

## 2.7. Tourism

*Tourism is one of Europe's fast-growing sectors and is an increasing source of pressure on natural resources and the environment. Continuing growth may jeopardise the achievement of sustainable development and, unless properly managed, may affect the social conditions, cultures and local environment of tourist areas; it may also reduce the benefits of tourism to the local and wider economy. The main pressures come from transport, the use of water and land, energy use by buildings and facilities, and the generation of wastes. Erosion of soils and impacts on biodiversity are also tourism-related issues. In some popular destinations, these pressures have resulted in irreversible degradation of the local environment.*

*Tourism is the main driver behind the increase in the demand for passenger transport, with its associated environmental impacts. This demand is expected to continue to grow, including a significant contribution to doubling of air traffic over the next 20 years. Cars and planes, the most environmentally damaging modes, remain the most used forms of transport.*

*The high concentration and seasonal nature of tourism create some direct environmental impacts at destinations. The seaside and mountains remain the favourite destinations. Tourism is taking a growing share of household expenditure as relative prices continue to fall.*

*There has been limited progress in the implementation of policies for more sustainable tourism, with minimal penetration of schemes such as eco-labelling within the tourism industry.*

*Unfortunately, the lack of relevant data makes it difficult to evaluate the overall contribution of the tourism sector to environmental problems; the assessment presented in this chapter is therefore based on rather fragmented information.*

### 2.7.1. Introduction

Tourism in Europe is increasingly seen as a sector that interacts strongly with other policies such as transport, environment, regional planning, energy, trade and business, and information technology. The sector is highly fragmented and has long been regarded as a local management issue. Until recently, there has been little policy attention at the national and European levels

and little realisation of the need for more sustainable management.

Different European countries have different institutional frameworks for tourism, from regional boards to state ministries, and some programmes that are designed to encourage sustainable tourism are being developed. However, most of the environmental measures that have so far been implemented have been initiated by major tour operators and local stakeholders and are based on voluntary approaches. There are examples of good practices in many countries (e.g. Austria, France, Germany, Spain, Switzerland and the United Kingdom) but most remain marginal (e.g. eco-label schemes or eco-taxes). There is a general lack of broad environmentally integrated strategies for the sector.

The tourism industry recognises the need to maintain its main assets, for example the attractiveness of destinations. While it is now generally recognised that tourism will be a successful industry only if it is managed in an ecological and sustainable manner, some efforts are still needed to move towards a broader and more integrated approach. At the international level, the United Nations Commission on Sustainable Development (UNCSD, 1999) and the Convention on Biological Diversity (CBD, no date) have targeted tourism as a priority policy area. At the regional level, the Mediterranean countries, the Alpine countries and the Baltic countries have initiated actions to promote sustainable tourism. The European Union (EU) Council adopted a resolution in May 2002 on the need to improve the coordination of policies that affect tourism. An Agenda 21 programme includes an integrated evaluation of tourism activity throughout the EU, the development of an integration strategy for the sector and the elaboration of harmonised indicators of sustainable development for tourism.

### 2.7.2. Major tourism patterns

#### 2.7.2.1. Growth in demand

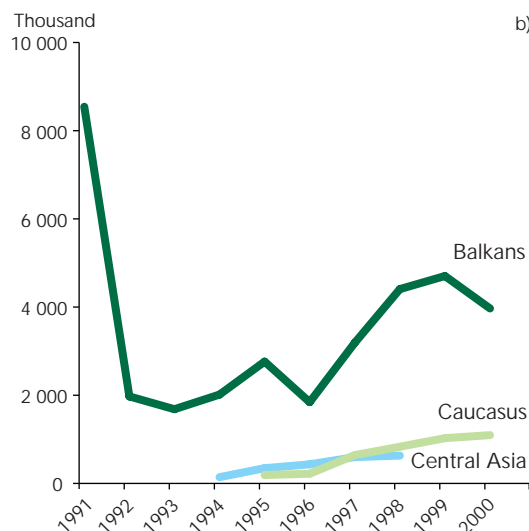
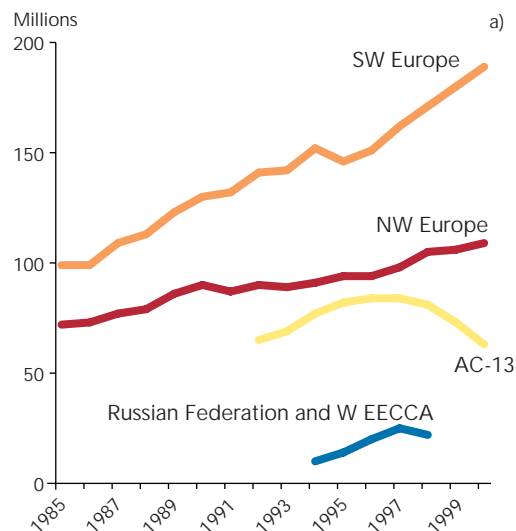
Tourism is an important industry in Europe; the region has long been the world's favourite tourist destination, with almost 60 % of the world market share. International arrivals are

