

Programme of activities for 2009-2012

Tourism and sustainable development in the Mediterranean



Final report

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Preface

The Mediterranean is the leading tourist region in the world. In 2005, Mediterranean countries received 246 million international tourists, equivalent to 30.5% of international tourism worldwide. Over the decade from 1995 to 2004, some Mediterranean countries saw extremely high average growth of international arrivals, including Croatia (20% per year), Syria (15.7%), Egypt (11.7%), Algeria and Turkey (10.1%)¹. The tourism sector, which is centred mainly on a seasonal seaside resort model, is of major importance for all countries in terms of jobs and income. Intense competition between destinations has been exacerbated by the business practices of large tour operators and by the inability of local policies to control unsustainable tourism development trends. This has resulted in a certain degree of standardisation of the tourist offer, insufficiently managed growth and losses in the quality of a number of mature or rapidly developing destinations.

This situation has been encouraged by public policies that have focused on growth in tourist numbers and infrastructure. Although the economic benefits of tourism are substantial in many countries, they are unequally distributed and the negative impact on the environment – air quality, noise, waste, land consumption, degradation of landscapes, coastlines and ecosystems – is not reflected in the national statistics on the sector.

Some 637 million international and domestic tourists are expected in the region in 2025, an increase of 270 million compared to 2000, about half of which will visit coastal areas. Taking into account these numbers could provide a real opportunity for influencing international and domestic demand and encouraging a shift towards tourism that would incorporate inland areas and towns, environmental concerns and protection of cultural heritage.

The 21 Contracting Parties to the Barcelona Convention have identified tourism as one of the seven priority areas of the Mediterranean Strategy for Sustainable Development (MSSD) adopted in 2005. Three specific objectives have been assigned to the tourism sector:

- Reduce its adverse territorial and environmental effects.
- Promote sustainable tourism products and offers, and increase the added value of tourism for local communities.
- Improve governance for sustainable tourism.

In July 2008, Plan Bleu organised a regional workshop on “Promoting sustainable tourism in the Mediterranean” in Sophia-Antipolis (France). Over 60 participants from 16 Mediterranean countries, representatives of international institutions, NGOs, professionals and Mediterranean Action Plan (MAP) Regional Activity Centres contributed to the discussions. As a follow up to the MSSD, the workshop aimed to examine the region’s situation in terms of promoting sustainable tourism. Its goals were to evaluate the management of impacts of tourism on land use and the environment, discuss major regional issues linking tourism and sustainable development, and suggest strategies for future research and action.

The main conclusions and recommendations of this workshop were incorporated into a 2009-2011 activities programme, structured around four components:

1) **Energy management: air transport and tourism in the Mediterranean**

One of the conclusions of the “Tourism and Climate Change” subgroup focused on the energy management required in the transport sector, and in particular air travel, which is responsible for large volumes of greenhouse gas emissions. In seventeen years, from 1988 to 2005, the proportion of international arrivals to the Mediterranean by air increased from 23% to 40% (from 47 million to 122 million tourists). Some countries, particularly islands, are almost totally dependent on air transport for bringing international tourists; others are becoming increasingly so. According to Plan Bleu’s forecasts for international arrivals, if the share of air transport remains the same, the number of tourists arriving by air may exceed 158 million by 2025.

¹ Source: UNWTO 2006

How can this trend be reversed? What means of action are available or can be invented? What would be the impacts of restrictions on customers and on tourism development in the countries most dependent on air transport? Which adaptations would be necessary in each country?

The purpose of this component was to produce a detailed understanding of the current situation, to put forward ideas for future sustainable developments and to propose realistic options for reducing greenhouse gas emissions due to airline travel without hindering the development opportunity that tourism offers.

2) **Cruises and yachting in the Mediterranean: facilities and infrastructure, pollution and waste**

The recommendations of the “Cruises and yachting” working sub-group included in-depth investigations into themes of equipment and infrastructure, and pollution and waste. As growth continues, the total global demand for “Cruises” tripled between 1995 and 2007 to 17.5 million passengers and quadrupled throughout Europe. The market share of cruises is valued at approximately 4% of the tourism market worldwide and has ample room for growth. In Europe for example, sector forecasters (before the 2008 financial crisis) predicted a 60% increase in passengers between 2005 and 2015, especially in the Mediterranean.

Nautical infrastructure is the bedrock for developing “Yachting” activities. All around the Mediterranean, 890 ports have been identified. The northern shore has 765 ports, many more than the southern and eastern shores, which together number only 125 ports. However, there is a shortage of moorings on the north shore. A trend is thus emerging, of boats being moved to marinas on the southern shore, which are being used as moorings for boats from the northern shore due to the lack of space. The imbalance in mooring capacities between the northern, southern and eastern shores also results in negative environmental externalities (coastal development, seabed degradation, water pollution) and poor distribution of the economic and employment-related benefits of cruises and yachting in the Mediterranean.

The overall aim was therefore to inform policy makers and operators on how to rebalance the benefits of cruises and yachting by developing countries’ marine and nautical potential, particularly on the southern and eastern shores, while taking care to limit adverse impacts on the environment.

3) **Profiles of sustainability in some Mediterranean tourist destinations**

The aim is to assess the sustainability of tourism in a variety of destinations² and provide the foundation for a shared methodological tool for promoting sustainable tourism in the Mediterranean basin, as recommended by the MSSD. Indeed, the orientations and actions of the MSSD to promote sustainable tourism suggest drawing up “a 10-year promotional framework programme for the Mediterranean [...] highlighting the assets of the Mediterranean’s cultural and environmental heritage, with a view to developing a Mediterranean tourism quality certification or label.” This component involves Plan Bleu addressing the issue of quality certification of the sustainability of Mediterranean tourist destinations, which is the last phase of the process.

4) **Testing the additional “Tourism” indicators for monitoring the Mediterranean Strategy for Sustainable Development**

The MSSD includes a regional monitoring component to track progress in implementing its objectives and promoting sustainable development. As such, each priority theme must develop a set of indicators for periodic evaluation of progress. This component also involves measuring the contribution of the Mediterranean to internationally-defined goals and participating in assessments, reviews and international debates.

Under the programme, additional indicators were selected to complement the two priority indicators identified in 2005.

² In alphabetical order: Alanya (Turkey), Al Alamein, Marsa Matrouh and Siwa Oasis (Egypt), Cabras and Castelsardo (Sardinia, Italy), Jerba (Tunisia), Rovinj (Croatia), the Tetouan coast (Morocco), Tipasa (Algeria), Torremolinos (Spain).

Organisation of programme of activities

Management and monitoring

The four components of the activities programme were monitored between 2009 and 2011 by a steering committee that brought together key programme partners: the European Investment Bank (EIB), the French Development Agency (AFD) and the Spanish Agency for International Development Cooperation (AECID); and qualified individuals recognised in the Mediterranean area for their scientific, technical or institutional expertise: Mr Fabrice Bernard (Coastal Conservancy, France), Mr Luigi Cabrini (World Tourism Organization, UNWTO), Mr Mohammed Larid (National School of Marine Sciences and Coastal Management, ENSMAL, Algeria), Ms Zeljka Skaricic (Regional Activity Centre/Priority Actions Programme, CAR/PAP - UNEP/MAP, Croatia). The steering committee met for the first time on 29 April 2010 in Marseille then on 22 September 2011 in Sophia-Antipolis.

In parallel to the activities programme monitoring meetings, the following coordination meetings and seminars were organised over the same two-year period:

- The “Profiles of sustainability in some Mediterranean tourist destinations” component was launched in Athens on 15 and 16 October 2009.
- A second coordination meeting was held in collaboration with the Coastal Conservation Agency of the Autonomous Region of Sardinia and the Marine Protected Area of the Municipality of Cabras, on 25 and 26 June 2010, in Cabras, Sardinia.
- A meeting of experts was held in Marseille on 15 and 16 June 2011.

Regional seminar

The activities programme was brought to a close at the Regional Seminar organised by Plan Bleu in collaboration with the *Istituto Internazionale delle Comunicazioni* (IIC, Genoa, Italy) in Genoa, from 12 to 14 December 2011. The main results of the programme were discussed before an audience comprised of a panel of representatives of international and national institutions, local authorities, tourism operators, associations and NGOs, academics and experts from the North, South and East Mediterranean.

Publications

- **Energy management: air transport and tourism in the Mediterranean**
 - *Management of energy, air transport and tourism in the Mediterranean*. Final report, TEC, Plan Bleu, 2011.
 - *Management of energy, air transport and tourism in the Mediterranean*. Summary, TEC, Plan Bleu, 2011.
 - *Air transport and carbon dependency: future outlook for Mediterranean tourist destinations*. Plan Bleu, April 2012, Plan Bleu Notes N° 19.
- **Cruises and Yachting in the Mediterranean: facilities and infrastructure, pollution and waste**
 - *Cruises and Yachting in the Mediterranean*. Final report, Plan Bleu, 2011.
 - *Tourism and socio-economic outcomes: a driving force for development in the Mediterranean?* Plan Bleu. Plan Bleu Notes (scheduled for publication in autumn 2012; section 2 onwards).
- **Profiles of sustainability in some Mediterranean tourist destinations**
 - *Towards a quality label of Mediterranean tourism*. Regional framework report. Plan Bleu, 2011.
 - *Towards an observatory and “quality label” of sustainable tourism in the Mediterranean*. Consolidated report of the final reports: “Profiles of sustainability in some Mediterranean tourist destinations” and “Regional framework for promoting the Mediterranean”. Plan Bleu, June 2012.
 - *Seaside tourism and urbanisation: environmental impact and land issues*. Plan Bleu, May 2012. Plan Bleu Notes N° 21.

- The following case studies (reports and summaries): Torremolinos (Spain), Cabras and Castelsardo (Italy), Rovinj (Croatia), Alanya (Turkey), Matrouh Governorate (Egypt), Djerba (Tunisia), Tipasa (Algeria), Tetouan Coast (Morocco).
- **Testing the additional “Tourism” indicators for monitoring the Mediterranean Strategy for Sustainable Development**
 - *Testing the Additional “Tourism” Indicators for monitoring the MSSD*. Report. Plan Bleu, 2011.
 - 21 presentation sheets for the priority and additional indicators. Plan Bleu, 2011.
 - 18 methodological sheets of the priority and additional indicators. Plan Bleu, 2011.

Introduction

To report on the work performed under this programme and to use its results to sketch out potential future actions, both in terms of policy decisions and recommendations for further or more in-depth research, this report will be structured by the four major issues raised during the Regional Seminar at the end of the activities programme, namely:

- How can the impacts of aviation on the environment be reduced without weakening tourism?
- How can wealth be created and preserved locally so that countries can develop in a sustainable manner?
- How can seaside resort tourism, growth of residential areas and conservation of natural spaces all be reconciled?
- Certification and linking coastal and inland areas: is this a solution to the sustainability of tourism in the Mediterranean?

