

Tourist Well-Being and Infection Prevention and Control

Tunisian scale





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

Tourist well-being and infection prevention and control Tunisian scale



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OVERVIEW

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List of abbreviations

CBT	Central Bank of Tunisia
CF	Competitiveness Fund
CT	Corporate income tax
EA	Europe Assistance
EU	European Union
GDP	Gross Domestic Product
GIZ	Gesellschaft für Internationale Zusammenarbeit
HIA	Hotel Industry Association
IATA	International Air Transport Association
INSEE	Institut National de la Statistique et des Etudes Economiques
NCO	National Crafts Office
NSSF	National Social Security Fund
PCR	Polymerase Chain Reaction
SME	Small and Medium Enterprises
TGC	Tunisian Guarantee Company
TNTO	Tunisian National Tourist Office
TSB	Tunisian Solidarity Bank
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNWTO	World Tourism Organization
USAID	United States Agency for International Development
WHO	World Health Organization

Abstract

The health-tourism relationship has multiple aspects and is strongly imposed in the configuration of the tourist stay. Health concerns are crucial for the designer of the tourist product who wants to guarantee the success of his activity and for the customer who is looking for a safe tourist destination. The epidemics which have appeared in the Mediterranean, at least during the last three decades, have not really impacted tourism in the world's leading tourist destinations. Tunisia has experienced the development of a tourist sector since the 60s of the last century, which has become a strategic pillar of the national economy.

Focused on the mass seaside product and benefiting from the natural potentialities (sea and sun), the tourist resorts have not ceased to multiply and to expand following the increase in the number of foreign customers attracted by a safe destination beneficial for the well-being and capable of providing a good quality stay. However, as in any country in the world, the tourist sector is strongly subjected to multiple risks, particularly safety and health risks.

The decade of 2011–2020 has seen several domestic events (revolution and terrorist acts), which have strongly disrupted tourist activity. This has resulted in a decrease in international tourist arrivals. However, the appearance of the coronavirus or Covid-19 in November 2019, which spread rapidly throughout the world, is at the origin of an unprecedented universal health crisis. As measures undertaken to cope with it, the closure of borders for months and the confinement of the population have severely upset the Tunisian economy and particularly tourism. The tourism sector has entered recession and the success achieved in the interception of the first wave of Covid-19 during the first half of the year 2020, did not allow the resumption of activity in the Tunisian seaside tourist resorts. These have remained deserted because of the absence of foreign customers. Indicators show a flagrant fall in international arrivals, overnight stays and revenue generated. The losses recorded by hoteliers, travel agencies, national airline company, craft trades and other actors have been enormous. The support plan undertaken by the State has not succeeded in alleviating the effects of the crisis.

The determination of the health crisis aspects caused by the Covid-19 pandemic and its impact on tourism, as well as the measures followed by the Tunisian government, can only be clear and relevant if it is analyzed in the context of the Mediterranean basin. This is why these elements have been analyzed in the Tunisian context, but also with reference to examples from countries on the northern and southern shores of the Mediterranean. This is more useful when the role of domestic tourism in saving the tourist season of the year 2020 is mentioned. Here, the French, Italian and Spanish examples are very rich, showing a national mobilization framed by the public authorities and boosted by civil society. In Tunisia, the reaction of domestic tourism is mainly attributed to individual initiatives undertaken by hoteliers and travel agencies. The health crisis has reflected the fragility of the mass seaside product in Tunisia, and this leads to reflection on alternative tourism in the post-Covid-19 phase associated with a progressive change in tourist behavior.



A revision of the strategy of the sector is strongly required to enable the development of other niches which are not very sensitive to crises, and above all the exploitation of the natural and cultural potentialities in the different regions of the country. The projects under implementation and others envisaged in the field of sustainable tourism which are financed by international cooperation, for example, are part of this trend of diversification of the Tunisian tourist product to attract a new clientele, spread out the tourist season and consolidate the sector against possible crises.

I. Tourism and security issues

Taking safety into account is a fundamental priority for the sustainability of the tourism sector. In the hotel sector, it is second only to cleanliness in terms of tourist expectations. Establishing a relationship between the two concepts of tourism and safety is a complex task given the contradiction between, the security constraints to ensure a safe stay for the tourist clientele and the importance of a friendly welcome to the success of the tourist activity.

Tourism activity is booming worldwide, both in terms of the number of tourists and the diversity of destinations, which is constantly increasing. Several national economies are based on tourism as a sector generating currency, employment, and wealth (an important part of GDP). Among the factors favoring tourism activity on a global scale is the fall in prices, especially in air transport which has enabled a greater number of people to travel. It ultimately makes this activity accessible to different social categories. Several actors in the tourism sector (tour operators, tour operators, hoteliers, restaurateurs, and other professionals) are entering the tourism system. They are concerned with ensuring a safe and secure tourist journey and stay. The risks to which tourism professionals and tourists themselves are exposed are multiple and vary according to the tourism product and the destination. Information needs and measures to deal with these risks are diverse. Furthermore, it is useful to define the concept of health risk, which “refers to a risk, immediate or long-term, more or less probable, to which public health is exposed. Health risks are risks that may affect the health of the population because of infectious agents (viruses and bacilli), chemical products (asbestos and pollution) or radioactive substances, products used in the health care system (medicines, blood and organs), therapeutic acts or dysfunctions in health care organizations (nosocomial diseases). The identification and analysis of the risks linked to a phenomenon (flooding and contamination) generally make it possible to predict the impact of a health risk on public health (Beltrando, 2004). Risk is therefore the product of a generating hazard (which corresponds to the probability of occurrence of a damaging natural or anthropogenic phenomenon) and vulnerability (*i.e.*, the sensitivity of areas and their susceptibility to damage and the capacity of societies to react). The notion of risk is therefore complex and variable in time and space (Ndiaye and Mbow, 2016).

A wide range of risks can impact the tourist stay in any destination in the world. Natural hazards are permanent and sometimes unpredictable and are characterized by their brutality. Among them, climatic risks with the frequency of certain extreme weather events, such as heavy rainfall associated or not with strong winds, can lead to catastrophic floods which damage tourist establishments and cause considerable damage in tourist resorts. Risks associated with the tsunami phenomenon, which is a giant wave that submerges the shores where all seaside resorts are located, floods the low plains, and penetrates deep inland, washing away everything in its path. In this context, the tsunami struck the Indian Ocean on 26 December 2004, caused by an

earthquake off the Indonesian Island of Sumatra. This deadly tsunami was characterized by its heavy toll in terms of human losses, with 250 thousand victims recorded on the coasts of Indonesia, India, Thailand and Sri Lanka (Paris *et al.* 2007). Among the victims were foreign tourists of different nationalities, spending their holidays in South-East Asian tourist resorts ravaged by tsunami waves that exceeded 30m in height. Volcanic eruptions, although rarer, cause material damage and sometimes loss of life. The effect on activity is direct, as any tourist facility within the range of the volcano will be damaged by the lava flow and fire emitted and indirectly by the disruption of transport. As the example of the eruption of the Icelandic volcano Eyjafjöll in 2010 which lasted for months (from 10 March 2010 to 27 October 2010). The volcanic plume, composed of volcanic gas and ash and carried by westerly winds over Europe, led to disruptions in air traffic with the closure of European countries' airspace, the cancellation of 63,000 flights and the blocking of 6 million travelers worldwide until 20 April 2010. The ash cloud spread horizontally over much of Europe and was about 4km high. This was risky for commercial aircraft traffic as volcanic particles can damage aircraft wings, windscreens and engines. It was not until 20 April 2010 that the European Union decided to reopen its airspace in line with the mitigation of atmospheric emissions from the volcano and the brightening of the sky. The International Air Transport Association has estimated the financial losses suffered by airlines at \$1.7 billion (Gylfason *et al.* 2012).

Table 1. The number of dead and missing persons of European nationalities following the tsunami of 26 December 2004 in the Indian Ocean¹

Nationality	Dead	Missing	Total
Sweden	543	17	560
Germany	539	13	552
United Kingdom	149	1	150
Switzerland	106	6	112
France	95	0	95
Austria	86	0	86
Norway	84	0	84
Italy	54	0	54
Netherlands	36	5	41

¹

Retrieved from https://fr.wikipedia.org/wiki/Séisme_et_tsunami_de_2004_dans_l%27océanIndien

Health risks are among the permanent fears of tourists wishing to stay in a tourist destination. These risks may be commonly due to accommodation and catering, due to insufficient or even lack of hygiene or contamination by one of the infectious diseases. The deterioration of the well-being and health of tourists spoils their stay and sows anxiety and fear instead of the desired peace and tranquility. For example, some tropical destinations are known to be affected by the spread of specific communicable diseases and require special preparations on the part of travelers. However, health risks are infrequent in European or Mediterranean destinations. The epidemics that have occurred since the 1990s and 2000s are localized and geographically limited in their effects. However, the coronavirus, an unprecedented pandemic that is ravaging all continents, is forcing us to review the importance of health considerations in the approach to the risks threatening tourism activity on a global scale.

II. Tourism and health

II.1. An activity beneficial to well-being and health

To understand the possible contribution of tourist activity to safeguarding the well-being and health of individuals, it is necessary to make a brief review of the origin of tourism and its appearance in England in the 19th century. In fact, tourism was born with the Romantic Movement and the term comes from the English word “tourism”, itself derived from the French word “tour”. The English aristocracy therefore went to “take a tour” generally on the continent. Going on a tour means restoring well-being and allowing the human organism to have new energy to withstand any aggression. This aristocratic tourism had its favorite places and periods, such as the Normandy coast and the French Riviera. In Nice, the long esplanade along the sea is still known as the “Promenade des Anglais”. This tourism was generally winter tourism. It is explained by the fact that English aristocrats used to leave London to escape the fog. In summer, the direction changes towards the mountains. Health considerations are quite clear and determine the choice of Mediterranean destinations (French Riviera) with milder winters and cooler ones in summer (the mountains). If the known purpose of this tourist trip for the English is a change of scenery and relaxation, the enjoyment of a comfortable atmosphere conducive to well-being and good health in the destination region is a sought-after objective.

The aristocracy perpetuated the resort, a way of staying out of town in the summer court suite. But this practice evolved under the impetus of the English. From the middle of the 18th century, people left to stay in new places such as Bath, Brighton or Nice for at least one reason: the therapeutic virtues of water, whether salty or not. From the middle of the 19th century, these precursors were joined by scientists and the new bourgeois elite (administration and industry). These newcomers, “creators” and beneficiaries of the industrial era were therefore the first to have a holiday.

