Transport and Accessibility

Tunisian scale

Co-Evolve4BG

Analysis of Threats and Enabling Factors for Sustainable Tourism at Pilot Scale

Transports and accessibility

Tunisian scale

OVERVIEW

The present document was produced in the framework of **Co-Evolve4BG** project "*Co-evolution of coastal human activities & Med natural systems for sustainable tourism & Blue Growth in the Mediterranean*" in relation to Threats and Enabling Factors for maritime and coastal tourism development on a national scale" Co-funded by ENI CBC Med Program (Grant Agreement A_B.4.4_0075).

This document constitutes the **Deliverable 3.1.4.13** (Transports and accessibility – Tunisian scale) of the **Activity 3.1.4**(Threats and Enabling Factors at Nationalscale: Overview) under the **Output 3.1** (Integrated analysis of Threats and Enabling Factors for sustainable tourism at MED scale) of the project.

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Abstract

This report aims to identify the various threats to the transports and accessibility in morphological stability of the Tunisian coastal areas. It is based on a review of existing data at the national and regional levels. The document is structured as follows. Section 1 presents the mechanical relationship between tourism and transport. Section 2 deals with tourism and air transport. Section 3 shows the place of Tunisia's cruise and yachting tourism in the Mediterranean basin.

I. Introduction

Since its birth in the 18th century, tourism has been growing steadily. It has close links with transport, in a relationship of mutual dependence. The aim here is to understand the multiple interactions between these two major activities in the globalized world.

If it is undeniable that "the progressive widening of the horizons of tourism" (Capot-Rey, 1946 in Gay *et al.* 2017) is due to the evolution of the means of transport which make it possible to visit certain places during the holidays, care must be taken not to overestimate the role of the means of transport. The various mobility technologies which have favored tourism over the last two centuries: technical progress in means of transport (boat, train, car, and airplane) has thus favored the spatial diffusion of tourism and the widening of the tourist ecumene, but also the multiplication of mobility and the reduction of transport times. At the same time, "mobility aids" (tourist guides, the facilitation of passports and visas, the creation and development of travel agencies and finally digital revolution) facilitate travel and democratize it.

At the destination level, public policies tend, together with tourist sites, to think and organize accessibility in a continuous way, according to the principle of the chain of movement and accessibility.

The emergence over the last few decades of new tourist practices resulting from the diversion of certain modes of transport (*e.g.*, cruises and yachting) is explored.

II. Mechanical relationship: Tourism & Transport

Understanding the prevailing logics in the creation of tourist sites, their sustainability, and their evolution in relation to transportation becomes essential to apprehend the prospects of this sector. To be a tourist destination, a site must be well connected to transport and communication networks.

Historically, the first tourist sites were accessible thanks to the use of transport networks considered to be the most adequate at that time. In order for travelers to get there, no special access was provided, the existing one was exploited: Bath (England) was on London-Bristol Road, at that time the second largest city in the kingdom. At the end of the 18th century, Chamonix (France) became an excursion departing from Geneva, a stage of the Grand Tour, accessible by the royal roads then considered to be the best in Europe (Duhamel, 2006).

This first stage in the development of tourism experienced an acceleration phase with the revolution in transport since the middle of the 18th century. The levels of growth observed are quite spectacular in terms of the movement of people. In England, five million passengers took the train in 1838, one hundred million in 1854 to exceed 500 million in 1876 (Bédarida, 1990 quoted by Duhamel, 2006). This dynamic can be explained by travel speed, which already allows new adjustments in lifestyles for some: living by the sea and working in London and accompanying a diversification of tourist and leisure practices.

The train became the means of transport to get to one's holiday destination; to travel to sites: after a first trip to England in 1841, Thomas Cook developed his idea of a "tour operator" (TO) to Europe in 1855 and then to the world in 1872, to attend major events: 'The series of major world exhibitions opened in London in 1851. It contributed to the design of a hitherto unknown crowd-pleasing leisure activity (Corbin, 1995, quoted by Duhamel, 2006). At the same time, the industrial world was gradually freeing working crowds from their working hours, allowing the deployment of new leisure mobility through the range of travel: "Pleasure trains pour crowds of day-trippers onto the beaches of Margate, Gravesend or Brighton", whereas only the urban suburbs were concerned by this phenomenon.

The French case reports on this first phase of spreading practices as tourist sites, in parallel with the construction of a railway network. Let us compare the situation between 1838 and 1868, 70 sites were listed on the first and 126 on the second. In the 1880s, 337 were identified on Joanne guides (Bruston, 2000, cited by Duhamel, 2006). Thus, the 1850s marked a very strong dynamic in tourist sites creation (+80% in thirty years), which was further intensified afterwards: +161% in twelve years, with the decline coming much later, as the 20thcentury progressed. At the same time, railways and stations were being created at a very high rate and the network grew (in size and density). A comparison of the two dynamics reveals the articulation of the processes (Duhamel, 2006).

On a larger scale, Europe and the Eastern Mediterranean became, from the 1880s onwards, a tourist area served by a railway network dotted with quality accommodation. The map of the "Compagnie Internationale des Wagons-Lits" shows it in a rather exemplary manner. This is also true on a global scale, as the progressive development of steamboats after 1850 also led to a new relationship with the world (Marin, 1989, quoted by Duhamel 2006). The introduction of regular lines has allowed for better control over the duration of crossings, with a departure and arrival schedule. Together with higher travel speeds, this also contributes to the expansion and multiplication of areas affected by tourism (Stock *et al.* 2007). Railway lines, used in principle for goods transportation, have also been exploited for tourism. In Arcachon the train arrived as early as 1857, while Bordeaux-Bayonne line was opened in 1852.

In this context, there seems to be a semantic shift from the English word "station", in English, to tourist station as the place where the train arrives; of wordplay that reflects a reality but feeds confusion. Indeed, the appearance of the railways corresponds to a new stage in the development of tourist sites with the creation of the first tourist stations.

