysis plans and the grossing-up procedure (see Steps 7, 8 and 9) should also be tested through the pilot survey. The data entry personnel should process the completed forms and attempt to print out analytical tables. This will help remove any flaws in the data entry system and the processing programs.

6.2. The interviews and the monitoring of the interview process

Once the pilot survey has been carried out and all the suitable revisions to the survey process have been made, you are ready to conduct the final survey.

As mentioned above, interviewers should carefully select respondents according to the sampling plan and endeavour to obtain completed questionnaires from each one. If they encounter problems for which they are not prepared, they should contact their supervisors for solutions.

Supervising the interviewers includes monitoring the interview process and checking the results. Supervisors should accompany each interviewer during his/her first few trials to provide solutions to problems that arise. Thereafter, they should visit the interviewers periodically throughout the interview period (even 'incognito'), ensuring an on-going control of the survey.

During the interview period, daily checking of completed questionnaires is recommended. The supervisor should evaluate each interviewer's output in each of four areas:

- *Legibility*: are all responses to all questions readable?
- *Intelligibility*: are responses to open-ended questions intelligible?
- *Completeness*: are all questions answered?
- *Consistency*: are all answers recorded in a given questionnaire consistent with one another?

An example of the last point is where a respondent records an average length of stay of three nights in the destination country but indicates four nights spent in the type of accommodation chosen. Or he/she states total expenditure in the country as $1 000 but the itemised accounting totals $1 200.

Given this situation, the supervisor should consult with each interviewer daily, to bring up and solve problems in the above areas and to answer interviewer questions and requests for additional guidance.

6.3. Collecting the questionnaires

At the end of each day of interviewing, supervisors should collect all questionnaires from interviewers.

First of all, they should check that the interviewers have completed the front page of the form with information identifying the date, time and location of the interview, etc.

Secondly, they should verify that the questionnaires are all completed.

Then, they should mark each form with a progressive identifying number on the front page (see Section 5.3). This number should be entered during data entry as part of the questionnaire results, along with the other codes and information included on the front page. This procedure permits analysts to return to the original questionnaire if there is a recognisable data entry error.

There should be a definite and secure process for conveying the completed questionnaires to the data entry staff.

The completed questionnaires should be kept until it is clear that all usable information has been faithfully recorded from them. Thereafter, they should be destroyed as part of the process of ensuring confidentiality.

7. Checking and analysis of the survey's results

Step 7

CHECKING AND ANALYSIS OF THE SURVEY'S RESULTS	Postcoding and reviewing of responses	Problem solving	Transferring data to computer	Running edit checks	Producing tables

Survey research projects are undertaken for the purpose of obtaining data that, when tabulated and analysed, will yield information useful to the NTAs or other organisations. Steps 7, 8 and 9 list the components of processing and analysing the responses, expanding the sample's results up to the population and studying the final results, which are the final steps to be addressed in this Manual.

7.1. Postcoding and reviewing of responses

As discussed in Section 5.5., coding provides either a number code for each response on the questionnaire (precode) or a code given by analysts to open-ended responses after the survey (postcode). Analysts should examine all open-ended responses at this point and assign each to a group containing responses which are similar but whose category is significantly different from the others.

Editing is the review of responses to identify errors or points of confusion, trying to remedy them before data entry. When designing the questionnaire, researchers should establish editing procedures to ensure survey results will be correct or appropriate (see 5.6.). Some missing data or incomplete answers can be accepted. However, if there is a substantial number of wrong responses or missing answers in a questionnaire, it should be discarded. For example, questionnaires lacking responses to basic questions or which are unreadable are normally excluded from data entry.

7.2. Problem solving

There are two common problems which arise during the editing phase. The first one concerns non-response and may affect both information on visitor/trip and expenditure data. The second one exclusively affects the consumption behaviour of inbound visitors and refers to the breakdown of package tours.

7.2.1. Non-response

A problem which is crucial for the representativeness of the sample is the way non-response to one or more questions included in the questionnaire is dealt with. The reasons for missing data, and consequently the methodological approach to solve it, may be different according to the different interview method implemented: face-to-face interviews, indirect interviews, etc. (see Section 4.5.1.). In direct interviews the most common reasons for non-response are the unwillingness of the interviewee to answer some questions or his/her impossibility to do so because of lack of information. In indirect interviews — e.g. when interviewers hand out the questionnaire and ask visitors to complete it by themselves — great attention has also to be paid to the questionnaire design (see 5.3.). Poorly worded or cryptic questions may easily cause some misunderstanding and therefore non-response.

In all cases, missing data implies an error (*non-sampling error*, see Chapter 8) in the data processing phase, as it causes a distortion in the estimate of the variable the missing question represents (e.g. the visitor's education level or the visitor's expenditure for a specific item).

The purpose of statisticians is therefore to find an efficient and cheap method to fill these gaps, by using different kinds of information.

First of all, it is helpful to distinguish between **qualitative information** — that related to the characteristics of visitors and their trip (age, profession, average length of stay, etc.) and to visitor's opinions and impressions on their journey — and **quantitative information**, such as expenditure items. Furthermore, both qualitative and quantitative information can be separated into those questions for which there should be an answer so as to ensure the consistency of the questionnaire (*key-questions*, such as age, number of people in the travel party, travel and accommodation expenses. See Section 5.2.) and those supplementary questions for which a non-response is acceptable (e.g. use of public transport during the holiday, recreational activities undertaken during the stay and related expenditure).

As mentioned above, if the visitor leaves a blank, there may be two main reasons:

- the visitor does not answer because he/she has nothing to say. For example, considering a question about the means of transport used to reach the attraction, he/she could have arrived on foot so he/she leaves a blank. For expenditures, he/she could not meet any expense for a specific item so he/she fills spaces with '0' or 'N/A'. In both cases this is a valid answer (*zero response*) which is used, in the latter case, for the calculation of daily average per capita expenditure;
- the visitor refuses to answer questions on his/her characteristics, travel, opinions or a specific expenditure item or he/she leaves blanks. This is a *non-response*. As we will see below, the solution of the problem can be easier when the non-response is to questions for which an answer is expected (e.g. accommodation expenses).

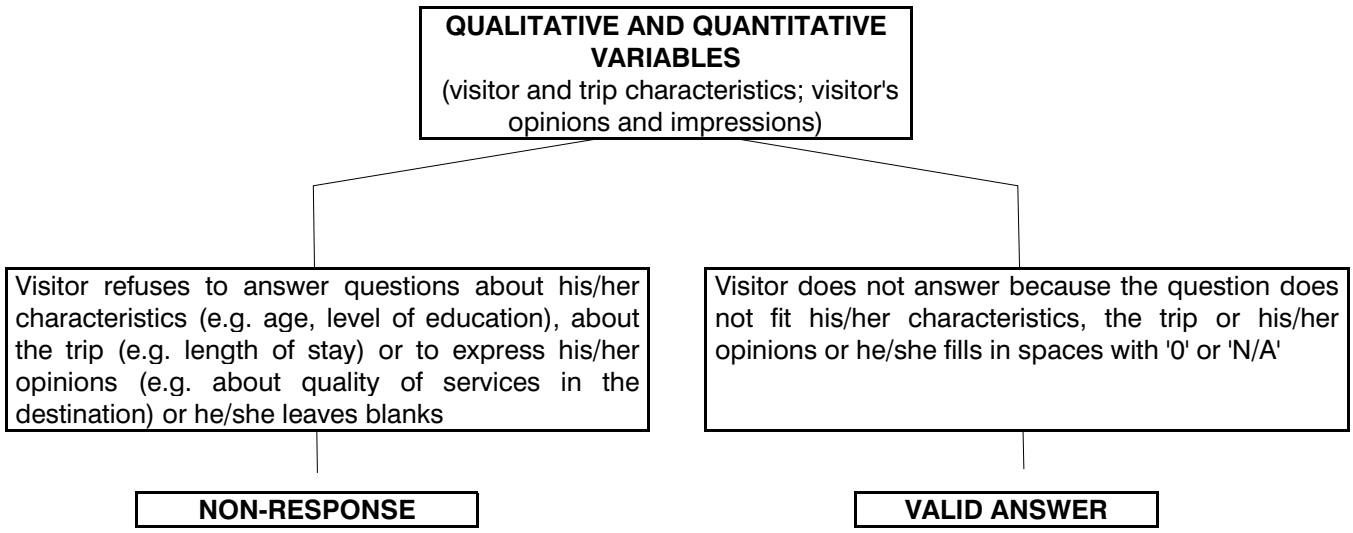
In the case of a direct interview, the researcher may verify the reasons for non-response by asking the interviewers. In the case of a mail survey and, more generally, of indirect interviews, the best solution would be to re-interview a sub-sample of interviewees (e.g. by phone), in order to verify the share of wrong responses. Even this method does not ensure a precise measure of response errors. However, the check on significant gaps between actual and previous responses represents an important information, above all if it is carried out during the pilot survey.

In detail, as far as **qualitative variables** are concerned, there is generally no other information which can substitute the missing data. However, there are no reasons to think that the characteristics of non-respondents and of their trip are significantly different from those of the respondents.

According to the so called *hot-deck* inputting methods (Rubin, 1983; Kalton and Kasprzyk, 1986), a case with similar characteristics to the case whose missing value is to be inputted may be selected at random, and its value on the variable under study may be used instead.

A better solution is replacing the missing value with a mean value calculated on homogeneous sub-groups of visitors having a number of characteristics in common with non-respondents: the data derived from the respondents of each sub-group are applied to the non-respondents of the same group (Chart 6a).

Chart 6a - Non-response to qualitative and quantitative questions. Possible solutions



Possible solutions:

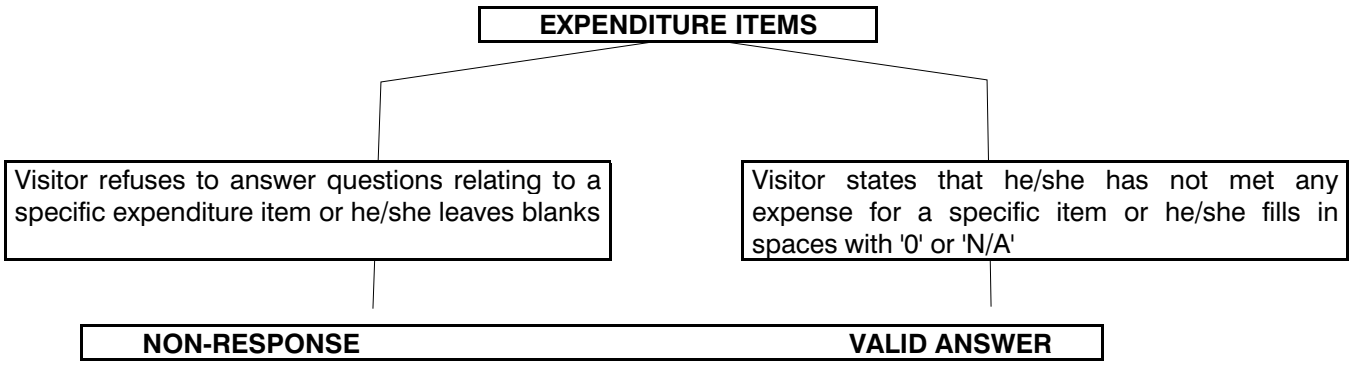
- *replacing the missing value by selecting a respondent visitor* which has the same characteristics of non respondent visitor, *at random*;
- *replacing the missing value with a mean value* calculated on homogeneous sub-groups of respondent visitors having a number of characteristics in common with non-respondents (e.g. country of origin, type of tourism, etc.).

The same procedures apply to **quantitative variables**, such as expenses met by the visitor.
Considering specifically **expenditure items**, in the case of non-response the missing value may be replaced (Chart 6b):

1. *by drawing another answer*, for the same specific item, *at random*;
2. *by using a mean value* obtained calculating the average expenditure for that specific item from the total sample interviewed or from a particular sub-sample, which has the same characteristics as those of the visitor whose non-response is being looked at (e.g. the same country of residence, means of transport used, purpose of trip, etc.);

3. *by using a regression model* to predict the variable whose values are missing. This procedure may be applied when some variables included in the questionnaire can be used as proxy of that questionnaire which has data missing. However, it can be very complicated because different cases usually have different patterns of missing values and some averaging over regression is required.

Chart 6b - Non-response to expenditure questions. Possible solutions



Possible solutions:

1. *Replacing the missing value by drawing another answer*, for the same specific item, *at random*.

2. *Replacing the missing value with a mean value* obtained by calculating the average expenditure for that specific item from total sample interviewed, from a particular sub-sample or from data provided by other sources.
   Examples. *Key questions.*
   Accommodation expenses: price-lists of hotels, campsites and rented dwellings; information from hotel operators, campsite operators and estate agencies.
   Transport expenses: average expenditure calculated from a particular sub-sample of interviewees, who have the same characteristics (country of origin, means of transport used, etc.) as non-respondent tourist.

3. Using a *regression model*.

Focussing on basic expenditure items, such as accommodation and transport expenses, the mean value may also be calculated taking into account other possible sources of information.
In detail, for *accommodation expenses*, it is possible to refer to the price-lists of hotels, campsites and rented dwellings, or to use information given by hotel operators, campsite operators and estate agencies. For *transport expenses*, it is worth using the average expenditure calculated from a particular sub-sample of interviewees, who have the same characteristics (country of origin, means of transport used, etc.) as a non-respondent visitor.

7.2.2. The package breakdown

One of the key questions regarding the trip characteristics is about whether the visitor has bought a package tour from a travel agent or not and, if so, which goods and services are included in the package. This information is of crucial importance when the researcher is also interested in analysing the expenditure met for the package and for its various components. This is seen as a pre-trip expenditure but has an economic effect at local level (remittances by the agents to the operators at the destination).

There are two main points to be considered:

1. the *type of the package*: package travel, package accommodation, package holiday or package tour;
2. the *composition of the package*: mono or multiproduct, mono or multidestination.

With reference to the type of package:

- *package travel*: the visitor purchases the return travel to the holiday resort from a travel agent;
- *package accommodation*: the visitor applies to a travel agent to book the accommodation in the holiday destination or to organise the whole stay in the resort (accommodation, meals, local tours, local transport, etc.)(mono or multiproduct);
- *package holiday* or *package tour:* the visitor purchases an inclusive tour which includes transport, accommodation and other services consumed in the holiday destination (multiproduct).

While in the first two cases the visitor is usually able to indicate the expenditure met for each item (except in the case of a trip which includes other destinations besides the one where the interview takes place, or of a multiproduct stay which includes other goods and services besides accommodation, similar in structure to the "all-inclusive" package), it is in the third case that he/she has some problems in breaking down the expenditure.

Package holidays or package tours include a number of tourist products which are purchased by the visitor as a single entity. Such packages are usually, but not necessarily, comprised of transport and accommodation, but may also include meals, coach tours, car hire, admission tickets to theatres and attractions or any other product of interest to a tourist. There is one single charge for the whole package, which is usually cheaper than the total cost of the items included if purchased separately by the visitor. Package tours may or may not include an overnight stay, and may only involve a day trip which would include, for example, a tour plus meal and admission fee to an attraction.

For statistical and analytical purposes, the expenditure made for the package tour can be shown as either a single product, i.e. the package, or as a mix of a number of separate products, e.g. accommodation, transport, tour, etc.

Generally, visitors have no information on how much of their expenditure on a package should be allocated to its component items. So a method to estimate this breakdown has to be found.

The most common method is the *allocation in proportion to non-package expenditures on each component items by separate, homogeneous sub-groups of visitors* (WTO, 1996).

In detail, proportional allocation of the total cost of the package to the different component items is made, for the same items, on the basis of expenses met by tourists who have not bought a package. In other words, you calculate the weight of each of these items on the overall expenditure of the individual tourist, and these percentages are applied to the total expenditure for the package. To increase the accuracy of the results, the method can be applied to sub-groups of individual visitors who are homogeneous — according to country of origin and means of transport used — with the organised tourists for whom you intend to breakdown the package. The assumption is, for example, that the consumption behaviour of an English package tourist who travels by plane is similar to that of a fellow-countryman who plans his own holiday and who also travel by plane. An example may clarify the application of the WTO method. Along with this, a modification to the method is proposed, which experience has shown to be more correct from an operational point of view.

We consider two cases: the first is a tourist who buys a package which only includes travel and accommodation; the second is a tourist who buys a package which includes more products or destinations (within the same country or in more than one country).

Case 1: package tour including transport and accommodation

Consider four tourists who come from the same country and use the same means of transport to reach the holiday destination. The first three are individual tourists while the fourth one purchases a package tour. Their total expenditures are as follows (US$):

Tourist	Package (P)	Transp. exp.(T)	Accomm. exp.(A)	Length of stay (days)
A	-	500	500	5
B	-	530	1 500	17
C	-	470	2 000	20
D	1 000	-	-	5

P = T + A

The average daily per capita expenditure for accommodation is equal to
US$ 95.24 [(500+ 1 500+2 000)/(5+17+20)].

In detail, the WTO method includes:

- the calculation of total expenditure made by all 'non-package' tourists for each item included in the package (transport and accommodation);
- the calculation of the share of each expenditure item in the total expenditure made by non-package tourists;
- the breakdown of the package into several items according to the shares calculated above.

WTO method (US$)	Proposed method (US$)
Average daily expenditure for transport of 'non-package' tourists $T = \frac{500}{5} + \frac{530}{17} + \frac{470}{20} = 154.68$ Average daily expenditure for accommodation of 'non-package' tourists: $A = \frac{500}{5} + \frac{1\ 500}{17} + \frac{2\ 000}{20} = 288.23$ therefore (given 442.91= 154.68+288.23): $Tp = t = 1\ 000\frac{154.68}{442.91} = 349.23$ and $Ap = a = 1\ 000\frac{288.23}{442.91} = 650.77$ Tp + Ap = P and the average daily expenditure for accommodation is equal to: 650.77/5 = 130.15 US$.	Average daily per capita expenditure for transport of 'non-package' tourists $T = \frac{500 + 530 + 470}{3} = 500$ Average daily per capita expenditure for accommodation of 'non-package' tourists (multiplied by the length of stay of the 'package' tourists): $A = \frac{1}{3}(\frac{500}{5} + \frac{1\ 500}{17} + \frac{2\ 000}{20})5 = 480.39$ therefore (given 980.39= 500+480.39): $Tp = t = \frac{1\ 000}{980.39}500 = 510$ and $Ap = a = \frac{1\ 000}{980.39}480.39 = 490$ Tp + Ap = P and the average daily per capita expenditure for accommodation is equal to 490/5=98 US$.

The alternative solution suggested here takes into account the fact that, considering a package which only includes travel and accommodation, once the means of transport has been chosen, the travel cost is the same whatever the length of stay at the destination, whilst the accommodation expenses are directly proportional to the average length of stay. Consequently, the expenditure resulting from the breakdown of a package is different from those calculated before. In particular, the travel expenses are higher whilst the accommodation expenses are lower.

Case 2: the multiproduct or multidestination package

In the case of a multiproduct package, which includes the purchase of other goods and services in addition to travel and accommodation, the same method should be implemented. In detail, the frequency of the other expenditure items included in the package has been calculated (in particular, recreational activities, local tours, souvenirs, etc.) taking into account their share of the overall expenditure of the non-package tourist. Information on what the package includes may also be recorded from tour operators and travel agencies. This information can also be very useful for:

- the breakdown of package travel which includes other routes in addition to the travel to the destination in which the tourist has been interviewed;
- the breakdown of package tour which includes other destinations (within the same country or in more than one country) in addition to that in which the tourist has been interviewed.

These can be the cases with international inbound tourists coming from countries far away from the country of holiday destination (let's think of Non-European tourists who make a European tour which includes all the main capitals: London, Rome, Paris, etc.).

7.3. Transferring data to the computer

People entrusted with transferring the information from the completed questionnaires to the computer should be well-trained in data entry on the computer equipment available and be instructed in the design of the data record. Researchers familiar with the survey should be available to answer questions during this process.

When data from a survey is to be processed by computer, it is necessary to design the *data record* for recording the information from the data collection instrument (the questionnaire). A data record is simply one data card, or one line of a computer file, or one row in a spreadsheet that can contain all of the information from a single completed data collection instrument, or "case".

A *data field* is the space in the data record devoted to inputting the answer to one question. A field must be long enough to accommodate the possible answers to a question. In designing the record format, the assistance of a computer processing expert should be sought, to ensure that the data is recorded in a manner which facilitates computer processing.

It would also be very useful to ask a computer expert to produce a specific program for inputting questionnaires. In its simplest form, it could be a sort of 'electronic questionnaire' which reproduces each question included in the original form and provides a specific data field for inputting the response (or the corresponding code).
This choice could be costly but it has the advantage of allowing a considerable reduction in data-entry errors, thank also to the planning of run edit checks.

However, at this stage a strict co-operation between the programmer and the researcher who has designed the questionnaire is necessary.

7.4. Running edit checks

These checks were outlined in Step 5 and are designed to identify wrong responses which are keyed into the computer because of errors in the completion of the questionnaire which were not checked before, and also to identify errors made at the data entry stage.

There are two types of checks (see 5.6). One is when the computer program automatically checks for deviations from the format established for data entry. This happens either when too few or too many facts are entered for a given question, or it occurs in the case of check-questions, which allow researchers to check some responses already given by interviewees (see Section 5.2.). For example, the respondent claims to stay in a 4 star hotel, with bed and breakfast, and then, when specifying the expenses, indicates the price of a stay in a 4 star hotel, with half board. In this case, the computer program automatically highlights the discrepancy (e.g. by displaying a warning phrase).

The second type of edit check looks for deviations from the range allowed in the questionnaire. These ranges are established by the researcher to identify responses which are clearly wrong. They cover valid responses, such as only two acceptable codes for gender, and reported ages only below 150 years.

Whenever the edit checks identify wrongly entered data, the researcher should review the case by looking at the original questionnaire and choose whether to accept the answer, correct it, or exclude it from further processing.

7.5. Producing tables

The analysis of the sample survey results represents the first stage of a three-stage process which includes the grossing-up of the survey's results and the evaluation of the final results on the target population
(see Steps 8 and 9).

The production of these tables is therefore recommended as the prelude to the final analysis. This allows the researcher to verify the balance of the sample, i.e. the existence of discrepancies between the sample of questionnaires collected and the initial sampling plan.

The tables may be drawn up by common Windows programs or with specific statistical programs.

There are three types of tabular presentation of survey data. The *frequency tables* describe the results for each question in terms of the number and percentage of respondents giving each response. The objective is to provide a quick review of the most common and least common answers to each question. Table 2 just shows an example.

The first column lists the categories of responses, and the second column indicates the codes assigned to each category. The third column shows the actual number of responses for each length of stay category.
The fourth column, 'Percentage', highlights the percentage of all respondents in each duration category. Note that 'No answer' is included along with the numerical duration responses. On the other hand, the fifth column, 'Adjusted percentage', shows the percentage of responses in each category, ignoring non-responses. This assumes that respondents who did not answer this question have a length of stay distribution identical to those who did provide answers.

The final column shows the cumulative percentage, ignoring 'no answer' responses. This allows us to make quick observations, such as that more than half of the respondents stayed less than four nights.

Table 2: Example of a Frequency Table

Question 4. *How many nights did you spend in country X during this trip?*					
Category	**Code**	**Frequency**	**Percentage**	**Adjusted percentage**	**Cumulative percentage**
no overnight stays	1	200	15.7	16.0	16.0
1 to 3 nights	2	650	51.2	52.0	68.0
4 to 7 nights	3	200	15.7	16.0	84.0
8 to 14 nights	4	150	11.8	12.0	96.0
15 to 28 nights	5	30	2.4	2.4	98.4
29 nights or more	6	20	1.6	1.6	100
no answer	9	20	1.6	-	-
Total		1 270	100	100	100

The other type of tabular presentation of survey results is the *cross-tabulation*.

This demonstrates the relationship between the answers to two or more questions in the survey. The objective is to show whether or not the answer to one question depends on the answer of another question.

The following table provides an example.

Table 3: Example of a cross-tabulation Table

Question 4. *How many nights did you spend in country X during this trip? as percentage of question 10: What is your gender?* (percent values)				
Category/Gender	**Code**	**Q.10. 1. Male**	**Q. 10. 2. Female**	**Total percent**
no overnight stays	1	4	20	10
1 to 3 nights	2	9	30	15
4 to 7 nights	3	20	20	20
8 to 14 nights	4	5	5	5
15 to 28 nights	5	13	0	10
29 nights or more	6	39	15	30
no answer	9	10	10	10
Total		100%	100%	100%

This example shows that there is a relationship between gender of traveller and length of stay: men stay for longer periods than women. If there was no relationship, then the percentages in the male and female rows would approximate the total percentages in the last column.

There are as many possible cross-tabulation tables as there are the number of questions multiplied by the number of questions less one. Some of the more interesting cross-tabulations for inbound international visitors are by country of residence, purpose of visit, length of stay, season of the year, type of accommodation, means of transport and visitor characteristics.

As far as quantitative data (e.g. expenditure items) is concerned, it can also be useful to calculate a *mean table*. For each question included in the questionnaire (e.g. daily expenditure for accommodation, food and drinks, etc.), it presents the total number of respondents, the average response rate, the standard deviation from the mean and the minimum and maximum values it can assume.

Table 4: Example of a Mean Table

Variables	No. of respondents	Mean (US$) [1]	Standard Deviation (US$)	Minimum value (US$)	Maximum value (US$)
Hotel accommodation	250	92.36	31.23	35.72	174.54
Food and drink [2]	170	16.88	16.31	0.77	87.22
Souvenirs	120	6.27	6.32	0.11	33.00

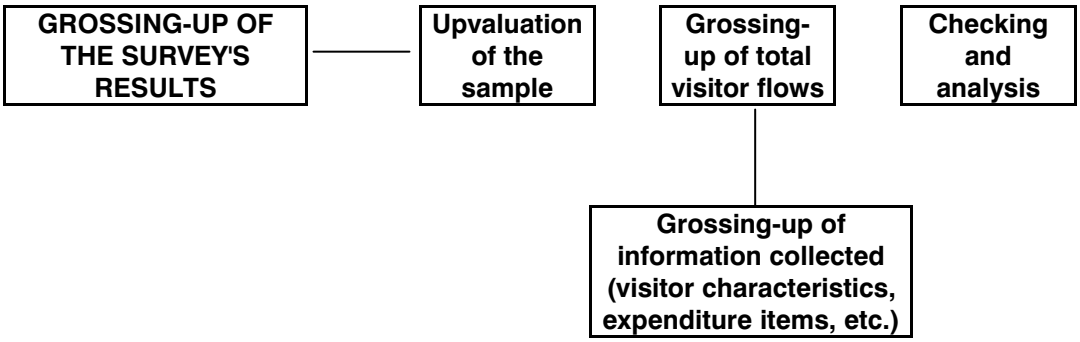
[1] The mean represents the average daily per capita expenditure per item.
[2] The item includes expenses in restaurants, bars, shops, etc.

As you can see in Table 4, the third column shows the average daily per capita expenditure met by the respondents for each item. The fourth column indicates the range in variation of the majority of responses. This means that, for example, daily expenses for hotel accommodation are included in a range from 7.35 US$ (92.36-25.01) and 117.37 US$ (92.36+25.01).

The last two columns indicate the minimum and the maximum expenditure data reported by respondents. In some cases, these latter values can be stated by the researchers in advance to avoid inconsistencies (for example, an expense of 2 000 US$ for an overnight stay in hotel. See answer coding, Section 5.5.). The average values can be calculated including or ignoring non-responses. In the example, the average value calculated for each item excludes non-responses.

8. Grossing-up of the survey's results and checking procedure

Step 8



Once you have recorded and input the questionnaires, and made a preliminary analysis of the survey's results, you need to control that the responses are correct and respect the level of accuracy stated in the sampling plan. In any sample survey you can face two basic type of errors: sampling errors and non-sampling errors.

The **sampling errors** are associated with the fact that the sample used was only one of a large number of possible same-size samples that could have been selected. Although these errors have to be taken under control

in the sampling phase (see Section 4.2.2.3.: the sampling selection method), it may result that the visitors really interviewed do not represent an adequate coverage of the population under study.

For example, you can obtain completed interviews from too many air visitors and not enough from land visitors (in an entry/exit point survey) or from too many hotel guests and not enough from other collective accommodation guests (in a survey at accommodation establishments). In this case, your final sample will not be representative of all inbound visitors, according to the sampling plan drawn at the beginning. So you have to weight your sample to match the target population on specific characteristics, before further processing or analysing. The support of an expert statistician during the balancing process would be advisable.

But the errors made do not only depend on the selected sample; a sampling survey consists of a number of steps which involve a large number of operations as well as several people, such as interviewers, interviewees, supervisors, analysists and data processers.

The **non-sampling errors** identify the multifold, and often uncontrollable, errors which can occur during the planning, organisation and implementation of the survey (Steps 4, 5, 6, and 7). Although they have already been dealt with in the appropriate Sections, here they are summarised for purpose of clarity.

In fact, even if they should be monitored during the whole survey process, it may happen that they become evident only in the analysis of the survey's results, and so it is necessary to solve them before proceeding with the up-valuation and the grossing-up.

Unlike sampling errors, these errors are independent of the consistency of the data collection, i.e. they can also arise in accurately drawn samples.

This means that they generally cannot be reduced by increasing the sample size, as discussed for sampling errors (see 4.2.2.3., the sampling selection method). Consequently, in large samples their influence on the survey's results may be larger than sampling errors. This forces researchers to find an optimum allocation of the total budget between the funds allotted to the reduction of the sampling error (mainly through an increase in the sample size) and those assigned to the measurement and control of non-sampling errors (Cicchitelli et al., 1992).

Murthy (1967) identified three main categories of non-sampling errors:

- *Specification errors*, due to an incorrect specification of the population under study and of the information to be collected, or to a specification which does not meet the purpose of the survey.
- Checking *errors*, which deal with the organisation of the data collection.
- *Tabulation errors*, which usually arise during the data analysis.

Specification errors mainly occur during the definition of the target population and the sampling frame and the design of the questionnaire (Steps 4 and 5). The selection of an incomplete list of sampling units from which to draw the sample can modify the probability of inclusion of each population unit (see Section 4.2.2.2.: incomplete frames). On the other hand, given the sample frame, questions not perfectly focused on the purpose of the survey, poorly worded questions, cryptic instructions, missing information, etc. are all causes for specification errors. "Regardless of how well a sample is selected, the results of the survey are not going to be accurate if the questions are not properly phrased" (Cannon, 1994).

Checking errors refer to the organisation, implementation and control of the interviews (Steps 6, 7). Badly trained interviewers, who fail to follow the general guidance stated by the researchers in approaching the interviewee; bad working of some technical equipment used for counting visitors (e.g. electronic eye: see Part IV, Chapter 8); interviewees' misunderstanding, lack of memory or unwillingness to answer which may result in missing or wrong answers; lack of control by supervisors. These are the most common checking errors. About non-response, a thorough analysis of possible causes and solutions is given in Chapter 7, Section 7.2.

Finally, **tabulation errors** identify the errors made in checking and analysing the survey's results (Step 7), i.e. in coding questions and planning editing checks, in transferring data to the computer, in data processing, in producing tables and diagrams, etc.

In recent years, many methods have been implemented with the objective of reaching a better control of non-sampling errors, with particular regard to measurement errors. Nevertheless, the problem is very complex and an effective and efficient solution applicable to all types of surveys is still to be found. As stated by Cochran (1977),

improvements in this field are slow and very expensive, because such errors not only depend on the object of the survey, but also on human factors.

However, once you have corrected sampling errors and other distortions coming, for example, from missing data or from data processing, you can expand the sample results up to the target population, in order to obtain an estimation of the total number of inbound visitors in the area under study, of their characteristics and (if surveyed) of their consumption behaviour and economic impact.

The up-valuation of the sample and the grossing-up methodology vary greatly according to the kind and the size of the area under study (closed or open; small or large).

8.1. The up-valuation of the sample

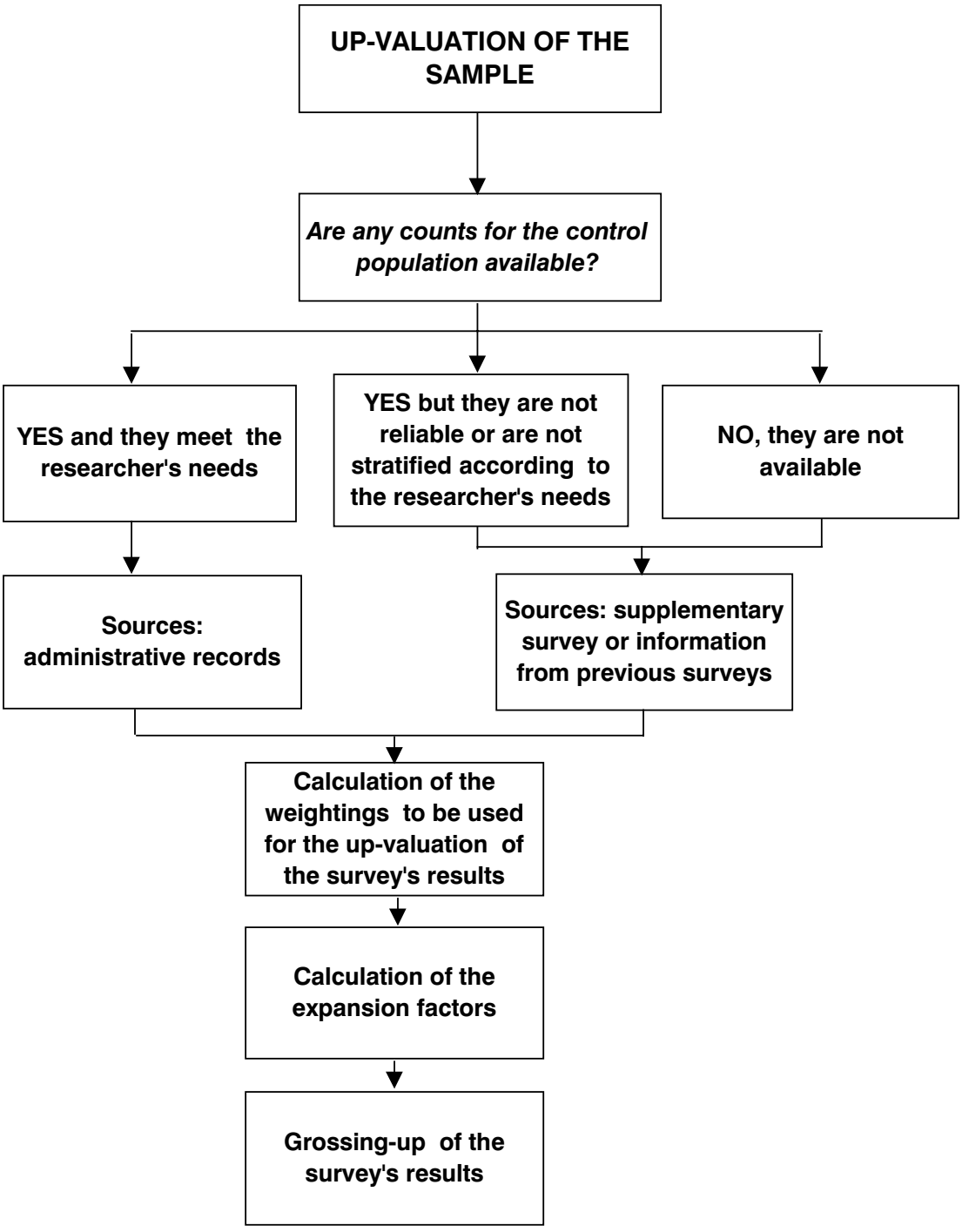
The up-valuation procedure is important for balancing the sample results according to the sampling plan previously arranged and, consequently, according to the composition of the target population.
As for the determination of the sample size, the methodology used for the adjustment of the sample results depends on the information available for the target population.

The following three situations may occur (Chart 7):

1. the researcher has accurate information on the target population (usually through complete counts or "census" on all visitors);
2. the counts are not reliable or they do not meet the researcher's needs (e.g. they are incomplete);
3. the counts are not available.

The first case is more common in closed areas (e.g. a country) where there is some control mechanism for entry. Information about the inbound visitors' population that may be available from administrative records (embarkation/disembarkation forms, registrations by operators of collective accommodation, etc.) generally provide data on total visitor/tourist flows or on visitors/tourists by country of residence, by departure point, by major means of transport (aeroplane, railway, car, boat/ship), by length of stay and by month of departure.
For example, considering a survey at entry/exit points, if 70 percent of the sample is composed of air visitors, but a census count indicates that only 40 percent of the actual inbound visitors arrive and depart by air, than it is necessary to adjust the sample to approximate this distribution. This process will produce factors that are used to weight each case so that it represents its appropriate proportion of the target population. In the above examples, each answer provided by an air visitor should receive a weighting of 0.40/0.70=0.57.

Chart 7 - Up-valuation of the sample and grossing-up of the survey's results. The logical process



The completed questionnaires of other types of visitors (e.g. land visitors) would receive different weightings depending on these relationships.

If data on inbound visitors does not meet the researcher's needs or it is not available at all — as may happen in an open area (e.g. a public tourist site, such as a church, a street, etc.) —, it would be appropriate to conduct some supplementary surveys in order to calculate the weightings to be applied to the results of the main survey. The supplementary survey may be conducted during or just after the main survey or it may occur at the same

time as the pilot survey (see Chapter 4), when the researcher decides to use this collection to determine the sample size.

8.2. The grossing-up of the survey's results

Once the re-weighting procedure has been carried out, the next step consists of expanding the sample results up to the target population, in order to obtain an estimation of the total number of inbound visitors, of their characteristics and (if surveyed) of their consumption behaviour and economic impact on the area under study (Chart 7).

The evaluation of the experience of different countries has also stressed how the method for estimating the expansion factors changes according to the type of area under study (closed or open) and the kind of survey conducted (e.g. a survey at entry/exit points rather than a survey at accommodation establishments). In large closed areas (such as a country), researchers may carry out a survey at entry/exit points or on means of transport, while in a small area, such as an island, they can also opt for a survey at accommodation or at popular tourist places. In single attractions with some sort of control mechanism for entry (museums, exhibitions, etc.) the survey is usually organised in the same place, while in large or small open areas (e.g. a region, a city, etc.) researchers may implement a survey at accommodation establishments or at tourist sites. The latter survey is the best solution for getting accurate information on both tourists and same-day visitors, while a survey at accommodation establishments provides data on volume, characteristics and consumption behaviour of tourists only. In the case of a region, however, it should be taken into account that both surveys involve a sophisticated organisation, considering the need to select a representative sample of tourist places or of hotel and non-hotel accommodation.

Given the monitored area, the aim of the **grossing-up methodology** is to know volume estimates of total visitors for each visitor characteristic, in addition to percentage breakdowns provided by the sample results. The expansion method involves calculating an *expansion factor* for each respondent having a certain characteristic, from complete counts of visitors. Once the researcher has done this, each response represents the behaviour of a corresponding group in the target population rather than just the sample in terms of visits, nights spent, expenditure and other measures of visitor activity.

The more the expansion factors can be estimated for homogenous sub-groups in terms of characteristics (e.g. tourists by nationality, or better tourists by nationality, purpose of the trip and socio-economic profile, instead of total tourists, and so on) the more the grossing-up procedure will be successful in giving reliable results. We will give just one example to demonstrate the importance of segmenting the monitored population as much
as possible.

The government of Turkey knows from administrative counts that about 100 000 Italian residents arrived as visitors in 1994. Its survey of 10 000 departing inbound visitors identified 250 respondents who live in Italy, of which 230 were leisure visitors. The expansion factor for Italian visitors is equal to: 100 000/250=400. Multiplying the leisure visitor respondents by the expansion factor (400*230) provides an estimate of 92 000 leisure visitors from Italy for the year[7]. As you can see, we do not know the real number of Italian tourists who choose Turkey for leisure purposes; so we have to calculate the expansion factor using a proxy, taken from the total number of visitors coming from Italy, whatever the main purpose of visit is.

If only the total number of international visitors is known, and nothing more about their country of origin or other characteristics, then the expansion factor has to be computed from this. If Turkey hosted 6 million inbound international visitors in 1994, then the expansion factor for each international respondent to the survey would be 6 000 000/10 000 = 600. In this case, the number of Italian leisure visitors is 600* 230 = 138 000[8].

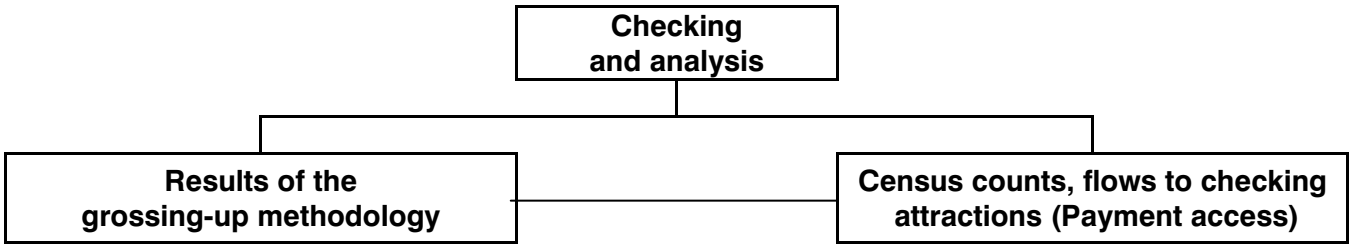
[7] Statistically speaking, the proper procedure implies calculating the relative frequency of the characteristic under study and applying it to the population. Given 230/250=0.92 the sampling estimate of Italian leisure visitors on total Italian visitors interviewed (which indicates that out of every 100 Italian visitors, 92 are leisure visitors), the total number of Italian leisure visitors in a year is obtained by multiplying 0.92 for the total number of Italian visitors recorded by official counts. The result is the same as that shown in the text: the method we have used allows us to highlight the calculation and the value of the expansion factors.

[8] In this case the relative frequency is 230/10 000=0.023, and the total number of Italian leisure visitors in a year is equal to 0.023*6 000 000=138 000.

When no information is available (e.g. survey at tourist attractions), as discussed above for up-valuation of the sample, the expansion factor must be calculated by combining the results of supplementary surveys.

In Part III and Part IV different methods for the up-valuation and the grossing-up of the survey's results are discussed as far as closed areas and open areas are concerned. In particular, Part III describes the case of a large and a small closed area (a country and a single attraction), given the most common situation when administrative records provide only partial information. Part IV shows the case of a large and a small open area (a region and a city), when there is no available information for balancing and grossing-up the survey's results or when this information may be partially available. We should stress that both methods may be applied, with suitable adjustments, to other combination area-survey.

8.3. Checking and analysis of the grossing-up procedure



Having expanded the sample results up to the target population, it is important to control that the final results are coherent with the real size of the population under study.

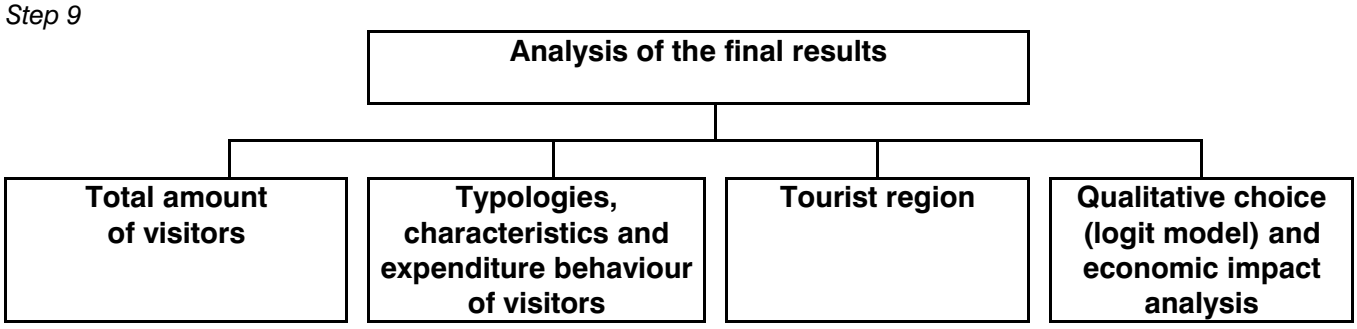
The control is based on the same data used for the calculation of the weightings in the grossing-up procedure. They derive from official sources, such as census counts and administrative records (embarkation/ disembarkation cards, registrations by hotel and non-hotel operators, volume of tickets sold, etc.), or from previous or supplementary surveys.