Four themes arose out of these questions:

- 1) Air transport and carbon dependency: what are future outlook for Mediterranean tourist destinations?

Some countries, particularly islands, are heavily dependent on air transport for bringing international tourists, with air arrival rates in excess of 90%.

Are global agreements and proactive policies based on promoting local and domestic tourism, able to curb current trends and reduce greenhouse gas emissions generated by air transport without compromising the development of destinations that are dependent on tourism?

- 2) Tourism and his socio-economic results: a driving force for development in the Mediterranean?

The dependence of “3S” (Sea, Sand and Sun) beach resorts on external players and the international market, and the loss of a portion of the revenues, are calling into question the dominant tourism development model.

These findings raise a major question: what are the factors that enable tourism to stimulate genuine regional development?

- 3) Seaside tourism, land use and natural heritage: what is the future for the environment?

Some environmental damage is irreversible and is compounded by persistent deficits in infrastructure, particularly in terms of solid and liquid waste collection and processing. Moreover, urbanisation, the development of coastlines and natural areas amplify human pressure on fragile ecosystems and endangered species.

This raises the question of the relationship between tourism, urban development, land management and ecosystem conservation.

- 4) Tourism and certification: ways forward for sustainable tourism in the Mediterranean?

Would the linking of inland areas with coastal areas and tourist resort offerings help to contain coastal development and reduce overcrowding of the coast, while enhancing the natural and cultural heritage of local areas? Would it make it possible to achieve economic growth and poverty reduction goals, for example, by promoting local products so as to encourage short distribution chains and supply accommodation facilities through local production systems? Is the “labelling” or certification of the sustainability of destinations an option that is worth exploring?

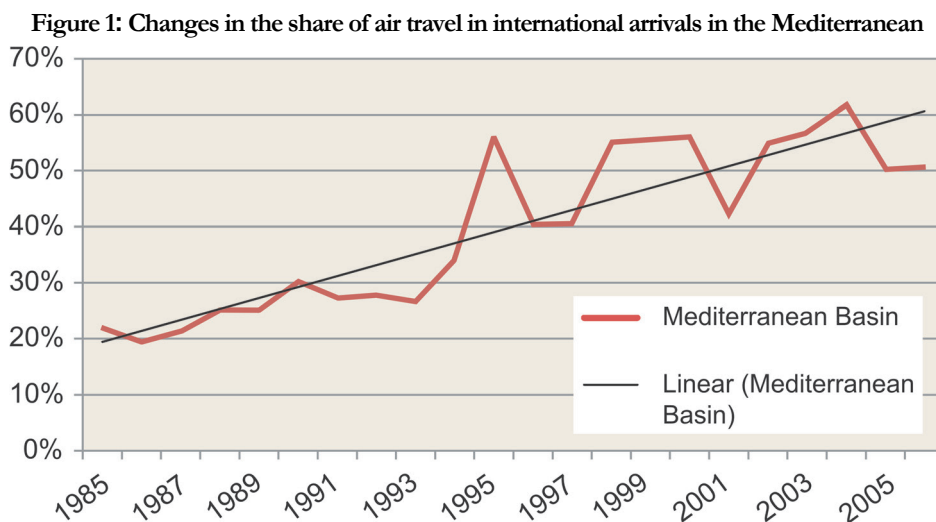
I. Air transport and carbon dependency: what are future outlook for Mediterranean tourist destinations

Since the end of World War II, international tourism has been revolutionised by the development of air transport. The world is now accessible, just a few hours away, at fairly cheap prices. And this has shaped the way tourism has developed. However, air transport has also led to major environmental impacts. In 2008, tourism generated 1.3 billion tonnes of CO₂ emissions worldwide, accounting for 5% of total emissions. Air transport for tourism generated 515 million tonnes of CO₂, 40% of the entire contribution of tourism (UNWTO, UNEP, and WMO 2008).

Plan Bleu carried out a prospective study “Management of energy: air transport and tourism in the Mediterranean”, in which various scenarios were modelled in order to estimate potential changes in tourist air transport by 2025 and 2050. Various proposals drawn from this study were honed on the basis of a case study of Djerba (Tunisia), with a focus on fully measuring the economic issues at stake for international tourist destinations in the event of the introduction of ambitious climate and energy policies.

1. Constant growth in tourism linked to air transport

Over the last twenty years, air transport has grown significantly in the Mediterranean region. Whereas in the late 1980s, it accounted for one quarter of international arrivals, its market share increased to more than half in 2006 (51%) (Figure 1).



Source: UNWTO 2010

In comparison, the proportion of visitors arriving by sea only increased by 2% over the same period, whereas the share of rail arrivals fell to one third of previous levels and arrivals by road were halved, from 60% to 30%.

The carbon issues around international tourist travel are a formidable challenge. How can the constant growth in air transport for tourist travel be reconciled with the goal of an 80% worldwide reduction of greenhouse gas emissions by 2050?

1.1. Greenhouse gas emissions chiefly in Northern Mediterranean countries

Over the same period, international tourists arriving in the Mediterranean Basin were mainly European guests (80% of international arrivals between 1985 and 2005).

Greenhouse gas emissions from tourist air travel in the Mediterranean remain much higher for inbound travel to the Northern shore (75% of total emissions), despite the significant growth in air travel by international tourists in Southern and Eastern Mediterranean Countries (SEMCs), with numbers doubling between 1999 and 2005.

1.2. Difficult to control CO₂ emissions

The prospective study drew on a model referred to as MEDTOUR, created by the consultancy firm TEC (PEETERS 2010), in order to shed light on the “carbon” issues related to Mediterranean tourism. This model provided forecasts of the changes in tourist flows, on the basis of various combinations of prospective scenarios, to reflect the various options for climate and energy policy (carbon taxes, emissions quotas, market regulation strategies, etc.) on a national, regional and international scale (Figure 2).

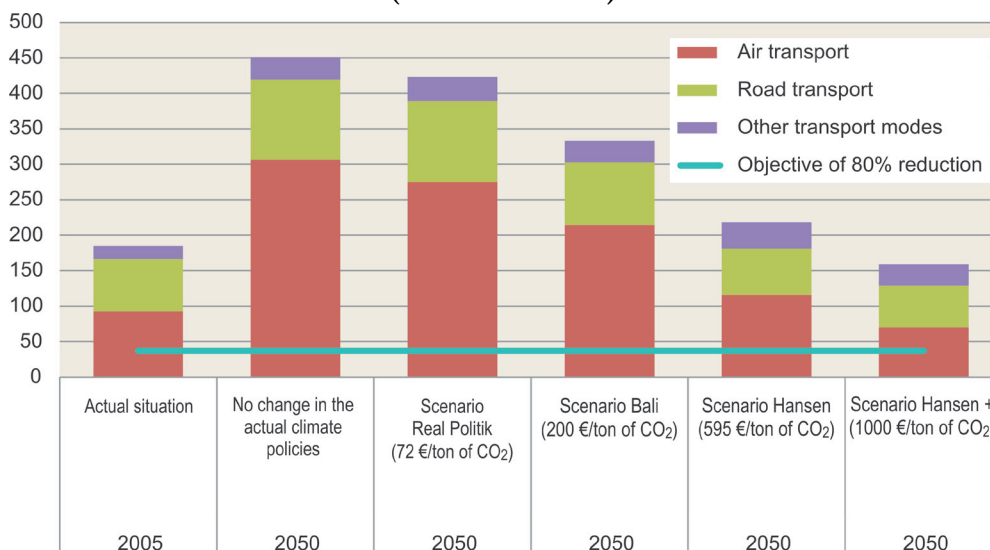
Figure 2: Schematic description of scenarios

	S1 Real Politik	S2 Bali	S3 Hansen S4 (variant)
Overall policy Objectives	Fragmented Copenhagen	Strong EU effort Obj. 2050/1991: -50 to 60 % NMC: Climate & energy package SEMC: 10-15 years deferment	Global policy, leadership ISA Obj. 2050/1990 : -80 % Choc sur les modes de vie
Tourism and air transport in climate change	EUTS system for NMCs	Global carbon price, no special stipulations for air transport	Specific system for air transport, individual targets, sector-specific market
Change in the sector	Current trends (open-sky, low-costs airlines, etc.)	Current trends curbed in the medium term	Current trends reversed in the short term
Infrastructures	Partial/delayed Euromed transport planning	Modal integration, Euromed transport planning followed	Modal integration, TGV a priority, Euromed transport planning completed
Technological developments	No special stipulations	Introduction of turboprop aircraft	Turboprop aircraft, slower travel time
Pace	Slow progress	In stages, in ligne with international negotiations	Begun immediately

Source: Plan Bleu, TEC, 2010

The results show that CO₂ emissions from tourism transport will remain difficult to control, regardless of the scenario tested. Even the most extreme scenario (scenario S4, in which carbon prices are projected to hit €1000 per tonne) would not lead to sufficient emissions reductions (Figure 3).

Figure 3: Changes in CO₂ emissions levels based on different scenarios and economic contexts in the Mediterranean (in millions of tonnes).



Source: Plan Bleu, TEC, 2010

2. Mediterranean tourist economy highly dependent on air transport

The difficulty in controlling future CO₂ emissions is mainly due to the importance of international clients to the Mediterranean tourism development model and the economic and demographic growth in the Southern and Eastern Mediterranean, which will mechanically increase demand. The economic performance of mass tourism destinations, in particular island destinations is directly dependent on air travel (CERON, DUBOIS and DE TORCY 2009; COUDERT 2010).

2.1. Air transport: driving force for tourist development on islands

The growth of tourism on the island of Djerba (Tunisia) over the last thirty years is directly linked to the development of air travel (GAY 2006) and the presence of Tour Operators:

- the carrying capacity of the airport increased from 500,000 passengers per year in 1970 to 4,000,000 in 2008;
- in 2008, 95% of flights to Djerba were charters organised by Tour Operators.