These developments produced unexpected effects by installing new accessibility logics according to the development degree of transport in different countries. For example, the regular line between Palma and Barcelona, inaugurated in 1838, was designed to promote trade between Catalonia and the archipelago, although George Sand used it during his winter in Mallorca (Sa Nosta, 1982 quoted by Duhamel 2006).

Although the presence of the petrol station did not have the same effect on the vocabulary as the railway station, the spread of the car as a means of transport led to the creation of stations under the leadership of industrialists such as Citroën and Peugeot in France. Despite this causal relationship, the motorway, high-speed train, or regular flight are not decided based on tourism issues, but it is clear that the induced effects are significant.

After the Second World War, a second quantitative leap took place: the number of international tourists rose from 50 million in 1950 to more than 1.2 billion today, thanks, among others, to cars and planes. It was also accompanied by the spread of tourism throughout the world. Violier and Taunay (2019) consider that the second tourist revolution is marked by technical and economic development, in the post-World War II context. At that time, the development of international tourism was linked to the technical development and civil aviation.

The networks of motorways, high-speed trains or regular flights were not built according to the tourist stakes, but it was clear that their induced effects were important. Thus, for a few decades, charter flights and more recently low-cost flights have shown a close link between tourism and the shaping of their network, as reflected by the place of Palma on Mallorca, in the map of Mediterranean tourism today.

Some tourist hotspots can only be explained by the existence of an excellent communication network which has continued to grow ever since. The creation of Disneyland Paris was an opportunity to create an extraordinary network: RER, motorways, TGV connections and interconnections with Charles-de-Gaulle airport.

The major cities within the European area and some more than others, have a high-speed rail service, such as Paris, London, Amsterdam, and Brussels, and/or low-cost air services such as Milan, Rome, Prague, or Barcelona.

Technological and organizational factors are of great importance in tourism development. The second transport revolution played an essential role in this regard. The evolution of air transport and the rapid lowering of ticket prices have made it possible to rapidly expand the international tourist clientele and to win new destinations, particularly in tropical countries. It is in fact the airplane which has enabled the tourist promotion of the archipelagos of the Indian and Pacific Oceans. The construction of large new carriers (Airbus 380 or Boeing 747) has accentuated the tendency to travel very far. Moreover, during the second half of the 20th century, charter companies allowed great flexibility in journeys organization. The phenomenon of "low-cost" airlines is currently spreading throughout the world, crushing prices. After the success of EasyJet in Europe, subsidiaries of national aviation companies were created, such as Transavia for Air France. In addition, classic charter companies are converting to this new regime of low-cost air transport, such as Nouvel Air-Tunisie and Aigle Azur. The new trends in the organization of air transport favor the rationalization of prices and a democratization of travel.

The technical evolution of all means of transport has undoubtedly had a major impact on tourism development. However, civil aviation evolution in terms of speed and capacity had undoubtedly the greatest impacts on international tourism development, which today concerns the entire world.

III. Tourism and air transport

III.1. Air Transport's Role in Tunisian Tourism Development

The importance of accessibility, especially air access, and its relation to the viability of the tourism industry does not need to be demonstrated. The tourism industry is heavily dependent on air transport. Besides, tourism provides passengers and creates new and increased business opportunities for the air transport sector. Thus, tourism and air transport are interdependent and mutually reinforcing. Island economies, especially those that are geographically isolated, depend almost entirely on access to air transport. This is the case of the Small Island Developing States of the Greater Caribbean, which are among the most tourism-dependent nations.

In 2017 alone, over 4 billion passengers travelled through 1202 major international airports. The air transport industry moved at a breath-taking pace, and it only continues to grow (IATA, 2017). Through its services, the aviation industry plays an important role in promoting tourism growth to facilitate activities that can increase national productivity. This is confirmed in the Tunisian case, if air transport is the basis for the development of international tourism, which represents nearly 7% of the gross domestic product.

There are 9 international airports in Tunisia (Fig. 1). There is one public air transport company Tunisair (with 29 aircrafts) and 40 destinations. In addition to this national company, there are two private companies: Nouvel Air which has its headquarters at Habib Bourguiba airport in Monastir (11 aircrafts) and Jasmin Airways (2 aircrafts) which has its headquarters in Enfidha airport.

In the case of Tunisia, the gap between the number of tourists who come by air and those who come across land borders has been greatly reduced in recent years. Indeed, 49.87% of tourists access the country by air while 45.85% choose land transportation. However, it should be highlighted that most North African tourists came by their own cars, nearly 99.6% in 2019, whereas 57.4% of those who came by air were Europeans.

In terms of plane movements, Tunis Carthage airport holds the leading position with 52,181 flights in 2019, *i.e.*, almost 57.34% of air traffic. In second and third positions, there are respectively the two airports of Djerba and Monastir with 15,258 and 11,085 flights, respectively. The rest of the airports hold very small shares.

Concerning international flights, regular flights hold the most important share of 62,845 against 18,950 for charter or tourist flights. Otherwise, the national flights are very minimal, only 8,888 flights, given the narrowness of the market and the weakness of the national company, Tunisair-Express, a subsidiary of Tunisair company, which provides these Tunisian inter-airport flights.