Figure 2.7.1.

Trends in international tourism arrivals, SW and NW Europe, EU accession countries and Russian federation and western EECCA (1985–2000) (a), Balkans, Caucasus and central Asia (1991–2000) (b)

Notes: Here and throughout this chapter, northwestern Europe (NW Europe): Austria, Belgium, Denmark, Finland, Germany, Iceland, Ireland, Liechtenstein, Luxembourg, the Netherlands, Norway, Sweden, Switzerland and United Kingdom; southwestern Europe (SW Europe): France, Greece, Italy, Portugal and Spain. Central Asia: no data available for Tajikistan and Kazakhstan.

Source: World Tourism Organisation, 2001a



expected to grow by 50 % to around 720 million per year by 2020, with a doubling of air traffic in Europe. In the EU, the sector represents 30 % of total external trade in services, 6 % of employment and contributes 7 % of GDP (12 % if indirect effects are included) (EEA, 2001).



390 million foreign tourists visited Europe in 2000, 56 % of the world's tourism market. Of these, 360 million were to western Europe, and 190 million to southwestern Europe alone, where tourist arrivals increased by 91 % between 1985 and 2000.

During the past two decades, international tourism in Europe increased by an average of 3.8 % per year (Figure 2.7.1). The World Tourism Organisation (WTO, 2001b) forecasts an annual increase of 3.1 % over the period 1995–2020, which is one percentage point more than the anticipated economic growth. The three most visited countries in the world, France, Spain and Italy, already accounted for 24 % of the world's total arrivals in 1999 and will remain in this position even if their total share is expected to fall. At the same time, some other regions are becoming more attractive as a result of economic transition and the opening of borders, with a huge potential for tourism development. The countries of eastern Europe, the Caucasus and central Asia (EECCA), recorded the biggest growth over the period 1995–99, with tourist arrivals approximately doubling. The biggest growth (4.8 % per year up to 2020) is expected in

central and eastern Europe (CEE). Poland, the Czech Republic, Hungary and Turkey accounted for 81 % of CEE arrivals in 1999.

However, most tourist trips are not international, but within the country of origin. In 1995, WTO estimated that total domestic tourist arrivals numbered about 5.6 billion worldwide, with 567 million tourists travelling outside their own country (699 million in 2000). In Europe, domestic tourism accounts for 20–90 % of all tourist trips, from less than 20 % in Luxembourg, Croatia and the Czech Republic to around 90 % in Germany, Finland and Romania. More development of this form of tourism is expected as a result of increasing welfare levels in all countries.

### 2.7.2.2. Tourism expenditure

Many factors affect the demand for tourism, including increases in time for leisure activities and their social importance, economic growth, and changes in demographic factors, behaviour and expectations (EEA, 2001). The choice of destination remains determined mainly by scenery and climate. Europe offers the greatest diversity and density of attractions — coastal zones, islands, mountains, historical sites and countryside. European tourists chose the sea (63 %), mountains (25 %), cities (25 %) and the countryside (23 %) as holiday destinations in 1997 (European Commission, 1998). However, tourists are becoming more interested in higher quality tourism experiences, particularly in natural and cultural sites; nature, beauty and calm are the first criteria for choosing a destination, before price.