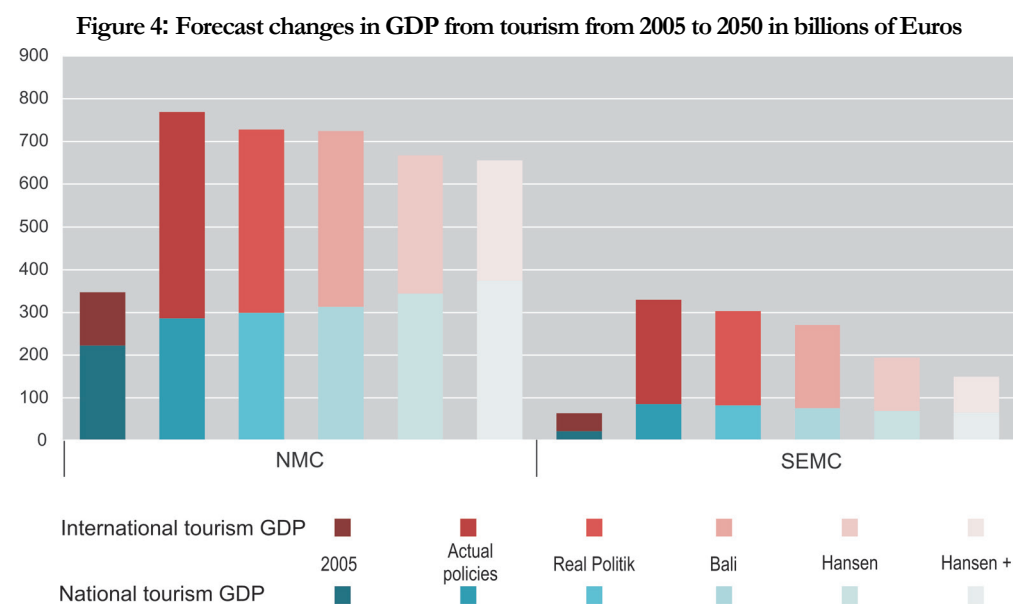
Tourism-related revenue is particularly important, not only for the economy of Djerba, but also for Tunisia as a whole, accounting for approximately one quarter of nationwide tourism revenue, or approximately 2% of GDP (tourism counts for 9% of Tunisian GDP in 2009).

2.2. Economic repercussions of ambitious climate policy

Models of changes in the distribution of passengers by mode of transport show that air travel will continue to increase, regardless of the policy implemented, with the sole exception of the “enhanced Hansen” scenario, which is the strictest of all and leads to stagnation.

However, the implementation of strict climate policy would lead to the following economic consequences (Figure 4):

- reduced revenue from international tourism;
- increased revenue from domestic tourism;
- more significant reduction in revenue from international tourism in Southern and Eastern Mediterranean Countries.



3. Proposals for adaptation

There are three possible ways to respond to the “carbon” issue, without jeopardising the economic performance of tourism: low-carbon international tourism, a more extensive and better-integrated transport offer and the development of domestic tourism.

3.1. Lower-carbon international tourism

Options for reducing the CO₂ emissions of international tourism involve:

- optimising the passenger load factor of each aircraft, which would reduce CO₂ emissions per passenger per kilometre;
- increasing the average length of stay (to improve CO₂ emissions per night).

3.2. Better-integrated transport offer

While there is still a need for technical innovations or revolutions, a regional transport policy, meshing air travel with other modes of transport, could be developed.

This would initially require an ambitious infrastructure development project in the context of regional transport schemes, such as the Regional Transport Action Plan (RTAP) proposed by the European Union (EU). Subsequently, lower-carbon modes of transport need to be promoted for tourist transport. One example is the development of the “TGV Méditerranée” high-speed rail link in France, which reduced CO₂ emissions by 25% between 2000 and 2007 through a modal transfer from plane to train travel for the Paris-Marseille route (DUBOIS and CERON 2009).

This would also require action to correct the competition between modes of transport by means of multi-party coordination (transport companies, tour operators, governments, international bodies, NGOs) in order to avoid air travel being systematically chosen when another mode is available. This strategy could also be accompanied with major restrictions in the use of air transport, for instance, limitations on the development of new airports and the implementation of high-speed rail links for routes of under 800 km long. Given the average speed of an aeroplane (approx. 800-900 kph), the ratio of distance to travel time is very similar for a high-speed train and a plane (e.g. Paris-Marseille route in France).

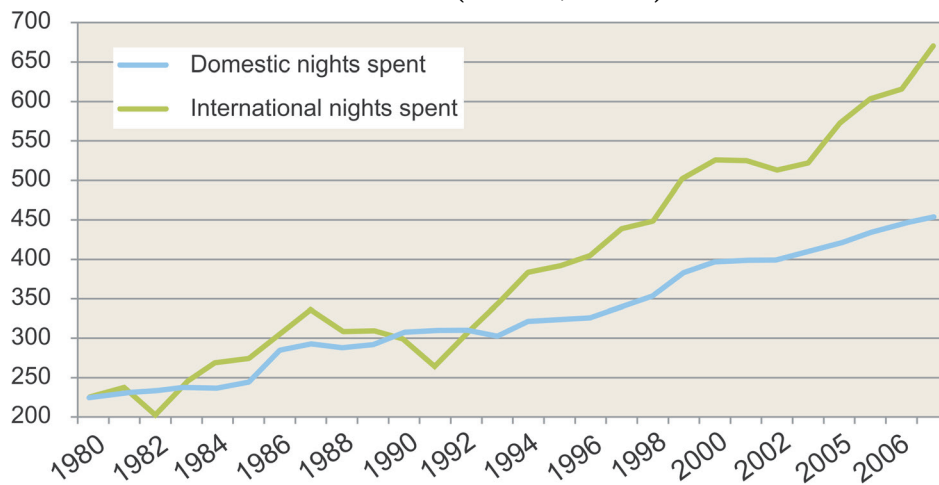
The EU could play a key role in creating an integrated land transport network, by developing high-speed rail across the entire EU territory to transport Northern European tourists to the Mediterranean coast. A process involving rail or coach solutions could be studied for initial/final leg transport where air travel is not strictly necessary; on each side of the Mediterranean and even eventually around the entire basin.

The promotion of railways would also offer a way of boosting domestic demand, particularly in SEMCs, where this segment is underestimated by market players in tourism.

3.3. Promotion of domestic tourism in SEMCs

The domestic market has significant potential for growth, with the advantage of generally being able to use more environmentally-friendly land transport modes (train, coach) over shorter distances. In addition, in the context of a very strict climate policy, as in the “Hansen” scenario, an increase in domestic tourism would offset the fall in revenue from international tourism.

Figure 5: Changes in numbers of international and domestic overnight stays in hotels and similar establishments in the Mediterranean (1980-2006, millions)



Source: UNWTO, Plan Bleu, 2010

For SEMCs, diversifying the customer base towards the domestic market and neighbouring countries would not only be a way to widen the potential of the tourism sector. It is above all necessary in order to renew their clientele and prepare for demographic and social changes (growing middle class and expectation of holidays). Developing domestic tourism will also enhance resilience of the destinations in the face of stagnation in traditional markets.

Box 1

Projected impacts of tourism in terms of greenhouse gas emissions related to air transport were based on research done between 2009 and 2010 as part of the “Energy Management: Air Transport and Tourism in the Mediterranean” component.

This study was conducted jointly by Plan Bleu and the TEC Conseil consulting firm: Ghislain Dubois, Marie Lootvoet and Jean-Paul Ceron. Modelling work was carried out by Paul Peeters, Associate Professor of “Sustainable Tourism and Transport” at NHTV Breda University of Applied Sciences.

The section illustrating the island of Djerba is based on the case study produced by Tunisian consultant Jean Mehdi Chapoutot, as part of the “Profiles of sustainability in some Mediterranean tourist destinations” component.

II. Tourism and socio-economic outcomes: a driving force for sustainable development in the Mediterranean?

While mass tourism – both on land and at sea – is lucrative business for the large international hotel chains and tour operators, the link between the economic growth and the social transformation of destinations remains problematic. More specifically with regard to cruises, the economic benefits apply primarily to ports of departure, where large oligopolistic firms (cruise companies mainly) dominate all segments of the offer: reservations, airline arrivals and in-port accommodation, excursions in ports of call, etc. The economic outcomes for the ports of call, particularly in Greece, are much smaller and do not always outweigh the negative externalities: water and energy consumption, waste generation, traffic congestion, adverse impacts on seabeds due to cruise ship anchors, sense of invasion of local people. When assessing the scale of the economic impact of tourism in the Mediterranean, cruises provide a particularly clear illustration of the economic drain phenomenon, which can also be witnessed in “land-based” tourism such as “3S” beach resorts, where local redistribution of the benefits of Tourism remains minimal and severe social and spatial inequalities persist.

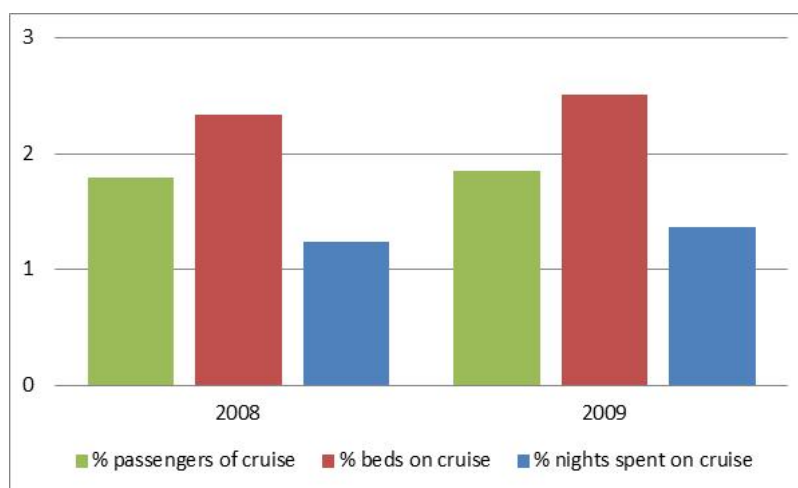
1. Comparison of changes in demand for cruise and seaside resort tourism in the Mediterranean

Mediterranean tourism increased from 58 million international arrivals in 1970 to 271 million in 2009, an increase of 366% over 40 years. The Mediterranean is a major tourism market worldwide, accounting for about 30% of international arrivals for the past 40 years. In addition to the classic product that defines Mediterranean tourism, namely seaside tourism, exemplified by Torremolinos in Spain, other tourism sectors have also grown over the past twenty years and specifically, the cruise industry. While this sector is seeing rapid growth, particularly in terms of passenger numbers, it nevertheless remains small relative to seaside tourism. A study of its development model reveals the main issues of the relationship between economic growth and the ability to generate regional development.

1.1. The Mediterranean cruise still holds a minimal share of the tourism sector

The cruise industry holds only a small share of international tourism in the Mediterranean, representing 1.4% of international arrivals in 1985 and 1.8% in 2009, after suffering a sharp decline between 1995 and 2000 (0.6% and 0.9% respectively). In 2009 it accounted for just over 1% of nights spent by international tourists in the Mediterranean. The supply is still low compared to the overall Mediterranean tourism market, with cruises representing about 2.5% of the accommodation capacity (number of beds) in 2009 (*Figure 6*).