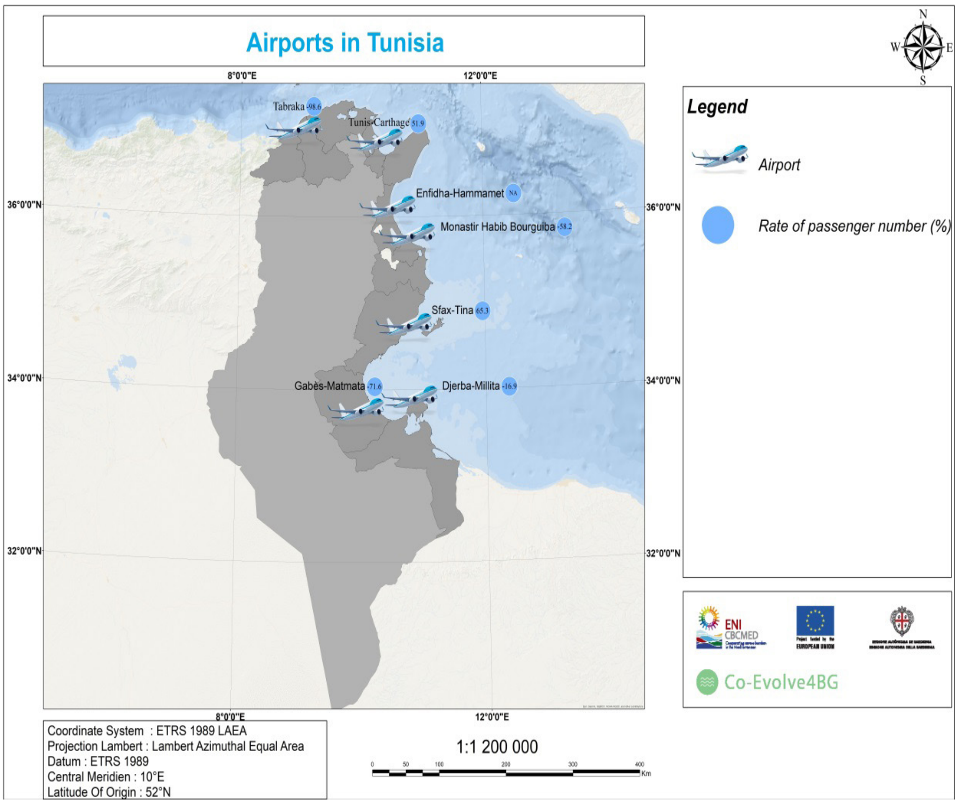

Figure 1. Distribution of airports in Tunisia

Table 1. Movement of passengers on Tunisian territory[1]

Traffic	International 2019		National 2019	Total
Aircraft movement	**Regular**	**No regular**		
Tunis-Carthage	48,029	1,010	2,808	51,847
Monastir	6,280	4,536	269	11,085
Djerba	6,437	6,481	2,340	15,258
Sfax	1,062	264	2,889	4,215
Tozeur	220	71	486	777
Tabarka	0	05	26	31
Enfidha	817	6,567	03	7,387
Gabès	0	11	62	73
Gafsa	0	05	5	10
Total	62,845	18,950	8,888	90,683

1 Source: ONTT, Tunisian Tourism Barometer, 2019

In terms of passengers, Tunis-Carthage airport holds the leading position, with 54.9% of passengers nationwide. Itspecializes in regular flights, which account for nearly 92.6% of its flights. It is followed by the airport of Djerba. Then in third position is the airport of Monastir with 16,003,453 passengers and with a national share of 13.62%. In 4th position is Enfidha airport with 1,453,384 passengers and a national share of 12.35%. Otherwise, the rest of the airports in Tunisia are not very dynamic.

Table 2. Transit flights via Tunisian airports (ONTT, 2019)

Traffic	International 2019		National 2019	Total
Transit passengers	Regular	No regular		
Tunis	13.,444	5,833	7,701	26,978
Monastir	4,778	2,285	4,516	11,579
Djerba	18,957	7,852	620	27,429
Sfax	3,251	1,778	6,622	11,651
Tozeur	2,256	0	2,449	4,705
Tabarka	0	0	112	112
Enfidha	4,658	5,049	0	9,707
Gabès	0	0	60	60
Gafsa	0	0	32	32
Total	47,344	22,797	22,112	92,253

Concerning the number of passengers in transit flights (Table 2), Tunis-Carthage airport holds the first place with a share of 26,978 passengers, representing 29.24%. Domestic regular flights account for 23.96% of all transit passengers. In second place is Djerba airport with 27,429 transit passengers, including 18,957 passengers from regular flights.

On a global scale, the geographical analysis of passenger air networks is almost exclusively included to the regular offer, which excludes charter flights. However, although the latter do not carry much weight in the world or European offer, they are furthermore dominant in serving certain tourist regions, especially the Mediterranean basin. Thus, this offer seems more and more competitive with the flights of the low-cost companies.

The competition of low-cost offer targets on one hand the public travelling for tourist reasons and, on the other hand, represents one of the main driving sources of growth of the air offer in the world and in the Mediterranean basin, since the 1990s.

III.2. Democratizing Tourism: Organizational Factors in Inclusive Tours and Charters

In June 1841, Thomas Cook organized a historic journey: as part of a tempting event, he had booked a special Midland Railways train to carry 570 people from Leicester to Loughborough, plus the competition of an orchestra, a musical parade, tea, sandwiches, and communal entertainment, all for the all-inclusive price of one shilling per passenger. Apart from the name, this was the first Inclusive tour. It had all the features: the organizer, the grouping of travelers, the program including transport, food and entertainment, the purpose of the leisure time and the low all-inclusive price (Duhamel, 2006).

Later, in 1919, commercial aviation has offered its first services, and from that date on it was used for tourism, albeit only marginally - services between Berlin and Swinemünde, Manchester and Southport and Blackpool, and between Bilbao, San Sebastian, and Biarritz. In 1934, the English “Polytechnic Touring Association” announced a fourteen-day circular trip linking the capitals of seven European countries, for a total price including all services, in addition to the trip on a Heracles aircraft chartered by Imperial Airways. By the end of the 1930s, all British agencies offered all-inclusive air travel to mainland Europe. Popular spas and seaside resorts (Le Touquet, for example) were featured prominently in the programs on offer.