During recent years, the length of vacations has increased, which gives more time for tourism and leisure. Europeans now take multiple holidays rather than extending the length of their main holiday. In the Netherlands for instance, the average number of vacations per person increased from 1.21 to 1.71 between 1966 and 1997, and the number of short breaks doubled in comparison to long vacations. UK residents who travelled within their own country spent 4.1 nights away from home on average in 1989 and 3.6 nights in 1997; most tourists (70 %) now take short holidays (less than 4 nights). In France, the decrease in working hours, from 39 to 35 hours, has resulted in more days for holidays. There have been similar developments in several other European countries.

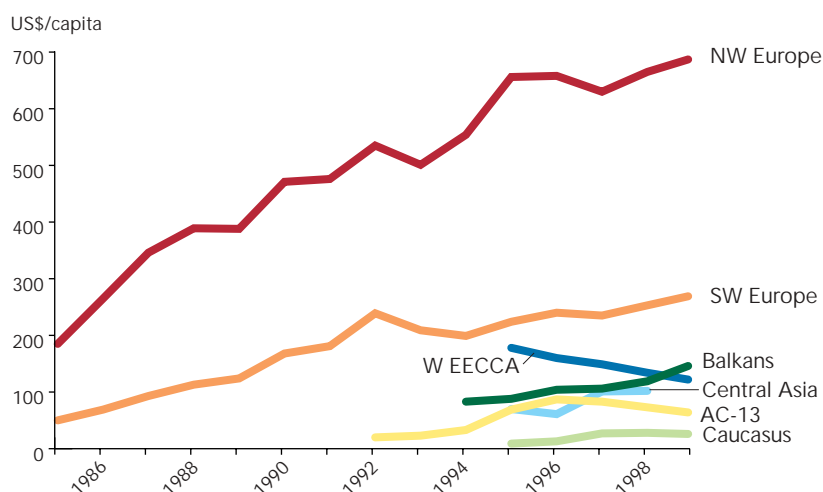


Tourism expenditure on international travel increased by 7 % between 1995 and 1999 in Europe, and by a factor of four between 1985 and 1999 in the western European countries only (they accounted for 87 % of total European tourism expenditure).

Tourism, and particularly mass tourism to some destinations, has become more attractive and easily accessible as a result of more packaged holidays being on offer, strong marketing strategies, low prices (particularly transport costs), the developing use of the internet for reservations, and the introduction of the euro currency in 12 EU countries. All this has led to more journeys per person and per year. As people become more affluent and the relative costs of travel and holidays fall, tourism is taking a larger and larger share of household expenditure on leisure. In the EU, expenditure for recreation and culture increased by 60 % between 1990 and 2000, with EUR 435 billion spent in 2000, while the share of total expenditure increased from 9.2 % to 10.3 % over the same period. According to the Swiss Federal Statistical Office (2002), half of expenditure by Swiss citizens on transport, meals and beverages in 1998 was for leisure. The growth in tourism expenditure by households results mainly from the increase in transport, which accounts for the largest share of tourism expenditure (for tour packages, about 45 % of the overall cost is for travel and 37 % for accommodation) (Eurostat, 2000) (Figure 2.7.2).

Tourism expenditure on travel abroad (excluding international transport)

Figure 2.7.2.



Note: No data available for Bosnia-Herzegovina, Serbia and Montenegro, Russian Federation and Turkmenistan.

Source: World Tourism Organisation, 2001a

## 2.7.3. Tourism and the environment

### 2.7.3.1. Transport

The most important regional environmental impact of tourism is from the associated transport (see Chapter 2.6). Travel to and from destinations is responsible for 90 % of the energy used in the tourism sector. In the EU, tourist travel represents 9 % of total passenger travel (including business travel, which constitutes 25–30 % of total passenger-km), and about 70 % of air transport is for holiday travel. For the whole EU, holiday transport is responsible for half of all passenger transport energy use, and 11 % of the overall energy consumption of the transport system (including freight). In France, transport for domestic tourism contributes from 5 % to 7 % of all greenhouse gas emissions (IFEN, 2000). As tourism is growing more rapidly than overall traffic, the associated problems are likely to increase.

