World Decade for Cultural Development

Strategy for sustainable tourism development in the Sahara

Ezzedine Hosni

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For further information please contact:
Hervé Barré
in charge of the Research and Development Unit,
Cultural Heritage Division
Culture Sector
UNESCO
1, rue Miollis
75732 Paris Cedex 15
France

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Introduction

Tourism is unarguably one of the most lucrative and, in terms of jobs created, most productive economic activities in the world today. According to the World Tourism Organization (WTO), 625 million tourists arrived in foreign countries in 1998, generating some US \$444.7 billion in revenue – a rise of 2.4% and 2% respectively over the previous year – despite the fact that many countries' economies had been weakened by the cataclysmic Asian financial crisis. So a worldwide social phenomenon is to be seen emerging at this century's end: the taste for tourism has permeated lifestyles so deeply that not even a period of crisis will stop people from travelling abroad.

The region featuring the strongest growth in tourism in 1998 was Africa, with some 24,903,000 tourist arrivals (7.5% more than in 1997), followed by the Middle East (+5.3%), Southern Asia (+5%), Europe (+3%) and the Americas (+1.4%); while the East Asia and Pacific region continued its steady decline, slipping a further 1.2%. What boosted Africa's performance, apart from interest deflected from the Far Eastern markets, was the growing appeal of nature-based tourism (ecotourism) in southern and eastern parts of the continent, together with the popularity of the – mainly coastal – resorts in the north, the Maghreb in particular.

The countries producing the best results in North Africa were Morocco and, in particular, Tunisia, which, with close to five million international arrivals in 1998, can also pride itself on having been the top destination in all Africa. North Africa, meanwhile, has been recording the highest tourism-generated earnings against exported services since 1989 (53.34% in 1997), followed by eastern and southern Africa (51.03 and 50.07% respectively), then western (29.97%) and, lastly, central Africa (6.75%).

At a global level, however, total figures for African tourism still add up to only a minute share of the world market: barely 4% of international arrivals and 2.2% of global income from tourism in 1998 (compared, incidentally, to 1.5% and 2.7% in 1970). The fact is that African countries have,

with rare exceptions, been handicapped by a disastrous brand image on the markets generating outflows of European and American tourists. Genuine cases of structural underdevelopment and the humanitarian catastrophes wrought by desertification and drought often tend to be magnified by the media, as does the insecurity bred by political and interethnic conflict.

Those bearing the brunt of it are central and West African countries such as Chad, Mali, Mauritania and Niger, along with northern fringe countries like Algeria, the Libyan Arab Jamahiriya or Sudan. This has, when combined with an occasional lack of any real motivation on the policy-making front, contributed to the weakness of their performance in the international tourism market. Egypt, Morocco and Tunisia, on the other hand, figure among the Saharan countries producing stronger results thanks to their determined efforts to diversify the range of products on offer to tourists: particularly Saharan tourism, which faces less competition than the coastal-resort trade or cultural circuits via other Mediterranean tourist destinations such as Greece, Spain, Turkey, etc.

One apparently well-established fact is that the countries sharing the Sahara, notwithstanding their differences as regards tourism policy, have all at one time or another, and to differing degrees, grown aware of their desert's natural and cultural riches, not to mention the potential economic gains to be made from exploiting it for tourism. But these regions are experiencing extremely serious difficulties due to the environmental degradation around the ancient Saharan oases and settlements currently suffering under the impact of gradual sand encroachment, the spread of the desert (aggravated by over-farming and overgrazing) and, to some extent, the rural exodus of younger generations. The scale of desertification and the persistent drought primarily affecting countries in northern Africa and the Sahel, figured among the priority issues tackled in June 1992 at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro (Brazil). Besides producing Agenda 21, whose

Chapter 12 serves as the main springboard for environmental protection in arid and dry subhumid areas, UNCED (the *Earth Summit*) also prompted the international community to work towards establishing the international Convention to Combat Desertification, adopted in June 1994.

Attention now needs to be turned to the following questions:

- How might Saharan tourism help to resolve the development problems of drought- and desertification-affected arid areas?
- How might Saharan tourism encourage the protection of the Sahara's cultural and natural heritage, while bolstering environmental actions geared to combating desertification for the sake of sustainable development?
- What, in this context, is meant by sustainable tourism?
- How can socio-economic development through tourism be reconciled with the utilization of cultural, natural and human resources, and with the sustainable management of fragile Saharan ecosystems?
- What are the options as regards facilities for tourism? What types of activities and hotels and similar establishments would be most suitable?
- What measures must be taken to stimulate traditional activities such as handicrafts?
- What would be the special features of a Saharan tourism package?
- What policy would be required to promote it?
- What ought to be the role of tour operators, NGOs and the actors directly involved in Saharan tourism (tourism administrations, hotels, local communities, guides, transport firms, etc.)?
- What types of tours might be devised?
- How should inter-state and interregional collaboration figure in the equation?
- What can be done to foster awareness of, and participation in, the development of Saharan tourism among local populations?
- What concrete recommendations might be made (vis-à-vis regulations, training, administrative data, international cooperation, etc.) to promote the harmonious development of tourism in the Sahara?

These recommendations, attuned to the various international actions, conventions and charters relating to both tourism development and anti-desertification (notably those led by UNESCO), could provide the basics for offering Saharan countries strategy guidelines geared to sustainable tourism development in the Sahara.

The study project for a strategy for sustainable development of tourism in the Sahara is interesting in that it:

- 1. helps to present an extremely vast expanse of Africa spread over ten States and featuring numerous natural reserves and cultural sites in need of preservation for future generations. UNESCO has inscribed many of those sites on the World Heritage List;
- 2. brings to light the different forms of tourism policy pursued in Saharan countries, thus providing for a critical assessment of the pioneering experiments that some of them have already carried out within the framework of Saharan tourism development. Equally, it will offer instructive insight to guide the other countries in their future initiatives geared to environmental protection, safeguarding of cultural heritage and local development;
- 3. its proposed strategic guidelines for sustainable tourism development in the Sahara (attuned to the socio-economic demands and environmental and ecological needs) could, if approved by the countries concerned, boost efforts to raise awareness among Saharan tourism industry actors at every level (local, national and international), and pave the way for precisely defined projects with a focus on training, employment, the enhancement of cultures, traditions, crafts and architecture, and the harmonization of tourism with other sectors of the economy such as agriculture or trade. This, in the medium and long term, would draw the region's inhabitants closer together in a common project capable of fostering lasting peace: a vital ingredient for development and democracy in this part of

Groundwork for a *Strategy for sustainable development of tourism in the Sahara* has been conducted in line with a three-pronged investigative approach:

- on-the-ground reconnaissance;
- meeting the actors, direct and indirect, of Saharan tourism;
- attending and participating in seminars, symposia and other events of topical interest.

On-the-ground reconnaissance entailed trips to Algeria, Mali, Mauritania, Niger, Morocco and Tunisia.

- In Algeria: a route leaving Algiers and heading south to the town of Tamanrasset, then, via the Hoggar National Park, to the Père de Foucault refuge in Assekrem.
- In Mali: a route leaving Bamako for a tour of the regions from the north (Timbuktu) into

- the centre (Ségou, Djenné, Mopti), then east (Gao, Land of the Dogons).
- In Mauritania: a route leaving Nouakchott and touring the north (Banc d'Arguin national park), north-east (ancient villages of Chinguetti and Oualata) and south (as far as Rosso on the border with Senegal).
- In Morocco: a route leaving Marrakech and touring the regions of Ouarzazate and Zagora.
- In Niger: a route leaving Niamey and heading north-east to Agadez.
- In Tunisia: a route leaving Tunis and touring the south-west (oases of Gafsa, Chebika, Tamerza, Midès), the Jerid (oases of Tozeur and Nefta), the Nefzaoua (oases of Kebili and Douz) and south-east (Medenine, Tataouine, the ksour).

Meetings with managers and actors directly or indirectly involved in Saharan tourism took place both within the countries themselves and abroad (in France and Spain in particular). In the Saharan countries, they were mainly local encounters with tourism, culture and environment ministry officials, tourism-industry professionals (travel agencies, guides, hotels, craftworkers, land and air carriers), researchers (academics, museum and site curators, geographers, etc.) and representatives of international organizations (UNESCO, UNDP, NGOs, etc.).

Many meetings were held outside of those countries, particularly in France, with Saharan-country permanent delegates or their deputies, either at UNESCO or at countries' embassies or consulates. In addition, managers from a variety of sectors (culture, World Heritage, environment [MAB], SSO/ROSELT) were consulted on the premises of UNESCO's Secretariat in Paris. Further meetings were held with representatives from national tourism administrations, either at National Tourism Offices in Paris and Madrid (Morocco, Tunisia, etc.) or at each country's embassy (Algeria, Chad, Egypt, the Libyan Arab Jamahiriya, Mali, Mauritania and Sudan).

Meanwhile, contacts were established with managers of tour operators and travel agencies specializing in Saharan tourism and adventure holidays: based in France (Terres d'Aventure, Nomade, Atalante, Assinter, Club Aventure, Nouvelles Frontières) or Spain (Touareg). WTO in Madrid (Spain) held talks on Saharan tourism with a variety of department managers: the Regional Representatives for Africa and Europe and the Chief of the Sustainable Tourism Development Section.

The following seminars, scientific symposia and other events tackling issues of interest to tourism in general, and Saharan tourism in particular, were attended in France, Senegal and Tunisia:

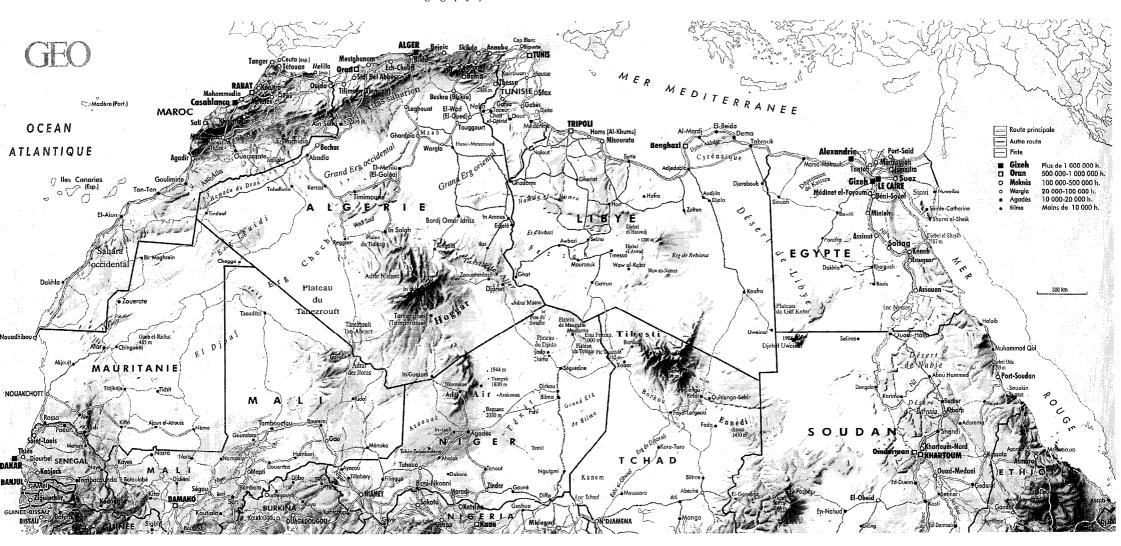
- French tour operator Nouvelles Frontières' annual conference on tourism in Mahdia (Tunisia) in September 1998;
- a Universal Federation of Travel Agency Associations (UFTAA) conference in Dakar (Senegal) in October 1998. Included a visit to the tourism zone of Saly and Casamance;
- a Seminar on Drought and Desertification organized by the Sahara and Sahel Observatory (SSO) at the Institut des Zones Arides (IAA) in Medenine (Tunisia), late October/early November 1998;
- the Colloque sur les guides touristiques imprimés depuis le XVI^e siècle (symposium on tourist guides since the sixteenth century) at the University Paris VII (France), in December 1998;
- a meeting of ecology and environment experts at the Institut des Aménagements Régionaux et de l'Environnement (IARE), Montpellier (France), February 1999;
- the various tourism-specific round-table fringe events at the Salon Mondial du Tourisme et dcs Voyages (SMTV) in Paris (France), March 1999.

As efforts continued to establish contacts both on the ground and abroad, the study meanwhile set about achieving three main objectives, i.e. to:

- 1. first of all delimit the Sahara area and summarize its physical, climatic and human characteristics together with the issues and challenges encountered there (water supply, desertification, etc.), and then conduct a brief review of past international particularly UNESCO actions aimed at sustainable development in the Sahara (study and training programmes, cultural and natural site conservation campaigns and the placing of such sites on the World Heritage List);
- 2. analyse tourism policy in each of the Saharan countries, pinpointing its strengths and weaknesses;
- 3. clarify the various charters and conventions on international tourism, then draft a series of proposals and recommendations to lay down guidelines for a strategy for sustainable development of tourism in the Sahara

The Sahara desert:
harsh yet highly fragile,
with a wealth of potential
for tourism

The geography of the Saharan countries with their touristic areas



I. Geophysical and socio-ecological characteristics of the Sahara

1.1 Importance of the Sahara compared with other deserts of the world

Hot deserts and semi-deserts cover more than a third of the planet's land surface and are inhabited by some 16% of its population. They appear, for topographic reasons (lie of relief and continents), in three basic types of location:

(i) Vast homogeneous tracts centring on the tropics

The most impressive of these is the Sahara-Arabian desert which extends to the Arabian-Persian Gulf and beyond, southern parts of Iran and Baluchestan and the lower reaches of the Indus Valley. In the Southern Hemisphere vast deserts, plateaux and plains span Australia and southern Africa (Kalahari). The hot arid deserts of North America may also be said to belong to this category.

(ii) Extended bands of arid land on continents' western seaboards

Chiefly found in the Southern Hemisphere, they include the narrow strip of arid land in Latin America stretching from latitudes 30° to 40° south as far as the Guayaquil Gulf area.

(iii) Semi-arid enclaves at lower latitudes

Enclaves of desert located at latitudes close to the Equator and found in the central Indian peninsula, on eastern Africa's Somali coastline, in northern Venezuela, the Dutch West Indies and north-eastern Brazil.

1.2 Geophysical, climatic and geomorphological features of the Sahara

1.2.1 The Sahara: a difficult area to delineate

The Sahara (al Sahra in Arabic) is the world's largest desert. It covers more than 8 million km², divides northern from sub-Saharan Africa and spans 5,300 km across from the Atlantic to the Red Sea, and 1,700 km down from the southern

slopes of the Algerian Atlas mountains to the fringes of the subtropical Sahelian grasslands. While its northern edge may be said to follow the Atlas through the Libyan Arab Jamahiriya and Egypt to the Red Sea, there is nothing reliefwise to allow such a clear-cut line to be drawn in the south. The Sahara proper is said to begin with the appearance of date palms, and to end where the typically Sahelian, pungent-seeded cram-cram grass (cenchrus biflorus: a species that grows into a vast uninterrupted carpet thanks to steady summer rains) replaces the desert's characteristic green tufts of "had" (cornulaca monocantha). This transition from desert to grassy plains is far from abrupt.

1.2.2 Climate in the Sahara

Climatic conditions and criteria are what serve to define aridity. Arid land appears in regions of the globe where water is extremely scarce, largely because there is too little precipitation to compensate for evaporation and evapo-transpiration (plant transpiration). The Sahara is characterized by subtropical high pressure zones separated from the equatorial low pressure zones by the intertropical front. This anticyclone belt's seasonal fluctuations produce the types of weather encountered there. High pressure causes drought.

Temperatures in central parts of the Sahara remain extremely high throughout the day (up to 50°C), and plummet at night (by between 15° and 30°). They are higher in summer than in winter, averaging 30°C in July and 12°C in January. Surface sands can heat up to 80°C during hot seasons and frequently drop to well below zero during the clear winter nights (readings as low as -18°C having been recorded in Tibesti). While light showers often fall in the northern Sahara, central parts can experience torrential downpours that are known to devastate the oases. Some places (e.g. in the Hoggar, Ajjer) can go for several years without rainfall. Worse still, others (southern Libyan Arab Jamahiriya) never receive a drop of water until, when it does eventually rain, it pours down in torrents.

Sandstorms occur when areas of low pressure approach North Africa from the Atlantic. The trade winds blowing away from the anticyclones towards the equator will remain steady and mild when pressure is stable. The dry trade wind blowing from the north and turning into a south wind and stimulating a rise in temperature is known as the sirocco (or chehili). It becomes violent and whips up a wall of sand on the horizon capable of blocking out the sun. Sandstorms can affect extensive areas or remain highly localized. Moving in the same direction as the areas of low pressure, they can blow at speeds of between 30 and 50 km an hour. When the trade wind returns to its regular course, the sands settle and the sky clears.

1.2.3 Saharan relief

The topography of the Sahara today is the product of an earlier humid geological period: the deep Tassili, Aïr and Tibesti gorges, the water-eroded rocks of the wadis, the sands deposited by water and wind to produce the magnificent dune massifs popularly associated with Saharan landscapes. As a rule, Saharan topography features:

- (a) Rock and stone desert (reg, hamada): The reg originate from an alluvial plain whose matter has been deposited, like regular alluvia, in water and then sifted by the wind. Finer grains have been swept from the surface or preserved deep beneath a layer of gravel and coarser sand. Regs cover more than half of the Sahara region. Occasional mountains constitute the high ground in areas where the sedimentary cover has been pierced by volcanic massifs produced. The highest of these are the Tibesti in northern Chad, which rise to 3,415 metres above sea level (Emi Koussi), and the Hoggar in Algeria, which peak at 2,918 metres (Tahat). In the western Sahara, on the other hand, not a single summit exceeds 1,000 metres. Surrounding the Hoggar are the sandstone plateaux known as the Tassili.
- (b) Sand dunes (erg): rarely stand isolated except in the Egyptian parts of the desert (barkhan dunes). They are usually grouped together in ergs (or args in Arabic) which lie in line with the prevailing north-easterly winds and occupy depressions surrounding the mountains and plateaux against. They appear on terrain originally formed by fluvial erosion. Sand masses

deposited in the wadis in the latter stages of the pluvial period were later eroded into residual terraces, some of them now many metres high. Dune ranges are lined up along those terraces, which themselves follow the trace of older horns (arms). They are then moulded by the power of the wind. Horns are separated by corridors known as *feidji* (if occurring on sand) or *gassi* (in the case of regs). Neolithic sites can often be found located at the foot or beneath the dunes. The beauty of these landscapes is unarguably one of the major attractions of Saharan tourism (the Great Eastern and Great Western Ergs, the Mauritanian dunes).

- (c) Clay and gravel plains (Serir): appear where certain types of rock are eroded by sandstorms. Parallel ridges with a well-defined fold are formed when the material is constant and homogeneous. Outcrops of pebbles and honeycombed or multifaceted regs are smoothed by the action of the wind. That, for instance, is how the dreikanters of the Saharan serirs were fashioned from quartz pebbles. Sandstorms have also carved mushroom-shaped residual hillocks from the sandstone cover. Meanwhile, depending on the direction in which they blow, the winds can produce parallel furrows in the soft clay or alluvial rock that has accumulated in basins.
- (d) Another form of desert, enclosed depressions: some of the most severe landscapes in the Sahara. Garaas possess little salt and a surfacewater regime reliant on overspills from neighbouring wadis during the floods. They are perfectly flat. Sabkhas are also extremely flat, but feature an abundance of soluble salts, chlorides and sulphates concentrated on the surface and preventing any vegetation whatsoever from growing there. Tufts of halophytic grass appear on the fringes of the somewhat less salt-rich *chott* flats. Mirages due to the reflection of the light will often occur in places where the clays have been set hard by a myriad-microcrystalline cement, leaving a dense transparent dust on the surface. Some enclosed depressions situated well below sea level now contain pools of yellowish water. The larger sabkhas may represent examples of the submergence that occurred throughout the middle Quaternary (chotts Djerid, Fedjdj and Gharsa in South Tunisia).

1.3 Flora and fauna

Irrespective of the severe physical and ecological constraints, many hundreds of species of plant and animal life do manage to exist in the Sahara. There are 1,300 species of plant life known to be growing between the Atlantic and the Red Sea, most of them small in size and, hence, more adaptable to drought conditions. The greatest diversity of flora is found in mountainous areas: e.g. no fewer than 370 species in the 150,000 km² Hoggar massif.

Existing lists of Saharan fauna are just as extensive: mammals (116 species), birds (60 nesting species, several hundred migratory), reptiles (90 species: 54 lizards, 31 snakes, five turtles), batrachians (10 species) and fish (20 species, including barbel and tilapia which inhabit the gueltas. In one of the larger of these – in the Tassili-n'Ajjer – the last Saharan crocodile (evidence of the desert's wetter past) was killed in the early twentieth century.

Desert mammals resort to a wide range of physiological, morphological and behavioural strategies to survive the extreme heat and scarcity of water. Their urine is often highly concentrated, their faeces are dry, and a minute amount of body moisture tends to be lost through evaporation. Dromedaries, for instance, can stand losing up to 30% of their body weight, i.e. three times more than a human being. Many mammals have body temperatures far below the level at which a human being would risk death from hypothermia. The dromedary which, in a manner akin to wild herbivores such as the addax and gazelle, extracts moisture from the plants it eats, can lose up to 100 kg of its body weight during a long expedition through the Sahara, then recover within the space of ten minutes by drinking 100 litres of water. The addax, on the other hand, barely drinks a drop yet still manages to survive the vastness of the Ennedi (Chad), Majabat-al Koubra (Mauritania) or Air and Ténéré (Niger). This species of sandy-coloured antelope quenches its thirst while feeding on the sparse plant life growing in its preferred habitat, notably in the deep wadi gullies. Ostrich, though never venturing into the desert proper, thrive in the southern reaches of the Sahara (south-eastern Mauritania, the Aïr and Ténéré Natural Reserve [Niger]).

Rodents (gerbil, jerboa, kangaroo rat, spiny mouse, etc.) live and stock food in deep, cooler and more humid underground burrows, while carnivores (sand fox, hyena, fennec, etc.) derive water from the blood of their prey and can survive on a varied diet: the fennec fox, for instance, feeds on lizards, invertebrates, molluscs, birds, eggs and fruit.¹

1.4 Populations, economic activities and trade

1.4.1 Nomadic and sedentary populations

The Sahara is populated by Berbers, Arabs and Blacks. Many of the latter are the descendants of the black slaves (Harratin in Mauritania, Fezzanai in the Libyan Arab Jamahiriya) once shipped across the desert by caravans, and generally tend to inhabit the oases. Among the Berber tribes, who have been living in the Sahara since very ancient times, Tuareg people occupy the whole of the Central Sahara region. They speak *Tamacheck*, but began adopting the Arabic language and religion of Islam with the arrival of the Arabs in the eighth century. Nomadic Arabs and Berbers, the true masters of the desert, prevail in the oases and ksour. Islam, which has spread right down into sub-Saharan Africa, serves to foster unity among these various groups who are now gradually settling down to a more sedentary lifestyle and, in so doing, intermixing.