Although premature in Europe, the experiment of organizing air travel was, however, more successful in the United States, where the plane was used for organized trips between towns in the North-East and Florida, California, Hawaii, or West Indies. Even before the end of the war, which slowed down this initial momentum, Pan American advertised an “Aerial Weekend: Three Days in Paris for New Yorkers” (1944) (Boyer, 1966, in Duhamel, 2006).These rather ephemeral experiences reappeared, this time lastingly, at the end of the 1950s in Great Britain with the development of “inclusive tours”, packages including transport, accommodation, and meals, then linked to the availability of air carriers.

If “tourist” and “economic” fares appeared in 1952 and 1958, respectively, it was above all the development of charter flights in the 1960s which, with the social achievements and socio-economic upheavals of the 4th Kondratieff economic cycle (Vandermotten and Marissal, 2004; Duhamel, 2006), allowed mass tourism development by air. By charters, an offer classified as “non-regular”, generally means inaccessible directly to the public, because it is made available to a client (classically as a TO) who buys the capacity offered, and then takes charge of filling the corresponding aircraft via the sale of its packages to private individuals. The TO achieves low costs, and therefore low prices, by 1) its weight, which places it in a position of strength to its advantage over associated service providers and enables it to achieve economies of scale and 2) the low price of charter flights.

The charter company can in fact reduce its operating costs by ensuring aircraftsare well-filled thanks to TOs, very low commercial costs, the use of aircraft by second-hand

and a staff often less well paid, and less service on board (Merlin, 2000). In addition, an important but rarely cited element in the literature is the achievement of density economies (increasing aircraft utilization and/or capacity within a network of a given size) which are more effective than economies of scale. Thus, on a daily scale, charter airline aircraft are more intensively used (hence very early departures allowing an optimization of the number of rotations) and have a high seat density compared to conventional airlines.

Furthermore, it can be observed that airline companies, charter companies and tourist activities are increasingly intertwined. Classical companies have sometimes created charter, hotel, or tourism subsidiaries, following Air France example, which has owned Le Méridien and Sofitel hotel chains including, among others, Jet Tours. Conversely, there are examples of TOs that have created their own airline subsidiaries or taken over an existing company, such as Corsair which belonged to Nouvelle Frontières (Merlin, 2000). This goes in the direction of vertical integration, between transport and tourism companies.

Despite the spectacular development of the charter offer and its significant weight, the geography of the air networks thus designed is very poorly known and the appropriate data is little or not available.

III.3. Liberalization of European Skies: Low-Cost Airlines and Competitive Impact

The Chicago convention, signed in 1944 toorganize the international regulation of air market essentially based on bilateral agreements between countries that remained sovereign over their skies, almost leaves aside non-regular supply which was marginal at the time and whose future development was unforeseeable. Prior to the deregulation and liberalization of the 1970s to 1990s, scheduled airlines often had their capacities and prices regulated by their home state and the possibility of operating international flights subject to traffic rights allocation by states (“freedoms of air”). States negotiated bilaterally and their flag carriers shared corresponding markets in an almost hushed atmosphere (Biplan, 2004 in Dobruszkes, 2006). On the contrary, charter companies developed in a more liberal environment with operations mainly constrained by the acceptance or not of third countries to be served (Lobbenberg, 1995a, in Dobruszkes, 2006), thus referring to receiving countries policies in terms of tourism development and protection of their own companies.

It is interesting to note that the spark that launched the European sky liberalization was a 1985 ruling by the European Court of Justice following a challenge by TO Nouvelles Frontières, which ruled that the competition rules of Rome Treaty should also apply to air transport. This precipitated European sky liberalization (beginning in 1987 and finalizing by the resolutions of the ‘3rd package’ implemented between 1993 and 1997). This liberalization abolished the distinction between scheduled and non-scheduled airlines and allowed any airline from a European member country to operate any flight between two community airports, including flights between two other countries or a domestic flight from another country (Esperu and Surbrémon, 1998 in Dobruszkes, 2006).

However, charter companies have benefited little from this liberalization, as they already operated in a relatively liberal environment. Moreover, outside the European area, they remain dependent on bilateral agreements between states, even if certain trends towards liberalizationwere observed.

According to (Mason, *et al.* 2000 in Williams, 2001; Dobruszkes, 2006), charter airlines have a lower cost per seat than Low-Cost Carriers (LCC). This difference is due in part to even higher load factors and the use of larger aircraft and longer distances. However, the market still needs to be segmented according to distance. The market must also be segmented according to distance. As Williams (2001)showed, charter companies cannot indeed cope with LCC on flights of less than 2.5 hours (1,200-1,600 km), especially if they correspond to short stays and/or VFRs. On these relations, low-cost airlines, and their facilities (*e.g.,*free access to the offer, more frequent flights, reservation by Internet and secondary airports sometimes more accessible at least by road) have often caused charter flights to decline or even disappear. Moreover, in more distant destinations (more than 2,000 km) often corresponding to longer holidays, charter companies remain more competitive and LCC are largely absent.LCC offer advantageous fares - even if the attractive calling prices generally do not include airport taxes and miscellaneous charges and correspond to only a few seats and the possibility of organizing one's trip more freely. The ease of booking via the Internet, thanks to central booking centers covering hundreds of destinations around the world, is an unexpected advantage in this respect.

Hostelworld.com, for example, announces that it covers 146 countries in which it is possible to book rooms of different categories, while the site also allows you to book airline tickets. Anyway.com goes even further, as it immediately offers the possibility of de-packaging your trip by directly combining transport (regular or charter flights and trains), accommodation and car rental, while also offering integrated packages.

In any case, as Williams (2001)notes, charter airlines are used to fierce competition and are partly able to adapt. Moreover, it should be remembered that many charter companies are economically viable, unlike various LCCs which have not yet reached this stage.