This information allows researchers to verify not only the volume of visitors (tourists/same-day visitors) in a given area but also, in some cases, the main characteristics of the visitor and the trip (e.g. country of residence, means of transport used, length of stay, etc.). In the case of an open area (such as a region or a city) where information may only be obtained by specific surveys, it may also be helpful to refer to some official data about the use of other services connected to tourism, such as transport services, electric power, rubbish production, etc. An increase in the use or in the production of one or more of these services during the year (or during a specific period of the year in comparison, for example, with the previous year), may be representative of a growth in visitor flows.

However, this data only provides indications for estimating the total volume of visitor flows and, in the case of electric power and rubbish production, of tourist flows.

9. Analysis of the final results

Step 9



Once the procedure described so far has been completed, you can produce final frequency tables and cross-tabulations similar to tables produced for the sample, but with absolute estimates rather than sample percentages.

In addition to the total visitor analysis in terms of types, characteristics and habits, at this stage you can also study other relevant aspects linked to inbound tourism. With regard to the destination you are monitoring, you could, for example, define the tourist region from which each type of visitor, and in particular of same-day visitors, originates. As mentioned above, in this area tourist receipts and, more generally, the economic, social and environmental impact of tourism depend on the proximity to the main destination.

Furthermore, if your interest is in investigating the main characteristics of the visitors with respect to their origin and socio-economic profile, their preferences and their holiday decisions, then a qualitative choice model should be implemented. One purpose of such models is to determine the probability that an individual with a given set of attributes will make one choice rather than another. More generally, a relationship between a set of attributes describing an individual and the probability that the individual will make a given choice is found.

But if your interest is in studying the identity and the structure of the tourism industry and in measuring its role in the whole production system, then aggregated or disaggregated economic impact models (Keynesian multipliers or multisectoral-multiregional input-output models) should to be carried out starting from tourism expenditure estimates.

PART III

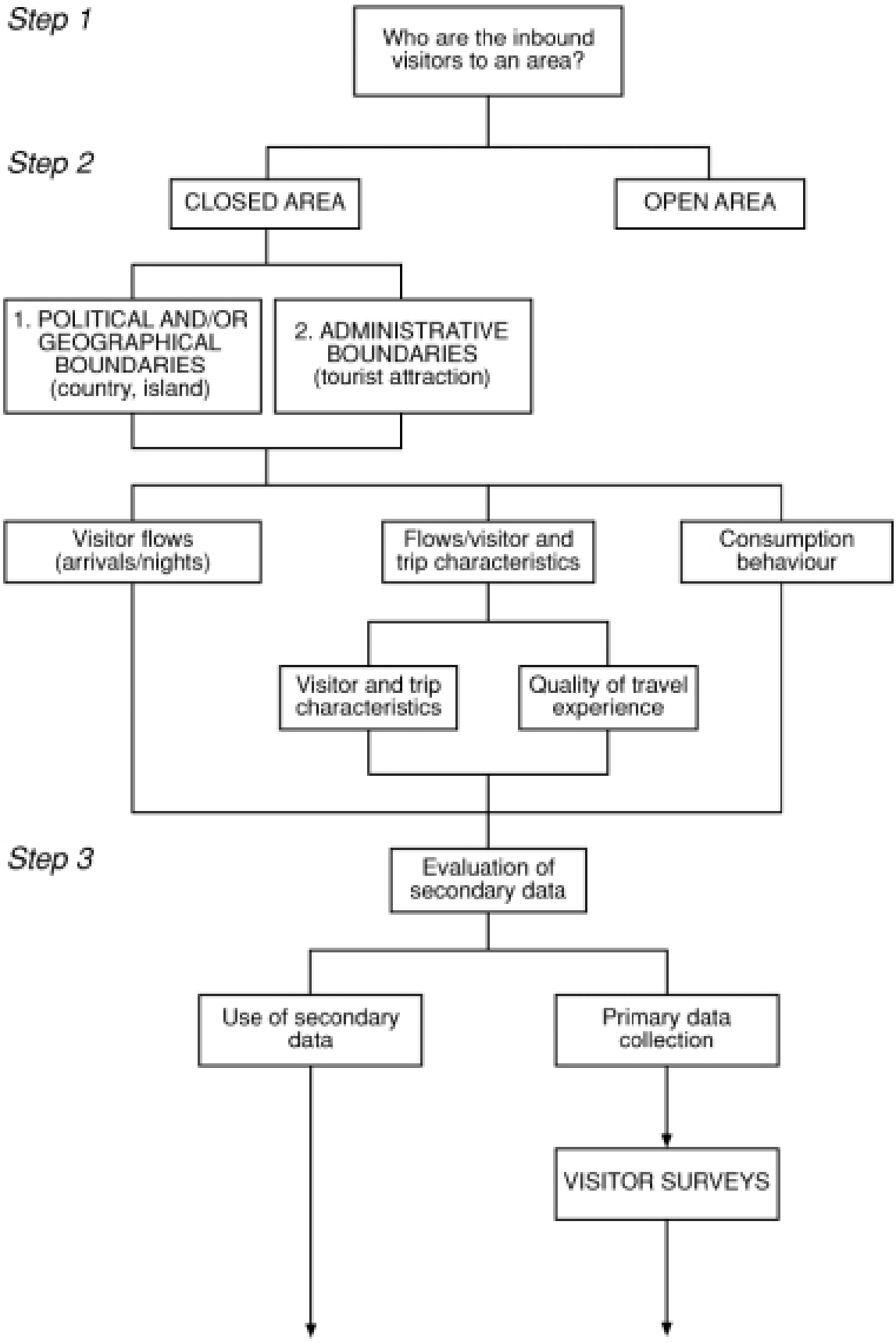
INBOUND VISITORS TO A CLOSED AREA

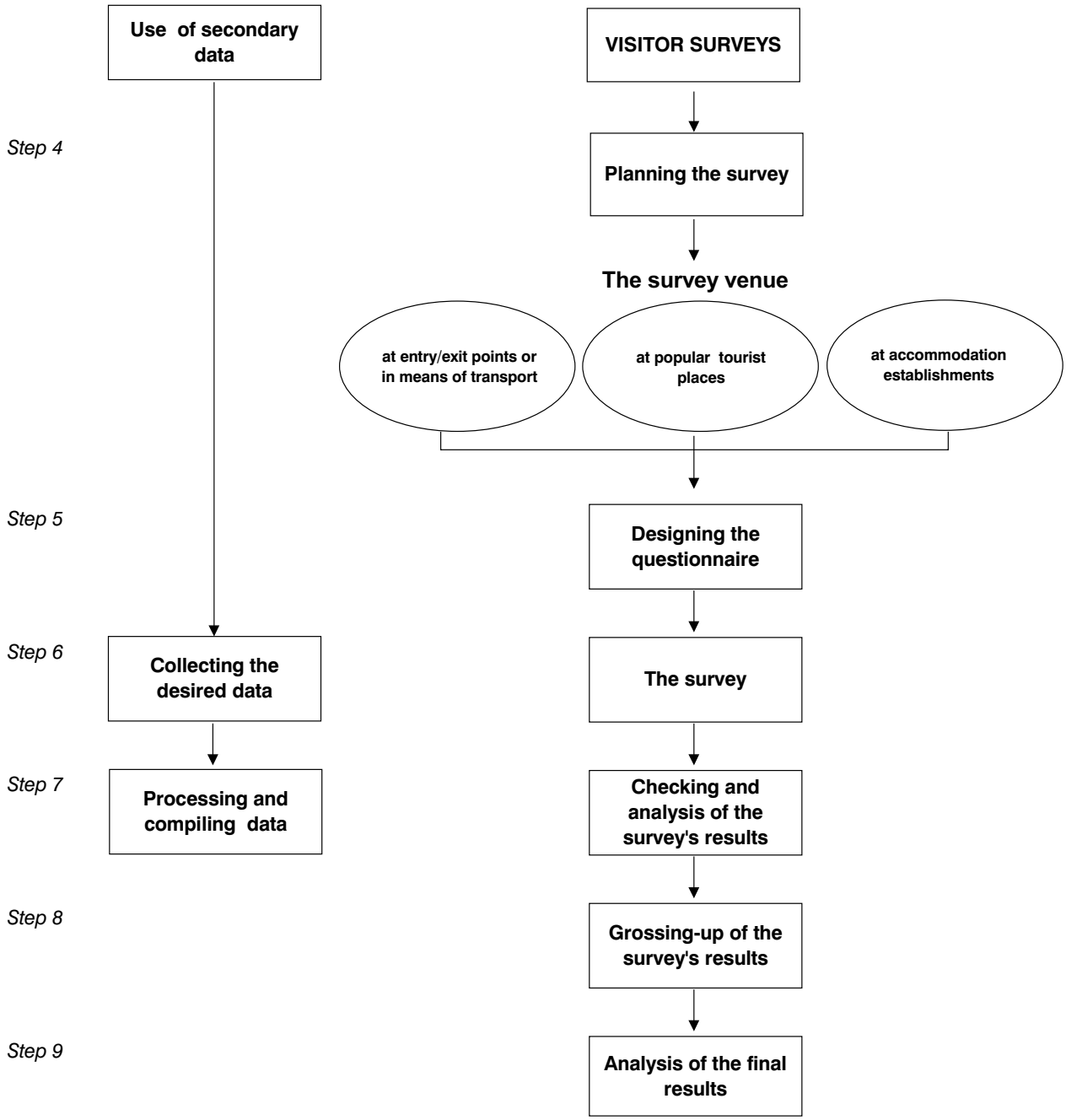
The aim of Part III is to analyse fully the method planned for the collection of inbound tourism statistics with specific reference to a closed area.

The organisation follows the same logical process shown in Part II, but for each step only the different procedures that should be specifically applied in the case of a closed area are discussed.

For common procedures which may be implemented both in a closed or in an open area the researcher/user should refer to the corresponding Chapter or Paragraph in Part II.

Chart 1 - Inbound visitors to a closed area. The research process




Use of secondary data
VISITOR SURVEYS
Step 4
Planning the survey
The survey venue
at entry/exit points or in means of transport
at popular tourist places
at accommodation establishments
Step 5
Designing the questionnaire
Step 6
Collecting the desired data
The survey
Step 7
Processing and compiling data
Checking and analysis of the survey's results
Step 8
Grossing-up of the survey's results
Step 9
Analysis of the final results

1. Inbound visitors to a closed area. The main issue

Step 1

Who are the inbound visitors to an area?

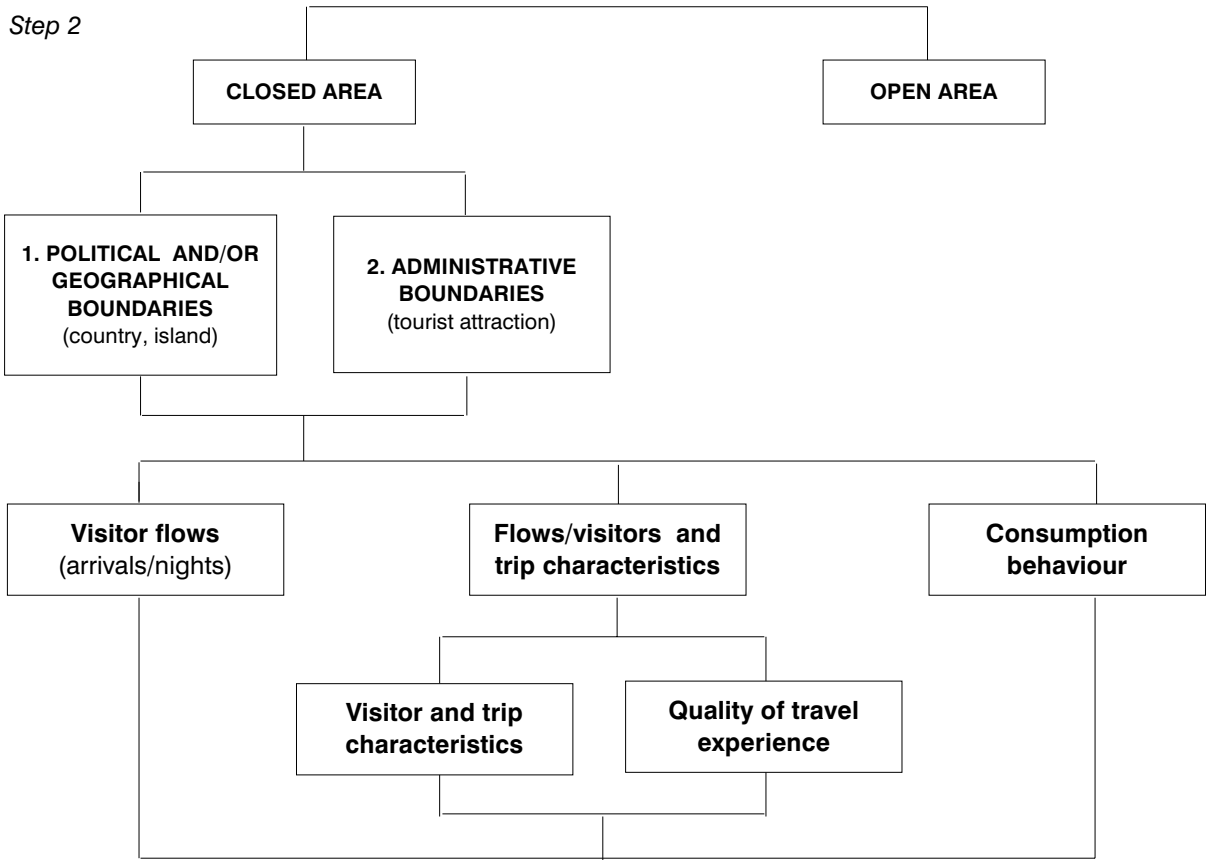
The object of the analysis is all visitors who enter an area, whatever its size (country, island, resort, tourist site, etc.), which has some control mechanism for entry (border controls, administrative controls, entrance fees, etc.).
Measuring the volume and characteristics of inbound visitors in a country, and their consumption behaviour, is a priority for most national governments. The information collected is vital for economic and marketing purposes.
Also regional and local administrations are interested in evaluating trends and characteristics of visitors entering an area or a specific destination (attraction) located in their territory, where particular geographic conditions (e.g. an island) or administrative conditions make the use of a control mechanism for entry easier (e.g. museums, parks, archaeological areas, etc.).

The entry of visitors into a country or into some areas of a country is often regulated by various administrative controls. In several cases, the visitors are required to pay different taxes like tolls, passenger, tax etc., or have to take special permits. All transport vehicles, public or private, entering such areas are checked at the entry points and the requisite tax collected. In areas where such systems exist, it would be possible to estimate the total number of visitors by counting the number of passengers who paid such taxes or took special permits (e.g. natural and theme parks, etc.).

In some cases, the local residents in such areas are either exempt from paying such taxes or issued return passes (see, for example, a natural reserve). The persons who travel regularly either for work or business would have separate permits or passes. Thus it would be possible to segregate the visitors from other categories of travellers at the time of counting.

2. Specification of data needs. The area and the information

Step 2



As discussed in Part II, the researcher may deal with three types of closed area which are characterised by different types of boundaries:

1. ***political boundaries*** which divide one country from another. Here border controls verify the travellers' flows going into and out of the country;
2. ***geographical boundaries***, such as on an island. If the island is also an independent country, political and geographical boundaries are the same;
3. ***administrative boundaries***, such as in a museum, a park, a health resort, etc. The entry of people into these tourist sites is often controlled by entry passes and tickets.

In these areas, the researcher may be interested in:

- counting inbound visitors (tourists and/or same-day visitors);
- counting inbound visitors and measuring the visitor and trip characteristics (age, socio-economic status, destination, means of transport used, etc.). At this stage, it can also be useful to evaluate the quality of travel experience and consequently the level of satisfaction experienced by each visitor;
- studying the consumption behaviour and the expenditure items of the visitor.

As discussed in Part II, the type and size of the area to be monitored and the kind of information to be collected directly influence the choice between using secondary data and organising a primary data collection and, if in the latter case, the kind of survey (system of surveys) to be carried out (Charts 2 and 3).

The choice depends on:

1. the kind of area in which you want to analyse visitor flows (large or small);
2. the visitor you want to investigate (tourist, same-day visitor or both);
3. the kind of information you want to collect and how detailed it should be.

In a large closed area (e.g. a country) data provided by customs formalities or by embarkation/disembarkation cards may be useful if you are only interested in the volume of visitor flows or in having basic information on visitor characteristics. Otherwise, you can choose a direct survey at borders which allows you to collect data both on the characteristics and the consumption behaviour of visitors entering the country (tourists + same-day visitors).

In a small closed area bounded by geographical borders (island) there are usually no administrative records available. In this case, a visitor survey at entry/exit points (or on means of transport), as well as at accommodation establishments and/or at popular tourist sites may be used. Generally speaking, the first one is usually preferable as it provides complete data on tourists and same-day visitors visiting the island. In the case the island is so far away from the mainland as to discourage same-day visits, the results obtained from a survey at entry/exit points or at accommodation establishments are very similar.

In a small closed area bounded by administrative borders (museum, archaeological area, theme park, etc.) a visitor survey carried out directly at the tourist attraction is surely the best solution. In this case the local analysis allows you to evaluate visitor flows as representative of the tourist pressure both on the tourist site and on the surrounding area (e.g. the city in which it is located).

Chart 2 - Closed area. The suggested survey venue according to the kind of area

Survey venue \ Area	CLOSED AREA		
	LARGE	SMALL	
	Country	Island	Attraction
At entry/exit points	YES	YES	NO
On means of transport	YES [1]	YES	NO
At accommodation establishments	NO	YES	NO
At popular tourist places	NO	YES	YES

[1] In the case of a country, the survey at entry/exit point may be combined with a survey in means of transport for specific means (e.g. rail transport)(See 4.2.2.3.).

Chart 3 - Closed area. The suggested survey model according to the kind of information to be collected

Information / Area	CLOSED AREA		
	LARGE Country	SMALL	
		Island	Attraction
Volume of visitor flows	EXIT	EXIT or TRANS	PLACE
Visitor and trip characteristics	EXIT	EXIT or TRANS	PLACE
Quality of travel experience	EXIT	EXIT or TRANS	PLACE
Expenditure behaviour	EXIT	EXIT or TRANS	PLACE

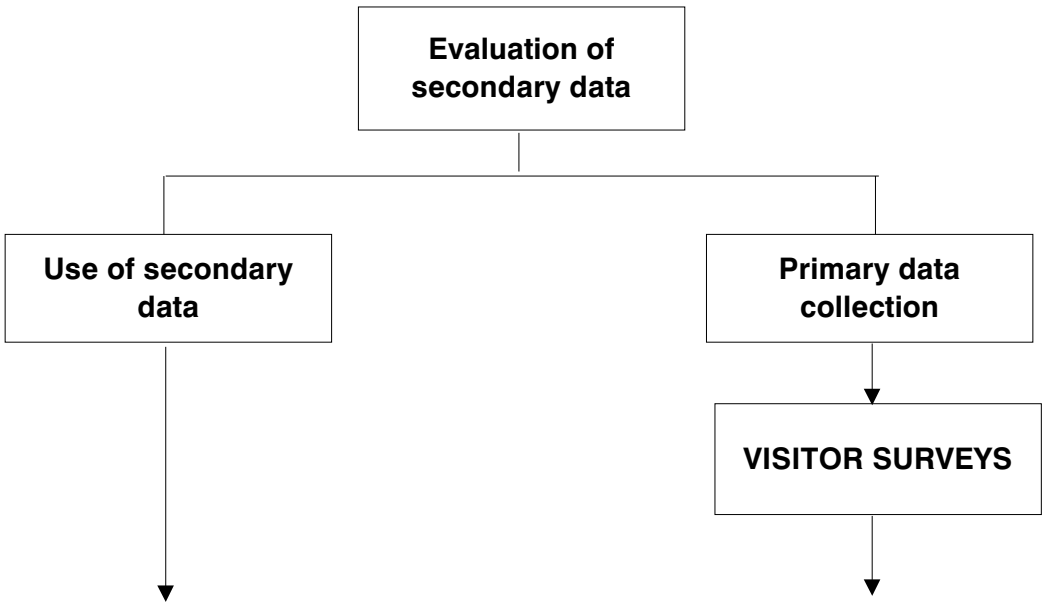
Note:
EXIT = survey at entry/exit points
TRANS = survey in means of transport
ACCOM = survey at accommodation establishments
PLACE = survey at popular tourist places

Furthermore, it should be noted that the need to control visitors' flows in the historical centres of some cities of art (by definition, open areas) may induce local authorities to adopt some control mechanisms to entry, such as tickets and passes. In that case, the city centre becomes a closed area and the same procedure used for a closed attraction may be applied.

The discussion concerning the choice of the survey (system of surveys) to be used, given the area and the data to be analysed, will be examined closely in Chapter 4 (Section 4.1. on the survey venue).

3. Choosing between secondary data and primary data collection

Step 3



Once you have decided the information you need, it is necessary to evaluate the data on inbound visitors already collected by other operators.
In the case of a *closed area*, the major sources of this data are:

Closed area. Major sources of secondary data

1. information collected through exit or embarkation forms;
2. information collected through entry or disembarkation forms;
3. information recorded by border control officials from passports of departing or arriving inbound visitors;
4. information recorded by operators of collective accommodation for administrative purposes;
5. information recorded by operators of tourist sites and attractions.

In a country, for example, information on inbound visitors may be collected at the borders by government agencies; on an island as well as in a closed resort they may be recorded at popular tourist places.

Embarkation cards are preferable to disembarkation cards: the first gather data on actual behaviour of inbound visitors as they are leaving the country (or island), whereas the second rely on visitor intentions, which may not be a realistic guide to actual behaviour. For example, visitors may lengthen or shorten their stays from what they anticipated in response to unexpected weather, health problems, transportation delays or special attractions.
In detail, advantages and disadvantages of the five sources listed above are shown below.

Inbound visitor statistics collected by government agencies through embarkation or disembarkation cards (sources 1 and 2) are necessarily limited because the aim is to avoid any hindrance to visitor flows by lengthy official forms. These cards may be used only with visitors travelling by commercial carriers (airlines, ships, coaches, etc.), while those moving by car are wholly outside their application. However, in countries where access is limited to one or two means of transport (aeroplane and/or boat), these forms provide a complete count of visitor flows coming into the area. They are usually handed out to visitors during the journey, who have to give them back to border control officials when arriving at destination.

These forms are most useful when they collect the following information through close-ended questions:

- Country of residence.
- Immigration status.
- Purpose of trip.
- Length of stay.
- Last port of embarkation (for arriving passengers).
- Next port of disembarkation (for departing passengers).

The last two data are particularly useful in determining the most recent origin-destination flows among ports of entry.

An example of an embarkation/disembarkation card along with further detail on their structure are given in Appendix B4.

Information recorded by border officials (source 3) through the control of passports and identity cards usually provide more limited information, perhaps only country of residence, gender and age.

Considering both embarkation/disembarkation cards and border controls, it should be noticed that the complete opening of frontiers between EC countries will result in an impossibility to continue this data collection. Moreover, the repeal of passport requirements by many Non-European countries (usually for organised groups) has eliminated an important source of statistical information.

Information recorded by operators of collective accommodation (source 4) is the last resort when no border crossing data is available and a sample survey of inbound international visitors cannot be conducted. Here the statistical information is based on the data that collective accommodation establishments record for their own administrative purposes or to comply with the demands of the tourist administration or police authorities.

You may obtain useful data on inbound tourists from the registration records of hotels and similar establishments, health care establishments, holiday camps, conference centres and tourist campsites. Compared to the other sources of inbound visitors data, this method is subject to three important limitations:

1. it covers tourists but not same-day visitors;
2. it does not cover types of accommodation where registration is not compulsory, such as private homes;

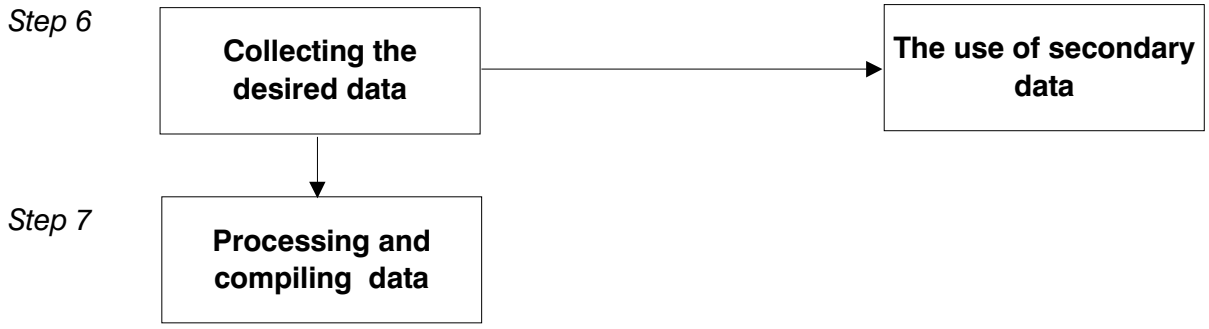
3. it cannot provide a count of total tourists in the closed area under study, to the extent that it records only nights and that tourists may stay in various places in the area before leaving.

Furthermore, where the administrative controls are weak, problems of missing recording may arise which can invalidate the data collection.

As far as *a tourist attraction* is concerned, such as a museum or an archaeological area, the management usually counts the number of free tickets and tickets sold, or the number of tolls or passenger taxes paid, to estimate the total number of visitors throughout the year *(source 5)*. This counting is made both for administrative and official statistical purposes. In certain cases, different kinds of passes and entry fees are applicable to different categories of visitors (e.g. teachers and students in a museum). A systematic counting of these passes and tickets on a daily basis will yield reliable information on visitors flows.

The problem is that the statistics collected through such administrative controls are not usually disposed to having specific information on visitors' characteristics and consumption behaviour. For example, they do not allow any categorisation into international and domestic visitors and into tourists and same-day visitors, unless the controls themselves make such distinction.

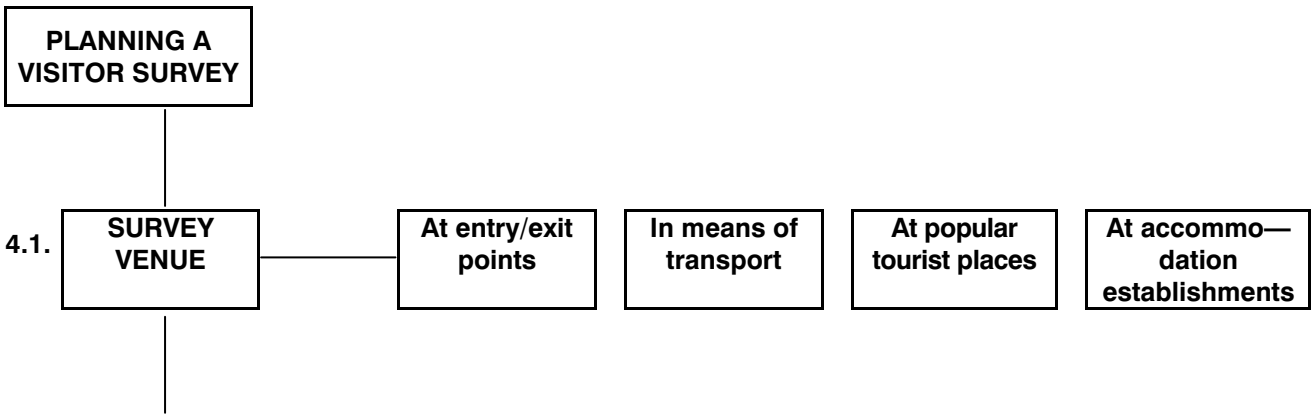
If the existing sources prove adequate to the interests of national and local authorities and operators, you can pass directly to Step 6 and collect the desired data, and then to Step 7 to process and compile them, following the same suggestions given on Paragraph 7.5 (Part II).

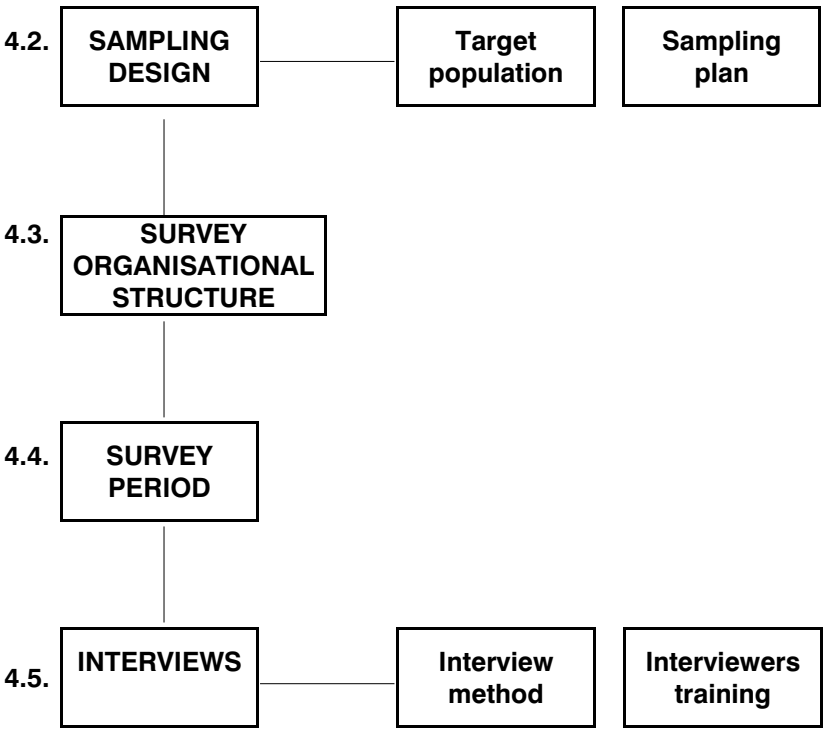


If none of the existing sources proves adequate, then you will have to consider gathering primary data through a sample survey of inbound visitors.

4. Primary data collection. Planning a visitor survey

Step 4



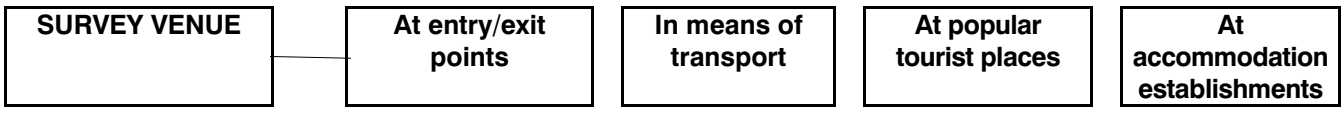


As mentioned in the introduction, at each stage included in Step 4 only the specific issues to be discussed and the operative methods to be applied for each type of closed area are expanded upon.

For the analysis of the general issues, common to a closed and an open area, see the corresponding Chapter or Paragraph in Part II.

In detail, in each of the following Paragraphs the chart drawn at the very beginning highlights in bold characters the specific issues dealt with in the following text.

4.1. Choosing the survey venue



As stated in Part II and in Chapter 2 above, the choice of the survey venue or location, and consequently of the kind of survey (system of surveys) to carry out, depends on the kind of closed area where you want to collect information on inbound visitors.

In general, the place at which to conduct the survey has to be chosen in order to ensure that the sample interviewed is representative of the target population.

4.1.1. Survey at entry/exit points

Visitor surveys at entry/exit points are likely to provide the most comprehensive and detailed data on visitors entering a country.

They allow researchers to collect information on visitor and trip characteristics as well as on expenditure (total or by main items) met by visitors during their travel.

As mentioned above, these surveys involve the collection of data from a sample of departing or arriving visitors at all (or at a sample of) border posts.

To ensure a higher level of reliability of the information collected, it is preferable to interview inbound international visitors as they are leaving the country. They have completed their visit at this point and can report on all of their activities as behaviour rather than intentions. Moreover, by definition, every inbound visitor must leave the country through an exit point, so a representative sample of all such visitors can be obtained.

If this method is not feasible due to administrative controls[8], the next best alternative is to interview visitors as they enter the country. This still provides a representative sample of all inbound visitors, but you must now rely on reported intentions rather than the visitors' actual behaviour. Behaviour may well turn out to be quite different from intentions due, for example, to unexpected weather conditions, health emergencies and other personal problems, the influence of friends and relatives, strikes or other disruptions of the tourism industry.

Surveys at entry/exit points may be used to obtain information on visitor and trip characteristics as well as on visitor consumption behaviour.
Apart from the time of the survey (at arrival/at departure), the general *advantages* of this survey method are that:

- it can provide reasonably detailed information on visitor, trip and expenditure;
- it enables the linking of expenditure to visitors' characteristics;
- if using personal interviews, it enables more accurate data to be collected.

About *disadvantages*, it should be pointed out that:

- given the location of the collection points, the time available for interviewing visitors may be limited;
- it can provide only a general profile of the visitor going into or out of the country, especially of the expenditures met during the trip;
- it can require a fairly complex sampling procedure to ensure representative results;
- where face-to-face interviews by skilled interviewers are conducted this can be expensive;
- where forms are given to visitors for completion on return after they have finished their trip, response rates can be low and representativeness difficult to ensure.

4.1.2. Survey in means of transport

Direct surveys in a closed area may also be carried out on the actual means of transport by which the visitors are travelling.

These surveys may be used for recording:

- international visitors departing the country on international carriers (i.e. excluding visitors travelling by private car);
- domestic and international inbound visitors travelling on domestic carriers within the country. This is true, for example, in the case of a group of islands which represent an independent country (e.g. the Hawaii Islands), where visitors may travel from an island to another.

In the first case, a survey in means of transport may be an alternative to a survey at frontiers in countries which visitors may only have access to by a limited number of entry points, typically by air and by sea. But it may also be complementary to the first type of survey. In the case of a country, for example, inbound visitors travelling by train may be interviewed on board — during the last hour of the trip before arriving at the border crossing —, while visitors travelling by road, sea and air are usually interviewed at road borders and at sea and air terminals.

The value of this method clearly depends on the number of different transport options which are available to the visitor. For example, where access to a destination is limited to one or two types of means of transport, typically aeroplanes and ships/ferry-boats, such a survey can be representative of all visitors to that destination. This is the case for an island and for a particular country where access is effectively limited to air and sea travel. In these cases, such surveys are equivalent to border surveys.
But where a closed area can be accessed via a number of means of transport, including road transport, such surveys may have a limited value, unless all means are surveyed. Visitors using one means may have very different characteristics and expenditure patterns from visitors using other means.

[8] For example, considering international airports, it is possible that the authorities managing the air terminal refuse permission to interview visitors in the departure lounge, after border controls.

The method implemented for carrying out the survey is similar to that for surveys at entry/exit points.
In some cases, the organisation may be simplified by handing out questionnaires to visitors on departure and collecting them on their arrival at the final destination.

To sum up, the main *advantage* of this survey is that:

- it provides information on both international visitors departing the country on international carriers and domestic and international inbound visitors travelling on domestic carriers within the country.

On the other hand, the *disadvantages* are:

- it is only useful for areas with a limited number of access points;
- considering road transport, it would only allow visitors travelling on coaches (which follow scheduled routes) to be interviewed, while it excludes visitors travelling by private means of transport (car, caravan, etc.);
- it is necessary to secure permission for interviewers travelling on means of transport or, in most common cases, to secure the co-operation of the company staff (crew members) for handing out questionnaires to passengers.

4.1.3. Survey at popular tourist places

Considering small closed areas (i.e. small areas characterised by a control mechanism for entry), direct surveys of visitors may be carried out in places where a high proportion of them is expected to be found, such as museums, exhibitions, parks, archaeological areas, health resorts, etc.

These surveys, as mentioned in Chapter 2, may have a double purpose:

- on the one hand, to monitor the attraction itself, measuring volume and characteristics of tourist flows who visit the site;
- on the other, to evaluate those flows as representative of the tourist pressure which affects all the surrounding area, an area that may be open (e.g. a region, a city, etc.) or closed (e.g. an island, etc.). This is true above all for the most important attractions, which are usually visited by all first-time tourists and same-day visitors.

A survey at tourist sites is the best solution for investigating both international and domestic inbound visitors as well as for getting accurate information on both tourists and same-day visitors.

In the case of a large closed area, such as a country, it should be taken into account that this survey involves a sophisticated organisation, considering the need to select a representative sample of tourist places.

On the other hand, it may be carried out successfully on an island, as there is a high likelihood that visitors staying there visit the tourist attraction.

For visitor and trip characteristics and expenditure data, these surveys have similar advantages and disadvantages to surveys at entry/exit points and on means of transport. Their value depends on the extent to which visitors interviewed at those places are representative of all visitors, or of the group of visitors whose characteristics and expenditure is being measured. Where it is thought that all visitors to a destination are likely to be found at a particular place, then this can be useful. Care needs to be taken, however, to be sure that the sample is representative of the population.

To sum up, the general *advantages* of this method are that:

- where the survey is being undertaken at a place where all visitors can be selected for sample, this method can have the same advantages as border surveys;
- the researchers can be certain of contacting individuals who will indeed qualify as visitors. In detail, this survey allow them to investigate both international and domestic inbound visitors as well as tourists and same-day visitors;
- this survey is relatively inexpensive and very useful if the interest is only in estimating the volume of visitors to specific and important tourist places.

On the contrary, the general *disadvantages* are as follows:

- in case where the survey is aimed at measuring visitor pressure in the surrounding area, the sample may not be truly representative of the visitor group under study. This method may fail to ensure that all inbound visitors have a known, non-zero chance of being included in the survey and so there may be unknown biases in the survey response. For example, considering 'length of stay bias', a visitor spending four nights in a place has twice the probability of being interviewed as a visitor spending two nights. So it is necessary to estimate the probability of a visitor being interviewed through a preliminary survey. However, the probability of "multiple visits" is usually higher in an open attraction where there is free entrance;
- where visitors have not completed their visits, total expenditure cannot be collected, and only average expenditure can be estimated. In this case it would be better to record the total expenditure met by the visitor the day before that of the interview;
- these surveys are not very useful for detailed surveys and in-depth analysis of inbound tourism expenditure. For example, a tourist may be contacted during the first day of his/her stay when he/she has not completed his/her total trip expenditure; a same-day visitor can be interviewed on his/her arrival at the tourist site when he/she has not had the time to buy anything yet. The same problems may be applied to the analysis of trip characteristics and the quality of travel experience, in that the visitor may visit other places during the trip before going back home.

4.1.4. Survey at accommodation establishments

This method involves the collection of data from a sample of guests in a sample of collective accommodation, such as hotels and similar establishments, health care establishments, holiday camps, tourist campsites/villages, rented dwellings, etc.

It is the most appropriate choice if researchers are mainly interested in evaluating the expenditure met by tourists in the area under study.

Along with a survey at popular tourist places, it may be considered an alternative to border surveys when it is impossible to carry them out (e.g. the control officials refuse permission to interview visitors).

However, a survey at accommodation establishments is subject to three important limitations:

1. it does not cover same-day visitors;
2. it does not cover types of accommodation where registration is not compulsory, such as the homes of friends and relatives;
3. it cannot provide a count of visitors to the country to the extent that visitors stay in various places before leaving.

As mentioned above, this type of survey may be very helpful if you only want to analyse tourists in two specific cases:

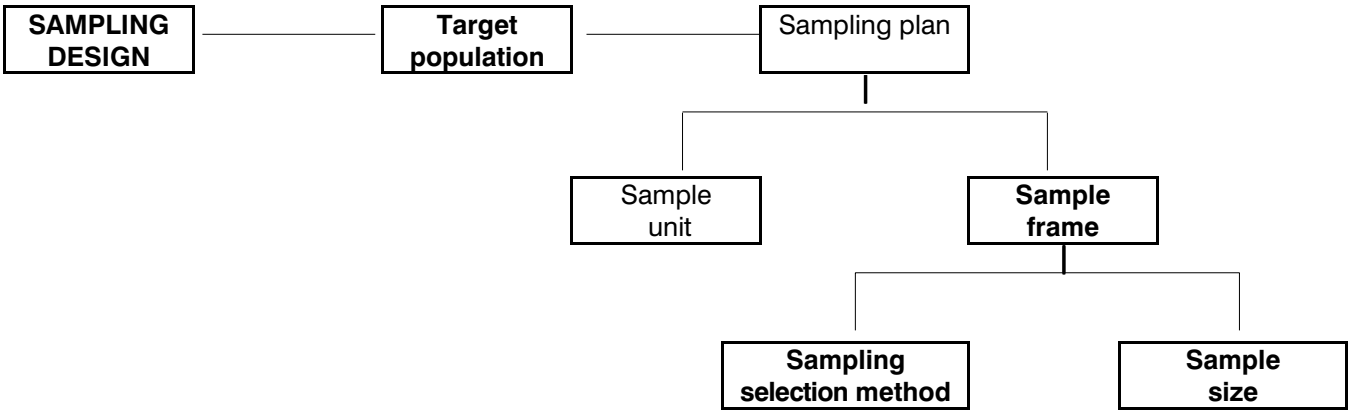
- when the closed area under study is very small and tourists represent the majority of visitor flows (let's think, for example, of an island where the distance from 'neighbouring' countries is such to discourage same-day trips);
- when those who over-night in registered establishments represent the majority of tourist flows in the closed area (e.g. a thermal resort, where the majority of visitors are generally overnight visitors in hotels). The area considered has to be limited in order to ensure a suitable coverage of all the types of accommodation establishments.

Generally, considering the different types of closed area, the kind of information needed and the cost of organising such survey, a survey at popular tourist places should be the best answer.

On the other hand, a survey at accommodation establishments may be successfully carried out in an open area, where there are no border controls or control mechanism for entry. It can be organised instead of or alongside a survey at popular tourist sites.

Therefore, the merits and demerits of this method along with the design of the appropriate sampling plan will be discussed thoroughly for an open area in Part IV.

4.2. The sampling design



4.2.1. The target population

The target population from which you will draw your sample is composed of all people who enter the closed area under study (country, island, tourist site, etc.).
In the case of a survey in a particular part of a country (island, closed tourist resort, etc.) you may contact both international and domestic visitors. So the target population may be divided into two sub-populations, which may show different characteristics for purpose of visit, length of stay, etc.
For a survey at entry/exit points the target population includes all travellers who cross the borders at the selected (or at all) crossing points, excluding border workers, long-term migrants, people without a fixed place of residence (nomads, etc.), people travelling from and to places where they exercise a remunerated activity and other travellers excluded by convention from international classifications (members of the armed forces, transit passengers, diplomats, etc.).

For a survey in means of transport, the target population is composed of all visitors who travel in the selected means of transport to reach the closed area of destination (typically, a country).
For a survey at popular tourist places, the population is composed of all visitors who visit the attraction in the selected time period.

4.2.2. The sampling plan

(See Section 4.2.2. in Part II)

4.2.2.1. The sample unit

(See Section 4.2.2.1. in Part II)

4.2.2.2. The sample frame

The sample frame is a list of all sample units in the population, or instructions indicating all such units. It is used to draw the sample for the survey. For example, in the case of a survey at entry/exit points, the sample frame is represented by all persons crossing the country's border at the selected sites. The definition may be further broken down to define sub-frames, such as airline flights leaving the country, passengers of boats and ships leaving the country, and car passengers passing through border crossing points. For the sake of cost-efficiency, it is important that the sample frame is representative of all the elements which characterise the population selected for study, that is the target population, and only this population. This relationship is crucial for accurately inferring the characteristics of the population from the characteristics of the sample.

The sample frame is composed of two phases: the choice of the sampling selection method and the determination of the sample size.