1.4.2 Pastoralism and agriculture

Economic activities in the Sahara revolve primarily around pastoralism, oasis cultivation or the tapping of natural and energy-related resources. Pastoralist nomads move around according to the season, in search of pastures for their livestock. The persistent drought of the past few years (especially on the fringes of the desert and the Sahel), not to mention the loss of their monopoly over transport as a result of modernization, i.e. trucking on the new highways, has forced many of them to settle in the oases.

Agricultural activities there depend on a variety of irrigation techniques: simply diverting watercourses (seguias), sinking wells or tapping underground channels (foggaras), farming in the bours where barely any artificial irrigation is needed thanks to the fact that there is groundwater just below the surface (e.g. the Fezzan palm

groves). While date palms constitute the primary resource of the oases, particularly in North Africa, other market gardening and non-food crops (e.g. tobacco in Souf or Touat) may also be grown.

1.4.3 Oases and caravan settlements

Oasis dwellings are mainly built with crude, sunbaked, clay-and-straw bricks. The clay acts as a good insulator against the heat of the sun, yet fails to withstand the occasional torrential downpour. Oases contain several villages clustered around fortified areas known as ksour.

The old caravan settlements still possess the prestigious air of their stature as urban and spiritual centres. Caravans used be chartered there, much in the manner of cargo ships, to carry goods from Sudan, ostrich feathers, hides and fabrics to the Mediterranean coast markets. On the return

journey, they would bring back wheat, barley, oil, metals and north African handicrafts. Stopping once or twice along the route to trade with others, they made the fortune of towns such as Aïn Salah, and Ghadames, Tindouf and Timbuktu. The eastern route linked Gao to Tripolitania via the Fezzan, Tassili and Adrar des Iforas massifs. Central routes passed through Touat and Tanezrout to the River Niger, or via Aïn Salah and Adrar d'Ahnet. Caravans heading west left Tafilalt for Taoudenni (renowned for its salt), then on to Ouadane or Chinguetti as far as Timbuktu, Dienné or Gao. These towns became reputed for the marvels of their architecture, their mosques and religious and intellectual activity. Thousands of ancient manuscripts may still be admired there in old private libraries or the Koranic schools (medersas).



Tuaregs Kel-Ahaggar of the area of Hoggar (Algeria)

II. Stakes involved in natural resource management and action against desertification

Attitudes among Saharan farmers and pastoralists have been changing over the past 50 years or so. A host of new – not just climatic – constraints have forced them to prioritize their immediate needs, especially food, at the expense of the natural resources, the heritage, they are exploiting.

When farmers, unable to produce a surplus, can no longer afford to observe heritage-conservation priorities, natural resources fall prey to degradation and ecological balance is disrupted. The latter is very often stretched to the limit as demographic pressure and the effects of drought spur people on to excessive activity (e.g. abuse of water resources, over-farming, overgrazing, increased exploitation of timber resources) which can, directly or indirectly, lead to the degradation of arid land and environments.

2.1 Water-resource management

2.1.1 Surface water

Watercourses and groundwater bodies constitute the bulk of water supply in arid and semi-arid areas. Owing to the lack of rainfall in such areas for much of the year, surface water is scarce, of variable quality and highly influenced by the rate of runoff. Basic discharge from the wadis, which are interconnected with the groundwater bodies, is characterized by mediocre-quality water and supplies of brackish floodwater. The gueltas used to serve as stopping points where the caravans would rest.

2.1.2 Groundwater (renewable and fossil)

Renewable groundwater bodies are those receiving seasonal inputs of water each year or every few years. Their piezometric dynamics are the product of a combination of such inputs and how they are exploited. Most renewable aquifers, which tend to have limited storage capacity, stem from runoff following rains of over 20 mm or downpours. Water infiltrating after a shower, however, is often trapped by the soil and lost to evaporation. This causes a concentration of dissolved salts. These salts are then

frequently leached away by rainwater infiltrating into the soil, and are carried into the groundwater body. If, especially during periods of drought, the aquifer is overexploited without being replenished, the water will grow prone to chemical variations and significant increases in salt content.

Groundwater is largely tapped via surface wells or boreholes. Deep (often confined) aquifers in arid and semi-arid lands receive their supplies from fossil groundwater. They feature a complex geometry of multilayered shallow aquifers and react to decompression pumping.

The non-renewability of these resources and their potential changes in quality are factors that must be borne in mind when exploiting them. Fossil groundwater is often exploited in the oases, where irrigated crops constitute the chief water-consuming activity. Over-irrigation causes salinization of the soil and, hence, the need to resort to drainage. However, reclaiming desertland dunes for cultivation, and ensuring that they are carefully irrigated, can help to halt the spread of the desert (one edifying example being the recent R'Jim Maâtoug agricultural experiment in the south of Tunisia).

2.2 Environmental degradation in arid and semi-arid areas

The combined effects of drought, demographic pressure and increasingly intensive farming and pastoral activities have led to an overexploitation of natural resources in inhabited areas of the Sahara, particularly its oases.

2.2.1 Forms of degradation

Demographic pressure in most of those areas lacks the regulatory influence of rural exodus to more industrialized regions, with the result that local ecosystems (water resources, vegetation cover, etc.) are subjected to greater pressure induced by agriculture. Water for irrigation is often tapped at source via boreholes, and some crop farmers enjoying access to greater quantities of water find themselves tempted to extend their

croplands further into the desert. But the danger there is that increased drainage will lead to water collecting in depressions and being subjected to irreversible salinization. One solution would be to irrigate palm groves and oases with just enough water to maintain the salts deep in the soil without their being carried into the surrounding landscape via underground channels.

Meanwhile, when demographic pressure forces pastoralists to increase the size of their herds or flocks, the land's animal-carrying capacity is liable to be overstretched. This has been seen to upset the balance between forage consumption and pasture production, with:

- a loss of vegetation cover leading to increasing soil erosion and dwindling potential for pastoralism;
- pastoral species vanishing, leaving the land less fit for pastoral farming;
- the pastoral ecosystem's already low reserves of vegetation dwindling still further owing to the disappearance of seed producers, general degradation and failing water supplies.

Moreover, since pastoralists now have the means to transport their animals in lorries or by train to graze open rangelands far from the livestock-rearing base, they are contributing to a process of rangeland degradation (e.g. in Algeria's grassy plain regions). And because of the ambiguity over ownership of the collective lands surrounding oases, along with the gradual disengagement of the tribes and Governments, pastoral land-use is being stripped of any regulatory activity whatsoever.

Meanwhile, land ownership in a number of the ksour of southern Morocco and Tunisia, for instance, is such that loose tribal or domestic groupings have a say over property and stand in the way of efforts to rehabilitate those places or properly exploit them as cultural or tourismoriented sites.

2.2.2 Where degradation occurs

A number of points have been noted as regards the degradation in and on the fringes of the Sahara:

- every Saharan country and arid area in the strictest sense of the term is affected by wind erosion. Entire villages face the threat of sand encroachment, and oases are all having to resort to increasingly sophisticated techniques to protect themselves from it (the most familiar case being the ancient oases of Mauritania);
- chemical degradation is leading to salinization (northern African oases), to sodization in extensively irrigated spaces (Sudan *Djezira*, around Lake Chad, in the Niger delta, the Sénégal river valley) while causing declining soil fertility (Sudanese land and in the Sahel, etc.);
- degradation due, indirectly, to over-cropping is mainly a feature of northern Africa, whereas overgrazing concerns eastern Africa and the Sahel. Both these factors stem, as mentioned earlier, from the growing pressure exerted by human activity and, exponentially, their domestic animals. That pressure is not always offset by proper management techniques, rotational grazing systems, fencing and contour-line farming (e.g. the *jessours*) or anti-erosion systems.¹

The States claiming a share of the Sahara have, each according to its own capacities – and backed by national and international organizations (e.g. UNESCO) or NGOs – taken action to combat degradation and desertification in their natural environment.

Saharan-country Governments have worked hard and invested a great deal in projects specifically aimed at arresting desertification. Unfortunately, however, little has come of it so far by way of results, largely on account of a low participation rate among the local people concerned by those projects.

^{1.} Pontanier, A., M'Hiri, A., Aronson, J., Akrimi, N., Le Floch, E., Can man recreate what he has destroyed? John Libbey Eurotext, Paris, 1995.

III. International actions geared to combating desertification and safeguarding

cultural heritage

For some decades now, the international community has been growing increasingly determined in its efforts to combat desertification in Africa. Related actions led by the United Nations and, in particular, UNESCO have been edifying. UNESCO, for its part, has supplemented its study and training programmes with endeavours to safeguard natural and cultural sites in the Sahara.

3.1 Study and training programmes

UNESCO launched the first international study and research programme to focus on arid lands in 1951. Having been upgraded to major project status in 1957, it continued under the leadership of an international consultative body through to 1964. From 1965 to 1974, water-related issues in arid and semi-arid areas formed the focus of priority research conducted within the framework of the International Hydrological Decade (IHD). Arid areas have also received special attention under the Man and Biosphere Programme (MAB), launched in 1971. MAB and the Major Programme spawned a range of sectoral Saharaspecific pilot projects in the field, backed up with training and information-sharing activities.

In Tunisia, for example, the Integrated Project on Arid Lands (IPAL) was carried out between 1980 and 1984, followed by a two-year pilot project on combating desertification in the south of the country. Two regional seminars then brought together specialists from the countries around the Sahara to explore the results of those projects, which provided a scientific and technical basis upon which to build the national strategy to combat desertification adopted by the Tunisian authorities in 1986. There have also been regional meetings such as the Congrès International sur la Restauration et la Réhabilitation des Terres Dégradées, held in Tunisia in November 1994, or the Intersectoral Cooperation Workshop staged at El Kharja oasis (Egypt) in March 1995, where the focus was trained on issues concerning sustainable development in oasis environments.¹

At another level, the International and Interregional Meeting on the Sahara led to an association being formed between UNESCO's Division of Ecological Sciences and the Sahara and Sahel Observatory (SSO), with a view to setting in place a network for long-term ecological monitoring known as the ROSELT project and involving twenty countries around the Sahara and Sahel. Alongside efforts on the part of UNESCO, the United Nations Conference on Desertification (UNCOD) adopted a Plan of Action to Combat Desertification (PACD) in 1977. In 1991, the United Nations Environment Programme (UNEP) remarked that apart from the occasional breakthrough, land degradation in arid, semi-arid and dry sub-humid areas had grown worse. This alarming situation formed one of the main topics on the agenda at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro (Brazil) in June 1992. In the aftermath of UNCED, the following were adopted:

- a programme entitled Agenda 21, Chapter 12 of which lays the foundations for the fight to curb and reverse desertification;
- Resolution 17/88 of the United Nations General Assembly, held in December 1992, which confirms the priority it had granted to Africa;
- the United Nations Convention to Combat Desertification, adopted on 17 June 1994 in Paris (France).

3.2 World Heritage Sites and Biosphere Reserves in the Sahara

Saharan countries possess a wealth of impressive natural sites and reserves featuring on the World Heritage List. With their special historical, architectural, ecological, palaeoclimatological and anthropological features, those sites and reserves stand as the clear vestiges of humanity and marvellous evidence of the power and vitality of nature. They constitute a tremendous pool of identity- and tourism-related capital in need of preservation for future generations. And they fall perfectly in line with the criteria and principles of UNESCO's Convention for the Protection of the World Cultural and Natural Heritage, as well as the biosphere concept developed within the framework of the Man and the Biosphere (MAB) programme.

The Convention, adopted by UNESCO's General Conference in 1972, primarily set out to identify and protect all the cultural and natural heritage of "outstanding universal value" whose existence and beauty can enrich the lives of every human being, and which, were it to vanish, would constitute an irreparable loss for all humankind. The World Heritage List now contains 582 cultural and natural sites distributed among the Convention's 156 signatory States.

The MAB programme, launched by UNESCO in 1971, concentrates on the Earth's ecology and problems of the management and conservation of natural resources in general, and has pieced together a worldwide network of biosphere

reserves for the purpose. Thirty-eight of the World Heritage Sites and 12 MAB Biosphere Reserves are to be found in the ten countries around the Sahara. All of those countries have ratified the World Heritage Convention and their cultural and natural sites now bear the UNESCO emblem.

A majority of sites and biosphere reserves are situated in North Africa, especially Tunisia (eight sites and four reserves), even though Egypt was the first country in the world to sign up to the Convention following a campaign to safeguard Abu Simbel and the Nubian temples. Most of the sites feature archaeological remains from the Punic-Roman era or the ancient Arab-Islamic cities. The arid lands of the Sahara contain ten sites and six biosphere reserves.¹

Nature-based tourism, a taste for adventure, the desire to visit unusual places, the quest for the absolute, far from the pollution and stresses of everyday life: these are just a few of the reasons why Saharan tourism is fashionable today and has a promising future in store. Yet specific actions are required to promote it, and they must fit into the framework of overall tourism development policy. Let us now turn to the strategy that each Saharan country might pursue.

World Heritage Sites and Biosphere Reserves in Saharan Africa

Country	Ratification date of the World Heritage Convention	Sites	Reserves
Egypt	7 February 1974	5	2
Sudan	6 June 1974		2
Algeria	24 June 1974	7	2
Niger	23 December 1974	2	2
Tunisia	10 March 1975	8	4
Morocco	28 October 1975	6	
Mali	5 April 1977	3	1
Libyan Arab Jamahiriya	13 October 1978	5	
Mauritania	2 March 1981	2	
Chad	23 June 1999		
Total		38	12

Source: UNESCO

World Heritage Sites in Saharan countries

Biosphere Reserves in arid or semi-arid regions of the Sahara

Country	Sites	Country	Reserve
Algeria	Tassili n'Ajjer - Valley of M'Zab	Algeria	Tassili n'Ajjer
Egypt	Nubian valley temples	Egypt	Omayed - Wadi Allaqui
Libyan Arab Jamahiriya	Tadrart Acacus	Niger	Aïr and Ténéré
Mali	Timbuktu – Djenné	Sudan	Dinder
Mauritania	Ksour of Ouadane, Chinguetti,	Tunisia	Jebel Bou Hedma
Morocco	Tichitt, Oualata Ksar of Aït-Ben-Haddou	Source: UNESC	0
Niger	Aïr and Ténéré		

Source: UNESCO

Saharan tourism: case studies

I. Diversity and distinctive regional features

Tourists visiting the Sahara tend to fall into two broad categories:

- those wishing to spend their entire stay travelling in the Sahara, to the exclusion of all other forms of tourist activities;
- those interested in the Sahara but wishing to combine it with other activities (swimming, archaeology- or ecology-related), or on a tour that makes a stop, briefly or otherwise, in the Saharan area.

Owing to a lack of reliable data, however, analysis of Saharan tourism in circum-Saharan countries does not always manage to pinpoint exactly how many tourists figure in either of the two categories. Some countries, for instance, have no available data on total nights spent or total hotel beds.

A survey of the specific actions that the States undertake with a view to promoting their tourism industry in general, and Saharan tourism in particular, will help determine those States' tourism policy: administrative organization, tax incentives, protection of the environment and heritage. The latter is presented as a factor likely to draw in tourists, particularly if it has been selected by UNESCO for World Heritage site status.

An overview of some of those sites will serve to convey Saharan tourism's wealth of potential. Finally, highlighting the factors boosting and hindering Saharan tourism in the various countries will help to compare their strategies in this field. Case studies have been conducted on three sets of countries:

- three countries in North Africa: Egypt, Morocco, Tunisia;
- four southern Saharan countries: Chad, Mali, Mauritania, Niger;
- three countries whose Saharan tourism is affected by prevailing contextual factors:
 - Algeria, which, with its huge potential for Saharan tourism as a former pioneer in the sector, has been preparing a comeback for the year 2000 with a tourism development plan focusing on the deep south;
 - the Libyan Arab Jamahiriya, which remains at a relatively early stage yet has, with its reappearance on the stage of international tourism and efforts to streamline the administrative machinery and promotion of the sector, attracted a certain amount of attention;
 - Sudan, which, despite the debilitating effects of war in the south, has been discreetly moving towards a tourism development strategy.

Saharan tourism in Morocco

1.1 Scale and characteristics of Moroccan tourism

Tourism is one of the most promising sectors of the Moroccan economy. Providing jobs for 250,000 people and a living for 1.5 million (i.e. 6% of the population), it accounts for as much as 8% of GNP and a fifth of total exported goods and services. A tremendous boon to the country's craft and transport industries, tourism stands as the second biggest contributor to foreign currency reserves after transfers from the 1.7 million

Moroccans resident abroad, and ahead of income generated by sales of processed phosphates.

Numbers of visitors to Morocco have risen dramatically since the first efforts to equip and promote its tourism industry in the early 1960s: up from 160,000 in 1965 to 1,600,000 in 1987, then 3,243,000 in 1998 (i.e. a tenfold rise within the space of 22 years and doubling again in just over decade). During a four-year period between 1991 and 1995, however, the Moroccan tourism industry was hit by an alarming decline in tourist flows and activity.

Flows picked up again in 1996 with a 3.5% increase in international tourist arrivals, including Moroccan nationals resident abroad. This upward trend was confirmed by continuing growth the following year (+14% in 1997) and, more tentatively, the year after that (+5.6% in 1998). As for the hotel trade, which relies on international tourism for close to 80% of its earnings, overnight stays rose from 7,886,191 nights in 1996 to 8,645,000 in 1997 (i.e. up 9.6%)1. European tourists form the bulk of the customer base here, headed by the French and followed by Germans, Spanish, Italians and English. Indeed, more than 80% of visitors come from European countries, while the rest arrive from the Americas, Middle East and Maghreb. Until recent years, Moroccan tourism has presented a somewhat mixed picture in terms of what it has to offer, its wealth of potential linked to the richness of its heritage and the diversity of cultural features and landscapes (coasts, mountains, deserts in the south) being counterbalanced by the potential left underexploited owing, in the main, to a lack of global vision and weak policy vis-à-vis publicity.

1.2 Saharan tourism in Morocco: strengths and prospects

1.1.2 Strong growth in tourist arrivals

Tourist arrivals in the pre-Saharan deep south of the country have increased dramatically over the past few years. A comparison of the various tourist destinations in 1996, for instance, shows Ouarzazate to have been the year's strongest performer. Coastal resorts, on the other hand, suffered a significant slowdown. Indeed, international tourist arrivals in Agadir and Tangiers fell by 3.3% and 4.9% respectively, whereas Ouarzazate showed a 19% rise (up from 248,000 in 1995 to 295,000 in 1996), followed by Fez (+11%) and Marrakech (+9.4%).

So the coastal-tourism trade may well have remained the biggest draw, largely thanks to a high concentration of hotel capacity along the Moroccan seaboard, but it now looked vulnerable to serious setbacks in the event of an unaccustomed slump in activity. This was confirmed when Mediterranean tourism in the north of the country attracted 4.8% fewer tourist arrivals in 1996 despite accounting for 11% of Morocco's total hotel capacity. So the industry's decision-makers began turning their attention to

the development of tourism in pre-Saharan and desert regions – a form of tourism that features some tremendous advantages, regardless of the factors hindering large-scale expansion.

1.2.2 Hotel capacity in the deep south

The capacity on offer in terms of hotels and numbers of tourist beds in the pre-Saharan and Saharan deep south, displays a number of distinctive characteristics. Ouarzazate accounts for barely 9% of tourist arrivals and 6% of the country's total capacity, i.e. 32 out of 530 hotels in 1996. Agadir boasts 60% of hotels and similar establishments and 74% of tourist beds in the deep south, while the rest of the Saharan region as a whole contains but 55 establishments (i.e. 10.3% of the national total and 40% regionally) with a capacity of 7,659 beds. Ouarzazate, with 5,478 beds, has the lion's share (71.5%), followed by Taroudannt (9.7%), Laâyoun (7.2%), Tiznit (6.6%), Tata (2.7%), Tan-Tan (1.3%) and Oued El Dahab (0.7%). One of the striking features here is that the number of four- and five-star hotels exceeds the national average. Over half the bed capacity in Ouarzazate is offered by first-class hotels, compared to 46% in the other Saharan towns.

1.2.3 Palm groves and kasbahs of the deep south

Tourism in southern Morocco revolves around a combination of natural attractions and cultural authenticity. It is here that one can admire the many palm groves, the *kasbahs* and magnificent ksour, testimony to the region's ancestral architecture.

1.2.3.1 Oases of the Draâ, Dadès and Tafilalt

The most visible oases and palm groves are found scattered around the Draâ valley between Ouarzazate and Zagora, or in the Dadès valley toward Tafilalt. The route linking Dadès and the Todra Gorge passes through the Atlas mountains, leading the traveller into the heart of a stony landscape then down to the Tinerhir palm grove and on to the fringes of the Sahara as far as the Erg Chebbi dunes, which can rise as high as 150 metres (Merzouga dune). Tafilalt – south of Erfoud – is where one finds Rissani, built in the eighth century AD on the rubble of Sijilmassa and once one of the biggest caravan centres of the gold, salt and slave trade. It is also the cradle

of the Alaouite dynasty (founded in 1666), which has just lost its seventeenth sovereign leader, King Hassan II. In Zagora, from which point the rocky hamada plains stretch as far as the eye can see, stands Mhamid, the last administrative centre of the central Draâ and the start of the 576km western route running along the Algerian border via Foum-Zguid, Tata and Ben Izarkan to Goulmina. From Goulmina, one can reach the desert of Western Sahara desert via Tan-Tan and Laâvoune.

1.2.3.2 Western Sahara

Western Sahara never attains an attitude of more than 450 m above sea level. It is composed of the Seguiet el Hamra and Rio de Oro. The former covers an area of 82,000 km2 and stretches from the south of Tarfaya (26°N), while the latter covers 190,000 km2 bordered by longitude 12° West as far as the Tropic of Cancer. Its southern limits lie at the same latitude (21°20N) as the Zouerate mineral basin (Mauritania). Comprising six natural regions (Hammada, Zemmour, Cap Bojador, Dakhla, the Tiris desert belt and the Adrar Soutouf basalt massif), Western Sahara is home to a variety of tribes such as the cameland goat-rearing Reguibat and Tekna.