Moreover, bankruptcies are legion in this sector, which still needs to be "cleaned up".If charter companies have regressed on the segment below 2,000 km, they may not have said their last word, especially on medium and long-haul segments. In this respect, based on analyses drawn up only for charter and/or low-cost destinations from the five countries studied, a gradient becomes very clear, according to which, overall, the LCC do not serve the markets that are too far from the countries studied and/or non-liberalized (North Africa and non-European countries), which are the prerogative of charter and classic companies.

In the Tunisian case, the private company "Nouvel air" found itself obliged to convert to a low-cost regime to face international competition. Thus, the subsidiary of Tunisair, Tunisair-express which specializes in domestic and charter flights to nearby destinations in the South of Italy, converted from this new low-cost regime, even before the integration of open sky regulationswhich concerns all Tunisian airports except that of Tunis-Carthage. Tunisian authorities fear for the national company, Tunisair, from competition with low-cost companies at Tunis-Carthage airport. Although the figures are not available, it may be estimated that Tunisian companies are still sheltered from the competition of international low-cost companies, which until now have not been operating at full capacity, because of the tourist crisis in Tunisia.

In 2015, the global aviation network carried 3.5 billion passengers on 34 million scheduled departures. By 2030, current projections suggest those numbers will nearly double. LCC has played a major role in this extraordinary expansion of aviation over the past quarter centuryand there is a high expectation that they will continue to do so. LCC carried 984 million passengers in 2015, which was 28% of the world total scheduled passengers. This marked a 10% increase compared to 2014, which means LCC experienced a passenger growth rate that was about one and a half times the rate of the world total average passenger growth2.

III.4. Transport and tourism in the islands

Today, island areas are increasingly confronted with new challenges in the tourism sector related to air transport. For many islands, the weight taken by tourism in their island economy makes it one of the indispensable pillars of national economy. Moreover, for these specific territories, the quality of air accessibility is the element, not unique, certainly, but nevertheless indispensable for the development of tourism (Mondou and Pébarthe-Désiré, 2013).

The imagination linked to the "Sun, Sea and Sand" model plays to the full in the case of islands, more so than on other coasts and still works very well with the European clientele who goes to these destinations to rest.

Djerba Island constitutes the first tourist zone in Tunisia, with a capacity of 53,079 beds. It has been able to forge for itself a specific image of its own in the European markets since the 1960s: "the nearest California to you". Djerba airport ensures the transfer of most tourists. Located nine kilometers west of Houmet Souk, near Mellita town, this airport was already put into operation in 1970 to improve tourist attractiveness of Djerba. With a surface area of 295 hectares and a capacity of 4 million passengers per year, its activity is essentially linked to tourist's transport coming to visit Djerba and its region in south-eastern Tunisia.

Moreover, Kerkennah archipelago, situated further North than Djerba, in Sfax governorate, remains sheltered from mass tourism, as long as there are only 6 hotel units there.

2 Retrieved from https://www.icao.int

While tourism development has taken various forms on the islands, the question of air access, coupled with the necessary consideration of political, spatial, social or hotel parameters, occupies a central and original place. For states that choose economic development through tourism, national airline company inception enables them to reinforce accessibility to their territory, without leaving this crucial question in the hands of foreign operators alone. It still constitutes an essential strategic element, more essential as competition between destinations, but also between airline companies, has been exacerbated over time. Air transport partly represents conditions for the development of the tourist economy and the control of the destination.

IV. Cruise and yachting tourism: Tunisia's place in the Mediterranean Sea

IV.1.Cruise tourism in the Mediterranean and Tunisia

As a world leading tourist region, the Mediterranean Sea has recently been enriched by a new and particularly dynamic component of the touristic sector: cruises. Of course, the activity is not new in the Mediterranean Sea since itineraries were already organized in the Greek islands before the early 1960s. However, at that time, they did not have the same form as today's cruises or the same scale, and they took place on board much smaller ships (Fournier, 2011).

Since the mid-1990s, the time has come for the gigantism of cruise ships which, with more than 3,000 beds and corresponding measurements, can no longer dock in ports with infrastructures that have become too narrow, and are the source of colossal investments in navigation basins. Thus, Costa Concordia, Independence of the Seas, and other Norwegian Gems, in addition to bringing cruise activity into an era of mass tourism, have been drawing singular itineraries in the Mediterranean Sea, and have finally been revealing a new geography of cruise ports. Defined as the "Maritime circuit for leisure or pleasure purposes on board a liner or a pleasure boat", the term "cruise" can be applied to private pleasure boating, to "tourist tours" (*e.g.,* excursions and dinner on water) as well as to multi-day circuits with stopovers, on board a ship of varying capacity (over 24m) (Jacob, 2009 cited in Fournier 2011).

Within the framework of mass tourism applied to cruises, Fournier (2011) writes that the giant liners are liners where the occupants would be squeezed together like sardines. These new monsters of the seas are much more comfortable than their predecessors, and for a good reason: the cruise ship does not function as a simple means of transport with accommodation, but as an autonomous center of stay. The principle of the fun ship (offering a variety of activities on board, from golf to SPA, tennis, or yoga) created by Carnival is that of a ship where contact with the outside world may not appear essential throughout the entire voyage; the ship becoming the destination of the stay. Thus, the cruise operates on an all-inclusive basis, with accommodation in the cabin, sometimes with loggia.Meals and entertainment on board were included in the package, while the excursions offered were optional and can be chosen until the last moment.

According to specialists in the field, the success and development of cruise activity in a navigation area depends on various factors: the attractiveness of the port of departure/arrival of the cruiseas well as that of the area included in the itinerary, the seasonality of the area concerned, the presence of infrastructures (ports with passenger terminals) as well as the purchasing power of the populations living in the area concerned. It must be recognized that the Mediterranean Sea has a priori all the required qualities.Situated at the crossroads of three continents, it is bordered by several mountain massifs that plunge into the sea, creating peninsulas, capes, and large bays suitable for navigation. It is also dotted with islands of all sizes in a narrow space bordered by many states.