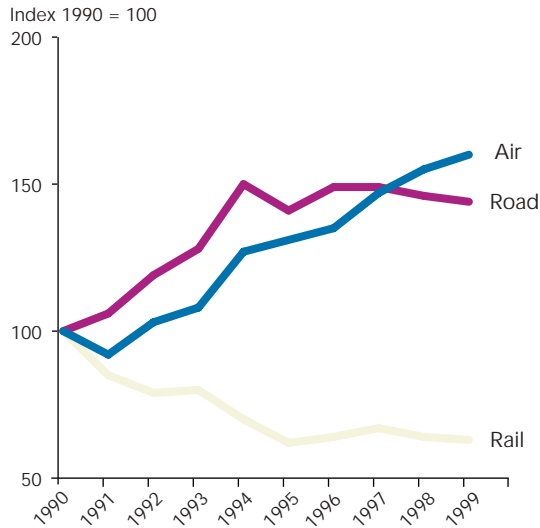
The car offers a high degree of freedom for holidays and has also become cheaper relative to public transport than it was 20 years ago, giving it a special attractiveness for holiday travel (OECD, 2000). Some 340 million tourists arrived by road in southwestern Europe (Figure 2.7.3) and EU accession countries in 1999. The modal shares of international tourist travel to southwestern European countries in 1997 were 61 % road, 30 % air, and only 4 % rail, putting especially high pressure on some

Figure 2.7.3.

Modes of transport used by international tourists, southwestern Europe and EU accession countries

Note: The EU accession countries exclude Estonia, Latvia, Lithuania, Slovakia, and Slovenia.

Source: World Tourism Organisation, 2000a



1999 (20 % of all arrivals), an increase of 60 % from 1990.



Tourist travel continues to grow and is increasingly dominated by road and air transport, the most environmentally damaging modes.



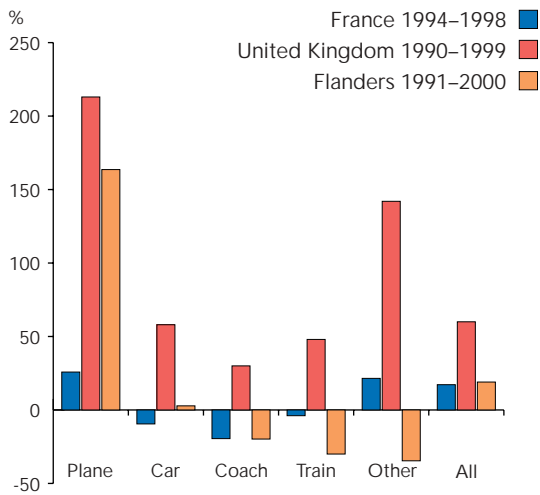
Vacation patterns are changing, with more vacations, particularly short breaks; people are travelling more often, for shorter stays and further from home.

Figure 2.7.4.

Changes in modes of transport used for tourism by residents for France, United Kingdom and Flanders (Belgium)

Notes: France: all tourism trips (holidays and business) by residents; United Kingdom: all holiday trips by UK residents in England; Flanders: long holiday trips (more than three nights) by residents.

Sources: France: Direction du Tourisme/Sofres — cited in IFEN, 2000; United Kingdom: United Kingdom Tourism Survey 1999 — cited in English Tourism Council, 2001; Flanders: WES — cited by VMM in MIRA, 2001



Of the 2 200 million day-trip journeys by UK tourists in 1998, the share of the train was less than 5 % (10 % for overnight trips) while that of the car remained above 80 %. Tourist trips in England made by UK residents increased by 60 % between 1990 and 1999, with air transport increasing by 213 % (Figure 2.7.4). Some subregions of the British rail network are already running at 90 % of capacity and most routes out of London will reach the same level by 2011 (English Tourism Council, 2001). There are similar developments in many countries and for all transport systems. Routes of strategic importance for tourism will need to be further considered if the transport system is to cope with the continuous growth of tourist flows expected during the next 10–20 years.