1.2.4 Mudbrick buildings: heritage in danger

1.2.4.1 Origins of the kasbahs and ksour

In the pre-Saharan oases of Dadès, Draâ and Tafilalt as well as a few of their linking mountain valleys, stand the mudbrick ksour, kasbahs and agadirs, a unique and spectacular form of architecture typical of southern Morocco. The oldest ksour are found in Tafilalt. This region is situated on the lands of Sijilmassa, an ancient city renowned for its cultural and economic influence in the early Middle Ages. In order to seek out the origins of Moroccan oasis architecture, one needs to delve into the links between the historical role, socio-urban relations and architectural techniques of Sijilmassa and its caravanbased communication network. Other ksour exist in the pre-Saharan towns of southern Tunisia, Algeria and Mauritania.

Originally designed as a means of protecting against invaders and insecurity, the kasbahs and ksour were once vital stopping points on the caravan trade routes.

1.2.4.2 Typology of the kasbahs and ksour

Nowadays, the term kasbah has been extended to cover most southern Moroccan structures

involving some degree of fortification: walled towns (ksour) and communal hilltop granaries (agadirs). Ksour, many of which date back to the early thirteenth century, were built using very ancient techniques (adobe) and generally consist of a kasbah and dwellings, now often in ruins. The upper parts of the kasbah (téghrent in the Berber language) are adorned with geometric patterns, formed by the arrangement and alignment of bricks in several vertically set planes. Kasbahs consist of large houses with four high fortified wings built around a rectangular central courtyard and a tower positioned at each corner. They stand high above the lower-lying adjoining dwellings which are packed around a second courtyard sheltering within an outer wall.

Fortified communal granaries (agadirs) are built on hilltops. Unlike the kasbah, a family unit, the ksar (singular of ksour) is a community of buildings surrounded by protective walls with the added security of a tower at each corner and entered through a single zigzag patterned door. Ksar dwellings give on to communal spaces containing collective sheepfolds or cowsheds, granaries and silos. There may be a market place, a hall for meetings of the *Imaa* (assembly of family heads), a mosque. The ground floor of dwellings is generally used for agricultural purposes, with the floors above being inhabited, the top floor in winter, the lower in summer. Outbuildings tend to serve as lodgings for farmhands. It should be noted that some kasbahs (e.g. Telouet) were genuine fortified palaces, the headquarters of local governors.

1.2.4.3 Example of a ksar: Aït-Ben-Haddou

The ksar of Aït-Ben-Haddou has become a popular destination for parties of tourists visiting the Ouarzazate region. Probably the most famous of the Ourika-valley ksour, it has served as the setting for such well-known films as *Lawrence of Arabia* or *Jesus of Nazareth*. In 1987, UNESCO recognized the characteristics which, according to ICOMOS criteria, give the ksar's buildings their outstanding value and granted it World Heritage Site status, including:

- adaptability to climatic conditions;
- ability to blend into the surrounding landscape;
- architectonic simplicity of dating back to ancient times;
- harmonious balance of proportions and volume;
- sobriety and effectiveness of ornamentation.
 In view of the buildings' outstanding value,
 and the fact that they are in danger of falling into
 a state of total decay, their place on the World
 Heritage List is well deserved.

Aït-Ben-Haddou was built in the early thirteenth century and comprises six kasbahs along with the remains of fifty or so houses. Its inhabitants have abandoned the site, preferring to construct a modern town on the opposite bank of the Asif Mellah, where some 84 families now live in dwellings built of breeze blocks. With groups of tourists wandering its maze of narrow alleys day in day out, the ksar, like so many other ksour in the region, continues its inexorable degradation. This brings us to the matter of what action the authorities and local population are taking to preserve this heritage and explore its possibilities as a tourist attraction (followed by an appraisal of the prospects and weaknesses of Saharan tourism in Morocco).

1.2.5 Safeguarding heritage and promoting tourism in southern Morocco

In the late 1980s, the Moroccan Ministry of Culture, having become aware of the fact that the southern ksour and kasbahs were in danger of being lost forever, launched a national *kasbah* preservation programme. Of the 1,000 kasbahs inventoried, 300 were singled out as top priority sites in need of rehabilitation: Aït-Ben-Haddou became the first ksar to benefit from the programme. In addition to the safeguarding of endangered cultural heritage, the programme – which enjoyed UNDP, UNESCO and WTO backing – also set its sights on stimulating tourist activity in the region.

One of the reasons why the kasbahs and ksour have become prone to degradation is that they have been deserted by the families who once lived there – for the citadel villages no longer fill their former role, i.e. protect their inhabitants, owing to the fact that:

- the trans-Saharan caravan routes have ceased to exist:
- the threat of invasion has evaporated;
- a centralized national Government is now in place;
- people want modern conveniences (e.g. electricity, direct access by road).

When alerted to the severe degradation of Aït-Ben-Haddou, the Government decided that action was needed and, within the framework of its national programme for the preservation of southern kasbahs and promotion of tourism, it launched a project to:

- inventory the buildings (their architecture);

- clean them;
- pave the alleys;
- redevelop the western banks;
- build a footbridge;
- restore the façades of significant houses and edifices, e.g. the mosque.

Tourism flourished as a result, and the visitors have continued to arrive, thanks to the exposure the ksar has enjoyed through figuring on the World Heritage List and as the scenery in a number of famous feature films. And that, in turn, has resulted in the appearance in Aït-Ben-Haddou of:

- 25 new bazaars and souvenir shops, eight of them in the old town;
- four café restaurants (with rooms for the night);
- two small hotels;
- around 400 visitors a day on the regular trips from Marrakech and Ouarzazate now being organized by foreign tour operators and Moroccan travel agencies.¹

The project to safeguard the ksar has failed to deliver on a number of other scores, however, and a number of problems remain unresolved. Some concern the Moroccan tourism industry as a whole.

1.3 Problems hindering sustainable tourism development in southern Morocco

1.3.1 Rehabilitating the ksour and kasbahs: a troublesome task

Government efforts to rehabilitate Aït-Ben-Haddou have failed to safeguard it entirely, for it remains emptied of inhabitants, a fortified ghost town. Insufficient restoration has been done on the buildings to guarantee their long-term survival. Adobe buildings are ephemeral structures, constantly in need of repair and action to protect them against the ravages of time and weather. What the ksar needs is a permanent human presence, i.e. the return of its original inhabitants. So a project of this kind must also consider the basic minimum infrastructure required to sustain the dynamics of a modern-day community (electricity, running water, a school, access roads, etc.). Government departments and other bodies working for the ksar's survival held a serious consultation on the project. They arrived at the following conclusions:

 the Ministry of Education should provide a Koranic school until there were enough pupils to warrant opening a primary school, along with a direct route to the village capable of withstanding the whims of the wadi during the floods:

 the National Electricity Board would equip the entire village for solar energy.

Those decisions, however, have never really yielded concrete results, mainly owing to the increase in the numbers of actors involved and lack of coordination between the various Government departments, not to mention the legal obstacles linked to the ownership of the ksar, with the heirs to certain kasbahs (some of whom are living abroad) being hard to reach. So even though a handful of people live there all year round (three families in all), the ksar is still lacking in basic facilities. Other problems concern the presence of the tourists themselves, i.e.:

- the capacity of the village and its surrounding kasbahs to cope with groups of visitors;
- how the visitors actually impact on local populations;
- funding sources for tourism development projects.

1.3.2 Other obstacles to Saharan tourism

Among the factors mentioned as being offputting to tourists are the:

- slow administrative formalities at border crossings;
- dilapidated state of certain hotels and the fact that they overrate themselves by international hotel standards;
- insufficient training and deteriorating quality of services;

- harassment of tourists (bogus guides, street pedlars) and poor access to information;
- lack of investment incentives.

1.3.3 Upgrading of Moroccan tourism and future prospects

Institutional and private operators undertook a stern review of the industry's shortcomings when they met at the Journées Nationales du Tourisme in Rabat on 23 and 24 February 1998, resulting in various adjustments. Measures recommended included the reinforcement of anti-tourist-harassment squads and better vetting of the quality of service offered by hotels and similar establishments. The Ministry of Tourism promptly downgraded several hotels whose services had proved substandard. The Groupements Régionaux d'Intérêt Touristiques (GRITs) were called upon to adopt quality charters at regional level. Further recommendations, aimed just as much at Saharan tourism, included:

- establishing a hotel renovation fund (particularly crucial because many hotels are so heavily in debt);
- adopting an investment charter;
- adopting an in-house training and professional retraining scheme;
- upgrading the Zones d'Intérêts Touristiques (ZITs);
- taking the environment into account in all fresh redevelopment work;
- establishing a "Morocco" trademark;
- bringing out the distinctive nature of tourism by creating new packages such as Saharan tourism.

Saharan tourism in Tunisia

1.1 Development and characteristics of Tunisian tourism

1998 was a good year for Tunisian tourism. The country topped the five-million-tourist mark for the first time ever and became the number one destination in Africa and the Arab world.

Although total tourist arrivals reached a very respectable level for a small country of only 164,000 km² and nine million inhabitants, hotel-

service prices nevertheless remained low, reflecting the well-worn image of a tourist destination basically known for its coastal resorts and for being highly affordable.

It is an image that the authorities are trying to shake off by running well-targeted publicity campaigns and diversifying the products on offer to tourists. Saharan tourism is just one such product, often vaunted for its richness and the drawing power it exerts over westerners. Aware of the fact, the Tunisian Government has worked hard to promote this sector by encouraging the construction of numerous hotel units in the bestknown southern pases.

This policy really started bearing fruit when tax incentives were introduced for private operators in the late 1980s. But the start-up of Saharan tourism in the oases as a bona fide holiday activity has nonetheless been slow and it has not as yet asserted its independence from the coastal trade. More worryingly, the annual figures for total tourist beds filled in the first-class hotels of the Tunisian oases are still struggling to reach satisfactory levels.

Do the causes of such a situation stem from internal problems within the region or from more complex factors? Does the Saharan tourism product suitably match the demand? One thing is certain: Tunisia's Saharan regions are unarguably rich in cultural and natural heritage, albeit in a highly fragile environment.

Tunisian tourism's development into a mass coastal-resort destination has been dictated since the 1960s by urgent economic requirements. Indeed, being the poorest country in North Africa in terms of raw-material resources, as soon as it gained independence in 1956 it had to seek alternative solutions in order to offset that handicap. Tourism was to prove an effective means for the Tunisian economy, a mainly agriculture-based economy reliant on uncertain climatic conditions in a – more often than not – drought-affected region, to stabilize its balance of trade and create large numbers of jobs.

1.1.1 Geographical and human assets

Tunisia's geographical and human resources lent themselves well to that strategy: a 1,300 km² shoreline; a mild Mediterranean climate in the north and on the coasts, semi-arid in central parts, arid in the south; a rich history punctuated by the arrival of a host of different peoples (Phoenicians, Carthaginians, Romans, Vandals, Byzantines, Arabs, Spanish, Turks and French); archaeological remains and an architectural and crafts-based heritage; a ready work force willing to be trained in the field.

On the other side of the Mediterranean was a European clientele accustomed to visiting the coasts of Italy and Spain and curious to discover this country, a gateway to the East, the cradle of Carthage and western Islam, a land that had been a source of inspiration to the many writers and painters who had lived there since the nineteenth century: Chateaubriand (1806), Alexandre Dumas (1864), Gustave Flaubert

(1858), Guy de Maupassant (1887), André Gide (1873, 1869, 1942), Isabelle Eberhardt (1899, 1903), the Lumière brothers (1816), followed later by Paul Klee, Auguste Macke, Henry de Montherland, Georges Duhamel, Colette and Antoine de Saint Exupéry. Many of them (e.g. Gide, Klee, Saint Exupéry) were equally fascinated by the appeal of the oases and Tunisian desert.

While colonial tourism – above all wintering in Tunis – may have thrived until the 1930s, it was the opening of the first Club Méditerranée in June 1954 and *launch* of the Hammamet resort in the early 1960s that really foreshadowed the coming boom in Tunisia's coastal tourism trade.

1.1.2 The State as a catalyst

Until 1965, the growth of tourism was characterized by direct State intervention, mainly in the field of hotel-building, via the Société Hotelière Touristique de Tunisie (SHTT) and Société des Financements Touristiques (COFITOUR).

When the private sector took over, tourism flourished anew. The State designated five priority tourism development zones – north Tunis, south Tunis, Hammamet-Nabeul, Sousse-Monastir, Jerba-Zarzis – and, with the financial backing of the International Bank for Reconstruction and Development (IBRD), set about equipping them with the necessary infrastructure. With hotel capacity burgeoning there, those zones, all five of them situated on the coast, spearheaded the rise of Tunisian tourism. Travel agencies already offering optional excursions and cultural tours as part of their coastal-resort packages, then began developing programmes that took in the Saharan oasis regions.

Large tourism complexes such as Port El Kantaoui started to appear on the scene, and hotels monopolized ever longer stretches of the tourist-zone seafront.

1.1.3 Growth of the Tunisian tourism industry 1962-1997

So the early period of modern tourism began in the early 1960s and carried through to the late 1970s (1962-1977). The progress made over those 15 years was spectacular: twentyfold growth in investments, tourist arrivals (up from 46,000 to one million) and overnight stays; a fifteenfold increase in beds and direct jobs; four times more hotels; 70 times greater earnings (from 1.9 to 139.4 billion Tunisian dinar [TD]). Over the following decade (1977-1987) the Tunisian tourism industry steadily matured: investments multiplying

by 3.5; a 1.5 increase in hotels (from 288 to 434), beds and direct jobs; approximately double the number of tourist arrivals (from one to 1.9 million) and overnight stays; quadruple the volume of receipts.

The year 1987 saw a change of political regime in Tunisia with the rise to power of President Ben Ali. To the new Government, tourism remained a top-priority component of the national economy. Hotel-building continued with even greater intensity. Two new tourism-investment codes promulgated in 1990 and 1993 offered national and foreign developers, particularly those operating in the regional development zones, a range of extremely attractive tax incentives. These included:

- 100% exemption for a period of 10 years, then 50% subsequently;
- 100% relief on profits reinvested;
- 0% value added tax on capital goods;
- 10% reduction in customs duties.

This served to stimulate close to a fivefold increase in total investments accrued: up from TD723 million in 1986 to TD3,423 million by the end of 1997, i.e. a growth of 373% in just over a decade. Foreign investments amounting to some TD228 million (73.6% of it spent over the period 1988-1997) helped created 50,000 beds. That took the total from 98,668 to 170,000 (+72%), while the number of hotels rose from 434 to 641 units (+47.6%). Tourist arrivals, for their part, more than doubled (up from 1.9 million to 3.9 million). Meanwhile, efforts to diversify the products on offer to tourists led to the creation (in 1987) of a dozen golf courses, a similar number of thalassotherapy centres and 26 ports, including five marinas. Following the changeover on 7 November 1987, the new Administration made Saharan tourism one of its top priorities.

1.2 Saharan tourism development in Tunisia: complex regional issues

Neither chance nor circumstance had any part to play in the Tunisian Government's decision to develop Saharan tourism. It was the product of thinking focused on the future of Tunisian tourism and the strategy for its diversification in a competitive international market. Nor was it by mere coincidence that the tourism industry, the Saharan sector in particular, occupied the agenda at the first cabinet meeting held just five days into the new regime. On that day (12 November 1987), hailed as the first of a new age of prosperity for the Sahara, the Government officially recognized the aesthetic, historic and economic value of Saharan parts of the country, and produced a raft of decisions and recommendations that it believed would be best for their future. It also decided to instate a National Sahara Day. The thinking behind it all was to encourage:

- the Tunisian tourism industry, in the face of competition from other Mediterranean seacoast destinations and falling service prices, to capitalize on an as yet underexploited wealth of potential for tourism and launch exciting new products designed to appeal to customers in the market place, especially in Europe;
- deprived Saharan regions to see in tourism a solution to their economic troubles and a means of preserving their cultural and natural heritage.

1.2.1 Potential for tourism in the Tunisian Sahara

Broadly, Saharan tourism centres on four distinct routes:

 Gafsa and the Jerid, with the oases of Tozeur and Nefta, and the mountain oases of Chebika, Midès and Temerza;

Growth of the Tunisian tourism industry 1962-1996

Year	Investment (TD million)	Hotels	Beds	Jobs	Tourist arrivals	Overnight stays	Tourist receipts (TD million)
1962	10.141	74	4,077	1,631	46,110	395,777	1.970
1977	210.613	288	64,097	25,639	1,015,966	8,117,577	139.439
1986	723	434	98,668	40,182	1,900,000	17,525,741	568.9
1996	417	641	170,000	68,000	3,900,000	24,129,960	1,413.2

Source: ONTT

- the Nefzaoua, with Kebili, Douz, the deep south and the Jbil National Park;
- the Matmata cave dwellings, the Tataouine ksour (Gabès, Medenine, Tataouine);
- the island of Jerba which, although strictly speaking a coastal tourism destination, can be used as a base for trips to the above.

1.2.1.1 Geographic overview

The relief of Tunisia's Saharan tourism regions is provided in northern and south-eastern parts by a number of mountain ranges (none of which rises any higher than 600 metres above sea level), interspersed with depressions, a plateau and a plain. Beyond the Gafsa mountains which are flanked in the south by the El Fejaj and El Gharsa salt flats or chotts (close to the mountain oases), the Gherb and Tebaga escarpments sweep from east to west, framing the depression that separates the oases of the Jerid and the Nefzaoua from the Gabès strait on the northern edge of the Sahara. The strait is itself flanked on the east by the Dahar plateau, which is in turn bordered by cliffs, the mountain ksour. Between this meridian range and the sea stretches the Jeffara Plain. The island of Jerba constitutes an extension to this plain and an illustration of Saharan-Mediterranean bipolarity.

Meanwhile, the extreme south of the country is sandwiched, over an area of 80,000 km², between the Algerian border from Midès as far as El Khadra, and the Libyan border from El Khadra to the Mediterranean. Around half of these desert lands are occupied by the magnificent dunes of the Great Eastern Erg. This panorama, which takes in the many oases and mountain ksour, the motionless *chotts* and vast undulating Erg, with nomads and semi-nomads crossing its plains to summer pastures, is what gives the Tunisian Sahara its unique charm.

1.2.1.2 The Jerid, land of palms

Tozeur

Tozeur (population 38,000) is the main administrative town of the region. Its 1,200-hectare palm grove contains some 250,000 palms and is known for a luxurious abundance of tiered vegetation. Buildings in the old town (Oualed Hadef) and modern centre alike boast geometrically patterned, low-relief, ochre-brick façades, a characteristic feature of local architecture. The tourist zone, with its many hotels lining a wide boulevard somewhat reminiscent of the "Promenade des Anglais", is located on the edge of the palm grove, some distance from the town centre. This is where one finds the Dar Cherait Cultural Centre, which boasts a museum of folk art and

a 1001 Nights theme park. Hotel capacity in Tozeur runs to 3,782 beds.

Nefta

Twenty-five kilometres from Tozeur is the Nefta palm grove which, with around 350,000 trees, counts as the largest in Tunisia. Once one of the country's main religious centres, the town of Nefta features several mosques, some dating back to the sixteenth century. Pilgrims travel here to visit its marabouts, e.g. at the mausoleum of Sidi Bou Ali. Nefta's most famous site, the Corbeille, offers a panoramic view over the sea of palm trees, some of whose water sources suddenly dried up a few years ago. Houses in the old town, which stands in a marvellous location on the crest of a hill, to some extent echo the ochre-brick façades of Tozeur. Many of them have been rehabilitated following damage caused by torrential rains in 1980. Those rains also wrecked parts of the old town in Tozeur as well a number of the surrounding oases, e.g. Chebika, Midès and Tamerza.

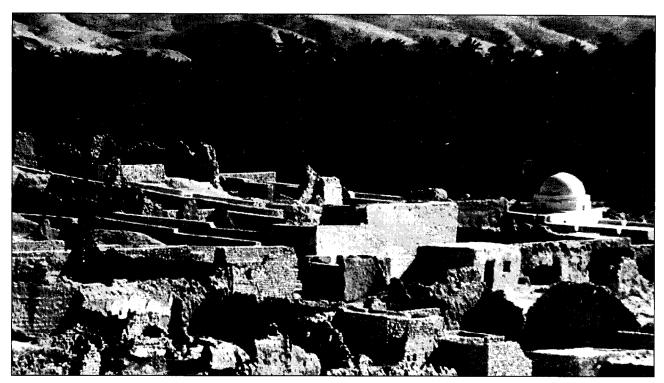
On account of the town's topography, the hotel zone divides into two development sites: one in the palm grove, the other overlooking the Corbeille. The latter is situated close to the famous Sahara Palace hotel which was among the first to be built in the region and is currently being renovated. Hotel capacity in Nefta runs to 1,138 beds. High dunes a few kilometres to the south of the town offer a fine view of the setting or rising sun. And Algeria's El Oued oasis lies only 25 km to the south, allowing travellers to experience both the Tunisian and the Algerian Sahara.

The mountain oases of Chebika, Midès and Tamerza

These sites stand some 50 or so kilometres from the Algerian border, set in a landscape of gorges, cliffs and peaks. Apart from the view, tourist attractions include the ancient mudbrick buildings. Sadly, the oases were seriously damaged in 1980 by rain storms. Down below their devastated historic old towns are the modern villages built by the authorities, with their wide streets and breeze-block houses.

1.2.1.3 Gafsa and Metlaoui

Gafsa oasis can be reached either by travelling the 100 km route north of Tozeur or by crossing through the stony landscape leading from the mountain oases to the old mining communities of Oum Laraïes and El Rdaïf via Metlaoui, an area rich in phosphates. Gafsa, a large town of 50,000 inhabitants with an ancient, carefully restored Arab-Islamic medina, is the cradle of the Capsian



The fragility of Saharan architectural heritage: the mountain oasis of Tamerza (Tunisia)

(i.e. homocapsian) culture. It is surrounded by a variety of prehistoric sites dating back to the early Stone Age: El Gtar, for instance, features finds of rhinoceros, zebra, antelope bones and sharpened flint that date back to at least 40,000 B.C. Elsewhere, Neolithic sites characteristic of the Capsian culture have been discovered in Mekta, 15 km north of Gafsa, and Metlaoui, 30 km to the south. Rome and Byzantium have also left their mark on the town, and one can visit the Roman pools¹ and view the mosaics on display at the archaeological museum near the palm grove, which affords a glimpse into the secrets of their watering techniques (foggaras, seguias, aghlabite wells). Despite its treasures, the town remains a mere stopover point for tourists staying at the Hotel Maamoun in the town centre or at the Hotel Jugurtha (named after the renowned Numidian chief born in Gafsa). Hotel capacity runs to 732 beds, 424 of them in establishments with no star rating.

1.2.1.4 The Nefzaoua

Kebili and Douz

These oases are situated on the opposite shore of the Chott el Jerid (120 km from Tozeur).