4.2.2.3. The sampling selection method

As discussed in Part II, the multi-stage stratified random sampling is the most appropriate sampling selection method with large populations or with populations whose size varies over time, such as tourist populations. It allows researchers to obtain detailed information on visitor and trip characteristics and on visitor consumption behaviour which are very useful for marketing purposes (market segmentation, etc.). Moreover, it allows them to minimise the sampling error and to draw a sample which is truly representative of the target population.

The organisation of the sampling plan depends on the survey venue or location where the survey will be carried out. As analysed below, the stratification characters are different if you choose, for example, an entry/exit point survey or a survey at popular tourist places.

Survey at entry/exit points

In this survey, a two-stage random sampling is the most appropriate design. The visitor population is generally stratified by:

- type of border (road, rail, sea, air);
- visitors to be interviewed (usually divided by nationality).

Then, the first stage is further stratified taking into account the features of each entry/exit point and of each mode of transport considered. In detail, sub-samples of days and hours — based upon the departure times of aeroplanes, boats and trains —, and sub-samples of vehicles, trains, aeroplanes and boats — based upon the type of border crossing considered —, have to be drawn.
In detail, for each of the selected frontiers, the number of interviews to carry out has to be determined according to the volume of international departing or arriving passengers. In the same way, the time periods (days in a month and hours in a day) in which to conduct the survey are selected taking into account the volume of passengers and the departure/arrival times of aeroplanes, trains and ships/boats[9].

Given the fact that every member of the sub-populations selected above has a known, non-zero chance of being included in the sample, it is crucial to ensure the maximum coverage rate of frontier posts. Questionnaires have to be handed out (or interviews carried out) at all posts available or, if there is a large number of exit points, at a representative sample of them selected by a random process or by including those posts which cover the maximum traffic rate.

Visitors to be interviewed are generally selected systematically by using appropriate intervals of selection from a random start. The choice of appropriate intervals depends on the volume of traffic flows which affects each type of border. For example, at road crossing points and in international airports with higher traffic flows the sampling rate may be 1 to 20. In the first case, the interviewers stop 1 vehicle (private car, caravan, coach, etc.) from every 20 passing through the selected lane; in the second case, they select 1 international passenger every 20 passing through an imaginary line drawn in the departure lounge of the selected airport. In those crossing points with lower traffic flows the sampling rate may be 1 to 10.

On international trains and at seaports, where a cluster of railway carriages and a cluster of ships are selected at random, the sampling rate may be 1 to 5. The interviewers select 1 passenger from every 5 travelling in each of the sampled railway carriages or 1 passenger from every 5 travelling in each of the sampled ships.

Considering *road crossings*, the survey is usually carried out when visitors are leaving the country, before border controls. As discussed for secondary data, this method is more appropriate than questioning them when they are entering the country. The survey at entry points relies on visitors' intentions, which may not be a realistic guide to actual behaviour.

In detail, for each of the selected frontiers and for each day in a week, a specific time period is drawn during which the interviews have to be carried out (e.g. 16 hours in a day). This period is usually subdivided in two work shifts of 8 hours each. As far as non-sampled hours are concerned, particularly night hours, it is more appropriate to carry out a supplementary survey on a small sample of days, aimed at counting total passages in that time period, and consequently their weight on total daily passages (see Section 8.1.). The researchers select some lanes in which to check visitors, lanes which are employed alternately during the whole survey period. All the vehicles passing through these lanes during the survey period are counted and stratified according to type of vehicle
(e.g. coaches, cars, motor vehicles, etc.).

9 This data is usually provided by official sources or by transport offices.

As mentioned above, these vehicles are selected systematically from each category during the survey hours by using appropriate intervals of selection from a random start. The selected vehicles are directed to the survey lanes. There can be separate survey lanes for each type of vehicle. The passengers travelling by car are generally members of the same group or family, so they are all surveyed without further selection. However, in the case of coaches, travellers may be selected at random or systematically by seat number.
The passenger surveys may be combined with traffic surveys undertaken by the Transport Authorities to estimate the density of traffic on different sections of road. Such an arrangement will have the definite advantage of low cost and better response.

As far as the sampling operating procedures are concerned, it is suitable to use a pair of interviewers who operate in one traffic lane at a time, considering all lanes alternately during the survey period. The first interviewer counts the number of vehicles and the number of passengers in each of these, recording on a suitable form the category (car, coach, camper, etc.) and nationality of the vehicle, the sex of the driver and the number of total passengers, while the second interviewer conducts the interviews or hands the visitors a questionnaire to complete.

At *international airports*, inbound visitors are usually checked before reaching the departure lounge, just after duty (passport, customs) controls.
Surveys are conducted on selected days and hours according to flight departure times. The choice is made in such a way that both peak and lean seasons are covered proportionately and all the aircrafts taking off during the selected time period are surveyed. Every month, for each airport, researchers arrange a detailed survey plan according to the forecast number of international scheduled and charter flights departing from that air border[10].
The passengers are selected systematically in the order of arrival at security check[11]. There, a group of interviewers operate with different tasks. One or more of them count the departing visitors, recording on a suitable form the name of the air carrier, the flight number, the destination airport, the sex of the passenger and his/her nationality. At the same time, the other interviewers interview the selected sample of visitors or hand them a questionnaire to complete before embarkation.

The same procedure applies to *international seaports*, where the survey is carried out in the international area, just after border controls for leaving visitors. In each seaport, interviews are conducted on selected days and hours according to ship/boat departure times. Every month, for each seaport, researchers arrange a detailed survey plan according to the forecast number of international ships/boats departing from that sea border[12]. Then, a sample of ships leaving for international routes are drawn among those that are expected to be in the harbour during the survey time. If the traffic is low, it is possible to survey all the ships departing the ports during the selected survey weeks.

In the case of ferryboats, passengers may embark with or without a vehicle (private car, motorbike, coach, truck, etc.). So they should be selected systematically on the deck or, for those driving a vehicle, in order of arrival at the embarkation point.

Also in seaports a pair of interviewers should be employed. The first one counts and records, on a suitable form, the name of the ship, the departure time, the destination seaport and the sex of the passenger. In the case of ferryboats, the interviewer should also record if passengers are travelling by a vehicle embarked on the boat or not and, if the first is the case, the category of the vehicle (car, motorcycle, coach, etc.) and the number of passengers in each vehicle. The second interviewer carries out the interviews or hands out the questionnaires.

As far as *railway crossings* are concerned, the interviews are generally carried out during the last hour of travel in the territory of the country. According to the information monthly provided by railway offices, for each crossing point the forecast number of international trains in transit at that border[13] are stratified on the basis of some characteristics, such as the kind of train, its frequency, etc.

Interviews are carried out on selected days and hours according to the trains' departure times. In each train a sample of carriages and passengers have to be drawn, according to a fixed sampling frame.

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[10] This information is usually provided by the airport authorities.

[11] In some large international airports (with a large amount of traffic) there may be a number of different accesses to the departure lounge, according to the different kind of passengers. We can have passengers travelling on international flights, passengers travelling on risk flights (who are usually landed in reserved areas of the air terminal) and passengers in transit from domestic to international flights. This has to be taken into account when organising the interviews, as a sub-sample of each type of passengers should be included in the final sample.

[12] This information is usually provided by the seaport authorities.

[13] This information is usually provided by the railway authorities.

For this means of transport, the most appropriate sampling scheme is a three-stage design with specific time periods (e.g. week) as sampling units at the first stage, followed by sampling of carriages and passengers. If there are different classes or accommodation, each class has to be treated as a stratum and carriages have to be selected proportionately. For each carriage, samples of seats may be drawn systematically.

Considering wagon-lits, which are closed to passengers travelling in normal carriages, security rules usually prevent the interviewing of passengers who have booked a berth. In the case where railway police officials give interviewers permission to get on the train, a supplementary survey may be carried out and the results applied to the other trains of the same kind.

For the operative sampling procedures, a pair of interviewers has to be employed. The first interviewer records the number of the train, the total number of carriages (specifying if counting from the head or from the tail), the code of the selected carriage, its class, the sex of the passenger, his/her nationality and if he/she crosses the border or not[14]. The other interviewer carries out the interviews.

An example of questionnaire and count form for each border crossing is shown in Appendix B1.

Survey in means of transport

The sampling plan and the adjustments arranged for the former survey also apply to a survey in means of transport, during which visitors are checked on the actual means they are travelling by. As we discussed above (see Paragraph 4.1.2.), this survey is useful only when there are a limited number of access points (e.g. by air and by sea). The methodology is similar to that shown for surveys at entry/exit points. In this case the selection of passengers is made at departure time (at the gate or at the landing stage), on the basis of checking order.

Survey at popular tourist places

Also in a survey at popular tourist places and, in general, in closed resorts located within a country, a two-stage random sampling may represent the most appropriate sampling design. For example, the first stage units may be the time intervals of seven days, corresponding to a week, and the second stage units the people who visit the site.

Then, the first stage may be further stratified taking into account that visitor flows tend to concentrate more in some days of the week (typically, the weekend) than in others.
If the tourist site is open throughout the year, the 52 weeks of the year can be grouped into 13 clusters of 4 consecutive weeks each and one week is selected at random from each cluster. On the other hand, if the attraction is open only seasonally (e.g. in summer) or generally for a limited time (such as a temporary exhibition), the time intervals chosen have to include both peak (e.g. opening and closing weeks) and lean periods. In both cases, the researcher should also consider peak and lean seasons which characterise the area (city, region, etc.) where the attraction is located, which inevitably influences the visit trend.

For a closed area, with a control mechanism for entry, the passes or tickets sold can constitute the sampling frame for the selection of the second stage units. Such passes and tickets usually have continuous serial numbers. Therefore, the required number of tickets may be selected by using a linear systematic sampling procedure with appropriate intervals of selection and random start. For example, if you choose to interview 1 visitor every 3, you have to contact people who buy the first, the third, the sixth ticket and so on.

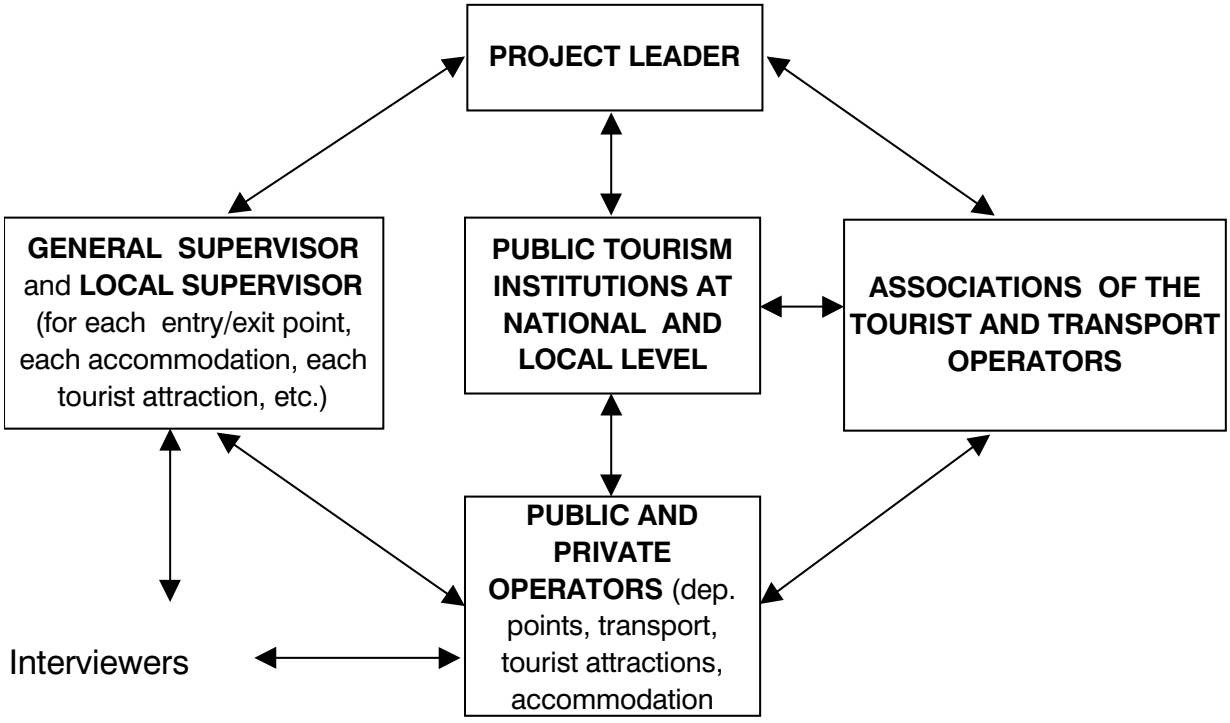
A problem may be represented by free tickets or combined tickets which are valid for a group of people (e.g. a group of students).
The survey is carried out by pairs of interviewers whose turnover is stated in the sampling work plan on shift, as in the case of survey at entry/exit points. One interviewer counts visitors at the exit; the other conducts the interviews. Matching the number of tickets sold and the total number of visitors may provide useful information on free tickets and on groups of visitors entering with a cumulative ticket.

[14] This is very important in order to distinguish frontier commuters from other passengers.

As discussed in Chapter 2, through this survey researchers are able to monitor the single attraction or to estimate the tourist pressure which affects all the surrounding area (e.g. the city in which it is located).
A supplementary survey allows them to evaluate the likelihood of visitors being interviewed, that is the likelihood that each visitor chooses the monitored attraction. The number of domestic and international inbound visitors, and among them of tourists and same-day visitors, may be identified through an identification process built into the survey questionnaire.
An example of a complete questionnaire which may be used in the second case (attraction as representative of visitor flows in the area) is included in Appendix B2.

4.2.2.4. The sample size

The choice of the optimal sample size depends above all on the relationship between the maximum efficiency and quality of the data to be collected and the cost of collecting this data.
Given the funds set aside for the survey, the sample size has to be as proportionate as possible to the size and the characteristics of the target population. In a closed area you can obtain this information from other estimates carried out by the National Tourist Administration, the National Statistical Office or other sources (see Chapter 3 about secondary data). For example, regarding a country you may know the total number of visitors who cross the borders according to type of border (road, railway, air and sea), country of origin and month. The same applies to an island (the number of visitors who arrive at it). For a tourist site or attraction, you can have the total number of tickets in a year. In these cases, you can calculate the sample size as a proportion of the target population.
If you do not have this information, you should choose a sample size which is statistically correct, that is adequate to volume and characteristics of the data you need. For example, you can conduct a pilot survey on a small preliminary sample in order to evaluate the distribution of the characteristics you want to analyse within the population (see Part II, Chapter 4).



4.3. The survey organisational structure

The general framework of the survey organisation shown above has to be adapted to the specific features of each type of survey.

As far as the organisation of the interviews *at entry/exit points* is concerned, it is necessary to secure permission from the transport companies and from companies and authorities managing the departure points before conducting the survey. Their co-operation is crucial: problems may arise when they refuse permission believing that the survey can be a hindrance to traffic flows, or that it can create inconvenience to visitors waiting to leave in the departure lounge of international seaports and airports or who are travelling on railway carriages involved in the survey.
Once the sampling design has been completed, the institution/research centre in charge of the survey selects a number of skilled interviewers who will carry out the interviews and a number of supervisors who will follow and control them.
For example, there may be a general research supervisor, helped by one supervisor for every type of border (from a minimum of 1 to a maximum of 4) and by a supervisor for each single entry/exit point considered.
The supervisor for each entry/exit point, for example at a road crossing point, has to co-ordinate and check the interviewers' job, solve their problems, keep in contact with the custom authorities and/or with the local transport/managing company and report on a regular basis to the general road crossing supervisor. The latter follows the general performance of the survey in all the road crossing points and reports on a regular basis to the general supervisor.

The number of organisational levels clearly depends on the size of the area considered. The scheme analysed is common for the case of a survey at entry/exit points or on means of transport.

For a survey *at popular tourist places* the permission is given by the public or private institution managing the attraction. The survey staff may include only a supervisor and a team of interviewers, considering the small size of the area involved. Also in this case problems may arise in that the survey is a hindrance to visitor flows leaving the site.

But the major difficulties concern the *accommodation establishments*: here the success of the survey depends heavily on the co-operation of the associations of hotel and non-hotel operators and of single operators. In hotels, and especially in luxury hotels, the managers are worried that the interviewers may create inconvenience to guests during their stay.

4.4. The survey period

(See Section 4.4. in Part II)

4.5. The interviews

INTERVIEWS — **Interview method** — **Interviewers training**

4.5.1. Specify the interview method

As discussed in Part II, there are three different methodologies which can be applied:

- conduct personal face-to-face interviews among departing visitors;
- greet potential respondents and hand them a questionnaire to complete before leaving;
- hand questionnaires to potential respondents and ask them to complete the forms and mail them back.

The choice depends on a cost/benefit evaluation of information collected.
For a survey at *entry/exit points*, face-to-face interviews are surely the best solution especially when visitors are interviewed while they are leaving the country. Direct interviews are particularly suitable at road crossing points where visitors may not have the time or are not willing to complete the questionnaire by themselves, and asking them to mail it back can ensure a low rate of response. This method is preferable as it results in a more

representative sample, but it can be very expensive considering the fact that the time available for the interview may be very limited.
In a survey *in means of transport*, you can also opt for handing out questionnaires to visitors when they embark and asking them to give the forms back when they disembark. This method reduces survey costs but often results in low response rates. Besides, it is useful only when boats and aeroplanes are considered, that is when there are a limited number of means of transport involved. In order to maximise the response rate and consequently the control over the return of the questionnaires, it would be advisable to hand them out to all passengers.

In the case of a survey *at popular tourist places*, you can carry out face-to-face interviews or you can hand out the questionnaire when a visitor enter the attraction, asking him/her to complete it and to give it back when leaving (e.g. to the interviewer or post it in a box put at the exit, in order to ensure the visitor's privacy). The second method gives less guarantees.

4.5.2. Recruiting and training interviewers

The recruitment and training of interviewers is a part of the survey organisation plan we discussed above. Apart from a general training and some basic skills, the interviewers should also have special characteristics according to where the survey is carried out (at borders, attractions, etc.). They should be able to contact the visitor in the hall of a hotel, in a campsite, along the street, in front of a church, etc.; to explain the aims of the survey briefly and to keep the visitors' attention. In particular, the training of a group of interviewers at border crossings is much more exacting and probably more expensive than that for interviewers at an attraction.

5. Designing the questionnaire

Step 5

QUESTIONNAIRE	Questions	Form(s) design	Use of Eurostat and WTO definitions	Answers coding	Planning the editing

(See Chapter 5 in Part II)

6. The survey

Step 6

SURVEY	Pilot survey	Monitoring the interview process	Collecting the questionnaires

(See Chapter 6 in Part II)

7. Checking and analysis of the survey's results

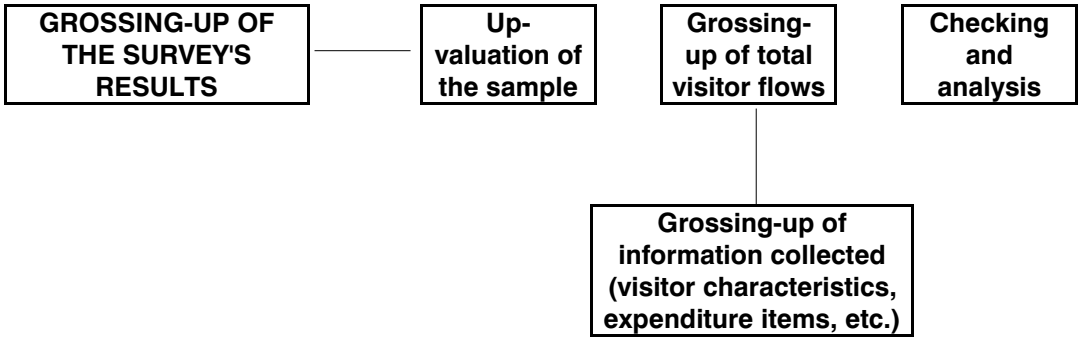
Step 7

CHECKING AND ANALYSIS OF THE SURVEY'S RESULTS	Postcoding and reviewing of responses	Non responses	Transferring data to computer	Running edit checks	Producing tables

(See Chapter 7 in Part II)

8. Grossing-up of the survey's results and checking procedure

Step 8



Once you have recorded and input the questionnaires, and made a preliminary analysis of the survey's results, you need to check that the responses are correct and respect the level of accuracy stated in the sampling plan.
For a discussion on characteristics and solutions about sampling errors and non-sampling errors see Chapter 8 in Part II.

For example, if you obtain completed interviews from too many air visitors and not enough land visitors (in an entry/exit point survey), your final sample will not be representative of all inbound visitors, according to the sampling plan drawn at the beginning (see Chapter 4). In such cases, you have to weight your sample to match the target population on specific characteristics of such sub-samples (strata) before further processing or analysing[15].

Then you can expand the sample results up to the target population, in order to obtain an estimation of the total number of inbound visitors in the area under study, of their characteristics and (if surveyed) of their consumption behaviour and economic impact.

As discussed in Part II, the balancing or up-valuation of the sample, and specifically of each sub-sample, that can be done is dependent on the information available for the target population.
But there are cases in which this data is not available or it does not meet the researcher's needs (e.g. it is incomplete).
The evaluation of several countries' experience has stressed how the methodology used may be different according to the kind of closed area under study and, consequently, to the kind of survey carried out.
Here our aim is to provide a method for both a large and a small closed area (e.g. a country and an attraction) which may be applied in the most common cases when official records provide only partial information.

8.1. The case of a country

The most typical example of a closed area to be monitored is a country, where political rules imply a control on travellers going into and out of its territory.

A survey at entry/exit points is the best answer for recording inbound visitors flows and analysing their characteristics and consumption behaviour.

As discussed above, in the case where there is no information on visitor flows or, more frequently, it is not reliable, it is necessary to arrange some mechanism to control the reliability of the survey's results.

Consequently, the system of surveys that needs to be carried out includes:

[15] It would be suitable the support of an expert statistician during the balancing process.

1. the *main survey*, which collects the information needed on total inbound visitors (e.g. volume, characteristics and consumption behaviour), and on the composition of the relevant segments to be investigated (e.g. international visitors by nationality);
2. a *supplementary survey* which verifies the representativeness of the sample interviewed against the population of international visitors crossing the borders. It consists of counting visitors passing through the border crossing points in order to quantify the volume of international passengers leaving or entering the country, by nationality. The supplementary survey is carried out at the same time as the main survey, so as to be sure that passengers interviewed belong to the population of visitors passing through the frontier at the selected time period. The count of passages should be made continuously during this time period, in order to estimate the number of passengers per time unit. In some specific cases, such as road and rail borders, another supplementary survey should be carried out during non-sampled time periods — typically, night hours —, to have a consistent estimate of total passages in a given time period. These estimates are very useful for the grossing-up of the survey's results (see Step III below).

As discussed in Section 4.2.2.3., the sampling selection method usually adopted — and the most appropriate — in the main survey is a two-stage stratified sampling, where the first stage is represented by the type of frontier (air, road, rail, sea) and the second stage by the visitors to be interviewed (usually divided by nationality). Then, the first stage is further stratified taking into account the features of each entry/exit point, of each mode of transport considered and the seasonality of visitor flows.

The results of the main survey show, for each type of frontier and for each crossing point, the number of total passages (i.e. total visitors passing through) by month, nationality and means of transport.
Given the level of stratification adopted, the emergence of some distortions in the sample interviewed, if compared with the target population, is frequent. For each type of frontier, these problems are mainly linked to nationality of travellers and to month of collection, specifically for those countries which have low visitor flows to the destination where the survey is conducted.

There are three steps to be followed for up-valuating and grossing-up the sample's results:

I. determination of the weights for balancing the survey's results, for each type of frontier and each crossing point, given nationality and month of data collection;
II. estimation of total passages for each entry/exit point (grossing-up of the survey's results), given nationality and month of data collection;
III. calculation of the expansion factors for each type of frontier, each crossing point and each nationality, given the month of data collection.

Step I. Up-valuation of the sample by frontier

The balancing of the sample for each type of border depends on the probability of a visitor being interviewed, given the place and the time of the interview and the fact that not all crossing points and not all hours in a day may be covered.

Considering that the sampling plan is usually different for each type of border, the weights have to be calculated separately for road, rail, sea and air border crossings[16].
In detail, for each road crossing point, given visitor nationality and month of reference, the weight W_{Ro} is equal to:

- *Road frontier*

$$W_{Ro} = \frac{wo * wm}{pv * pc * pt * pg} \qquad [1]$$

where:
wo = estimated weight of non-sampled hours, i.e. night hours (average passages during a day/ average passages during sampled hours)
wm = estimated weight of non-sampled road frontiers (total passages at all road frontiers/ total passages at selected road frontiers)[17]
pv = probability of inclusion of selected vehicle (1/sampling rate)

[16] The procedure described here is based on the experience of the Ufficio Italiano dei Cambi.

[17] This data is usually provided by official sources.

pc = probability of inclusion of single traffic lanes (1/number of open lanes at the time of collection)
pt = probability of inclusion of selected time period (monitored time period/total survey time: e.g. 8 hours out of 16 hours totally planned)
pg = probability of inclusion of day of collection (sum of days of collection/total days in the month).

The weight becomes:

$$W_{Ro} = \frac{wo}{pv * pc * pt * pg} \qquad [1bis]$$

when the sample includes all the road crossing points in the country.

For each international airport, given nationality and month of reference, the weight W_A is equal to:

- *International airport*

$$W_A = \frac{wm}{pv * pt * pg} \qquad [2]$$

where:
wm = estimated weight of non-sampled airports (total passages at all airports/ total passages at selected airports)[18]
pv = probability of inclusion of the selected collection unit (1/sampling rate)
pt = probability of inclusion of selected time period (time period /total survey time)
pg = probability of inclusion of day of collection (sum of days of collection/ total days in the month).

The weight becomes:

$$W_A = \frac{1}{pv * pt * pg} \qquad [2bis]$$

when the sample includes all the international airports in the country.

In the case of *small airports* — i.e. those which record a low volume of international flows but that are important for analysing specific segments of visitors not otherwise adequately represented —, the weight W_{SA} is equal to:

$$W_{SA} = \frac{wm}{pv * pc} \qquad [3]$$

where:
wm = estimated weight of non-sampled airports (total passages at all airports/ total passages at selected airports)[19]
pv = probability of inclusion of the selected collection unit (1/sampling rate)
pc = probability of inclusion of the selected flight (number of sampled flights/ total flights taking off from the selected airport).

The weight becomes:

$$W_{SA} = \frac{1}{pv * pc} \qquad [3bis]$$

when the sample includes all the small international airports in the country.

For each international seaport, given nationality and month of data collection, the weight W_S is equal to:

[18] See Note 10.

[19] See Note 10.

- *International seaport*

$$W_S = \frac{wm}{pv * pn * pt * pg} \qquad [4]$$

where:
wm = estimated weight of non-sampled seaports (total passages at all seaports/total passages at selected seaports)[20]
pv = probability of inclusion of the selected collection unit (1/sampling rate)
pn = probability of inclusion of the ship (sampled ships/total ships in the seaport) [21]
pt = probability of inclusion of selected time period (time period /total survey time)
pg = probability of inclusion of day of collection (sum of days of collection/ total days in the month).

The weight becomes:

$$W_S = \frac{1}{pv * pn * pt * pg} \qquad [4bis]$$

when the sample includes all the international seaports in the country.

Finally, for each railway crossing point, given nationality and month of data collection, the weight W_{Ra} is equal to:

- *Railway crossing point*

$$W_{Ra} = \frac{wm}{pv * pn * po} \qquad [5]$$

where:
wm = estimated weight of non-sampled railway borders (total passages at all railway borders/ total passages at selected railway borders)[22]
pv = probability of inclusion of the selected collection unit (1/sampling rate)
pn = probability of inclusion of the trains (sampled trains/total trains in transit at the border)[23]
po = probability of inclusion of carriages (number of sampled carriages per class/total number of carriages per class in the train)[24].

The weight becomes:

$$W_{Ra} = \frac{1}{pv * pn * po} \qquad [5bis]$$

when the sample includes all the railway crossing points in the country.

Step II. Estimation of total passages by type of border

The weight calculated for each type of border can be used to balance up the total passages (i.e. total visitors passing through) for each crossing point, given the nationality and the reference month.
In detail, the estimates of total passages for each entry/exit point are:

- *Road frontier*

$TP_{Ro} = \sum_v PA_v * W_{Ro}$ v = 1, 2, ... V (number of vehicles monitored)

[20] See Note 10.

[21] Information provided by the harbour office.

[22] See Note 10.

[23] Information provided by the railway timetable.

[24] Information provided by the railway office.

where:
TP_{Ro} = total passages at each road crossing point
PA_v = number of passengers counted in the v^{th} vehicle
W_{ro} = adjustment factor (see formula [1]).

- *International airport*

$TP_A = \sum_r PA_r * W_A$ r = 1, 2, ... R (number of data collections)

where:
TP_A = total passages at each international airport
PA_r = number of passengers counted at the r^{th} collection
W_A = adjustment factor (see formula [2]).

- *Small international airport*

$TP_{SA} = \sum_r PA_r * W_{SA}$ r = 1, 2, ... R (number of data collections)

where:
TP_{SA} = total passages at each small airport
PA_r = number of passengers counted at the r^{th} collection
W_A = adjustment factor (see formula [3]).

- *International seaport*

$TP_S = \sum_r PA_r * W_S$ r = 1, 2, ... R (number of data collections)

where:
TP_S = total passages at each international seaport
PA_r = number of passengers counted at the r^{th} collection
W_S = adjustment factor (see formula [4]).

- *Railway frontier*

$TP_{Ra} = \sum_r P_r * W_{ra}$ r = 1, 2, ... R (number of data collections)

where:
TP_{Ra} = total passages at each railway frontier
P_r = number of passengers counted at the r^{th} collection
W_{Ra} = adjustment factor (see formula [5]).

Step III. Calculation of the expansion factors by type of crossing point and by nationality

Once the total passages (i.e. total visitors) at a single frontier are calculated, it is possible to determine the expansion factors which have to be applied to the results of the questionnaires. These factors vary for each type of border (road, air, railway and sea), each border and each nationality and are defined as follows:

$$K_{jin} = \frac{TP_{jin}}{q_{jin}}$$

where:
K_{jin} = expansion factor for the j^{th} type of frontier, the i^{th} frontier and the n^{th} nationality
Tp_{jin} = total passages for the j^{th} type of frontier, the i^{th} frontier and the n^{th} nationality
q_{jin} = number of questionnaires collected for the j^{th} type of frontier, the i^{th} frontier and the n^{th} nationality.

In the case of road frontiers and sea frontiers where visitors embark on a vehicle, for each questionnaire a further adjustment factor is applied which is given by the number of people the questionnaire refers to (w):

$K\hat{}_{jin} = K_{jin}/w$

The expansion factors are used to multiply figures provided by single interviews, in order to estimate the total volume of each sub-population presenting specific characteristics (in the example, the same nationality) or to estimate the global expenditure of a given category of travellers.

The same procedure shown for a country may be applied to an island (geographical borders). For a closed tourist site (administrative borders), when the aim is to evaluate the volume and characteristics of visitor flows to this specific attraction, see the following Section. On the other hand, when the interest is in analysing visitor flows to this place as representative of the tourist pressure which affects the surrounding area (e.g. a city), the same method planned for an open area is more appropriate (see Part IV, Chapter 8).

8.2. The case of a closed attraction

As discussed in Section 4.2.2.3., also in a survey at popular tourist places a two-stage random sampling can be applied: the first stage units may be the time intervals of seven days, corresponding to a week, and the second stage units the people who visit the site. Then, the first stage may be further stratified taking into account that visitor flows tend to concentrate more in some days of the week (typically, the weekend) than on others. The passes or tickets sold constitute the sampling frame for the selection of the second stage units, which are usually drawn using a systematic random sampling.

Suppose we consider a museum open throughout the year and the researcher wants to measure the volume and characteristics of visitors who choose to visit it.

The 52 weeks of the year can be grouped into 13 clusters of 4 consecutive weeks each and one week is selected at random from each cluster, taking into account both peak (e.g. special events, holidays, etc.) and lean periods. To simplify, on a daily basis two work shifts of four hours each are planned, which cover the whole opening time (e.g. from 10 a.m. to 6 p.m.).

As discussed above, once the questionnaires have been collected, the balancing of the sample depends on the probability of a visitor being interviewed, given the kind of visitor (tourist, same-day visitor, resident) and the fact that the whole opening time may not be covered.
The weight W to use for the up-valuation of the sample is equal to:

$$W = \frac{1}{pv * pw} \quad ^{25} \qquad [1]$$

where:
pv = probability of inclusion of the collection unit (1/sampling rate).
pw = probability of inclusion of week of collection (selected week/total weeks in a month).

So the estimate of total visitor flows in a week is as follows:

$TV = \sum_i V_i * W$ $\qquad$ i = 1, 2, ... n (number of data collections in a week)

where:
TV = total number of visitors at the museum
V_i = number of visitors counted at the i^{th} collection
W = adjustment factor (see formula [1]).

By comparing the estimate with the volume of tickets sold, we can verify the accuracy of our procedure.
From the sample of visitors interviewed, we know the shares of each kind of visitor: same-day visitors, tourists and people resident in the area (e.g. city) where the museum is located. By applying these shares to total visitor flows we are able to calculate the total volume of each segment:

$TV_T = TV * s_T$
$TV_S = TV * s_S$

[25] If the sampled period does not cover the whole opening time, an estimated weight for non-sampled hours has to be included, as follows: W = wo/(pv*pw), where wo = estimated weight of non-sampled hours.

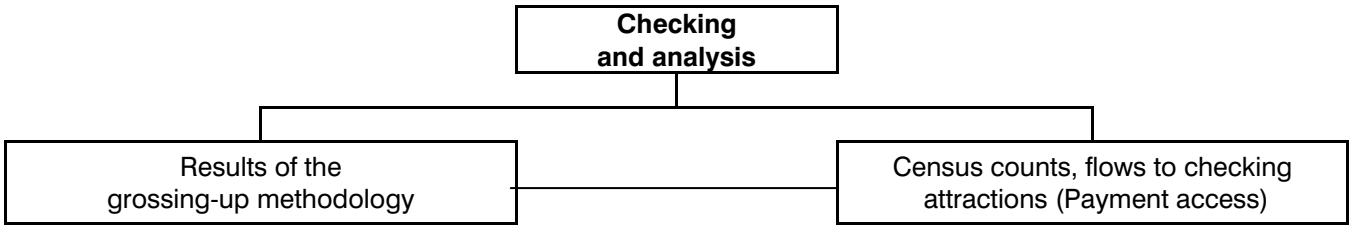
where:
TV_T = total number of tourists at the museum
TV_S = total number of same-day visitors at the museum
TV = total number of visitors at the museum
s_T = share of tourists interviewed
s_S = share of same-day visitors interviewed.

The expansion factor of collected questionnaires for each segment can be obtained as follows:

$K_T = TV/q_T$
$K_S = TV/q_S$

where:
K_T = expansion factor for tourists, given nationality and reference week
K_S = expansion factor for same-day visitors, given nationality and reference week
TV = total visitor flow
q_T = number of questionnaires collected among tourists
q_S = number of questionnaires collected among same-day visitors.

8.3. Checking and analysis of the grossing-up procedure



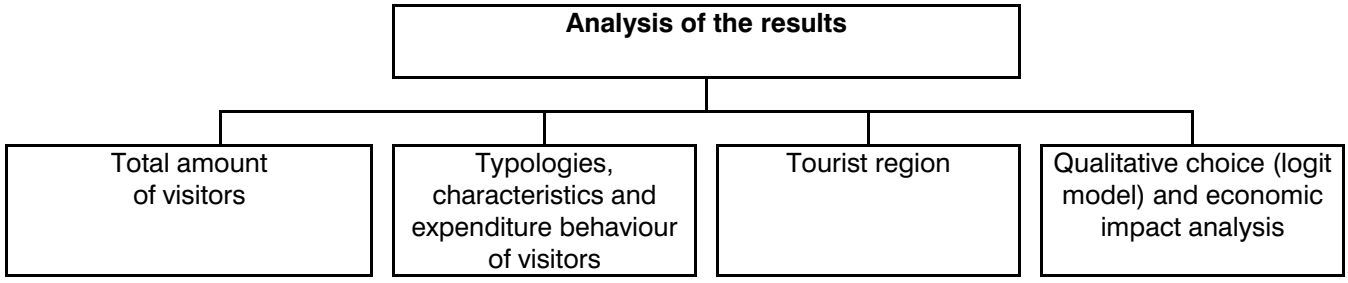
Having expanded the sample results up to the target population, it is important to check that the final results are coherent with the real size of the population under study.

The control is based on the same data used for the calculation of the weightings in the grossing-up procedure.

For example, in the case of a survey at entry/exit points the control may be done by using the information on total passages collected during the survey or provided by official sources.
In the case of a survey at a closed attraction, the number of tickets sold may allow a check on the total volume estimated.

9. Analysis of the final results

Step 9



(See Chapter 9 in Part II)

PART IV

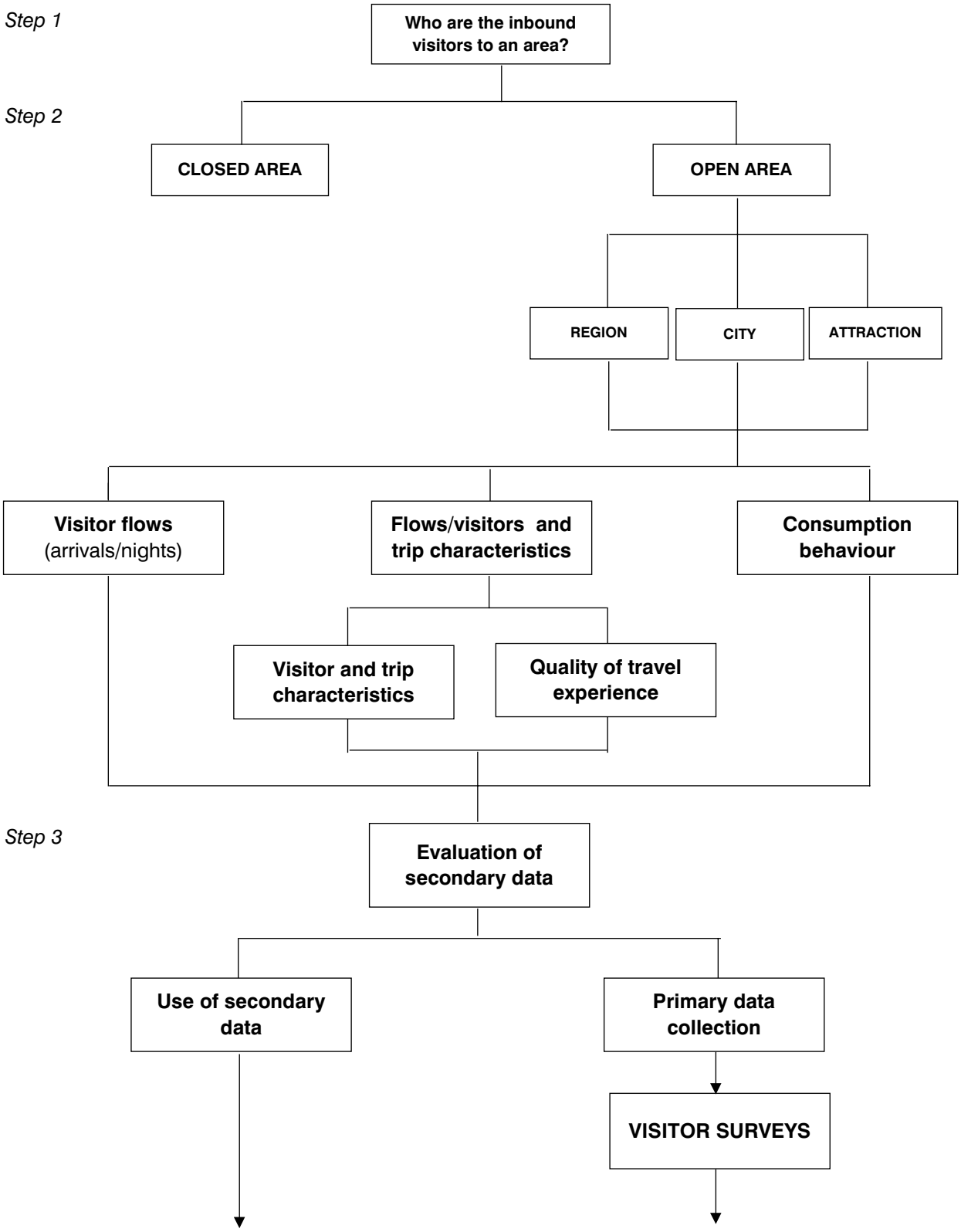
INBOUND VISITORS TO AN OPEN AREA

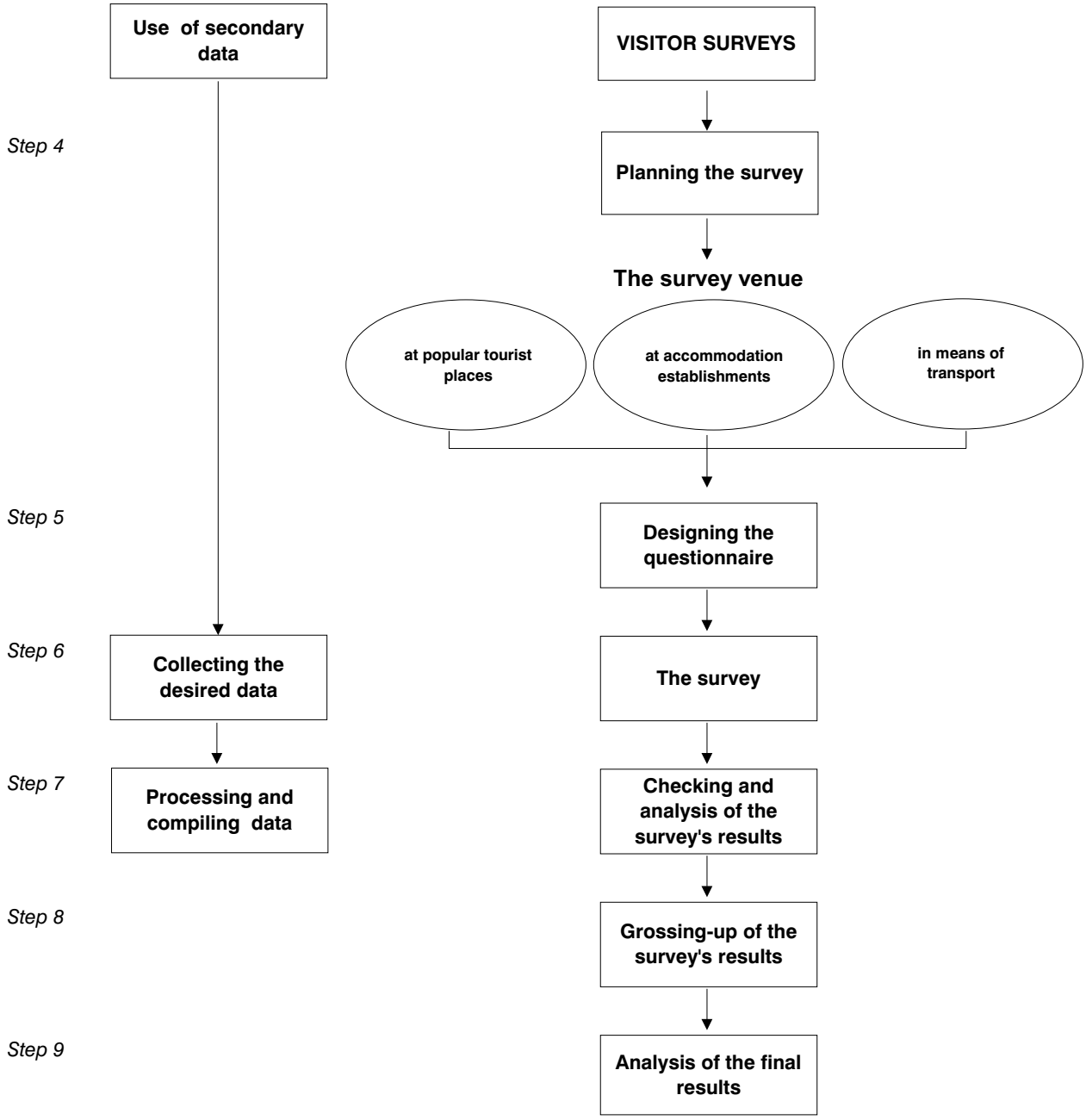
The aim of Part IV is to analyse fully the method planned for the collection of inbound tourism statistics with specific reference to an open area.