Figure 6: Percentage share of cruises in the Mediterranean tourism demand in 2008 and 2009

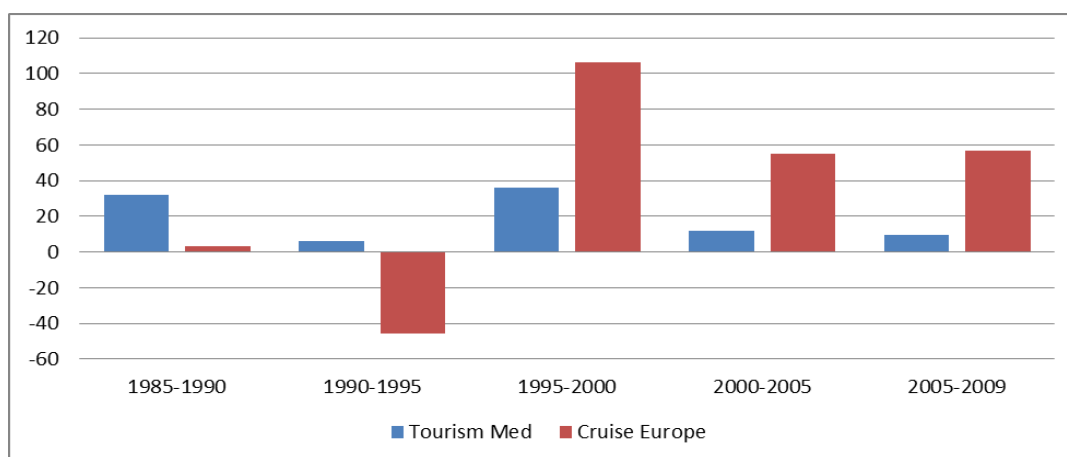


Source: Data WTO & Med Cruise, Plan Bleu, 2012

1.2. Cruises: a sector with strong growth potential

While these numbers may seem low, the fact remains that the cruise tourism sector has high growth potential. If one focuses on the five-yearly rate of change over the past 25 years, cruises increased by only 3% between 1985 and 1990, then fell sharply (by 45%) between 1990 and 1995, before experiencing 15 years of rapid growth (106% between 1995 and 2000, 55% between 2000 and 2005 and 57% between 2005 and 2009). Comparing these results with those of Mediterranean tourism in general, the cruise appears to be more sensitive to crises in the tourism sector (this is easy to see over the period 1990-1995) but also to be highly rebound, with growth well above that of Mediterranean tourism, which has stagnated at around 10% since 2000 (*Figure 7*).

Figure 7: Five-yearly percentage changes in cruise passengers and international tourists in the Mediterranean 1985-2009



Source: Data WTO & Med Cruise, Plan Bleu, 2012

2. The economic results of cruises for destination countries

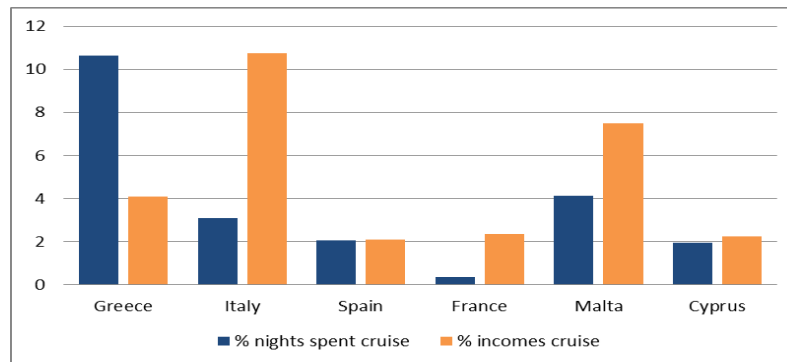
What are the economic implications of this strong growth in demand for the cruise sector? The challenge now is to measure economic performance in terms of consumption of overnight stays, revenue and economic performance (revenue per night consumed) for all Mediterranean countries that are major cruise destinations: Greece, Italy, Spain, France, Malta and Cyprus.

2.1. A strong distinction between receiving passengers and generating revenue from cruises

According to Figure 8, the comparison between the number of nights spent and the revenue this generates illustrates a significant difference between Greece and other countries. While cruises in Greece account for about 10% of total tourism demand, they generate only 4% of the country's revenue from tourism. Italy experiences the opposite phenomenon, with cruises representing about 3% of total tourism demand in terms of nights spent, yet more than 10% of total revenue from tourism.

The comparison between these two extremes begs the question of whether there is any relationship between number of nights spent and revenue generated, particularly if one adds Spain to the mix, where the number of nights spent and revenue from cruises are balanced, at approximately 2% of the Spanish tourism offer. This approach highlights the ability of the cruise industry to produce added value, corresponding to a positive ratio between number of nights spent and income generated, yet raises the question of the difference in economic performance between Greece and Italy.

Figure 8: Comparison of the share of nights spent and the share of revenue generated by cruises (2009)

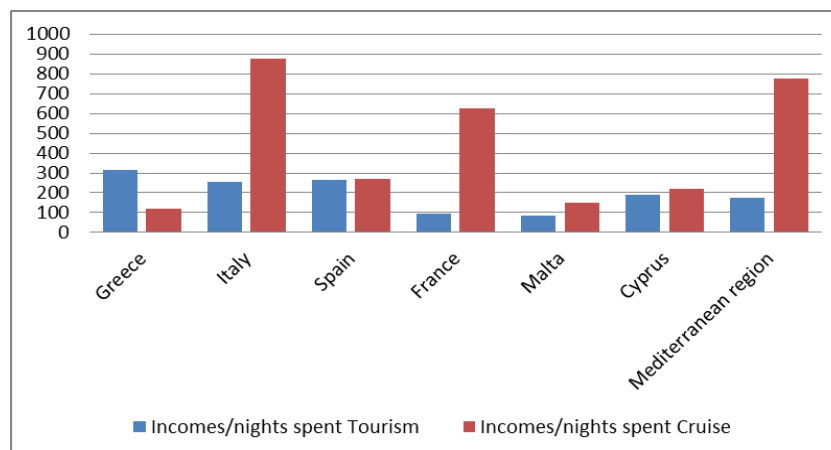


Source: Data Med Cruise, Plan Bleu, 2012

2.2. Port classifications: a discriminating factor in the production of added value from cruises

When considering the ratio of revenue generated to number of nights spent, the cruise segment has high added value compared with the tourism sector in general. In Italy, cruises generate, per night, four times more revenue than tourism (over €800 per night compared to over €200 for tourism in general) and in France, the ratio is six to one (about €600 for cruises and €100 for tourism in general). In Greece, cruises generate three times less added value (€100 for cruises compared to €300 for tourism in general).

Figure 9: Economic performance of cruises compared with tourism in general (revenue in Euros per night) (2009)



Source: Data WTO & IIC, Plan Bleu, 2012

35% of Mediterranean ports that receive cruises are Italian and 34% are Greek, pointing to an almost identical number of ports in both countries. In contrast, 63% of ports of departure are located in Italy (France comes in 2nd place with 13%) and 42% of ports of call are in Greece (Italy is in 2nd position with 28%). Thus, the difference between Greece and Italy in the production of added value lies in the distinction between ports of departure and ports of call.

The infrastructure of ports of departure also plays an important role (number and length of quays, depth of harbours). Of the ten largest ports in the Mediterranean (that meet all the necessary infrastructure requirements), five are Italian.

Does the added value created by the investment in infrastructure return to the local area? This is extremely hard to measure, especially in the case of cruises. On average, each passenger spends €50 per call when eating off the ship. 70% of passengers return on board for lunch or dinner. In addition, cruise lines organize “tours” to capture the maximum possible share of their passengers’ expenses. In fact, they make their largest profit margins on customer spending on-board ship and from on-shore excursions organised directly by the cruise company. Thus, the local benefits are limited and hard to perceive.

In terms of economic results, the ports that receive the most revenue are the ports of departure. Even these ports, however, receive only a small share of the revenue that could be theirs, since cruise lines monopolise an entire segment of the marketing of services and goods, causing economic drain from the local economy.

3. The ability of tourism to stimulate regional development

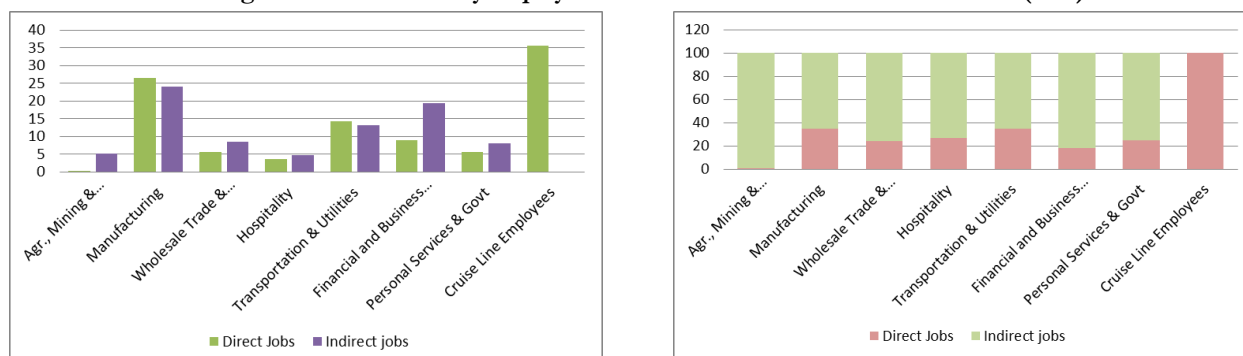
Measuring employment is a way of evaluating the issue of regional development. In the case of cruises, data is available only on the scale of the Mediterranean basin as a whole. The ability of “land-based” tourism to create jobs in destinations has been researched based on the example of the destination of Alanya in Turkey, where the total number of “land-based” nights, 14 million in 2008, is on its own equivalent to 81% of total nights from the cruise industry in the Mediterranean in 2008.

3.1. Cruises: creating jobs?

Across the entire Mediterranean region, cruises create about 0.7 direct and 1.5 indirect jobs per bed, or a total of 2.2 jobs per bed. 32% of total jobs (both direct and indirect) related to the cruise industry are located in Italy, since this is where most of the shipyards are situated. Shipbuilding represents 18% of direct employment by the cruise industry in the Mediterranean (for example, Fincantieri holds 41% of the world market for the number of beds produced). Moreover, Italy has the majority of ports of departure, which host a wide range of services, including transport, responsible for over 30% of indirect jobs.