In the summer, the wealthy clientele went to the spas, Bath in England, Vichy and Plombières in France. These resorts have large hotels. These buildings are located in the heart of large, wooded parks used for concerts surrounded by a casino and sometimes golf courses and a racecourse. Summer tourism is also developing on the Atlantic and Channel coasts, taking advantage of the economic boom and the construction of railways (Stock, 2003).

If health considerations have been omnipresent since the appearance of 19th century tourism, their place is consolidated in today’s tourist approaches. Seaside tourism, for example, is often associated with the search for sunshine (heliotropism). This component is essential in attracting international tourists to sunny Mediterranean destinations. Under good sunny weather, the well-being of visitors is at its peak and they feel healthy. This has a positive effect on the mood of visitors who present their intention to practice outdoor activities (in the open spaces of the hotel, in the swimming pool and on the beach) and to enjoy an atmosphere that is either non-existent or inaccessible at home. This is the case, for example, of tourists coming from Northern Europe, where the winter weather is almost completely covered and favored by a short daytime and summer weather, not warm enough to enjoy good heliotropism.

Thermals, based on the therapeutic use of spring waters, have long since led to the creation of thermal spas. Purely for therapeutic purposes, this tourist activity is currently booming due to the high demand for services that help maintain well-being. The installation of thalassotherapy centers and spas in seaside resorts and other tourist resorts that offer a wide range of treatments to a specific clientele, reflects the fact that visitors' needs go further than just a change of scenery and discovery: restoring a sense of well-being that has been greatly altered by the worries and stresses of daily life.

II.2. An activity threatening well-being and health

Multiple health and wellness risks can be associated with travel. In addition to the discomfort caused by a long flight time on the human organism, jet lag, changes in the weather and climate in general such as air quality are predictable effects for anyone planning to travel to any destination and for any period. The health risks associated with tourist accommodation and catering in destination countries can be minimized if the tourism professional or tour operator shows professionalism, takes care of his or her task and fulfils his or her function well to ensure a safe stay for his or her customers.

Other health risks are unpredictable and potentially harmful to visitors. In some faraway destinations such as Asia (*e.g.*, China, Indonesia, and Thailand), health issues for western tourists can become more difficult to manage since the civilizational context there is totally different from Europe. Language, landmarks, the name of medicines, the quality of care, hygiene and the specificity of the problem can determine how to manage a morbid state or an accident with all its possible complications.

In the specific context of treatment of health risks, health is within the limits of the dangers imposed by habitual phenomena which frequency varies in time and space, which have occurred at least once in the history of mankind. A peculiarity that arises is that the level of danger attributed to a health risk depends on the nature of the activity and the space in which it takes place. Here, the level of economic development plays a crucial role, since in developed countries this level of danger is considerably lower due to strict environmental control, which is not the case in developing countries. International tourists, especially from European countries, North America, and some developed Asian countries, already live in prosperous contexts with high levels of comfort, health, and hygiene. Therefore, they need to understand in the other parts of the world (the underdeveloped and poor countries) these same conditions are not guaranteed (Table 2). This is why any preparation for travel to a given destination must take this level of danger into account when assessing health risks in the destination countries. It also means stopping being overly optimistic and relying on previous experiences to say that nothing has ever happened so far and therefore anything will ever happen. However, it should consider putting oneself in unexpected situations (*e.g.*, getting sick from an infection, having an accident, trauma). The personal evaluation of the health risk is sometimes dependent on the state of health of the travelers themselves, since when he/she is affected by a given chronic disease (*e.g.*, asthma and diabetes) the appearance of possible health problems during his/her tourist stay will be possible.

Table 2. Detailed categories of medical problems that affected a panel of 835 travelers²

Illness/cause of illness	Number of cases
Gastro-intestinal	275
Trauma	140
General medical problems	98
Altitude	58
Insect	44
Sun, heat	40
Dermatological	31
Feet	30
Malaria	23
Orthopedic	22
Animals	19
Back	16
Pharmaceuticals	16
Eyes	13
Cold	13
Dentistry	10
Dengue	7
General Surgery	6
Water	5
Psychiatric	4
Environment	1

From the point of view of the typology of health concerns, several diseases are present in the clinical picture of tourist treatment. Indeed, data from International Expedition and the travel medicine association of the UK, which concerns a panel of 835 travelers in 2013, shows a wide range of ailments affecting them (Table 2). Gastrointestinal diseases and traumas top the list with 275 cases and 104 cases, respectively. The third place is occupied by general medical problems, which include serious conditions such as hypoglycemia, dehydration, asthma attacks, convulsions, and commonplace pathological forms such as angina, colds, and sinusitis.

To show the impact of health concerns on the abundance of the tourist stay by individuals, it is noted that in 2011, approximately 20000 Belgian tourists were repatriated for health problems. In the 208 countries covered, “Europe Assistance” intervened in 136 countries for 900000 travelers in distress (Europe Assistance, 2012). IPK International has carried out a study on the effect of health problems on tourist numbers worldwide. This study showed that 1 European tourist in 7 is a victim of serious medical problems (accidents, attacks, or illnesses) and that 1 other tourist is a victim of various types of aggression. Geographically, Africa and Asia are the two continents with the highest rates of evacuation of tourists for medical reasons, representing 35% and 30%, respectively.

It turns out that not all tourist travel is completely safe. Although health risks are more pronounced in some areas than others, the availability of information can help to alleviate this risk. For example, travel to tropical areas subjects’ tourists to the potential risk of contamination by malaria and dengue fever. Tourists planning to travel to these areas should take health precautions before departure, during their stay and after their return.

Moreover, the Mediterranean basin is not only the leading region but also one of the safest destinations in the world from a health point of view. Even for Tunisia, it has invested too much since its independence in the establishment of a comfortable tourist infrastructure and in the construction of a good reputation based on the offer of all the conditions of well-being and safety for foreign visitors. For example, the overall number of overnight stays recorded in 2019 is 30,018,511. The tourist regions of Djerba-Zarziss and Sousse came at the top of the list with 7,222,833 and 5,811,258 overnight stays, respectively (ONTT, 2019; Fig. 1).

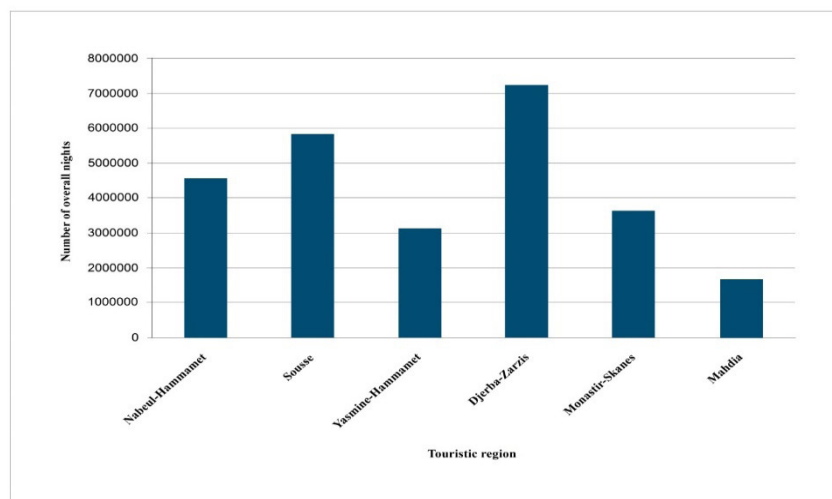


Figure 1. Number of overall nights in the main touristic regions in Tunisia, 2019

III. Tourism and epidemics in Tunisia

III.1. Review of previous epidemics: Impact on tourism

Over the last three decades at least, humanity has experienced the successive or simultaneous appearance of diseases that rage in epidemic mode (*e.g.*, bird flu, swine flu, West Nile virus infection and Ebola virus). Most of these diseases are spread from their original areas to other more distant areas by multiple vectors: migratory birds, insects, movement of goods and individuals, and means of transport. The pathogenic agents responsible for these transmissible infectious diseases do not find in the Mediterranean climate the conditions favorable for strong contagion rate. The levels of morbidity linked to avian flu or swine flu recorded in Tunisia and in the other countries on the southern and northern shores of the Mediterranean, for instance, do not reflect the occurrence of real epidemics. The health authorities have been able to control the situation by mobilizing all preventive and curative measures to curb the spread of these diseases and by implementing continuous surveillance and intervention plans.

For example, the West Nile or West Nile virus is among the diseases that have spread to all continents and currently represents a danger to public health. In view of its symptomatology and potential lethal effects, it is subject to strict epidemiological surveillance worldwide, in the Mediterranean basin, which has experienced the frequency of several epidemics. The symptomatic forms of the disease are characterized by a sudden fever after 3 to 6 days of incubation. This fever is accompanied by headaches and back pain, muscle aches, cough, rash, abdominal pain, diarrhea, and respiratory symptoms. Neurological complications (meningitis and encephalitis) are uncommon but can occur (Marrakchi, 2000). This varied symptomatology, which affects almost all systems of the human organism, shows the severity of the West Nile virus. Its transmission cycle involves mosquitoes (Diptera and Culicidae) as vectors, and birds as vertebrate reservoirs and amplifiers of the virus. Humans and equids as well as other mammals are considered epidemiological dead ends. The virus was discovered in Uganda in 1937 (family Flaviviridae, genus Flavivirus, serogroup of Japanese encephalitis) and was widely distributed in Africa, Europe, and Asia before it appeared in North America in 1999. The notable fact is that the West Nile virus was considered harmless to humans until 1990, when several epidemics occurred without causing real serious cases of meningoencephalitis. However, the decade (2000–2010) saw the frequency of major human epidemics where serious cases with fatal neurological damage were recorded, particularly in the elderly. It occurred in several Mediterranean countries, from the northern shore (Italy and Greece in 2008–2010; Spain in 2010) and the southern shore (Tunisia in 2008–2010; Bargaoui, 2012).

The West Nile virus has been the subject of permanent epidemiological surveillance in Tunisia since it first appeared as an epidemic, in 1997. However, serological tests revealed the presence of West Nile virus in Tunisia in children from the Djerba Island in 1970 (Hachfiet *et al.* 2010). The first epidemic, in 1997, was responsible for the appearance of 173 serious cases of human meningoencephalitis, including 8 deaths (Triki *et al.* 2001).