Kebili is famed for its natural hot mineral springs and the Fort des Autruches, while Douz is the most typically Saharan oasis in southern Tunisia.

Douz, former stronghold of the M'Razig tribes, is well known as the venue for the international Sahara Festival (staged there every December), and as the departure point for numerous camelback expeditions into the deep south via Zaafrane or El Faouar. It is within fairly easy reach of the Jbil national park. The town is also known for traditionally offering tourists the chance to take a camel ride into the desert. Products of the celebrated local crafts industry are laid out around a restored traditional market place, and a souk is held there once each week. The museum of Douz points out several aspects of the Saharan life. The town's tourist development zone lies at the foot of the nearby dunes. Further south, in Zaafrane, is a hostel which also serves as a departure point for camelback expeditions and offers camel trips for the crowds of tourists arriving there daily. Another (three-star) hotel may be found at El Faouar, a reclaimed oil drilling site. Existing hotel capacity in Kabili and Douz runs to 3,805 beds.

^{1.} Where water which disappeared in 1995, due to over-pumping, is running again thanks to important efforts of the Tunisian Government.

1.2.1.5 Matmata and the ksour route

The village of Matmata (population around 3,000) is set in what looks like a lunar landscape. Viewed from afar, one sees dwellings based on courtyards resembling craters in the hilltop (haouch) with the living spaces burrowed into the walls. Matmatias are a sedentary people who cultivate the silt-laden earth at the bottom of the wadis by means of a system of terracing (jessours). Many have moved to new Matmata 15 km away from the old town.

Several hotels have been built in Matmata, the longest-standing being the famous Touring Club, a converted cave dwelling. Accommodation capacity runs to 554 beds. The surrounding villages (Beni Zelten, Tamezret, Zeroua, Toujane, etc.) have retained their Berber character. Routes from the Matmata hills to the Jeffara Plain via either the Gabès oasis or, more directly, Mareth, allow visitors to admire other typical forms of architecture such as the ghorfas of Medenine and Metameur, or the Tataouine-region ksour. Somewhat akin to the southern Moroccan ksour and kasbahs, these are often fortified granaries in the shape of mountain citadel villages (e.g. Chenni, Douiret, Guermessa), or dwellings packed around a fortified communal granary formerly occupied by Berbers or sedentary Arabs (e.g. Ksar Ouled Soltane, Ksar Hadada, Ksar Ouled Debbab).

The Tataouine region features 65 ksour situated within a 40 km radius of mountainous terrain, and a dozen others down on the plains around Smar (Beni Mhira, Ksar Jedia, El Aïn, etc.). The Festival des Ksours which is held each year in early April serves as a reminder of the importance of this heritage. From Tataouine, one can also visit the Islamic and Roman ruins in Ouni, Oum Zouggar (Dehiba), El Brigua Kebira and Seghira (Remada). Finally, Tataouine is the point of departure for excursions into the desert proper: from the bases of Tiaret SP3, Kamour SP4 and El Borma. Further south, the road for Ghadames leads into the Libyan Sahara.

1.2.1.6 Endangered architectural and urban heritage in southern Tunisia and how it relates to tourist activity

The many ksour and ghorfas of southern Tunisia raise the question of the use to which cultural properties should be put: either seen as openair museums or redeveloped for purposes of tourism or as homes. In the case of the former, a few ghorfas, cave dwellings and ksour have been converted to offer services to passing

tourists, e.g. the Matmata dwellings or ghorfas in Metameur and Ksar Hadada that now offer hotel accommodation (72 beds in Ksar Hadada, for instance). Turning them into homes, on the other hand, requires infrastructure work (water, electricity, etc.) and, hence, financing, not to mention the persuasion and consultation of local populations.

The above can just as easily apply to any other Saharan towns eroded by time or bad weather (e.g. the mountain oases of Chebika, Midès or Tamerza). Efforts to restore them for residential and/or tourism-oriented ends are often hindered by problems over ownership rights, since heirs to the (often jointly-owned) property are found to be scattered around other regions or living abroad, especially in France.

1.2.2 Hotels in the Tunisian Sahara

1.2.2.1 Mainly first-class establishments

Analysis of Saharan hotel capacity by class has shown that three-star hotels provide half the total 9,786 beds on offer in the Tozeur area; and that four- and five-star hotels account for 20% of total capacity. So medium- and top-class establishments prevail. Other studies point out that hotel capacity more than tripled over the period 1987-1997, suggesting that developers are interested in investing in the Saharan oasis areas. Their interest is in many cases sparked by the tax relief granted by the State.

1.2.2.2 Many hotel vacancies

While hotel-building thrives on the back of incentives, however, an average of a mere 30% (40% at the most) of hotel rooms have been filled. In 1996, the booking rate fell to 29.1%. And the tourist region showing the lowest rate of was that of Gafsa-Tozeur.

Hotel booking rates by region

Region	1996	1997
Tunis-Zaghouan	36.9	39.1
Nabeul-Hammamet	46.4	52.0
Sousse-Kairouan	53.7	57.8
Monastir-Madhia-Sphax	53.1	59.7
Djerba-Zarzis	52.7	58.0
Gafsa-Tozeur	29.1	31.7
Bizerte-Beja	36.2	35.7
Tabarka-Aïn-Draham	34.3	37.4
Annual average	42.8	46.4

Source: ONTT

1.2.3 State action to promote tourism in the Sahara

The fact that so little hotel capacity was being filled led the government to reduce airport taxes by 50% for airlines scheduling flights to Tozeur. Further evidence of its determination to encourage Saharan-oasis-tourism development may be seen in the additional tax breaks granted to investors in Saharan tourism. Approved in November 1987, these included:

- a cut in the 40% mandatory self-financing rate for the industry as a whole to 30% for Saharan tourism;
- tax exemption on all profits reinvested in Sahara-based tourism projects;
- company tax exemption for a period of 10 years.

Other recommendations aimed at improving the environment and the quality of the Saharan product included plans to:

- set up a Sahara Museum in Douz;
- reorganize, and enhance the standing of, regional festivals;
- provide better connections with Tunisian airports;
- boost and equip boring operations to improve hotel water-use, other than for drinking and agricultural purposes;
- create natural parks and reserves;
- develop and maintain regional emergency services;
- facilitate imports of the capital goods required for approved tourism projects;
- prioritize road infrastructure projects, particularly those aimed at upgrading the Tozeur-Tamerza and Medenine-Kebili routes;
- establish 12 November as the annual national Saharan Tourism Day.

1.2.4 Progress vis-à-vis tourism activity in southern Tunisian

The Government's recommendations have so far yielded, among others, the following results:

- the international festival staged every December in Douz has received support;
- the Festival des Ksours has been introduced (staged at the beginning of April);
- Tunis Air and Tuninter are scheduling a larger number of regular flights out of Tunis and some large European cities;
- boring operations are supplying water for numerous hotel swimming pools;
- the Jbil national park has been established in the extreme south of Tunisia;
- a hotel training school has been set up in Tozeur;

 road infrastructure has been laid or upgraded: the El Hamma-Chebika, Douz-Matmata and Matmata-Ghilane highways, the Chotts road, etc.

Total infrastructure investments for the period 1988-1997 amounted to TD2,505,000 in Tozeur-Nefta, and TD3,138,000 in Kebili-Douz, i.e. 8% of total tourism-zone investment.

1.2.4.1 Foreign investment in the Saharan hotel trade

Many international groups have been taking part in Saharan hotel development, probably attracted by the fact that foreign investors, too, could enjoy access to Tunisian tax breaks. This has often involved partnerships with Tunisian developers, for example:

- the French group ACCOR and the Tunisian group SANGHO owned by Mr Jemmali, attempted a partnership geared to managing and marketing the Hotel Sangho in Tataouine, the Ibis in Medenine and Sahara Palace in Nefta (as well as the old coastal Tanit hotels formerly run by the disbanded Société Hotelière Touristique de Tunisie);
- the company PANSEA, owned by former employees of Accor, joined forces with the Carthage Tours group owned by Mr Loukil, and the oil company Trapsa, to open a new Saharan stopover in Ksar Ghilane, south-east of Douz a four-star hotel next to a natural hot spring, with rooms in the form of tents featuring all modern conveniences including air conditioning. This same financial group known as SITH, is planning to open further stopovers in Zaafrane and Tiaret, and to restore the old village of Midès;
- French tour operators, Nouvelles Frontières, a 33% partner in an association with the Hannibal Tours group owned by Mr Bihra and a number of banks, built the Hotel Basma in Tozeur in 1991, as well as its other "Palladien" sites in Hammamet and Mahdia;
- FRAM built the "Framissima" in Tozeur, the Hotel de la Palmeraie (150 beds), and runs the Golf Beach site in Jerba as well as hotels Ribat and El Habib in Monastir.

1.2.4.2 Saharan tourism in abeyance

Weaknesses of Saharan tourism

Irrespective of the Saharan region's tremendous assets and the wide range of actions taken to promote it, the fact is that Saharan tourism has still failed to produce satisfactory results on account

of a number of internal and external factors. The internal factors are:

- some hotels' excessively upmarket status for the types of tours being promoted, be it at individual or national level;
- lack of organized activities;
- too few innovative ways of enhancing the region's cultural and natural heritage (too few events);¹
- continuing reliance on coastal tourism;
- too little thought given to the ability of some tourist sites to cope with large numbers of visitors;
- too few programmes including ecotourism, nature-watching and local ways of life (water management, crop harvesting, livestock rearing, etc.);
- too few facilities for sporting activities (paragliding, microlighting, climbing, etc.);
- too little interest in new products such as trekking, hiking, meeting people from other backgrounds, youth and adventure holidays;
- too narrow a range of accommodation beyond the conventional hotels: gîtes, boarding houses, Saharan hostels, campsites. External factors may be reduced to:
- a reliance on foreign tour operators;
- the need for more aggressive marketing abroad based on a policy of highlighting the unique qualities differentiating the products on offer. Despite having entered into partnerships, Tunisians still enjoy little say over upstream promotion and marketing;

- a vicious circle of low booking rates, falling prices, reliance on foreign tour operators;
- the difficulty of projecting (at trade fairs and so on) a more attractive image of the destination as a magnet for tourism.²

Strengths of Saharan tourism

- The political will to develop the Saharan tourism sector is strong. Evidence of that can be seen in the extensive endeavours on the part, in particular, of the Ministry of Tourism and Crafts to promote tourism in southern Tunisia: attending and exhibiting at foreign trade fairs; inviting journalists, television crews and travel agents to visit (2,044 in 1998); earmarking special funds; organizing high-profile events such as fashion shows, sports competitions, conferences, Saharan Tourism Day and, on New Year's Eve 1999, the Sahara "millennium" in the Tozeur area. Furthermore:
- a clear effort has been made to preserve the environment and the cultural heritage;
- tourist facilities and actors are subject to stricter administrative controls;
- an international airport opened in Gafsa in November 1998;
- inroads are being made into the American and Japanese markets.

Tourism in the Tunisian Sahara is still very new, and it is going to be far more developed in the years ahead to reap the rewards of the most spectacular level of sustained investment seen in any of the Saharan countries.

Saharan tourism in Egypt

1.1 Development of the Egyptian tourism industry

The development of Egypt's tourist industry reflects how sensitive this economic activity is to geopolitical strife both at home and abroad. The Gulf War and fundamentalist bombs that rocked the country in the early 1990s had a clearly negative impact on tourist arrivals and revenue

(down 22% and 51% respectively in 1993). Suddenly, within the space of a single year (1992-1993), tourist arrivals plummeted by 700,000 (falling from 3,207,000 to 2,508,000) and revenues were literally halved (from \$2,730 million to \$1,332 million).

Egypt, despite its vast potential for tourism, has suffered more setbacks owing to the region's political convulsions than almost any other Arab

^{1.} Ministry of the Environment, "Le schéma directeur" of the Governorat of Tozeur.

^{2.} W.T.O., Touristic market tendencies, 1999.

country: the Arab-Israeli conflict, the wars of 1967 and 1973; the hijacking of the Italian cabin cruiser, the Achille Lauro, in 1985; the American air raids on the Libyan Arab Jamahiriya in 1986; the Arab-world "embargo" following its peace pact with Israel in 1986. Yet Egyptian tourism still managed to register an average 6.7% annual growth between 1975 and 1985. And in 1988, it notched up two million tourist arrivals.

Six years later, the spate of booking cancellations due to the Gulf War and the bombings spurred the Government to embark on an aggressive promotional policy on which it was to spend some US \$42 million between 1993 and 1995. With local services selling at cut-price rates, the tourism industry made a rapid and significant recovery (3.8 million tourist arrivals in 1996, i.e. 55% more than in 1993). It even managed to stave off disaster in the wake of the Luxor tragedy in November 1997, limiting the damage to a 12.8% decrease in tourist-arrival flow (3.4 million arrivals in 1998 compared to 3.9 million the previous year).

1.2 The importance of Egyptian tourism development

The speed and scale of the Egyptian authorities' response to the crisis (with the President himself on several occasions delivering personal messages of reassurance to foreign markets) showed how highly they valued this sector of the national economy, and how eager they were to maintain its performance levels. Indeed, tourism is the country's second largest source of foreign currency after transfers from Egyptians living abroad, and ahead of petrodollars and duties levied on movements through the Suez canal. Efforts to supply a more diversified range of tourist-industry products (beyond the cultural tours centring mainly on the Pharaonic sites) have led to major hotel-building projects launched in Sinai, at El Arish on the Mediterranean coast, and along the gulfs of Suez and Agaba (to exploit the attractions of Red Sea marine life in Taba, Dahab, Charm El Cheik and Ras Sudr).

As such, the 140,000 existing beds available in 1996 are set to be boosted by an additional 36,000 on the edges of the Sinai by the year 2002. That said, the thrust of these wholly privately-financed projects (bolstered by Stateapproved tax incentives) is chiefly concentrated on the international coastal-resort market. Little attention is paid to the Saharan oases in the west of the country. And yet they are rich in cultural

and natural heritage and offer of considerable potential for tourism. Carefully exploited, they could energize those regions and set them on a course for sustainable development.

1.3 Saharan tourism in Egypt

The Oasis circuit starts west of Cairo and continues west to Siwa before heading south-west towards the oases of Baharia, Farafra, Dakhla and Kharga.

1.3.1 Geographical characteristics of the Egyptian Sahara (Western Desert)

Far from the hotel-building frenzy gripping the Red Sea coastline and fringes of Sinai, far from the endless flows of tourist groups streaming through the Nile valley on visits to the Pharaonic sites, appear the oases of the Egyptian Sahara (or Western Desert), like havens of peace, welcoming and mysterious. There are five main ones (Siwa, Baharia, Farfara, Dakhla and Kharga), the latter four forming a string of verdant isles set in a vast undulating sea of aridity. Their location in large depressions whose lowest point is below sea level means that groundwater is available closer to the surface, and makes for an astonishing landscape.

The Western Desert stretches 800 km west of the Nile to the Libyan frontier and borders on Sudan in the south, thus covering around twothirds of the country. Its low, uniform, often ergtopped plateaux, whose slopes consist of huge slabs of rock in a stone desert (hamada) forming escarpments peaking at Djebel Ouerat (1,934 m) and furrowed with dried-up wadi valleys, belong to a chain extending up from Sudan. Alternating between yellow limestone and dark brown sandstone, they are split by a series of depressions running along the south and north-west where the oases are to be found. Before reaching the Mediterranean coast to the north, the plateaux give on to the huge Quattara Depression (137 m below sea level) and the Fayoum Depression south-west of Cairo (-45 m).

1.3.2 Potential for tourism in the oases

Concealed within the beauty of Egypt's Western-Desert oases are some important historic sites bearing the remnants of the thriving civilizations of the past, for the region's dunes were crossed by a network of caravan routes serving neighbouring lands from as early as the Old Kingdom. Cargoes included ivory, ebony,

rhinoceros hides, panther pelts, not to mention slaves. It was to gain control over those riches from Libya or Darour that the Egyptians colonized the western oases, the Greeks built their Ptolemaic temples and the Romans their fortresses. During the Islamic period, nomads continued to control the caravans and collect debts from the sedentary populations.

In modern times, in 1959, the oases of Kharga, Dakhla and Farafra were included in a programme designed to colonize the Western Desert for oasis cultivation while simultaneously mining the region's raw materials (phosphate). It marked the start of the so-called New Valley project which spanned an area of 450,000 km² populated by around 120,000 people. Geographically, the oases divide into two distinct groups:

- the Siwa oasis to the west, close to the Libyan border;
- the string of New Valley oases (Baharia, Farafra, Dakhla and Kharga) running south through the centre of the country, parallel to the Nile Valley.

1.3.2.1 Siwa Oasis

Siwa Oasis is situated in a depression 16 m below sea level, 627 km from Cairo and 306 km from Marsa Matruh (on the shores of the Mcditerranean). It is famed for its 300 mineral springs, two lakes and archaeological sites, including:

- two temples to Amun: the Temple of the Oracle in Aghurmi (Twenty-Sixth Dynasty [664-525 BC]), immortalized by the visit of Alexander the Great in 331 BC, and Umm 'Ubayda temple (Thirtieth Dynasty);
- the ancient burial site of Gebel Mawta (Mountain of the Dead) with tombs dating from the Twenty-Sixth Pharaonic Dynasty;
- the settlement of Shali (established in 1203 AD), whose winding alleys, mud-brick houses (karshi) and fortified walls were abandoned by the population in 1926 after the town was devastated by torrential rains;
- the celebrated local crafts (jewellery, wickerwork, embroidered textiles);
- Juba's Spring (also known as Cleopatra's Pool) or Ain el Hammam and other wellknown springs (Al Araïes, Katnas, Maloul, Tanghazi, Zakawa).

Tourist accommodation in Siwa is restricted to the Hotels El Waha (run by the municipality), the Sand Rose and Siwa Safari.

1.3.2.2 Baharia Oasis

Situated some 360 km from Cairo, this is the nearest oasis to the capital. Its palm groves cover a 100 km-long undulating basalt depression. It features nearly 270 sulphur and basalt springs, as well as Pharaonic and Roman remains at the Al Kesseir and Al Babouti sites. It has a population of 26,000. Tourist accommodation consists of a municipality-run complex of chalets.

1.3.2.3 Farafra Oasis

Situated 170 km south of the Baharia depression, the village here stands within a stone enclosure and contains tiny streets lined with windowless walls. 30 km north is the fabled White Desert with its gigantic, perfectly white and astonishingly shaped calcareous rocks.

1.3.2.4 Dakhla Oasis

Situated 200 km north of Kharga, Dakhla covers an area of 60 km punctuated by villages, whose traditional architecture has remained intact. The largest of these is the capital, Mut. Sites of historic interest include:

- Deir el Haga, a small sandstone temple dating from the Roman period, damaged in an earthquake;
- the Muzawaka tombs of the Pelusis and Petosiris;
- the fortified village of Al-Qasr, dating back to the Ayyubid period;
- the Sixth Dynasty burial grounds in Mut;
- Bashendi village, east of Mut, built according to the Pharaonic model and containing an Islamic tomb plus a number of Roman ones, the most important being the Tomb of Kitnes.

1.3.2.5 Kharga Oasis

This is the largest of the oases, stretching 185 km in length. Its Pharaonic, Graeco-Roman or Islamic remains are found at various points along the road to Dakhla:

- the Temple of Hibis erected by Darius I and the only large Greek temple in Egypt;
- the Necropolis of El-Baqawat, with some 120 Nestorian chapels built between the fourth and tenth centuries (only five of them still have their wall paintings intact);
- the Temple of Nadoura, built by the Romans under Hadrian;
- the underground fortresses of Darb El-Sindayida, featuring brick houses with palm-

- wood beams. Today, this tenth century site is being used to house livestock;
- Aïn Oum El-Dabadid, a Romano-Byzantine village bearing the characteristic features of the caravan towns;
- Aïn Oum Labakha, a Roman temple with rounded towers;
- Al Deir, an ancient fortress 30 km north of Kharga, built in Roman times to protect the caravans and later converted into a monastery;
- El-Ghoueitta temple, built and decorated in Ptolemaic times between the reigns of Ptolemy III and Ptolemy X (250-280 B.C.).
 Dedicated to the cult of the Holy Triad: Amun Ra-Mut-Khonsir;
- Al Zayan temple 25 km south of Kharga Oasis, built under the Romans.

1.3.3 Tourist accommodation in the oases

The oasis region offers little in the way of accommodation, with the bulk of capacity concentrated in the Kharga settlement (three two-star and four unclassified hotels, plus a camping site). There is a further, unclassified, hotel in Mut. The only luxury-class accommodation is to be found in a chalet complex run by the Kharga local

authorities – a similar kind of establishment to the (also municipality-run) complex in Siwa Oasis.

1.4 Strengths and weaknesses of Saharan tourism in Egypt

Strengths include:

- the astonishing wealth of cultural and historic heritage embodied in the numerous Pharaonic, Graeco-Roman and Islamic monuments found in the various oases, holding incomparable potential;
- natural sites such as the White Desert and hot springs, which draw in Egyptian and foreign visitors alike;
- annual international events such as the Pharaohs' Rally.

Weaknesses of the development of Saharan tourism in Egypt include:

- under-exploitation of resources;
- shortage of hotel facilities;
- architectural and archaeological heritage in need of repair;
- insufficient investment in, and promotion of, Saharan tourism.

Saharan tourism in Mali

1.1 Development of tourism in Mali: a centuries-old destination for foreign visitors

Tourism is regarded as one of the leading economic activities in modern-day Mali, and one that requires far greater expansion in the future. Indeed, the country is relying on its cultural and natural treasures - its ancient villages, World Heritage sites (Timbuktu, Djenné), landscapes (Cliffs of Bandiagara, Sahara, Niger River), crafts and popular traditions – to fuel a tourism boom in the years ahead. Yet tourism can be seen as a long-standing tradition here, as it dates back to the nineteenth century and beyond, even to the Middle Ages. The first recorded mention of the city of Timbuktu may be found in the writings of the celebrated Arabian traveller and geographer Ibn Batuta, who visited the place in 1350 on his way to Morocco.

This is how he spoke of it: We then set out for the town of Timbuktu. Four thousand miles between it and the Nile. Most of the inhabitants are veil-wearing Massufa. In this vicinity is the tomb of the illustrious poet, Abdel Ishak Massufa, and that of Siraj Al Din Al Kuwayk, one of the great Alexandrian traders. These few lines contain references to the two forms of activity that earned Saharan caravan towns like Timbuktu their fame:

- intellectual activity, above all through the Islamic theology, and the Fiqh (the Islamic jurisprudence), which left to posterity countless manuscripts and the famous mosques and medersas;
- trading, which supplied the caravan towns with rare commodities and served to establish links between them.