In order for the cruise industry to stimulate regional development (although the quality of this development might be questionable) countries must combine cruise ship production with a high ratio of ports of departure to ports of call and a considerable number of overnight stays. In the Mediterranean, only Italy manages to combine these different factors.

Figure 10: Distribution by employment sector linked to Mediterranean cruises (2009)



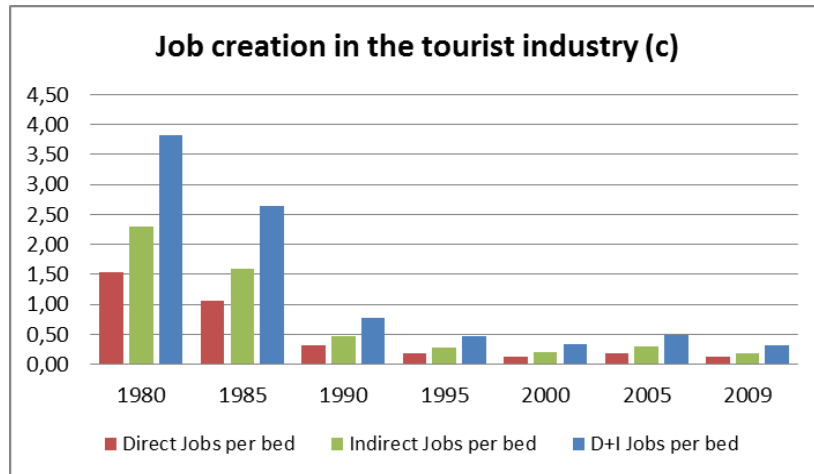
Source: Data IIC, Plan Bleu, 2012

3.2. The ability of land-based tourism to create employment

An analytical approach based on job creation capacity shows that land-based tourism in Mediterranean destinations creates an average of 0.4 direct jobs per bed.

For the destination of Alanya in Turkey, which accounted for 14 million nights in 2008, tourism represents an ever increasing share of employment in the service sector, rising from 55% in 2000 to 80% of jobs in 2009, or over 45% of total employment in Alanya for the period 2005-2009. The number of jobs created in the tourism sector was high when the industry first started up, in 1980 and 1985 (3.83 jobs per bed and 2.65 jobs per bed respectively), after which it stabilised at around 0.5 jobs created per bed between 1990 and 2005, before falling to just 0.32 jobs per bed in 2009 (of which 0.13 were direct jobs).

Figure 11: Changes in the job creation capacity of tourism in Alanya (Turkey)



Source: Data supplied by Cevat Tosun and Caner Caliskan, Plan Bleu, 2011.

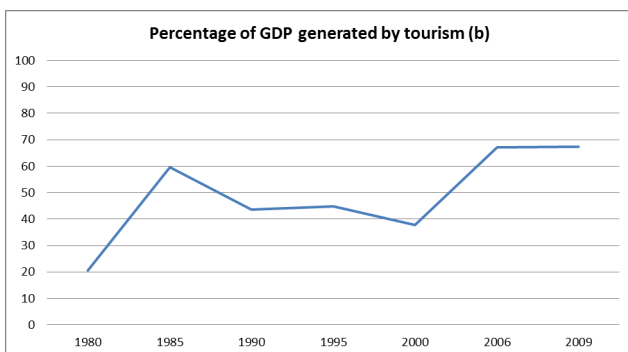
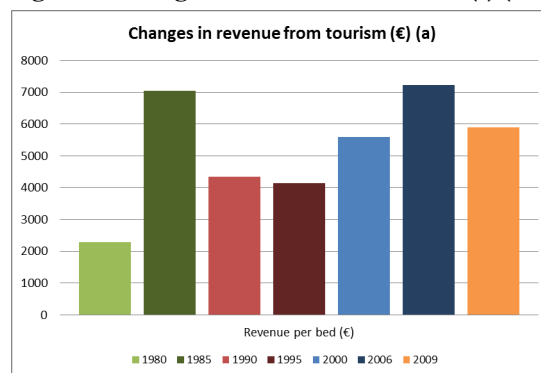
3.3. Minimal redistribution of the benefits of growth to destinations

Tourism GDP accounted for 59% of Alanya's total GDP in 1985 and 67% in 2006. Tourism's large share of GDP and local employment are two signs of the dependence of Alanya's economy on tourism. Although no reliable data exists on the economic drain from Alanya, it is estimated nationally that between 51% and 60% of revenue from package tours organised by foreign tour operators is not injected into the Turkish economy. Tosun and Caliskan believe this leakage may be as high as 85% of Alanya's tourism revenues.

By comparing the various data on tourist supply and demand, the effects of Alanya's dependence on tourism result in:

- dominance of tourism in the local economy, which leads to the region's dependence on this sector;
- dominance of the international market, which leads to the dependence of tourism on foreign customers, mainly consuming a product offered by international tour operators.

Figure 12: Changes in revenue from tourism (€) (2009)



Source: Data supplied by Cevat Tosun and Caner Caliskan, Plan Bleu, 2011.

Finally, in Alanya, income per capita is on the rise. GDP per capita has been growing continuously since the 1980s, from around €1,000 per capita in 1980 to approximately €5,500 per capita in 2008 (*Figure 12 (c)*). However, the increase in average per-capita income does not necessarily reflect a balanced distribution of the revenue from tourism throughout all segments of the population. According to Tosun and Caliskan, the situation remains highly inequitable, since the share of GDP reaped by the wealthiest members of Alanya's population increased from 44.4% of GDP in 1980 to over 56% of GDP in 2009.

4. Recommendations

Although the exercise of comparing the cruise industry with land-based tourism remains complex as part of an evaluation of tourism's ability to generate development for the areas hosting these activities, it nonetheless illuminates the reasons why the economic benefits for the host communities are small, due to the way the tourism market is organised.

One reason for the inability of the dominant model of Mediterranean tourism development to meet sustainable tourism objectives is based on the disconnect between tourism and the places where it operates, in terms of their economic, social, environmental and cultural contexts. This disconnect is created mainly by failures of international, national and local tourism governance. This can sow the seeds of socio-political instability and lead to popular rejection of overly "selective" development, monopolised by a few and offering minimal prospects for vulnerable local populations (employed and unemployed members of the active population, people with low levels of formal education, women, young people).

It is thus necessary to situate tourist destinations within regional projects, in other words, to plan tourism strategically in line with other activities and the economic, social, environmental and cultural potential of each area. To this end, two approaches could serve as a guide for actions to be taken in **pilot areas**:

- Working closely with local players to structure public spaces for participation and arenas for governance so as to, firstly, share and confirm diagnoses of the degree of sustainability of these tourist areas and secondly, collectively sketch out possible futures, in order to develop a local plan of action aimed at enhancing local potential.
- Support the decision-making involved in creating regional mechanisms for observation and monitoring the sustainability of tourism activities and their economic, social and environmental outcomes and impacts.

Box 2

This section was based on:

- The report on "Mediterranean Cruises and Yachting". This report was produced by Alberto Cappato, Secretary General of the International Institute of Communications (IIC) in Genoa, in collaboration with Bianca Baggiani, Alexandra Bracco (IIC employee), Sara Canevello, Fabio Capocaccia (IIC President, former President of Med Cruise and Secretary General of the Genoa Port Authority) and Lorenzo Pollicardo (international expert in the field of yachting).
- The economic performance of land-based tourism in Mediterranean tourist destinations from the case study on Alanya, Turkey, produced by Cevat Tosun and Caner Caliskanof Mustafa Kemal University.

This research was used specifically in the feedback seminar of the "DURAPORTS" European project, held on 16 May 2012 in San Remo. This seminar was an opportunity for Plan Bleu to discuss the "clean ports" approach with the Union of Marinas - Provence Alpes Côte d'Azur (UPACA) and engage in talks with the European Odyssey Group.

III. Seaside tourism and urbanisation: environmental impact and land issues

In the context of its tourism programme, Plan Bleu has assessed the sustainability of eleven tourist destinations: Torremolinos (Spain), Cabras and Castelsardo (Italy), Rovinj (Croatia), Alanya (Turkey), El Alamein-Matrouh City-Siwa Oasis resort (Egypt), Djerba (Tunisia), Tipasa (Algeria) and the Tetouan Coast (Morocco). This work has highlighted the severe pressure on natural resources: energy and water consumption that often exceeds production and supply capacities; inadequate infrastructure for the collection and treatment of solid and liquid wastes; urbanisation and artificialization of coastal zones and natural areas that profoundly affects Mediterranean biodiversity.

1. Water consumption greater than production and supply capacities

A tourist often consumes three or four times more water per day than a permanent resident. In 2009 in Alanya (Turkey), drinking water consumption associated with tourism (5.3 million m³ per year) represented 52% of the district's total consumption. Annual drinking-water consumption levels are very high, especially in international 3S (Sea, Sand and Sun) destinations, due to the way tourists use water, the large number of overnight stays (several million per year) and the high water demands of tourist amenities (such as swimming pools and golf courses).

1.1. Resource unavailability and transfer as a factor for unsustainability

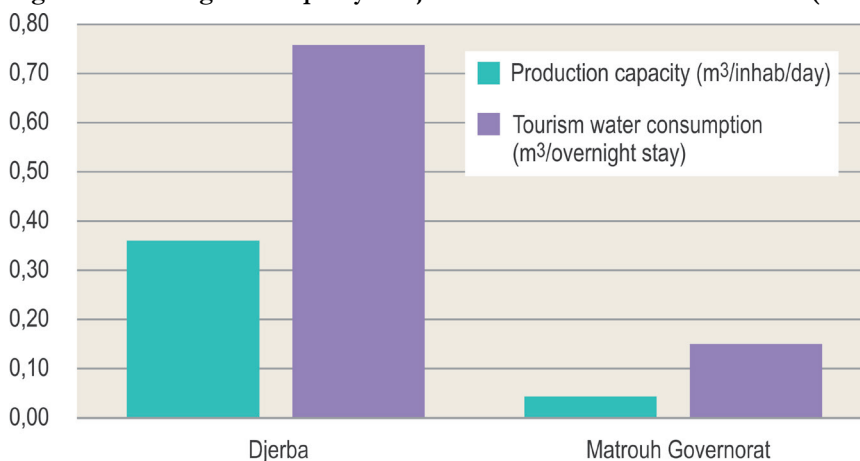
The question of availability and supply is key to understanding the complexity of tourism impacts on water resources. For example, tourism in Alanya (Turkey) consumes 0.40 m³/overnight stay compared with 0.15 m³/overnight stay in Marsa Matrouh Governorate (Egypt). A simplistic approach would lead to the conclusion that tourism in Alanya has more impact on water resources than tourism in the Marsa Matrouh Governorate.