The organisation follows the same logical process shown in Part II, but for each step only the different procedures that should be applied in the case of an open area are discussed.

For common procedures which may be implemented both in a closed or in an open area the researcher/user should refer to the corresponding Chapter or Paragraph in Part II.

Chart 1 - Inbound tourism statistics collection. The research process





1. Inbound visitors to an open area. The main issue

Step 1 **Who are the inbound visitors to this area?**

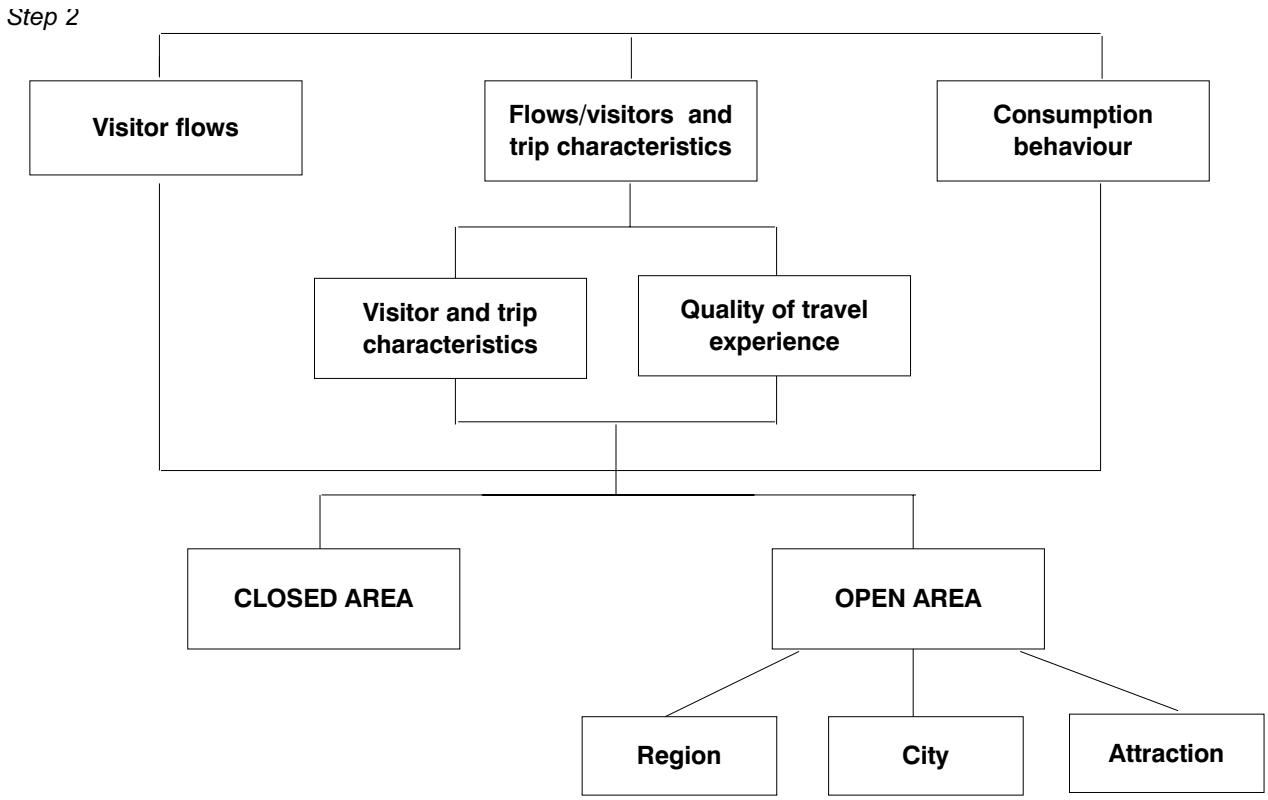
The object of the analysis is all visitors who enter an area, whatever its size (macroregion, region, city, local attraction, etc.) which *does not* have any control mechanism for entry (border controls, entrance fees, etc.).

The planning of a methodology to analyse inbound visitors in an open area is becoming a crucial matter. The forecast complete opening of borders inside the EC will transform each of the Community countries into an open region, thus preventing administrations from recording arriving and departing visitors between them.

Apart from this specific case, measuring the volume and characteristics of inbound visitors in a region, and their consumption behaviour, represents the second level of analysis for most governments, once the evaluation of inbound visitors in the country has been developed. The information collected is vital for economic and marketing purposes.

Also local administrations are interested in evaluating trends, characteristics and expenditure of visitors entering a city, a town or a specific destination (attraction) located in their territory (e.g. a church, a palace, a street, a square, etc.). In all these cases the main problem is the lack of some control which allows visitors to be counted and their flows to be monitored.

2. Specification of data needs. The area and the information



As discussed in Part II, you may have different types of open area, the most common being:

1. a single ***region*** or an area which includes two or more parts of a country (***macroregion***). This area can be limited by political and administrative boundaries not involving an access control (e.g. in France, Normandy); it can correspond to the so called *tourist region*, that is the area from which different types of same-day visitors originate to visit an attraction; finally, it may be designed according to the specific needs of the researchers. For example, they may be interested in analysing the visitor flows in the main beach destinations of the country. In this case, the region under study is represented by the coastal area;
2. a ***city*** or a *town*, where visitors do not generally meet any barriers to entry, so it is difficult to control visitor flows;
3. a single ***tourist attraction*** (e.g. a church, a palace, a mosque, etc.), located in a city/town or in a specific site, for which there is free entry.

As mentioned above, when dealing with a region in political and administrative terms, the border does not involve the presence of frontier control points, such as in a country, so it is almost impossible to check visitors as they enter the area.

In all these areas, the researchers may be interested in:

- counting inbound visitors (tourists and/or same-day visitors);
- analysing visitor flows, the characteristics of the visitor and the trip (age, socio-economic status, destination, means of transport used, etc.) and the quality of travel experience;
- studying the consumption behaviour and the visitor's expenditure items.

The kind of information needed and the kind of area where it is to be collected directly influence the choice between using secondary data and organising a primary data collection and, if this is the case, the kind of survey (system of surveys) to be carried out (Charts 2 and 3).
In a large open area (e.g. a region), inbound visitors may be monitored by means of a survey in means of transport or at popular tourist places, while a survey at accommodation establishments allows only inbound tourists to be analysed. However, in a large open area it is normally not worthwhile to collect information about same-day visitors. Such data, in fact, is more useful if it refers to specific attractions or small areas which may be checked with reference to their carrying capacity. So, as will be discussed in Section 4.1.1., the survey at accommodation establishments is preferable to the others in that it provides a sample which, as far as tourists are concerned, is better representative of the target population (see Section 8.1.).

On the other hand, in a small open area (the historical centre of a city, a church, etc.) a visitor survey is carried out at popular tourist places (e.g. street, square, etc.), or directly at the tourist attraction itself. In this case the local analysis allows you to evaluate visitor flows as representative of the tourist pressure both on the tourist site and on the surrounding area (e.g. the city in which it is located).

Chart 2 - Open area. The suggested survey venue according to the kind of area

Area / Survey venue	OPEN AREA		
	LARGE	SMALL	
	Region	City	Attraction
At entry/exit points	NO	NO	NO
In means of transport	NO	NO	NO
At accommodation establishments	YES	YES	NO
At popular tourist places	YES	YES	YES

Chart 3 - Open area. The suggested survey model according to the kind of information to be collected

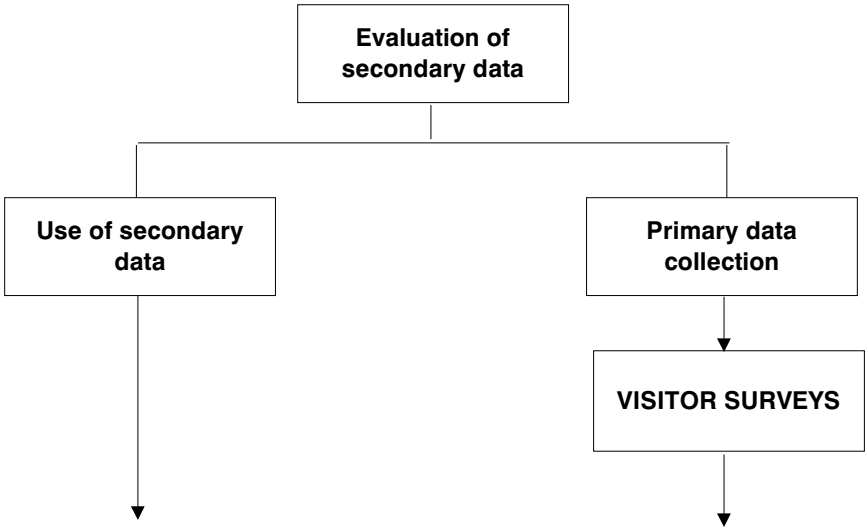
Area / Information	OPEN AREA		
	LARGE	SMALL	
	Region	City	Attraction
Volume of visitor flows	ACCOM	PLACE or ACCOM	PLACE
Visitor and trip characteristics	ACCOM	PLACE or ACCOM	PLACE
Quality of travel experience	ACCOM	PLACE or ACCOM	PLACE
Expenditure behaviour	ACCOM [1]	PLACE or ACCOM [1]	PLACE

Note:
ACCOM = survey at accommodation establishments
PLACE = survey at popular tourist places
[1] The survey at accommodation establishments provides information only on tourists' characteristics and consumption behaviour.

Furthermore, the specific characteristics of the selected area may limit the types of survey which can be implemented.

3. Choosing between secondary data and primary data collection

Step 3



Once you have decided the information you need, it is necessary to evaluate the data on inbound visitors which has already been collected by other operators.

In the case of an *open area*, the major sources of this data are as follows.

Open area. Major sources of secondary data

1. information recorded by operators of collective accommodation establishments for administrative purposes;
2. information recorded through previous surveys by other operators.

Both these sources present some problems.

Information from hotel and non-hotel operators is based on the data that collective accommodation establishments record for their own administrative purposes or to comply with the demands of the tourist administration or police authorities.

Useful data on inbound tourists may be obtained from the registration records of hotels and similar establishments, health care establishments, holiday camps, conference centres and tourist campsites. Compared to the other sources of inbound visitors data, this method is subject to three important limitations:

1. it covers tourists but not same-day visitors;
2. it does not cover types of accommodation establishments where registration is not compulsory, such as private homes;
3. it cannot directly provide a count of total tourists in the open area under study, to the extent that it records only nights and that tourists may stay in various places in the area before leaving. The number of tourists could be calculated through the estimation of the average length of stay.

Furthermore, difficulties may arise concerning the real registration of guests by the operators. Where the administrative controls are weak, problems of missing records may arise which can invalidate the data collection.

As far as i*nformation recorded by other operators through previous surveys* is concerned, its reliability has to be carefully evaluated as it is often derived from an estimation calculated only on a part of the target population.

If the existing sources prove adequate to the interests of regional and local authorities and operators, you can pass directly to Step 6 and collect the desired data, and then to Step 7 to process and compile it, following the same suggestions given in Paragraph 7.5.

Step 6 **Collecting the desired data** → **The use of secondary data**

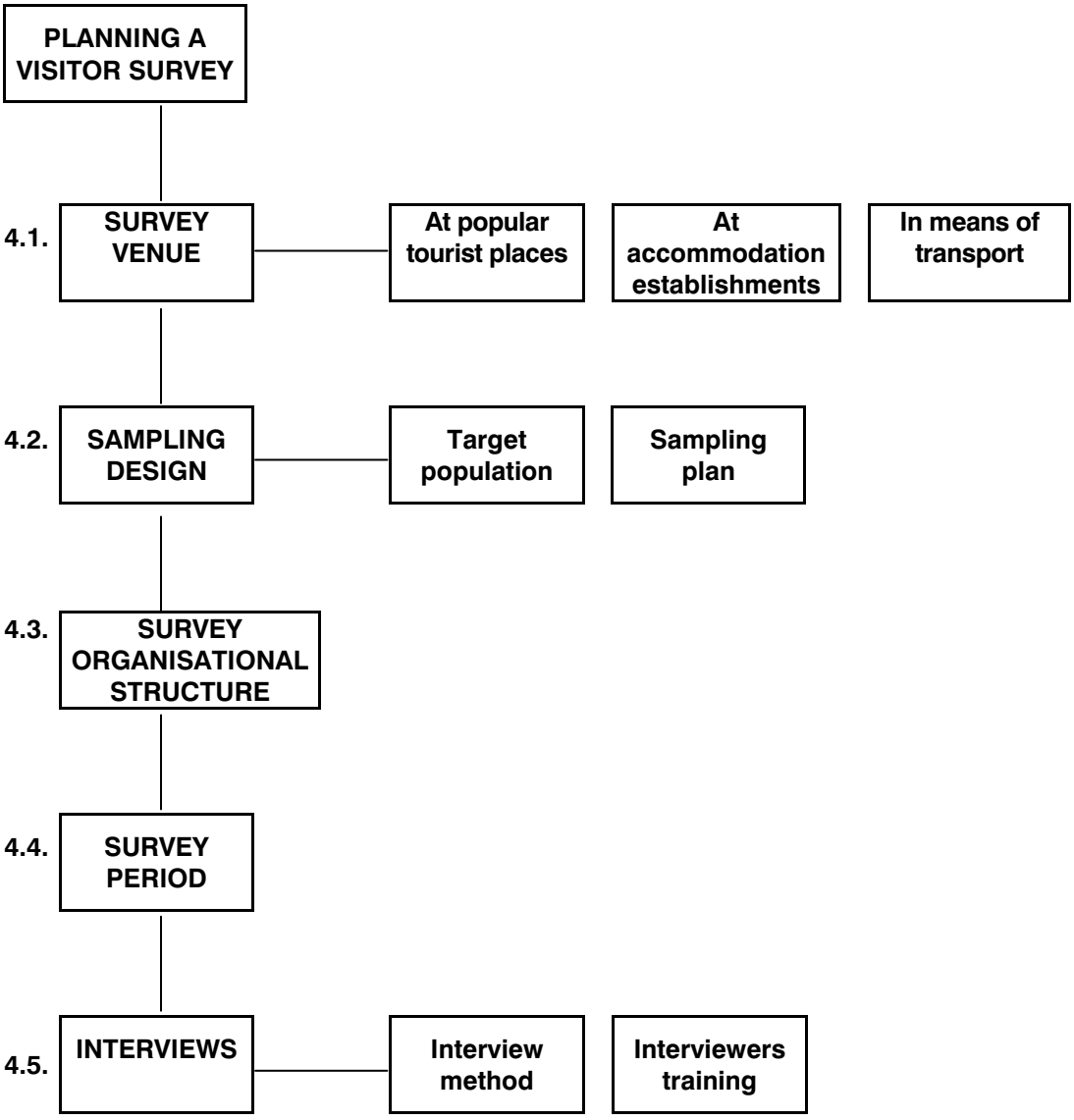
Step 7 **Processing and compiling data**

If none of the existing sources proves adequate, then you will have to consider gathering primary data through a sample survey of inbound visitors.

When dealing with an open area, the latter is generally the case.

4. Primary data collection. Planning a visitor survey

Step 4



As mentioned in the introduction, at each stage included in Step 4 only the specific issues to be discussed and the operative methods to be applied for each type of open area are explained.

For the analysis of the general issues, common to a closed and an open area, see the corresponding Chapter or Paragraph in Part II.

In detail, in each of the following paragraphs the chart drawn at the very beginning highlights in bold characters the specific issues dealt with in the text that follows.

4.1. The survey venue

Considering an open area, whatever its size is, there are two types of survey you can carry out: at accommodation establishments and at popular tourist places. A third option is represented by surveys on means of transport but, as we will discuss below, these are subject to many problems concerning the definition of the target population and the design of the sampling plan.

You can just organise one survey or a combination of the surveys, the choice depending on the information you want to collect. For example, if you are only interested in analysing inbound tourists, you can opt for a survey at accommodation, which also allows you to study their consumption behaviour thoroughly. On the other hand, if you are interested in analysing both inbound tourists and same-day visitors you should choose a survey at popular tourist places or a system of surveys (a survey at accommodation for tourists and a survey at tourist sites for same-day visitors).

In general, the venue to carry out the survey has to be chosen to ensure that the sample interviewed is representative of the target population.

4.1.1. Survey at accommodation establishments

This survey involves the collection of data from a sample of guests in a sample of collective and private tourist accommodation establishments, such as hotels and similar establishments, health care establishments, holiday campsites, holiday dwellings, rented dwellings, etc. (see Appendix A3).

The method is subject to the same limitations shown for secondary data recorded in hotel and non-hotel accommodation (Chapter 3), that are:

1. it does not cover same-day visitors;
2. it does not cover types of accommodation where registration is not required, such as the homes of friends and relatives;
3. it cannot directly provide a count of total tourists in the open area under study, to the extent that it records only nights and that tourists may stay in various places in the area before leaving (Chapter 3).

However, it is the most appropriate for collecting thorough data on tourist consumption behaviour and on specific tourist expenditure items.

Furthermore, it is very useful for recording general information on tourists and their trip in two specific cases:

- where they represent the majority of visitor flows (let's consider, for example, a beach resort where the distance from neighbouring cities is too far for same-day visits);
- where those who overnight in registered structures represent the majority of tourist flows in the area (for example, a thermal resort, where most of the visitors are generally overnight visitors in hotels).

The area under study should be limited in order to ensure a suitable coverage of all kind of accommodation establishments located there.

To sum up, the general *advantages* of this kind of survey are that:

- it can provide detailed information on tourist and trip characteristics, on the tourist's opinions and impressions and above all on his/her consumption behaviour. The time available for the interview is generally longer than in the case, for example, of a survey at entry/exit points. Besides, the place where the interview is carried out is usually more comfortable for the respondent (e.g. the hotel hall), than being interviewed in the street or in front of a tourist attraction;
- it overcomes, or significantly reduces, recall problems, i.e. the difficulty of visitors to recall the expenditures they made during the trip after completion of the visit (see Part II, Section 4.4.);
- the use of personal interviews enables more accurate data to be collected;
- it allows expenditure to be linked to visitors' characteristics.

About general *disadvantages*:

- it can require fairly complex sampling procedures to ensure representative results (see 4.2.2.3.);
- where face-to-face interviews by skilled interviewers are conducted, it can be an expensive method;
- where forms are given to guests for completion on return after they have completed their trip, response rate can be low and representativeness difficult to ensure;
- it provides only expenditure estimates for those visitors staying at the types of accommodation covered, while it does not cover visitors staying in non-registered accommodation or same-day visitors;
- it requires the co-operation of the selected establishments' operators (in addition to that of the selected guests);
- it may restrict the data to estimates of average daily expenditure, rather than total expenditure.

For non-registered accommodation, the problem is to analyse the volume and characteristics of tourists staying in private rented and non-rented structures — such as rented rooms in family houses, owned dwellings and accommodation provided by relatives and friends —, which in some tourist resorts represent a relevant segment of the market. For a discussion on this issue see Section 4.2.2.3.

4.1.2. Survey at popular tourist places

As shown in the case of a closed area (Part III), a survey of visitors may also be conducted in places where a high proportion of them is expected to be found, such as popular tourist attractions and sites like churches, palaces, streets and squares located in the historical centre of a city, etc.

These surveys, as mentioned in Chapter 2, may be used to monitor the attraction itself, by measuring the volume and characteristics of tourist flows that visit the site. But in the case of an open area, they can be better employed to evaluate those flows as representative of the tourist pressure which affects all the surrounding area (e.g. the whole city, etc.). This is especially true for the most important attractions, which are usually visited by all first-time tourists and same-day visitors.

A survey at tourist sites is very useful for investigating both international and domestic inbound visitors as well as for getting accurate information on both tourists and same-day visitors.

In a large open area, such as a region, it should be taken into account that this survey involves sophisticated organisation, considering the need to select a representative sample of tourist places.

On the other hand, it may be carried out successfully in a city or generally in a small open area, as there is a high probability that visitors staying there visit the tourist attraction.

Consequently, the value of these surveys depends on the extent to which visitors interviewed at those places are representative of all visitors, or of the group of visitors whose characteristics and expenditure is being measured. Unlike the case of a closed area, in an open area researchers usually do not know the real size of the target population as there is not any control mechanism of visitor flows (free entrance). Information may be obtained from previous surveys but they may be not reliable or in general not consistent with the researchers' needs.

So it is necessary to carry out a supplementary survey in order to calculate the probability of visitors being interviewed at the selected attractions (see Part II, Chapter 4).

To sum up, the general *advantages* of this method are that:

- where there is a high probability that visitors selected for sample are representative of the target population, this method can have the same advantages as in the case of a closed area;
- the researcher can be certain of contacting individuals who will indeed qualify as visitors;
- these surveys are relatively inexpensive and very useful if the interest is only in estimating the volume of visitors to specific and important tourist centres.

On the other hand, the general *disadvantages* are that:

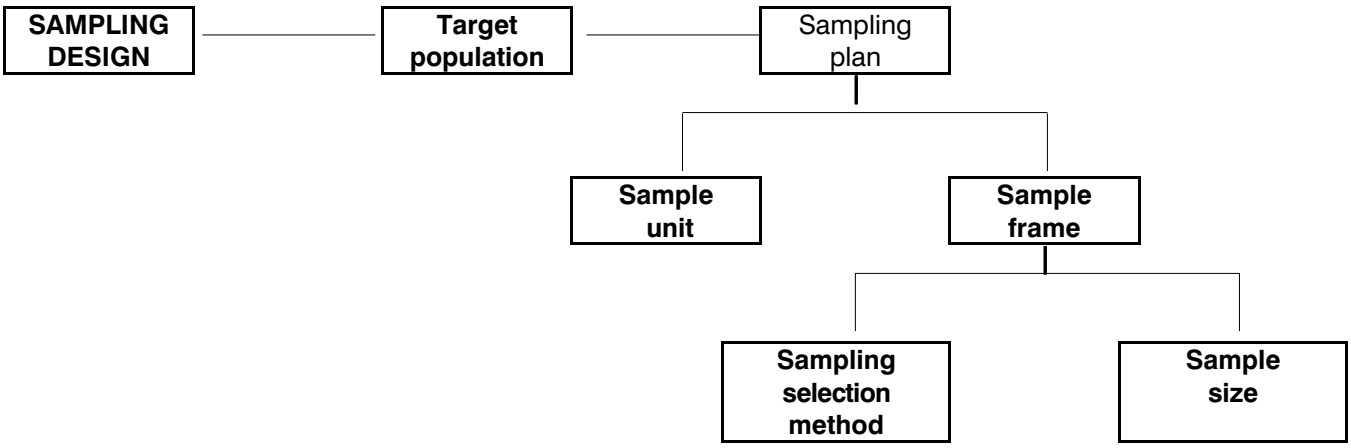
- in the case where the survey is aimed at measuring visitor pressure in a large surrounding area, the sample may not be truly representative of the visitor group under study. This method may fail to ensure that all inbound visitors have a known, non-zero chance of being included in the survey and so there may be unknown biases in the survey response. Or, on the contrary, a visitor could be interviewed more than once, if he visits more than one of the monitored sites. As far as the first aspect is concerned and considering 'length of stay bias', a visitor spending four nights in a place could have twice the chance of being interviewed as a visitor spending two nights. So it is necessary to estimate the probability of the visitor being interviewed through a supplementary survey;
- where visitors have not completed their visits, total expenditure cannot be collected, and only average expenditure can be estimated. In this case it would be better to record the total expenditure met by the visitor the day before that of the interview;
- these surveys are not very useful for detailed surveys and in-depth analysis of inbound tourism expenditure. For example, a tourist may be contacted during the first day of his/her stay when he/she has not completed his/her total trip expenditure. As far as a same-day visitor is concerned, he/she can be interviewed on his/her arrival at the tourist site when he/she has not yet had the time to buy anything. The same problems may be applied to the analysis of trip characteristics and the quality of travel experience, in that the visitor may visit other places during the trip before going back home.

4.1.3. Survey in means of transport

Also in an open area, domestic and international inbound visitors may be interviewed in the actual means of transport they are travelling by to reach the region, the city or the tourist attraction under study.
However, this method is generally not advisable as:

- it is very difficult to identify the real size of the target population or to estimate the probability that the area where the transport mode is directed is the final destination of the visitor interviewed. For example, suppose that in a country the airport is located in region A. A group of tourists is on holiday in region B (in the same country) take a coach or a train to reach the airport to fly back home. In this case the group of tourists, interviewed during their trip from B to A, is only in transit in region A, which therefore does not represent one of the destinations of their holiday;
- looking at domestic visitors, it is hard to distinguish the main purpose of trip and, particularly, to separate trips from home to work or from home to school from those for other purposes (leisure, visiting friends and relatives, congresses, meetings, etc.). The same applies to a visitor who resides abroad and is temporarily in country X for business purposes. For example, a businessman who visits a foreign branch of his firm and is interviewed while travelling from his hotel to the firm where he is temporarily working is not a visitor for tourist purposes;
- it does not take into account visitors travelling by car, which is usually a big market segment in an open area. Moreover, the bigger the area the larger the type and number of means of transport which can ensure access to the area.

4.2. The sampling design



4.2.1. The target population

The target population from which you will draw your sample is generally composed of all people who enter the open area under analysis (macroregion, region, city/town, tourist attraction, etc.).

In all these cases you may contact both international and domestic inbound visitors. So the target population may be divided into two sub-populations, which may show different characteristics for purpose of visit, length of stay, etc.

In detail, the target population is also different when considering the type of survey to be carried out. At accommodation establishments, it includes only tourists staying in the selected (registered and/or non-registered) accommodation.

At popular tourist places, it is composed of all people who visit the attraction in the time period considered.

4.2.2. The sampling plan

(See Section 4.2.2. in Part II)

4.2.2.1. The sample unit

(See Section 4.2.2.1. in Part II)

As mentioned in Section 4.1.1., in the case of a survey at accommodation it would be better if the collection unit is represented by all the occupants in a selected room, especially if you want to evaluate the tourist daily per capita expenditure. It is usual for those guests who are sharing a room to have a common funding source, e.g. families. Total expenditure should be collected for all the occupants and then divided by the number of occupants to arrive at an average expenditure per visitor.

4.2.2.2. The sample frame

The sample frame is a list of all sample units in the population, or instructions indicating all such units. It is used to draw the sample for the survey.

For example, in the case of surveys at accommodation establishments, the sample frame is all persons who overnight in these establishments during the period of the survey. The definition may be further broken down to define sub-frames, such as tourists in hotels, in tourist campsites, in rented dwellings, etc. In the case of surveys at popular tourist places, the sample frame is all persons who visit the site. For the sake of cost-efficiency, it is important that the sample frame is representative of all the elements which characterise the population selected for study, that is the target population, and only this population. This relationship is crucial for accurately inferring the characteristics of the population from the characteristics of the sample.

The sample frame is composed of two stages: the choice of the sampling selection method and, consequently, the determination of the sample size.

4.2.2.3. The sampling selection method

As discussed in Part II, the multi-stage stratified random sampling is the most appropriate sampling selection method, especially when you want to obtain detailed information on visitor and trip characteristics and on visitor consumption behaviour for marketing purposes (market segmentation, etc.). It allows you to minimise the sampling error and to draw a sample which is truly representative of the target population.

The organisation of the sampling plan depends on the survey venue or location where the survey will be carried out. As analysed below, the stratification characteristics are different if you choose, for example, a survey at accommodation establishments or a survey at popular tourist places.

Survey at accommodation establishments

In this survey, a two-stage random sampling is the most appropriate design.
Considering, for example, a large open area, such as a *region*, the tourist population is generally stratified by:

- tourist district (beach resorts, cultural resorts, thermal resorts, etc.);
- visitors to be interviewed (usually divided by nationality).

Then, the first stage is further stratified taking into account the features of every tourist resort located in each district and the different type and category of accommodation in which tourists stay. In detail, sub-samples of days and months (according to tourist seasonality) and sub-samples of the most popular tourist resorts (chosen from those where the majority of tourist nights are concentrated) are drawn for each district. Furthermore, a sub-sample of tourist accommodation is selected for each resort, according to type (hotel and non-hotel) and category (e.g. 5 star hotels, 4 star hotels, ..., tourist campsites, rented dwellings, etc.).

On the other hand, in a small open area — such as a *city*, a town or, more generally, a *single tourist resort* —, the tourist population is generally stratified by:

- type of accommodation establishment (hotels and non-hotels);
- tourists to be interviewed (usually divided by nationality).

Then, the first stage is further stratified taking into account the category of accommodation chosen and the time period (months or days).
In general, for every member of these sub-populations to have a known, non-zero chance of being included in the sample, it is crucial to ensure maximum coverage rate of resorts and accommodation.
For the number and type of establishments to be involved in the survey, non-registered accommodation creates a crucial problem.
According to the Council Directive, tourist accommodation is divided into two main groups (see Appendix A3):

1. *collective accommodation establishments*, which includes:

- hotels and similar establishments;
- other accommodation establishments;

tourist campsites:
- holiday dwellings;
- other collective establishments n.e.c.

2. *private tourist accommodation*, which includes:

- private rental accommodation (rented rooms in family houses; dwellings rented from private individuals or professional agencies);
- private non-rental accommodation (owned dwellings; accommodation provided without charge by relatives and friends; other private accommodation).

Considering private establishments, there is usually no official count of either rooms and dwellings rented by individuals or of non-rental accommodation. Only for rented establishments some lists may be provided by the local tourist authorities, but they are not always reliable. In addition, it is very difficult to contact and interview tourists staying there.

However, as there are no reasons to state that the characteristics and the consumption behaviour of tourists spending their holidays in these types of accommodation are substantially different from those lodging in dwellings rented by professional agencies (obviously, apart from accommodation expenses), the information collected from the latter may generally be applied as a proxy to the first ones.

Apart from the category of accommodation considered (collective or private), the costs met in organising the survey in all kind of establishments, including the non-registered ones, may be very high, in terms both of financial and human resources, while response rates may be comparatively very low, especially those referred to the non-registered component.

Consequently, a good solution should be to select the registered typologies which are representative of each category, to analyse characteristics and expenditure behaviour of tourists staying there and to apply them to tourists staying in similar non-registered establishments. For example, among collective accommodation the researchers may select hotels as representative of similar establishments, whilst among private accommodation they may choose dwellings rented from professional agencies as representative of dwellings rented from private individuals, and of owned dwellings.

Once the categories to be involved in the survey have been chosen, the single establishments may be selected by a random process or by including, for example, those accommodation establishments which report a significant number of foreign guests in a year (e.g. more than 365 foreign guests which corresponds to a mean of one foreign tourist per day). The last method is advisable if you want to analyse mainly international inbound tourists and you already know that some tourist establishments only host domestic tourists. In this way, you have more chances to observe the sampling plan.

Then, you can interview all the guests staying there (this is the case in a *cluster analysis*) or you can select a number of tourists at each accommodation at random or by using appropriate intervals of selection from a random start (systematic selection according to an appropriate sampling rate).

Nevertheless, it is very difficult to apply the first method because it has been noticed that the willingness of operators to cooperate diminishes as the number of interviews conducted in their establishments increases. From this point of view, the choice of selecting a number of guests at each accommodation by a systematic process would be the best answer.

Coming back to the process of stratification referred to a survey in a large open area, it must be done by tourist district, by resort and by category of accommodation (or by accommodation only, in the case of a small open area), using domestic and international overnight stays spent by tourists in registered accommodation (Chart 4).

In detail:

- in the first stage, the share of annual international and domestic tourist nights in each district on the total of the region is applied;
- in the second stage, the share of international and domestic nights by resort, by type of accommodation — hotel and non-hotel — and by category (5-4 star hotels, 3 star hotels, 2-1 star hotels, campsites/villages, rented dwellings, other) on the total of each district has to be calculated;
- in the third stage the seasonal trend of international and domestic flows, related to the specific tourist product and attractions offered by each resort, should be taken into account. The monthly share of nights in each accommodation category divided by the total nights registered in that category during the period covered by the survey, should be used.

Survey at popular tourist places

Also in a survey at popular tourist places and, in general, in open resorts located within a country, a two-stage random sampling may represent the most appropriate sampling design, similar to what has already been discussed for a closed area.

The first stage units may be, for example, the time intervals of seven days, corresponding to a week, and the second stage units may be the people who visit the site. Then, the first stage may be further stratified taking into account the fact that visitor flows tend to be more concentrated on some days of the week (typically, at the weekend) than on others.

If the tourist site is open throughout the year, the 52 weeks of the year can be grouped into 13 clusters of 4 consecutive weeks each and one week is selected at random from each cluster. On the other hand, if the attraction is open only seasonally (e.g. in summer) or generally for a limited time (such as a temporary exhibition), the time intervals chosen have to include both peak (e.g. opening and closing weeks) and lean periods. In both cases, the researcher has also to consider peak and lean seasons which characterise the area (city, region, etc.) where the attraction is located, and which inevitably influence the visits trend.

As discussed in Paragraph 4.1.2., the lack of any control mechanism for entry makes it difficult to design the sampling frame for the selection of the second stage units. In this case it is appropriate to carry out a supplementary/pilot survey in order to verify the structure of visitor flows, divided into domestic and international inbound visitors, and among them of tourists and same-day visitors, through an identification process built into the survey questionnaire.

The supplementary survey - which can be used also to calculate the probability of a visitor being interviewed, that is the probability that each visitor chooses the monitored site establishments and the main survey may be carried out by pairs of interviewers whose alternation is stated in the sampling work plan on shift, as in the case of a survey at entry/exit points. One interviewer counts visitors at the exit while the other conducts the interviews.

Chart 4 - Stratified random sampling with proportional distribution of the sample space. The case of a region

Percentage of international overnight stays on total nights

A. *TOURIST DISTRICT*

ART CITIES	LAKE	SEA	MOUNTAINS	SPA RESORTS	TOTAL
20.82	16.11	**52.64**	1.79	8.64	100

ART CITIES LAKE **SEA** MOUNTAINS SPA RESORTS

B. *RESORT / TYPE AND CATEGORY OF ACCOMMODATION ESTABLISHMENT*

	HOTELS			OTHER COLLECTIVE AND PRIVATE ACCOMMODATION		TOTAL
	4 Star	3 Star	1 and 2 Star	Tourist campsites, holiday dwellings	Private rental accommodation	
Resort 1	0.71	1.92	1.46	4.24	23.26	31.57
Resort 2	0.18	1.86	3.99	5.51	3.85	15.39
Resort 3	0.00	0.53	0.21	25.15	0.88	26.77
Resort 4	0.25	0.49	0.16	1.49	0.50	2.89
Resort 5	3.29	9.09	5.39	3.03	2.58	23.38
TOTAL	4.42	13.89	11.20	39.42	31.07	100.00

C. *MONTH / HOTEL CATEGORY*
RESORT 3

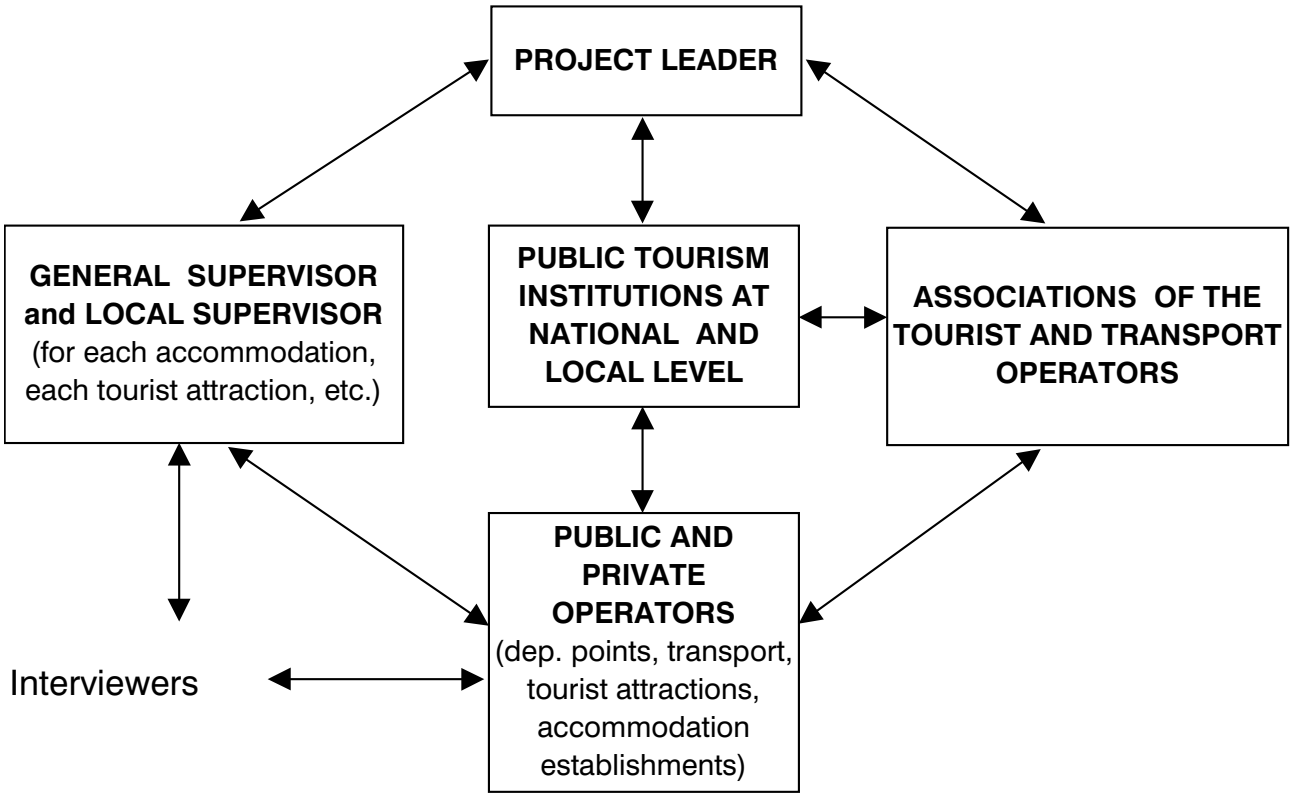
	HOTELS			OTHER COLLECTIVE AND PRIVATE ACCOMMODATION	
	4 Star	3 Star	1 and 2 Star	Tourist campsites, holiday dwellings	Private rental accommodation
June	0	29.03	30.21	22.33	14.68
July	0	27.33	29.89	36.98	39.00
August	0	23.91	26.17	30.58	28.43
September	0	19.73	13.73	10.10	17.89
TOTAL	0	100.00	100.00	100.00	100.00

4.2.2.4. The sample size

The choice of the optimum sample size depends above all on the relationship between the maximum efficiency and quality of the data to be collected and the cost of collecting this data.

Given the funds set aside for the survey, the sample size has to be as proportionate as possible to the size and the characteristics of the target population. In an open area you may obtain this information from other estimates carried out by the local Tourist Administration, the National Statistical Office or other sources (see Chapter 3 about secondary data). For example, considering a region or a city you may know the total arrivals and nights of inbound tourists in hotel and non-hotel accommodation, according to type of establishment, country of residence and month. In these cases, you can calculate the sample size as a proportion of the target population.
As far as a tourist site or attraction is concerned, you may use the results of previous surveys. If this data is not reliable or it does not meet the researchers' needs, it would be suitable to organise a pilot survey on a small preliminary sample in order to evaluate the distribution of the characteristics under study within the population.

4.3. The survey organisational structure



The general framework of the survey organisation shown above has to be adapted to the specific features of each type of survey.

In the case of a region, there may be a general research supervisor, helped by a supervisor for each tourist district and by a supervisor for each resort in which the establishments are located.

For example, considering a sea district — i.e. the area which groups the entire beach resorts in a country —, the supervisor for each beach resort has to control how the survey is carried out in a cluster of accommodation establishments. He/she has to co-ordinate and control the interviewers' job, solve their problems, have contact with the local operators and report on a regular basis to the district supervisor. The district supervisor follows the general performance of the survey in all the resorts under his/her control and reports on a regular basis to the general supervisor.

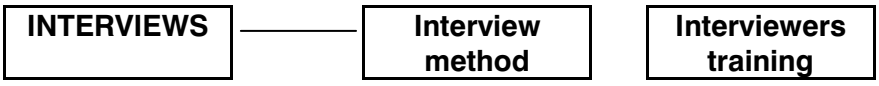
However, the number of organisational levels clearly depends on the size of the area considered. For a *city*, there may be a general supervisor, a supervisor for each type of accommodation considered and a team of interviewers. In the case of a *single tourist attraction*, the survey staff may include only a supervisor and a team of interviewers.

As for obtaining permission, in the case of an open tourist site there is no particular problem as the entrance is free. Difficulties may arise in *accommodation establishments*: here the success of the survey depends heavily on the co-operation of the associations of hotel and non-hotel operators and of single operators. In hotels, and especially in luxury hotels, the managers are worried that the interviewers create inconvenience to guests during their stay.

4.4. The survey period

(See Paragraph 4.4. in Part II)

4.5. The interviews



4.5.1. Specifying the interview method

As discussed in Part II, there are three different methods which can be applied:

- conducting personal face-to-face interviews among departing visitors;
- greeting potential respondents and handing them a questionnaire to complete before leaving;
- handing questionnaires to potential respondents and asking them to complete the forms and mail them back.

The choice depends on a cost/benefit evaluation of information collected.

Considering a survey at accommodation establishments, researchers usually collect data through direct interviews with the selected guests, or by giving them questionnaires for completion and return after they have finished their trip. Face-to-face interviews are surely the best solution, as they usually ensure a more representative sample and higher response rates (particularly when you want to collect data on visitor consumption behaviour), but they can be very expensive. Where this method is used, guests may be interviewed at the end of the trip or during their stay. In the latter case, they have not completed their total trip expenditure so details are usually obtained only on expenditures met in the previous day and then on average daily expenditure. Because expenditure patterns differ during a visit (for example, some visitors may leave the purchase of expensive souvenirs to the end of the visit), and are influenced by the length of stay, care must be taken in the sample selection procedure to ensure that the results are representative by varying the stage of the visit at which respondents are interviewed.

The collection unit is generally represented by all the occupants in a selected room. It is usual for those guests who are sharing a room to have a common funding source, e.g. families. Total expenditure should be collected for all the occupants and divided by the number of occupants to arrive at an average expenditure per visitor.
The second collection method implies leaving questionnaires in guestrooms and inviting guests to complete and return them at the end of their trip. This methodology is not recommended for expenditure surveys as the responses are usually small and unrepresentative.

A more complex version of surveys at accommodations could include additional questions on pre-trip expenditures and length of trip to which this expenditure applies, as well as expenditures on trip to date and length of trip to date.

The same methods apply in the case of a survey at popular tourist places.

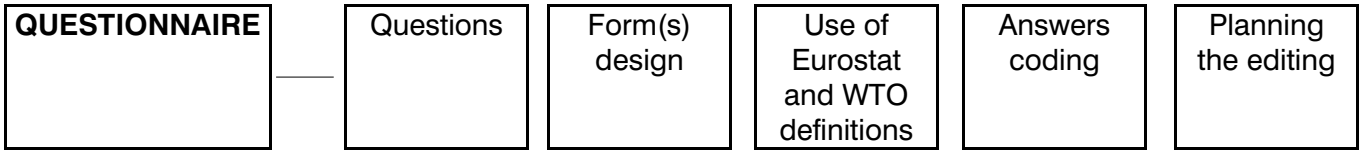
In detail, you can directly interview visitors as they go out of the attraction or you can opt for handing out questionnaires when they enter the attraction asking them to give the forms back when they exit.