In late summer 2003, a second epidemic of the West Nile virus meningoencephalitis was recorded in the same areas affected by the first epidemic in 1997, but this time with a very significant geographical extension towards the South of the country. The outcome of this second outbreak was 21 patients suffering from severe neurological symptoms, including 3 fatal cases. There are several reasons for the continuous surveillance of this contagious and potentially fatal virus. First of all, Tunisia is not immune, as even the regions of the country that have not been affected by the West Nile virus offer favorable conditions (favorable climate, extension of wetlands, presence of hydraulic works, abundance of migratory birds and other potential factors) for its appearance and spread. The environmental conditions, particularly the high temperatures, especially in autumn and the presence of stagnant water are favorable to the proliferation of mosquitoes, as well as the presence of numerous migratory and sedentary birds likely to introduce and amplify the virus, make the occurrence of new epidemics in the country highly probable. This was the case in September 2018, when 11 infections with the West Nile virus were recorded, including 1 death in the governorates of Sousse and Kairouan (WHO, 2018). In addition, Tunisia is known as a safe Mediterranean tourist destination and provides all the conditions for a comfortable and secure stay. It is therefore the image of a country, the reputation of a destination and the fate of a strategic sector which is at stake if such an epidemic spreads.

Finally, fears of contagious diseases are always permanent because of the possible spillover of the epidemiological situation and the occurrence of a large-scale pandemic. Here, the risk of overwhelming the capacity of the health care system is very likely due to the increase in infected cases. This is a universal concern for communicable infectious diseases and has been amplified now with the coronavirus pandemic crisis that started in the last quarter of 2019 and continues to this day.

The epidemics that hit the Mediterranean basin had a limited effect on its countries as national health authorities, either through their own surveillance and management plans or through international cooperation, managed to control the epidemiological situation and avoid massive spread of potentially contagious and sometimes fatal diseases. The tourism sector was little affected by previous epidemics and Mediterranean destinations were able to resist and continued to welcome foreign visitors. However, the coronavirus, or Covid-19, escaped from this observation since in a few months from its appearance, in Asia in 2019, the whole world has been shaken by an unprecedented health crisis.

III.2. The time of Covid-19, an unprecedented collapse

The crisis caused by coronavirus is unprecedented. The virus is potentially contagious and deadly. From a simple epidemic that appeared in Asia, like any other disease or previous versions of a coronavirus, the epidemiological situation rapidly collapsed in the world, finally qualifying it as a universal pandemic. However, a definition of this disease is essential to understand its rapid spread in all continents in a relatively short period of time. Indeed, coronavirus 2019 or Covid-19 disease (SARS-CoV-2) is an infectious disease of the viral zoonosis type. It is due to a recent version of coronavirus discovered in China on 17 November 2019. The world, particularly East Asia, has

experienced two previous coronavirus epidemics in 2000-2003 and 2012 (WHO, 2020). The symptoms of Covid-19 are varied: fever, cough, fatigue and breathing difficulties. In the elderly or chronically ill, more serious symptoms are potentially common, such as acute respiratory distress, which can lead to death. In their research on this disease, specialists regularly update its symptomatology based on direct observations from different care structures around the world. Loss of the sense of smell and/or taste, heart problems, skin rashes are also frequent signs and considered as indicators of Covid-19 infection (WHO, 2020). The duration of the onset of coronavirus symptoms is about 15 days since the introduction of the virus into the human body, but the average duration of 5 days has been advanced based on clinical observations and investigations in affected individuals.

Due to the lack of a vaccine or specific treatment against the coronavirus, it has conquered all continents of the world within a few months, causing hundreds of thousands of infected cases and tens of thousands of deaths from one day to the next. The WHO recorded 182,319,261 infected cases and 3,954,324 deaths worldwide on 2 July 2021 (<https://covid19.who.int/>). From the intensity point of view, this Covid-19 pandemic was not regular and stable. Indeed, after a “first wave” started since the appearance of the virus in China and its expansion in the world during the period November 2019-March 2020, the world experienced a phase of deceleration in the rate of spread of the disease in the summer. However, a “second wave” began in early September 2020, resulting in a resumption of a high rate of coronavirus infection and continued until January 2021. Moreover, the Covid-19 pandemic affected Mediterranean countries differently. The size of the population and the demographic context (the importance of the elderly category), which differed between countries, partly explain this different coronavirus effect.

After a notable success in controlling the first wave of the coronavirus epidemic in March 2020, Tunisia is now experiencing an epidemic outbreak materialized by the continuous increase in the number of people infected (Fig. 2) and deaths (Fig. 3). In December 2020, the number of cases of Covid-19 reached 137,216 cases and the number of deaths was of the order of 4,620 deaths. The situation has seriously collapsed in comparison with the figures recorded in earliest months of the pandemic (394 cases and 9 deaths). The upheaval of the epidemic situation during the second wave initiated at the end of the summer is attributed to the opening of borders and the easing of entry conditions for tourists and in particular Tunisian residing abroad. On a national scale, the number of cases of Covid-19 has reached 213,949 cases and 7,048 deaths have been recorded on 04 February 2021 since the appearance of the epidemic in Tunisia. The figure with the 4th wave of coronavirus stands at 426879 infections and 15056 deaths as of June 30, 2021 (<https://graphics.reuters.com/world-coronavirus-tracker-and-maps/countries-and-territories/tunisia/>)

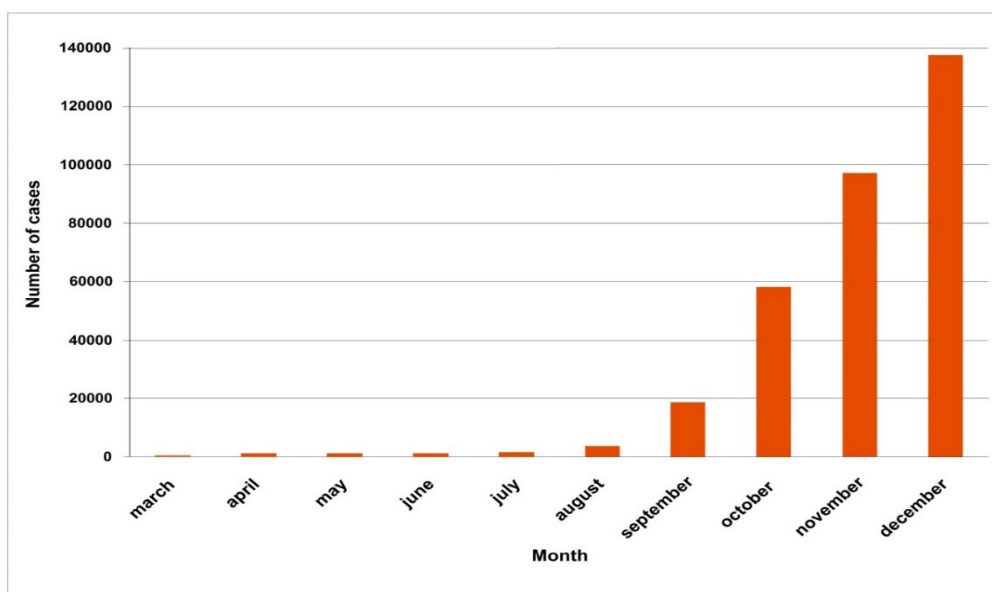


Figure 2. Increase in the monthly cases of Covid-19 in Tunisia over the period March-December 2020³

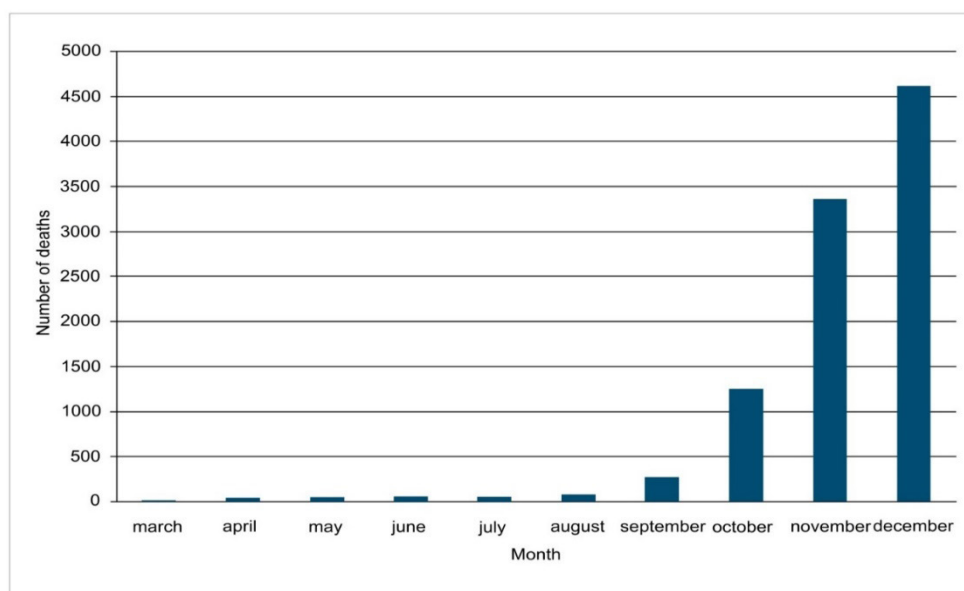


Figure 3. Increase in the monthly number of deaths related to Covid-19 in Tunisia over the period March-December 2020⁴

³ Retrieved , from <https://www.coronavirus-statistiques.com/stats-pays/coronavirus-nombre-de-cas-tunisie/>

⁴ Retrieved , from <https://www.coronavirus-statistiques.com/stats-pays/coronavirus-nombre-de-cas-tunisie/>

To stem the ultra-rapid spread of coronavirus, plans have been implemented, and measures have been taken and applied in Tunisia according to the evolution of the deteriorating epidemiological situation. From simple recommendations for distancing, the wearing of facial masks, regular handwashing and the banning of gatherings and congestion in public spaces to the tightening of measures, the situation ended with the declaration of a state of emergency and total containment in almost all countries. From mid-March 2020, Tunisia (20 March 2020) as well as several Mediterranean countries such as France (17 March 2020) imposed general confinement on their populations. The decision to close borders completely and confine individuals to their homes was aimed at slowing the relentless pace of the coronavirus contamination.