For navigation, the Mediterranean Sea is an almost ideal basin as it is almost enclosed, combined with a temperate, mild, and warm climate, which allows the cruising offer to function for most of the year. In fact, companies can plan shipping for eight or more months of the year if they offer routes along the Aegean or African coasts. In addition, the rich past of the basin, its famous legends and myths, offer historical and cultural attractions (cities, archaeological sites, UNESCO World Heritage sites) that focus the attention of the companies and are the spearhead of cruise tourism in the region. Finally, the existence of ports located close to the most popular tourist and historical sites would have led the companies to choose to develop cruises in the Mediterranean.

In Tunisia, after the 900,000 cruise passengers who came in 2010, the number of visitors fell again between 2012 and 2014 to between 450,000 and 600,000 tourists; a downward curve during all the last years which had made it difficult to restart on the figures of the old statistics. Thus, in 2015, 4,693 yachts and boats were counted visiting the different ports of the country. As an example, the big European boats that dock in La Goulette are listed as "Costa Victoria","European Star", "Costa Mediterranean" and "Costa Fortuna". The tourist and craft village of La Goulette port was the first attraction that attracted cruise passenger's attention. In most cases, cruise passengers spend a day in Tunis to visit Medina and some tourist sites such as the suburbs of Sidi Bou Said, Carthage and Bardo national museum.

Cruise tourism suffered a heavy blow after the attacks in Bardo and Sousse 2015. Since this black year for Tunisian tourism in general, cruise tourism has not been able to restart. Tunisia hosted only one cruise in 2019, a first since the terrorist attack of March 2015, at Bardo Museum,then onApril 4th, 2020, another cruise ship carrying 600 tourists, mostly German.However, Tunisian authorities have intended to develop cruise tourism in other ports of the country, including that of Zarziss, given the expected impact on the craft sector and historical sites, as well as the local economy in general, especially that the average consumption of cruise passengers is estimated at €200 per day3, much higher than that of an ordinary tourist. Moreover, in 2010, cruise revenues were €4 million4.

In a press release, the Managing Director of La Goulette Shipping Cruise, Wissem Bouchnak, told the press that the logistical, security, environmental and sanitary preparations for the reception of these cruises is underway, in coordination with the Office of Merchant Marine and Ports under the Ministry of Transport and the Ministry of Tourism. Coordination is also under way with the Ministry of Health to install thermal cameras to assess the body temperature of passengers to prevent contaminations with the Coronavirus.

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3 http://www.tn24.tn/fr/amp/article/tourisme-tunisie-arrivee-du-bateau-de-croisiere-amira-201276

4 https://lapresse.tn/52010/la-tunisie-accueillera-en-2020-11-croisieres-dont-la-premiere-arrivera-le-4-avril-prochain/

IV.2.Yachting in the Mediterranean and the positioning of Tunisia

The dry port phenomenon represents a recent innovation and trend, successfully tested in the United States. It is evolving for several reasons. In the Mediterranean basin, faced with the saturation of the marinas and the lack of new developments, local authorities have found themselves forced to resort to this type of dry port. Undoubtedly, marinas have a negative impact on the coastal environment, especially in terms of beach erosion. As an example, in France, since the creation of the Conservatoire du littoral in 1975, the construction of new marinas has almost stopped. It is a public establishment without an equivalent in Europe, whose mission is to acquire plots of coastline threatened by urbanization or degraded to turn them into restored, developed, and welcoming sites respecting the natural balance.

In financial terms, an efficient organization of a dry port makes it possible to reduce the maintenance costs of the boat which remains less in contact with sea water and the quantity of anti-fouling varnish treatment by reducing the frequency of use.

In terms of number of dry ports, Spain has most dry spaces near marinas of the whole Mediterranean coasts, followed by Italy and France. As far as the surface area of dry spaces is concerned, Egypt is the only coastal country with a higher dry provision than at sea.

Faced with the growing demand in terms of marinas, Tunisia which is situated in the heart of the Mediterranean basin (Table 3) presents itself as a very potential country to develop this promising niche. Yachting tourism generates more foreign currency income than income from traditional tourism. It provides direct and indirect employment. It targets a range of clientele which national tourism does not yet know. The risks for the activity are, however, not to experience the desired expansion. It is at a standstill. The administrative and regulatory formalities are heavy, long, and complicated. Thus, the cumbersome procedures hamper entry and exit movements; and even the passage from one port to another inside Tunisia[5].

An exceptional position, a gift of nature since the dawn of time, Tunisia is at very short distances from the main marinas. The promotion of this Tunisian potential throughout the world certainly constitutes a strategic opportunity for the entire Tunisian destination in view of the situation of yachting in the Mediterranean Sea marked by the combination of three factors: the saturation of the northern shore, the shortage of mooring rings and the explosion in the number of yachtsmen in the Euro-Mediterranean region.

5 Retrieved from https://www.businessnews.com.tn/tunisie-le-tourisme-de-plaisance--avire--,519,18621,1

Figure 2. The place of Tunisia in the western Mediterranean marina

Table 3. The distance between the main marinas in the western Mediterranean

Main ports	Distance
Pantelleria-Kélibia	40 nautical miles
Porto Cervo-Bizerte	234 nautical miles
Palermo-SidiBou Said	177 nautical miles
Cagliari-Bizerte	122 nautical miles
La Valette-Port El Kantaoui	192 nautical miles
Ajaccio-La Goulette	341 nautical miles
Toulon-La Goulette	450 nautical miles