Travel patterns are changing: tourists are travelling more often, for shorter stays, and further from home, and the average round-trip is getting longer than that for other purposes. In France, for example, the annual average distance travelled for tourism is 917 km per capita compared with 770 km for other purposes. The average person in the EU makes 0.8 tourist trips per year, travelling about 1 800 km; both these figures are likely to increase, with added impacts on the environment and on 'normal' traffic conditions.

### 2.7.3.2. Destinations

The direct local impacts of tourism on people and the environment at destinations are strongly affected by concentration in space and in time (seasonality). They result from the intensive use of water and land by the tourism and leisure facilities; the delivery and use of energy; changes in the landscape from the construction of infrastructure, buildings and facilities; air pollution and wastes; the compaction and sealing of soils (damage and destruction of vegetation); and the disturbance of fauna and local people

areas. For example, up to 80 % of all tourist journeys to the Alps, where public transport is crucially lacking, are by car. In the accession countries, 92 % of visitors come by road although the region has good access by train. Tourist travel is also highly concentrated in time, and the resulting seasonal saturation of road transport infrastructures often leads to decisions to supply more infrastructures and services.

Although most air travel remains relatively short-distance, long-haul travel is the most rapidly growing form of tourist travel, both in absolute and percentage terms. There were 80 million arrivals by air in the southwestern and accession countries in

(for example by noise). The growing number of tourists visiting sensitive natural areas, heightened by developments such as rural tourism around biosphere reserves, may jeopardize nature conservation. Some conflicts may also arise between tourism development and other sectors such as agriculture and forestry. The uncontrolled development of tourism over recent decades has led to a dramatic degradation of the quality of the environment, especially around the Mediterranean and in the Alps. About 35 % of international tourist trips by Europeans are to the European Mediterranean countries (mostly to coastal areas) and 8 % to the Alps.

Every year in the 1990s, it was estimated that nearly 135 million tourists (international and domestic) visited the Mediterranean coasts, doubling the local population. The impacts of the use of leisure boats and marinas are increasingly raising concerns in terms of pollution, over-use of natural sites and coastal zone management. It is estimated that tourism contributes to 7 % of all pollution in the Mediterranean (industrial and urban wastes including sewage, polluted rivers draining into the sea, crude oil dumped by all activities, detergents, mercury, phosphates, eutrophication). Health problems such as infections of the ear, nose and throat, hepatitis, enteritis and dysentery can all result from swimming in some areas.

Some destinations have become the victims of their own attractiveness. Islands such as Mykonos (Greece), Porquerolles and Ré (France), and Capri (Italy) that are experiencing increasing pressures have already exceeded their carrying capacity. The coastal strip (500 m from the shore) of Majorca, one of the most popular destinations, was already 27 % urbanised in 1995.

The over-use of water by hotels, swimming pools and golf courses is of particular concern in the Mediterranean and other regions where water is scarce. Tourists consume up to 300 litres (up to 880 litres for luxury tourism) and generate around 180 litres of wastewater per day. In the Balearic Islands, water consumption during the peak tourist month in 1999 (July) was equivalent to 20 % of that by the local population in a whole year, having increased by about 80 % since 1994. In the Rimini province (Italy), the production of wastes and wastewater in summer is three times higher than in winter, leading to some management problems.

The Alps are the second most favoured destination in Europe with 60 million arrivals per year, mainly because of the skiing facilities. Tourism is a key industry in many alpine areas, but it is also embedded in a wider socio-economic structure, with strong links with agriculture and other sectors. Tourism intensity can be considered as medium (0.1–0.5 tourist beds per local inhabitant) for 40 % of the Alpine communities and high (more than 0.5 beds per inhabitant) for approximately 20 % (EEA, 1999). Tourism in mountain areas is responsible for changing the appearance of the landscape through buildings and facilities and disturbing fauna (for example by noise). The tracks of the heavy equipment that tend the ski slopes erode the thin topsoil on which the vegetation cover depends, and over-fertilization in summer causes severe losses of biodiversity. Tourism also results in water supply problems (including from the production of artificial snow, with snow blowers consuming 1 m<sup>3</sup> of water for 2 m<sup>3</sup> of produced snow), and in sewage and waste disposal management difficulties. The waste generated in the isolated and high-altitude refuges is a crucial problem that may require special management such as transportation by helicopters. The functioning of the ski lifts needs a great deal of energy (equivalent in the French Alps alone to one-third of the annual production of a nuclear power plant (IFEN, 2000)).