In Alanya, water demand is adequately met thanks to a locally available resource, strengthened by the building of a dam. In contrast, in the Marsa Matrouh Governorate, due to the poor quality of the local water (which is brackish) and the distance from an available resource of suitable quality, water supply for tourism uses two pipelines dependent on Alexandria's distribution network, supplemented by water brought by train and tanker.

1.2. Limited efficiency of infrastructure

In Djerba, which must also face up to insufficient water supply in terms of both quantity and quality, a 150-km-long supply network has been built from two sources located in the Zeuss-Koutine watershed on the mainland (Medenine Governorate), supplemented since 1990 by two brackish-water desalination plants at Zarzis (1999) and Djerba itself (2000).

Figure 13: Drinking water capacity in Djerba and in the Matrouh Governorate (2008)



Source: Plan Bleu, 2011

However, in Djerba, as in the Matrouh Governorate, tourism's high daily consumption rate compared with available resources leads to insufficient infrastructure capacity, (Figure 13).

Lack of available water resources leads to an increase in water transfer, whether by road (Egypt) or by increasing the medium production of infrastructure such as pipelines in the summer season, which corresponds to a period of water stress. One solution is to diversify the means of drinking-water production (as with the desalination plants for Djerba).

2. Desalination and reuse of wastewater: two alternatives to water resources overuse

Alternatives to water resources overuse have already been developed in the Mediterranean, in particular from the 1980s with the installation of desalination plants in island tourist areas such as in Malta, the Balearic Islands, the Canaries and, more recently, Djerba (2008). While the energy consumption of desalination plants is less than that used in resource transfer, energy consumption remains a major issue.

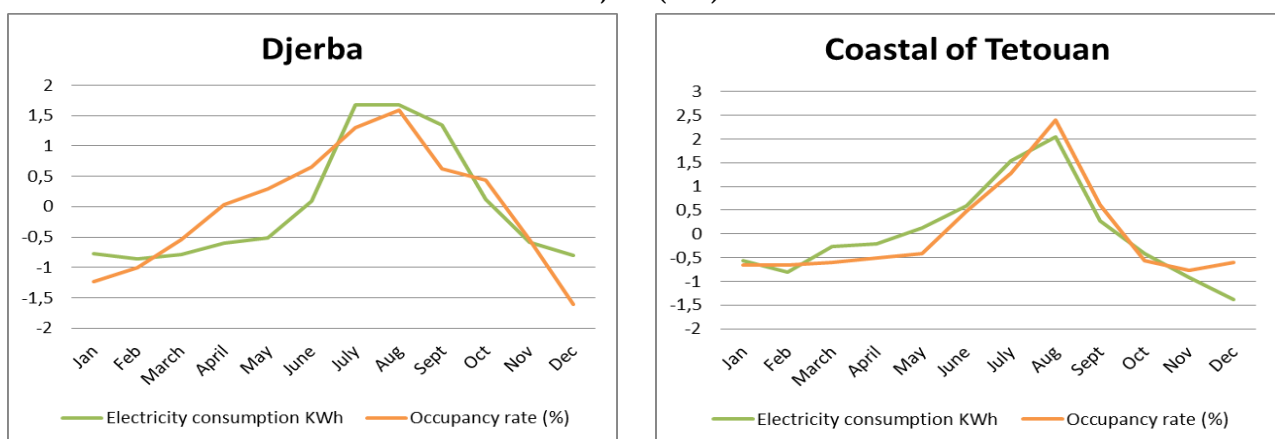
2.1. Energy consumption as an issue for desalination plants installation/implementation

Infrastructure for producing alternative water supplies, such as Djerba desalination plants, is energy hungry. For the Mediterranean as a whole, desalination of 30 million m³ per day, would require 5,000 MW of electrical power, i.e. 8 to 10 combined-cycle gas turbine plants or 4 to 5 nuclear power plants (BOYE 2008).

Even without taking into consideration the environmental repercussions of desalination plants in terms of greenhouse gas emissions and brine discharges, desalination would produce major energy challenges because this energy consumption would be combined with the increase in consumption due to the seasonal peak in electricity demand (tourist and urban amenities).

For example, in Torremolinos (Spain), electricity consumption (of which tourism accounts for about 40%) increased by 160% between 1989 and 2008, rising from 124 to 322 GWh per year. In Alanya (Turkey) during the period 2000-2008, total electricity consumption (to which tourism contributes 21%) rose from 199 to 615 GWh, i.e. an increase of 208%.

Figure 14: Seasonality of electricity consumption compared with monthly occupancy rates on the Tetouan Coast and in Djerba (2008)



Source: Plan Bleu, 2011

On the Tetouan Coast (Morocco), electricity demand doubles in the summer. In Djerba, electricity demand triples during the seasonal peak in August (Figure 14).

2.2. Installation of wastewater treatment plants, a prerequisite for any reuse

In its report “Water, energy, desalination & climate change in the Mediterranean” (2008), Plan Bleu recommends water resource management via the reuse of treated wastewater, to supplement sea water and brackish water desalination. Recovery and treatment would use less energy, while at the same time membrane, reverse-osmosis and treatment technologies are similar, so the skills required (employment, training needs) would be complementary.

As a prerequisite, there is much work to be done installing wastewater treatment plants. For example, Torremolinos municipality (Spain) does not have a sewage treatment plant, even though this tourist destination hosts nearly 5 million overnight stays annually. On the Tetouan Coast (Morocco), the 1,372 m³ per day of wastewater produced by tourism is directly discharged into the sea without treatment at two of the three destinations studied (Martil and Fnideq). At the third (M'diq), before being directed into Smir lagoon, wastewater is pre-treated by a sewage plant whose load capacity is greatly exceeded (capacity for 5,000 inhabitants, whereas the population reaches 20 to 25,000 in the summer season).

Investment in sewage treatment would help solve several problems: sanitation and public-health, respecting the marine environment and water supply.

3. Developing land-use planning to improve urban services, regulate land pressure and reduce the impacts on natural areas

The question of the installation of infrastructure for the collection and treatment of wastewater, points back more generally to the question of urban development and provision of essential services.

The thrust of urbanisation due to the construction of “traditional” tourist accommodation (hotels, B&Bs, guesthouses) and the massive development of residential accommodation that began at the end of the 1990s, has led to land saturation.

3.1. Diversification of the accommodation offer and land pressure

At Martil on the Tetouan Coast (Morocco), the construction of residential areas around a golf course in the 1990s led to a multiplicity of construction projects on a coast that was already saturated: only 12.5% of the coastline is still “natural”.

In Torremolinos, the urbanised area accounts for 85% of the municipality's surface area. On the coastline, which is the only land available due to the municipality's position between sea and mountain, only 10 hectares have not yet been built on (*Figure 15*).

Figure 15: Land artificialization in Torremolinos (2007)



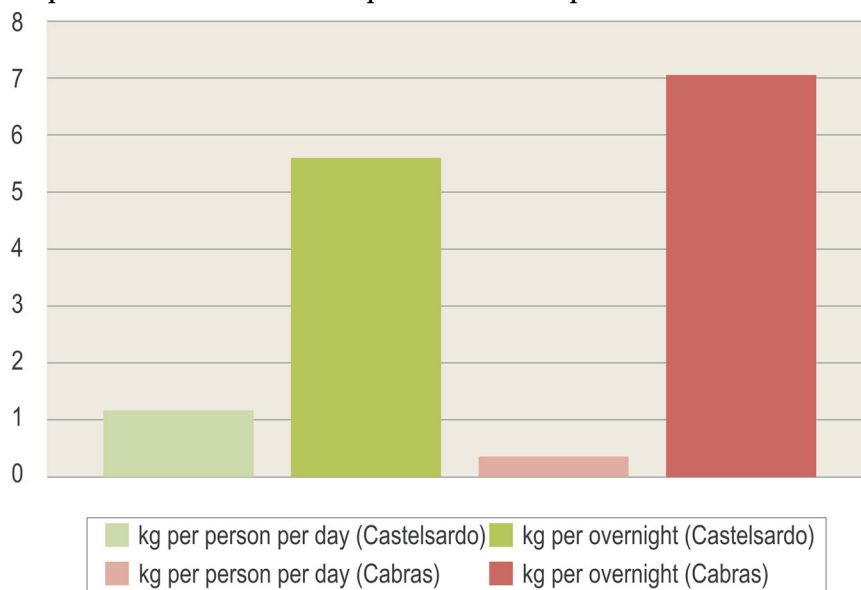
Source: Navarro Jurrado, 2011

3.2. Urban development, tourism and waste production

The question of whether urban infrastructure is adequate to manage the solid wastes produced is key, due to:

- population growth rates (3.7% in Alanya),
- the increased population density in tourist destinations during the summer season (from 3,300 to 10,000 inhabitants per square kilometre in Torremolinos in August),
- the excessive production of solid wastes by tourists compared with residents and the inadequacy of recycling practices (in Cabras, the mean annual production of solid wastes is 7 kg per overnight stay for tourists, while residents produce 0.5 kg per inhabitant per day).

Figure 16: Tourist production of solid wastes compared with resident production in Cabras and Castelsardo (2008)



Source: Plan Bleu, 2011

Lack of investment in the collection, storage and treatment of solid wastes – and the consequent continued use, or even expansion, of unofficial dumps – causes severe problems for public health, including pollution of soils, drinking water resources and sea water.

3.3. Pressure on biodiversity

Tourism often has irreversible effects on natural areas rich in plant and animal biodiversity:

- the deterioration or destruction of coastal dunes by tourism infrastructure in most countries in the Mediterranean region is reducing plant biodiversity (for example, in Djerba in Tunisia, on the coast of Matrouh Governorate in Egypt and on the beaches of Tipasa in Algeria);
- urban development and/or drainage of wetlands, which play an essential role in the water and sediment equilibrium of the Mediterranean coastline and host a particularly remarkable biodiversity, is leading to a loss of biodiversity, in particular for migratory birds (Tetouan Coast);
- water-related leisure activities are damaging aquatic plant communities (sea grasses and coralligenous species) and contributing to reductions in the populations of marine turtles (nesting areas) and monk seals (Alanya in Turkey).

As well as land-use planning policies that help conserve natural areas, such as in Rovinj (Croatia), for several years there has been a move towards a “win-win” relationship between tourism and natural sites, in particular in protected areas which have developed programmes for welcoming the public (Sardinia). Conservation of the natural qualities of protected areas benefits the development of tourism and, in return, tourism can help support the conservation of protected areas.

4. Recommendations

First of all, the impact of tourism on the environment in terms of land pressure, consumption of natural resources, production of liquid and solid wastes, and threats to biodiversity, can be reduced by: 1) compliance with current regulations; 2) drawing up of national regulatory frameworks that can be applied at regional and local levels; 3) implementation of incentives, in particular for energy conservation, reducing water consumption and recycling solid wastes.