Since the appearance of Covid-19 and during the first months of the crisis, the various economic sectors in the world have recorded significant declines. With the tightening of measures to combat the coronavirus, the world economy has entered a phase of recession. According to World Bank forecasts, world GDP was forecast to fall by 5.2% in 2020. More than \$12 trillion in losses were estimated and contractions were to be experienced by several developed, emerging, and developing countries (www.Banquemonde.fr). The Mediterranean countries, too, were no exception. Occupying the center of the world and representing the leading tourist region and a vital crossing point between east and west, the tourism and air transport sectors have been slammed with a severe blow by the border closures and total containment implemented to the world. The GDPs of the countries on the northern and southern shores of the Mediterranean have contracted and forecasts have pointed to a continuing dizzying contraction in 2020. While the developed countries of the Mediterranean basin are proving more able to absorb the fallout from the Covid-19 health crisis, developing countries, which are already suffering from multiple economic problems, will see their economic situation worsen and the social repercussions are far from being identified. The collapse in the global economic activity seems to have been less severe than forecasted for developed countries, notably thanks to shallower contractions and robot recovery in China. The economic situation in developing countries, including countries of the southern Mediterranean shores, was, however, more severe than previously predicted (the world Bank In: <https://news.un.org/en/story/2021/01/1081392>).

Table 3. Epidemiological situation of Covid-19 in Tunisia and in some Mediterranean tourist countries (11/11/2020; European Center for Disease Prevention and control, 2020)

Countries	Total number of cases	Total number of deaths
France	1,865,538	42,535
Spain	1,417,709	40,105
Italy	1,028,424	42,935
Turkey	402,053	11,145
Morocco	270,626	4,506
Egypt	109,654	-
Lebanon	98,829	763
Tunisia	72,993	2,006
Croatia	72,840	893
Greece	63,321	909

Table 4. Drop in GDP growth in Tunisia and in Mediterranean tourist countries in 2020 (World Bank, 2020)

Countries	GDP growth
France	-12.5%
Spain	-12.8%
Italy	-12.8%
Greece	-8.2%
Turkey	-9.9%
Tunisia	-8%
Morocco	-6.3%
Egypt	-5.6%
Lebanon	-12%

IV. COVID-19 Crisis: Impacts Across the Tourist Process

The rapid spread of Covid-19, the huge flow of infected patients coming to health facilities to seek care and the high mortality recorded in Italy and Spain a little later than the onset of the health crisis caused panic in all countries around the world. Given its crucial role in the transmission of viruses, travel was the first to be targeted by restrictions, with a reduction in the number of air links and the number of flights until the closure of airspace and the suspension of air transport activity, except for repatriation trips for travelers stranded in other countries.

The crisis of the coronavirus pandemic affected first air transport, which is a capital pillar for tourist activity. The indicators of the collapse of the air transport sector are multiple, since the airline companies which escaped bankruptcy have seen their turnover collapse during this health crisis. According to the International Air Transport Association (IATA), which brings together more than 280 airline companies, the damage caused by Covid-19 is considerable for the travel and commercial air transport sectors. According to its estimates, this sector will not recover its pre-crisis performance until 2023. In addition, losses in this sector will be around \$252 billion. This amount does not consider the loss of revenue due to the interruption of the supply chain, the closure of airports, the shutdown of aircraft manufacturers, aircraft maintenance and servicing companies. Since the start of the Covid-19 pandemic crisis, the worsening situation of the air transport sector has forced IATA and the International Federation of Airline Workers to call on governments to take urgent action to avert a job market catastrophe as 4.8 million workers were threatened with the loss of their jobs. This appeal also concerns Tunisia, as IATA is calling on the Tunisian government to provide urgent financial assistance to the aviation industry. This international organization estimates that the revenues generated by airline companies on the Tunisian market will fall by \$0.6 billion in 2020, *i.e.*, 47% below the 2019 level. This puts at risk 92,700 jobs and 1.2 billion dollars of the Tunisian GDP, which are generated by aviation and its supply chain as well as by the tourism that depends on air transport. As an example, the Tunisian airline company “Tunisair” and after a hundred days of suspension of flights (in mid-June 2020), recorded a financial loss of 400 million dinars (or \$140.9 million; Mansour and Ben Salem, 2020). Such a catastrophic situation forced it to request financial support from the State to avoid bankruptcy and the loss of thousands of jobs.

The crisis that has affected the Tunisian national airline company “Tunisair” has had a strong impact on other air transport players in the Mediterranean countries; the large companies that far surpass Tunisair in terms of turnover, number of employees, size of the fleet and destinations served. Despite their performance, these airlines have suffered heavy losses that are risking their future. For example, Air France-KLM recorded a net loss of €1.8 billion in the first quarter and €1.6 billion in the third quarter of 2020. This unprecedented crisis facing the Air France-KLM group and the difficulties in providing the necessary financing, encountered on both the French and Dutch sides, are pushing towards the dissolution of the group and the nationalization of each party. The Italian company Alitalia received 3 billion euros in the form of a bank loan guaranteed by the

State, which became the real owner of the company. In Germany, the state solved the crisis of the Lufthansa Company by buying 25% of its capital (Suau-Sanchez *et al.* 2020). The British company Low-cost “Easy Jet” which serves many European airports has posted an annual loss of €900 million, a reduction of its traffic to 20% and the closure of two bases in Naples and Venice in Italy. To solve the liquidity problem, Easy Jet sold 11 aircraft, which brought in €145.6 million (Congressional Research Service, 2020).

If the aspects of the crisis that affect the air transport sector concern the travel or displacement phase, others arise in the stay phase. The hotel sector has been totally disrupted by this unprecedented health crisis. From the first weeks following the appearance of Covid-19 in China on 17 November 2019, the tourism sector experienced a massive cancellation of tourist reservations. Fears of a deadly virus were growing, and individuals withdrew until the outbreak of this pandemic or the discovery of an effective vaccine. The closure of borders, the suspension of air traffic and the application of total containment by most countries in the world have directly affected the tourism sector. However, the predominant discourse has given priority to saving lives. Thousands of deaths are recorded every day throughout the world, since health systems are overwhelmed and unable to respond to the unprecedented rise in demand for intensive care. Particularly medical resuscitation and assisted ventilation, and a medical and paramedical corps heavily affected by coronavirus, have contributed to a tense and stressful atmosphere for individuals already at home.

The tourism sector has been heavily affected, and this is manifested in the drop in all activity indicators such as the number of international tourist arrivals and the recorded receipts. According to the UNWTO, international tourist travel has decreased by 65% over the period January–June 2020. This resulted in a loss of 440 million international tourist arrivals and a fall in receipts of about 460 billion dollars (international tourism exports). This fall in revenue represents five times the losses recorded during the economic and financial crisis of 2009 (UNWTO, 2020).

The tourism activity indicators recorded in summer 2020 reflect a catastrophic situation in the Mediterranean countries. On the southern shore of the Mediterranean, the coronavirus crisis has had a strong impact on a tourism sector that has already been fragile and suffering from several difficulties. Months of containment and the cancellation of foreign tourist bookings have violently shaken tourism in these countries. According to the African Development Bank, the coronavirus pandemic will be the cause of losses, which vary between \$10.6 billion and \$21.1 billion in receipts in the tourist destinations in North Africa (Tunisia, Morocco, and Egypt).

Tunisian tourism has been heavily damaged by the coronavirus pandemic. In 2020, a drop of 78.7% in international tourist arrivals (Fig. 4), 64.3% in revenue and 80.5% in overall overnight stays has been recorded in Tunisia. The Central Bank of Tunisia (BCT) has pointed out that the tourist receipts recorded in 2020 are of the order of 2 billion dinars against 5.4 billion dinars during 2019 (BCT, 2020).

In Morocco, and according to the Directorate of Financial Studies and Forecasts (DEPF), the foreseeable drop for the year 2020 is 69% for international tourist arrivals, 60% for

foreign exchange earnings and 50% for employment (Boumahdi *et al.* 2020). In Egypt, the number of tourist arrivals was estimated at 3.4 million in 2020; a fall of 73.5%. The drop in tourism receipts was estimated at 72.6%, between 2019 and 2020. Losses in Egyptian tourism have been estimated at \$1 billion each month and three million people working in the sector risk losing their jobs (Selim *et al.* 2020).

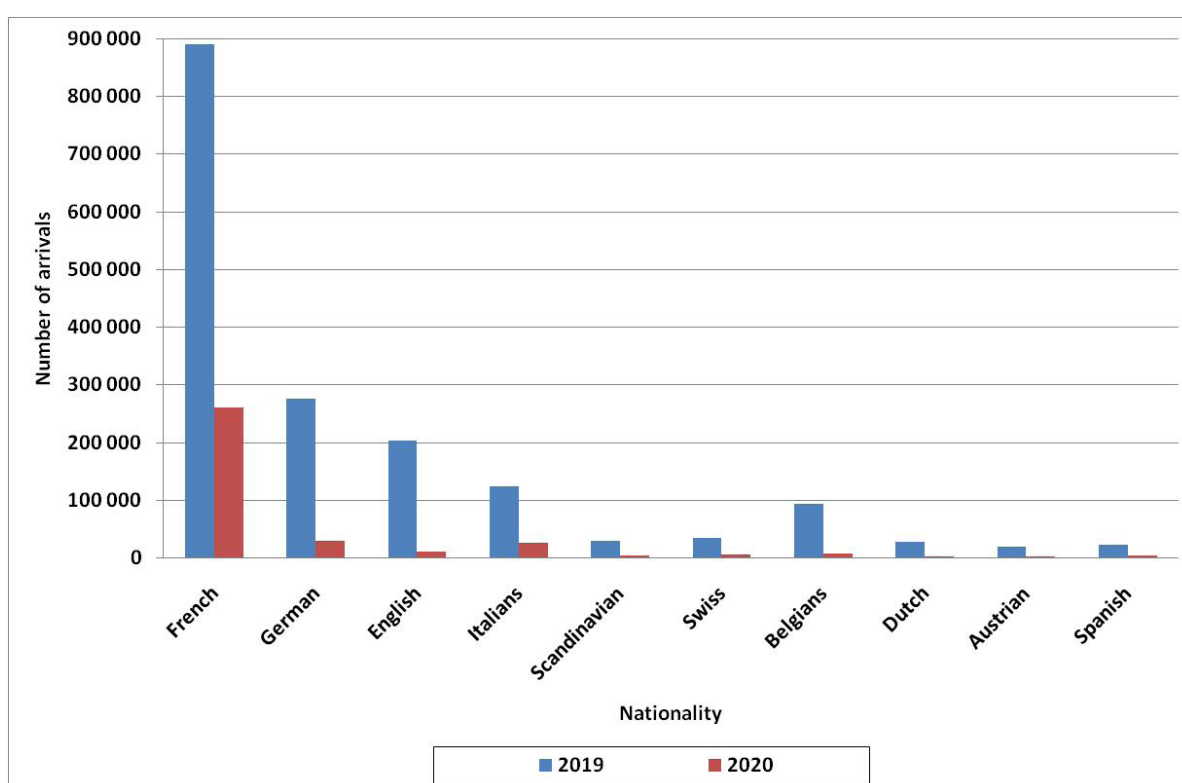


Figure 4. Falling European tourist arrivals in Tunisia in December between 2020 and 2019 (ONTT, 2021)