Accommodation (80 % of all tourism and leisure buildings) is a major source of impact, particularly on water resources, land use and ecosystems. Hotels are high consumers of water, as a tourist staying in a hotel uses on average one third more water per day than a local inhabitant. Energy consumption per m<sup>2</sup> per year by a one star hotel is 157 kWh (380 kWh in a four star hotel). Some tourism businesses are starting to implement energy-efficiency measures, for example hotels in the United Kingdom 'saved' up to 9 000 tonnes of carbon dioxide per year each between 1997 and 1999. Campsites are supposed to be a reversible form of land use, but water supply, sewage and waste disposal problems can arise if the infrastructure is not designed to cope with peak periods.

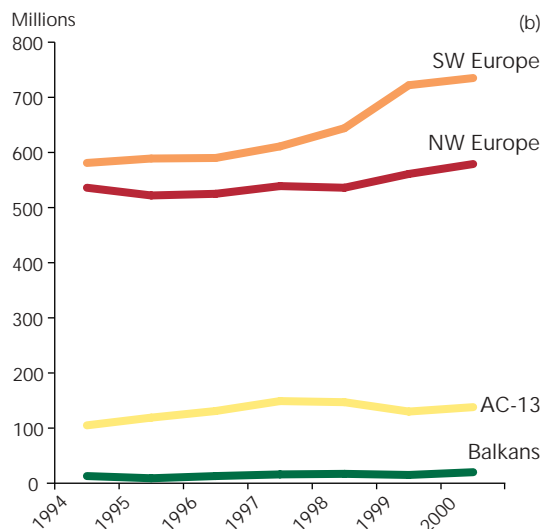
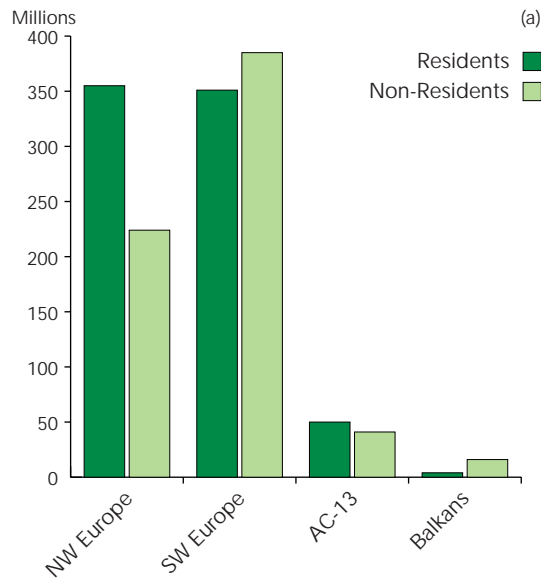
The growth in the number of second homes during the 1990s constitutes another major problem. The land area required by such a home, estimated at around 100 m<sup>2</sup> per person, represents 40 times that for a flat

Figure 2.7.5.

Stays in European tourism establishments - residents and non-residents, 2000 (a) and total residents, 1994-2000 (b)

Notes: (a) Balkans: 3.8 million residents. No data available for Cyprus, Turkey, Malta, and Serbia and Montenegro. (b) Data include residents and non-residents. No data available for Malta, and Serbia and Montenegro.

Source: Eurostat, 2000



rental and 160 times that for an 80-bed hotel in a year (20 times that for an 80-bed hotel when garden areas are excluded). Most construction is in coastal zones and skiing areas. In Sweden, about one third of second homes are 100 m from the shore. In France, the world's top tourist destination, almost 335 000 new second homes have been built during the past two decades, covering more than 22 million m<sup>2</sup> of land; second homes now represent 73 % of total tourist lodging capacity, and 18 % of all nights spent by residents in 1999 were in their second home. Moreover, most second homes are seldom used: often only two weeks a year compared to more than 20 weeks for hotels. In Portugal, some families travel every summer weekend to a second home, at a considerable distance (more than 200 km).