The town's name subsequently appeared in the writings of others such as Hassane Ibn Mohammed, otherwise known as Leo Africanus (in 1519). But the reputation of this region of Saharan Africa as a tourist attraction was really established by the European missionaries and explorers of the nineteenth century: Gordon Laing (who lived there in 1826), René Caillé (1828), Henrich Barth (1853) and Oscar Lenz (1880). Today, tourists can visit the residences where the latter three stayed in Timbuktu. They can also admire the architecture of Mali's ancestral adobe houses and mosques, both here and, moreover, in Djenné. Yet despite these unquestionable assets and the mystique of the ancient Malian towns, not to mention the media attention generated by the Paris-Dakar rally, the tourism industry has remained weak, attracting little more than 50,000 tourists in any one year.

The Tuareg uprising really took its toll on international tourist arrivals, causing a considerable decrease from 1990 onward, most dramatically in 1993, when numbers tumbled from 44,000 to 24,000 (i.e. by 45%). They eventually recovered following the peace agreement of 1994, rising from 39,759 in 1995 to 50,130 in 1996 (up 62% and 26% respectively), the main markets being in Europe, Africa and the United States. Hotel capacity stood at 2,534 beds in 1996, distributed among a matter of 90 hotels and similar establishments. Most of these are concentrated in Bamako, Mopti and Timbuktu, but aside from the better known places such as the Hôtel de l'Amitié or the Grand Hôtel (privatized in 1996), many fail to come up to international standards.

1.2 Focus of Saharan tourism in Mali

Saharan tourism is above all concentrated in the Timbuktu region, which generally figures as a leg of longer circuits that also take in Bamako, Ségou, Mopti, Djenné and the Land of the Dogons. Timbuktu may be reached by river or air. It can serve as the starting-point for camelback excursions to places such as Dinaberg, Azima Dimbel douz or Arouane on the salt-trade route leading to the town of Taoudenni (450 km north of Timbuktu). Taodenni was once the last stop for the caravans coming to collect blocks of salt, and its Agorgott saltworks continued operating through to the sixteenth century, when they were replaced by the much more remote Taghaza works.

1.2.1 World Heritage Sites: Timbuktu, Djenné

These two ancient Malian towns were placed on the World Heritage List in 1989.

1.2.1.1 Timbuktu

As well as being a caravan town, Timbuktu was a seedbed for the spread of Islam in Africa. With its prestigious Koranic Sankore University and other medersas, it stood in the fifteenth and sixteenth centuries as an intellectual and spiritual capital. The town's three great mosques (Djingareyber, Sankoré and Sidi Yahia) are a reminder of its golden age. All now face the threat of sand encroachment. Every year, volunteers join forces to restore the mosques.

The municipality of Timbuktu (population 30,000) is capital of the sixty-first region of the Republic of Mali. Forty-nine ha wide, the old city or Medina includes the quarters of Djingareyber, Badjindé, Sankoré et Soreï-Keïna. According to ICOMOS, despite the use of the relatively resistant alhor stone in numerous edifices, the majority of buildings which have been constructed in traditional materials will remain in danger, if energetic measures of preservation are not rapidly undertaken. The city faces also, another danger with the anarchic urbanization. Apart from the mosques, Timbuktu features 16 cemeteries and mausoleums, including those of Sheikh Aboul Kassim Attouaty who died in 1529, the scholar Sidi Mahmoudou (died 1548) and the great restorer of mosques, Cadi El Aquib (died in the 991st year of the Hegira, i.e. 1583).

Other examples of Timbuktu's architectural and urban heritage include: the ramparts, the Moroccan kasbah, the market places (badjindé), the palace of the Manchy monarchs (Madougou), Timbuktu square and the Bity Hatouma crossroads, the *maçala* where prayers are held on great feast days. Apart from the houses of the explorers Laing, Caillé, Barth and Lenz, visitors can contemplate the dwellings of renowned scholars and ulemas such as Mohammed Bagayko, Es Sayouti and Sheikh al Mokhtar El Konty. And last but not least is the heritage of the 15,000 ancient manuscripts inventoried at the Ould Baba cultural centre. Meanwhile, the bulk of accommodation capacity in Timbuktu is to be found at the international-class Azalai Inn, the Hôtel Bouctou (unclassified) and a camp site.

1.2.1.2 Djenné and its ancient settlements

Djenné, like Timbuktu, enjoyed its golden age as a centre for the expansion of Islam in the fifteenth and sixteenth centuries. It replaced the older town of Djenné-Djano in the eleventh century, but did not really open up to Islam until the Marka merchants arrived in the thirteenth. Falling successively to the might of the Moroccans (1591), Fulani (1810), Tukulors (1862) and French (1893), the appearance of the town has gone through many changes. It was urbanized by the Nono people, who made it a market town and a key link in the trans-Saharan gold trade.

Built on a number of hillocks (togueres), Djenné is bisected by a wide avenue leading, to the south, to a market place overlooked by the great mosque (reconstructed in 1906). On either side of the avenue stand 1,850 traditional houses built on some 20 hectares of old plots, in a style influenced by Moroccan architecture and characterized by its vertical lines – with the two-storey façades of the houses featuring pronounced buttresses and finely worked front doors. Beyond the old quarter are more contemporary buildings dating from the various successive takeovers of the town. The 17 ports on the banks of the River Niger are of great interest, Bambara in particular. Apart from Djenné-Djeno, Djenné is surrounded by the ancient settlements of Hambar-Ketolo, Tanomba and Kaniana, which provide unique evidence of the pre-Islamic civilizations of the inner Niger Delta.¹

1.2.1.3 The Cliffs of Bandiagara

This pre-Saharan area which, like Djenné, forms one of the stopping-points on tours heading for Timbuktu, is also known as the Land of the Dogons. The cliffs protect architectural structures of great beauty (houses, granaries, altars, sanctuaries and meeting places [toguna]), which have been for centuries the soul of traditional Dogon culture. The Bandiagara plateau is one of the most impressive geological and landscape features in West Africa.

1.3 Strengths and weaknesses of tourism development in Mali

1.3.1 Strengths

- Outstanding potential of cultural and natural sites included in the World Heritage List (Timbuktu, Djenné, Cliffs of Bandiagara).
- A political apparent in the encouragement of hotel-building and -privatization (Grand Hôtel in Bamako).
- Organization of charter flights from France (Lyons-Gao) and the United States (run by Eductours). The fact that Americans attach



Collective restoration of the mosque of Sankoré in Timbuktu (Mali)

real cult status to the mythical town of Timbuktu could serve as an effective selling point.

- Upgraded airport infrastructure.
- Political stability and moves towards democracy.
- Opening of a Tourism Office in 1995 to replace the old *commissariat du tourisme*.
- Drawing up of fresh legislation to encourage investment in tourism.
- A thriving crafts industry, led by Tuareg wrought iron and leather work.
- Mali's prospects for hosting the CAN 2002 Championnat d'Afrique des Nations competition.
- Twinning initiatives (e.g. Timbuktu and Kairouan [Tunisia]).
- The Boucle du Baoulé natural park, which was named, along with its adjoining three parks, a UNESCO Biosphere Reserve in 1982.

1.3.2 Obstacles hindering tourism development

- Inadequate hotel facilities fit for tourism.
- Lax application of regulations governing the tourist-guide trade. Many professional guides

- find themselves having to compete with untrained amateurs.
- Additional taxes charged at the airport.
- Poor quality of land transport services from Ségou to Mopti.
- Administrative checkpoints on the roads.
- Environmental problems due to poor sewage management.
- No regional tourist offices or on-site tourist information centres.
- No official Tourist Office abroad, independent of the Malian embassy.
- No separate ministry for tourism (currently administered by the Department of Culture).
- Lax tourist-development and hotel-monitoring policy.
- Few efforts specifically geared to encouraging Saharan tourism.

- Lack of adequate support for (especially Tuareg) crafts cooperatives.
- Failure to implement fully the 1991 tourism development plan.
- Low degree of motivation on the part of specialized Western tour operators to develop circuit programmes (with no charter rates whatsoever).
- Scarcity of banks outside Bamako.
- Lack of signposts to tourist sites.
- Little on offer in the way of ecotourism.
- Seasonal changes affecting destinations and river levels (2-5 months p.a.).
- High price of plane tickets offered by international airlines.
- Low awareness on the part of local populations of the need to respect the environment and turn it to account for sustainable tourism.

Saharan tourism in Niger

1.1 Development of Saharan tourism in Niger

In the 1980s, Niger tourism experienced something of a boom. Unfortunately, the Tuareg uprising brought tourist activity in the north of the country to a complete halt in 1991. Following the peace deal signed in April 1995 in Ouagadougou and a return to relative political stability, the industry to a certain extent found itself on its way to a gradual recovery. The Government set up a Ministry of Tourism and the Comité d'Action du Tourisme (CAT) was established to promote and re-energize the sector. Among the results emerging by the following autumn were:

- new laws to control hunting in some parts of the country;
- 20 or so new travel agencies in Agadez;
- Niger appearing in the brochures of European, especially French, tour operators;
- a charter flight operating between France and Agadez. Corsair, a subsidiary of the French tour operators Nouvelles Frontières, had previously begun offering cut-price tickets to Niamey in 1995 (30% cheaper than competitors, Air France and Air Afrique).

But it all proved futile. Repeated reports of tourists being mugged by armed bandits in the Aïr led tour operators and charter companies to cancel their Niger operations from January 1997. In response to this fresh crisis, the Government appointed Rhissa Ag Boula, a former Tuareg rebel chief and native of the Aïr, to the post of Minister of Tourism (in December 1997) and then launched a biennial programme (1998-2000) geared to:

- cutting taxes for tourism-industry professionals and simplifying formalities;
- privatizing and reforming the hotel sector;
- promoting special tourism packages designed to boost in-flows of foreign tourists. Within them an international fashion show held in Tiguidit in the middle of the desert from 11 to 14 November 1998 and stage-managed by the Niger designer Alphadi.

1.2 Tourism indicators in Niger

1.2.1 Tourist arrivals

Analysis of tourist-arrival figures shows:

- the importance of African tourism: 46% of the 16,104 tourists arriving in 1996 and 44% of the 17,262 arriving in 1997 (i.e. 7,388 and 7,488 respectively) were Africans;
- European markets accounted for 40.8% and 41.7% of arrivals in 1996 and 1997 respectively.

French tourists accounted for more than twothirds (i.e. 5,202) of the European arrivals and 32.2% of the total. Next came the Americans with 1,923 arrivals (11.9% of the total). In all, around 203,000 overnight stays were recorded in 1996, generating some US \$17 million in revenues. Hotel capacity in terms of beds stood at 3,037 in 1995, an increase of 25.8% over 1994. The bulk of that capacity is concentrated in Niamey, with ten approved hotels totalling 551 rooms and bungalows. The other towns offering accommodation are: Agadez, Anlit, Ayorou, Dosso, Marach, Nomaro, Tahoua, Tapoa and Zinder.

1.2.2 Transport

The only destination to which international airlines offer regular flights is Niamey. A special 60-day tourist visa may be obtained on the Niger border thanks to an understanding reached between the following countries: Benin, Burkina Faso, Côte d'Ivoire, Niger and Togo. The airlines operating in Niger are: Air France, Air Afrique, Air Algérie, Ethiopian Airlines, Air Niger (representing Corsair) and Niger Service. Road infrastructure is relatively well developed in Niger and the country's main highways are all tarmacked. The coaches of the Société National des Transports Nigériens (SNTN) serve around a dozen routes.

1.3 Assets and brakes on the development of Saharan tourism in Niger

1.3.1 Assets

1.3.1.1 Heritage: the Aïr and Ténéré Natural Reserve

Cultural and natural heritage constitute the Niger tourism industry's chief asset. Air and Ténéré Natural Reserve has been on UNESCO's World Heritage List since 1991. Situated in the Saharan region, approximately 160 km north-east of Agadez, it represents the largest protected area in Africa (7.7 million hectares in all). The so-called Sanctuaire des Addax constitutes only a sixth of that area. The Air massif has metamorphic and eruptive activities and – despite standing in the Saharan desert regions of the Ténéré – has climatic conditions, flora and fauna more normally associated with the Sahel. The reserve as a whole features an outstanding range of landscapes and wild plants and animals.

Existing lists of fauna include 40 mammal species, 165 birds species, 18 reptiles species and a variety of ungulates: 12,000 dorcas gazelle, 170 dama gazelle, 3,500 Barbary sheep and a few addax. Carnivores include the fennec, Rüppells sand fox and cheetah. There are also 85 bird species, among those described are palaearctic migrator birds. Among the other kinds of birds there is an 800 to 2,000-strong ostrich population. Finally, there are Nubian bustards and reptiles (desert monitor lizards, sand vipers, sand boas, geckos). The reserves also feature several archaeological sites dating back to the Palaeolithic and Neolithic ages, as well as a number of rockengraving sites. And they (the reserves) are populated by between 3,500 and 7,000 transhumant pastoralist Tuareg. Poaching constitutes a major problem.1

Another site with tourist potential lies in the south-west of country: the "W" National Park. The park, which has been on the World Heritage List since 1996, reflects the interaction between natural resources and human beings since Neolithic times.

1.3.1.2 Other factors encouraging tourist development

- A return to peace in the north.
- Elaboration of a marketing and promotion plan.
- Tax incentives for the tourism industry.
- Participation in international trade fairs and other such events.
- High quality crafts: Tuareg leather- and silverwork.

1.3.2 Obstacles to the development of tourism

- Too few scheduled flights.
- Overpriced plane tickets.
- International embargo on Niger.
- Run-down facilities to accommodate tourists.
- Poor monitoring of guides and tour operators.
- Low awareness among the local population of the need for environmental protection, especially in Saharan areas.

Saharan tourism in Chad

1.1 Tourism development in Chad: a recent economic option

With a surface area of 1,284,000 km², Chad is the largest of the States to have emerged from the break-up of the former Afrique Equatoriale Française (AEF). To add to the handicap of being an entirely landlocked country possessing few (and mainly agriculture-related) natural resources, Chad has also seen its economy hit by the continuing instability stemming from internal strife.

Chad has very few manufacturing industries and hence relies on supplies from outside sources. Its economy is based on farming, fishing and livestock-raising. Sales of cotton, the only export commodity securing inflows of foreign currency, are increasingly failing to bring in enough earnings to cover the cost of imports. Livestock-raising - with total stocks running to 10.5 million head of sheep, goats, horses, donkeys and dromedaries - is the country's second biggest earner. Managed by an independent Government ministry, this sector is aggravating the fragility of land in northcountry desert areas by subjecting it to overgrazing. Chad's outstanding natural heritage, though, presents a rich array of flora and unique landscapes, particularly in the Saharan Borkou-Ennedi-Tibesti (BET) region. Tourism, if backed by the political will, could become a key contributor to the survival of Chad's economy and environment.

In its early days (the late 1940s), tourism in Chad centred on hunting. Fort-Archambault, now Sarh, was opened to hunters from 1948 to 1975. Agence Tchad Tourisme was set up in the 1960s. In 1964, Argonauts Français and UTA (Union des Transports Aériens) were responsible for starting up small- and mediumscale hunts in Douguia, which then went on to become the country's first centre for tourism. In 1968, Bardaï in the Tibesti mountains was opened to tourism. From 1975 to 1978, Chad's tourism industry flourished thanks to the creation of new hotels (the La Tchadienne hotel, the Barth Tchiga lodgings complex in Zakouma, south-east Chad) and the expansion of the Sarh hunting lodge in the prefecture of Middle Chari. It then fell into a period of lethargy, deepened by internal political conflict. In 1997, the Government set up a Ministry of Tourism.

1.2 Potential for Saharan tourism

Chad possesses a wealth of outstanding natural and cultural heritage whose value has remained underexploited owing, in the main, to communication problems.

1.2.1 Natural and cultural heritage

In the region north of N'Djamena is Lake Chad, with its floating islands and rich fauna, while in the south one can admire Lake Lere, the Gauthiot Falls, caves, national parks, wild-animal reserves, archaeological sites and traditional building techniques; in the east, is site of Wara, former capital of Ouaddai; in the region of Korotoro (central Chad), the site where the skull of Abel (regarded as the forefather of humankind) was discovered. And the Borkou-Ennedi-Tibesti region in the north is unarguably one of the most beautiful parts of Chad and a jewel among the world's desert landscapes.

1.2.2 Borkou-Ennedi-Tibesti

Indeed, this, the focal region of Saharan tourism in Chad, boasts a great many attractions: peaks, rocks, canyons, volcanic craters, caves, rock art, hot water springs, natron pits, palm groves, Saharan fauna, sand dunes, the Archei and Ounianga gueltas.

1.2.2.1 Tibesti

In the Tibesti mountain range, in the southern reaches of the volcanic zone where Emi Houssi (the highest point in the Sahara) rises to 3,415m, sedimentary plateaux shelter oases set beneath brown sandstone cliffs. The vastness of the desert fans out, featuring a succession of mini-ergs, arches and towering rock. Camel excursions may be arranged in Tigui oasis, stronghold of the Teda nomads, in northern Faya-Largeau. Visitors can admire the Tassili de Kouroudi sandstone peaks and Tohil cave drawings before continuing on their way through the magnificent landscape of Borkou, with its succession of fossilized algae and palm groves. Then there are the villages of Ngour and Kirmidi with their upturned-shellshaped houses and the Bedo saltworks which are still operating to this day.

1.2.2.2 Ennedi

The second most famous site in the Saharan regions of Chad is the Ennedi massif in the north-

east of the country, close to the Sudanese border. These are the lands of the Bideyat nomads. The "Tassilian" scenery to the south-west of the massif is breathtaking: needle-shaped sandstone, arches, tower-like rocks and large dunes. In addition to its clusters of hundred-year-old trees, the region also features cave art. And its abundant wildlife includes panthers, *backikelé* and, in the Archeï guelta, crocodiles.

1.3 Saharan tourism in Chad: assets, problems and prospects

1.3.1 Assets

Chad tourism arouses mixed feelings. On the upside, there is its outstanding wealth of potential in terms of scenery, sites and the population's ancestral traditions. These are the Chad tourism industry's assets. On the downside, the country is severely lacking in infrastructure and amenities.

1.3.2 Structural and contextspecific problems

- A lack of hotels outside of the capital.
- Lack of electricity: known to be scarce and expensive.
- High price of air travel.
- Remoteness and isolation of tourist sites.
- Feelings of insecurity generated by the troubles in the north.

1.3.3 Prospects

Security conditions permitting, Chad tourism could well have the potential for rapid development. Indeed, the Government has clearly displayed the political will and resolve to promote its expansion in that it has:

- set up a Ministry of Tourism Development (on 2 May 1997) with three departments: research, promotion and exploitation;
- adopted a General Policy Declaration on the development of tourism in Chad (on 7 October 1998), with emphasis on ecotourism, seeking, among other things, to:
- promote tourism products;
- protect the environment and socio-cultural heritage;
- involve the population and the private sector in efforts to accommodate tourists;
- organize vocational training in the tourism sector.

This political will has also been seen to carry over into the field of culture, with the country's acceptance, on 23 June 1999, of the UNESCO Convention for the Protection of the World Cultural and Natural Heritage.

1.3.4 Unresolved problems in the tourism industry

Despite the Government's resolve to promote tourism, a number of problems remain:

- project financing;
- the lack of tourist guides;
- the absence of a Chad National Tourism Office;
- poor participation at tourism trade fairs;
- the lack of a tourism-specific investment code;
- the lack of any sites on the World Heritage List;
- insecurity.

Saharan tourism in Mauritania

1.1 A country facing an ever-present threat of desertification

The Islamic Republic of Mauritania covers an area of 1,030,700 km2 bounded by the borders Senegal to the south, those of Mali and Algeria to the east, Western Sahara to the north and the Atlantic seaboard to the west. From the northeast to south-west of the country stretches a vast peneplain crossed, more or less along a north-south axis, by a palaeozoic terrace outcrop of plateaux and cliffs (*dhars*) running between two large arid areas: a seaboard plain to the west and

a tract of land submerged beneath sedimentary deposits to the east.

Both those areas contain vast dune formations. The alluvial region of the River Sénégal valley and its occasional tributaries in southern parts of the country – which are irrigated by rains and flooding from the River Sénégal – is the only place offering favourable conditions for the cultivation and survival of a wide range of permanent vegetation, since in the arid two-thirds of Mauritania vegetation is found only in the handful of oases around the gueltas (springs emerging from beneath the dried-up wadis).

From central to southern Mauritania, however, one finds a more regular spread of plant cover: savannah with scattered trees, grassland and thorny shrub.

The climate of Mauritania is typical of Western Sahara in the north, becoming progressively milder towards the south. Relief and climate condition the spatial distribution of the population (2,450,000 in 1998, more than 90% of them clustered in a fifth of the territory south of the 18th parallel) and their activities. Over the past 30 years, people have been pushed to move ever further south by prolonged periods of drought and the southward spread of the desert. In addition to desertification, many (mainly northern) towns face the threat of being wiped out by sand encroachment. That threat has prompted the international community to try and save the ancient ksour of Ouadane, Chinguetti, Tichitt and Oualata, by naming them Natural World Heritage Properties. The ksour now form part of the tourist circuits and camelback excursions are increasingly touring the Saharan region of Adrar. Another Natural World Heritage Site is the Banc d'Arguin National Park.

1.2 Position of tourism in Mauritanian economic activities

1.2.1 An underdeveloped and understaffed tourism industry

Tourism does not appear to figure among Mauritania's top-priority sectors for development. This is due to the fact that:

- Mauritanian society is largely composed of practising Muslims (40% Moor, 30% Black, 30% Harratin) who are reluctant to embrace a sector that they associate with loose moral standards;
- two particular commodities (iron ore and fish products) account for the bulk of the country's exports (99.7%) and prevented tourism from emerging as a possible source of foreign currency earnings;
- few tour operators have been all that interested in the potential for tourism here. Much in the way of the Paris-Dakar Rally, Mauritania remains a mere stopover on the road to Senegal.

That said, tourist groups are beginning to opt for Saharan tours and camelback excursions. These circuits include visits to endangered ksour such as Chinguetti and Ouadane, where small-scale amenities (gîtes and small restaurants) have opened up (especially in Chinguetti) and, in the

process, created a range of tourism-related jobs for drivers, guides, camel drivers, travel agents and craftworkers.

From the administrative point of view, the tourism sector is managed by a department at the Ministry of Trade which is underfunded, understaffed and poorer still in terms of available statistical data. On the face of it, tourism appears to have been left completely at the mercy of market forces without any interference on the part of the authorities. But this is just an appearance, for the State does in fact play a commercial role as a tourism-sector operator through the Société Nationale Industrielle Minière (SNIM), which in turn operates through the Société Mauritanienne de Service et de Tourisme (SOMASERT).