Secondly, drawing up local-level strategies regarding infrastructure would help respond to the problems both of the mismatch between supply and demand (for water and solid wastes) and of resource availability (load capacity). With regard to drinking water, even where current infrastructure means that drinking water needs are met, at least for a time, it is essential to invest in upgrading the facilities and diversifying supply sources. Investments could be made for the collection and treatment of wastewater, with a view to its reuse for maintaining amenities and green spaces.

Box 3

This section was based on case studies conducted by the consultants who worked under the “Profiles of sustainability in some Mediterranean tourist destinations” component and the summary work undertaken by the coordinator of this component, Ioannis Spilanis, economist at the University of the Aegean Sea. The experts who produced the case studies are:

- Mr Mohamed Berriane, Professor of Geography, Mohammed V University, who conducted the case study on the Tetouan Coast in Morocco.
- Mr Jean Mohamed Mehdi Chapoutot, Consultant, who conducted the case study on the island of Djerba in Tunisia.
- Mr Samir Grimes, Consultant, Algerian National Coastal Office, who conducted the case study on Tipasa in Algeria.
- Mr Zoran Klaric, Institute of Tourism, Deputy Secretary General of EURHODIP, who conducted the case study on Rovinj in Croatia.
- Mr Enrique Navarro Jurado, University of Malaga, who conducted the case study on Torremolinos in Spain.
- Mr Adel Rady, Marsa Alam for Tourist Development Co., who conducted the case study on the Matrouh Governorate in Egypt.
- Mr Alessio Satta, Barbara Pintus and Manuela Puddu from the Sardinian coastal conservation agency, who conducted the case studies on Cabras and Castelsardo in Italy.
- Mr Cevat Tosun and Caner Caliskan of Mustafa Kemal University, who conducted the case study on Alanya in Turkey.

The studies conducted by the experts were used by Loïc Bourse, Tourism programme officer at the International Forum on Fair Tourism held in Marseille on 24 and 25 November 2011. They were also incorporated into the seminar entitled “Governance of Mediterranean tourism: environmental, economic and social variables” organised by the Casa Mediterraneo during the International Tourism Fair (FITUR) held in Madrid on 19 January 2012.

IV. Developing a quality certification and monitoring system of sustainability of Mediterranean tourism

Sustainable development of the Mediterranean region does not depend solely on improving tourism policies. At the 12th Conference of the Contracting Parties to the Barcelona Convention (Monaco, November 2001) the 21 Mediterranean rim countries and the European Community decided to prepare a “Mediterranean Strategy for Sustainable Development”. They asked the Mediterranean Commission for Sustainable Development (MCSD) to draw up a draft strategy. The 2nd Euro-Mediterranean Ministerial Conference on the Environment (Athens, July 2002) endorsed this initiative, which was subsequently announced at the World Summit on Sustainable Development (Johannesburg, September 2002). The Mediterranean Strategy for Sustainable Development was adopted by the MCSD on 22 June 2005 in Athens and by the Mediterranean rim states during the 14th Conference of the Contracting Parties (Portoroz, in Slovenia, November 2005).

As part of this strategy, 7 priority fields were defined:

- integrated management of water resources and demand;
- more rational energy management, with increased use of renewable energy while both mitigating and adapting to climate change;
- sustainable mobility through appropriate transport management;
- **sustainable tourism** as a leading economic sector;
- sustainable agriculture and rural development;
- sustainable urban development;
- sustainable management of the sea, coastal areas and marine resources.

To achieve the objectives set by the MSSD, it is important for Mediterranean tourism to refocus on reducing the negative impacts of tourism on the land and the environment, promoting products and services for sustainable tourism, maximising the added value of tourism for the local population, and improving governance for sustainable tourism.

1. The MSSD’s priority and additional “Tourism” indicators

To measure the progress of each of the seven priority fields of the MSSD, **priority indicators** have been defined (34 in total), including **two** for “Tourism” to measure the diversification of tourism and the economic benefits generated by tourism for local people (entitled TOU_P01 and TOU_P02 respectively). These two priority indicators are not sufficient to measure progress towards sustainable tourism. It has proven necessary to develop a series of so-called “additional” indicators to track the progress of Mediterranean countries towards achieving the three objectives set by the tourism section of the MSSD listed above.

The additional indicators, labelled “TOU_C”, were selected during a meeting of experts in July 2007. The selection process was based on prior analysis of the existing literature on the subject (from the World Tourism Organisation UNWTO, the EU, the French environment institute (IFEN) and Plan Bleu) which contained suggested lists of indicators that could be used for sustainable tourism.

Table 1 : List of MSSD “Tourism” indicators (2007)

Code	Priority indicators
TOU_P01	Percentage of non-seaside beds in the total number of holiday beds
TOU_P02	Revenue from international tourism
Code	Additional indicators
TOU_C01	Breakdown of international tourist arrivals by mode of transport (air, rail, road, sea)
TOU_C02*	Visitor numbers on “tour routes” and other circuits
TOU_C03	Changes in visitor numbers to protected areas
TOU_C04	Number of marinas and berths per km of coastline
TOU_C05	Seasonality of tourism in coastal areas
TOU_C06	Share of tourism companies in a destination that have ISO ³ 14001, EMAS ⁴ or HACCP ⁵ certification
TOU_C07	Number of marinas and/or destinations awarded the “Blue Flag”
TOU_C08	Average salary in the tourism sector compared with the average salary
TOU_C09	Changes in the number of visitors to cultural sites
TOU_C10	Employment in the tourism sector compared with total employment
TOU_C11	Seasonal tourism employment as a percentage of total employment in the tourism sector
TOU_C12	Share of international tourists arriving via Tour Operators
TOU_C13	Share of FDI (Foreign Direct Investment) in the tourism sector
TOU_C14*	Local authority training programmes on the topic “Tourism and Sustainable Development”
TOU_C15*	Share of the population connected to drinking water in tourist areas compared with the national average
TOU_C16	Number of hospital beds (or doctors) per inhabitant in tourist areas compared with the national average
TOU_C17	Number of students in the tourism branch according to education level
TOU_C18	Share of tourism companies meeting accessibility standards
TOU_C19	Changes in the distribution of tourists according to their income level

Key: Indicators marked with an asterisk are those that were discarded.

The research conducted as part of the action entitled “Testing the Additional “Tourism” Indicators for monitoring the Mediterranean Strategy for Sustainable Development” consisted in producing methodology sheets and testing each of the 19 additional indicators identified in 2007 on the basis of an evaluation of access to data and the self-sufficiency and quality of the definition. Following this test, 16 indicators were chosen and presentation sheets for these indicators were drafted. Thus, the indicators that best meet the selected criteria are:

- TOU_C01, Breakdown of international tourist arrivals by mode of transport.
- TOU_C05, Seasonality of tourism in coastal areas.

This work has not fully achieved its objectives, as the indicators studied (selected in 2007) do not provide precise answers to all the goals and subgoals of the section of the MSSD on Tourism. To overcome these difficulties and finalise the list of additional indicators, work should be carried out to ensure coherence of the indicators used in monitoring the MSSD chapter with those used in the “Profiles of sustainability in some tourist Mediterranean destinations” component. Indeed, some indicators used in this component would be more effective at monitoring the MSSD objectives.

³ ISO: International Organisation for Standardisation

⁴ EMAS: Eco Management and Audit Scheme

⁵ HACCP: Hazard Analysis Critical Control Point

2. The “Profiles of sustainability in some Mediterranean tourist destinations” approach as a tool for monitoring the sustainability of Mediterranean tourism

The approach developed by Ioannis Spilanis is based on:

- A short list of basic, essential variables and indicators that should be used to create a dashboard to define the profiles of a “responsible company” and a “destination of excellence”. This list comprises the indicators from the monitoring system responsible for monitoring the sustainability of tourism in countries across the Mediterranean basin. This information could also be used for communication to stakeholders of these companies and destinations. This research could form the basis of a Mediterranean Observatory for the sustainability of tourism. These sustainability variables and indicators could be:
 - Economic 1: Number of overnight stays per bed (or number of guests per table, number of rental days per bike/vehicle, etc.).
 - Economic 2: Average revenue per night (or customer).
 - Economic 3: Average revenue per bed (or per m², per table, per vehicle rented, etc.).
 - Social 1: Average number of jobs per bed (or per m², per table, per vehicle rented, etc.); full-time equivalent jobs.
 - Social 2: Total number of jobs per bed; full-time equivalent jobs.
 - Environment 1: Water consumption per night (or per m²).
 - Environment 2: Energy consumption per night (or per m²).
 - Environment 3: Waste generation per night (or per m²).
 - Environment 4: Occupancy (per bed, per table, per vehicle, per mooring space, etc.).
- A wider range of variables and indicators for businesses’ and destinations’ internal use respectively, so that they can define their own monitoring system, record indicators and oversee, monitor and plan the steps to implement at all levels: company, destination, region⁶.

The use of these variables would then produce “dashboards or radar charts for destinations and businesses,” **self-assessment tools** used by the private sector and local government respectively:

- 1) This data could also be used for a “**radar chart of sustainable Mediterranean businesses**”. A more comprehensive monitoring system could help companies to set up a self-assessment of changes in their activity profile or the performance of their activities relative to other businesses in the same destination or in competing destinations, or in relation to benchmarks.
- 2) This data could also be used for a “**radar chart of sustainable Mediterranean destinations**”.

A more comprehensive monitoring system could help a destination to assess changes in its activity profile or the performance of its activities in relation to other destinations or benchmarks.

3. Recommendations

3.1. An approach to enhancing the sustainability of Mediterranean tourism

Faced with the multiple economic, social and environmental issues related to the development of Mediterranean tourism, tourism activities should be set in the context of “regional projects” developed for each destination. The linking of inland areas with coastal areas and tourist resort offerings would help to contain coastal development and reduce overcrowding of the coast, while enhancing the natural and cultural heritage of local areas. Coordination of coastal tourism with activities rooted in the local region would contribute to achieving economic growth and poverty reduction objectives.

⁶ This expanded range would be composed of the variables and indicators listed in “*Vers un observatoire et un « label qualité » de la durabilité du tourisme en Méditerranée*. (Towards an observatory and “quality label” of sustainable tourism in the Mediterranean). Consolidated report from the final reports “Profiles of sustainability in some Mediterranean tourist destinations” and “*Cadre régional pour la promotion de la Méditerranée*” (Regional framework for promoting the Mediterranean). Plan Bleu, June 2012. pp. 85-87.