Construction of second homes is increasing rapidly (by 10 % in France between 1990 and 1999), creating more intensive pressures on land and the environment, especially in coastal and mountain zones.

The continuing demand for high quality, luxurious and comfortable accommodation is expected to result in a steady growth in the number of holidays spent in hotels and second homes (Figure 2.7.5).

#### 2.7.4. Management policies

Progress in addressing the sustainable development of tourism is mainly at the destination level, generally with a regulatory approach in the southwestern European countries and a more market-based approach in the northwestern countries, through voluntary agreements and eco-labelling schemes. At the regional level, tourism is covered in the Mediterranean area by the Barcelona convention and the Mediterranean action plan, in the Alps by the additional protocol on tourism to the Alpine convention, and in the Baltic by Agenda 21 for the Baltic Sea region.

Most policy developments at the local level are through Local Agenda 21, with up to 35 % of European municipalities committed to plans that stress tourism as a priority (ICLEI, 1997).

Vital public/private sector collaborative links are being developed at a number of leading destinations. For instance, and as a trans-national experiment, 13 natural parks in six western European countries have committed to the criteria of the 'Charter on sustainable tourism in natural protected areas' that is supported by the Europarc Federation. Hoteliers and other tourism businesses could play a significant role in the development of sustainable tourism and benefit directly from environmental initiatives, but very few have adopted environmental management systems.

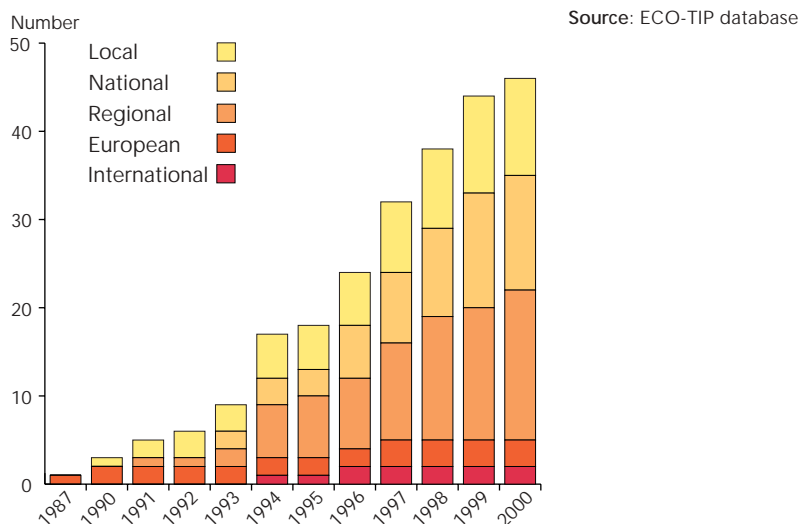
Eco-labelling has shown some potential but its use, while growing, remains small (e.g. 0.1 % penetration in Austria) (Figure 2.7.6). Recent surveys suggest that many people would pay extra for accommodation that was part of a green accreditation scheme.

The external costs that tourism imposes on the local and regional environment and

population are complex and depend on the characteristics of tourism in each type of destination. The impacts on society as a whole are associated with transport systems (see Section 2.6.3). Economic instruments such as environmental taxes are used in some countries, with visitors paying direct and indirect taxes on tourism products and services, but the revenues are not generally directed to environmental protection or improvement. At the same time, some popular destinations receive special subventions from the state for tourism infrastructures. In 1995, the European Council in its Recommendation R(95)10, relating to a policy for the development of sustainable tourism in natural protected areas, recommended allocating part of the tax on overnight stays to financing environmental infrastructures and the preservation of the environment. In Austria, the Land of Salzburg instituted in 1992 a tax on second homes ('Besondere Kurtaxe') that is allocated to local actions for preserving the landscape. The Balearic Islands levy an eco-tax on hotel stays (see Box 2.7.1) and a tax on passenger transport to small islands is levied in France. A diving tax (EUR 2.30 per dive) in the natural reserve in Medes Islands (Catalonia, Spain) generated EUR 130 000 in 1996, i.e. 68 % of the budget of the reserve (Afit, 2000).