4.5.2. Recruiting and training interviewers

The recruitment and training of interviewers is a part of the survey organisation plan we discussed above. Apart from a general training and some basic skills, the interviewers should also have special characteristics according to where the survey is carried out (at accommodation, at popular tourist places). They have to be able to contact the visitor in the hall of a hotel, in a campsite, along the street, in front of a church, etc.; to explain the aims of the survey briefly and to hold the visitors' attention.

5. Designing the questionnaire

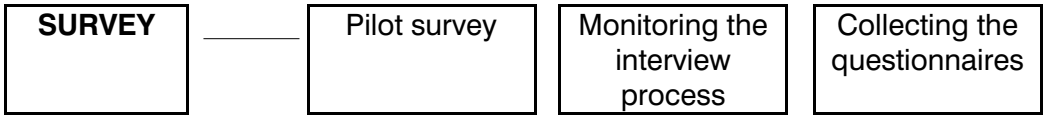
Step 5



(See Chapter 5 in Part II)

6. The survey

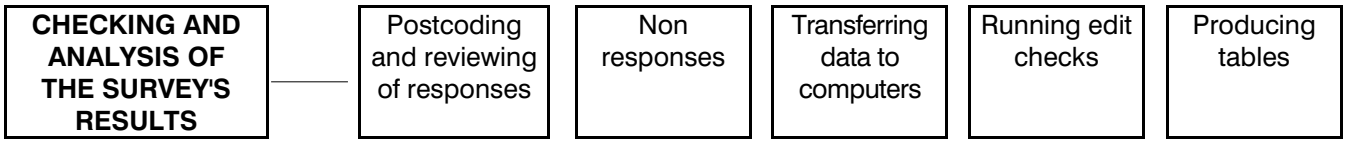
Step 6



(See Chapter 6 in Part II)

7. Checking and analysis of the survey's results

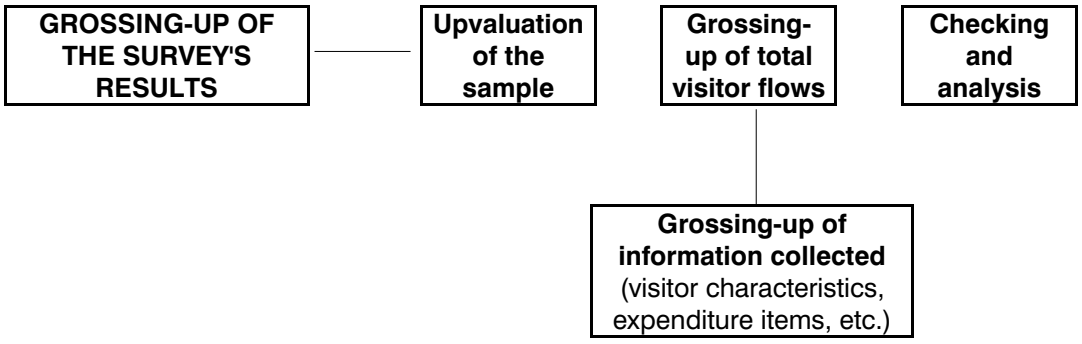
Step 7



(See Chapter 7 in Part II)

8. Grossing-up of the survey's results and checking procedure

Step 8



Once you have recorded and input the questionnaires and made a preliminary analysis of the survey's results, you have to control that the responses respect the proportions established in the sampling plan.
For sampling and non-sampling errors which can occur in a sample survey, see Chapter 8 in Part II.

The balancing or upvaluation of the sample, and specifically of each sub-sample, you can do is dependent on the information available for the target population. As discussed above, in an open area there is generally no information on visitor flows, unless from previous surveys, so it is necessary to organise some mechanism to control the reliability of the survey's results.

The evaluation of experience of several countries has stressed how the methodology used may be different according to the kind of open area under study and, consequently, to the kind of survey carried out.
Here our aim is to provide a suitable method for both a large and a small open area (a region and a city), which may be applied in the most common cases when official records do not provide any information.

8.1. The case of a region

In analysing visitor flows in a large open area, such as a region, the value of counting same-day visitors should first of all be estimated, given the costs and benefits of such choice (see Chapter 2).

If the costs of arranging such survey are higher than the precision and reliability of collected results — given the size of the area under study establishments, it would be better to opt for a survey at accommodation establishments. Although this survey records tourists only, it generally provides more consistent and reliable data on a regional level than that carried out at popular tourist attractions (where visitor flows can be considered representative of the whole movement in the survey area).

In fact, unlike the city, in a region there is a high probability that visitors do not visit the selected attractions during their stay, as well as any of the attractions located there. Among those who visit the sample of selected attractions, some of them (especially tourists) may visit one or more of these sites during their stay and so have a higher chance of being interviewed. In the same way, focussing on each single attraction (especially open attractions), like in a city, those visitors who visit it may do this more than once and so have a higher probability of being interviewed.

In all these cases, the target population is not truly representative of the regional tourist population and, consequently, the sample drawn may be distorted.

Furthermore, although in a city double interviews may be avoided by carrying out a supplementary survey at the main entry points (car and coach terminals, railway stations) — which allows for verifying whether visitors have gone through the central surveying point or not and, if the latter is the case, how many times they have done so (see 8.1.) —, the same methodology cannot be applied in a region, as there are so many entry points that visitors cannot be properly checked.

As discussed in Section 4.1.1., a survey at registered[26] accommodation establishments allows researchers to collect detailed information on tourist and trip characteristics as well as on tourists' expenditure behaviour[27].

Considering the determination of the sample size and the probability of the tourist being interviewed, an important advantage of carrying out such a survey is that the researcher can rely on "structural" information in a specific time period (usually, by month). Unlike tourist sites, where he/she usually does not know a priori how many visitors visit the selected attraction in a given time period[28], in the case of a hotel or a campsite the maximum number of bed-places/pitches and the number of days on which they are actually available[29] are given data. By multiplying these two factors we obtain the maximum accommodation capacity of the hotel/campsite and then the maximum number of nights tourists could spend in those establishments during the opening period. Furthermore, we may also have information on the number of arrivals and on the real number of nights spent by tourists in the same accommodation (total and by nationality). The latter is usually lower than the former figure on potential nights as the maximum accommodation capacity is rarely fully booked. By comparing real nights with potential nights we can estimate the *rate of net utilisation of accommodation capacity* or *net occupancy rate*. This information may be obtained from secondary data (e.g. data recorded by hotel and non-hotel operators for administrative purposes) or by a specific survey.

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[26] For a thorough discussion on the number and type of accommodation establishments (registered and non-registered) to be involved in the survey see Paragraph 4.2.2.3.

[27] If information on same-day visitors is needed in any case, it may be collected at popular tourist places through an ad-hoc survey mainly aimed at measuring the local pressure of tourism at tourist sites.

[28] Unless reliable secondary data is available.

[29] The number of total days generally goes from a maximum of 365 days (i.e. a year) in art cities and urban centres to a minimum of 90-120 days (i.e. three-four months) in resorts characterised by a short seasonality (e.g. beach resorts).

Consequently, the probability of a tourist being interviewed is known and if the establishments selected are representative of all the hotel and non-hotel accommodation located in the region, the sample is usually well balanced.

So, suppose we consider a region X located in a country Y and that the researcher wants to measure inbound tourist flows staying overnight in regional accommodation establishments, divided by nationality, throughout a year.
The system of surveys that needs to be arranged includes:

1. the *main survey*, which will be carried out in a sample of selected registered accommodation establishments as representative of all the tourist establishments located in the region. This survey collects the information needed on total inbound tourists (e.g. volume, characteristics and consumption behaviour), and on the composition of the relevant segments to be investigated (e.g. domestic and international tourists). If researchers are mainly interested in analysing tourism expenditure, tourists should be interviewed at the end of the stay just before leaving (see Part II, Chapter 2);
2. a *preliminary/supplementary data collection* by the same establishments, which allows for determining of the sample size and verifying the representativeness of the sample interviewed against the population of tourists in all the accommodation establishments of the region. At the beginning and at the end of each basic survey period (usually, the month), hotel and non-hotel operators are asked to give information on:

    - the total number of bed-places/pitches available;
    - the total number of days on which they are available (i.e. the opening period);
    - the total number of nights forecast and registered during the opening period (usually, on a monthly basis);
    - the total number of arrivals forecast and registered during the opening period (usually, on a monthly basis);
    - the breakdown of registered tourist arrivals and nights by origin country.

The first three indicators should allow researchers to estimate the potential accommodation capacity (i.e. the maximum number of nights tourists could spend in those establishments during the opening period) and the net occupancy rate[30] of the selected establishments. By applying this rate to the other accommodation belonging to the same typology and category, the number of overnight stays made by tourists in all accommodation establishments of the region (total and by origin country) may be quantified. On the other hand, the arrivals in the sampled accommodation, and the surveyed length of stay, allow for estimating all tourists staying in all the accommodation establishments of the region.

If nights are crucial for upvaluating and grossing-up the tourist's expenditure items, arrivals are used for implementing the same procedures on tourist and trip characteristics. The process followed will be described thoroughly below.

The preliminary/supplementary data collection should be carried out just before or almost at the same time as the main survey, so as to be sure that tourists interviewed belong to the population of tourists staying in regional accommodation establishments during the sampled period.

As discussed in Section 4.2.2.3., the sampling selection method usually adopted in the main survey is a two-stage stratified sampling, where the first stage is represented by the tourist district into which a region may be divided and the second stage by tourists to be interviewed (usually divided by nationality). The tourist districts usually identify specific geographical areas (e.g. beach district, mountain district, lake district, etc.) or regional resorts (e.g. art cities), which share the same kind of offer. In such a way, the sample drawn is representative of all the major segments of regional tourist demand.

Then, the first stage is further stratified taking into account the features of each district, of each resort located in the same district and of different type and category of accommodation in which tourists stay. First of all, for each district sub-samples of months and days are selected in which to carry out the interviews, according to tourist seasonality. Secondly, the researcher chooses a number of resorts in each district, by considering those which concentrate the highest volume of total tourist flows or, at least, of international tourists. Thirdly, in each resort a census of all accommodation establishments is made, in order to have the total number of accommodation establishments classified by main typology (hotel and non-hotel) and category (5 star hotels, 4 star hotels, ..., tourist campsites, holiday dwellings, etc.). A sample of accommodation has to be drawn from each sub-population.

[30] The *potential accommodation capacity* is calculated as follows : $TN^P = b*d$, where b = total number of bed-places and d = total number of opening days (d=365). So the *net occupancy rate* is equal to: $R_N = (TN^R/TN^P)*100$, where TN^R= total number of registered overnight stays.

The tourists interviewed in each accommodation establishments are usually selected at random or by using appropriate intervals of selection from a random start (e.g. considering the room list or the order of arrival during the sampled period)[31]. The sampling rate may be different according to the type (hotel and non-hotel) and the size (total number of beds) of the accommodation establishment.

The results provided by this system of surveys allow the researcher to proceed from the sample of tourists interviewed to the total number of nights (and arrivals) spent by tourists in all the regional accommodation establishments, through the data collected from the sample of selected accommodation.

There are three steps to be followed:

I. upvaluation of the sample and estimation of the net occupancy rate for each sampled establishment by category of accommodation and month of collection;
II. from the net occupancy rate to the total number of nights and arrivals in all the regional accommodation establishments by category, nationality and month of collection;
III. calculation of the expansion factors of nights and arrivals by category of accommodation, nationality and month of collection.

Step I. Upvaluation of the sample and estimation of the net occupancy rate for each sampled establishment by category of accommodation and month of collection

As mentioned at the beginning, the representativeness of the selected sample is usually ensured by the availability of structural information on accommodation establishments. Nevertheless, due to sampling or non-sampling errors that may be made during the survey (see Part II, Chapter 8), the questionnaires collected may not respect the stratification process and the level of accuracy stated in the sampling plan. In this case, suitable weights for balancing the sample have to be estimated.
For example, considering the tourists' stratification by nationality, the breakdown of collected questionnaires may not correspond to the breakdown of real arrivals by nationality (see Part II, Chapter 8). If 50 percent of the sample is composed of German tourists, but data obtained from the supplementary data collection indicates that only 40 percent of the actual tourists are from Germany, then it is necessary to adjust the sample to approximate this distribution. This process will produce factors that are used to weight each case so that it represents its appropriate proportion of the target population. In the above example, each answer provided by a German tourist should receive a weighting of 0.40/0.50=0.80. The completed questionnaires of other tourists' segments (e.g. French tourists) would receive different weightings depending on these relationships.

The same method also applies when there are some distortions in the number of questionnaires collected in each type of accommodation establishments (for example, too many questionnaires from 4 star hotels compared with
3 star hotels).

Once the results of the main survey have been balanced, the total number of nights/arrivals registered in each type and category of regional accommodation have to be estimated. Given information on potential and real accommodation capacity provided by the preliminary/supplementary data collection:

$TN^{SP}_{a,i,t} = b^{S}_{i} * d^{S}_{i,t}$

a = 1, 2, ... k (district/resort)
i = 1, 2, ... m (category of accommodation)
t = 1, 2, ... T (time, preferably month).

where:
$TN^{SP}_{a,i,t}$ = potential number of nights spent by tourists in the a^{th} tourist district/resort and in the i^{th} sampled accommodation at month t
b^{S}_{i} = maximum number of bed-places available in the i^{th} sampled accommodation
$d^{S}_{i,t}$ = total number of opening days (d = 30) in the i^{th} sampled accommodation at month t.

Researchers can first of all calculate the net occupancy rate of the sampled accommodation establishments:

[31] In the case of systematic random sampling, great attention has to be paid to the presence of a cyclical phenomenon. For example, the researcher may select all rooms having similar furniture and facilities (all luxury suites) because they are marked with numbers ending with the same figure. For more detail see Part II, Paragraph 4.2.2.3.

$R^{S}_{i,a,t} = TN^{SR}_{a,i,t} / TN^{SP}_{a,i,t}$

where:

$R^{S}_{i,a,t}$ = net occupancy rate of the i^{th} accommodation in the a^{th} tourist district/resort at month t

$TN^{SR}_{a,i,t}$ = real number of nights spent by tourists in the a^{th} tourist district/resort and the i^{th} accommodation at month t

$TN^{SP}_{a,i,t}$ = potential number of nights spent by tourists in the a^{th} tourist district/resort and the i^{th} sampled accommodation at month t.

Secondly, the breakdown of nights and arrivals by nationality in sampled accommodation establishments are estimated:

$QN^{s}_{a,i,t,n} = TN^{S}_{a,i,t,n} / TN^{S}_{a,i,t}$

$QA^{s}_{a,i,t,n} = TA^{S}_{a,i,t,n} / TA^{S}_{a,i,t}$

where:

$QN^{s}_{a,i,t,n}$ = share of nights spent by tourists of n^{th} nationality in the a^{th} district/resort and in the i^{th} accommodation at month t

$TN^{s}_{a,i,t,n}$ = total number of nights spent by tourists of n^{th} nationality in the a^{th} district/resort and in the i^{th} accommodation at month t

$TN^{s}_{a,i,t}$ = total number of nights spent by all tourists in the a^{th} district/resort and in the i^{th} accommodation at month t

$QA^{s}_{a,i,t,n}$ = share of arrivals recorded by tourists of n^{th} nationality in the a^{th} district/resort and in the i^{th} accommodation at month t

$TA^{s}_{a,i,t,n}$ = total number of arrivals recorded by tourists of n^{th} nationality in the a^{th} district/resort and in the i^{th} accommodation at month t

$TA^{s}_{a,i,t}$ = total number of arrivals recorded by all tourists in the a^{th} district/resort and in the i^{th} accommodation at month t.

Step II. From the net occupancy rate to the total number of nights and arrivals in all the regional accommodation establishments, by category, nationality and month of collection

Then, information on the total number of bed-places available in all accommodation establishments of the same category, and on the average time period in which they are available, should be collected through secondary data provided by official sources. If there is no data about the opening days, for each category the number of days recorded in the sampled accommodation (d) may be used.

So researchers can measure the maximum and the real number of overnight stays in all the accommodation establishments of each category:

$TN^{P}_{a,i,t} = b_i * d_{i,t}$

$TN_{a,i,t} = R^{s}_{i,a,t} * TN^{P}_{a,i,t}$

where:

$TN^{P}_{a,i,t}$ = potential number of nights spent by tourists in the a^{th} tourist district/resort and in all accommodation of the i^{th} category at month t

b_i = maximum number of bed-places available in all the accommodation of i^{th} category

$d_{i,t}$ = average number of opening days (d = 30) in all the accommodation of the i^{th} category at month t

$TN_{a,i,t}$ = real number of nights spent by tourists in the a^{th} tourist district/resort and in all accommodation of the i^{th} category at month t

$R^{S}_{i,a,t}$ = net occupancy rate of the i^{th} accommodation in the a^{th} tourist district/resort at month t.

Given the estimated total overnight stays, the total number of arrivals registered in all accommodation establishments of category i is equal to:

$TA_{a,i,t} = TN_{a,i,t} / L^{S}_{a,i,t}$

where:

$TA_{a,i,t}$ = number of arrivals recorded in the a^{th} tourist district/resort and in all accommodation of the i^{th} category at month t

$TN_{a,i,t}$ = real number of nights spent by tourists in the a^{th} tourist district/resort and in all accommodation of the i^{th} category at month t

$L^{S}_{a,i,t}$ = average length of stay of tourists in the a^{th} tourist district/resort and in the i^{th} sampled accommodation at month t.

Considering now the breakdown of total nights and arrivals by nationality, we have:

$$TN_{a,i,t,n} = TN_{a,i,t} * QN^{S}_{a,i,t,n}$$

$$TA_{a,i,t,n} = TA_{a,i,t} * QA^{S}_{a,i,t,n}$$

where:

$TN_{a,i,t,n}$ = real number of nights spent by tourists of n^{th} nationality in the a^{th} tourist district/resort and in all accommodation of the i^{th} category at month t

$TN_{a,i,t}$ = real number of nights spent by tourists in the a^{th} tourist district/resort and in all accommodation of the i^{th} category at month t

$QN^{s}_{a,i,t,n}$ = share of nights spent by tourists of n^{th} nationality in the a^{th} district/resort and in the i^{th} accommodation at month t

$TA_{a,i,t,n}$ = number of arrivals of the n^{th} nationality recorded in the a^{th} tourist district/resort and in all accommodation of the i^{th} category at month t

$TA_{a,i,t}$ = number of arrivals recorded in the a^{th} tourist district/resort and in all accommodation of the i^{th} category at month t

$QA^{s}_{a,i,t,n}$ = share of arrivals recorded by tourists of n^{th} nationality in the a^{th} district/resort and in the i^{th} accommodation at month t.

Step III. Calculation of the expansion factors by category of accommodation, nationality and month of collection

Once the total nights and arrivals by nationality at each type and category of accommodation establishment are calculated, it is possible to determine the expansion factors which have to be applied to the results of the questionnaires.

As mentioned before, there are two expansion factors to be estimated: the first one on nights to be applied to tourist expenditures (whose consistency is strictly linked to the average length of stay of tourists) and the second one on arrivals to be applied to qualitative data, such as tourist and trip characteristics (which refer to a single person and not to his/her stay).

These factors vary for each district/resort, each category of accommodation (hotel, non-hotel and then 5 star hotels, 4 star hotels, ... campsites, rented dwellings, etc.) and each nationality and are defined as follows:

$$KN_{a,i,t,n} = \frac{TN_{a,i,t,n}}{q_{a,i,t,n}}$$

$$KA_{a,i,t,n} = \frac{TA_{a,i,t,n}}{q_{a,i,t,n}}$$

where:

$KN_{a,i,t,n}$ = expansion factor of nights for the a^{th} district/resort, the i^{th} category of accommodation and the n^{th} nationality at month t

$TN_{a,i,t,n}$ = total nights for the a^{th} district/resort, the i^{th} category of accommodation and the n^{th} nationality at month t

$q_{a,i,t,n}$ = number of questionnaires collected for the a^{th} district/resort, the i^{th} category of accommodation and the n^{th} nationality at month t

$KA_{a,i,t,n}$ = expansion factor of arrivals for the a^{th} district/resort, the i^{th} category of accommodation and the n^{th} nationality at month t

$TA_{a,i,t,n}$ = total arrivals for the a^{th} district/resort, the i^{th} category of accommodation and the n^{th} nationality at month t

$q_{a,i,t,n}$ = number of questionnaires collected for the a^{th} district/resort, the i^{th} category of accommodation and the n^{th} nationality at month t.

Example

Suppose we consider a region X divided into two tourist districts which include only one important tourist resort each.
To further simplify, we take into account the first resort and suppose that the local accommodation supply is only provided by four 3 star hotels. The researcher chooses one of these hotels (as representative of the universe) in which to carry out the survey.
The sampled hotel has a maximum accommodation capacity of 1 000 bed-places (b^S_i = 1 000) and an opening period of 15 days in month t ($d^S_{i,t}$ = 15), so the maximum number of nights tourist could spend there during that month are 15 000 ($TN^{SP}_{a,i,t} = b^S_{i,t} * d^S_{i,t}$ =15 000). In the same month, the real amount of overnight stays registered in the hotel during the opening period is 12 000 ($TN^{SR}_{a,i,t}$ = 12 000), while the total number of arrivals is 4 000. Thus the average length of stay is 3 days ($L^S_{a,i,t}$ = 12 000/4 000).
Consequently, the net occupancy rate of the sampled hotel is equal to:

$RN^S_{a,i,t} = TN^{RS}_{a,i,t} / TN^{PS}_{a,i,t} = 0.8$

From further data provided by the hotel operator, the researcher knows that of total registered nights, 4,800 are spent by residents of the country where the region is located; 3 600 by French tourists, 2 400 by tourists from the UK and 1 200 by tourists coming from the USA.
In the same way, he/she knows that the hotel recorded 1 500 inbound domestics arrivals, 1 000 each from France and UK and 500 from the USA.

Sampled hotel	Residents	France	UK	USA	TOTAL
Arrivals	1 400	1 100	1 000	500	4 000
Nights	4 800	3 600	2 400	1 200	12 000

So the shares of tourist nights and arrivals by nationality are as follows:

$QN^s_R = TN^S_R/TN^S = 4\,800/12\,000 = 0.4$
$QN^s_D = TN^S_F/TN^S = 3\,600/12\,000 = 0.3$
$QN^s_{UK} = TN^S_{UK}/TN^S = 2\,400/12\,000 = 0.2$
$QN^s_{USA} = TN^S_{USA}/TN^S = 1\,200/12\,000 = 0.1$

$QA^s_R = TA^S_R/TA^S = 1\,400/4\,000 = 0.35$
$QN^s_D = TA^S_F/TA^S = 1\,100/4\,000 = 0.28$
$QN^s_{UK} = TA^S_{UK}/TA^S = 1\,000/4\,000 = 0.25$
$QN^s_{USA} = TA^S_{USA}/TA^S = 500/4\,000 = 0.12$

From data provided by official statistics, the total number of bed-places available in all the 3 star hotels is 350 (b_i = 350). There is no information on their average opening period, so the number of days recorded for the sampled hotel is applied ($d_{i,t} = d^S_{i,t}$ = 150). Therefore, the maximum and the real number of overnight stays in all the 3 star hotels are as follows:

$TN^P_{a,i,t} = b_i * d_{i,t} = 350*150 = 52\,500$

$TN_{a,i,t} = R^s_{i,a,t} * TN^P_{a,i,t} = 0.8*52\,500 = 42\,000$

Then, the researcher can derive the total number of arrivals by applying the average length of stay calculated for the sampled hotel (3 days), which is supposed to be representative of the category:

$TA_{a,i,t} = TN_{a,i,t} / L_{a,i,t} = 42\,000/3 = 14\,000$

In the same way, he/she can calculate the breakdown of all 3 hotel nights and arrivals by nationality by using the shares estimated for the sampled hotel:

$TN_R = TN * QN^S_R = 42\,000*0.4 = 16\,800$
$TN_F = TN * QN^S_F = 42\,000*0.3 = 12\,600$
$TN_{UK} = TN * QN^S_{UK} = 42\,000*0.2 = 8\,400$
$TN_{USA} = TN * QN^S_{USA} = 42\,000*0.1 = 4\,200$

$TA_R = TA * QA^S_R = 14\,000*0.35 = 4\,900$
$TA_F = TA * QA^S_F = 14\,000*0.28 = 3\,920$
$TA_{UK} = TA * QA^S_{UK} = 14\,000*0.25 = 3\,500$
$TA_{USA} = TA * QA^S_{USA} = 14\,000*0.12 = 1\,680$

Now the researcher has all he/she needs to estimate the expansion factors for the grossing-up of the results of the main survey.
Suppose he/she has collected 1 000 completed questionnaires (q =1 000) in the sampled hotel, whose breakdown by nationality respects that calculated on registered tourist arrivals at the same hotel, i.e.:

$q_R = 1\,000*0.35 = 350$
$q^F = 1\,000*0.28 = 280$
$q_{UK} = 1\,000*0.25 = 250$
$q_{USA} = 1\,000*0.12 = 120$

Then the two expansion factors of nights and arrivals by nationality are as follows:

$$KN_{a,i,t,R} = \frac{TN_{a,i,t,R}}{q_{a,i,t,R}} = \frac{16\,800}{350} = 48$$

$$KN_{a,i,t,F} = \frac{TN_{a,i,t,F}}{q_{a,i,t,F}} = \frac{12\,600}{280} = 45$$

$$KN_{a,i,t,UK} = \frac{TN_{a,i,t,UK}}{q_{a,i,t,UK}} = \frac{8\,400}{250} = 33.6$$

$$KN_{a,i,t,USA} = \frac{TN_{a,i,t,USA}}{q_{a,i,t,USA}} = \frac{4\,200}{120} = 35$$

and:

$$KA_{a,i,t,R} = \frac{TA_{a,i,t,R}}{q_{a,i,t,R}} = \frac{4\,900}{350} = 14$$

$$KA_{a,i,t,F} = \frac{TA_{a,i,t,F}}{q_{a,i,t,F}} = \frac{3\,920}{280} = 14$$

$$KA_{a,i,t,UK} = \frac{TA_{a,i,t,UK}}{q_{a,i,t,UK}} = \frac{3\,500}{250} = 14$$

$$KA_{a,i,t,USA} = \frac{TA_{a,i,t,USA}}{q_{a,i,t,USA}} = \frac{1\,680}{120} = 14$$

The expansion factors of arrivals are all the same because we have supposed that the breakdown of questionnaires by nationality is the same applied to arrivals registered in the sampled hotels.
The same method shown here for one tourist district/resort, one category of accommodation and one month may be reiterated for a number of districts/resorts (a), a number of category of accommodation establishments (i) and a number of surveyed months (t).

8.2. The case of a city

Supposing we consider a small open area, such as an art city, and the researcher wants to measure total visitor flows divided, for example, into tourists and same-day visitors, and to analyse their characteristics over a year[32]. The system of surveys that needs to be carried out includes:

1. the *main survey*, which collects the information needed on total inbound visitors (e.g. volume, characteristics and consumption behaviour), and on the composition of the relevant segments to be investigated (tourists or same-day visitors; domestic or international visitors, etc.). This survey has to be carried out at one of the main tourist sites (e.g. a street, a church, a museum, etc.). Its aim is to count total persons passing along the selected place; to ask them if they are residents, tourists or same-day visitors and, only for the second and the third group, to analyse their characteristics through a quick interview.
   However, the sample drawn has a high probability of being unbalanced for two main reasons. On the one hand, it is likely that a number of counted people pass through the surveying point more than once during their visit to the city (and therefore during the time of collection); on the other, not all tourists or same-day visitors who are in the city pass through the selected place during the time of collection. Besides, not all hours, days and months of the year are sampled, so only a part of the total flow is effectively recorded and interviewed.

   Therefore, the main survey has to be supported by two *supplementary surveys*.

2. The first one verifies the representativeness of the sample interviewed against the tourist population visiting the city. As mentioned above: a) not all visitors in the city pass through the main collection point; b) those visitors who pass may do so more than once and therefore have a higher probability of being interviewed. Given these elements, that survey has to be carried out at the entry points of the city (car and coach terminals, railway stations). Here visitors are asked whether they have gone through the central surveying point or not and, if the latter is the case, how many times they have done so. This "passage rate" may be calculated not only distinguishing tourists from same-day visitors, but also other characteristics of the two segments of demand researchers are interested in (e.g. by origin, length of stay, etc.). In the following example, we assume that the only relevant difference is that between tourists and same-day visitors and, consequently, that inside each segment the visitor behaviour is the same.

3. The second supplementary survey counts systematically all the people passing through the main collection point, also during non-sampled time periods. It provides an estimate of the target population useful for the grossing-up of the survey's results. The survey may be carried out by installing an automatic recording mechanism (electronic eye). Where the installation costs or the location of the collection point make the use of the electronic eye impossible, it is necessary to replace the information on total passages that this survey may provide with a suitable method for the calculation of the reference population (see description in step I below).

The results provided by this system of surveys allow the researcher to proceed from the sample to the total number of same-day visitors and tourists who visit the city under study, via the three following steps:

I. Estimate of total passages of tourists and same-day visitors through the main collection point.
II. From the passages to the number of visitors through the main collection point.
III. From the number of visitors through the main collection point to the number of visitors in the city under study.

Step I. Estimate of total passages of tourists and same-day visitors through the main collection point

In this phase the sample, which was counted manually and interviewed during the main survey (survey no. 1), is analysed according to the relevant segments of visitors previously selected (in our case, residents, tourists and same-day visitors), taking into account that their share may vary over the whole survey period. This trend usually depends on tourist seasonality and on the period of data collection (e.g. in the afternoon rather than in the morning, on Sunday rather than on Monday, in July rather than in January).

The choice of the time unit (hour, day or month) during which the survey is carried out, is made according to the features of the site to be monitored and to the characteristics of visitor flows passing through the collection point.

[32] The example is based on two surveys: one of same-day visitors in Bruges carried out by WES (Westvlaams Ekonomisch Studiebureau) and the other of tourists and same-day visitors in Venice carried out by the University of Venice.

However, as mentioned above, a survey usually covers only some hours in a day, some days in a month and some months in a year, so that only a part of the total visitor flow is effectively counted and interviewed. Consequently, a good back-up for the grossing-up procedure may be provided by the electronic eye, which allows for the recording of all the people (residents, tourists and same-day visitors) passing through the main collection point, even in the absence of interviewers (survey no. 3).

Furthermore, we assume that an average of the shares of tourists and same-day visitors recorded during sampled periods (e.g. hours) is also applied to the total passages registered by the electronic eye during non-sampled periods, so as to calculate the total number of tourists and same-day visitors who have been through during the total survey time. The hypothesis is that the probability of a tourist or a visitor passing through the collection point is the same, on average, in sampled and non-sampled periods.

Considering the hour as the basic time unit, for each survey day shares of sampled and non-sampled hours can be calculated.
In that case, the procedure to be applied is as follows. First of all, we calculate the shares of same-day visitors and tourists on total passages counted manually during each sampled hour:

$$S_i = \frac{PS_i^R}{TP_i^R} \qquad i = 1, 2, \ldots j \text{ (sampled hours)}$$

$$T_i = \frac{PT_i^R}{TP_i^R} \qquad i = 1, 2, \ldots j \text{ (sampled hours)}$$

where:
S_i = share of same-day visitors in the i^{th} hour
T_i = share of tourists in the i^{th} hour
PS_i^R = total passages of same-day visitors counted manually during the main survey in the i^{th} hour
PT_i^R = total passages of tourists counted manually during the main survey in the i^{th} hour
TP_i^R = total number of passages (residents+tourists+same-day visitors) counted manually during the main survey in the i^{th} hour.

For non-sampled hours simple or weighted means of S_i and T_i shares (S_m and T_m) have to be calculated according to the variability of the segments under study:

simple means

$$S_m = \Sigma_i S_i / j \qquad i = 1, \ldots, j$$

$$T_m = \Sigma_i T_i / j \qquad i = 1, \ldots, j$$

weighted means

$$S_m = \Sigma_i S_i * w_i \qquad i = 1, \ldots, j$$

$$T_m = \Sigma_i T_i * w_i \qquad i = 1, \ldots, j$$

Where, generally, weights w_i are derived from an average value on a number of hours (for example, all morning hours, all afternoon hours, all night hours and so on), taking into account the time trend which characterises the phenomenon.

Once these weights have been calculated, we estimate:

a) the total passages of same-day visitors and tourists in sampled hours (PS_i^T, PT_i^T), by applying the weights S_i and T_i to the count made by the electronic eye on the same hours (TP_i^E);
b) the total passages of same-day visitors and tourists in non-sampled hours (PS_m^T, PT_m^T), by applying the average weights S_m and T_m to the count made by the electronic eye on the same hours (TP_m^E).

In formulas we have:

$PS_S^T = \Sigma_i PS_i^T = \Sigma_i (S_i * TP_i^E)$ i = 1, ... ,j (sampled hours)

$PT_S^T = \Sigma_i PT_i^T = \Sigma_i (T_i * TP_i^E)$ i = 1, ... ,j (sampled hours)

and:

$PS_{NS}^T = \Sigma_n PS_m^T = S_m * \Sigma_n TP_n^E$ n = 1, ... ,k (non-sampled hours)

$PT_{NS}^T = \Sigma_n PT_m^T = T_m * \Sigma_n TP_n^E$ n = 1, ... ,k (non-sampled hours)

Consequently, total daily passages of same-day visitors and tourists through the main collection point (PS^T and PT^T) are equal to the sum of those recorded during sampled and non -sampled hours:

$PS^T = PS_S^T + PS_{NS}^T$

$PT^T = PT_S^T + PT_{NS}^T$

The same procedure can be applied for calculating monthly and yearly passages. In the first case we assume the day as the basic time unit, in the second case the month.

If it is not possible to measure total passages TP_i^E and TP_n^E by means of an automatic control system[33], the survey is usually conducted by an interviewer, who manually records on suitable forms all the people passing through the collection point. In this case, it is necessary to determine an adjustment factor for balancing the survey's results, taking into account both non-sampled hours (e.g. night hours) and the probability of inclusion of time of collection (see Part III, Chapter 8).

Given the typology of visitors (same-day visitors and tourists), the factor will be calculated on a daily basis or on a monthly basis as follows:

$$W_d = \frac{wo}{pt}$$

where:
W_d = daily adjustment factor
wo = estimated weight of non-sampled hours (total passages during a day/ total passages during sampled hours)
pt = probability of inclusion of time of collection (sampled hours/total hours in a day).

$$W_{mo} = \frac{wo}{pt * pg}$$

where:
W_{mo} = monthly adjustment factor
wo = estimated weight of non-sampled hours (total passages during a day/ total passages during sampled hours)
pt = probability of inclusion of time of collection (sampled hours/total hours in a day)
pg = probability of inclusion of day of collection (sampled days/total days in the month).

Then, total daily or monthly passages of same-day visitors and tourists will be estimated as follows:

$PS^T_d = \sum_h PS_h * W_d$ h = 1, 2, ... l (number of data collections)
$PT^T_d = \sum_h PT_h * W_d$ h = 1, 2, ... l (number of data collections)

$PS^T_{mo} = \sum_h PS_h * W_{mo}$ h = 1, 2, ... l (number of data collections)
$PT^T_{mo} = \sum_h PT_h * W_{mo}$ h = 1, 2, ... l (number of data collections)

[33] Because, for example, the location of the collection point prevents the electronic eye being used or the installation costs are too high. See Chapter 4.

Step II. From the passages to the total number of visitors going through the collection point

So far we have worked with the number of passages but, using the simplifying hypothesis outlined above, the aim is to measure the total (daily, monthly or yearly) flows of same-day visitors and tourists who pass through the main point of collection and then the total movement in the city under study.

To that end, it is necessary to estimate the probability of each visitor who passes through the crossing point being interviewed. The estimate of the average number of daily passages based upon the results of the survey no. 2 takes this into account, as shown above. Such an estimate should be detailed considering the different characteristics and behaviour of the sample interviewed (e.g. according to country of origin, type of accommodation and length of stay). Given our simplifying hypothesis, tourists and same-day visitors will show different behaviour, but behaviour will be the same within each group.

So, the daily (monthly or yearly) real number of same-day visitors (S^T) and tourists (T^T) who pass through the main point of collection in surveyed and non-surveyed periods is given by:

$S^T = PS^T/nps$

$T^T = PT^T/npt$

where:
nps = average number of passages per same-day visitor during the surveyed period, obtained from the results of survey no. 2
npt = average number of daily passages per tourist during the surveyed period, obtained from the results of survey no. 2.

Step III. From the number of visitors going through the collection point to the total number of visitors in the city monitored

As not all visitors to the city under study pass through the place chosen to carry out the survey, it is necessary to estimate the proportion of those who pass there in order to calculate the total number of visitors to the city. Survey no. 2 provides the information from which the share of same-day visitors and tourists who go along the street or visit the attraction from those interviewed at the city terminals can be calculated. Also in this case, the share can be evaluated for homogeneous segments as far as holiday behaviour and visitor characteristics are concerned (origin country, length of stay, type of accommodation chosen and so on).

Once more, for simplicity, we assume that the procedure is applied by only distinguishing tourists from same-day visitors:

$SC^T = S^T * 1/qs$
$TC^T = T^T * 1/qt$

where:
SC^T = total number of same-day visitors in the city
S^T = total number of same-day visitors at the main collection point
qs = share of same-day visitors interviewed at the city terminals who pass through the main point of collection
TC^T = total number of tourists in the city
T^T = total number of tourists at the main collection point
qt = share of tourists interviewed at the city terminals who pass through the main point of collection.

The following example may help to explain the three-step procedure so far described.

Example

Suppose that on a day X the number of people who have been along the main street of the city under study — and have been recorded by the electronic eye (survey no. 3) — is 22 000 during sampled period (TP_i^E) and 3 000 during non-sampled period (TP_m^E). From the 1 500 people interviewed with the survey no. 1 at the point of collection (TP_i^R), this composition has been estimated: 50 percent are same-day visitors, 30 percent are tourists and 20 percent residents ($S_i = 0.5$ and $T_i = 0.3$).
Furthermore through the supplementary survey (survey no. 2), carried out at the same time and at the city terminals on a total of 500 visitors, the researcher knows that among tourists 70 percent of those who have visited the city have been along the street. This share rises to 90 percent in the case of same-day visitors. Tourists record an average number of 2 passages each (npt = 2), while same-day visitors 1.5 passages (nps = 1.5).

On the basis of this data, the real number of passages of same-day visitors and tourists through the control point during sampled and non-sampled hours is:

$PS^T = PS_i^T + PS_m^T = (S_i * TP_i^E) + (S_m * TP_m^E) = (0.5 * 22\,000) + (0.5 * 3\,000) = 12\,500$

$PT^T = PT_i^T + PT_m^T = (T_i * TP_i^E) + (T_m * TP_m^E) = (0.3 * 22\,000) + (0.3 * 3\,000) = 7\,500$

where the proportions 0.5 and 0.3 (which have been calculated as an average figure on the basis of the interviews) are also applied to the non-sampled hours.

The total number of same-day visitors and tourists through the control point during the day X is:

$S^T = PS^T/nps = 12\,500/1.5 = 8\,333$

$T^T = PT^T/npt = 7\,500/2 = 3\,750$

and the total number of same-day visitors and tourists visiting the city during the same day is:

$SC^T = S^T * 1/qs = 8\,333 * (1/0.9) = 9\,259$

$TC^T = T^T * 1/qt = 3\,750 * (1/0.7) = 5\,357$

As stated above, according to the stratification level adopted in the sampling design, the shares and consequently the weights used for the upvaluation (1/q) may be further broken down taking into account, for example, the different country of origin of tourists and same-day visitors or, among the latter, the different kind of visitors according to the area they leave from (e.g. true same-day visitors, false same-day visitors, etc.). Once calculated, these shares are also applied to non-sampled periods.

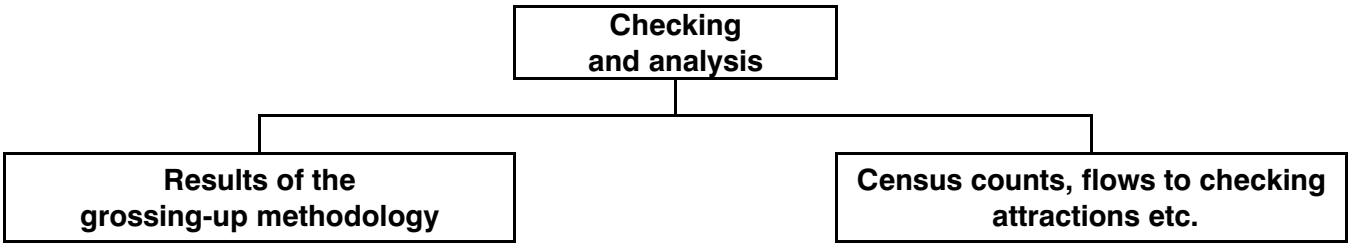
The methodology described so far can be applied as a *bottom-up* or *top-down* procedure: from daily results to monthly and yearly results or vice versa. In the first case, a cluster of days has to be selected, which may consist of the same-day of each sampled week (e.g. Sundays) or of a whole week. The weights calculated for these clusters are applied to non-sampled weeks following the steps shown above.
On the other hand, in the second case researchers calculate the weights directly on aggregate monthly (or yearly) data, expand the monthly (or yearly) results up to the population and then derive daily (and monthly) results
from them.

Generally speaking, the choice depends on the level of stratification of the sample, and on the variability of the monitored phenomenon. The more sub-samples considered the greater the convenience of starting from aggregate monthly data. For example, consider the case of monitoring same-day visitors coming from different countries of origin: there is a possibility that for some origins the determination of the corresponding weights on a daily basis is not reliable given the small size of the sample measured.

If the stratification is limited to two sub-samples, as in our example, it may be suitable to follow both the procedures so as to check the final results. In other words, the sum of same-day visitor flows (or tourist flows) obtained by grossing up the survey's results for each day has to be equal to the volume of flows calculated by grossing up the survey's results for a whole month.

Furthermore, the existence of particular days or weeks characterised by higher visitor flows — compared with residents — or by a strong variability in visitors' behaviour has to be taken into account (e.g. market days, Christmas, Easter, etc.).

8.3. Checking and analysis of the grossing-up procedure



Having expanded the sample results up to the target population, it is important to check that the final results are coherent with the real size of the population under study. The control is based on the same data used for the calculation of the weightings in the grossing-up procedure.

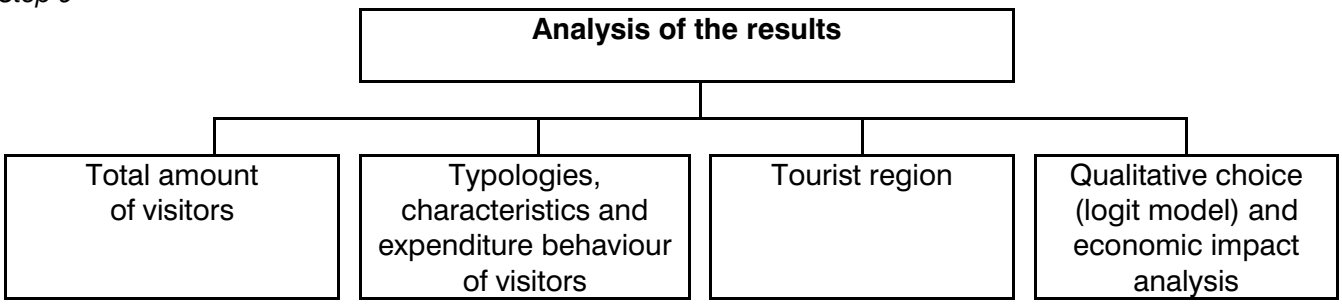
As mentioned in Part II, in an open area (such as a region or a city) information may only be obtained by specific surveys. For example, in the case of a survey at popular tourist places, the control may be done by using the information on total passages collected by the electronic eye.