In April 2020, recorded tourist bookings indicated a considerable drop in the countries on the northern shore of the Mediterranean: -57.5% in Italy, -56.7% for Spain, and -54% for France. Tourism consumption in France has fallen sharply due to the Covid-19 crisis. First, according to the Bank of France, tourism receipts recorded €12.3 billion during the period January–June 2020 against €25.5 billion during the first half of 2019, a fall of 51.9%. In Spain, foreseeable losses are estimated at more than €100 billion in 2020 because of the Covid-19 pandemic. This means a tragic regression to the level of activity in 1995. The seriousness of the crisis in the Spanish tourism sector is reflected in the massive sale of thousands of hotels. In fact, the price of a hotel room has fallen considerably from an average of €400,000 before the health crisis to €100,000 in 2020 (Perles-Ribes *et al.* 2020). Italy, which is among the first countries to experience the appearance of the coronavirus in Europe, and according to a survey of 1975 tourist companies carried out by the Centre for Tourist Studies in Florence, a massive drop (-65.9%) has been recorded in the arrivals of international tourists. Moreover, a drop of

65 million overnight stays and a 37.5% drop in turnover are estimated for the summer of 2020 compared to the year 2019 (Ortenzi et al. 2020).

The Covid-19 crisis has spread panic throughout the world. In the face of the relentless spread of the virus and the daily increase in the number of infected cases and the deaths it causes, exceptional measures were applied.

Table 5. Drop in international arrivals in (%) according to regional groupings in Tunisia in December between 2020 and 2019 (ONTT, 2021)

	Fall (%) in December 2020/2019
Europeans	-74.5
Maghrebians	-90
North Americans	-81.2
Middle Eastern	-81.3
Africans	-38.6
Japanese	-96
Australians	-90.3
Chinese	-96
Brazilians	-80.5

V. Implementation of Sanitary Measures: A Comprehensive Analysis

V.1. Border closures and repatriation of tourists

The measures taken by the Tunisian government to deal with the spread of coronavirus in March 2020 was analyzed, but also the events marking the Mediterranean context was recalled. Even if their impacts on the population's state of health are not direct, these two urgent measures are being applied under specific conditions. Faced with a frightening spread of the new coronavirus throughout the world and particularly in the old continent (Europe), travel restrictions have been applied. In this context, Italy is among the first countries that experienced the appearance of the coronavirus in Europe and more precisely in Rome, since two Chinese tourists affected with Covid-19 were discovered on 31 January 2020. Since then, coronavirus has spread to Lombardy where 16 confirmed cases were recorded on 21 February 2020 and 60 other cases were detected the following day, as well as the recording of the first deaths caused by Covid-19 in Italy (De Natale *et al.* 2020). In view of the rapid collapse of the epidemiological situation in Europe, very strict controls have been implemented at all airports, ports, and border crossings between countries. The media coverage of the news of the Covid-19 pandemic aggravated the state of widespread panic around the world. In this context of managing an unprecedented health crisis, the communication of risk information represents a double-edged sword and can determine the moral and state of mind of individuals and thus their ability to participate in the fight against the disease. Information on the epidemic containing news of the damaging impacts of coronavirus contributes to public awareness of the obligation to apply barrier prevention measures to limit contamination through contact. However, some of the information provided on the status of the Covid-19 epidemic is characterized by certain ambivalence, particularly in view of the multiplicity of sources of information. In this respect, social networks contribute strongly to the circulation of unreliable and erroneous information, which sows uncertainty and even terror at the level of the population, a phenomenon that has been coined "infodemic".

Implementing the closure of borders and mobilizing the means to repatriate fellow citizens stranded abroad show the extent of the crisis and its dangerousness. The objectives of such measures were to contain the virus outbreaks by abandoning the introduction of exogenous cases, because at the beginning of the pandemic, the movement of individuals, among them tourists, was the first factor in the spread of Covid-19 over a vast geographical area and in a very limited period. On 17 March 2020, the European Commission announced the closure of the borders of the European Union (EU) for 30 days to combat the coronavirus pandemic. Such a decision was endorsed by the European Heads of State. After bans on gatherings and containment measures and the strengthening of customs controls at border crossing points, the closure of borders was the last supreme measure applied to contain the spread of the virus and prevent the collapse of the healthcare system. Such fears were justified by the warnings announced by public health experts to control the rate of contamination so as not to exceed the capacity of hospital facilities. This is more crucial with the rise in the number

of cases (particularly among the elderly) requiring intensive care, for which existing units cannot absorb the incessant demands. In this respect, the overcrowded state of Italian and Spanish hospitals has been widely communicated in the media, where patients were piled up outside of health facilities due to overcrowding and the lack of vacant resuscitation beds. The situation has worsened in these countries as doctors have been forced to favor the youngest patients and abandon the elderly, an obligation imposed by the lack of places in intensive care units. Communicating such images and news only must reflect a catastrophic situation and that its management requires the cooperation of individuals and their awareness of the delicacy of the situation.

While border closures have helped to reduce the risk of contamination by exogenous cases, active local outbreaks of coronavirus have continued to increase the daily number of infected cases in different countries. This type of so-called horizontal contamination was responsible for the spread of the Covid-19 epidemic after the border closure. For returnees to European countries, they were subject to strict measures. Upon their return, they had to undergo compulsory confinement for a fortnight in specific centers and undertake PCR tests to check for possible Covid-19 contamination. In Tunisia, problems have arisen in the management of repatriation operations of fellow citizens. These operations were marked by disorder and lack of coordination between the public actors involved in the mission of compulsory confinement of Tunisian nationals in hotels. Some repatriated passengers fled as soon as they arrived at the airport. Others refused to go to the containment centers and protest movements were triggered at the level of these angry passengers reaching the clash with the forces of law and order who were called to restore order and ensure the operation of evacuating repatriates from the airport. This poorly organized operation was very costly in terms of contamination by the Covid-19 virus and eventually led to the outbreak of the disease in areas that had been spared until then.

Given the impossibility of maintaining containment for an indefinite period, governments took advantage of the passage of the first wave of the epidemic and the reduction in the rate of coronavirus contamination in late spring 2020 to proceed with deconfinement and preparation for the opening of the borders on 27 June 2020 for the Tunisian case. An economy on the verge of collapse and social categories plunged into precariousness and poverty, especially in the developing countries on the southern shore of the Mediterranean, are among the factors that forced the lifting of the closure. However, this opening was conditioned and framed by health protocols drawn up for each sector of activity.

V.2. Sanitary protocols adapted to the tourist activity

The health situation means that vigilance must be maintained in the face of an epidemic risk that is very high, as evidenced by the high level of daily infected cases recorded throughout the country. Measures must be implemented to enable economic activity to continue and to protect workers. Consultation with and input from stakeholders in the economic sector concerned is strongly required to ensure the adoption and subsequent effective implementation of the health guidelines drawn up by experts. A debate should be opened between the actors to discuss the feasibility of applying all the recommended measures. For example, the

contribution of stakeholders from the tourism sector is strongly required to contribute to the formulation and discussion of the considered sanitary protocol and its feasibility.

The sanitary protocol for tourism focuses on hygiene and sanitary safety throughout the itinerary of clients, from their reception at border posts to their departure, as well as the staff of tourist establishments. Based on the Tunisian example, the anti-Covid-19 sanitary protocol is analyzed drawn up for tourism to prepare for the possible resumption of activity in the summer. It is a document prepared by the Tunisian Tourist Office (ONTT) and experts from the Ministry of Public Health and approved by all the stakeholders. Operators in the tourism sector are invited to apply it from 04 June 2020 at the opening of their establishments. From 04 June 2020, the resumption of tourist activity must strictly comply with the 250 measures published in this health protocol which is binding on all stakeholders: hotels, tourist restaurants, travel agencies, entertainment centers, *etc.* This protocol is published in French and English and recommends the measures that must be applied to guarantee the safety of visitors. For hotels, there is the control of the temperature of resident tourists and employees on a regular basis, the reduction of the hotel occupancy rate to 50% of the accommodation capacity to avoid congestion and respect the principle of distance in common areas such as restaurants, swimming pools and beaches. The protocol insisted on the obligation to devote isolation rooms for suspicious cases in each hotel establishment as well as a space for disinfecting luggage. The measures also include those concerning common areas which will be cleaned and disinfected intensively and rooms which will also be disinfected and left unoccupied for 48 hours (Ministère de tourisme, 2020).

Adopting universal rules to be respected, the sanitary protocol for Tunisian tourism cannot be very different from the others elaborated and applied in the tourist countries of the northern and southern shores of the Mediterranean. The elaboration of the sanitary protocol which prepares for the resumption of tourist activity is associated with the monitoring of the epidemiological situation in the world, and in the countries which emit tourists. There are regular revisions of the classification of countries according to the three levels of risk: high (red), medium (orange) and low (green).

In Tunisia, the National Observatory for New and Emerging Diseases is responsible for monitoring the epidemiological situation in the world, in terms of the spread of the Covid-19 epidemic and the draw up of a list that is updated weekly for countries that have completed the compulsory quarantine period and have begun to open their borders. This ranking is based on the scientific and epidemiological standards available and approved internationally and published on the Ministry of Public Health website. The classification adopted divides the countries into two groups: the first group (green color), with a low prevalence of the epidemic and therefore people from these countries are not subject to special preventive measures. The second group (orange color), with a medium epidemic and therefore individuals are compulsorily requested to undergo a laboratory analysis (RT-PCR) 72 hours prior to travel and provided that the date on which the analysis is carried out does not exceed 120 hours on arrival. The third group of travelers (red color) returning from countries with high epidemic risk are invited to do a laboratory analysis (RT-PCR) 72 hours before travel and move on to the mandatory one-week confinement in a hotel.