Moreover, a commitment to a **sustainability process in the form of a charter to which local tourism players would sign up, followed by the definition of specifications for the destination and subsequently, a certification process**, could provide a quality guarantee and enhance the value of tourism and local products, with the aim of encouraging short distribution chains and the supply of accommodation facilities through local production systems. So can the combination of charter, specifications, certification and coastal/inland coordination provide a solution to the sustainability of tourism in the Mediterranean?

While these recommendations can be implemented at the level of destinations by internal stakeholders, the adoption of a more responsible attitude towards the region and the local population by external players (tourists, investors, tour operators) is essential. The development of tourism and the emergence of a destination depend on a “convergence of interests” between the authorities (local and national) and the private sector and investors (tour operators, accommodation and transportation, especially airlines). The principles, developed from case studies, on which the “specifications” or “certification process” of sustainable tourism could be built are:

- Develop a diversified **supply** based on:
 - Enhancement of the specific economic, social, cultural and environmental features of a destination in order to offer a high quality (but not necessarily luxury) product.
 - Development of authentic tourism services (other than HORECA⁷) with high added value, integrating innovation and skilled labour while respecting destinations’ carrying capacity (for each activity).
- Attract international tourists (**demand**) who are eager to discover the specific, differentiated “tourism products” that Mediterranean destinations can offer.
- Promote local “brands” that are specific to the various destinations but grouped under a single brand “Mediterranean Destination of Excellence”: a name that is known and recognised not only for its illustrious past but also for its present (*territorial marketing*).

Regarding this last point, a quality programme for Mediterranean destinations could be proposed, based on indicators developed from the tools presented above (destination radar chart). Indeed, one of the recommendations of the MSSD is to work to promote a different image of the Mediterranean region. In terms of process, the core of a charter “for the sustainability of tourism in the Mediterranean” could be defined, to which local tourism players could sign up in order to define their own sustainability objectives based on the sustainability diagnosis (radar chart) for their destination. These would in turn be included in written specifications derived from the 21 local Agendas. In terms of the certification process, a project similar to the EDEN (European Destinations of Excellence) European project could be launched for the Mediterranean (MED-EDEN), promoting the use of local resources to positively impact the economy, society and environment of Mediterranean destinations. Ways of involving lending institutions in promoting “destinations of excellence” or awarding quality labels should then be studied.

More broadly, in a context where the political agendas of several SEMCs maintain tourism to diversify their domestic economies, it is necessary to support these countries by providing them with tools to assess the sustainability of tourism projects and estimate the social and environmental costs of developing tourism.

Destinations should therefore define a monitoring system providing them with an overview of changes in the supply and demand of tourism, its performance relative to other competing destinations and its impact. Within a given destination, considering the many and varied local stakeholders, each with their own objectives that are not always compatible, the support of a “facilitator/mediator” could also aid collaboration in order to achieve the best possible results.

3.2. Monitoring tool: need for a “Mediterranean Tourism Observatory”

To effect the transition from recommendation phase to operational phase, the question of the certification process that will set Mediterranean tourism on a path towards sustainability is paramount. This in turn raises the issue of how to measure the achievement of objectives over time, from a methodological point of view but also

⁷ Horeca is an acronym of *Hotels, Restaurants and Catering*.

in technical and institutional terms. This means that observatories on the sustainability of tourism need to be set up at the level of Mediterranean countries and in destinations themselves.

As part of its function as an observatory for the Mediterranean, a monitoring system could be set up by Plan Bleu, in collaboration with its partners, with the following features:

- Monitoring the structure of the Mediterranean tourism product for each coastal country. This would involve recording a basic data set such as, for example:
 - The number of arrivals (residents and international tourists) and the number of night spents (residents and international tourists) to measure the demand.
 - The number of arrivals by tour operator, the number of beds (land-based and cruise accommodation), available infrastructure (airports, railway stations, ports of departure, ports of call) to measure the supply.
 - The number of arrivals per mode of transport, to measure changes in mobility and use of transport modes.
 - The number of nights consumed monthly by tourists (international and residents) and the occupancy rate to monitor seasonality.
 - International tourism revenue to track the economic performance of tourism (particularly international tourism).
 - The number of jobs in the tourism industry, firstly to assess the importance of tourism in national economies and secondly, to estimate the potential of tourism to create jobs.
- The above-mentioned MSSD monitoring indicators and indicators for measuring the sustainability of destinations, which would initially contribute to the process of developing specifications for destinations wishing to adopt a sustainable approach, and would later be used to monitor progress towards the objectives defined in the specifications.

Box 4

This section was based on research by Ioannis Spilanis under the “Profiles of sustainability in some Mediterranean tourist destinations” component and more specifically, on the Plan Bleu Paper “Towards an observatory and “quality label” of sustainable tourism in the Mediterranean” drawn from the final reports, “Profiles of sustainability in some Mediterranean tourist destinations” and “Regional framework for promoting the Mediterranean”. This publication was the result of a collaborative effort, not only in the area of data production; development of the Plan Bleu Papers was made possible by the 10 case studies conducted by experts (Mohamed Berriane, Jean Mohamed Mehdi Chapoutot, Samir Grimes, Zoran Klaric, Enrique Navarro Jurado, Adel Rady, Alessio Satta, Barbara Pintus and Manuela Puddu, Cevat Tosun and Caner Caliskan) and also by the co-ordination work for this component by Julien Le Tellier, Plan Bleu Spatial Analysis Programme Officer and the work of Helen Vayanni of the University of the Aegean Sea.

It is also important to cite the work of Laura Martinez Rubio in the report on “Testing the Additional ‘Tourism’ Indicators for monitoring the Mediterranean Strategy for Sustainable Development”.

Conclusion

Even if, in the Mediterranean, the “mass tourism seaside resort” model is able to generate significant revenue, due to a high number of beds, the fact remains that the profitability of tourism in these countries is experiencing a general downward trend. In the case of Spain, which is the second largest Mediterranean destination after France, tourism revenue increased from \$32 billion in 1999 to \$58 billion in 2009 while income per bed fell by about 8% over the same period. This decline in the profitability of tourism, found on the northern, southern and eastern Mediterranean shores, is caused on the one hand, by a crisis of the predominant Mediterranean tourism development model (based on mass tourism seaside resorts) and on the other hand, by the effects of the economic and financial crisis, which have been affecting all countries since 2008. Egypt and Tunisia, whose economies are heavily affected by tourism (6% and 9% of GDP respectively), have also been hit hard by their reduced attractiveness as a result of the political regime changes of 2011, with declines in the number of international tourist arrivals of 4 million for Egypt (a variation rate of -48% compared to 2010) and around 3 million for Tunisia (a variation rate of -44% compared to 2010).

It is essential to consider these economic factors in order to understand the resulting social and political issues. Indeed, on both the northern and southern shores of the Mediterranean, the potential of tourism to be a driving force for regional development (improvement of living conditions of local people through access to essential services, training and employment) remains limited. Added to this overall finding is the specific issue of the unequal distribution of the benefits of growth generated by tourism, which leads to widespread resentment among local populations. Thus, in this time of economic and financial crisis coupled with social and political upheaval, it is essential to revitalise tourism in Mediterranean countries, which will require drawing up and implementing political action plans in local tourist areas. This revitalisation should be achieved both through adjustments in local governance, seen as a force for political stabilisation, or even for regulating social tensions (northern and southern shores of the Mediterranean), but also by exploiting local potential in order to diversify the tourism products based on a local multi-partner and multi-sector approach.

Indeed, the establishment of arenas for governance and participation will open up the process of political decision-making to previously excluded categories of stakeholders (people from business and civil society of any age or gender). The identification of categories of stakeholders to invite into this inclusive process will remain a key point, in the sense that promotion of democratic debate open to all perspectives must neither become an impediment to decision making nor challenge representative democracies already in place. Moreover, the promotion of local governance that welcomes stakeholders from the business sphere will restore the confidence of private investors, firstly by making the process more transparent and respectful of the rules in force and secondly, by proposing a model of tourism development based on a quality approach supported by written specifications.

The purposes of local specifications for sustainable tourism will therefore be, on the one hand to ensure respect for the economic, environmental, social and cultural dimensions of tourism development and on the other, to engage each location in a quality approach, guaranteeing competitiveness and increased profitability. The definition of the specifications in the arenas for governance could also build on existing mechanisms, including financial arrangements, designed for private-sector tourism operators. A relevant example would be a reduction in local taxes for operators who sort waste for recycling. These incentives will be coupled with direct economic benefits in terms of reduced costs and increased revenue due to a move upmarket that should result in tourist numbers being at least maintained.

In order to give an operational dimension to the recommendations, reflection time should be dedicated to the following themes:

- The question of a charter for sustainable tourism in Mediterranean to provide a general framework for local specifications.
- Creation of local arenas for governance.
- Establishment of local tourism sustainability observatories.

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Appendix: Studies carried out

Management of energy: air transport and tourism in the Mediterranean

Management of energy: air transport and tourism in the Mediterranean. Final Report, TEC, Plan Bleu, 2011.

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Cruises and yachting in the Mediterranean Sea. Final report, Plan Bleu, 2011.

Tourisme et résultats socio-économiques: un moteur du développement en Méditerranée ? (Tourism and socio-economic outcomes: a driving force for development in the Mediterranean?). Plan Bleu. *Plan Bleu Notes*, (awaiting publication).

Profiles of sustainability in some Mediterranean tourist destinations

Towards an observatory and a “quality label” for sustainable tourism in the Mediterranean. Consolidated report from the final reports “Profile of Sustainability in some Mediterranean Tourist Destinations” & “Regional framework for promoting the Mediterranean”. Plan Bleu, June 2012.

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Reports of Case Study following : Torremolinos (Spain), Cabras and Castelsardo (Sardinia, Italy), Rovinj (Croatia), Alanya (Turkey), El Alamein, Marsa Matrouh and Siwa Oasis (Egypt), Djerba (Tunisia), Tipaza (Algeria), the Tetouan Coast (Morocco).

Syntheses of Case Study following : Torremolinos (Spain), Cabras and Castelsardo (Sardinia, Italy), Rovinj (Croatia), Alanya (Turkey), El Alamein, Marsa Matrouh and Siwa Oasis (Egypt), Djerba (Tunisia), Tipaza (Algeria), the Tetouan Coast (Morocco).

Testing the additional “Tourism” indicators for monitoring the Mediterranean Strategy for Sustainable Development

Testing the Additional “Tourism” Indicators for monitoring the Mediterranean Strategy for Sustainable Development. Report. Plan Bleu, 2011.

21 presentation sheets of indicators. Plan Bleu, 2011

18 methodological sheets of indicators. Plan Bleu, 2011