In the case of a survey at accommodation establishments, the maximum number of nights which could be recorded by the accommodation establishments may allow for a check on the total volume estimated.

Furthermore, it may also be helpful to refer to some official data about the use of other services connected to tourism, such as transport services, electric power, rubbish production, etc. An increase in the use or in the production of one or more of these services during the year (or during a specific period of the year in comparison, for example, with the previous year), may be representative of a growth in visitor flows. However, this data only provides indications for estimating the total volume of visitor flows and, in the case of electric power and rubbish production, of tourist flows.

9. Analysis of the final results

Step 9



(See Chapter 9 in Part II)

CONTENTS

APPENDIX A

CLASSIFICATIONS AND GLOSSARY

APPENDIX A1

CLASSIFICATION OF MAIN PURPOSE OF TRAVEL AWAY FROM HOME

I. Leisure, recreation and holidays

2. Visiting friends and relatives

3. Business and professional

4. Health treatment

5. Religion and pilgrimage

6. Other

APPENDIX A2

CLASSIFICATION OF DESTINATION TYPES

1. Urban areas

1.1. Capital/city
1.2. Designated heritage/cultural town or city
1.3. Other city; town (urban areas)

2. Resorts (town/village)

2.1. Health resort
  2.1.1. Spa resort
  2.1.2. Seaside location
  2.1.3. Lake/river location
  2.1.4. Mountain location
2.2. Seaside resort
2.3. Lake or river resort
2.4. Ski resort
2.5. Other mountain resort

3. Countryside

3.1. Waterside
  3.1.1. Seaside/coastal area
  3.1.2. Lakeside
  3.1.3. Riverside
3.2. Mountains
  3.2.1. Highlands
  3.2.2. Hills
3.3. Rural area/village

4. Sea, lake or river cruises

APPENDIX A3

CLASSIFICATION OF TOURIST ACCOMMODATION AND ITS CORRESPONDENCE WITH NACE REV. 1 AND CPA

		NACE Rev. 1	CPA
1.	**COLLECTIVE TOURISM ESTABLISHMENTS**		
1.1.	**Hotels or similar establishments**		
1.1.1.	Hotels	55.11 and 55.12	55.11.10 and 55.12.10
1.1.2.	Similar establishments	55.23	55.23.13
1.2.	**Specialised establishments**		
1.2.1.	Health establishments	55.23	55.23.15
1.2.2.	Passenger transport	55.23	55.23.14
1.2.3.	Work and holiday camps	55.23	55.23.11 and 55.23.12
1.2.4	Conference centres	55.23	55.23.15
1.3.	**Other collective accommodation**		
1.3.1.	Holiday dwellings	55.23	55.23.12
1.3.2.	Tourist campsites	55.22	55.22.10
1.3.3.	Other collective accommodation n.e.c.	55.21	55.21.10
2.	**PRIVATE TOURISM ACCOMMODATION**		
2.1.	**Private rental accommodation**		
2.1.1.	Rented rooms in family houses	55.23	55.23.13
2.1.2.	Dwellings rented from private individuals or professional agencies	55.23	55.23.13
2.2.	**Private non-rental accommodation**		
2.2.1.	Owned dwellings		
2.2.2.	Accommodation provided without charge by relatives or friends		
2.2.3.	Other private accommodation		

APPENDIX A4

CLASSIFICATION OF MEANS OF TRANSPORT

1. AIR
- 1.1. Scheduled flights
- 1.2. Non-scheduled flights (e.g. charter flights)
- 1.3. Other air services

2. WATERWAY
- 2.1. Passenger lines and ferries
- 2.2. Cruise
- 2.3. Other waterway services

3. LAND
- 3.1. Railway
- 3.2. Motor coach or bus and other public road transport
  - 3.2.1. Scheduled (e.g. regular services)
  - 3.2.2. Non-scheduled (e.g. touring)
- 3.3. Private vehicle (with capacity for up to eight persons)
- 3.4. Vehicle rental
- 3.5. Other means of land transport

APPENDIX A5

BREAKDOWN OF THE WORLD GEOGRAPHICAL ZONES [1]

WORLD TOTAL

TOTAL E.E.A.

TOTAL EUROPEAN UNION (15)
- BELGIUM
- DENMARK
- GERMANY
- GREECE
- SPAIN
- FRANCE
- IRELAND
- ITALY
- LUXEMBOURG
- NETHERLANDS
- PORTUGAL
- UNITED KINGDOM
- AUSTRIA
- FINLAND
- SWEDEN

TOTAL OTHER EUROPEAN COUNTRIES:
of which:
- ICELAND
- NORWAY
- SWITZERLAND (and Liechtenstein)
- TURKEY
- POLAND
- CZECH REPUBLIC
- SLOVAKIA
- HUNGARY

TOTAL AFRICA
NORTH AMERICA
- UNITED STATES
- CANADA

TOTAL CENTRAL AND SOUTH AMERICA
TOTAL ASIA
of which:
- JAPAN

AUSTRALIA, OCEANIA AND OTHER TERRITORIES:
of which:
- AUSTRALIA
- NEW ZEALAND

NOT SPECIFIED

APPENDIX A6

CLASSIFICATION OF TOURISM EXPENDITURE

1. Package travel, package holidays and package tours (total travel costs)
2. Accommodation
3. Food and drinks
4. Transport
5. Recreation, cultural and sporting activities
6. Shopping
7. Other

[1] The list of countries given in the Annex to Commission Regulation 93/208/EEC of 1 February 1993 may be consulted for further reference (OJ L26 of 02.02.93, p.11).

APPENDIX A7

CLASSIFICATION OF ACTIVITIES [2]

Classification	Coverage
Sport, physical activities	Non-professional active participation in all kinds of sport and outdoor and indoor activities, e.g. golf, tennis, skiing, skating, swimming, rowing, sailing, surfing, other water sports, jogging, cycling, walking, hiking, trekking, climbing, mountaineering, horse riding, pony trekking, fishing, angling, shooting, hunting.
Attending events (including sports), spectating and entertainment	Theatre, concerts, festivals, opera, ballet, circus, cinema, recreation parks, theme parks, amusement parks, ballroom, discotheque, dancing, casinos, gambling, betting, other entertainment, sports events.
Education, heritage, nature	Education, studying (not connected to profession). Visiting museums, exhibitions, visiting historical sites and buildings, botanical and zoological gardens, nature reserves.
Health activities	Spas, fitness, thalassotherapy health resorts, other treatments and cures.
Religious activities	Attending religious events, pilgrimages.
Sightseeing	Sightseeing by group trips, touring, cruising, landscape or cityscape by walking, cycling or by taking a drive.
Shopping	Visiting stores, shops, arcades in search of merchandise, or simply window-shopping.
Meetings and conventions	Attending meetings, conferences, congresses, conventions, seminars, trade fair and exhibitions, incentive weekends.
Passive leisure	Relaxing, sunbathing, eating and drinking.

[2] This is a provisional classification which has still be to discussed with the WTO. Reference will also be made to the work on activities classifications carried out by Eurostat in the field of "Time use" surveys.

APPENDIX A8

GLOSSARY

A

Accommodation provided without charge by relatives or friends
Agri-tourism
Apartment
Average length of stay

B

Bed-place
Bedroom

C

Collective tourist accommodation
Conference centres
CPA
CPC
Cultural tourism

D

Destination
Domestic same-day visitor
Domestic tourism
Domestic tourism expenditures
Domestic tourist
Duration of a visit
Dwellings rented from private individuals or professional agencies

E

Enterprise
Environment

F

G

Gross occupancy rate of bed-place
Gross occupancy rate of rooms (houses, pitches, moorings)
Guest arrival/departure

H

Health establishments
Holiday dwellings
Hotels
Hotel or similar establishment

I

Inbound tourism
Internal tourism
International fare expenditure
International fare receipts
International same-day visitor
International tourism
International tourism expenditures
International tourism receipts
International tourist
ISIC Rev. 3

J

K

Kind-of-activity-unit (KAU)

L

Local KAU
Local unit
Long-stay trip

M

Main mode of transport
Main purpose of the visit
Minimum capacity (statistical representativeness)
Mooring

N

NACE Rev. 1
National tourism
Net occupancy rate of bed-places
Net occupancy rate of rooms

O

Occupancy rate
Other collective establishments
Other collective establishments n.e.c.
Other private accommodation
Outbound tourism
Overnight stay
Owned dwelling

P

Passenger transport
Pitch
Place/country of usual residence
Private non-rental accommodation
Private rental accommodation
Private tourist accommodation
Purchases of goods and services

Q

Quality of life

R

Recommended statistical unit
Rented rooms in family houses
Resident in a country/in a place
Rural tourism
Rural tourism area
Rural visitor

S

Same-day visit
Same-day visitor
SICTA: International Standard Classification of Tourism Activities
Similar establishments
Social tourism accommodation
Specialised establishments
Statistical unit
Stay

T

Tourism
Tourism activities
Tourism expenditure
Tourism products
Tourism supply
Tourist
Tourist accommodation
Tourist campsites
Trip

U

Usual environment

V

Visitor

W

Work and holiday camps

X

Y

Z

Accommodation provided without charge by relatives or friends
The accommodation of this unit concerns tourists allowed by relatives or friends to use all or part of their home free of charge.
Source:
Community Methodology on Tourism Statistics §83.
See also:
Private non-rental accommodation.

Agri-tourism
Agri-tourism is considered to be part of rural tourism as a whole, and can only be identified from the establishments classified as agricultural holdings within the NACE. Given the criterion of "main activity", only part of the agricultural holdings in the Farm Structure Survey population will be considered as agricultural tourism establishments. Statistics on agri-tourism as such must, therefore, use the farm population as a starting point. Efforts must be made to avoid double counting and the assignment of agri-tourism to other parts of rural tourism.
Source:
Community Methodology on Tourism Statistics §111.
See also:
Rural tourism
NACE Rev. 1.

Apartment
Apartment is a special type of room. It consists of one or more rooms and has a kitchen unit and own bathroom and toilet. Apartments may be with or without hotel services.
Source:
Community Methodology on Tourism Statistics §89.
See also:
Bedroom.

Average length of stay
This variable is obtained by dividing the number of overnight stays by the number of arrivals (can calculate also according to country of residence of guests). It is more relevant at local and regional level because at country level, the effect of same persons spending nights in several places obscures the measurement.
Source:
Community Methodology on Tourism Statistics §94.
See also:
Overnight stay
Guest arrival/departure
Place/country of usual residence
Resident in a country/in a place.

Bed-places
The number of bed-places in an establishment or dwelling is determined by the number of persons who can stay overnight in beds set up in the establishments, ignoring any extra beds that may be set up by customer request.
The term bed-place applies to a single bed. A double bed is counted as two bed-places. This unit serves to measure the capacity of any type of accommodation. A bed-place is also a pitch or, in a boat, a mooring to accommodate one person. A pitch for a tent (if counted), caravan, mobile home and similar shelter, or a boat on a mooring, usually counts for 4 bed-places if the actual number is not known.
Source:
Community Methodology on Tourism Statistics §89.
See also:
Overnight stay
Tourist accommodation
Pitch
Mooring.

Bedroom
A bedroom is a unit formed by one room or groups of rooms constituting an indivisible rental whole in an accommodation establishment or dwelling.
Rooms may be single, double or multiple, depending on whether they are equipped permanently to sleep one, two or several people. The number of existing rooms is the number the establishment habitually has available to accommodate guests (tourists). If a room is used as a permanent residence (for more than one year) it should not be included. Bathrooms and toilets do not count as a room. This number should generally coincide with the number of units recorded in the establishment recorder.
Source:
Community Methodology on Tourism Statistics §89.

Capitalised production
Capitalised production includes the own-account production of all goods that are retained by their producers for their own final consumption or investment. The latter includes the production of fixed tangible assets (buildings, etc.) as well as intangible assets (development for software, etc.).
Capitalised production is unsold production and is valued at basic prices estimated for similar products, or, if not available, at production cost. It can include both tangible capital goods (e.g. railway line in the case of railway enterprises) and intangible investments (e.g. a computer software). Tangible capital goods are included in "Gross investment in tangible goods (excluding land not built upon)".
Capitalised production also enables "production" as defined in the national accounts to be established.
Source:
Methodological Manual of statistics on services enterprises; chapter "General Framework ", Version 1.4 , p. 33.

Change in stocks of goods and services
Change in stocks (positive or negative) is the difference between the value of stocks at the end and at the beginning of the financial year. Stock is recorded exclusive of VAT.
Among stocks (and the change in stocks), the following breakdown can be made:
- stocks of finished goods and work in progress (stocks of products held by the producer),
- stocks of goods purchased for resale and services rendered to third parties,
- stocks of raw materials and consumables.

Data on stocks completes the annual flows (turnover, purchases of goods and services) required to calculate the value of production, value added, and gross operating surplus. Stocks are recorded at purchase price if they are purchased from another unit, otherwise at production cost.
Source:
Methodological Manual of statistics on services enterprises; chapter "General Framework ", Version 1.4 , p. 64.

Collective tourist accommodation
Collective tourist accommodation is defined as an accommodation establishment providing overnight lodging for the traveller in a room or some other unit, but the number of places it provides must be greater than a

specified minimum for groups of persons exceeding a single family unit and all the places in the establishment must come under a *common commercial-type management*, even if it is not for profit.
The major group "collective tourist accommodation establishment" is subdivided into three minor groups: hotels and similar establishments, specialised establishments, and other collective establishments. These minor groups are further subdivided into nine unit groups.
Source:
Community Methodology on Tourism Statistics §66.
See also:
Conference centres
Health establishments
Holiday dwellings
Hotels
Hotel or similar establishments
Other collective establishments n.e.c.
Passenger transport
Similar establishments
Specialised establishments
Tourist campsites
Work and holiday camps.

Commodity
An article or raw material that can be bought or sold, esp. a product as opposed to a service.

Conference centres
This unit group includes establishments offering accommodation and specialised in facilities for congresses, conferences, courses, vocational training, meditation, retreats, etc. The sleeping accommodation is generally only available to the participants of the specialised activities organised in or by the establishment.
Source:
Community Methodology on Tourism Statistics §74.

CPA
Classification of Products by Activities. It is the Eurostat's nomenclature of products classified by activities.

CPC
Central Product Classification (by the NU) constitutes a complete product classification covering goods and services. In developing CPC, the main intention was to provide a general framework for international comparison of data from various types of statistics presenting data by kinds of product.
Source:
Statistical office of the United Nations, Statistical papers, ST/ESA/STAT/SER.M/77, New York, 1991.

Cultural tourism
Since the study of cultural tourism is fairly new, no internationally recognised definition exists at present. However, it is determined according to the basic definitions of tourism and thus can be considered as a segment of the tourism phenomenon.
In his dictionary of tourism, C.S Metalka describes cultural tourism as "tourism that focuses upon the rich past of people or areas as preserved and portrayed in monuments, historic sites, architecture and artefacts".
Another definition suggested is: "Cultural tourism is defined as being a trip principally or additionally undertaken to increase one's appreciation and knowledge of cultural patrimony"[3]. However these definitions only include part of cultural tourism, since culture cannot simply be limited to the past (history of a people or areas). Culture[4] is also a dynamic and living phenomenon.
Moreover such definitions focus on the demand approach. To identify cultural tourism, both demand and supply must be taken into account.
Thus the following definition is proposed:
Cultural tourism encompasses all cultural activities undertaken by visitors and the supply of products for cultural visitors during their visit.
The cultural "activity", which may consist of attending artistic or other events as a spectator or non-professional participant, visiting museums, exhibitions, etc., can be combined with other activities; nevertheless, the visit can be considered as part of "cultural tourism". Cultural activities may be undertaken with any main purpose of the visit, since any purpose of travel away from the usual environment can generate cultural tourism.
Source:
Community Methodology on Tourism Statistics §113, §114.
See also:
Tourism
Tourism supply
Trip
Visitor.

Depreciation of fixed capital
According to the Glossary on services statistics depreciation is an "accounting recognition of an asset's loss in value due to wear and tear, age, obsolescence etc. Since this loss of value is difficult to measure, depreciation usually involves distributing the value of normally depreciable goods over a period corresponding to their probable useful life. This distribution taken the form of an amortisation plan, which may be calculated in various ways".
The measurement of the changes in this cost element (fixed capital) is achieved indirectly by measuring the changes in prices of goods and services contributing to fixed capital formation.
Source:
Community Methodology on Tourism Statistics §161.

Destination
This is a significant place visited during a trip/stay. It may be defined as the farthest point away from home visited (distance destination), the place where the most amount of time is spent (main destination), or the place the visitor thinks of as the primary place visited (motivating destination).
Reference to the structure of the GEONOMENCLATURE developed by the Statistical Office of the European Communities and supported by the Council Regulation[5] could serve as a guide for the development of a classification of the world geographical breakdown for both the country of origin (residence) and the destination.
Source:
Community Methodology on Tourism Statistics §22.

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[3] Tourism study, November 1988, EEC, Brussels.

[4] The term "Culture" is defined in the Oxford English dictionary as: "the customs, civilisation, and achievements of a particular time or people" and "the arts and other manifestations of human intellectual achievement regarded collectively".

[5] OJ No L 26 of 02.02.93, p.11.

See also:
Trip
Stay.

Domestic same-day visitor
A domestic same-day visitor is a domestic visitor who does not spend the night in collective or private accommodation in the place visited.
Source:
Community Methodology on Tourism Statistics §27.
See also:
Collective tourist accommodation
Overnight stay
Private tourist accommodation
Same-day visit.

Domestic tourism
This is defined as comprising the activities of residents of a given area travelling only within that area, but outside their usual environment[6].
Source:
Community Methodology on Tourism Statistics §7.
See also:
Place/country of usual residence
Resident in a country/in a place
Usual environment.

Domestic tourism expenditures
Expenditures incurred as a direct result of resident visitors travelling within their own country of residence.
Source:
Community Methodology on Tourism Statistics §128.
See also:
Domestic tourism
Domestic tourist
Resident in a country/in a place
Tourism expenditure.

Domestic tourist
A domestic tourist refers to a domestic visitor who stays at least one night in collective or private accommodation in the place visited.
Source:
Community Methodology on Tourism Statistics §25.
See also:
Collective tourist accommodation
Overnight stay
Private tourist accommodation
Tourist
Visitor.

Duration of a visit
The duration of a visit (stay or trip) is measured in the units of the number of hours for same-day visits, and of nights for staying visits. The duration is measured either in terms of time spent in the receiving place/country for inbound tourism (= Duration of the stay), or time away from the usual residence for outbound tourism (= Duration of the trip).
Source:
Community Methodology on Tourism Statistics §23.
See also:
Inbound tourism
Long-stay trip
Outbound tourism
Overnight stay
Place/country of usual residence
Same-day visit
Stay
Trip.

Dwellings rented from private individuals or professional agencies
This unit group comprises apartments, villas, houses, chalets and other dwellings rented or leased as complete units between households, on a temporary basis, as tourist accommodation.
In major resort areas, this type of accommodation often compete directly with certain types of collective accommodation.
Source:
Community Methodology on Tourism Statistics §81.
See also:
Apartments
Collective tourist accommodation
Private rental accommodation
Private tourist accommodation.

Employment in tourism
Employment in tourism concerns persons working in economic activities related to tourism.
Tourism sector is very heterogeneous and encompasses many sectors of economic activity, which are either mainly (primary tourism activities), partly (secondary tourism activities) or indirectly (intermediary activities) dependent on tourism. When attempting to measure employment in tourism, one must first determine which sectors of activity will be taken into account.
Employment can be measured in different ways according to the type of unit chosen. Two types of evaluation are possible.
1. Evaluation by observation:
   a) Activity-related evaluation: measurement of employment in activities producing goods and services mainly or partly related to tourism.
   b) Labour force evaluation: measurement of the labour force employed in activities mainly or partly related to tourism.
2. Model type evaluation:
   c) Expenditure evaluation: evaluation of the employment needed to produce goods and services consumed by visitors.

Note: in each case, one must define which activities (NACE Rev. 1) - either of the producer or the employee, or which goods and services (CPA) consumed - are to be taken into account.
The three different types of analysis of tourism employment should be considered as complementary approaches, as each of them analyses the same topic from a different angle (e.g. regional aspects of tourism employment, working conditions, seasonality, etc.).
Source:
Community Methodology on Tourism Statistics §184, §185, §186.
See also:
CPA
NACE Rev. 1
Tourism
Tourism activities.

[6] The term "**Domestic**" in the tourism context differs from its use in the System of National Accounts. In the national accounts context it refers to activities and expenditures of both residents and non- residents travelling within the given area, which in tourism terms is domestic and inbound tourism.

Enterprise
The enterprise is the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations. An enterprise may be a sole legal unit.
Source:
OJ No L 76/1 of 30.3.93, Council regulation (EEC) No 696/93 of 15 March 1993 on the statistical units for the observation and analysis of the production system in the Community.

Environment
Environment is defined as the quality of life, living conditions of human beings and the natural environment with suitable habitats for animals and plants.
The quality of life is determined by the long-term availability in sufficient quantity and of adequate quality of resources such as water, air, land and space in general as well as raw materials. This definition from the Commission[7] is in close agreement with the description of the scope of environment statistics given in the UN report[8]:
"The scope of environment statistics includes the media of the natural environment (air/climate, water, land/soil), the biota found within these media, and human settlements. Environment statistics describe the quality and availability of natural resources, human activities and natural events that affect the environment, the impacts of these activities and events and social responses to these impacts".
From this definition the following components of the environment can be identified: flora, fauna, atmosphere, water, land, human settlements.
Source:
Community Methodology on Tourism Statistics §201.
See also:
Quality of life.

Gross occupancy rate of bed-place
Occupancy rates give information on differences in use between various types of accommodation and, when measured on a monthly basis, indicate the seasonal patterns. The gross occupancy rate of bed-places in one month is obtained by dividing total overnight stays by the product of bed-places on offer and the number of days in the corresponding month (sometimes termed bed-nights) for the same group of establishments, multiplying the quotient by 100 to express the result as a percentage.
Formula: Ue = (P/Gp) x 100
where Gp is the number of potential bed-days.
Source:
Community Methodology on Tourism Statistics §96.
See also:
Bed-places
Gross occupancy rate of rooms
Occupancy rate
Overnight stay
Net occupancy rate of bed-places
Net occupancy rate of rooms.

Gross occupancy rate of rooms (houses, pitches, moorings)
Occupancy rates give information on differences in use between various types of accommodation and, when measured on a monthly basis, indicate the seasonal patterns. Gross occupancy rate of rooms can be calculated in the same way as for bed-places.
Source:
Community Methodology on Tourism Statistics §96.
See also:
Gross occupancy rate of bed-places
Occupancy rate
Overnight stay
Net occupancy rate of bed-places
Net occupancy rate of rooms.

Guest arrival/departure
A guest arrival/departure is defined as a person who arrives at/leaves a collective accommodation establishment or private tourism accommodation and checks in/out.
Because tourists arrive at and leave from an accommodation establishment within a relatively short time, there is statistically not much difference between the numbers of arrivals and departures. The arrivals of non-tourists (refugees, guests on medical referral, etc.) should be counted separately, if possible.
Source:
Community Methodology on Tourism Statistics §93.
See also:
Collective tourist accommodation
Private tourist accommodation.

Health establishments
This unit group comprises health treatment and health care establishments providing accommodation, such as spas, thermal resorts, (mountain) sanatoria, convalescent homes, health farms, fitness resorts and other similar establishments.
Source:
Community Methodology on Tourism Statistics §71.
See also:
Collective tourist accommodation
Specialised establishments.

Holiday dwellings
This unit group includes collective facilities under common management, such as apartment buildings, clusters of houses or bungalows arranged as dwelling-type accommodation. Often tourist services are provided such as recreational activities, canteen, laundry facilities and information services.
Source:
Community Methodology on Tourism Statistics §76.
See also:
Collective tourist accommodation
Specialised establishments.

Hotels
This category comprises hotels, apartment-hotels, motels, roadside inns, beach hotels and similar establishments providing hotel services, including more than daily bed-making and cleaning of the room and sanitary facilities.
Source:
Community Methodology on Tourism Statistics §68.
See also:
Bedroom
Collective tourist accommodation
Hotel or similar establishment.

[7] Green paper on the impact of transport on the environment (1992).

[8] UN report "A Framework for the Development of Environment Statistics" (1984).

Hotel or similar establishment
The category is typified:
... as being arranged in rooms, in number exceeding a specified minimum; as coming together under a common management; as providing certain services including room services and daily bed-making and cleaning of the sanitary facilities; as grouped in classes and categories according to the facilities and services provided; and not falling in the category of a specialised establishments.
Source:
Community Methodology on Tourism Statistics §67.
See also:
Bedroom
Collective tourist accommodation.

Inbound tourism
This is defined as comprising the activities of non-residents travelling in a given area that is outside their usual environment.
Source:
Community Methodology on Tourism Statistics §7.
See also:
Place/country of usual residence
Usual environment.

Intermediate consumption
In tourism sector, intermediate consumption represents the value of the goods (other than fixed capital goods) and market services consumed by production units during the course of the relevant period in order to produce goods and services related to tourism.
Source:
Community Methodology on Tourism Statistics §161.
See also:
Price indices on tourism from the demand side
Price indices on tourism from the supply side
Price indices of intermediate consumption
Price indices of fixed capital formation
Price indices of the production factor.

Internal tourism
This comprises domestic tourism and inbound tourism.
Source:
Community Methodology on Tourism Statistics §8.
See also:
Domestic tourism
Inbound tourism.

International fare expenditure
International fare expenditure are defined as all payments made to carriers registered abroad by any person resident in the compiling country. (This category corresponds to "transportation, passenger services, debits" in the standard reporting form of the IMF. However, for tourism purposes we are only interested in the part generated by visitors).
Source:
Community Methodology on Tourism Statistics §130.
See also:
International fare receipts
Resident in a country/in a place
Tourism expenditure.

International fare receipts
International fare receipts are defined as all payments made to the carriers registered in the compiling country of sums owed by non-resident visitors, whether or not they are travelling in that country. (This category corresponds to "transportation, passenger services, credits" in the standard reporting form of the IMF. However, for tourism purposes we are only interested in the part generated by visitors).
Source:
Community Methodology on Tourism Statistics §132.
See also:
Visitor.

International same-day visitor
An international same-day visitor is an international visitor who does not spend the night in collective or private accommodation in the place or country visited.
Source:
Community Methodology on Tourism Statistics §27.
See also:
Same-day visitor
Visitor.

International tourism
International tourism consists of "inbound tourism" and "outbound tourism".
Source:
Community Methodology on Tourism Statistics §8.
See also:
Inbound tourism
Outbound tourism.

International tourism expenditures
They are defined as all payments made to carriers registered abroad by any person resident in the compiling country. This category corresponds to "transportation, passenger services, debits" in the standard reporting form of the IMF. However, for tourism purposes we are only interested in the part generated by visitors.
Source:
Community Methodology on Tourism Statistics §129.
See also:
International tourism
National tourism
Resident in a country/in a place.

International tourism receipts
International tourism receipts are defined as expenditures of international inbound visitors, including their payments to national carriers for international transport (although for the sake of consistency with the Balance of Payments recommendations of the International Monetary Fund (IMF) it is recommended to classify these *international fare receipts* separately). They should include any other prepayments or payments made afterwards for goods and services purchased from the country visited.
Source:
Community Methodology on Tourism Statistics §131.
See also:
International fare receipts
International tourism
Visitor.

International tourist
An international tourist is an international visitor who stays at least one night in collective or private accommodation in the country visited.
Source:
Community Methodology on Tourism Statistics §27.
See also:
Collective tourist accommodation
International tourism
Private tourist accommodation
Visitor.

ISIC Rev. 3
International Standard Industrial Classification of all Economic Activities, Revision 3. (by the NU). The ISIC is intended to be a standard classification of productive economic activities. Its main purpose is to provide a set of activity categories that can be utilised when dissecting statistics according to such activities.
Source:
Statistical Office of the United Nations, Statistical papers, ST/ESA/STAT/SER: M/4/Rev. 3, United Nations, New York, 1990.

Kind-of-activity-unit (KAU)
The kind of activity unit (KAU) groups all the parts of an enterprise contributing to the performance of an activity at class level (four digits) of NACE Rev. 1 and corresponds to one or more operational subdivisions of the enterprise. The enterprise's information system must be capable of indicating or calculating for each KAU at least the value of production, intermediate consumption, manpower costs, the operating surplus and employment and gross fixed capital formation.
Source:
OJ No L 76/8 of 30.3.93, Council regulation (EEC) No 696/93 of 15 March 1993 on the statistical units for the observation and analysis of the production system in the Community.

Local KAU
The local kind of activity unit (local KAU) is the part of a KAU which corresponds to a local unit.
Source:
JO No L 76/9 of 30.3.93, Council regulation (EEC) No 696/93 of 15 March 1993 on the statistical units for the observation and analysis of the production system in the Community.
See also:
Enterprise
Kind of activity unit (KAU)
Local unit
Statistical unit.

Local unit
The local unit is an enterprise or part thereof (e.g. a workshop, factory, warehouse, office, mine or depot) situated in a geographically identified place. At or from this place economic activity is carried out for which - save for certain exceptions - one or more persons work (even if only part-time) for one and the same enterprise.
Source:
JO No L 76/8 of 30.3.93, Council regulation (EEC) No 696/93 of 15 March 1993 on the statistical units for the observation and analysis of the production system in the Community.
See also:
Enterprise
Kind of activity unit (KAU)
Local KAU
Statistical unit.

Long-stay trip
Trip of four or more consecutive nights away from the usual place of residence.
Source:
Community Methodology on Tourism Statistics §43.
See also:
Duration of a visit
Overnight stay
Place/country of usual residence
Stay
Trip.

Main mode of transport
The main mode of transport used is defined as the conveyance used to cover the greatest distance.
Source:
Community Methodology on Tourism Statistics §36.

Main purpose of the visit
It is the purpose in the absence of which the trip would not have been made or the given destination would not have been visited.
Source:
Community Methodology on Tourism Statistics §24.
See also:
Destination
Trip.

Minimum capacity (statistical representativeness)
Countries use different legal or statistical standards for excluding minimal-capacity tourist accommodation suppliers. The threshold is usually based on the number of rooms, (or pitches) or beds. The threshold chosen should be determined in such a way that at least 95% of all nights spent in the groups of accommodation establishments included in accommodation statistics are covered.
Source:
Community Methodology on Tourism Statistics §101.
See also:
Bed
Bedroom
Pitch
Tourist accommodation.

Mooring
Moorings on boats in marinas can be dealt with similarly to pitches.
Hired fixed pitches and moorings for long-term rent (more than a year) may also be considered as private accommodation.
Source:
Community Methodology on Tourism Statistics §89.
See also:
Pitch
Private tourist accommodation.

NACE Rev. 1
Common basis for statistical classification of economic activities within the European Community.
Source:
OJ No L 293/2 of 24.10.90, Council Regulation (EEC) No 3037/90 of 9 October 1990 on the statistical classification of economic activities in the European Community. NACE is aimed at ensuring comparability between national and Community classifications and hence national and Community statistics.

National tourism
National tourism comprises "domestic tourism" and "outbound tourism".
Source:
Community Methodology on Tourism Statistics §7.
See also:
Domestic tourism
Outbound tourism.

Net occupancy rate of bed-places
Occupancy rates give information on differences in use between various types of accommodation and, when measured on a monthly basis, indicate the seasonal patterns.
The net occupancy rate of bed-places in one month is obtained by dividing total overnight stays by the product of bed-places on offer and the number of days when the bed-places are actually available for use (net of seasonal or other temporary closures for decoration, police order, etc.) for the same group of establishments, multiplying the quotient by 100 to express the result as a percentage.
Formula: Un = (p/Gd) x 100
where P is the number of registered overnight stays during the month (or year) and Gd is the number of bed-days actually available during the month (year).
Source:
Community Methodology on Tourism Statistics §96.
See also:
Bed-place
Gross occupancy rate of bed-place
Occupancy rate
Overnight stay.

Net occupancy rate of rooms
Occupancy rates give information on differences in use between various types of accommodation and, when measured on a monthly basis, indicate the seasonal patterns.
For hotels and similar establishments, the room occupancy rate can be a better measure of capacity utilisation than bed occupancy because a room with a double bed is very often occupied by only one person. This is calculated by dividing the total number of rooms used during the month (the sum of the rooms in use per day) by the average number of rooms available for the month multiplying the quotient by 100 to express the result as a percentage.
Formula: Vn = (Q/Hd) x 100
where Q is the monthly (yearly) sum of occupied rooms and Hd is the number of rooms actually available for use, net of seasonal or other temporary closures.
Occupancy rates for houses, chalets, etc., can be calculated like rooms.
Source:
Community Methodology on Tourism Statistics §96.
See also:
Bed-place
Gross occupancy rate of bed-place
Occupancy rate
Overnight stay.

Occupancy rate
This gives information on differences in use between various types of accommodation and, when measured on a monthly basis, indicates the seasonal patterns.
Source:
Community Methodology on Tourism Statistics §96.
See also:
Gross occupancy rate of bed-place
Gross occupancy rate of rooms
Net occupancy rate of bed-place
Net occupancy rate of rooms.

Other collective establishments
This category is typified:
as being any establishment intended for holiday-makers, which may be non-profit making; as coming under a common management; as providing minimum common services (*not including daily bed-making*); and as not necessarily being arranged in rooms but perhaps in dwelling-type units, camp sites or collective dormitories.
This minor group consists of establishments arranged as holiday dwellings, tourist campsites and social tourism accommodation.
Source:
Community Methodology on Tourism Statistics §75.
See also:
Bedroom
Collective tourist accommodation
Holiday dwelling
Other collective establishments n.e.c.
Tourist campsites.

Other collective establishments n.e.c.
This unit group comprises social and group tourist accommodation establishments and marinas. Social tourist accommodation includes youth hostels, tourist dormitories, group accommodation, holiday homes for the elderly, holiday accommodation for employees and worker's hotels, halls of residence for students and school dormitories and other similar facilities that come under common management, have a social interest and are often subsidised.
Marinas are also included under this unit group. Marinas include boating harbours where boat owners can hire a permanent berth in the water or a place on the land for the sailing season or the year (long-term hire) and ports for passing vessels where sailors pay mooring per nights. At least some sanitary facilities are provided.
Source:
Community Methodology on Tourism Statistics §78.
See also:
Collective tourist accommodation
Other collective establishments
Social tourist accommodation.

Other private accommodation
This unit group does not fit entirely into the major group of private tourist accommodation. It includes other types of accommodation such as tents, caravans, trailers, campers at non-organised sites (not placed in collective tourism accommodation) and vessels at unofficial moorings.
Source:
Community Methodology on Tourism Statistics §84.
See also:
Collective tourist accommodation
Mooring
Private tourist accommodation.

Outbound tourism
This is defined as comprising the activities of residents of a given area travelling to and staying in places outside that area (and outside their usual environment).
Source:
Community Methodology on Tourism Statistics §7.
See also:
Resident in a country/in a place
Stay
Usual environment.

Overnight stay
An overnight stay may be defined differently depending on the statistical approach taken. From a destination-based perspective a person is counted as spending the night in a place visited only if the data of his/her arrival

and departure are different[9]. From an origin-based perspective a person spends a night on a qualifying trip if (a) the date of his departure and return are different, and (b) he/she sleeps in collective or private accommodation during his/her absence.
An overnight stay (or night spent) is each night that a traveller stays or is registered in a collective accommodation establishment or in private tourism accommodation, his or her physical presence there being unnecessary.
The overnight stays of non-tourists should be counted separately if possible.
Source:
Community Methodology on Tourism Statistics §25, §93.
See also:
Collective tourist accommodation
Duration of a visit
Long-stay trip
Private tourist accommodation
Stay.

Owned dwelling
This unit group comprises immobile units such as second homes/apartments, villas, houses, chalets, and other dwellings used by visitors who are members of the owner household. This group also includes dwellings incorporated in a time-sharing contract (owned by various people).
Source:
Community Methodology on Tourism Statistics §82.
See also:
Private non-rental accommodation
Private tourist accommodation.

Passenger transport
This unit group consists of the accommodation with sleeping facilities associated with collective public transport and inseparable from it in terms of fare. It comprises cruise ships of all kinds *(usually not using marinas to stay overnight)*, accommodation in scheduled passenger ships and sleeping-car and couchette accommodation in trains and motor coaches, and other accommodation in public or hired means of transport (e.g. horse caravans). This is a special category of accommodation in the sense that it is mobile.
Source:
Community Methodology on Tourism Statistics §73.
See also:
Collective tourist accommodation
Specialised establishments.

Pitch
The majority of the camp sites let pitches for tents, caravans, mobile homes and similar shelter to tourists who want to stay on a 'touring' pitch for only a couple of consecutive days or weeks, as well as to people who want to hire a 'fixed' pitch for a season or a year.
Source:
Community Methodology on Tourism Statistics §89.

Place/country of usual residence
The place/country of usual residence determines whether a person arriving in a region/country is a visitor or other traveller, as well as that person's origin. The underlying concept in the classification of international visitors by places of origin is the country of residence, not their citizenship/nationality[10]. Foreign citizens residing in a country are assimilated to other residents for the purpose of domestic and outbound tourism statistics. Citizens of a country residing abroad who return to their home country on a temporary visit are included among non-resident visitors, though it may be desirable to distinguish them in some studies.
Source:
Community Methodology on Tourism Statistics §19.
See also:
Domestic tourism
Outbound tourism
Resident in a country/in a place
Visitor.

Price indices of fixed capital formation
With respect to the tourism sector, price indices of fixed capital formation measure over time the changes in prices of goods and services contributing to capital formation in tourism activities.
Source:
Community Methodology on Tourism Statistics §162.
See also:
Price indices on tourism from the supply side.

Price indices of intermediate consumption
With respect to the tourism sector, price indices of intermediate consumption measure over time changes in prices of a given pattern of intermediate consumption of units engaged in tourism activities.
Source:
Community Methodology on Tourism Statistics §162.
See also:
Intermediate consumption
Price indices on tourism from the supply side.

Price indices of the production factors
With respect to the tourism sector, price indices of the production factors measure over time changes in the remuneration of factors of production engaged in tourism activities.
Source:
Community Methodology on Tourism Statistics §162.
See also:
Price indices on tourism from the supply side.

Price indices on tourism from the demand side
Price indices on tourism from the demand side measure changes in prices over time of a given pattern of tourism expenditure, or compare the price level of tourism expenditure in space. Therefore, these indices can be subdivided into:
(a) inter-temporal (time) price indices, and
(b) inter-spatial (space) price indices.
Many inter-temporal price indices from the demand side can be constructed depending on the expenditure covered by each index.
The inter-spatial price indices can be distinguished into:

[9] In practice, visitors arriving after midnight in a hotel or other accommodation establishment will generally be considered as overnight visitors as well. The date of arrival in the register will be that of the preceding day.

[10] The nationality of a visitor is that of the government issuing his/her passport or other identification document, even if she/he normally resides in another country.

- inter-regional price indices, which make comparisons of the price level of tourism expenditure between regions of a country, and
- international price indices, which compare the price level of tourism expenditure between countries.

A "Tourism Expenditure Price Index" can measure the price changes of total expenditure made by all visitors (residents and non-residents) in the economic territory of a country (region, area).

Source:

Community Methodology on Tourism Statistics §156, §157, §158, §159.

See also:

Price indices of fixed capital formation
Price indices of intermediate consumption
Price indices of the production factors
Price indices on tourism from the supply side.

Price indices on tourism from the supply side

Tourism price indices from the supply side measure changes over time of the cost of producing tourism products. The measurement of the changes in the cost of production for the tourism sector as a whole or by activity can be achieved by measuring changes in prices of the main cost elements.

The main cost elements are:

- Intermediate consumption, which represents the value of the goods (other than fixed capital goods) and market services consumed by production units during the course of the relevant period in order to produce goods and services related to tourism.
- Remuneration of factors of production.
- Depreciation of fixed capital. The measurement of the changes in this cost element is achieved indirectly by measuring the changes in prices of goods and services contributing to fixed capital formation.

Source:

Community Methodology on Tourism Statistics §160, §161.

See also:

Price indices of fixed capital formation
Price indices of intermediate consumption
Price indices of the production factors
Price indices on tourism from the demand side.

Prices on tourism

Prices on tourism can be considered as:

- prices (including tariffs) of goods and services linked to tourism, the level of which influence tourism expenditure. The prices of these goods and services are related to the demand side of tourism and are consumer prices;
- prices of goods and services which determine the cost of tourism production. The prices of these goods and services refer to the supply side of tourism and are called either cost of production prices or input prices on tourism.

The level of prices paid by visitors is influenced by tourism demand. Increasing demand for goods and services related to tourism will have an impact on their prices. On the other hand, the level of prices of goods and services related to tourism affects tourism demand.

Prices related to goods and services of intermediate consumption for tourism activities, the remuneration of the factors of tourism production and the prices for goods and services contributing to fixed capital formation on tourism sector affect the cost of tourism supply.

Although in many cases the real prices and changes are interesting to measure (e.g. average price of a hotel room, meals, or any other tourism product), this section will focus on price changes measured by constructing price indices which combine the different changes in prices of individual items in such a way that a single number (index number) can be used to indicate the overall change in prices.

Source:

Community Methodology on Tourism Statistics §151, §152, §153.

See also:

Price indices of fixed capital formation
Price indices of intermediate consumption
Price indices of the production factors.

Private non-rental accommodation

This minor group concerns lodging places offered free of charge to guests. It comprises owned dwelling, accommodation provided without charge by relatives or friends and other private accommodation.

Source:

Community Methodology on Tourism Statistics §82, §83, §84.

See also:

Accommodation provided without charge by relatives or friends
Other private accommodation
Owned dwelling.

Private rental accommodation

This category comprises rented rooms in family houses and dwellings rented from private individuals or professional agencies.

Source:

Community Methodology on Tourism Statistics §80, §81.

See also:

Rented rooms in family houses
Dwellings rented from private individuals or professional agencies.

Private tourist accommodation

Private tourist accommodation comprises forms of accommodation that do not conform to the definition of collective tourist accommodation. These provide limited numbers of places for rent or free of charge. The major group "Private tourism accommodation" is subdivided into two minor groups and five unit groups. It is important to distinguish between the minor group "private rental accommodation" and "private non-rental accommodation", as the former generates lodging expenditures and an associated economic impact that the latter does not.

Source:

Community Methodology on Tourism Statistics §79.

See also:

Private non-rental accommodation
Private rental accommodation.

Purchases of goods and services

Total purchases of goods and services by the observation units represent the value of all the goods and services during the accounting period for resale or consumption in the production process, excluding capital goods the consumption of which is registered as consumption of fixed capital. The goods and services concerned may be either resold with or without further transformation, completely used up in the production process or, finally, be stocked.

Source:

Eurostat, Methodological manual of statistics on service enterprises - chapter "General framework", Version:

1.4, 38. Definitions of the characteristics in the draft Regulation on structural business statistics, version 01, 12 March 1994, Code 13 11 0.

Quality of life
The quality of life is determined by the long-term availability in sufficient quantity and of adequate quality of resources such as water, air, land and space in general as well as raw materials. This definition from the Commission[11] is in close agreement with the description of the scope of environment statistics given in the UN report[12].
Source:
Community Methodology on Tourism Statistics §201.
See also:
Environment.

Recommended statistical unit
The sampling for surveys in respondents' homes, as well as in destination surveys and at international arrival and departure points, should be of individuals aged 15 or over, selected at random or according to a quota control procedure. The tourism activity of children can be measured by asking the adults about the children's tourism habits.
Source:
Community Methodology on Tourism Statistics §33.
See also:
Statistical unit.

Rented rooms in family houses
The accommodation covered by this unit group differs from the boarding house in that the tourist stays with the family that usually lives in the home and pays rent.
Source:
Community Methodology on Tourism Statistics §80.
See also:
Private rental accommodation
Private tourist accommodation
Stay
Tourist.