1.2.2 Role of SNIM in Mauritanian tourism activity

SNIM, Mauritania's largest industrial group, has been mining iron ore in the north of the country since 1963 and employs a workforce of 4,000, making it the second largest employer after the State. SNIM accounts for some 50% of the balance of trade, exporting 11 million tonnes of iron ore. It runs an enriched ore plant, a 700-km-long railway line and a deepwater ore-tanker port. And it owns five subsidiary firms operating in various sectors of the national economy. SOMASERT is the one in charge of tourism-related activities.

SOMASERT has carved out the lion's share of the tourism market. It received 4,500 of the 7 or 8,000 people who visited the country in 1998. The groups in question flew in from Marseilles or Paris, landing in Atar, capital of the Adrar, as part of a joint operation partnered by French tour operators, Point Afrique. SOMASERT is about to tighten its grip on the sector with the coming start-up of flights to Nouadhibou and Zouerate (where SNIM opened a desert museum in 1992).

1.2.3 Infrastructure: transport and accommodation

- Mauritania has two international airports (Nouakchott, Nouadhibou), thirteen secondary airports and twenty landing fields.
- Roads are in poor shape: 1,786 km asphalted compared to some 5,850 km of dirt tracks.
- There are three seaports: commercial docks in Nouakchott (commanding 80% of global shipping) and two ports in Nouadhibou (for fishing boats and ore tankers).

- The rail network includes 700 km of track run by the SNIM.
- As regards accommodation, the bulk of hotel capacity is concentrated in Nouakchott.

1.3 Tourism and the safeguarding of heritage in Mauritania: the ancient Mauritanian ksour

1.3.1 Historical and architectural interest and the factors causing degradation

Harsh climate and the relentless spread of the desert along with gradual sand encroachment (a root cause of rural exodus) have severely damaged the ancient Mauritanian towns, or ksour, of Ouadane, Chinguetti, Tichitt and Oualata - the sole surviving sites inhabited since the Middle Ages. They were originally built on the edges of the valley or in oases to serve as caravan staging posts on the north-south and east-west trans-Saharan trade routes. As their chief function was to deliver religious education, they grew up around the mosques and the dwellings housing masters and their students. Merchants began constructing storehouses to protect their goods, and so the ksar came into being, built to withstand the region's severe climatic conditions.

Typically, the ksour feature a dense urban fabric made up of narrow passages winding between the outer walls of unique and decorative stone houses built around an inner courtyard. They are the last remaining vestiges of nomadic ways of life in these once bustling desert settlements, these once scintillating centres of Islamic thought and culture kept alive and evolving thanks to the scholars they drew from far and wide.

Now these towns face the threat of degradation, brought on not only by periodic bouts of drought, famine and disease, but also by:

- the petering out of the caravan routes:
 Ouadane, Chinguetti and Tichitt were on the
 salt route (not to mention the road to Mecca),
 while Oualata stood at the crossing of two
 key routes: Marrakech-Idjil-Chinguetti Tichitt and Sijilmassa-Teghase-Taoudeni;
- the exodus of the population;
- local and regional disputes;
- isolation.

1.3.2 UNESCO project to safeguard the ksour

The four Mauritanian ksour have figured on the World Heritage List since 1996. Rehabilitation work is first and foremost geared to revitalizing them and upgrading them at an economic, social and cultural level. On the tourism-development front, there are, for instance, plans to develop infrastructure to accommodate tourists in Chinguetti old town by rebuilding and restoring ten run-down houses at an average cost per house of US \$20,000 (2.5 million ouguiyas). Owners will be encouraged to participate before work begins on their properties' restoration and conversion into stopover gîtes. Execution of the project has been entrusted to the Fondation Nationale pour la Sauvegarde des Villes Anciennes (FNSVA) in partnership with the Municipality of Chinguetti.

Ultimately, the work will consolidate and improve traditional houses, leaving them better able to withstand the threat of sand encroachment.

Saharan tourism in Algeria

1.1 Lie of the land

Algeria has a surface area of 2,381,741 km² and a population, according to the 1997 census, of 29.2 million. It commands a 1,100 km-long stretch of the Mediterranean coast. In coastal areas, the earth is fertile and the climate mild. In the south is a succession of high plateaux peopled by nomadic tribes, then the Atlas mountains, which peak at 2,300 m above sea level. This is

the climate line beyond which stretch the desert lands of the Algerian Sahara.

The Sahara occupies some two million km² of Algerian territory. The landscapes forming the basis for Saharan tourism are varied and full of contrast: Souf le Mzab, Soura, Touat, the Hoggar mountains and Tassili n'Ajjer. This last has been included in the World Heritage List. Beyond their landscapes, these regions harbour the remains of cave art of outstanding interest. The

Hoggar and the Tassili n'Ajjer region was Algeria's, indeed the Sahara's, first to form the focus for Saharan tourism. It spearheaded the sector's development through the 1980s before being stopped short by the country's troubles in the early 1990s. In 1995, the Government prepared for an eventual improvement in the fortunes of the industry by launching a tourism development plan designed to stimulate investment in tourism in the deep south.

1.2 Potential for tourism in the Algerian Sahara

Of all the Saharan countries, Algeria is the one with the largest share of the desert. We shall concentrate on just four districts (wilayas) in the deep south of the country: Adrar, Illizi, Tamanrasset and Tindouf.

1.2.1 Adrar

The Wilaya of Adrar occupies 427,000 km² of south-west Algeria and is inhabited by 270,000 of its population. It borders on the wilayas of Bechar, Naama and Ghardaïa to the north, those of Tindouf and Tamanrasset to the west and east respectively, and Mauritania and Mali to the south. It is composed of 11 da'ira, 28 municipalities and 248 villages, and has three airfields (Adrar, Timimoun and Bordj Badji Mokhtar).

1.2.2 Potential for tourism in the Adrar

This region stands out for its vast topographic groupings such as the Chech Erg, Great Western Erg and the Tanezrout plateau, which covers three-quarters of the wilaya. Touat, Gourara and Tadikelt have always been crossed by the caravan trade routes connecting sub-Saharan and northern Africa. The region is known to be a melting-pot of different cultures, rich in folklore and handicrafts (pottery). Sites of interest here include the foggaras and secular fortresses.

1.2.3 Illizi: the Tassili

The wilaya of Illizi in the extreme south-east of Algeria covers an area of 286,808 km² spread over six da'ira, the largest of them being Djanet. It has a population of 24,000 people, and is bounded by the wilayas of Gourara and Tamanrasset to the north and west, the Tunisian border in the north-east, the Libyan border in the east and the Niger border in the south.

1.2.3.3 Tassili n'Ajjer National Park

The park has been included in the World Heritage List since 1982, and the Tassili Plateau was recognized as a Biosphere Reserve under UNESCO's Man and the Biosphere Programme in 1986. Located in a strange lunar landscape of great geological interest, this site holds one of the most important groupings of prehistoric rock art in the world. More than 15,000 drawings and engravings record the climate changes, the animal migrations and the evolution of human life in the Sahara from 6,000 B.C. The geological formations, with recesses carved into sandstone by erosion, are of exceptional beauty.

Tassili n'Ajjer National Park covers an area of some 8,000 km2 at an average altitude of 1,500 m, skirted on the west by a nearly 700 kmlong range of cliffs. Rising to 500 m, they give the Tassili the appearance of a natural fortress which can only be entered via a handful of indentations known as *akbas*. Once inside, one finds an incredible network of deep gorges with gueltas, springs and belts of vegetation. Tuareg populations have settled in Iherir, Aharhar and Tamadjet.

1.2.4 Tamanrasset: the Hoggar

The wilaya of Tamanrasset covers an area of 113,000 km at an altitude of 1,395 m. It shares boundaries with Adrar to the west, Illizi to the east, Niger and Mali in the South. The town of Tamanrasset is made up of eight *communes* and inhabited by a population of 45,000.

1.2.4.1 Hoggar National Park

The park was founded in 1987 and covers an area of 450,000 km² (i.e. nearly 80% that of France). It features:

- the irregular Atakor plateau (altitude 2,000 m);
- a peripheral depression (altitude between 500 and 800 m);
- an outer belt of sandstone and shale Tissilis;
- some of the most varied plant life in the Sahara (wild olive [olea lapperinei] myrtle [myrtus nivelii], pistachio, acacia). Vegetation here is of prime importance to the nomadic tribes for grazing their animals;
- fauna including dorcas gazelle, Barbary sheep, cheetah, caracal, wildcat, fennec, and a wide variety of bird life;
- several hundred sites featuring rock art.

1.2.5 Tindouf

The wilaya of Tindouf is situated in the extreme west of Algeria. It is bounded by the wilayas of Bechar and Adrar to the east, the Western Saharan and Mauritanian frontiers in the west and the Moroccan frontier in the north. Tindouf covers an area of 168,000 km² and is home to a population of 23,000. Tindouf oasis, stronghold of the region's nomads, is known for its ancient known

1.3 Tourism development plan to stimulate investment in the deep south of Algeria

In 1995, the Algerian Government launched incentives designed to appeal to a range of economic activities and encourage investment in the wilayas of Adrar, Illizi, Tamanrasset and Tindouf.

1.3.1 Incentives

- 50% reduction in income tax;
- 10-year exemption from company tax;
- 50% reduction in the rate deducted from profits if reinvested in a Saharan region.

1.3.2 Tourism investment plan

The Algerian Government, through its Ministry of Tourism, has launched a hotel-building and rehabilitation programme designed to provide enough capacity to meet a potential demand of 100,000 visitors per year from the year 2000. Its framework covers a range of tourism centres in Tamanrasset, Adrar and Illizi.

Renovation work concentrates on three hotels and a camp site in Tamanrasset (400 beds) and one hotel and two camp sites in Adrar (226 beds).

Building work, meanwhile, focuses on: the Assekrem refuge in Tamanrasset (Hoggar National Park); four motels (100 beds) and five camp sites in Illizi; an inn and a camp site (40 beds each) in Adrar.

All in all, then, this should produce new or renovated hotel capacity running to 910 beds by the year 2000.

Saharan tourism in Libyan Arab Jamahiriya

1.1 Lie of the land

The Libyan Arab Jamahiriya (population 5,400,000) covers an area of 1,759,000 km² between 35° and 20°N and between 11° and 25°E. Its high ground consists of three massifs, none of which riseS much beyond 800 to 900 m: the Tripolitanian mountains, which carry across the Fezzan in the shape of red-rock desert (Hamada Al-Hamra), the Jabal Al-Akhdar in Cyrenaica, and the Jabal Al-Soda south of the city of Sirt. Apart from arable land on the Tripolitanian plains (Jeffara), and Cyrenaica's few cereal-growing estates, the soil is barren, dry and, hence, not too suitable for farming. Rainfall is scarce and irregular: 300 to 500 mm over the Cyrenaica mountains, 15 mm at times in the Fezzan, where only groundwater drawn from wells is fit for use and little bar the date palms tends to grow. This southwestern region is where efforts have begun to develop Saharan tourism.

1.2 Libyan cultural heritage

The Libyan Arab Jamahiriya offers enormous potential for tourism: Sabratha and Leptis Magna on the Mediterranean coast in the north (to name only two of the archaeological sites dating back to Roman times and beyond), Ghadames and

other ancient Arab-Islamic cities with their urban fabric still intact, Tadrart Acacus and its thousands of cave painting sites, some of the finest in the world, set in the fabulous Saharan scenery of the south-west (Fezzan). In addition to the above, all three kinds of which figure on the World Heritage List, the Libyan Arab Jamahiriya boasts a large number of other sites featuring the remains of the various civilizations that have left their mark on the landscape: Phoenician, Roman, Byzantine and Arab-Islamic. Although a Mediterranean country from the point of view of its seaboard, the Libyan Arab Jamahiriya is very proud of its Saharan and African roots.

1.3 Tourism development strategy

The country's heritage may well be outstanding, but its tourism industry remains rudimentary. The country's lengthy absence from the world stage during the international embargo, only lifted in March 1999, has had much to do with that. Another reason has been the lack of any real political will to develop this sector of the economy – regarded, prior to the imposition of sanctions (in 1986), as being of secondary importance. Over the past ten years, though, Libyan economic policy has been shifting towards a

tourism development strategy: first, because as far as contending with the prevailing economic crisis is concerned, it could prove something of a godsend; and second, because the appeal of its heritage to tourists can help improve the country's image abroad.

Considerable means are now in place to bolster tourism development. In recent years, the embargo has failed to prevent the Libyan Arab Jamahiriya from attracting hundreds of groups of tourists (to visit its historic sites and Saharan areas in particular). The groups, mostly from Europe, have been crossing into the country from Tunisia after landing at the airport on the island of Jerba. In spring 1996, the Libyan Government announced that it intended to invest US \$1,700 million in tourism-industry infrastructure and promotion up to the year 2000. Its five-year plan included provisions aimed at:

- establishing a special company to take charge of the investments;
- creating a new bank and a firm to handle the purchasing of equipment and other supplies;
- setting up a transport operator and marketing agency;
- producing a hotel-staff training scheme;
- organizing a range of festivals;
- arranging participation at national and international trade fairs;
- opening tourism-promotion offices in foreign countries.

The Libyan Arab Jamahiriya then set about consulting a number of competent sources with a view to organizing its tourism industry effectively:

- an expert's report produced by an English consultancy (1997);
- a UNESCO expert's report on the old town of Ghadames;
- an official visit by WTO managers;
- a Tunisian delegation led by Tunisia's Ministry of Tourism, invited to visit the country in September 1997. Cooperation projects defined have included the creation of a joint Libyan-Tunisian investment company and the twinning of sites.

Meanwhile, the Libyan authorities, through decree 2.2.1998, have set up the Office for the Development of Tourism and Investment (ODTI). Directly answerable to the People's Committee on Tourism, this new body has been made chiefly responsible for promoting national treasures (archaeological sites, exhibitions, etc.) and use earnings to set appropriate infrastructure in place. Furthermore, Libyan participation at international tourism events has intensified in recent months. In 1996, a Libyan delegation attended a symposium organized under the aegis of UNESCO in Hammamet on "interaction between tourism and culture". Also in 1996, according to the authorities, 85,000 tourists visited the Libyan Arab Jamahiriya. Most were Europeans, mainly from France, Italy and Germany. In March 1999, the Libyan Arab Jamahiriya managed to have its international sanctions lifted. A new age has dawned for the development, on practically virgin soil (in Saharan parts in particular), of a brand of tourism that will be harmonious and, it is to be hoped, attuned to the environment and sustainable development.

Saharan tourism in Sudan

1.1 Geographical and ethnic overview

The Republic of Sudan is the largest country in Africa. Situated in the north-east of Africa, it covers an area of 2,505,813 km², i.e. 1.7% of the continent's terrestrial surface. Each region is very different from the next: desert in the north, rich vegetation in the south, a tropical continental climate in central parts. With a population of 30 million, Sudan shares borders and ethnic communities with eight other lands: Egypt in the north

(area populated by Nuba), Central African Republic and Chad in the west (Four, Fellata), Democratic Republic of the Congo in the southwest (Zandé), Uganda in the south (Kakwa), Kenya in the south-east (Topaza), Ethiopia in the east (Beni Amer) and the Libyan Arab Jamahiriya in the north-west, where climatic conditions are so harsh that the border regions remain uninhabited. For centuries, Sudan served as a country of refuge and a necessary stopping-point for pilgrims on the road to Mecca. ¹

1.2 Potential for tourism in Sudan

Sudanese hotel capacity runs to 54 establishments, more than half of them in the capital. Forty-eight hotels are currently under construction, mainly along the country's Red Sea coastline. Elsewhere, there are 155 boarding houses, eight inns and two tourist camps. Total capacity in terms of beds is estimated at 17,991. Few statistics have been available as regards tourist arrivals since international sanctions were imposed in 1996. In 1995, however, there were 63,000 arrivals, 18,000 (i.e. 28.6%) of them from Europe.

1.3 Cultural and natural heritage

Sudan boasts a history longer than almost any other country on earth, and a succession of different civilizations and peoples have left their mark there. Most of its archaeological remains are to be found in the north or east: Al Naga, Al Mossawarat, Karima, Meroe, Dongola and Djabel Al-Barkal. Sites date back to the Pharaonic or Meroitic periods, and to those of Islam (Suakin, Sennar) or Christianity (the Dongola churches).

1.4 Upside and downside of Sudanese tourism

1.4.1 Upside

Beyond the country's archaeological and natural riches, a number of facts indicate that the Sudanese authorities really do have the political will to develop national tourism:

- laws governing tourism activities have been revised to bring them into line with the country's new Constitution;
- most tourism-industry workers have been taking tourism and hotel-trade vocational training courses on schemes organized under the aegis of the Ministry of the Environment and Tourism;
- new hotels and similar establishments have opened in the larger towns and cities thanks to private funding;
- tourism-development cooperation deals have been signed with Lebanon, Syrian Arabic Republic and Yemen;
- airlines are once again offering flights from Istanbul, Nairobi and Bangui, and domestic carriers now operate connecting flights within the country.

1.4.2 Downside

- Continuing civil war in the south.
- Inadequate hotel and transport infrastructure.
- Insufficient promotion abroad with the closure of Tourism Offices.
- Focus of tourism restricted to archaeological sites in the north and east.
- Little tourism activity in the Saharan region.

II. Towards an assessment of Saharan tourism development

Analysis of Saharan tourism in the various countries around the Sahara reveals that: disparities exist between countries in North Africa and the southern Sahara; tourism is seen as a means of countering economic crisis and environmental degradation; each country has its own strategy and strong points for promoting tourism activity; there are considerable obstacles; and there is a lack of interregional dialogue and cooperation.

2.1 Irregular tourism development

Clear disparities exist between the (touristically speaking) more developed countries of northern

Purely Saharan tourism is visibly still in its infancy. In 1998, seven of the Saharan countries collectively managed to attract a mere 3.6% of the total tourist arrivals of all 10 put together (i.e. 364,000 out of 10,278,000). So tourism in the other three (Tunisia, Morocco and Egypt) must largely centre on the coastal resorts or sites of archaeological interest. In 1998, those three countries alone attracted 96.3% (i.e. 9,914,000) of all Saharan-country international tourist arrivals as a whole.

2.2 International tourist arrivals in Saharan countries in 1998

Country	Arrivals (,000s)	Country	Arrivals (,000s)	Country	Arrivals (,000s)	Total (,000s)
Egypt	3,400	Algeria	94.8	Chad	38.0	
Morocco	2,013	Lybyan Arab Jamahiriya	85.0	Mali	50.1	
Tunisia	4,501	Sudan	63.0	Mauritania	8.0	
				Niger	25.7	
Total	9,914		242.8		121.8	10,278.6
Share %	96.4		2.4		1.2	100

Source: OMT

Africa and those situated in central or southern parts of the Sahara. Indeed, the countries occupying the southern Sahara (Chad, Mali, Mauritania, Niger and Sudan) and, to a differing degree, those whose territory extends into central parts (Algeria and Libyan Arab Jamahiriya) are performing far less strongly than their counterparts occupying the northern Sahara (Tunisia, Morocco and Egypt). Yet the central and southern sites forming the focus of Saharan tourism are some of the most famous in the world: the Tibesti-Ennedi in Chad, the Aïr and Ténéré in Niger, the Timbuktu area of Mali, the ancient towns of Mauritania, the Tassili n'Ajjer in Algeria, the Acacus in the Libyan Arab Jamahiriya - all of which, with the exception of the Tibesti, have been selected by UNESCO for inclusion in the World Heritage List.

2.3 Tourism as a means of countering environmental degradation and economic hardship: assets of Saharan tourism

The north-south Saharan divide is just as apparent at the economic level, with those countries occupying southern parts of the desert being the poorer. The impoverishment of the latter has been exacerbated by the drought of the 1970s and the impact of human activities on the environment (e.g. overfarming and overgrazing in arid areas). Environmental degradation and economic hardship have also hit the Sahara's nomadic tribes and the populations living scattered around the northern oases, home to some of the most destitute people in Algeria, Egypt,

Libyan Arab Jamahiriya, Morocco, Sudan and Tunisia. In the 1980s, Governments turned to tourism development as a possible means of improving economic conditions and combating environmental degradation in some of those areas (Tamanrasset and Djanet in Algeria; Ouarzazate and Zagora in Morocco; Agadez, Aïr and Ténéré in Niger; Tozeur and Douz in Tunisia). Some officials also saw it as a way to diversify coastal tourism (Morocco, Tunisia). The Both the cultural and the natural heritage of the Sahara have tourist potential.

2.3.1 Saharan cultural and natural heritage

In addition to the major World Heritage sites and natural reserves scattered around the Sahara, desert countries possess assets whose value for tourism ties in with their ancient history and cultures, with roots stretching back through both the Mediterranean civilizations of the north and the Afro-Sahelian ones of the south. The Sahara and its surrounding areas amount to a geographical mass whose prehistoric, archaeological, architectural, ethnological and natural heritage features among the richest and most varied on earth. Countless numbers of remains exist to illustrate how it has been a melting-pot of civilizations, peoples and religions: prehistoric, Pharaonic, Numidian and Roman sites; rock paintings; Berber ksour, tribal villages, Arab-Islamic caravan towns - all relics of ancestral traditions kept alive to this very day through a diversity of languages, festivals, music and crafts (Tuareg, Moor, Dogon, etc.).

2.3.2 Exploiting the heritage for tourism

The decision on the part of the Saharan countries to exploit archaeological sites, museums and natural parks for tourism was in most cases made by each country's Ministry of Culture. Specialized agencies such as Tunisia's Agence Nationale d'Exploitation du Patrimoine (ANEP) or the Office for the Development of Tourism and Investment (ODTI) in the Libyan Arab Jamahirya, were then set up to develop the sites and museums frequented by tourists. National parks have usually remained in the hands of ministries of culture (Algeria), agriculture (Tunisia) or the environment (Mali). Exploiting the heritage for tourism became a must for those countries in view of the extent to which it could boost their foreign currency reserves.

2.3.3 Tourism Administrations

The countries occupying the northern Sahara (Algeria, Morocco and Tunisia) originally set up their Tourism Offices towards the end of the 1960s. Later, these were then placed under the authority of a ministry of tourism. In Tozeur (Tunisia), a Commissariat Général du Tourisme was set up to represent the national Tourism Office in the oasis region. In Ouarzazate (Morocco), southern interests came to be upheld by a Groupement Régional d'Intérêt Touristique (GRIT). Algeria, Chad, Egypt and Morocco are the only Saharan countries to have created an independent ministry of tourism. Chad, for its part, set up a Ministère du Développement Touristique in 1995.