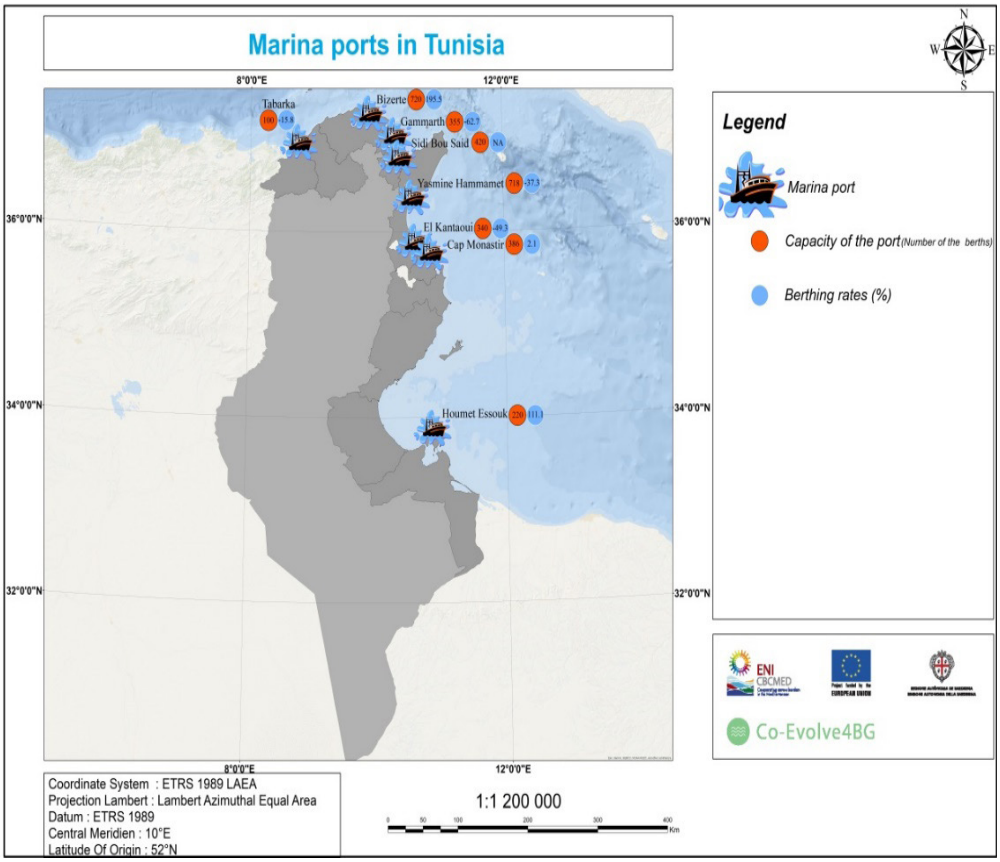

Figure 3. Distribution of marina ports in Tunisia

Better still, if the Mediterranean Sea in terms of tourist flows occupies the first place in the world with more than 320 million arrivals, it is also the leading destination for pleasure boating tourism with a world market share of around 30%, given that the average expenditure of a yachtsman is €400 per day.

Although it is in the heart of the Mediterranean Sea, with 8 marinas, 1,300 km of coastline and despite all its rather interesting assets, Tunisia is not yet able to seduce yachtsmen. They represent less than 1% of all the boats crisscrossing the Mediterranean Sea. And yet, Tunisia had already a rather old policy to develop this niche. Initially, a study was carried out as early as 1975, on the initiative of the Tunisian National Tourist Office (TNTO). The first yachting day was celebrated in 1989, then in 1993, 1994 and 1995. Afterwards, it was a quiet day. It was not until 2005 that a new study on the same issue was launched. Until then, Yasmine Hammamet, inaugurated in 1996, was the only private marina, the other 7 being under the supervision of the Ministry of Tourism.

The geographical location and its natural and cultural wealth offer Tunisia considerable potential to consolidate and improve the performance of this sector. Tunisia has eight marinas on its coastline with a total (theoretical) capacity of nearly 3,266 moorings. A precise terminology is to be taken into consideration. Thus, the leasing indicates the ownership of the ring (Table 4). The rental should not be confused with the actual occupation. It is possible to rent a ring and not occupy it.

Table 4. Marina capacity in Tunisia (ONTT, 2019)

Port	Rings
Tabarka	140
Bizerte	800
Gammarth	466
Sidi Bou Said	400
Yasmine Hammamet	720
Port El Kantaoui	340
Monastir	300
HoumetEssouk (Djerba)	100
Total	3 266