VI. Resumption of tourist activity

VI.1. Fears remain

VI.1.1. A fragile epidemiological situation

Deconfinement and progressive opening of borders does not mean that the epidemiological situation is well recovered. On the contrary, political decision-makers have taken the most difficult decisions to avoid the total collapse of their economies and safeguard social peace. This is an implicit invitation to cohabit with a virus that will accompany us everywhere in our lives as long as an effective vaccine is not yet available. The slackening of the rate of Covid-19 contamination at the end of spring 2020 observed in most countries has encouraged governments to take advantage of the summer to revive tourist activity, especially as this season corresponds to the peak of demand for the seaside product in all Mediterranean countries. However, tourist resorts in both the southern and northern shore countries were deserted. International tourists are absent or rare.

The epidemiological situation is very fragile and can collapse at any time if the stages are not well prepared and the risks are not well anticipated. This is reflected in the cautious opening of borders undertaken by several European countries such as France. In this context, the opening of French borders was cautious and gradual. On 15 June 2020, this opening concerned only the European neighbors, except for Spain and the United Kingdom. To prevent any possible contaminations linked to the frequentation of Spanish and British tourists, the French authorities have planned for them to stay in France for about 14 days before entering the French territory. Tunisia, which was only slightly affected by the coronavirus pandemic during the first wave, wanted to exploit its image as a safe destination to save the tourist season in the summer of 2020. Despite the elaboration of the health protocol, the opening of the borders, the advertising campaign for the Tunisian touristic potential, and the safety of this Mediterranean destination the various tourist resorts have not recorded the expected foreign frequentation. Usually, Maghreb tourism and in particular tourists from Algeria come to the rescue in the event of a recession in the European market. However, the overflow of the epidemiological situation in Algeria and the continued closure of its borders with Tunisia aggravated the situation of Tunisian tourism in the summer.

Although international tourists have been absent from Tunisian tourist resorts, Tunisian residents abroad have travelled to Tunisia to spend their holidays as they do every year. However, this new season has had a catastrophic impact on the epidemiological situation in the country. In fact, to attract international tourists, certain measures have been alleviated concerning the classification of countries according to their epidemic contexts. It was France, which has had a heavy toll in terms of the number of cases and deaths caused by Covid-19 and has been classified as a green zone. This means that Tunisians residing in France as well as French tourists can enter Tunisia without being checked at the borders and during their stay in Tunisia. As a result, Tunisians residing abroad came to Tunisia without any real controls at the borders, went to their hometowns

and frequented the beaches and tourist resorts. Most of these people coming from a country strongly affected by the Covid-19 pandemic did not respect the principle of self-containment and eventually transmitted the disease to their families and in all the places they frequented. Some public health experts have attributed the current deterioration of the epidemiological situation in Tunisia and the occurrence of the second wave to the opening of borders and the return of Tunisian residents abroad without the application of strict measures such as the obligation of valid PCR tests and the imposition of confinement in hotels or special centers upon arrival.

Despite the opening of the borders, tourist numbers are below expectations since in August 2020, Spain recorded the arrival of 2.4 million international tourists, *i.e.*, -75.4% compared to August 2019. Tourists are first and foremost France's neighbors, who made up 34.4% of the total number of tourists, but who recorded a fall of 57.2% compared to August 2019. Next tourists came from Germany and the United Kingdom, whose numbers fell by 73.6% and 88.2%, respectively (Gil-Alana and Poza, 2020). Furthermore, although Italy has taken the initiative to open its borders, its neighboring countries have appeared skeptical about such a step. Their doubt is justified by the fact that they are concerned about a possible resumption of the epidemic from Lombardy, the European center for the spread of coronavirus. This is why Switzerland and Austria have kept their borders with Italy closed. However, Italy has been lobbying its border countries to open their borders to save its strangled tourism. Despite this effort, Italian tourist cities were empty of international tourists, which forced the government to address the citizens by encouraging them financially to spend their holidays in Italy.

The fragility of the epidemic context is also manifested in the late reopening of the borders in Morocco (06 September 2020). It should be remembered that the epidemiological situation in the kingdom is marked by the rapid spread of the coronavirus during the first wave of the epidemic. After a slackening of the rate of contamination during the period from July to August, several large Moroccan cities such as Marrakech, Tangiers and Casablanca were recognized to combat the deterioration of the epidemiological situation and the outbreak of contamination by Covid-19. This re-confinement is expressed through the application of drastic measures such as the ban on the movement of individuals and the continued closure of tourist establishments.

VI.1.2. Actors strongly affected by the health crisis

The suspension of the activity during the months of confinement has strongly impacted the actors of the tourist activity. Hotels, restaurants, airlines, travel agencies and transport companies have plunged into an unprecedented crisis. The aspects of this crisis are multiple, and include indebtedness, bankruptcy of companies and layoffs of employees.

The fall in international arrivals in Tunisia was considerable at the level of the classic European and North African tourist markets. The drop in tourist arrivals had repercussions on the players in the Tunisian tourist industry. According to the Interprofessional Federation of Tunisian Tourism, the risk of bankruptcy of hundreds of tourist enterprises

is increasing because, due to a lack of income, they can no longer bear the losses and charges. This concerns hotels, restaurants, travel agencies, craftsmen, professional guides, and car rental agencies. The social repercussions of such a situation are also heavy since tens of thousands of employees in the sector found themselves unemployed.

The players in the Tunisian tourist sector had hopes of saving the activity in the summer of 2020 especially by taking advantage of the Tunisian success in absorbing the first wave of the Covid-19 epidemic during the first quarter of 2020. However, the reaction of the issuing markets was below expectations. Seaside resorts were deserted by international tourists, leisure areas were empty, the catering saw a recession, and the trade and transport activities were at their minimal. Although they agreed to rigorously apply the sanitary protocol and to work with an incomplete occupancy rate to save their establishments from closure, the customers did not arrive. In addition to this absence of international customers, the government has devoted in March 2020 a support fund of 500 million dinars to avoid the collapse of the tourist industry. However, for various and sometimes unknown reasons, the release of this fund has been delayed and the situation of the players in the tourism sector has worsened over time. The crisis caused by the Covid-19 pandemic has influenced tourist behavior.

Such a crisis has strongly impacted the tourist resorts on the northern shores of the Mediterranean. In the Côte d'Azur, the indicators recorded in July-August show the seriousness of the crisis which has affected tourism. First of all, there is a loss of earnings of 600 million euros and a reduction of nearly 50% in the number of tourists stays (6 million tourist stays in summer 2020 against 12 million in summer 2019). Due to the absence of international clientele, hotels and tourist residences have seen their occupancy rates fall to 68% and 78%, respectively (*i.e.*, -15% and -7% respectively compared to the period of July-August 2019) (INSEE, 2020). In Corsica, despite the gradual resumption of air and sea traffic on the island in June 2020, the flow of travelers remained very low, with less than 25% of the June 2019 volume. This weakness in terms of tourist frequentation had serious consequences on tourist accommodation and catering. This sector, the usual driving force behind employment growth, recorded the greatest loss (-5.7%) with 570 jobs lost (INSEE, 2020). In Spain, which is the second largest tourist destination in the world, the hotel and catering sector has received a heavy blow because of the coronavirus pandemic. Such a sector, which represents 6% of GDP and 9% of employment, has suffered devastating effects from the health crisis. This can be seen in the permanent closure of nearly 13% of the hotel and catering establishments, *i.e.*, 40,000 cafés, bars, restaurants, and hotels. The impact on employment was serious, with between 900,000 and 1.1 million direct and indirect jobs threatened by the fall in demand for hotels and restaurants (Moreno *et al.* 2021).

In Morocco, there is no lack of signs of deterioration in tourism. The fall in international tourist arrivals has put 3,500 tourist accommodation enterprises, 500 restaurants, 1,450 travel agencies, 1,500 tourist transport companies and 1,500 car rental companies in an unprecedented crisis. The president of the Hotel Industry Association of Casablanca and Region (AIH) has affirmed the closure of nearly 90% of hotels by mid-April 2020 in the Casablanca-Settat region (OECD, 2020).

VI.2. Changing tourist behavior

VI.2.1. The role of local tourism

Considered as the lifeline, local tourism has shown itself to be the alternative that compensates for the absence of foreign tourists in summer 2020. Concerned about the risks of being infected by Covid-19 in the countries of destination, individuals planning to spend their holidays abroad have changed direction towards one of the tourist regions in their countries. This trend of local tourism is encouraged by the diversity of tourist sites and the products they offer, particularly in the countries on the northern shore of the Mediterranean. The income generated by international tourism and local tourism is incomparable and does not compensate for the heavy losses of the sector due to the months of confinement and suspension of activity. Despite this, the frequentation of tourist resorts by local tourists finally helped to create a certain dynamism for hotel establishments, restaurants and leisure areas which at least enabled them to keep their doors open and ensure the payment of their charges.

Several attempts have been made to reassure foreign visitors to arrive, but the fears of an uncertain epidemiological situation in the destination countries were stronger than the seductions and offers launched. The choice was clear for foreign tourists: to spend the holiday at home. Faced with the absence of foreign clientele, tourist establishments in the different regions encouraged people to spend their holidays, giving those discounts and bonuses. Governments and local actors have entered the line by granting financial aid or partial coverage of household tourist stays. These measures undertaken to boost a sector in crisis are only of interest to developed countries and it put forward examples that illustrate this. In developing countries, governments are totally absent in terms of encouraging the population and supporting a national campaign of solidarity with the tourism sector. It is mainly personal initiatives undertaken by hoteliers in collaboration with travel agents that have involved the local population to rescue the tourism sector.