In some cases, however, the tourism industry comes under the authority of other Government departments: trade (Mauritania) or culture (Mali). The latter has set up a Tourism Office (AMATO), as is the case in Algeria, Morocco and Tunisia, whose Ministry of Tourism is also in charge of the craft industry. The same goes for Niger, which suggests that tourism and crafts are closely interrelated. Abroad, only Morocco and Tunisia have Tourism Offices established in the capital cities of Europe. The rest tend to rely on the tourism section stationed at their respective embassies. In March 1992, Mali created an association to promote African tourism in Paris (La Maison du Tourisme en Afrique). It was to prove short-lived.

2.4 Weaknesses and integration of Saharan tourism

Saharan tourism development has become a top priority among Governments, and they are now actively trying to encourage it either directly (via public spending on projects), or indirectly (via private investors). Yet intensive development here can impact on the environment and social fabric. Having examined the current situation, we can pinpoint a number of Saharan tourism's characteristic features as well as some of the factors stunting its growth. These are:

- dependence on foreign decision-makers;
- brand image and insecurity;
- infrastructure and accommodation (quality and quantity);
- training and information;
- the number of people visiting Saharan sites (e.g. ksour);
- product content and quality, activities, crafts;
- the degree of involvement on the part of local communities and NGOs;
- interregional cooperation.

2.4.1.1 Dependence of Saharan tourism on foreign airlines and tour operators

International tourism is a complex phenomenon hinging on the individual motives of each tourist (exoticism, escapism, weather, culture, meeting people from other backgrounds, adventure, etc.). As far as the Saharan countries are concerned, the numbers of tourists they can attract to their tourism zones also depend on air transport and their relationship with European carriers and travel agencies.

Air travel in Saharan countries

The bulk of international flights are provided by Air Afrique, Air France, Air Algérie, Tunis Air, Royal Maroc and the national airlines (Air Mali, Air Mauritanie, Air Niger, Air Tchad). Air Afrique and Air France are the most prominent of them and provide air links to European destinations in particular. Despite the fact that the former is the product of a joint venture involving several African States, both it and the latter offer tickets at what every tourism manager in the countries visited deems to be prohibitive prices. This, along with the lack of available charter flights, is one of the factors that are off-putting to tourists. National airlines (Air Mali, Air Mauritania, Air Niger, Air Tchad) fly to the capital cities of neighbouring countries and provide, albeit poor and irregular, links to domestic destinations. North Africa's national airlines have maintained a stranglehold on the market, but cracks are beginning to appear in their monopoly under the pressures of demand and the newly emerging business environment. Although their leading position has yet to be seriously challenged, charter flights are steadily gaining ground. They have had much to do with the development of Egypt, Morocco and Tunisia into popular destinations for mass tourism. Since Algeria, Libyan Arab Jamahiriya and Sudan have been handicapped by events within the country (Algeria, Sudan) and abroad (sanctions imposed on the Libyan Arab Jamahiriya), their national airlines have failed to match the performance of Egypt Air, Royal Air Maroc and Tunis Air. The latter three, for their part, have been forced to accept the presence of private companies on their home turf (Nouvel Air in Tunisia, ZAZ in Egypt) as their Governments strive to foster the growth of tourism. Air links between the Saharan countries, meanwhile, remain poor.

Tour operators

Tour operators have played a leading role in boosting the popularity of the North African mass-tourism destinations (Egypt, Morocco, Tunisia). Their all-in package holiday strategy (including flight, accommodation and tours) and commercial distribution networks have allowed them to force down the asking price of receiving-country Tourism Administrations, national airlines and charter companies. In their view, Saharan tourism is an optional extra to the coastal-resort trade, or part of broader tour circuits. Holidays in the Saharan tourism zones of Morocco and Tunisia are offered as a means of diversifying their products, and tend to adhere to the coastal-resort formula (the Fram, Nouvelle Frontières, Club Med and Jet Tours hotel clubs in Tozeur [Tunisia] or Marrakech [Morocco]).

Specialized travel agencies

Another approach to the Sahara is offered by travel agencies and tour operators specializing in adventure and hiking holidays. It involves small groups of tourists who wish to develop an intimate relationship with the lands of the Sahara and prefer to sleep in tents rather than at regular hotels. These are top-of-the-range products appealing to a clientele of executives and free-lance professionals. French operators working in this field include Terres et Club d'Aventure, Nomades, Itinérance Assinter and Allibert. In Spain there is, among others, Tuareg.

A primarily European customer base

Studies of tourist flows show that the bulk of customers visiting the Sahara come from Europe, chiefly from France, then Germany, Italy, England and Spain. Indeed, theirs are the main markets targeted by Saharan-country efforts to promote tourism (either via their Tourism Offices or at international trade fairs). While people from other African countries, especially the Maghreb, also account for a sizeable share of international tourist arrivals (often hot on the heels of their European counterparts), North American visitors are by contrast far fewer in number. Another point worth noting is the increasing number of visits by second- or thirdgeneration expatriate Saharan-country nationals who have kept their emotional ties with the homeland, and could constitute an important potential market.

2.4.1.2 Insecurity: a major hindrance to tourist arrivals

Saharan Africa, in Westerners' eyes, may well represent a place of mystery, an answer to the quest for the ultimate experience and contact with nature, but it is an idyllic picture often overshadowed by the tension and conflicts that tend to scare off foreigners and scupper tourism development. A rash of hot spots has broken out across lands situated in the Sahara (both north and south) since the early 1990s. Indeed, Saharan tourism development can hardly be said to have gained from the Gulf War, fundamentalist bombings and shootings, the Tuareg uprising, civil war in Western Sahara, interethnic violence and international sanctions.

2.4.3 Hotel capacity in Saharan tourism zones

As far as hotels are concerned, a north-south divide has emerged in the infrastructure set in place to foster Saharan tourism development.

2.4.3.1 Capital city hotels form the bulk of capacity in southern parts of the Sahara

Relatively few hotels in the southern Sahara are located close to the tourist attractions (Ennedi-Tibesti, Aïr-Ténéré, the Mauritanian ksour) compared to numbers of establishments in the capital cities: Bamako (Mali), Khartoum (Sudan), N'djamena (Chad), Niamey (Niger) and Nouakchott (Mauritania). Indeed, the latter monopolize 80% of total capacity in terms of beds on offer to tourists and businesspersons. This is in contrast to the situation in northern parts - with the exception of Libyan Arab Jamahiriya, where most hotels are concentrated in the capital, Tripoli - which boast substantial hotel capacity in the vicinity of the sites that have made the reputation of towns such as Tozeur (Tunisia), Ouarzazate (Morocco) or Tamanrasset (Algeria).

2.4.3.2 Low hotel bookings in the northern Sahara

In Algeria, a staggeringly high proportion of Saharan – indeed national – hotel capacity remains unoccupied. Few tourists are willing to risk a trip to a land whose domestic socio-political landscape is stained with the blood of victims of violence. And yet the southern parts of the country have never been the target of fundamentalist attacks. This has inspired confidence among local tourism-industry professionals, who are now seeking to revive quickly what had, until relatively recently, been a thriving activity. In the meantime, the State is working to encourage the renovation of existing capacity and construction of further small-scale accommodation units.

And in Morocco, even though the Ouarzazate area has shown far stronger growth in terms of increased tourist arrivals than the coastal resorts, hotel capacity there is rarely more than 50% full. The problem is even more acute in Tunisia.

Indeed, despite a huge amount of investment in the hotel trade, hand-in-hand with State aid via tax relief and promotion efforts, Saharan hotels on the whole are barely managing to fill 30% of their beds. As far as Tunisia and Morocco are concerned, there are a number of reasons for the low level of Saharan tourist arrivals:

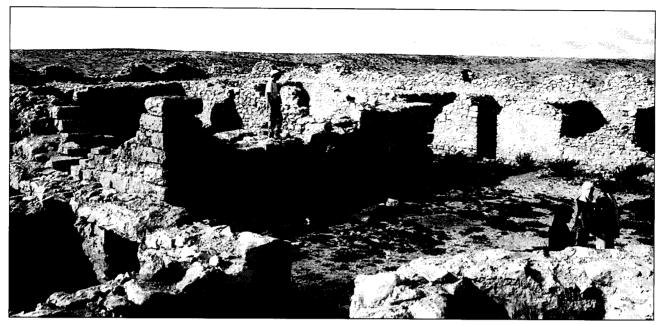
- a lack of high-quality events suited to Saharan tourism:
- too few products geared to ecotourism and discovery of the Sahara;
- too great a reliance on the coastal-tourism trade. Groups arriving from coastal tourism zones only tend to stay for one or two nights before continuing on their way;
- too many first-class hotels for a customer base seeking adventure and a taste of the unusual rather than comfort;
- the siting and appearance of some hotels: bona fide palaces masking the palm groves or dunes, more concerned with their own image than the value of the desert. The hotel is "showcased" as an end in itself, rather than a means to an end, a discreet and functional staging post whose authenticity stems from its setting in the Saharan landscape.

2.4.4 Training and information

2.4.4.1 Training for guides and managerial staff

Vocational training in the tourism and hotel trades is a key factor for the success and development of Saharan tourism. Yet apart from a handful of policy successes on this score (Morocco, Sudan and Tunisia), most Saharan countries have fallen seriously short of the mark. Let us take the example of guides:

- in North African countries (Algeria, Egypt, Morocco and Tunisia), the tourist-guide profession is highly regulated profession, and anyone wishing to become a regional guide must have the right educational qualifications and take an official examination (archaeology, culture or languages). In Tunisia, for instance, only candidates with a BTS vocational training certificate issued by the Sidi Dhrif Institut du Tourisme are eligible to apply;
- some of the other Saharan countries have yet to realize the point of this and the profession remains unregulated there;
- efforts are needed to regulate the foreign guides accompanying groups of tourists on



Remains of a Saharan ksar: Le Ksar Ghilane (Tunisia).

visits to Sahara museums and tourism sites, a task for which EEC recommendations on the matter will provide useful guidelines.

2.4.4.2 Information

This involves:

- raising the awareness of local populations about environmental issues and cultural exchange through tourism. The media have stepped up broadcasts of programmes on the environment, especially since the 1992 Earth Summit (some countries, e.g. Tunisia, have created "environment boulevards" in most big cities). That said, little is being done to implement a better approach to promoting tourism and fostering its integration among local populations, not to mention teaching them how to greet tourists in an atmosphere of mutual respect;
- improving the signposting of tourist sites with clear, and at least bilingual, roadsigns.

2.4.5 Visits to the ksour: ancient settlements and fragile Saharan sites

These sites are fragile because:

- buildings have not been restored for want of funding;
- they have been deserted by their populations;
- they lack the amenities to cater for visitors;
- they are unable to cope with the large numbers of people visiting what are, after all, sites of interest to tourists (e.g. certain ksour and

- oases in Egypt, Mauritania, Morocco and Tunisia);
- areas around the sites in need of protection are becoming subject to rampant, large-scale urbanization;
- they are, or have been, plundered (e.g. rock paintings).

2.4.6 Product content and quality: events and crafts

Tourists visiting the Sahara want to develop a strong, authentic relationship with nature and local populations. In addition to those products most closely associated with mass tourism (folk music and dancing, lively night spots), therefore, new products are required to satisfy new demands (ecotourism, physical exercise, meeting people from different backgrounds, etc.).

The craft industry is threatened on two fronts:

- local ancestral crafts are in danger of disappearing, owing to both a lack of effort on the part of the authorities to encourage and save the sector, and an inability to attract large enough numbers of tourists;
- handicraft products are deteriorating in quality and authenticity because of excessive demand.

Governments and craftsworkers themselves have taken action to promote the sector by setting up:

- craft cooperatives (e.g. the Tuareg of Ségou and Timbuktu [Mali]);

 women's cooperatives in the Mauritanian ksour and craft-industry training schools in Morocco and Tunisia.

Nevertheless, every Saharan country's craft industry still needs more support.

2.4.7 Local community participation

Municipalities these days have grown aware of the fact that tourism can act as a driving force for local development: direct and indirect job creation, tax levies (VAT, tourist tax, etc.), improvement of their towns' environment thanks to tourism development work (roads, sewerage, lighting, cultural and artistic events).

Some are deducting one% from hotel turnover to cover environmental protection needs (Tunisia). Yet a number of problems remain, e.g. the lack of:

- dialogue with tourism-industry professionals with a view to fostering greater industry-wide synergy;
- imagination needed to create new products (ecotourism, hiking, cultural events, etc.);
- twinning initiatives with foreign towns and cities. The twinning of Timbuktu (Mali) and Kairouan (Tunisia) is interesting enough, but has yet to be officially ratified by both sides.

2.4.8 Interregional cooperation

A number of Saharan countries have been working together to help one another in the field of tourism.

In January 1968, a Comité Technique Interétatique pour le Tourisme (Inter-State Technical Committee for Tourism (CTIT) emerged by agreement between Benin, Burkina Faso, Côte d'Ivoire, Niger and Togo. Its role is to run joint tours and enhance adjacent national parks. However, the committee has failed to produce much in the way of effective action for want of truly far-reaching planning. Nevertheless, a single visa has been created, designed to cut waiting times and additional costs for tourists at shared border crossings.

On 3 April 1993, the African Ministers of Tourism gathering in Tunis adopted a project presented by the United Nations Economic Commission for Africa (ECA) aimed at integrating the craft industry and cultural products into the product range of African tourism. The project set out to encourage the production of handicrafts based on African cultural traditions, mainly for sale abroad.

In 1995, in Cairo, the Middle East Mediterranean Travel and Tourism Association (MEMTTA) was set up to bring together tourism-industry professionals from Cyprus, Egypt, Israel, Jordan, Morocco, the Palestinian Authority, Tunisia and Turkey. Among the plans stemming from the initiative was a single plane ticket allowing tourists to visit as many countries in the region as they wished.

Endeavours to promote African and Mediterranean tourism have thus remained somewhat piecemeal, and there has not really been any full and effective cooperation embracing all of the Saharan countries.

Sustainable development of tourism in the Sahara

Ow, with the twenty-first century having dawned and an increasingly globalized society extolling the virtuesof leisuretime activities and self-fulfilment through travel, Saharan tourism must develop and become more forceful in its efforts to carve out a niche within the international tourism industry. That industry figures among the fastest growing in the world: WTO reckons that international tourist arrivals and revenue will register growth of 4.3% and 6.7% per year respectively over the coming twenty years. At the same time, however, international tourism has to assume greater responsibility for the scale of its impacts. Indeed, beyond its (direct and indirect) economic influence, tourism affects the environment, host societies and cultural sites in ways that need to be monitored by Governments, local communities and tourists alike. Saharan tourism, too, must keep a close watch on those effects as it pursues its efforts to achieve sustainable development in keeping with our suggested strategy guidelines (see section III).

I. Proposals for sustainable development of tourism in the Sahara

WTO, in its *Tourism 2020 Vision* forecast report, recognizes that African subregions possess abundant natural and cultural resources. But it goes on to say that many countries still lack quality tourism-related infrastructure and amenities, and that a large share of the region is suffering greatly on account of its image in the main tourist-emitting countries as a high-risk destination. Most African countries, it concludes, have two key priorities between now and the year 2020: to develop and improve infrastructure and products, and to correct the region's image through marketing.

Meanwhile, those countries seeking socio-economic development through Saharan tourism must also strike a balance, on the one hand, between the exploitation and sustainable management of their natural and cultural resources and, on the other, between the tour operators' need to make profits and the protection of the Saharan environment from all forms of irreparable damage. It is proving a difficult, delicate task. For Saharan States have to carry out priority action while observing the rules and principles determined through a concerted effort according to a prearranged agenda.

1.1 Proposal to stage an International Conference on Sustainable Development of Tourism in the Sahara

This study could constitute the first step towards the organization of an international conference on sustainable tourism in the Sahara designed to bring together the States concerned with experts, NGOs and associations specializing in the Sahara, desert tourism, the environment, culture and desert societies. The conference would be held in two parts: one for the Government representatives and the other for the experts, NGOs and workshops on case studies.

1.1.1 Expected outcome, dialogue and build-up to the conference

This conference would seek to speed up the process of fostering awareness among Governments, civil societies and NGOs as to the urgent need to adopt measures to favour sustainable tourism development in the Sahara.

It would debate and adopt recommendations and strategy guidelines for the sustainable development of Saharan tourism, a first draft of which may be found in the final part of this document. Proposed recommendations and strategy guidelines would be developed and augmented prior to the event (which could take place towards the end of 2001 or early in 2002) through dialogue with the concerned Member States, bodies and experts.

A "Sahara Project Follow-up Committee" would be assigned to coordinate the dialogue and oversee preparations for the conference. Its members would include representatives from Tunisian ministries and institutions in charge of tourism, the environment, the protection of the Saharan cultural and natural heritage, as well as representatives from UNESCO, WTO, SSO and the States whose land includes a share of the Sahara.

1.1.2 Proposed agenda for project follow-up

In concrete terms, follow-up for the "sustainable development of Saharan tourism" project would be scheduled thus:

- Early 2000: distribution of this document to the Member States concerned with a view to ensuring that they agree to the next steps to be taken;
- Spring 2000: meeting of the Follow-up Committee to set a schedule for the conference and determine, on the basis of initial reactions, the areas in which the proposed recommendations and strategy guidelines need to be enhanced and completed;
- 2001 or 2002: meeting of the Conference on sustainable tourism in the Sahara. The actual date would depend on how the project is progressing, choice of partners and financing possibilities.

1.2 Suggested specific actions for sustainable development of Saharan tourism

Possible actions and recommendations to be discussed and validated by Saharan tourism managers could include:

- institutional and industry-led actions, at national and international level;
- actions to foster awareness about and safeguard the cultural and natural heritage;
- theoretical and practical development of Saharan-tourism-specific products.

1.2.1 Institutional and industry-led actions at national and international level

These concern administrative bodies, training and the streamlining of the tourism industry, and an appraisal of tourism policies and interregional cooperation.

1.2.1.1 Encourage Saharan State authorities to develop appropriate Tourism Administrations

Some Saharan countries, despite having set up a ministry or department of tourism, have yet to create a Tourism Office, or a managerial or tourist-guide training service. A Tourism Office appears to be a must. As administrative public bodies and legal entities with financial independence, Tourism Offices act as instruments with which Governments can define and implement national policy in the field of tourism. They give the go-ahead for projects to build hotels, open travel agencies and exercise the technical supervision of tourism firms. They also issue touristguide licences. What is more, Tourism Offices represent their respective countries at promotional events abroad. Chad, Egypt, Libyan Arab Jamahiriya, Mauritania, Niger and Sudan have not yet created their own Tourism Offices.

It is equally important to set up tourist information centres in tourism zones. Composed of representatives from a variety of sectors (crafts, catering, accommodation, transport, trade the professions, recreational activities, researchers, etc.), they serve as focal points for collective implementation, dialogue and application of local tourism policy. Their role in guiding and informing tourists goes hand-in-hand with the promotion of regional tourism activity.

1.2.1.2 Organize training schemes for hotel-trade workers, travel agents and tourist guides

Each Saharan country's Tourism Administration must organize training and qualification schemes for people at every level of the tourism industry: hotels, travel agencies and guides. Regarding the latter, only Algeria, Egypt, Morocco and Tunisia exercising strict control over their national, regional and seasonal tourist guides. It is of the utmost importance to help the other Saharan countries to regulate the guide profession by:

- making existing guides take a language and general culture test;
- demanding that candidates have the required basic educational qualifications, and in particular encouraging unemployed certificateholders to apply for posts;
- offering training courses on the heritage and fostering awareness of the role and responsibility of guides in both the success of sustainable tourism and the protection of the cultural and natural heritage.

Guides often play a vital role mediating between local populations and tourists, and encouraging all parties to respect the environment and heritage. In so doing, they help protect monuments and works of art and prevent the degradation of sites. Training could be delivered by heritage and environment experts.

1.2.1.3 Clarify the courier profession

Some couriers accompanying groups of foreign tourists are themselves working as guides in the countries visited. This is a question raised at the level of European Community countries, and a look at the legal instruments reveals that:

- the courier and tour guide-interpreter trades are regulated by Directive 75/368/CEE (1975);
- only specialized professional licence-holders are authorized to guide tourists around museums and historic monuments;
- those taking tourists on visits outside museums and historic monuments must be in possession of an official document stating that they are tour guides in their home countries. This applies to tour guides accompanying groups on pre-set tours and returning to their home countries once the tour is over;
- the European Commission considers that a tour guide based in one Member State and receiving groups of tourists hailing from another must (pursuant to Directives 89/48/EEC and 92/51/EEC) be subject to the

requirements of the host State as regards professional qualifications.¹

A strategy for sustainable tourism development hinges on the ability of host-country nationals to play a part in introducing the cultural and natural heritage of their home countries to visitors. Incompetence is the only drawback at this stage, and that can be eradicated with the right training. In the event of the country visited lacking the necessary legal framework, and if the group comes from an EEC Member State, then the principle of reciprocity may apply. Otherwise, reference may be made to the World Federation of Tourist Guide Lecturers (WFTGL) definition, according to which an individual can be regarded as a qualified guide only when he or she:

- holds a licence issued or recognized by a competent authority;
- or, if the national legislation makes no provisions for such a licence, he or she
- has been trained as a tour guide, gained qualifications that are recognized by the local, regional or national authorities and can give visitors to a country information on, and insight into, that country's history, archaeology, monuments and works of art, cultural development, natural beauty spots, places of interest and, more broadly, any other matter relating to the promotion of tourism.

1.2.1.4 Ensure that Saharan tourism policy is properly assessed

Assessments should be carried out according to a holistic approach. Experts from the various Saharan countries should meet at regular intervals with a view to assessing and comparing the various countries' respective tourism policy.

1.2.1.5 Encourage interregional cooperation

Saharan countries must strive for greater mutual assistance and more effective cooperation along the lines of the earlier-mentioned understanding between Benin, Burkina Faso, Côte d'Ivoire, Niger and Togo. This should extend into every area, with a particular emphasis on training, transport and cross-border tours, e.g.:

- plans should be made to introduce a single visa, valid in all Saharan countries;
- it would be wise to create an authoritative body to take charge of coordination and thinking geared to the promotion of Saharan

- tourism. Entitled "Sahara Observatory" or "Sahara Liaison Committee", that body would stem from a range of initiatives in the field of Saharan tourism promotion, particularly abroad;
- new technologies should be used to create tools for the implementation of tourism and culture policies.

1.2.2 Actions geared to awareness-raising and safeguarding the cultural and natural heritage

The goal here is to:

- ensure that local populations and local actors are aware of their responsibilities in the development of environment-friendly Saharan tourism;
- encourage actions to safeguard historic sites and engage in dialogue with official bodies faced with the threat of desertification;
- present Saharan Africa in a more favourable light abroad through publicity campaigns and an exhibition.