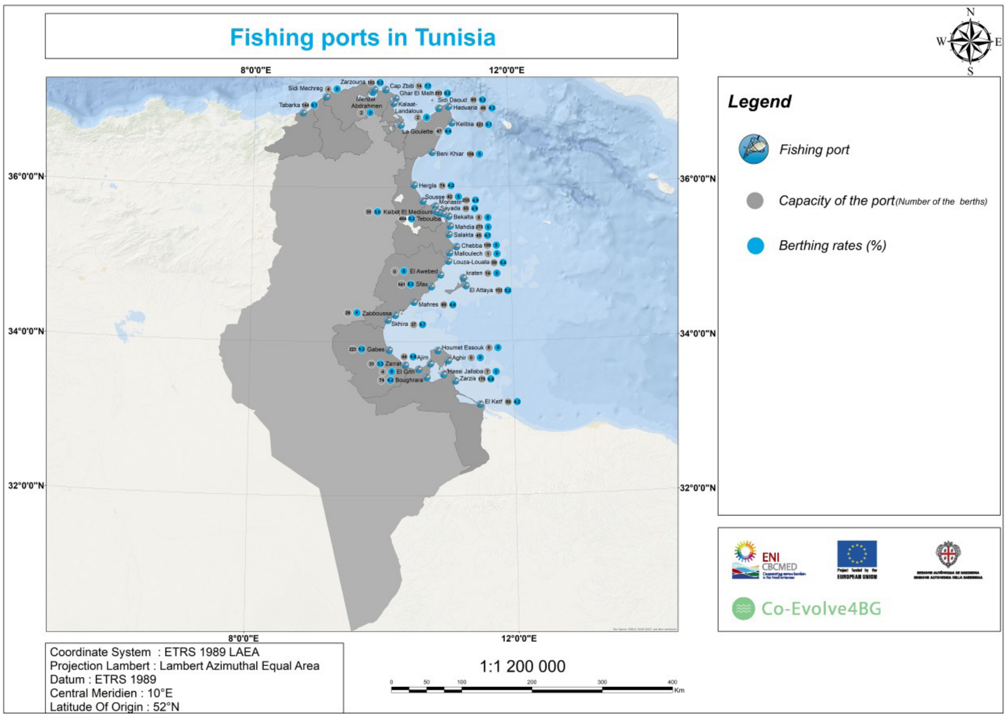

Figure 4. Distribution of fishing ports in Tunisia

Pleasure boating in Tunisia has an average turnover of 60 million Tunisian dinars and employs some 2,000 people, if not more. Moreover, the participants, yachting professionals, are unanimous: “Currently, the yachting activity is very little developed. It represents only 0.7% of the reception capacity in the Mediterranean Sea. Out of a total of 270 thousand boats that crisscross seas and oceans, Tunisia welcomes less than 1% of them each year, the equivalent of 2,500 boats per year”.

Worse still, the equipment ratio is one of the lowest in the region. It is around 0.25 boats per 1,000 inhabitants. “The biggest obstacle and the biggest brake to the development of pleasure boating tourism in Tunisia are precisely the formalities and administrative procedures for entering and leaving the territory and even for moving within the country, from one port to another,” declared Ahmed Moatemri.

He added: “It takes 45 seconds to enter a European port. At home, it is a real headache that discourages yachtsmen from coming to our ports. Between the visits of the customs officers on the yacht, the form to fill in, the endless, sometimes ridiculous questions, such as: “how many mobile phones do you have”;“how many electrical appliances do you have on board”;so many formalities block the development of yachting and the arrival of a high-end and, above all, spendthrift clientele”.

Regarding expenditure, no one can deny that activity is a strong generator of foreign currency. In the opinion of the professionals, a 40m boat needs two rental cars, a bus for the staff: about 4 to 5 thousand dinars for supplies, 100 thousand liters of diesel, and boat maintenance. In 15 days, the boat can leave 40 thousand dinars in Tunisia, and that’s a minimum figure that no hotel can achieve in such a short time. In terms of formalities which complicate the development of yachting in Tunisia, the problem of the acquisition and registration of boats is mentioned. They obey tremendously and above all long formalities. To register or buy a boat, the person concerned must undergo a police investigation. According to professionals, one can only detect a major problem of communication, raising the awareness of the customs agents, the Ministry of the Interior and the other administrations involved in the activity, but also of training in seafaring professions. For some professionals, the question of procedures in some ports is due to overzealous agents.

It is true that on the side of the State and the administration, there is a certain awareness of the importance of yachting tourism as an activity which generates foreign currency income. Nevertheless, on the one hand there is a desire to develop it, on the other hand there are fears linked to illegal immigration which hamper initiatives.

The problem of communication exists at all levels. It would perhaps be interesting to start by talking to each other, by communicating, explaining, and raising the awareness of the law enforcement agents on the issue of pleasure tourism since the brand image of the destination is at stake. In this sense, the very young Chamber of Nautical Industries, recently created within UTICA, has its work cut out for it, notably to open the debate, to make people understand what pleasure boating tourism is, to be distinguished imperatively from the merchant navy, and to explain the imperatives, the problems, and the constraints. It would also be interesting for the professionals to group together within a Federation so that they can become a real force for proposals.

V. Conclusions

At the end of this reflection, transport holds an important place in the creation, development, and evolution of tourist places through the access they allow, and this is reflected in a quantitative progression of tourists and a diffusion of the places in space. However, its place should always be nuanced to better understand how this element plays a role in the tourist system and how important its presence or absence would be according to the periods and regions of the world.

Addressing the question of transport on the scale of the Mediterranean Sea also makes it possible to question the dynamics of tourist sites in relation to the quality of their access conditions, both ancient and contemporary.Thus, one can wonder what promotes the sustainability of a situational rent or its obsolescence and whether this could be due to infrastructure alone;a reflection that usefulness would not be reserved for tourist sites alone. Technological evolutions also push us to think about the spatial effects of the reduction of travel times. Here too, there is a real selection between tourist sites according to the modes of access they have, whether exclusive or cumulative. New sites are integrated into the tourist or recreational world, always in relation to the level of accessibility. The evolution of means of transport and the modalities of transport (fixed price, charter, and low cost) have participated in the development of mass tourism, at the level of the Mediterranean basin, which also concerns Tunisia. The latter has nine international airports. The airport of Tunis Carthage, which is in first position specializes rather in regular flights, while the two airports of Djerba and Monastir, in 2nd and 3rd positions, specialize rather in charter flights, if they are rather touristic. The rest of the Tunisian airports are not very dynamic, and their operation depends closely on the development of the tourist sector.

With only one cruise port, La Goulette, Tunisia is not seizing the financial windfall that this promising niche could offer, especially since the Mediterranean functions as the first cruising basin in the world. Tunisia has the geographical advantage to develop this niche which will have a great future. This has been reinforced, for several years, by the reduction in the average age of cruise passengers induced by the modification of the cruise product which has gone from a luxury product whose clientele was composed of individuals of high age groups, with high income, to a “mass product” whose clientele is essentially made up of families.

As for yachting, with only nine moderately equipped ports and its rigid regulations, Tunisia attracts less than 1% of the yachtsmen of the Mediterranean basin, compared to its competitors. It is advantageous to further develop this promising niche for the national economy.Cruise liners and yachts are the least harmful compared to other means of tourist transport. However, their negative impacts on the marine environment can be significant, within the framework of mass development and without taking the necessary precautions.

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