In the tourist countries on the southern shore of the Mediterranean the situation was catastrophic. The absence of international tourists has strongly upset the seaside tourist resorts in Tunisia and Egypt. In Tunisia, it has long been known that local tourism is the life jacket in case of crises (terrorist attacks, the 2nd Gulf War, the embargo on Libya during the 1990s and its tense relations with the West, the revolution of January 2011). However, this local tourist traffic, whatever its scale, does not generate foreign currency income and does not compensate for the income from international tourism. The seaside tourist resorts of Hammamet, Sousse, Mahdia and Djerba have experienced important flows of Tunisian tourists which have at least generated the necessary liquidity for the hotel establishments to cover their expenses and pay their employees. However, if several hotels are sold out, this is based on the new occupancy rate in accordance with the health protocol, *i.e.*, the establishment is operating with 50% of its real accommodation capacity. In addition, many professionals present their satisfaction with the activity generated by local tourism while underlining the support for and regularization of this product so that it occupies the place it deserves. However, other

hoteliers have preferred to keep their establishments closed since the confinement because of the absence of foreign clientele and have refused to welcome local tourists. It is true that local tourism is important and has contributed to summer 2020 to alleviate the losses of a sector which was devastated by the health crisis of Covid-19, but the question must be asked as to the aptitude of Tunisians to go on holiday. In this regard, during the months of confinement, most Tunisian families struggled to guarantee necessities and others lost their annual leave to compensate for their rest during confinement. Therefore, due to lack of holidays and financial means, a good part of Tunisians did not go on holiday to one of the tourist or other resorts.

In Egypt, the resumption of tourist activity since mid-May 2020 has been achieved thanks to local tourists with the opening of a few seaside resorts located on the Red Sea and the Mediterranean Sea to the West of Alexandria. Given the importance of the cultural product in Egyptian tourism, it has been decided to open gradually and under certain conditions the pyramids of Giza, the temple of Karnak and the tomb of Tutankhamun. For the hotels to be opened, certification was required. Only 40% of the hotel establishments applying for opening permission have had the certification to operate with a maximum occupancy rate of 25%. Drastic sanitary measures have been recommended to prevent people staying in the hotels from becoming infected with coronavirus. Local Egyptian tourists continued to visit the various tourist resorts in the country during the summer months in the face of the absence of international tourists. This has enabled the hotels to guarantee the necessary income to pay their employees.

In the case of Morocco, the summer tourist season was missed since it only opened its borders in September (on 06 September 2020), as several Moroccan cities such as Agadir and Marrakech were re-confined in August due to the resumption of the Covid-19 epidemic.

Contrary to the Tunisian context, the effect of local tourism in the countries of the North shore of the Mediterranean was more decisive. The national mobilization to support the local tourist sector has been concretized in France by the Destination France promotion campaign inaugurated on 19 June 2020. The main slogan of this campaign is “This summer, I’m visiting France”. This can be seen in the fact that 94% of French people going on holiday spent their holidays in one of the many tourist regions on the French territory (INSEE, 2020). In Lille, which was hyper-frequented by the British and Chinese during the summer, these foreign clients were absent. Tourism professionals in Lille have noted an extraordinary number of French tourists from different regions such as the Normans, the Bretons, the Lyonnais and the Franciliens who have come in response to the national campaign to support French tourism and to discover the Hauts-de-France and its rich heritage sites (OECD, 2020).

The diversity of tourist sites and the richness of the offer in France have put the sea and countryside destinations in competition for the coronavirus-stricken summer of 2020. French local tourism is more in favor of seaside holidays than in the countryside. This finding is the result of a survey carried out by the BVA firm, from 02 to 04 June 2020, on the departure intentions of French people on holiday, especially after a period of

confinement and isolation imposed by the spread of Covid-19. The sample consisted of 1,055 individuals, representative of the French population. It emerged from this survey that the uncertain international epidemic context led the French to stay at home and enjoy pleasant stays in one of the many tourist resorts or regions on their territory. The same survey reflected that the majority of those surveyed are Ile-de-France residents (67%) and include young people aged 18 to 24 (74%) and families (66%). Of those surveyed, 81% were optimistic that they would be able to enjoy a quiet stay without any discomfort despite the persistence of the epidemic during the summer season. This confidence can be explained by the messages from the players in the tourism sector and the government, who have constantly reassured people and eased their anxiety by highlighting the efforts made to make their holidays safe and secure. These efforts revolved around the application of the sanitary protocol, the main measures of which concern above all the systematic and regular disinfection of the rooms, the wearing of masks, the distribution of hydroalcoholic gel and the respect of social distancing in common spaces. This local tourism in France is not strange or imposed by the epidemic context of Covid-19, since it weighs nearly 80% in many French regions, except for the Ile de France and the Côte d'Azur. Moreover, this survey was able to reveal that 40% of French people intended to spend their holidays in a collective place (holiday club, hotel, and campsite), despite the risk incurred in an uncertain sanitary situation. The same rate of people intended to stay with relatives or in their second homes. Renting accommodation came in second place, since 20% of French people considered it to be the ideal and most suitable solution to respect the principle of social distancing.

Geographically, 24% of the people surveyed opted for the countryside. There were many reasons for this choice of rurality and the distance from the classic tourist places: a gentle way of life, wide open spaces, nostalgia and childhood memories, and good local products. About 175,000 French communes have less than 500 inhabitants and offer a holiday on a farm. Rurality has been considered as a new trend in post-Covid-19 tourism. On the other hand, the sea still proved to be the most desired destination, since 54% of the people surveyed chose it. It should be remembered that every year 35 million holidaymakers visit the French coasts and are concentrated on 4% of the French metropolitan territory (OECD, 2020).

In Italy, the government has embarked on a national campaign to save tourism. Heavily affected by the Covid-19 pandemic, the Italian professional players were sure that international tourism will be far from being established in summer 2020 because of health fears. The solution was to boost local tourism and convince Italian citizens to support the government's efforts to save a strategic sector. In fact, the Italian State has released 2.4 billion euros to finance this initiative, which consisted of granting financial aid to individuals and households to spend their holidays and visit tourist establishments in the national territory. The amounts of this aid, known as the "holiday bonus", varied from €150 to €500 depending on the number of people or family (Casini and Rocetti, 2020). This type of aid would have encouraged Italian families to go on holiday and would have created a dynamism that would allow the sector to recover.

In Spain, the unstable epidemic situation, and the persistence of the high risks of contagion by the coronavirus have not allowed a real resumption of tourist activity and the attraction of international tourists. The Spanish authorities counted on their citizens to save a sector that had been badly affected by the health crisis. The wealth of tourist sites offering diversified products encouraged them to join in such a national campaign to support tourism. A change in tourist behavior was noticed during this unusual summer. Indeed, strong demand was recorded at the level of non-hotel accommodation establishments (campsites, tourist flats, youth hostels and rural tourism accommodation). This is reflected in their increase from 127,553 establishments in July 2020 to 141,372 establishments in August 2020. However, it should be noted that this number of establishments is 30% lower than the number recorded in August 2019. More than three million travelers, 87% of whom are residents in Spain, stayed in one of the types of non-hotel accommodation in August 2020. They spent 14.7 million nights there, 41.8% less than in August 2019. Two types of non-hotel accommodation were more popular: campsites exceed 1.5 million travelers and more than 550 miles passengers in Catalonia in August 2020 and rural tourism establishments which recorded the highest occupancy rates during the summer of 2020 (Rodriguez-Anton and Alonso-Almeida, 2020).

VI.2.2. Towards responsible tourism: the role of local stakeholders

This element only specifies the countries on the northern shore of the Mediterranean. Conversely, in the developing countries on the southern shore of the Mediterranean, all the initiatives and measures undertaken to revive tourist activity during this context of unprecedented health crisis are designed and imposed by central structures (for example the supervisory ministry and the ONTT in Tunisia). All recommended solutions or modalities of crisis management are centralized and came from the capital Tunis, in the Tunisian example. However, the local actors strongly and effectively influence the way of managing the impacts of the Covid-19 crisis on tourism in the countries on the North shore of the Mediterranean. The richest example of experience in this field is that of France. The resumption of tourist activity was the subject of a national campaign to support the actors of a sector damaged by the Covid-19 crisis. Spending holidays in France and making classic tourist resorts, the countryside, and French communes benefited from the holiday spending helped tourism professionals to resist the disastrous effects of the coronavirus pandemic. In addition to the effort of the government, which has financially supported the sector from the beginning of the crisis, it was the initiatives of the local actors that have framed the tourist activity in several French communes. These initiatives to support tourism consisted of several forms of financial support for holidaymakers such as vouchers, holiday vouchers or the reimbursement of part of the costs of the tourist stay.

In New Aquitaine, the Landes Departement Committee has allocated €1 million to implement a support plan called “les landissimes” and encourage people to take advantage of the tourist offer: 3,000 vouchers, €150 each, have been planned to reimburse visitors who have spent at least 250 euros on accommodation, catering, and

other tourist activities in the department. To extend the tourist season, the departmental committee has reserved 2,000 vouchers for the period of 16 June-14 July 2020 and the remaining 1,000 vouchers for the period of 22 August-29 November 2020. In addition, a website has been made available to holidaymakers to register and confirm the reservation of their stays in the department. To benefit from the €150 voucher in the form of a refund, the holidaymaker must send all the supporting documents at the end of their stay (Blanc, 2020).

In Charente and Charente-Maritime, these two departments have offered 11 thousand vouchers of €100 each to visitors staying over the period of 01 July - 01 November 2020. A website providing information on the offer and its conditions has been made available to visitors intending to stay in their territories. To be reimbursed €100, vouchers were required for at least two consecutive nights, a meal in a traditional restaurant, visits, and activities for a minimum of two people. To avoid the unequal distribution of vouchers in favor of the coasts, these have been distributed throughout the two departments (Blanc, 2020). In Bouches-du-Rhône, Provence tourism has taken the initiative to offer 50,000 gift cards of €50 to holidaymakers who have booked at least 3 nights in commercial accommodation. This gift card, called “Pass Séjour» should have been used from 3 July 2020 at craftsmen, museums and monuments, transport, and leisure parks. The departmental tourism agency of Anjou, in Maine-et-Loire, has dedicated 1,100 gift vouchers, the value of each of which varies from €40 to €400. They have distributed them by drawing lots to holidaymakers who have registered on a website until 15 July 2020. Each gift voucher would have been used according to its value and for one type of accommodation. For example, 150 vouchers of €400 were to be used in houses and camping sites, and 150 vouchers of €300 were valid for staying in hotels or guest houses. In Lot-et-Garonne, the departmental tourism committee was offering 50 stays worth 500 euros each until 5 July 2020. In addition, the department offered 70 electric bicycle rental vouchers worth €150 each and 650 vouchers worth €30 each valid for a leisure activity. Participation in the draw to win these vouchers required registration on a website (Blanc, 2020).