1.2.2.1 Awareness-raising and information on sustainable tourism

Mayors, educators, social workers and teachers could be asked to ensure that those around them become aware of the importance of environmental protection in the course of tourism development. Emphasis might be placed on the potential benefits to the local population if poaching and cutting firewood were to cease in fragile regions, thereby helping to:

- arrest the spread of the desert;
- preserve the region's nature and environment for future generations;
- create an opportunity to capitalize on larger numbers of visitors (job creation, handicraft sales, offers of accommodation, etc.).

A clearly presented, bilingual, illustrated brochure could be handed out to those attending these sessions. Further awareness-raising action could include:

- informing tourists about local customs through lectures on the subject and efforts to foster awareness about methods of protecting the environment;
- making local tourism actors (managers, local residents and tourists) aware of the value of the Saharan heritage (ancient towns and oases, rock art, etc.).

1.2.2.2 Actions to safeguard the Sahara's cultural and architectural heritage

Tourism and culture have always interacted, resulting in synergy-enhancing collaboration between the two sectors within the framework of a number of specific projects centring, for example, on historic sites of architectural interest frequently visited by tourists.

Many of these culture-rich sites have in fact been restored, because they figure as regular stopping-points on the tour routes. But there are others which, despite their inherent cultural and architectural value, remain excluded from the benefits of tourism and potential rehabilitation work. So sites such as the Nubian temples in Egypt, the Tunisian mountain oases or Ksar Aït-Ben-Haddou in Morocco are flooded with overwhelming numbers of visitors, while others (e.g. the numerous ksour in the region of Tataouine, south-east Tunisia) find themselves ignored and doomed to almost certain degradation.

The Tunisian ksour, which formally served the same purpose as their Moroccan or Mauritanian counterparts, are even more vulnerable in view of the fact that their populations have chosen to move out to the new towns (cf. the Duirat or Ghomrassen cliff-face ksour). One option for bringing them back to life would be to introduce tourism by converting some of the old dwellings into unique and authentic accommodation units. While Douirat has its dynamic cultural association and Ghomrassen its powerful expatriate community resident in France, however, such a project has a greater chance of success in the case of the cliff-face settlement of Chenini in Tataouine. As it is still inhabited by a few dozen families, it would be possible to enlist the help of local residents to develop a handful of tourist gîtes. Five houses could be renovated at a cost of US \$20,000 each (i.e. US \$100,000 in all).

Meanwhile, three recommendations have to be taken into account with regard to the protection of the Saharan heritage:

- Saharan heritage cultural sites in need of protection should be inventoried;
- sites in need of safeguarding should be declared protected areas so as to prevent them from succumbing to rampant urbanization, unregulated renovation, degradation or the theft of Saharan cultural artefacts;
- controls should be set in place to curb the illicit trade in *objets d'art* shipped to buyers abroad (e.g. Malian wood carvings being a particularly flagrant example).

One solution to this problem would be to take casts of the artefacts and produce perfect copies to sell to tourists who enjoy collecting African antiques.

1.2.2.3 Actions to protect the natural environment, and a concerted strategy against desertification

- Encourage the creation and development of regional parks and protected areas along the lines of the MAB Biosphere Reserves, by assisting specialized scientific research centres in their work.
- Seek to contact, foster coordination between, and promote the ecological and environmental aspects of tourism among the various research centres working at universities and within specialized institutions on the theme of drought and desertification:
 - Sahara and Sahel Observatory (SSO);
 - Comité Inter-États de Lutte contre la Sécheresse au Sahel (CILSS);
 - Réseau d'Observatoire de Surveillance Ecologique à Long Terme (ROSELT);
 - Institut de Sahel (INSAH);
 - Institut des Régions Arides (IRA Tunisia);
 - National Commission on Desertification (CND – Libyan Arab Jamahiriya);
 - INRA/CNRF (Morocco);
 - IER (Mali);
 - INRF (Algeria);
 - DEAR (Mauritania);
 - INRAN (Niger).

1.2.2.4 Actions to foster awareness among expatriate communities originating from Saharan countries

These actions may target consulates, immigrant hostels, African associations and associations for the protection of nature and the environment. Second- or third-generation youngsters living abroad yet with family still living in Saharan countries figure among the best possible vectors for spreading the word about the need to protect Saharan ecosystems and heritage.

1.2.2.5 Raise the profile of the Sahara by staging a photographic exhibition and theme-specific seminars

This would involve a travelling exhibition on the theme of "The cultural and natural heritage of the Sahara". It could focus on, for example, the architectural, human, ecological and archaeological aspects of UNESCO's Saharan World Heritage Sites: the ksour of Mauritania, the old



Ecological and adventure tourism. A group of tourists have a meal during a meharei (southern Tunisia).

towns of Timbuktu, Djenné, Ghadames, the M'Zab Valley, Ksar Aït-Ben-Haddou, the national parks and natural reserves (Banc d'Arguin, Aïr and Ténéré, Tassili n'Ajjer), Tadrart Acacus, and a whole range of other such sites located in Algeria, Egypt, Libyan Arab Jamahiriya, Mali, Morocco, Niger and Tunisia.

Entitled "Sahara 2000" and consisting of approximately a hundred display panels, the exhibition would first of all open in the Saharan countries themselves before moving on to (if not presented simultaneously at) UNESCO, followed by venues in the capital cities of Europe and the Saharan countries' twin towns. It would be mounted by UNESCO, the Saharan countries and a variety of patrons and would require the despatch of a photographer and heritage specialist on a two-month assignment in the field. In addition, theme-specific seminars on the historic, cultural and natural heritage of the Sahara could take place, in the countries generating outflows of tourists in particular.

1.2.3 Theoretical and practical development of Saharan tourism products

The goal here is to consolidate conventional products while at the same time creating innovative new ones to meet the demands of up-and-coming concepts: adventure-based tourism, eco-

tourism, voyages of discovery and unusual cultural tours.

1.2.3.1 Consolidate conventional Saharan tourism products

Most Saharan tourism sites can be discovered thanks to camel-back excursions or tours where one travels both by land-rover and on foot. Over the past few years, tourists have been showing a keen interest in ecotourism, particularly in Saharan-country national and regional parks. This product, which basically appeals to those wishing to contemplate nature and its flora and fauna, helps to encourage the protection of natural sites and has positive spin-offs for local populations.

Local tourism managers are expected to take a number of key measures, e.g. ensuring that suitable infrastructure is set in place, improving amenities and signposting and regulating the tourism-industry actors (transport firms, camel drivers, couriers, etc.).

1.2.3.2 Adventure-based tourism and ecotourism

Breakdown of the adventure-tourism customer base

Developing new tourism products means having to pinpoint what the customer base is looking for. The bulk of customers here have a taste for adventure and an urge for a genuine encounter with nature. There are four categories of tourism that could appeal to them:

- (a) open-air tourism: for those wishing to come closer to nature and the elements. Such customers are active, creative and, perhaps, beginners;
- (b ecotourism: for those seeking to gain a deeper understanding of ecosystems. Such customers enjoy contemplating remote, untamed natural spaces. They may appreciate programmes offering:
 - visits to national parks and natural reserves;
 - visits to areas protected for scientific purposes;
 - photo safaris;
 - lectures (information, scientific extension);
- (c) expeditions: for the seasoned and initiated (technicians, sportspersons). Such customers are driven by an urge for discovery and interested in products based on expedition techniques;
- (d) extreme tourism: for those wanting to test their physical limits: e.g. scaling the Cliff of Bandiagara (Mali) or the Hoggar peaks (Algeria).

So the concept of adventure tourism offers commercial opportunities in a highly exclusive market. Professionals working in this sector must be genuine specialists. Adventure tourism, in the strictest sense of the term, cannot be associated with mass tourism. It tends to involve small groups who have little use for conventional tourism infrastructure.

Saharan tourism:

a newly emerging trend

Westerners these days are increasingly attracted to adventure- and nature-based tourism. It is a trend fuelled by television documentaries and (new and re-released) box office hits such as Lawrence of Arabia, The Sheltering Sky, Fort Saganne and The English Patient, not to mention scientific celebrities such as Théodore Monod.

As adventure tourism opens up to a wider public, the more extreme brand – with its risks, pitfalls, physical effort and hardships – tends to be spurned in favour of a safer, tamer and more tranquil variety. So we are seeing a shift towards products offering a chance to discover flora, fauna and unusual landscapes (e.g. deserts, volcanoes), meet other people and "find oneself".

Ecotourism may be bolstered by this, but it is not enough to attract and maintain an increasingly demanding clientele. Hence the need to create original new products involving as much contact throughout the Sahara as possible with local indigenous populations, giving the latter a full participatory role in tourism activity. As far as tourist accommodation is concerned, thought must be devoted to the provision of buildings whose architectural design remains in keeping with the spirit of Saharan tourism (traditional hotels, converted ancient dwellings, Bedouin tents, camp sites, inns, lodges, etc.).

1.2.3.3 Encouraging all forms of handicrafts by fostering the creation of craft cooperatives

In the Basse-Casamance villages of Senegal, for example, one community of villagers in particular has taken its "tourist potential" in hand. The village (population 1,000) contains boarding houses totalling up to thirty beds, offering accommodation in a traditional setting with meals made from local products. Young villagers, under the authority of the local headman, provide accommodation services, meals and excursions. A mutually agreed share of the earnings (after deduction of fees and wages) is handed over to the cooperative so that it can improve the community's amenities and develop new, commercially oriented pursuits such as crafts.

Another example of an indigenous community taking charge of tourism activity can be seen in the Tuareg craft cooperatives of Timbuktu or Ségou (Mali). The Ségou initiative, for its part, involves fifty members of the Dicko tribe whose livelihoods are now based on the production of handicrafts. Tuareg people have also created cooperatives in Tamanrasset (Algeria), while in Mauritania, women are the ones who have been encouraged to set up their own commercial associations.

With discreet support (though not a great deal in the way of funds) from their respective Governments, these initiatives have, to their credit, managed to whittle down the previously vast body of intermediaries and curb the deterioration of their ancestral arts. Now there is the question of what means to put in place to protect and boost artistic creativity in the craft industry.

1.2.3.4 Promote ecotourism and sporting activities

Actions worth considering on this score could include:

 encouraging the establishment of boarding houses, rural gîtes and small camp sites or inns within Saharan villages and oases visited by tourists;

- encouraging municipalities and tourist information centres to create tours on foot or by mountain bike, trekking, climbing and all manner of sporting activities suited to the milieu (marathons, paragliding or microlighting);
- organizing rallies along the lines of the Paris-Dakar or Optic 2000. However, despite the benefits of the resulting media coverage for the regions in question, careful consideration would have to be given to the potential fallout in the form of impacts on the environment and the local populations' poor economic gains in real terms;
- encouraging "eco-volunteer" hiking expeditions along with ecotourism to enable visitors to discover plant-life ecosystems;
- encouraging visitors to meet local people through special courses (oasis lifestyles, date harvesting, irrigation techniques and caring for animals, especially dromedaries);
- introducing the use of local medicinal plants to treat certain illnesses, and the pleasures of bathing in hot springs, some of which could be exploited within the framework of spabased tourism.

1.3.3.5 Create new theme-specific and combined Saharan tours

These could serve as a means of fostering awareness of the importance of certain Saharan sites as spiritual, cultural and trading centres. Either arranged in segments or following existing routes, these cross-border tours could divide into three categories.

- (a) Caravan towns of the trans-Saharan trade routes, especially:
 - the salt trade;
 - slave trade;
 - gold and iron;
 - a 40-day tour of the palm groves and the Bornou.
- (b) Religious, spiritual and cultural centres:
 - the roads to Mecca and the famed mausoleums and marabouts;
 - tours of the old medersas and libraries with their magnificent collections of ancient manuscripts (the best-known being those of Timbuktu and the Mauritanian ksour);
 - the routes taken by famous names from history: Arab geographers and thinkers such as Ibn Batuta, Ibn Khaldoun or Al





Sayuti; European missionaries, explorers, scientists and mystics fascinated by the Sahara (e.g. de Foucault, Caille, Barthe, Lenz and Monod);

- the places where famous films were made.
 (c) Combined tours between neighbouring countries:
 - Algeria/Libyan Arab Jamahiriya;
 - Algeria/Niger and Mali;
 - Chad/Sudan;
 - Egypt/Sudan;
 - Mali/Mauritania;
 - Mauritania/Morocco;
 - Tunisia/Algeria;
 - Tunisia/Libyan Arab Jamahiriya.

Some of these tours could end with a few days at a coastal resort (Red Sea, Mediterranean, Atlantic). All the of above-mentioned activities must pay scrupulous attention to:

- environmental protection;
- promoting mutual respect between tourists and indigenous populations, so that both may benefit from interaction;
- tapping these synergies for the sake of sustainable tourism development.

1.3 Financing

Selected sustainable tourism projects could enjoy support from a variety of national and international sources: humanitarian foundations, associations and NGOs, and industrial groups such as the SNIM (Mauritania), which set up the Desert Museum, or SITH (Tunisia), which has planned the restoration of the mountain oasis of Midès.

II. Development of sustainable tourism in the Sahara

2.1 Development and sustainable tourism

The concept of sustainable tourism goes handin-hand with that of sustainable development, whose guidelines are laid down in the report by the World Commission on Environment and Development entitled Our Common Future, submitted to the General Assembly of the United Nations in 1987. It defined sustainability in terms of development which, while striving to meet societies' present-day needs, does not compromise the ability of future generations to meet theirs. The principle of sustainable development then underwent in-depth enhancement and was crystallized in the shape of Agenda 21 at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro (Brazil) in June 1992. Three years later, United Nations agencies put forward a programme of Agenda 21 actions for the travel and tourism industry. It marked the launch of the concept of sustainable tourism, which has now become an integral part of many countries' and organizations' tourism development efforts.

2.2 Declarations and charters relating to sustainable development

The negative socio-economic, cultural, and environmental impacts of tourism activity have spurred the international community to mobilize and focus attention on the means needed to foster harmonious and sustainable development which remains mindful of the universal values of humanity. This has materialized in the shape of a raft of international declarations and charters, including the:

- Manila (Philippines) Declarations of 10 October 1980 (on world tourism) and 22 May 1997 (on the impact of tourism on society);
- Tourism Charter and Tourist Code adopted in Sofia (Bulgaria) in 1985 under the aegis of WTO;
- Rio (Brazil) Declaration on Environment and Development, adopted on 13 June 1992;

- Charter for Sustainable Tourism adopted in Lanzarote in the Canary Islands (Spain) on 28 April 1995;
- Stockholm (Sweden) Declaration to combat the sexual exploitation of children for commercial ends, adopted in 28 August 1996;
- Declaration on the Responsibilities of the Present Generations towards Future Generations, adopted on 12 November 1997 at the 29th session of the General Conference of UNESCO;
- ICOMOS Charter on international cultural tourism;
- WTO New Global Code of Ethics for Tourism.

The last two were ratified by the respective Organizations during their General Assemblies in October 1999. In addition to these international actions, a number of regional-level groups of countries have joined forces to promote sustainable tourism, producing, among others, the:

- Déclaration ministérielle euro-méditerranéenne sur le tourisme dans le développement durable, (Euro-Mediterranean ministerial declaration on tourism in sustainable development) adopted in Hyères-les-Palmiers (France) on 23 September 1993;
- Charter on Mediterranean Tourism, adopted at the Ministerial Conference on Mediterranean Tourism, held in Casablanca (Morocco) from 20 to 22 September 1995;
- Recife (Brazil) Charter on tourism for senior citizens, adopted in September 1996;
- European Commission paper on support for the development of sustainable tourism in the developing countries (COM, 1998, 563; final version).

Elsewhere, many tourism-industry professionals have grown aware of their responsibilities in the development of sustainable development, as may be seen, *inter alia*, in the:

 Forum on the Environment organized by the German tourism group TUI, in Germany in 1998 – the Forum called for a more equal share-out of tourism-generated profits between the countries of the North and South; Charte d'Ethique du Voyageur (Traveller's Ethical Charter), developed thanks to the combined efforts of French tour operators, Atalante, the publishers of the Lonely Planet guides, Swissair and several travel magazines. The Charter advises tourists on how best to respect the sites and populations that they visit. International, regional and private initiatives proliferated towards the end of the last millennium, foreshadowing developments in the tourism industry in the twenty-first century:

large-scale development, diversified cultural exchange, and better and more professional control over its negative impacts.

Saharan tourism, too, faces such changes and challenges. Saharan-country Governments must therefore join with industry actors to forge a global vision and harmonize development policy – as summed up in the following strategy guidelines which have been drawn up in such a way as to serve as a basis for tourism policy in the Sahara.

Strategy for sustainable tourism development in the Sahara

III. Suggested strategy guidelines for sustainable tourism development in the Sahara

Principle 1:

Preserve the Sahara's cultural and natural heritage for future generations

- 1.1 Present generations have a duty to leave to those of the future a Sahara which figures not as an area irreparably damaged by human activity, but as one of prevailing peace and shared development.
- 1.2 Present generations must, prior to the execution of any major tourism-related project in the Sahara, consider its potential consequences for future generations.
- 1.3 Present generations must, for the sake of those of the future, ensure that tourism and socio-economic development remains sustainable and fair, above all through the proper and prudent use of the Sahara's available resources.
- 1.4 Since tourism is synonymous with peace and closer ties between peoples, present generations must ensure that they themselves and those of the future be preserved from armed conflict, one of whose consequences is the destruction of the cultural and natural heritage, and the death of tourism.

Principle 2:

Promote, at national level, tourism policy which respects sustainable development and a moral and professional code of ethics – particularly in the utilization of natural and cultural resources – while guaranteeing the well-being of tourists

- **2.1** Ensure that tourism development stems from a partnership between local and regional communities, the private sector and host populations.
- 2.2 Ensure that the financial fruits of tourism are fairly distributed so that local populations can

enjoy the benefits, above all in terms of direct and indirect jobs.

- 2.3 Ensure that hotel and tourism infrastructure is designed and used in such a way as to chime with the local environment, drawing as much as possible on the traditional architectural style and bearing in mind the scarcity of water resources.
- **2.4** Foster participation of local populations in tourism development, while promoting the creativity and growth of all forms of craftwork and local artistic expression, and avoiding their standardization or deterioration.
- 2.5 Simplify administrative procedures, notably visa applications, at border crossings. National authorities must join with local officials and Saharan managers to ensure that tourists have the necessary conditions of health, safety, information and signposting that they require for the sake of their well-being during their stay.

Principle 3

Educate, train and inform public and private managers (local officials, tourism-industry professionals) and ensure that local populations are made aware of the principles of sustainable tourism

- 3.1 Vocational training and information seminars must be arranged for all local tourism actors meeting or in contact with tourists (local officials, guides, drivers, camel-drivers, hotel and catering staff, craftworkers, tourism-site and museum caretakers, etc.).
- **3.2** Tourism managers, with the help of local officials and cultural associations, must foster awareness among local populations and host communities of better ways of:
- protecting the environment and, hence, preserving fragile ecosystems, biodiversity and endangered flora and fauna;

- understanding, protecting and conserving their cultural and natural heritage, while seeking to gain greater insight into the lifestyles, traditions and expectations of tourists so as to cater more effectively to their needs;
- 3.3 Tourism Administrations, professional tourism federations, local communities and research centres specializing in arid areas of the Saharan desert must strive to coordinate their efforts and abilities, exchange information and stage jointly organized seminars and training courses to encourage the development of sustainable tourism in the Sahara.

Principle 4:

Promote tourism practices that are in keeping with natural and cultural heritage conservation. Encourage Saharan-country culture and tourism managers to strike a balance between the needs of tourism and the protection of the heritage by harmonizing cultural and tourism policies

- 4.1 Saharan cultural and natural heritage sites form part of the heritage belonging to all humankind. Efforts must therefore be made to inventory and protect them, to highlight their value and to make it easier for national and foreign tourists to gain access to them by the provision of roads, signposting and proper interpretation, and through the use of new communication technologies.
- **4.2** The mutual dependence between the safeguarding of cultural and natural heritage sites and visits by tourists is nowadays clear to sec. But visitors must not be allowed to arrive in numbers that exceed the sites' capacity to cope, nor contribute to their deterioration owing to inadequate monitoring or management.
- **4.3** Cultural and natural heritage actors (curators, developers, researchers, archaeologists, etc.) and tourism-industry actors (guides, tour operators, architects, hotels, etc.) must be kept informed of the opportunities for, and dangers to, the heritage and local populations.

- **4.4** A share of the earnings generated by tourists visiting cultural and natural heritage sites must be reinvested for the protection and conservation of those sites. A suitable entrance fee needs to be determined.
- **4.5** Structures must be set in place or boosted for debating and coordinating cultural and tourism policies at local, regional and national level.

Principle 5:

Respect the customs of local residents and the tourism sites of Saharan countries

- 5.1 Tourism can foster closer ties between peoples and provide insight into other cultures. Some locals living in or around the sites visited by tourists may be shocked at the sight of clothing that is too casual or scanty. Tourists must respect local traditions and, for example, seek permission from anyone they wish to photograph or film.
- **5.2** Tourists must show respect for the religious sites or sanctuaries that they visit. Silence is mandatory, and they must ensure that they are suitably dressed.
- **5.3** A community's historic and cultural heritage theoretically belongs to all humankind. However, tourists must respect the wishes of local populations if the latter attempt to limit or deny access to places where visits are deemed out of keeping with the sacred character of such places.
- 5.4 Tourism-industry actors (emitting-country tour operators, host-country travel agencies, guides and local representatives) must inform tourists of the traditions of the countries visited, and make them aware of the need to respect the environment, tourism-site cleanliness (refraining from leaving any non-biodegradable waste such as plastic bags, batteries, etc.) and the cultural and natural heritage of the Saharan sites visited.

Strategy for sustainable tourism development in the Sahara

Conclusion

Sustainability has become a sine qua non for all tourism projects as a whole. Granted, tourism can be a marvellous way to bring different peoples closer together. But it also serves as a civilizing and development tool that can be used to preserve nature and the environment for future generations.

The development of sustainable tourism in the Sahara nonetheless calls for the mobilization of civil society and tourism-industry actors, along with a determined political will at local, national and international level. Saharan tourism can help to combat desertification by creating activities capable of replacing existing ones and, hence, of reducing the pressures that human actions exert on the environment. It can also lead to the stock-taking and safeguarding of a cultural and natural heritage that is all too often little known and endangered, while at the same time creating the right conditions for local populations to flourish culturally, socially and economically.

From that point of view, this project is fully in keeping with the programmes of the agencies of the United Nations system in general, and UNESCO in particular.