Some more general responses could be developed to cope with the environmental impacts of tourism. Examples include spreading the vacation calendar at the European level to reduce the high seasonality of tourism, strengthening

Eco-labels for accommodation in Europe, 1987-2000 Figure 2.7.6.




regional management plans, setting up some strategic environmental assessments for tourism projects, and generalising integrated quality management systems to tourist destinations. These include IQM (Integrated Quality Management) methodologies which have been developed for coastal, rural, and urban tourist destinations by the European Commission (2000).

### 2.7.5. References

Afit (Agence française de l'ingénierie touristique), 2000. *Sites naturels, contribution du tourisme à leur gestion et à leur entretien*. Les Cahiers de l'Afit, Guide de savoir-faire, Paris.

CBD, no date. Decision V25. 'Tourism in protected areas'. UN Convention on Biodiversity. <http://www.biodiv.org/decisions/>

 There has been a significant increase since 1990 in the use of eco-labels for tourism at the national and subregional level but their implementation remains marginal.

**Box 2.7.1. Tourism eco-tax in the Balearic Islands**

Almost 12 million people arrive at the Balearic Islands in Spain each year, compared with a permanent population of only 760 000. The tourists contribute significantly to the local economy, but there are social and environmental costs. The regional government wants to move to a more sustainable form of tourism and plans to finance its programme through a tax on hotel stays. From May 2002, tourists are charged EUR 1 per night eco-tax on all hotel bills. The EUR 24 million that this is expected to raise in the first year will be spent on environmentally friendly projects. The hotel industry was required to cooperate with the introduction of the new measure when it became apparent that the tax enjoyed strong support among residents. Tourists appear to agree with the aim of the tax once it is explained to them.

Source: <http://www.caib.es>

ECO-TIP database, no date. <http://www.eco-tip.org>

EEA, 1999. 'Tourism and the environment at European level — a practical framework for assessing the issues with particular reference to coastal Mediterranean and alpine regions'. Consultant report, March 1999.

EEA, 2001. *Environmental signals 2001*. Environmental assessment report No 8. European Environment Agency, Copenhagen.

English Tourism Council, 2001. <http://www.wisegrowth.org.uk>

European Commission, 1998. *Facts and figures on the Europeans on holiday 1997–1998*. A Euro barometer survey.

European Commission, 2000. *Towards quality coastal tourism: Integrated quality management (IQM) of coastal tourist destinations*. Brussels.

Eurostat, 2000. *Tourism in Europe — trends 1995–1998*. Luxembourg.

IFEN, 2000. *Tourisme, environnement, territoires: Les indicateurs*. Institut français de l'environnement, Orléans. An outline of the main findings is available in English. <http://www.ifen.fr>

ICLEI (International Council for Local Environmental Initiatives), 1997. <http://www.iclei.org>

MIRA (Milieu- en natuurrappport Vlaanderen), 2001. Flemish Environment Ministry, Belgium. <http://www.milieurrappport.be>

OECD, 2000. *Tourism and travel patterns: Part I: Tourism travel trends and environmental impacts*. Organisation for Economic Co-operation and Development, Paris.

Swiss Federal Statistical Office, 2002. *Environment Switzerland 2002: Statistics and analysis*, Neuchâtel. 322 pages.

UNCSD, 1999. *Report on the seventh session, New York: Sustainable tourism*. United Nations Commission on Sustainable Development., New York. [http://www.un.org/esa/sustdev/report99/csd7report\\_en.htm](http://www.un.org/esa/sustdev/report99/csd7report_en.htm)

WTO, 2001a. *Tourism Highlights 2001*. World Tourism Organisation, Madrid. [http://www.world-tourism.org/market\\_research/data/pdf/highlightsupdatedengl.pdf](http://www.world-tourism.org/market_research/data/pdf/highlightsupdatedengl.pdf)

WTO, 2001b. *Tourism 2020 vision: Global forecasts and profiles of market segments*. Volume 7. World Tourism Organisation, Madrid.