Resident in a country/in a place
For the purposes of international/domestic tourism statistics, a person is considered to be a resident in a country/place if he/she:
(a) has lived for most of the past year (12 months) in that country/place, or
(b) has lived in that country/place for a shorter period and intends to return within 12 months to live in that country/place.
Source:
Community Methodology on Tourism Statistics §18.
See also:
Domestic tourism
International tourism
Place/country of usual residence.

Rural tourism
Rural tourism is a subset of tourism. It should not, however, be considered as an exclusive segment of tourism or in opposition to other tourism market segments, e.g. cultural tourism, business tourism, spa tourism, winter sports tourism. No internationally accepted definition of rural tourism exists at present. Nevertheless, since tourism is more a demand-side concept, the following basic definition can be used to describe rural tourism.
Rural tourism is the activities of persons travelling to and staying in rural areas (*without mass tourism*) other than those of their usual environment for less than one consecutive year for leisure, business and other purposes *(excluding the exercise of an activity remunerated from within the place visited).*
Source:
Community Methodology on Tourism Statistics §103.
See also:
Cultural tourism
Rural tourism area
Rural visitor
Stay
Tourism
Usual environment.

Rural tourism area
The proposed definition of tourism rural areas is based on two basic criteria:
- size and density of population;
- tourism accommodation supply of each locality.

Rural tourism areas are thinly populated areas supplying limited tourist accommodation capacity. Therefore the study of rural tourism excludes all tourism activities in urban areas and in over-exploited rural tourism areas[13] (i.e. tourism resorts).
Source:
Community Methodology on Tourism Statistics §104, §105.
See also:
Rural tourism
Rural visitor
Tourist accommodation.

Rural visitor
Rural visitor is defined according to the definition of the visitor. The term "rural" simply describes the type of destination visited.
Source:
Community Methodology on Tourism Statistics §105.
See also:
Destination
Rural tourism
Rural tourism area
Visitor.

Same-day visit
Same-day visit concerns the activities of visitors who do not stay overnight in collective or private accommodation in the place (region, country) visited.
Source:
Community Methodology on Tourism Statistics §27.
See also:
Collective tourist accommodation

[11] Green paper on the impact of transport on the environment" (1992).

[12] UN report "A Framework for the Development of Environment Statistics" (1984).

[13] Over exploited rural tourism areas are defined, for statistical purposes, as contiguous sets of thinly populated localities possessing an accommodation capacity superior to an agreed minimum threshold of bed places per square kilometre and minimum total threshold of bed places per set of localities. The threshold of bed-places per square kilometre will be determined in relation to the number of inhabitants per square kilometre. The capacity of all types of tourist accommodation should be taken into account.

Overnight stay
Private tourist accommodation
Same-day visitor
Visitor.

Same-day visitor
This is defined as a visitor who does not spend the night in collective or private accommodation in the place or country visited.
Source:
Community Methodology on Tourism Statistics §27.
See also:
Collective tourist accommodation
Domestic same-day visitor
International same-day visitor
Overnight stay
Private tourist accommodation
Same-day visit
Visitor.

SICTA: International Standard Classification of Tourism Activities
This classification was adopted by the Statistical Division of the United Nations and is based on the revised International Standard Industrial Classification (ISIC Rev. 3). SICTA remains at present a provisional classification. SICTA attempts to distinguish between activities which receive their revenue primarily from tourism, which are labelled with "T", and those activities which have partial relationship with tourism, which are labelled with "P".

Similar establishments
Comprises rooming and boarding houses, bed-and-breakfast establishments, tourist residences and similar accommodation arranged in rooms and providing limited hotel services, including daily bed-making and cleaning of the rooms and sanitary facilities.
Source:
Community Methodology on Tourism Statistics §69.
See also:
Bedroom
Collective tourism accommodation
Hotel or similar establishment.

Social tourism accommodation
Social tourist accommodation includes youth hostels, tourist dormitories, group accommodation, holiday homes for the elderly, holiday accommodation for employees and workers' hotels, halls of residence for students and school dormitories and other similar facilities that come under common management, have a social interest and are often subsidised.
Source:
Community Methodology on Tourism Statistics §78.
See also:
Collective tourist accommodation
Other collective establishments
Other collective establishments n.e.c.

Specialised establishments
This category is typified:
- as being any establishment intended for tourists, which may be non-profit making;
- as coming under a common management;
- as providing minimum common services (not including daily bed-making);
- as not necessarily being arranged in rooms but perhaps in dwelling-type units, camp sites or collective dormitories;
- and as engaging in some activity besides the provision of accommodation, such as health care, social welfare, conferences or transport.

This minor group consists of establishments that, besides providing accommodation, have another specialised function. This minor group is subdivided into four unit groups: health establishments, work and holiday camps, conference centres and accommodation in collective means of transport.
Source:
Community Methodology on Tourism Statistics §70.
See also:
Bedroom
Collective tourist accommodation
Conference centres
Health establishments
Passenger transport
Tourist
Work and holiday camps.

Statistical unit
Demand side
The statistical unit to be measured in tourism demand surveys carried out in homes may be:
(i) a household whose tourism participation is reported by one respondent speaking for the visits made by all members of the household, or an individual selected randomly from within a household, responding only for him/herself, or an individual identified by quota controls set by an agency responsible for the conduct of a quota sample.

In tourism demand surveys carried out at destinations or international arrival and departure transport points, it may be:
(ii) a visitor selected by a random or quota control procedure, or a travelling party, selected by a random or a quota control procedure. A travelling party is not necessarily the same as a household group.

Supply side
The reporting unit that can best supply information about the tourism product depends on the type of product to be observed. In general the following may be used as a reporting unit: enterprise, local unit, kind-of-activity-unit (KAU), local KAU, (local authorities) of a community, province etc. These statistical units of the production system are defined in Council Regulation No. 696/93 of 15 March 1993.
Since the observation unit is the product, the reporting unit should be asked to provide information on the breakdown of their activities according to kind-of-activity units or supply the breakdown by sales of products.
Tourist accommodation statistics
Because regional aspects and characteristics of the accommodation establishment itself are very important to the results of accommodation statistics, local kind-of-activity units (KAU) should be used as the basic statistical unit, e.g. the observation unit in accommodation statistics. Alternatively the local unit can be used as the basic statistical unit of tourism accommodation establishments. In some cases the enterprise and the local unit coincide, but it is quite common for one enterprise to comprise two or more establishments or facilities of the same kind (e.g. chains of hotels, motels, holiday villages) or of a different kind (combination of holiday dwellings and hotels, hotels and restaurants, etc.). This is one reason why the tourism accommodation establishments classification used for

tourism statistics described on the previous pages does not have a one-to-one relationship with activity or product classifications, such as NACE Rev. 1 and CPA.

Rural tourism

Three fundamental types of statistical unit are involved in surveys and analysis of rural tourism:

- the consumer unit: individual or household which is used in demand surveys;
- the producer unit: enterprise, establishment (local unit or KAU) which is used in supply surveys or censuses;
- the territorial unit: NUTS or LOC unit.

Cultural tourism

For household demand-side surveys the statistical reporting unit can be the household and the individual within the household. For surveys held in the very location where the visitor carries on his cultural activity, the statistical unit is the visitor or travelling party.

As far as the supply of cultural tourism is concerned, the statistical units to be considered are found at the enterprise level, the local unit level and the kind of Activity unit level.

Tourism in the Balance of Payments

From the Balance of Payments perspective, the statistical unit to be considered differs according to the system used. In systems based on supply-side surveys, the statistical reporting unit is the enterprise, local unit, etc. In systems based on demand-side surveys, the statistical reporting unit is a household or individual in household surveys and a visitor or travelling party in surveys at international arrival and departure points or destinations.

Tourism and the environment

In environment statistics, the statistical unit is often best represented by a certain land or water area, the size of which may vary with the type of variable. For the purpose of environment management, it is preferable to use a small unit as the initial area of investigation (NUTS III or LOC).

Source:

Community Methodology on Tourism Statistics §32, §57, §86, §106, §116, §136, §139, §205.

See also:

CPA
Destination
Enterprise
Guest arrival/departure
Kind-of-activity-unit (KAU)
Local KAU
Local unit
NACE Rev. 1
Recommended statistical unit
Tourism product supply
Visitor.

Stay

It is recommended to use the term "stay" to describe tourism from the standpoint of the receiving place or country (the destination or place visited). Stay is measured in terms of time spent in the receiving place/country for inbound tourism. It covers only part of the trip.

Source:

Community Methodology on Tourism Statistics §21.

See also:

Destination
Inbound tourism
Tourism
Trip.

Tourism

Tourism is a subset of travel.

Tourism is the activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes.

Source:

Community Methodology on Tourism Statistics §6.

See also:

Domestic tourism
Inbound tourism
Internal tourism
International tourism
National tourism
Outbound tourism
Stay
Usual environment.

Tourism activities supply

Some economic activities depend on tourism for their survival, e.g. tourist accommodation, travel agencies, long-distance passenger transport. Other activities such as restaurants and bars, car rental services, entertainment and attractions services also tend to rely strongly on tourism. The dependency of certain activities of enterprises on tourism may also depend on their location.

Thus the supply of tourism activities comprises diverse economic activities, and presented as a sector is very heterogeneous, encompassing different activities some of which are directly dependent on tourism and others only partly. In order to delimit which activities should be considered as supplying goods and services to tourism, the following approach[14] can be taken:

Total output of characteristic tourism producers
+ characteristic tourism output of non-tourism producers
− non-characteristic tourism output of characteristic tourism producers
= TOTAL SUPPLIERS OF PRODUCTS CHARACTERISTIC OF TOURISM

With such an approach we distinguish between those activities[15] considered to be primary tourism suppliers (mainly) and those considered as secondary tourism suppliers (partly).

To delimit and define in more detail tourism activities, the WTO has drawn up the International Standard Classification of Tourism Activities: SICTA. This classification was adopted by the Statistical Division of the United Nations and is based on the revised International Standard Industrial Classification (ISIC Rev. 3). SICTA remains at present a provisional classification. It attempts to distinguish between activities which receive their revenue primarily from tourism (labelled "T") and activities which have a partial relationship with tourism (labelled "P").

Appendix 9 of the Annex to the Council Recommendation on Tourism Statistics presents those activities which are linked to tourism, in accordance with NACE Rev. 1 and SICTA.

Source:

Community Methodology on Tourism Statistics §49, §50, §51.

See also:

[14] As defined in the OECD manual on Tourism Economic Accounts/1991.

[15] To be classified according to NACE Rev. 1 and ISIC Rev. 3.

NACE Rev. 1
SICTA.

Tourist campsites
This unit group consists of collective facilities in enclosed areas for tents, caravans, trailers and mobile homes. All come under common management and provide some tourism services (shop, information, recreational activities, canteen, laundry facilities).
Source:
Community Methodology on Tourism Statistics §77.
See also:
Collective tourist accommodation
Other collective accommodation.

Tourism expenditure
Tourism expenditure is defined as "the total consumption expenditure made by a visitor, or on behalf of a visitor, for and during his/her trip and stay at destination".
This concept encompasses a wide variety of items, ranging from the purchase of consumer goods and services inherent in travel and stays to the purchase of small durable goods for personal use, souvenirs and gifts for family and friends. Tourism expenditure is not restricted to payments made during the visit. It also includes advance outlays necessary for the preparation and undertaking of the trip and travel-related purchases made in the place of residence after returning from a trip. These categories refer to payments for travel insurance, transport, the purchase of travel guides, etc.
There are certain types of outlays or acquisitions which are to be excluded from tourism expenditure. These are purchases for commercial purposes, capital-type investments or transactions (e.g., real estate, cars, boats, etc..), even if they may in the future be used for tourism purposes[16], and cash or donations made to private persons or institutions which do not represent payment for tourism goods or services.
Total tourism expenditure can be broken down from different perspectives:
- Domestic and international tourism expenditure;
- Within international expenditure, between transport fares and other types of expenditure;
- Expenditures on same-day visits and overnight stays;
- The products to which the expenditures relates.

Source:
Community Methodology on Tourism Statistics §125, §126, §127.
See also:
Destination
Domestic tourism expenditures
International fare expenditures
International tourism expenditures
Overnight stay
Place/country of usual residence
Purchase of goods and services
Stay
Trip
Visitor.

Tourism products supply
The global product approach deals not only with products as direct results of economic activities but all products (diversions, goods and services) that are enjoyed or bought by visitors.
Tourism products may be considered as follows:
- products (goods and services) consumed by visitors that can be described by a standard product classification such as the Central Product classification by Activities (CPA) or the CPC (Central Product Classification);
- natural assets of a location, such as mountains, beaches, lakes, etc. and weather conditions, the environment in general;
- attitude of the population to visitors, the lifestyle and culture of the receiving area.

The products supplied represent more than tourism expenditure. Tourism expenditure is the counterpart of the majority of products having the shape of goods and services, although not every good or service has to be paid for by the consumer.
The use of assets (e.g. roads, historical areas, national park, nature) in many cases is free, in other cases visitors have to pay for the facility offered (a 'service'). In fact, most assets offer 'services' to their users or to the people enjoying them, regardless of whether visitors have to pay for them or not. Nevertheless, free 'services' of the type which benefit from the infrastructure of a country (nice weather, fresh air, beaches, mountains, landscape, roads) belong to the supply of tourism products. Free for the visitor does not mean that the free service is also free for the supplier (a country); the country has to spend money in order to maintain fresh air, etc. Because these types of products are hard to quantify, they are excluded from the statistical analysis.
To make the definition of the supply of tourism products practical, only products which can be identified in a standard product classification are taken into account. In defining the supply of tourism products, two considerations (representing two sides of the same coin) must be kept in mind:
- the supply of tourism products includes all products supplied to the visitor, including non-characteristic tourism products;
- products that are consumed by visitors may also be consumed by other types of consumer.

Therefore, when attempting to measure the supply of tourism products, one must attempt to identify the share of the product which is consumed by visitors.
Source:
Community Methodology on Tourism Statistics §54, §55, §56.
See also:
CPC
Tourism activities supply
Tourism expenditures
Tourism supply
Visitor.

Tourism supply
The definition of tourism supply should result from the definition of tourism. Thus it can be defined as the supply of all assets, services and goods to be enjoyed or bought by visitors and occasioned by the journeys of visitors.
Statistics on tourism supply may be approached in two ways:
- statistics on the production (structure) of enterprises etc., e.g. supply has been interpreted as ACTIVITIES of enterprises such as the supply of HORECA, transport and retail services;

[16] See Section 1.1. of the Annex to the Council Recommendation on Tourism Statistic. Some of these items may be considered as "ownership of tourism-related products" (variable 11).

- statistics on the results of such activities, i.e. PRODUCTS, which also may be services, consumed by visitors.

The general purpose of statistics on tourism supply is to assess the contribution of the tourism sector to a country's general socio-economic process and to identify the effects of tourism, distinguishing between direct effects and indirect or induced effects.

Source:

Community Methodology on Tourism Statistics §46, §47, §48.

See also:

Tourism
Tourism activity supply
Tourism products supply
Visitor.

Tourist

Overnight visitor.

Source:

Community Methodology on Tourism Statistics §25.

See also:

Overnight stay
Visitor.

Tourist accommodation

Tourist accommodation is defined as any facility that regularly (or occasionally) provides overnight accommodation for tourists.

It is important to distinguish facilities that commercially service the bulk of overnight stays away from the guest's usual environment and those providing occasional overnight accommodation. Thus tourist accommodation has been divided into two main groups:

- collective accommodation establishments and
- private tourist accommodation.

Source:

Community Methodology on Tourism Statistics §65.

See also:

Collective tourist accommodation
Overnight stay
Private tourist accommodation
Tourist
Usual environment.

Trip

It is recommended to use the term "trip" to describe tourism from the standpoint of the generating place or country (the origin). Trip covers the whole period that the person engages in tourism.

Source:

Community Methodology on Tourism Statistics §21.

See also:

Stay
Tourism.

Turnover

Turnover comprises the totals invoiced by the observation unit during the reference period, and this corresponds to market sales of goods or services supplied to third parties. These sales may be included in accounts under the heading "net turnover" or "other operating income".

Turnover includes all duties and taxes on the goods or services invoiced by the unit with the exception of the VAT invoiced by the unit vis-à-vis its customer and other taxes directly linked to turnover. It also includes all other charges (transport, packaging, etc.) passed on to the customer, even if these charges are listed separately in the invoice. Reduction in prices, rebates and discounts as well as the value of returned packing must be deducted, but not cash discounts.

Turnover does not include sales or fixed assets. Operating subsidies received from public authorities or the institution of the European Union are also excluded

Source:

Methodological manual of statistics on service enterprises - chapter "General framework", Version: 1.4, p. 29.

Usual environment

The usual environment of a person consists of the direct vicinity of his/her home and place of work or study and other places frequently visited.

The concept of usual environment and therefore tourism, has two dimensions: Frequency - places which are frequently visited by a person (on a routine basis) are considered as part of their usual environment even though these places may be located at a considerable distance from the place of residence.

Distance - places located close to the place of residence of a person are also part of the usual environment even if the actual spots are rarely visited.

Source:

Community Methodology on Tourism Statistics §16.

See also:

Tourism.

Visitor

The term visitor describes any person travelling to a place other than that of his/her usual environment for less than twelve consecutive months and whose main purpose of travel is other than the exercise of an activity remunerated from within the place visited.

The term visitors (domestic and international) comprises tourists and same-day visitors.

The three fundamental criteria that appear sufficient to distinguish visitors from other travellers are as follows:

i) the trip should be to a place other than that of the usual environment,
ii) the stay in the place visited should not last more than twelve consecutive months,
iii) the main purpose of the visit should be other than the exercise of an activity remunerated from with the place visited.

Source:

Community Methodology on Tourism Statistics §14.

See also:

Main purpose of the visit
Same-day visitor
Stay
Tourist
Trip
Usual environment.

Work and holiday camps

This unit group comprises camps providing accommodation for holiday activities, such as agricultural, archaeological and ecological work camps, (children's) holiday camps, scout camps, riding and sailing schools, other sports centres, and other similar establishments.

Source:

Community Methodology on Tourism Statistics §72.

See also:

Collective tourist accommodation.

APPENDIX B

THE QUESTIONNAIRE DESIGN AND THE COUNT FORMS

The following charts provide, for each combination visitor-area and for each type of survey, the variables useful in segmenting the tourism market, choosing target market segments and/or measuring the impact of visitor flows on local economies.

In detail, Appendices B1 and B2 illustrate the variables which have to be taken into account when analysing inbound tourism in a closed area and in an open area respectively, according to the kind of survey the researchers decide to carry out.

As discussed in Part II, variables are grouped in four forms, according to the main categories of information on inbound visitors usually collected through a survey:

- the *visitor characteristics* (country of residence, age, socio-economic status, etc.);
- the *trip characteristics* (package tour or not, main purpose, means of transport, etc.);
- *opinions and impressions on trip*;
- *expenditure behaviour*.

The researchers should select those variables that help them achieve the objectives of the survey.

The data to be included in any survey depend on many factors, such as:

- the users' needs;
- what information is already available;
- the resources available to undertake the survey, and to process and produce the data;
- the ability of respondents to provide the information;
- the environment in which the survey is to be carried out;
- the interview method.

Every questionnaire is composed of a combination of two or more forms and each of them can be more or less detailed, considering the number of questions (variables) included. In each form, two levels of questions are shown: *key* or *basic questions* and *optional questions*. Some basic questions may become optional questions and vice versa, according to the information to be collected.

The order in which the forms are placed depends directly on the main purpose of the survey and should respect two different conditions:

- on the one hand, it has to fulfil the researchers' needs, ensuring a maximum response rate;
- on the other, it has to put the interviewee at his/her ease, persuading him/her to answer and minimising his/her inconvenience.

Assuming that the researcher is interested in drawing a complete visitor profile, the questions' order by issue should be as follows:

1. Trip characteristics
2. Expenditures
3. Opinions and impressions on trip
4. Visitor characteristics.

The order may change according to the researcher's priorities and to the kind of survey to be carried out. For example, considering a tourist attraction, questions relating to opinions and impressions on visit should be put before those on trip characteristics. This is very helpful in introducing the aim of the survey and putting the interviewee at his/her ease.

Furthermore, a survey at a closed or open popular tourist place may be used to monitor the single attraction itself, or it may be representative of the tourist pressure which affects all the surrounding area (see Charts 2 and 4). The information needed, and consequently the variables (questions) included in each form of the questionnaire, vary according to the main purpose of the survey. For example, when the main interest is in monitoring visitor flows to the single attraction, questions on the expenses met by visitors during their stay are not consistent with the purpose of the survey.

A further specification has to be made for questions related to visitor characteristics. Filter questions about country of residence and nationality[1] should be put at the very beginning of the questionnaire, while personal questions (such as age, income level, etc.), which may upset the respondent, should be put at the end.

The classification breakdown for each variable follows the Eurostat indications (see Appendix A). It may be extended or reduced as required, but to ensure comparability the main structure of the categories should be maintained.
At the end of both Appendices B1 and B2, a basic model of questionnaire (i.e. including all basic questions) for each type of survey is shown. In the case of a survey at tourist attraction, the questionnaire illustrated is that which should be applied when monitoring also the surrounding area.

In Appendices B3 and B4, an example of count form useful for recording the volume of visitor flows and an example of embarkation/disembarkation cards to be used in surveys on means of transport are included.

APPENDIX B1
VISITORS TO A CLOSED AREA

Chart 1 - Survey at entry/exit points, in means of transport (country, island)

Form 1 - Trip characteristics

Basic questions

1. Date of arrival in country (island) X (year/month/day)
2. Main purpose of trip
3. Length of stay in country (island) X (days if tourists, hours if same-day visitors)
4. Primary destination visited
5. Length of stay in the primary destination (no. of nights if tourists, no. of hours in same-day visitors)
6. Type of accommodation chosen in the primary destination (for tourists only)
7. Mode of transport used to visit the country (island)
8. Number in travel party
9. Travel party composition (age and gender)
10. Package tour or not
11. List of services included in the package

Optional questions

1. Other destination visited, excluding same-day visits (for tourists only)
2. Length of stay in these destinations (no. of nights)
3. Type of accommodation chosen in these destinations
4. Main purpose of visit
5. Other destination visited, excluding overnight stays
6. Length of stay in these destinations (no. of hours)
7. Main purpose of visit
8. Activities undertaken during the visit
9. Type of places visited (urban areas, rural areas, etc.)
10. Weekend trip or not
11. Nationality and type of intermediaries used to book the trip
12. Time period (month) during which the trip was planned
13. First visit or repeat
14. Frequency of same-day trips in country (island) X during a year

Form 2 - Expenditure items

Basic questions

1. Pre-paid expenses (package travel, package holidays and package tours; return travel in case of individual arrangement)
2. Breakdown of package expenditure by item (total amount, currency, no. of persons)
3. Total expenditure made on trip
4. Breakdown of total expenditure made on trip for six main items (total amount, currency, no. of persons):

[1] As mentioned in Part II, Section 5.2., these questions allow the researcher to divide certain categories of respondents, such as visitors from migrants (who go back their native countries during the holiday period). This is particularly important in surveys at border crossings.

- Accommodation
- Food and drinks
- Transport
- Recreation, cultural and sporting activities
- Shopping
- Other

Optional questions

1. Total expenditure made on trip: further breakdown of the six main items
2. Means of payment used (currency, travel cheques, etc.)

Form 3 - Opinions and impressions on trip

Basic questions

1. Factors influencing the decision to visit the area
2. Information sources consulted
3. Satisfaction with services during the trip:
   3.1. Factors related to the general aspects of local environment and life

Optional questions

1. Factors related to specific services offered in the country:
   1.1. Means of accommodation
   1.2. Means of transport
   1.3. Restaurants
   1.4. Other services

Form 4 - Visitor characteristics (respondent)

Basic questions

1. Country of residence/city or other place of residence (if inbound domestic visitors in an island) (at the beginning of the questionnaire)
2. Nationality (emigrants)(at the beginning of the questionnaire)
3. Gender (male/female)
4. Age or date of birth
5. Education level achieved
6. Professional occupation
7. Income level

Optional questions

1. Marital status
2. Household size
3. Economic activity status
4. Field of economic activity
5. Main hobbies

Examples of questionnaire design:

Information to be collected	Forms
• Analysis of the visitor and trip characteristics	1 + 4
• Analysis of the visitor/trip characteristics and of the visitor opinions and impressions	1 + 3 + 4
• Analysis of the visitor/trip characteristics, visitor opinions and impressions and consumption behaviour	1 + 2 + 3 + 4

Note: as far as Form 4. is concerned, general questions (e.g. country of residence, etc.) should be put at the beginning of the questionnaire, while personal questions (age, profession, etc.) should be put at the end.

Chart 2 - Survey at popular tourist places (attractions with a control mechanism for entry)

⇒ **Monitoring visitor flows at the single attraction**

Form 1 - Opinions and impressions on visit

Basic questions

1. Main reason for visiting the attraction
2. Importance of the attraction in the decision to visit the resort
3. Information sources consulted
4. Satisfaction with services during the visit (entrance fee, etc.)

Optional questions

1. Other attractions visited in the resort where the attraction is located

Form 2 - Trip characteristics

Basic questions

1. Place from which the visitor left to visit the attraction:
   1.1. Place of residence
   1.2. Place away from home where the visitor is spending his/her time
2. Distance of this place from the resort where the attraction is located
3. Place in which the visitor will spend the night after the visit
4. Number of nights spent in that place (if not at home)
5. Main reason for visiting that place
6. Type of accommodation chosen
7. Mode of transport used to reach the resort where the attraction is located
8. Mode of transport used to reach the attraction
9. Number in travel party
10. Travel party composition (age and gender)
11. Package tour or not

Optional questions

1. Individual or group visit
2. Persons with whom the interviewee has visited the attraction
3. Weekend trip or not
4. Time period during which the visit was planned

Form 3 - Visitor characteristics (respondent)

Basic questions

1. Country of residence/city or other place of residence (if inbound domestic visitor)
2. Gender
3. Age or date of birth
4. Education level achieved
5. Professional occupation
6. Income level

Optional questions

1. Marital status
2. Household size
3. Economic activity status
4. Field of economic activity
5. Main hobbies

Examples of questionnaire design:

Information to be collected	Forms
• Analysis of the visitor and trip characteristics	2 + 3
• Analysis of the visitor/trip characteristics and of the visitor opinions and impressions	1 + 2 + 3

Note: as far as Form 3. is concerned, general questions (e.g. country of residence, etc.) should be put at the beginning of the questionnaire, while personal questions (age, profession, etc.) should be put at the end.

⇒ **Monitoring the single attraction as representative of tourist demand in the surrounding area**

Form 1 - Opinions and impressions on visit/trip

Basic questions

1. Main purpose for visiting the attraction
2. Importance of the attraction in the decision to visit the resort
3. Information sources consulted
4. Satisfaction with services during the visit (entrance fee, etc.)

Optional questions

1. Other attractions visited in the resort where the attraction is located
2. Satisfaction with other services during the trip:
   2.1. Factors related to the general aspects of local environment and life
   2.2. Factors related to specific services offered in the resort where the attraction is located:
      2.2.1. Means of accommodation
      2.2.2. Means of transport
      2.2.3. Restaurants
      2.2.4. Other services

Form 2 - Trip characteristics

Basic questions

1. Place from which the visitor left to visit the attraction:
   1.1. Place of residence
   1.2. Place away from home where the visitor is spending his/her time
2. Distance of this place from the resort where the attraction is located
3. Place in which the visitor will spend the night after the visit
4. Number of nights spent in that place (if not at home)
5. Main reason for visiting that place
6. Type of accommodation chosen
7. Mode of transport used to reach the resort where the attraction is located
8. Mode of transport used to reach the attraction
9. Number in travel party
10. Travel party composition (age and gender)
11. Package tour or not
12. List of services included in the package

Optional questions

1. Individual or group visit at the attraction
2. Persons with whom the interviewee has visited the attraction
3. Weekend trip or not in the area
4. Time period during which the visit was planned
5. Nationality and type of the intermediaries used to book the trip
6. Activities undertaken during the visit
7. First trip or not in the area
8. Frequency of same-day trips in the area during a year

Form 3 - Expenditure items

Basic questions

1. Pre-paid expenses (package travel, package holidays and package tours; return travel in case of individual arrangement)

2. Breakdown of package expenditure by item (total amount, currency, No. of persons)
3. Total expenditure made on trip from the time of the visitor's arrival to the time when the interview is carried out
4. Breakdown of total expenditure made on trip for six main items (total amount, currency, no. of persons):
   - Accommodation
   - Food and drinks
   - Transport
   - Recreation, cultural and sporting activities
   - Shopping
   - Other

Optional questions

1. Total expenditure made on trip: further breakdown of the six main items
2. Means of payment used (currency, travel cheques, etc.)

Form 4 - Visitor characteristics (respondent)

Basic questions

1. Country of residence/city or other place of residence (if inbound domestic visitor)
2. Gender
3. Age or date of birth
4. Education level achieved
5. Professional occupation
6. Income level

Optional questions

1. Marital status
2. Household size
3. Economic activity status
4. Field of economic activity
5. Main hobbies

Examples of questionnaire design:

Information to be collected	Forms
• Analysis of the visitor and trip characteristics	2 + 4
• Analysis of the visitor/trip characteristics and of the visitor opinions and impressions	1 + 2 + 4
• Analysis of the visitor/trip characteristics, visitor opinions and impressions and consumption behaviour	1 + 2 + 3 + 4

Note: as far as Form 4. is concerned, general questions (e.g. country of residence, etc.) should be put at the beginning of the questionnaire, while personal questions (age, profession, etc.) should be put at the end.

SURVEY OF INBOUND VISITORS AT ENTRY/EXIT POINTS

A BASIC MODEL OF QUESTIONNAIRE (FORMS 1 + 2 + 3 + 4)

ONLY FOR THE INTERVIEWER	
Serial no. of questionnaire	|__|__|__|__|__|
Name of the Interviewer (or personal identification code)	.....
Date of the interview (year/month/day)	|__|__|/|__|__|/|__|__|
Time of the interview (hour and minutes)	|__|__| |__|__|
Length of the interview (minutes)	|__|__|

Type of borders and survey venues

	ROAD (code)	RAILWAY (code)	AIRPORT (code)	PORT (code)
Venue 1	.....( )	.....( )	.....( )	.....( )
Venue 2	.....( )	.....( )	.....( )	.....( )
.....	.....( )	.....( )	.....( )	.....( )
Venue n	.....( )	.....( )	.....( )	.....( )

1. Country of usual residence .....

2. Nationality (for emigrants) .....

Form 1. Trip characteristics

3. When did you arrive in country X?

Date of arrival: |__|__|/|__|__|/|__|__| (year/month/day)

4. What is the main reason for visiting country X? (Only one choice)

- leisure, recreation and holidays 1
- visiting friends and relatives 2
- business and professional (congresses, fairs, meetings, etc.) 3
- health treatments 4
- religion and pilgrimage 5
- other (specify) 6

5. How much time did you spend in country X?

5.1. How many nights? (For tourists only) (Go to 6.1.)

- one night 1
- 2-3 nights 2
- 4 to 7 nights 3
- 8 to 14 nights 4
- 15 to 21 nights 5
- 22 nights or more 6

5.2. How many hours? (For same-day visitors only) (Go to 6.2.)

- from 3 to 5 hours 1
- from 6 to 8 hours 2
- from 9 to 11 hours 3
- 12 hours or more 4

6. What was the primary destination of your trip?

6.1. (For tourists only) Please state the name of the destination, the number of nights you spent there and the type of accommodation you used

Name of primary destination where you spent at least one night		Total nights spent	Type of accommodation chosen (no. of nights spent in each one)					
Code	Name		Hotels	Campsites/ tourist villages	Rented dwellings	Owned dwellings	Friends or relatives	Other (*)
	.....	|__|__|	|__|__|	|__|__|	|__|__|	|__|__|	|__|__|	|__|__|

(*) Specify .....

6.2. (For same-day visitors only) Please state the name of the destination and the number of hours you spent there

Name of primary destination where you spent at least three hours		Total hours spent
Code	Name	
	.....	|__|__|

7. What means of transport did you use to visit country X? (Only one choice)

- private car, motorcycle 1
- private car + caravan 2
- rented car 3
- camper 4
- coach 5
- train 6
- plane 7
- ship/boat 8
- other (specify) 9

8. Are you travelling alone or with other persons, who share the expenses with you?

- alone 1
- with one or more persons 2 (See 8.1.)

8.1. How many members are in your personal travel party, excluding yourself?

Total no. of persons |__|__|__|

8.2. In which age group?

- 0-14 years no. |__|__|
- 15-24 years no. |__|__|
- 25-44 years no. |__|__|
- 45-64 years no. |__|__|
- 65 and over no. |__|__|

9. Are you travelling:

- on a package tour? YES 1 NO 2 (If Yes see 9.1.)
- on individual travel arrangements? YES 1 NO 2

9.1. What kind of services are included in the package?

- return travel only 1
- accommodation only 2 (See 9.1.1.)
- inclusive holiday 3 (See 9.1.2.)

9.1.1. If you have answered 2, what other services are included in the package?
(Multiple choice. Tick the corresponding boxes)

- car rental ☐
- meals at restaurants ☐
- tickets for museums, exhibitions, etc. ☐
- mini cruise ☐
- local tours ☐
- other (specify) .....☐

9.1.2. If you have answered 3, what of the following services are included in the inclusive tour?
(Multiple choice. Tick the corresponding boxes)

- return travel ☐
- accommodation ☐
- car rental ☐
- meals at restaurants ☐
- tickets for museums, exhibitions, etc. ☐
- mini cruise ☐
- local tours ☐
- other (specify) ..... ☐

Form 2. Expenses for and during the visit

Pre-paid expenses

10. Did you meet any expense for your trip (for you and your party) before you left home?

YES 1 (See 10.1.)

NO 2

10.1. If you answer Yes to question 10., please state the total expense you have met (the amount, the currency and the number of persons who have benefited from this expense)

Total expenditure	Amount	Currency	no. of persons
Amount paid for the package travel, the package holiday, the package tour (pre-paid expenses)	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Amount paid for the return travel in case of individual arrangements (pre-paid expenses)	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|

11. If you have bought a package, are you able to break down the total expenditure for the package into its components, as you indicated in questions 9.1.1. or 9.1.2. (Form 1.)?

Package items	Amount	Currency	no. of persons
.....	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
.....	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
.....	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|

.....	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
.....	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|

Expenses on trip

12. Please state the total expenditure you have met for you and your travel party on this trip in country X

Total expenditure	Amount	Currency	no. of persons
Total expenditure made during your stay in country X.	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|

13. Are you able to break down the total expenditure made on the trip according to the items shown in the table below? (For each item please specify the amount, the currency, and the no. of persons for whom you have met the expenses. If you have not spent for a specific item leave it blank)

	Amount	Currency	no. of persons
Accommodation	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Food and drink	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Transport	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Recreation, cultural and sporting activities	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Shopping	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Other	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|

Form 3. Opinions and impressions on trip

14. If the main purpose of the visit is leisure (question 4), which of the following factors influenced your decision to choose country X for your holiday? (Multiple choice. Tick the corresponding boxes)

- climate □
- nature □
- tourist resorts: □
  - sea resorts □
  - historical and artistic resorts □
- sporting activities □
- package costs/accommodation prices □
- other (specify) ..... □

15. What is the main source of information for your visit? (Only one choice)

- tour operator/travel agency/air or coach carrier 1
- media (TV, newspapers, magazines, etc.) 2
- recommendation of friends/relatives 3
- country X's tourism office 4
- tourism fairs, exhibitions, etc. 5
- other (specify) 6

16. From your experience in country X, how would you rate the following local aspects?
(1 is for poor, 5 for excellent. If no experience leave it blank)

	1	2	3	4	5
• cleanliness of public areas	☐	☐	☐	☐	☐
• safety	☐	☐	☐	☐	☐
• health services	☐	☐	☐	☐	☐
• people's friendliness	☐	☐	☐	☐	☐
• airport facilities	☐	☐	☐	☐	☐
• accommodation facilities	☐	☐	☐	☐	☐
• restaurants	☐	☐	☐	☐	☐
• road network	☐	☐	☐	☐	☐
• pedestrian facilities	☐	☐	☐	☐	☐
• entertainment/night life	☐	☐	☐	☐	☐
• natural environment	☐	☐	☐	☐	☐
• cleanliness of beaches and sea	☐	☐	☐	☐	☐
• facilities on the beach	☐	☐	☐	☐	☐
• archaeological and historic resources	☐	☐	☐	☐	☐
• value for money	☐	☐	☐	☐	☐
• other (specify)	☐	☐	☐	☐	☐

Form 4. Data on visitor interviewed

17. Gender: M 1 F 2

18. Age:

- 18-26 years 1
- 27-35 years 2
- 36-42 years 3
- 43-50 years 4
- 51-59 years 5
- 60-65 years 6
- 66 and over 7

19. Level of education achieved:

- pre-primary education 1
- first level or primary education 2
- second level-first stage or lower secondary education 3
- second level-second stage or upper secondary education 4
- third level or higher education (university) 5
- post lauream 6

20. Professional occupation:

- legislator, senior official or manager 1
- professional 2
- technician or associate 3
- clerk 4
- service worker or shop and market sales worker 5
- skilled agricultural or fishery worker 6
- craft and related trades worker 7
- plant and machine operator or assembler 8
- elementary occupation 9
- armed forces 10

21. Income level (national income categories)

General income categories

SURVEY OF INBOUND VISITORS AT POPULAR TOURIST PLACES (CLOSED ATTRACTIONS) [2]

A BASIC MODEL OF QUESTIONNAIRE (FORMS 1 + 2 + 3 + 4)

ONLY FOR THE INTERVIEWER	
Serial no. of questionnaire	|__|__|__|__|__|
Name of the Interviewer (or personal identification code)	.....
Date of the interview (year/month/day)	|__|__|/|__|__|/|__|__|
Time of the interview (hour and minutes)	|__|__| |__|__|
Length of the interview (minutes)	|__|__|

1. Where do you actually live?

- in country X (Region, Province and City) .....
- abroad (Country of residence) .....

Form 1. The tourist attraction (impressions and opinions)

2. Why have you visited this attraction?

- cultural interest 1
- professional interest 2
- curiosity 3

3. How important was this attraction in your decision to visit the resort?

- very unimportant 1
- unimportant 2
- indifferent 3
- important 4
- very important 5

4. How did you know about this attraction?

- tour operator/travel agency 1
- media (TV, newspapers, magazines, etc.) 2
- recommendation of friends/relatives 3
- tourism board 4
- tourist guide 5
- posters 6
- information in accommodation establishments 7
- other (specify) 8

5. Did the visit satisfy you?

- very much 1
- much 2
- not a lot 3
- not at all 4

6. The entrance fee is:

- too expensive 1
- adequate 2
- cheap 3
- no answer 4

[2] The questionnaire refers to the monitoring of a single attraction as representative of tourist demand in the surrounding area.

7. (In the case of an exhibition) Which of the services offered would you like to see improved?
(Multiple choice. Tick the corresponding boxes)

- lighting □
- opening times □
- works of art' explanations □
- organisation of the exhibition □
- information and advertising □
- other (specify) ..... □

Form 2. Trip characteristics

a. The place of departure and the arrangements for the trip

8.- 9. Where did you come from to visit the attraction? From your place of residence or from another place? (Please fill only one of the following charts)

8. From your PLACE OF RESIDENCE? If NO, go to 9.; if YES continue.

8.1. Name of the place .....

8.2. How far this place is from the resort where the attraction is located?

- from 0 to 20 Km 1
- from 20 to 40 Km 2
- from 40 to 80 Km 3
- from 80 to 150 Km 4
- over 150 Km 5

8.3. Where will you spend next night?

- at home (true visitor) 1
- in the same resort where the attraction is located 2 (See 8.4.)
- in another place (specify) ..... 3 (See 8.4.)

8.4. If <u>not</u> at home, how many nights will you spend in that resort?

- 1 night 1
- 2-3 nights 2
- from 4 to 7 nights 3
- from 8 to 14 nights 4
- from 15 to 21 nights 5
- more than 21 nights 6

8.5. What is the <u>main reason</u> for staying there? (Only one choice)

- leisure, recreation and holidays 1
- visiting friends and relatives 2
- business and professional (congresses, fairs, meetings, etc.) 3
- health treatments 4
- religious purposes 5
- other (specify) 6

8.6. In what means of accommodation will you spend the next night?

- hotel and similar establishment 1
- campsite/tourist village 2
- rented dwelling 3
- owned dwelling 4
- home of friends or relatives 5
- other (specify) 6

Go to question 10

9. From a PLACE AWAY FROM HOME WHERE YOU ARE ACTUALLY SPENDING YOUR TIME? If NO, go to 11.; if YES continue.

9.1. Name of the place .....

9.2. How far this place is from the resort?

- from 0 to 20 Km 1
- from 20 to 40 Km 2
- from 40 to 80 Km 3
- from 80 to 150 Km 4
- over 150 Km 5

9.3. What is the main reason for staying there? (Only one choice)

- leisure, recreation and holidays 1
- visiting friends and relatives 2
- business and professional (congresses, fairs, meetings, etc.) 3
- health treatments 4
- religious purposes 5
- other (specify)..... 6

9.4. How many nights will you spend in that resort?

- 1 night 1
- 2-3 nights 2
- from 4 to 7 nights 3
- from 8 to 14 nights 4
- from 15 to 21 nights 5
- more than 21 nights 6

9.5. In what means of accommodation did you stay?

- hotel and similar establishment 1
- campsite/tourist village 2
- rented dwelling 3
- owned dwelling 4
- home of friends and relative 5
- other (specify) 6

9.6. Where will you spend the next night?

- in the same place where you spent the last night 1
- in a place different from where you spent last night:
  - at home 2
  - in another place (specify)..... 3

9.6.1. If not at home, how many nights are you willing to spend there?

- 1 night 1
- 2-3 nights 2
- from 4 to 7 nights 3
- from 8 to 14 nights 4
- from 15 to 21 nights 5
- more than 21 nights 6

Go to question 10

b. Organisation of the trip

10. Are you travelling:

- on a package tour? YES 1 NO 2 (If Yes see 10.1.)
- on individual travel arrangements? YES 1 NO 2

10.1. What kind of services are included in the package?

- return travel only 1
- accommodation only 2 (See 10.1.1.)
- inclusive holiday 3 (See 10.1.2.)

10.1.1. If you have answered 2, what other services are included in the package?
(Multiple choice. Tick the corresponding boxes)

- car rental ☐
- meals at restaurants ☐
- tickets for museums, exhibitions, etc. ☐
- mini cruise ☐
- local tours ☐
- other (specify) ..... ☐

10.1.2. If you have answered 3, what of the following services are included in the inclusive tour?
(Multiple choice. Tick the corresponding boxes)

- return travel ☐
- accommodation ☐
- car rental ☐
- meals at restaurants ☐
- tickets for museums, exhibitions, etc. ☐
- mini cruise ☐
- local tours ☐
- other (specify) ..... ☐

c. Means of transport used

11. What means of transport did you use to reach this resort? (Only one choice)

- private car, motorcycle 1
- private car+caravan 2
- rented car 3
- camper 4
- public bus 5
- coach 6
- train 7
- plane 8
- ship/boat 9
- other (specify) 10

12. How did you arrive at the attraction? (Only one choice)

- private car, motorcycle 1
- private car+caravan 2
- rented car 3
- camper 4
- public bus 5
- coach 6
- taxi 7
- other (specify) 8

d. Travel party

13. Do you travel alone or with other persons, who share the expenses with you?

- alone 1
- with one or more persons 2 (See 13.1.)