There are many examples of initiatives undertaken by local players in French departments that have finally succeeded in reviving tourist activity throughout metropolitan France and enabling a large proportion of French holidaymakers to change their tourist behavior and discover their country.

VII. Tunisian tourism beyond Covid-19

Indicators for the future of tourism began to appear during the Covid-19 crisis. The companies showed significant potential to adapt to an unprecedented health situation. At the beginning of the health crisis, an initial phase of fear and panic materialized with the closure of borders and total containment. It was justified by the ignorance of the dangerousness of the new version of the coronavirus discovered in China in November 2019, and the disruption it has caused to public health in terms of the number of infected cases and deaths in the countries where it has spread. However, after months of confinement, people have been convinced that they are living with a virus that does not yet have an effective vaccine or treatment. The implementation of progressive deconfinement strategies was based on the development of health protocols specific to each sector of activity. These health measures and their rigorous application by the population have made a real contribution to reducing the level of Covid-19 contamination. In the field of tourism, the implementation of strict sanitary measures and the commitment of professionals to their rigorous application in tourist establishments have reassured the population and encouraged them to go on holiday in complete safety.

The change in tourist behavior is a positive indicator of the shift towards the adoption of the sustainable tourism model which respects the social, environmental, and cultural specificities of the areas frequented (UN, 2020). The seaside mass model has proved its acute fragility in the face of the Covid-19 epidemic and does not allow for permanent activity in the event of cataclysms. On the other hand, an uncertain epidemiological situation in the destination countries and the fears of tourists of the risk incurred in case of travel, have favored the mass departure on holiday on the national territory. At least, holidaymakers can be sure that hygiene conditions, disinfection and social distancing measures will be rigorously applied. The mass tourism model is based on the massification and gathering of many tourists in a limited space (the hotel establishment) and achieving a maximum occupancy rate is always a sought-after and permanent objective (Hellal, 2020). This type of mass tourism, if applied as in normal conditions, will expose tourists to enormous risks of contamination by Covid-19. If it is applied by reducing the hotel capacity by 50%, for example, to respect the sanitary protocol and avoid congestion, the loss of income will be enormous and the effects of a drop in revenues will be certain (Martin and Ricci, 2020).

Despite the existence of personal attempts to create sustainable tourism nodes through promising projects in several Tunisian regions, the lack of encouragement and funding have hampered any success. The severe blow received by the seaside product will push the decision makers in Tunisia to redress the tourism policy to really integrate the sustainable product (Souissi, 2020). This is more promising, considering the natural and cultural potentialities sheltered by several regions of the country (Othmani, 2020). If the official authorities are not very enthusiastic about such an approach, foreigners have already taken the initiative. This is the case of the United States, which intends to mobilize through the United States Agency for International Development (USAID) between \$30 and \$50 million within the framework of the “Visit Tunisia” program for the

development of sustainable tourism during the next five years. This initiative shows that international donors are beginning to take an interest in alternative tourism. In addition, the EU, the GIZ and the Swiss cooperation have mobilized €50.5 million within the framework of the “TounesWijhetouna” project which will be spread over the period 2020–2024 and encourages the diversification of the Tunisian tourist product and the development of handicrafts. The diagnosis of the state of play of the tourism sector shows several shortcomings such as the seasonality of the sector, the lack of diversification of the product and innovative circuits, the lack of skilled labor and training, as well as the lack of valorization of the natural and heritage wealth at regional level. Consideration has been given to the development of the domestic tourist market and alternative modes of accommodation.

Betting on domestic tourism is among the lessons learned from the Covid-19 crisis, since it is thanks to this local clientele that the tourist sector has been saved from collapse in most countries. There are many reasons for such a choice, such as the stagnation of the tourist season and the resolution of the problem of unemployment among young people and women. Adapting demand to this new alternative tourism offer requires a great effort on the part of the Ministry of Tourism and the ONTT. Moreover, 2 million overnight stays have been spent in alternative types of accommodation (charming hotels, boarding houses, rural houses, and guest houses) in 2020 for an average of 150 dinars/night and the projects of the Ministry of Tourism aim to triple this number by 2023–2024. The funds mobilized within the framework of international cooperation intend to develop the niches of ecotourism and cultural tourism. For example, the “TounesWijhetouna” program launched in 2019 has enabled the development of the film route which should be ready in July 2021. This road will enable film tourists to visit the 15 sites from Tunis to Tataouine which have seen the shooting of several films such as “English Patients”, “Star Wars” and “Black Gold”. A call for applications is being prepared to develop the gastronomic route in 2021. Two other thematic routes will also be planned between now and 2024, such as the sports and outdoor route and the cultural route. Within the framework of this program, other destinations will be developed in Tunis, Tozeur, Le Kef, Mahdia and Zaghuan. For example, in Tunis, the development of pedestrian and cycle routes in Carthage has been launched, as well as the maintenance of the historic site and museum, and the improvement of the conditions for welcoming visitors (www.leconomistemaghrebin.com).

The “Visit Tunisia” program developed by the USAID agency and launched in 2020 intends to support alternative tourism in Tunisia. This is by supporting the competitiveness of the Tunisian tourist destination, strengthening the profitability of the tourist activity by boosting investment and income, preparing a favorable environment for a promising development of the sector, and the involvement of the private sector in the diversification of the offer and in particular the encouragement of the alternative sectors. The advantages of this program are multiple, especially in terms of the renewal of working methods, the creation of a financial support fund for private actors, and the design of a long-term strategic plan for the development of tourism, in which alternative tourism will be a capital element.

Various programs are being implemented in Tunisia to promote the diversification of the Tunisian tourist offer, but coordination within them is strongly required to achieve their objectives. Their first outcome is the project for the development of sustainable tourism in South-East Tunisia. This project, which will continue until 2023, intends to develop and disseminate training and territorial marketing methods and modes of governance aimed at young people and women. It is based on the development of three destinations in Djerba, Dahar and Kasar Ghilane. The Dahar destination was able to withstand the effects of the Covid-19 crisis (www.leconomistemaghreb.in.com).

The revival of cooperation with JICA (Japanese International Cooperation Agency) is a major priority to advance in the project for the development of Saharan tourism intended to attract Asian customers. After the revolution to enable the design of this project, this cooperation was influenced by the terrorist acts which Tunisia experienced. The project to promote Saharan tourism was suspended in 2015 because of the restrictions on tourist travel to Tunisia in 2015 due to the terrorist attacks.

Opening to foreign experiences to rehabilitate Tunisian tourism is highly beneficial. This concerns the Canadian experience in the domain of the training of tourist personnel and the Chinese experience at the level of development of startups specializing in the digitalization of tourist and hotel services. These experiences serve to reduce human contacts support remote management, recommendations and lessons learned from the coronavirus crisis.

Sustainable tourism through its ecological, cultural, rural, and mountainous forms is developed in the countries on the northern shore of the Mediterranean. There is a very wide awareness of the importance of this more ethical tourist sector which respects the environment, the cultures, and the territories of local societies. The good visibility of politicians and planners as well as better coordination with regional and local actors lead to such a boom of sustainable tourist activity.

Rural tourism is a sustainable product which tends to develop particularly in the developed countries on the northern shore of the Mediterranean. This tourism values the beauty of the countryside, rurality as a way of life of the inhabitants as well as the heritage existing in each village. Staying in a village is a tourist practice to be strengthened to support such a sustainable trend and which will be much less affected in the event of a health-related calamity, for example. In France, several associations have made this type of tourism more famous by using websites to encourage people to experiment with it and offer them ideas for going on holiday. Specialized travel agencies such as “Nos chèrescampagnes” organise this type of holiday according to customers’ expectations. For example, a stay in the village of Saône-et-Loire is very pleasant with several activities on offer such as fishing, cycling, visiting an eco-museum, donkey trekking and walking (Bourlan, 2020).

Centralized decisions and strategic choices that are not very up-to-date and less aware of the risks have led to the current state of the tourism sector in Tunisia and the countries on the southern shore of the Mediterranean. The projects for the development of

alternative tourism are progressing very slowly in Tunisia. They suffer from insufficient financing, territorial marketing of the natural and cultural potential as well as an overwhelming bureaucracy. The Covid-19 crisis and the collapse of tourism incite the players in the sector to revise the existing model. Focusing almost all tourist activity on the type of mass seaside tourism only makes it fragile and sensitive to any crisis.

VIII. Conclusions

Health issues are fundamental for any tourist visit. Tunisia and the Mediterranean in general have experienced the frequency of epidemics caused by transmissible infectious diseases. Their effects on the countries were limited for several reasons, among them the effective epidemiological surveillance of diseases, the ability of the health care systems to assimilate them, and the unfavorable environmental context for their propagation. However, the Covid-19 pandemic has been unprecedented in terms of its disastrous effects on the economy and society. Given the heavy toll in terms of infected cases and deaths which are increasing from one day to the next, tourism in Tunisia has suffered greatly due to the closure of borders and the suspension of air traffic for months in 2020. Faced with a disaster-stricken sector threatened by bankruptcy, different measures have been taken to save it. The change in tourist behavior is a direct consequence of this health crisis. To this end, local tourists have frequented the tourist resorts abandoned by foreign tourists, alternative and sustainable forms of tourism are less affected by the unprecedented health crisis, leading to a deep reflection on tourist practice in the face of the fragility of the seaside mass model. The implementation and support of sustainability of the tourist activity will guarantee the future of the sector.

This approach has been undertaken for a long time in the developed countries of the northern shores of the Mediterranean and belatedly in the tourist countries of the southern shores, except for Morocco which took the initiative a good while ago. It consists in investing in alternative tourism and directing the financing obtained within the framework of international cooperations into promising tourist niches. This approach is part of the desire to establish a strategy of resilience of the tourist sector in the face of crises. Several indicators show that Tunisia has entered the development of such a niche. In addition to the stagnation of the tourist season, the diversification of the proposed product helps to multiply the alternatives during crisis phases. If the seaside product cannot function normally, other products can fill the gap and mitigate the loss of income. This objective does not exclude the contribution of the introduction of sustainable tourism projects to job creation, the attraction of a new, specific, and loyal clientele and the generation of income for the local population at the regional level.

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