13.1. How many members are in your personal travel party, including yourself?

Total no. of persons |__|__|__|

13.2. In which age group?

- 0-14 years no. |__|__|
- 15-24 years no. |__|__|
- 25-44 years no. |__|__|
- 45-64 years no. |__|__|
- 65 and over no. |__|__|

Form 3. Expenses for and during the visit

Pre-paid expenses

14. Did you meet any expense for your trip (for you and your party) before you left home?

YES 1 (See 14.1.) NO 2

14.1. If you answer Yes to question 14., please state the total expense you have met (the amount, the currency and the number of persons who have benefited from this expense)(For tourists only)

Total expenditure	Amount	Currency	no. of persons
Amount paid for the package travel, the package holiday, the package tour (pre-paid expenses)	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Amount paid for the return travel in case of individual arrangements (pre-paid expenses)	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|

15. If you have bought a package, are you able to break down the total expenditure for the package into its components, as you indicated in questions 10.1.1. or 10.1.2. (Form 2.)?

Package items	Amount	Currency	no. of persons
.....	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
.....	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
.....	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
.....	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
.....	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|

Expenses on trip

16. Please state the total expenditure you have met for you and your travel party on this trip in this resort (where the attraction is located), from the time of your arrival until now:

Total expenditure	Amount	Currency	no. of persons
Total expenditure made during your stay in this report	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|

17. Are you able to break down the total expenditure made on the trip according to the items shown in the table below? (For each item please specify the amount, the currency, and the no. of persons for whom you have met the expenses. If you have not spent for a specific item leave it blank)

	Amount	Currency	no. of persons
Accommodation	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Food and drink	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Transport	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Recreation, cultural and sporting activities	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Shopping	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Other	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|

Form 4. Data on visitor interviewed

18. Gender: M 1 F 2

19. Age:

- 18-26 years 1
- 27-35 years 2
- 36-42 years 3
- 43-50 years 4
- 51-59 years 5
- 60-65 years 6
- 66 and over 7

20. Level of education achieved:

- pre-primary education 1
- first level or primary education 2
- second level-first stage or lower secondary education 3
- second level-second stage or upper secondary education 4
- third level or higher education (university) 5
- post lauream 6

21. Professional occupation:

- legislator, senior official or manager 1
- professional 2
- technician or associate 3
- clerk 4
- service worker or shop and market sales worker 5
- skilled agricultural or fishery worker 6
- craft and related trades worker 7
- plant and machine operator or assembler 8
- elementary occupation 9
- armed forces 10

22. Income level (national income categories)

APPENDIX B2
VISITORS TO AN OPEN AREA

Chart 3 - Survey at accommodation establishments

Form 1 - Trip characteristics

Basic questions

1. Date of tourist arrival in the accommodation establishment
2. Date of tourist arrival in the tourist resort where the establishment is located
3. Number in travel party
4. Travel party composition (age and gender)
5. Package tour or not
6. List of services included in the package
7. Main purpose of trip
8. Means of transport used to reach the region (city, etc.)
9. Means of transport used to reach the resort
10. Primary destination or not
11. Primary destination visited (name, total nights spent, type of accommodation chosen)
12. Length of stay in the region, in the holiday resort, in the accommodation establishment
13. Characteristics of the accommodation chosen [hotel category, number of camping pitches/bungalow occupied (camping ground/tourist village), number of beds available in rented apartment, etc.]

Optional questions

1. Other destinations visited, excluding day excursions
2. Length of stay in these destinations
3. Type of accommodation chosen in these destinations
4. Main purpose of trip in these destinations
5. Other destinations visited, excluding overnight stay (No. of trips)
6. Length of stay in these destinations
7. Main purpose of trip in these destinations
8. Activities undertaken during the stay in the area
9. Type of places visited (urban area, rural areas, etc.)
10. Nationality and type of intermediaries used to book the trip
11. Time period (month) during which the trip was planned
12. Weekend trip or not
13. First visit or repeat

Form 2 - Expenditure items

Basic questions

1. Pre-paid expenses (package travel, package holidays and package tours; return travel in case of individual arrangement)
2. Breakdown of package expenditure by item (total amount, currency, no. of persons)
3. Total expenditure made on trip from the time of the visitor's arrival to the time when the interview is carried out
4. Breakdown of total expenditure made on trip for six main items (total amount, currency, No. of persons):
   - Accommodation
   - Food and drinks
   - Transport
   - Recreation, cultural and sporting activities
   - Shopping
   - Other

Optional questions

1. Total expenditure made on trip. Further breakdown of the six main items
2. Means of payment used (currency, travel cheques, etc.)

Form 3 - Opinions and impressions on trip

Basic questions

1. Factors influencing the decision to visit the destination
2. Information sources consulted
3. Satisfaction with services during the trip:

3.1. General factors related to the aspects of local environment and life

Optional questions

1. Factors related to specific services:
   1.1. Means of accommodation
   1.2. Means of transport
   1.3. Restaurants
   1.4. Other services

Form 4 - Visitor characteristics (overnight visitor)

Basic questions

1. Country of residence/city or other place of residence (if domestic overnight visitor)
2. Nationality (emigrants)
3. Gender
4. Age or date of birth
5. Education level achieved
6. Professional occupation
7. Income level

Optional questions

1. Marital status
2. Household size
3. Economic activity status
4. Field of economic activity
5. Main hobbies

Examples of questionnaire design:

Information to be collected	Forms
• Analysis of the visitor and trip characteristics	1 + 4
• Analysis of the visitor/trip characteristics and of the visitor opinions and impressions	1 + 3 + 4
• Analysis of the visitor/trip characteristics, visitor opinions and impressions and consumption behaviour	1 + 2 + 3 + 4

Note: as far as Form 4. is concerned, general questions (e.g. country of residence, etc.) should be put at the beginning of the questionnaire, while personal questions (age, profession, etc.) should be put at the end.

Chart 4 - Survey at popular tourist places (free entrance attractions)

⇒ **Monitoring visitor flows at the single attraction**

Form 1 - Opinions and impressions on visit

Basic questions

1. Main reason for visiting the attraction
2. Importance of the attraction in the decision to visit the resort

Optional questions

1. Other attractions visited in the resort where the attractions is located
2. Information sources consulted
3. Satisfaction with services during the visit

Form 2 - Trip characteristics

Basic questions

1. Place from which the visitor left to visit the attraction:
   1.1. Place of residence
   1.2. Place away from home where the visitor is spending his/her time
2. Distance of this place from the resort where the attraction is located

3. Place in which the visitor will spend the night after the visit
4. Number of nights spent in that place (if not at home)
5. Main reason for visiting that place
6. Type of accommodation chosen
7. Mode of transport used to reach the resort where the attraction is located
8. Mode of transport used to reach the attraction
9. Number in travel party
10. Travel party composition (age and gender)
11. Package tour or not
12. List of services included in the package

Optional questions

1. Individual or group visit
2. Persons with whom the interviewee has visited the attraction
3. Weekend trip or not
4. Time period during which the visit was planned

Form 3 - Visitor characteristics (respondent)

Basic questions

1. Country of residence/city or other place of residence (if inbound domestic visitor)
2. Gender
3. Age or date of birth
4. Education level achieved
5. Professional occupation
6. Income level

Optional questions

1. Marital status
2. Household size
3. Economic activity status
4. Field of economic activity
5. Main hobbies

Examples of questionnaire design:

Information to be collected	Forms
• Analysis of the visitor and trip characteristics	2 + 3
• Analysis of the visitor/trip characteristics and of the visitor opinions and impressions	1 + 3 + 3

Note: as far as Form 3. is concerned, general questions (e.g. country of residence, etc.) should be put at the beginning of the questionnaire, while personal questions (age, profession, etc.) should be put at the end.

⇒ **Monitoring the single attraction as representative of tourist demand in the surrounding area**

Form 1 - Opinions and impressions on visit/trip

Basic questions

1. Main purpose for visiting the attraction
2. Importance of the attraction in the decision to visit the resort

Optional questions

1. Information sources consulted
2. Other attractions visited in the resort where the attraction is located
3. Satisfaction with services during the visit
4. Satisfaction with other services during the trip:
   4.1. Factors related to the general aspects of local environment and life
   4.2. Factors related to specific services offered in the resort where the attraction is located:
      4.2.1. Means of accommodation
      4.2.2. Means of transport
      4.2.3. Restaurants
      4.2.4. Other services

Form 2 - Trip characteristics

Basic questions

1. Place from which the visitor left to visit the attraction:
   1.1. Place of residence
   1.2. Place away from home where the visitor is spending his/her time
2. Distance of this place from the resort where the attraction is located
3. Place in which the visitor will spend the night after the visit
4. Number of nights spent in that place (if not at home)
5. Main reason for visiting that place
6. Type of accommodation chosen
7. Mode of transport used to reach the resort where the attraction is located
8. Mode of transport used to reach the attraction
9. Number in travel party
10. Travel party composition (age and gender)
11. Package tour or not
12. Place from where the visitor has left to visit the attraction

Optional questions

1. Individual or group visit at the attraction
2. Persons with whom the interviewee has visited the attraction
3. Weekend trip or not in the area
4. Time period during which the visit was planned
5. Nationality and type of the intermediaries used to book the trip
6. Activities undertaken during the visit
7. First trip or not in the area
8. Frequency of same-day trips in the area during a year

Form 3 - Expenditure items

Basic questions

1. Pre-paid expenses (package travel, package holidays and package tours; return travel in case of individual arrangement)
2. Breakdown of package expenditure by item (total amount, currency, no. of persons)
3. Total expenditure made on trip from the time of the visitor's arrival to the point in time when the interview is being carried out
4. Breakdown of total expenditure made on trip for six main items (total amount, currency, no. of persons):
   - Accommodation
   - Food and drinks
   - Transport
   - Recreation, cultural and sporting activities
   - Shopping
   - Other

Optional questions

1. Total expenditure made on trip. Further breakdown of the six main items
2. Means of payment used (currency, travel cheques, etc.)

Form 4 - Visitor characteristics (respondent)

Basic questions

1. Country of residence/city or other place of residence (if inbound domestic visitor)
2. Gender
3. Age or date of birth
4. Education level achieved
5. Professional occupation
6. Income level

Optional questions

1. Marital status
2. Household size
3. Economic activity status
4. Industry where employed
5. Main hobbies

Examples of questionnaire design:

Information to be collected	Forms
• Analysis of the visitor and trip characteristics	2 + 4
• Analysis of the visitor/trip characteristics and of the visitor opinions and impressions	1 + 2 + 4
• Analysis of the visitor/trip characteristics, visitor opinions and impressions and consumption behaviour	1 + 2 + 3 + 4

Note: as far as Form 4. is concerned, general questions (e.g. country of residence, etc.) should be put at the beginning of the questionnaire, while personal questions (age, profession, etc.) should be put at the end.

SURVEY OF INBOUND TOURISTS AT ACCOMMODATION ESTABLISHMENTS

A BASIC MODEL OF QUESTIONNAIRE (FORMS 1 + 2 + 3 + 4)

ONLY FOR THE INTERVIEWER	
Serial no. of questionnaire	|__|__|__|__|__|
Name of the Interviewer (or personal identification code)	.....
Date of the interview (year/month/day)	|__|__|/|__|__|/|__|__|
Time of the interview (hour and minutes)	|__|__| |__|__|
Length of the interview (minutes)	|__|__|

Name of the resort .....

District code |__|__|

Art cities 1
Lake 2
Sea 3
Mountains 4
Spa resorts 5

1. Date of the tourist's arrival in this

accommodation establishment |__|__|/|__|__|/|__|__| (year/month/day)

2. Date of the tourist's arrival in the holiday resort

where the accommodation is located |__|__/|__|__|/|__|__| (year/month/day)

3. Place of usual residence:

- Country (if international tourist) .....
- Region, province and city of usual residence (if domestic tourist)

.....

Form 1. Trip characteristics

4. Are you travelling alone or with other persons, who share the expenses with you?

- alone 1
- with one or more persons 2 (See 4.1.)

4.1. How many members are in your personal travel party, including yourself?

Total no. of persons |__|__|__|

4.2. In which age group?

- 0-14 years no. |__|__|
- 15-24 years no. |__|__|
- 25-44 years no. |__|__|
- 45-64 years no. |__|__|
- 65 and over no. |__|__|

5. Are you travelling:

- on a package tour? YES 1 NO 2 (If Yes see 5.1.)
- on individual travel arrangements? YES 1 NO 2

5.1. What kind of services are included in the package?

- return travel only 1
- accommodation only 2 (See 5.1.1.)
- inclusive holiday 3 (See 5.1.2.)

5.1.1. If you have answered 2, what other services are included in the package?
(Multiple choice. Tick the corresponding boxes)

- car rental □
- meals at restaurants □
- tickets for museums, exhibitions, etc. □
- mini cruise □
- local tours □
- other (specify) ..... □

5.1.2. If you have answered 3, what of the following services are included in the inclusive tour?
(Multiple choice. Tick the corresponding boxes)

- return travel □
- accommodation □
- car rental □
- meals at restaurants □
- tickets for museums, exhibitions, etc. □
- mini cruise □
- local tours □
- other (specify) ..... □

6. What is the main purpose for visiting this holiday resort? (Only one choice)

- leisure, recreation and holidays 1
- visiting friends and relatives 2
- business and professional (congresses, fairs, meetings, etc.) 3
- health treatments 4
- religion and pilgrimage 5
- other (specify) 6

7. What means of transport did you use to reach the country/region? (Only one choice)

- private car, motorcycle 1
- private car+caravan 2
- rented car 3
- camper 4
- public bus 5
- coach 6
- train 7
- plane 8
- ship/boat 9
- other (specify) 10

8. What means of transport did you use to reach this holiday resort? (Only one choice)

- private car, motorcycle 1
- private car+caravan 2
- rented car 3
- camper 4
- public bus 5
- coach 6
- taxi 7
- other (specify) 8

9. Is this holiday resort the primary destination of your trip?

YES 1 NO 2

9.1. If not, what is the primary destination of your trip? (Please state the name of the destination, the number of nights you spent there and the type of accommodation you used)

Name of primary destination where you spent at least one night		Total nights spent	Type of accommodation chosen (no. of nights spent in each one)					
Code	Name		Hotels	Campsites/ tourist villages	Rented dwellings	Owned dwellings	Friends or relatives	Other (*)
	.....	|__|__|	|__|__|	|__|__|	|__|__|	|__|__|	|__|__|	|__|__|

(*) Specify .....

10. How many nights have already you spent and are you willing to spend in region X?

- one night 1
- 2-3 nights 2
- 4 to 7 nights 3
- 8 to 14 nights 4
- 15 to 21 nights 5
- 22 nights or more 6

11. How many nights have already spent and are you willing to spend in this holiday resort?

- one night 1
- 2-3 nights 2
- 4 to 7 nights 3
- 8 to 14 nights 4
- 15 to 21 nights 5
- 22 nights or more 6

12. How many nights have you already spent and are you willing to spend in this accommodation establishment?

- one night 1
- 2-3 nights 2
- 4 to 7 nights 3
- 8 to 14 nights 4
- 15 to 21 nights 5
- 22 nights or more 6

For tourists staying in hotels and similar establishments:

13. Kind of accommodation chosen:

- room only 1
- bed and breakfast 2
- half board 3
- full board 4

14. Hotel category:

- 5 stars 1
- 4 stars 2
- 3 stars 3
- 2 stars 4
- 1 star 5

For tourists staying in other collective establishments:

- tourist campsites and holiday dwellings

15. Number of camping pitches or bungalows occupied by the travel party:

Camping pitches |__|__|
Bungalows |__|__|

For tourists staying in private rental accommodation:

16. Number of beds available: |__|__|

Form 2. Expenses for and during the visit

Pre-paid expenses

17. Did you meet any expense for your trip (for you and your party) before you left home?

YES 1 (See 17.1.) NO 2

17.1. If you answer Yes to question 17., please state the total expense you met (the amount, the currency and the number of persons who have benefited from this expense)

Total expenditure	Amount	Currency	no. of persons
Amount paid for the package travel, the package holiday, the package tour (pre-paid expenses)	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Amount paid for the return travel in case of individual arrangements (pre-paid expenses)	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|

18. If you bought a package, are you able to break down the total expenditure for package in its components, as you indicated in questions 5.1.1. or 5.1.2. (Form 1.)?

Package items	Amount	Currency	no. of persons
.....	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
.....	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
.....	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
.....	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
.....	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|

Expenses on trip

19. Please state the total expenditure you have met for you and your travel party on this trip in this resort from the time of your arrival until now:

Total expenditure	Amount	Currency	no. of persons
Total expenditure made during your stay in this report	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|

20. Are you able to break down the total expenditure made on this trip according to the items shown in the table below? (For each item please specify the amount, the currency, and the no. of persons for whom you have met the expenses. If you have not spent for a specific item leave it blank)

	Amount	Currency	no. of persons
Accommodation	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Food and drink	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Transport	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Recreation, cultural and sporting activities	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Shopping	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Other	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|

Form 3. Opinions and impressions on trip

21. If the main purpose of the visit is leisure (question 6), which of the following factors influenced your decision to choose this resort for your holiday?
(Multiple choice. Tick the corresponding boxes)

- climate ☐
- nature ☐
- tourist resorts: ☐
  - sea resorts ☐
  - historical and artistic resorts ☐
- sporting activities ☐
- package costs/accommodation prices ☐
- other (specify) ..... ☐

22. What is the main source of information for your visit? (Only one choice)

- tour operator/travel agency/air or coach carrier 1
- media (TV, newspapers, magazines, etc.) 2
- recommendation of friends/relatives 3
- country X's tourism office 4
- tourism fairs, exhibitions, etc. 5
- other (specify) 6

23. From your experience in this resort, how would you rate the following local aspects?
(1 is for poor, 5 for excellent. If no experience leave it blank)

	1	2	3	4	5
• cleanliness of public areas	☐	☐	☐	☐	☐
• safety	☐	☐	☐	☐	☐
• health services	☐	☐	☐	☐	☐
• people's friendliness	☐	☐	☐	☐	☐
• airport facilities	☐	☐	☐	☐	☐
• accommodation facilities	☐	☐	☐	☐	☐
• restaurants	☐	☐	☐	☐	☐
• road network	☐	☐	☐	☐	☐
• pedestrian facilities	☐	☐	☐	☐	☐
• entertainment/night life	☐	☐	☐	☐	☐
• natural environment	☐	☐	☐	☐	☐
• cleanliness of beaches and sea	☐	☐	☐	☐	☐
• facilities on the beach	☐	☐	☐	☐	☐
• archaeological and historic resources	☐	☐	☐	☐	☐
• value for money	☐	☐	☐	☐	☐
• other (specify)	☐	☐	☐	☐	☐

Form 4. Data on visitor interviewed

24. Gender: M 1 F 2

25. Age:

- 18-26 years 1
- 27-35 years 2
- 36-42 years 3
- 43-50 years 4
- 51-59 years 5
- 60-65 years 6
- 66 and over 7

26. Level of education achieved:

- pre-primary education 1
- first level or primary education 2
- second level-first stage or lower secondary education 3
- second level-second stage or upper secondary education 4
- third level or higher education (university) 5
- post lauream 6

27. Professional occupation:

- legislator, senior official or manager 1
- professional 2
- technician or associate 3
- clerk 4
- service worker or shop and market sales worker 5
- skilled agricultural or fishery worker 6
- craft and related trades worker 7
- plant and machine operator or assembler 8
- elementary occupation 9
- armed forces 10

28. Income level (national income categories)

SURVEY OF INBOUND VISITORS AT POPULAR TOURIST PLACES (OPEN ATTRACTIONS) [3]

A COMPLETE QUESTIONNAIRE MODEL (FORMS 1 + 2 + 3 + 4)

ONLY FOR THE INTERVIEWER	
Serial no. of questionnaire	|__|__|__|__|__|
Name of the Interviewer (or personal identification code)	.....
Date of the interview (year/month/day)	|__|__|/|__|__|/|__|__|
Time of the interview (hour and minutes)	|__|__| |__|__|
Length of the interview (minutes)	|__|__|

1. Where do you actually live?

- in country X (Region, Province and City) .....
- abroad (Country of residence) .....

Form 1. The tourist attraction (impressions and opinions)

2. Why have you visited this attraction?

- cultural interest 1
- professional interest 2
- curiosity 3

3. How important was this attraction in your decision to visit the resort?

- very unimportant 1
- unimportant 2
- indifferent 3
- important 4
- very important 5

Form 2. Trip characteristics

a. The place of departure and the arrangements for the trip

4.-5. Where did you come from to visit the attraction? From your place of residence or from another place? (Please fill only one of the following charts)

[3] The questionnaire refers to the monitoring of single attraction as representative of tourist demand in the surrounding area.

4. From your PLACE OF RESIDENCE? If NO, go to 5.; if YES continue.

4.1. Name of the place .....

4.2. How far this place is from the resort where the attraction is located?

- from 0 to 20 Km 1
- from 20 to 40 Km 2
- from 40 to 80 Km 3
- from 80 to 150 Km 4
- over 150 Km 5

4.3. Where will you spend next night?

- at home (true visitor) 1
- in the same resort where the attraction is located 2 (See 4.4.)
- in another place (specify) ..... 3 (See 4.4.)

4.4. If <u>not</u> at home, how many nights will you spend in that resort?

- 1 night 1
- 2-3 nights 2
- from 4 to 7 nights 3
- from 8 to 14 nights 4
- from 15 to 21 nights 5
- more than 21 nights 6

4.5. What is the <u>main reason</u> for staying there? (Only one choice)

- leisure, recreation and holidays 1
- visiting friends and relatives 2
- business and professional (congresses, fairs, meetings, etc.) 3
- health treatments 4
- religious purposes 5
- other (specify) 6

4.6. In what means of accommodation will you spend the next night?

- hotel and similar establishment 1
- campsite/tourist village 2
- rented dwelling 3
- owned dwelling 4
- home of friends or relatives 5
- other (specify) 6

Go to question 6

5. From a PLACE AWAY FROM HOME WHERE YOU ARE ACTUALLY SPENDING YOUR TIME?
If NO, go to 11.; if YES continue.

5.1. Name of the place .....

5.2. How far this place is from the resort?

- from 0 to 20 Km 1
- from 20 to 40 Km 2
- from 40 to 80 Km 3
- from 80 to 150 Km 4
- over 150 Km 5

5.3. What is the main reason for staying there? (Only one choice)

- leisure, recreation and holidays 1
- visiting friends and relatives 2
- business and professional (congresses, fairs, meetings, etc.) 3
- health treatments 4
- religious purposes 5
- other (specify)..... 6

5.4. How many nights will you spend in that resort?

- 1 night 1
- 2-3 nights 2
- from 4 to 7 nights 3
- from 8 to 14 nights 4
- from 15 to 21 nights 5
- more than 21 nights 6

5.5. In what means of accommodation did you stay?

- hotel and similar establishment 1
- campsite/tourist village 2
- rented dwelling 3
- owned dwelling 4
- home of friends and relative 5
- other (specify) 6

5.6. Where will you spend the next night?

- in the same place where you spent the last night 1
- in a place different from where you spent last night:
  - at home 2
  - in another place (specify)..... 3

5.6.1. If not at home, how many nights are you willing to spend there?

- 1 night 1
- 2-3 nights 2
- from 4 to 7 nights 3
- from 8 to 14 nights 4
- from 15 to 21 nights 5
- more than 21 nights 6

Go to question 6

b. Organisation of the trip

6. Are you travelling:

- on a package tour? YES 1 NO 2 (If Yes see 6.1.)
- on individual travel arrangements? YES 1 NO 2

6.1. What kind of services are included in the package?

- return travel only 1
- accommodation only 2 (See 6.1.1.)
- inclusive holiday 3 (See 6.1.2.)

6.1.1. If you have answered 2, what other services are included in the package?
(Multiple choice. Tick the corresponding boxes)

- car rental ☐
- meals at restaurants ☐
- tickets for museums, exhibitions, etc. ☐
- mini cruise ☐
- local tours ☐
- other (specify) ..... ☐

6.1.2. If you have answered 3, what of the following services are included in the inclusive tour?
(Multiple choice. Tick the corresponding boxes)

- return travel ☐
- accommodation ☐
- car rental ☐
- meals at restaurants ☐
- tickets for museums, exhibitions, etc. ☐
- mini cruise ☐
- local tours ☐
- other (specify) ..... ☐

c. Means of transport used

7. What means of transport did you use to reach this resort? (Only one choice)

- private car, motorcycle 1
- private car+caravan 2
- rented car 3
- camper 4
- public bus 5
- coach 6
- train 7
- plane 8
- ship/boat 9
- other (specify) 10

8. How did you arrive at the attraction? (Only one choice)

- private car, motorcycle 1
- private car+caravan 2
- rented car 3
- camper 4
- public bus 5
- coach 6
- taxi 7
- other (specify) 8

d. Travel party

9. Do you travel alone or with other persons, who share the expenses with you?

- alone 1
- with one or more persons 2 (See 9.1.)

9.1. How many members are in your personal travel party, including yourself?

Total no. of persons |__|__|__|

9.2. In which age group?

- 0-14 years no. |__|__|
- 15-24 years no. |__|__|
- 25-44 years no. |__|__|
- 45-64 years no. |__|__|
- 65 and over no. |__|__|

Form 3. Expenses for and during the visit

Pre-paid expenses

10. Did you meet any expense for your trip (for you and your party) before you left home?

YES 1 (see 10.1.) NO 2

10.1. If you answer Yes to question 10., please state the total expense you have met (the amount, the currency and the number of persons who have benefited from this expense)(For tourists only):

Total expenditure	Amount	Currency	no. of persons
Amount paid for the package travel, the package holiday, the package tour (pre-paid expenses)	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Amount paid for the return travel in case of individual arrangements (pre-paid expenses)	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|

11. If you have bought a package, are you able to break down the total expenditure for the package into its components, as you indicated in questions 6.1.1. or 6.1.2. (Form 2.)?

Package items	Amount	Currency	no. of persons
.....	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
.....	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
.....	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
.....	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
.....	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|

Expenses on trip

12. Please state the total expenditure you have met for you and your travel party on this trip in this resort (where the attraction is located), from the time of your arrival until now:

Total expenditure	Amount	Currency	no. of persons
Total expenditure made during your stay in this report	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|

13. Are you able to break down the total expenditure made on the trip according to the items shown in the table below? (For each item please specify the amount, the currency, and the no. of persons for whom you have met the expenses. If you have not spent for a specific item leave it blank)

	Amount	Currency	no. of persons
Accommodation	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Food and drink	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Transport	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Recreation, cultural and sporting activities	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Shopping	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|
Other	|__|__|__|__|__|__|__|__|__|__|	.....	|__|__|__|

Form 4. Data on visitor interviewed

14. Gender: M 1 F 2

15. Age:

- 18-26 years 1
- 27-35 years 2
- 36-42 years 3
- 43-50 years 4
- 51-59 years 5
- 60-65 years 6
- 66 and over 7

16. Level of education achieved:

- pre-primary education 1
- first level or primary education 2
- second level-first stage or lower secondary education 3
- second level-second stage or upper secondary education 4
- third level or higher education (university) 5
- post lauream 6

17. Professional occupation:

- legislator, senior official or manager 1
- professional 2
- technician or associate 3
- clerk 4
- service worker or shop and market sales worker 5
- skilled agricultural or fishery worker 6
- craft and related trades worker 7
- plant and machine operator or assembler 8
- elementary occupation 9
- armed forces 10

18. Income level (national income categories)

APPENDIX B3
COUNT FORM OF VISITOR FLOWS

When analysing visitor flows both in a closed and in an open area, it frequently happens that information on target population is not available or, if available, is not reliable or it does not meet the researcher's needs. In these cases it is necessary to carry out a supplementary survey which allows for counting total visitors who enter an area, whatever size it is.

The Appendix illustrates the forms which may be used for a survey at entry/exit points and at popular tourist places.

CLOSED AREA. SURVEY AT ENTRY/EXIT POINTS

1. Road border. Count form for departing vehicles

Serial number of the form |__|__|__|__|__|__| Code number of interviewer |__|__|__|__|__|__|

Road border crossing

Venue 1	01 ☐	Venue 4	04 ☐	Venue 7	07 ☐
Venue 2	02 ☐	Venue 5	05 ☐	.....	
Venue 3	03 ☐	Venue 6	06 ☐	Venue n	0n ☐

Month and day of collection: |__|__|1996	Work shift: from |__|__| , |__|__| to |__|__| , |__|__| (hour) (minutes) (hour) (minutes)
Traffic lane: 1 out of |__|__| open	Counting rate: 1 vehicle out of |__|__|

Serial No. of passa-ges (1)	TYPE OF VEHICLE (2)						DRIVER SEX (3)		No. of PASSEN-GERS (4)	NATIONALITY (5)	
	Car	Car+ caravan	coach (14 seats or more)	Motor-cycle	Van, lorry, etc.	Other (camper etc.)	M	F		Domestic	Other (specify)
01	1	2	3	4	5	6	1	2	|__|__|	1	.....
02	1	2	3	4	5	6	1	2	|__|__|	1	.....
03	1	2	3	4	5	6	1	2	|__|__|	1	.....
04	1	2	3	4	5	6	1	2	|__|__|	1	.....
05	1	2	3	4	5	6	1	2	|__|__|	1	.....
06	1	2	3	4	5	6	1	2	|__|__|	1	.....
07	1	2	3	4	5	6	1	2	|__|__|	1	.....
....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....
n	1	2	3	4	5	6	1	2	|__|__|	1	.....

Notes:
Where needed, for each answer put a cross on the corresponding code number:

1. *In this section the serial number of passages has been listed. Count every nth vehicle according to the stated counting rate.*
2. *Record the type of vehicle which is passing through the surveying lane.*
3. *Code the sex of the driver, according to the stated counting rate.*
4. *Indicate the number of passengers in the vehicle.*
5. *Indicate the nationality of the passenger, that is if he/she is resident in the same country where the survey is being carried out or in another country. If the latter is the case, specify the name of the country.*

2. Air border. Count form for departing passengers

Serial number of the form |__|__|__|__|__|__| Code number of the interviewer |__|__|__|__|__|__|

Air border crossing

Venue 1	01 ☐	Venue 4	04 ☐	Venue 7	07 ☐
Venue 2	02 ☐	Venue 5	05 ☐	.....	
Venue 3	03 ☐	Venue 6	06 ☐	Venue n	0n ☐

Month and day of collection: |__|__|1996 Counting rate: 1 passenger out of |__|__|	Time of collection: starting time |__|__| , |__|__| (hour) (minutes) ending time |__|__| , |__|__| (hour) (minutes)

Serial No. of passages (1)	Air carrier (2)	Flight number (3)	Destination airport (4)	SEX (5)		NATIONALITY (6)	
				M	F	Domestic	Other (specify)
01	.....	|__|__|__|__|	.....	1	2	1	.....
02	.....	|__|__|__|__|	.....	1	2	1	.....
03	.....	|__|__|__|__|	.....	1	2	1	.....
04	.....	|__|__|__|__|	.....	1	2	1	.....
05	.....	|__|__|__|__|	.....	1	2	1	.....
06	.....	|__|__|__|__|	.....	1	2	1	.....
07	.....	|__|__|__|__|	.....	1	2	1	.....
...	.....	|__|__|__|__|	.....	1	2	1	.....
n	.....	|__|__|__|__|	.....	1	2	1	.....

Notes:
Where needed, for each answer put a cross on the corresponding code number:

1. *In this section the serial number of passages through the security check has been listed. Count every n^{th} passenger according to the stated counting rate.*
2. *Indicate the air carrier code.*
3. *Indicate the flight code. It should be collected from the embarkation card. If the interviewee does not know or refuses to provide this information, it can be added during the coding phase, taking into account the name of the air company, the departure airport and the flight schedule.*
4. *Indicate the name of the destination airport.*

Data in Sections 1, 2 and 3 is collected only once if all the passengers interviewed just after border controls are departing with the same flight:

1. *Code the sex of every n^{th} passenger, according to the stated counting rate.*
2. *Indicate the nationality of the passenger, that is if he/she is resident in the same country where the survey is being carried out or in another country. If the latter is the case, specify the name of the country.*

3. Sea border. Count form for departing passengers

Serial number of the form |__|__|__|__|__|__| Code number of interviewer |__|__|__|__|__|__|

Sea border crossing

Venue 1	01 ☐	Venue 4	04 ☐	Venue 7	07 ☐
Venue 2	02 ☐	Venue 5	05 ☐	.....	
Venue 3	03 ☐	Venue 6	06 ☐	Venue n	0n ☐

Name of the ship:	Shipping company: .....
Month and day of collection: |__|__|1996	Ship's departure time: |__|__| , |__|__| (hours and minutes)
	Destination seaport: .....
Counting rate: 1 passenger out of |__|__|	Total No. of passengers on the ships: |__|__|__|__|

Serial No. of passages (1)	Type of vehicle (2)				Without any vehicle	Driver sex (3)		No. of passengers per vehicle (4)	Passengers' nationality (5)	
	Car	Coach	Motorcycle	Other		M	F		Domestic	Other (specify)
01	1	2	3	4	5	1	2	|__|__|__|	1	.....
02	1	2	3	4	5	1	2	|__|__|__|	1	.....
03	1	2	3	4	5	1	2	|__|__|__|	1	.....
04	1	2	3	4	5	1	2	|__|__|__|	1	.....
05	1	2	3	4	5	1	2	|__|__|__|	1	.....
06	1	2	3	4	5	1	2	|__|__|__|	1	.....
07	1	2	3	4	5	1	2	|__|__|__|	1	.....
...	.....	.....	.....	.....	.....	....	....	.....	.....	.....
n	1	2	3	4	5	1	2	|__|__|__|	1	.....

Notes:
Where needed, for each answer put a cross on the corresponding code number:

1. *In this section the serial number of passages has been listed. Count every n^{th} passenger(or n^{th} driver) according to the stated counting rate.*
2. *Record if the passenger has embarked with a vehicle or not. In the first case, indicate the type of vehicle.*
3. *Code the sex of the driver, according to the stated counting rate.*
4. *Indicate the number of passengers in the vehicle.*
5. *Indicate the nationality of the passenger, that is if he/she is resident in the same country where the survey is being carried out or in another country. If the latter is the case, specify the name of the country.*

. Rail border. Count form for departing passengers

Serial number of the form |__|__|__|__|__| Code number of the interviewer |__|__|__|__|__|

Railway border crossing

Venue 1	01 ☐	Venue 4	04 ☐	Venue 7	07 ☐
Venue 2	02 ☐	Venue 5	05 ☐	.....	
Venue 3	03 ☐	Venue 6	06 ☐	Venue n	0n ☐

Month and day of collection: |__|__|1996

Time of collection: |__|__| , |__|__|
(hour) (minutes)

No. of the train: |__|__|__|__|__|

Counting rate: 1 passenger out of |__|__|

Total number of carriages on the selected train:

- first class carriages |__|__|
- second class carriages |__|__|
- mixed carriages |__|__|
- other carriages |__|__|

TOTAL |__|__|

Serial No. of Passages (1)	No. of the carriage(2)	Class of the carriage(3)		SEX(4)		Is the passenger crossing the border? (5)		NATIONALITY	
				M	F	YES	NO	Domestic	Other (specify)(6)
01	|__|__|	1st	2nd	1	2	1	2	1	.....
02	|__|__|	1st	2nd	1	2	1	2	1	.....
03	|__|__|	1st	2nd	1	2	1	2	1	.....
04	|__|__|	1st	2nd	1	2	1	2	1	.....
05	|__|__|	1st	2nd	1	2	1	2	1	.....
06	|__|__|	1st	2nd	1	2	1	2	1	.....
07	|__|__|	1st	2nd	1	2	1	2	1	.....
...	.....	.....	.....	....	....	.....	.....	.....	.....
n	|__|__|	1st	2nd	1	2	1	2	1	.....

Notes:
Where needed, for each answer put a cross on the corresponding code number:

1. *In this section the serial number of passages has been listed. Count every n^{th} passenger according to the stated counting rate.*
2. *Indicate odd carriages from the tail (the 1st, the 3rd, the 5th, etc.) and even carriages from the head (the 2nd, the 4 th, etc.).*
3. *Indicate the class of the selected carriage.*
4. *Code the sex of every n^{th} passenger, according to the stated counting rate.*
5. *Indicate if the passenger counted crosses the frontier or not.*
6. *In Section 5 indicate the nationality of the passenger, that is if he/she is resident in the same country where the survey is being carried out or in another country. If the latter is the case, specify the name of the country.*

OPEN AREA. SURVEY IN A REGION, A CITY OR AN ATTRACTION

Serial number of the form |__|__|__|__|__|__| Code number of interviewer |__|__|__|__|__|__|

Month and day of collection: |__|__|1996	Time of collection: from |__|__| , |__|__| to |__|__| , |__|__| (hour) (minutes) (hour) (minutes)
Counting rate: 1 visitor out of |__|__|	Survey venue: .....

Sex of the interviewee:	M 1	
	F 2	
Country of residence (Nationality):	.....	
Kind of visitor:	Tourist	1
	Same-day visitor	2
	Resident	3 (in case of an attraction)

APPENDIX B4
EMBARKATION/DISEMBARKATION CARDS

As mentioned in Part III (Chapter 3), in a closed area, and specifically in a country, basic information on inbound visitors may be provided by secondary data collected by government agencies through exit/entry forms.

If efficiently used, these cards would allow Ministries of Interior, Immigration and Justice as well as Tourism authorities to control traveller flows coming into and going out of the country, for the purpose of both security and tourism statistics.

However, the information collected is inevitably limited.
First of all, it only refers to visitors travelling by commercial carriers (airlines, ships, coach operators, travel agencies, tour operator, etc.) which have a control over a "captive market". Visitors moving by private car, who usually represent the major travel segment (nearly 60-70% of world tourist flows) are wholly outside the application of these cards. The forms are usually handed out by government officers, by carrier officials or by representatives of tour operators and travel agencies organising the travel.

Secondly, apart from the means of transport considered, the main purpose is to avoid any hindrance to visitor flows by lengthy official forms. The small number of close-ended questions included is aimed at collecting the most important information according to users' needs, such as:

- Nationality
- Country of usual residence
- Immigration status
- Purpose of trip
- Length of stay
- Last port of embarkation (for arriving passengers)
- Next port of debarkation (for departing passengers).

The last two data are particularly useful in determining the routes followed by visitors and so the most recent origin-destination flows among ports of entry.

In spite of hindrances, the use of these cards has also some advantages.
Embarkation/disembarkation cards allow for the dividing of visitors (tourists/same-day visitors) into returning residents and immigrants.

In case a visitor survey is too expensive, they provide basic information on socio-economic characteristics of visitors entering/leaving the country.

On the other hand, the collection of data through these forms may complete the results of a direct survey. They may provide the target population from which the sample of visitors interviewed is drawn. For example, in the case of an airport, all the cards collected in a day give a measure of the total volume of visitor flows arrived/departed.

However, as mentioned in Part III (Chapter 3), the complete opening of frontiers between EC countries, along with the repeal of passports requirements by many Non-European countries (usually for organised groups) will make it impossible to continue this data collection. In the near future, the handing out of these cards might be of interest only to control visitor flows between the European Community as a whole and other non-EC countries.

Nowadays, almost all countries adopt embarkation/disembarkation cards, whose structure is different according to the different needs local control and tourism authorities have. Following the recommendations of the WTO for the harmonisation of worldwide information collected through this source (WTO, 1996), a model of a standard card is proposed in Chart 1. It consists of two sheets of paper: the original and a carbon copy. The top sheet, on which the word ARRIVAL is printed, allows the immigration authorities to control the entry of visitors into the country. The carbon copy, on which the word DEPARTURE is printed, permits the control of the visitor's length of stay and his/her departure from the country. The visitor has to keep the carbon copy until he leaves the country, when he/she will be asked to submit it to the same authorities. To avoid any losses, they may staple this copy to the visitor's passport or any other document.

Apart from immigration controls, questionnaires planned following the framework of these cards may also be used for a direct survey in those closed areas included in a country, where there are a limited number of entry/exit points (e.g. island) and consequently access is limited to one or two types of means of transport (aeroplane and/or boat).

In this case there is no obligation to complete the form so the response rate depends on the survey organisation and on the visitors' willingness to co-operate.

The structure is more or less the same as that shown in Chart 1. The card is composed of only one sheet of paper which may be handed out to visitors during the journey. They are asked to complete it and to give it back to carrier officials on arrival at the destination, just before disembarkation. In the same way, the cards may be handed out to visitors during the return trip and collected on arrival in the origin country, just before disembarkation. The last solution has the advantage of collecting information on visitors' actual behaviour (e.g. real length of stay) rather than on reported intentions.

Considering that the main purpose of the survey is to collect basic information on visitors entering the area, questions regarding immigration control (such as the passport number) may be replaced by questions concerning, for example, the type of accommodation chosen, the travel organisation (independent or group tour), and so on. An example is shown in Chart 2.

Chart 1 - Embarkation/disembarkation card for border controls. A proposal (carbonised copy)

Arrival card No. |__|__|__|__|__|__|__|__|__|__|__|	
Border crossing point	
Passport No. |__|__|__|__|__|__|__|__|	Issued at .....
Date of issue ..... (day) ..... (month) ..... (year)	

1. Family name	2. First name.....
3. Sex Male ☐ Female ☐	4. Date of birth ..... (day) ..... (month) ..... (year)
5. Nationality	6. Occupation .....
7. Country of usual residence (Country/State/City/Town/Number/Street)	
8. Address in the country visited (Number/Street/Town/City)	
9. For arriving passengers Last port of embarkation (name/country).....	
10. For departing passengers Next port of debarkation (name/country)	
11. For ARRIVING Passengers ONLY. You are: (Please tick the appropriate box) a. A returning resident ☐ b. An intending resident (temporary or long-stay immigrant) ☐ c. A tourist (staying at least 1 night but less than 1 year) ☐ d. A same-day visitor (staying no more than 24 hours) ☐	
12. Purpose of visit: (Please thick ONLY ONE box) a. Leisure, recreation and holidays ☐ b. Visiting friends and relative ☐ c. Business and professional ☐ d. Health treatment ☐ e. Religion/pilgrimages ☐ f. Other (specify) ☐	
Signature	For official use only (stamp with the date of arrival)

NOTES

5. ***Nationality****: indicate the country in which the traveller was born or in which he acquired another nationality.*
6. ***Occupation****: indicate his usual occupation according to Eurostat/WTO classifications.*
7. ***Usual country of residence****: indicate the country traveller usually lives.*
8. ***Address in the country visited****: refers to the address of the hotel, camping where the, apartment, etc. in which the traveller intends to stay. In the case of a tour, he has to indicate the address of the establishment in which he will stay longest.*
9. ***Last port of embarkation****: the place where the trip began*
10. ***Next port of debarkation****: next destination*

Chart 2 - Embarkation/disembarkation card at exit points (island)

Card No. |__|__|__|__|__|__|__|__|__|__|	
Exit point.....	
1. Family name	2. First name .....
3. Sex Male ☐ Female ☐	4. Date of birth ..... (day) ..... (month) ..... (year)
5. Nationality	6. Occupation .....
7. Country of usual residence (Country/State/City/Town/Number/Street)	
8. For arriving passengers Last port of embarkation (name/country)	
9. For departing passengers Next port of debarkation (name/country)	
10. For ARRIVING passengers ONLY. You are: (Please tick the appropriate box)	
a. A returning resident ☐	b. An intending resident (temporary or long-stay immigrant) ☐
c. A tourist (staying at least 1 night but less than 1 year) ☐	d. A same-day visitor (staying no more than 24 hours) ☐
11. MAIN purpose of visit: (Please thick ONLY ONE box)	
a. Leisure, recreation and holidays ☐	b. Visiting friends and relatives ☐
c. Business and professional ☐	d. Health treatments ☐
e. Religion/pilgrimages ☐	f. Other (specify) ☐ .....
12. Main type of accommodation chosen:	
a. Hotel and similar establishments ☐	b. Campsites and other collective accommodation ☐
c. Private rental accommodation (rented rooms and dwellings) ☐	d. Owned dwellings/residence of friends and relatives ☐
e. Other (specify) ☐	
13. This is your:	14. You are travelling:
a. First visit to the area ☐	a. On a group tour ☐
b. Second, third visit, etc. ☐	b. Not on a group tour ☐

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