

CONVENTION ON WETLANDS (Ramsar, Iran, 1971)

Information paper on cultural aspects of wetlands (draft)^[1]

Section I

General context and rationale on the cultural aspects of wetlands

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Wetlands, water, life and culture

1. Wetlands have provided valuable resources and refuge for human populations and many other life forms since the very beginning of human life on Earth. Major civilizations have been established on their shores and have depended upon their resources, and especially upon water. Settlements, including major cities such as Amsterdam, Bangkok, Tunis and Venice, have been built in wetlands or in their immediate vicinity^[2].

Box 1: The Nile in Ancient Egypt

Nowhere is the intricate relation between water, wetlands and human survival better illustrated than in the case of the Nile River and ancient Egypt. The cyclical ebb and flow of the river waters determined the fortunes and fate of the powerful civilization that grew in the area and left its weighty marks.

During *Akhet*, the season of inundation, the Nile flooded *kmt*, “the black land”, which included most of the flat plains along its banks. This allowed planting of wheat and barley in September, during the season of *Peret*, which were harvested in March or April. *Shemu*, the summer season of drought followed, and the life-sustaining cycle was repeated. During the Old Kingdom, in the 3rd millennium B.C., it was the kings who were supposed to maintain *Ma'at*, the cosmic order, and guarantee the continuity of the Nile cycle.

Climatic oscillations, however, led to the dramatic decrease of the Nile flow at certain periods [Fagan 1999]. As a result, only a small part of cultivated lands was flooded and the impact was dramatic, with large scale famine unavoidable. This eroded the power of the kings and led to massive political unrest. Thus the Old Kingdom collapsed after 2160 B.C. in a background of extended hunger and political turmoil in Southern Egypt. This phenomenon has been often been repeated in Egyptian history in more recent times.

2. Malaria in many parts of the world became a negative factor and drove populations away from wetlands. It also created one of the main reasons for the drainage of wetlands, until the discovery of quinine provided an effective remedy to the on-slaught of *Anopheles anopheles*. Thus the conquest of plains and their use for agriculture entailed a heavy health cost for the populations that initiated them^[3].
3. Human activities of some sort and intensity have existed in almost all wetlands. The abandonment of traditional activities of the primary sector during the 20th century decreased the importance of some wetlands as a direct resource base for human survival. Still many of their other values to people have begun to be understood and appreciated. These include a regulatory role in the water cycle, flood abatement,

aquifer recharge, retention of nutrients and pollutants, shore protection, educational and recreational opportunities.

Box 2 : Tonle Sap Lake in Cambodia

During the rainy season, Tonle Sap, or Great Lake, fed by the overflowing waters of the Mekong River, grows to six times its normal size, to more than 16,000 square kilometres, thus absorbing floods and releasing the water gradually. One of the largest freshwater bodies in Southeast Asia, Tonle Sap has been the home of a fisher population living in traditional wooden houses on stilts (as in the village of Chhnok Trou), with extensive use of reeds and very characteristic fishing and transport boats and artefacts.

Lately, however, the situation is changing rapidly and radically. Internal migration and explosive population growth have increased the pressures on the lake, and have almost completely destroyed local architecture. The lake pollution is rising, both from domestic sources and from cultivation; forest logging is increasing the inflow of silt, while shallow areas, necessary for fish spawning, are being drained. In addition, dam construction has decreased freshwater flow into the lake. Overfishing and illegal practices are quite common. The result is a dramatic reduction in fish catches, which used to supply more than 60% of the protein consumption in Cambodia. In parallel, the rich local culture of the fisher communities is being bastardised and rapidly eroding.

The Cambodian government has started a new initiative to face effectively the problems at Tonle Sap, but strong and sustained efforts will be necessary to reverse the current negative trends.

4. From the very beginning, water – along with air and food – has been understood as an absolute necessity for survival. After the gradual shift from hunter / gatherer clans to agricultural societies, water became an essential prerequisite for food production. Its abundant availability created the basis for great civilizations, as in the case of the Nile for the Egyptians and the Euphrates and Tigris for the Mesopotamians. Its scarcity in periods of drought brought down the same powerful societies. It is only natural, therefore, that water was venerated in many religions and the 'blessing of the waters' has been a common ritual. Wetlands in turn, as a major source of water, were equally respected. Thus their values, and especially their cultural values, have been inextricably linked. In a contemporary framework, water is often associated with flow, while wetlands with stagnant waters. However, this distinction is simplistic, as water in aquifers can remain static, while coastal lagoons can experience a very dynamic water regime during different times of the year. In any case, rivers may be classified as wetlands under the Ramsar definition, and their floodplains experience dynamic water movement in times of floods.
5. Wetlands are diverse ecosystems and range from great rivers and lakes to desert oases, from Alpine lakes to coastal lagoons, from underground karstic systems to shorelines with depth down to 6 meters. There are, however, certain similarities in their physical characteristics and functions, as well as in the rich variety of flora and fauna species they host. As to the cultural and other social values of wetlands, which have come into the limelight during recent years, a strong specificity (certainly regional and often local) characterises them and adds a new dimension to their diversity.
6. Yet, and in spite of all conservation and wise use efforts, wetland destruction has continued in many parts of the world, in developed and developing countries alike. In others, the appreciation of wetland values has led to significant projects for the restoration of lost or heavily degraded wetlands, at great cost. These have shown conclusively how very difficult it is to restore to some degree the values and eco-

logical functions of destroyed or degraded wetlands. They have also demonstrated that it is practically impossible to restore, once lost, their cultural and historical values. These values are often associated with inanimate objects, such as buildings and other structures. However, a large part of them are borne by local societies, woven in their social fabric, and are lost in a few generations after wetlands are destroyed. It should be stressed here that the loss of wetlands does not only remove important resources, but also causes profound social damage to local populations.

Box 3: The case of Lake Carla

In the centre of Greece, the fertile region of Thessaly depended for water until the beginning of the 20th century on seven lakes. None exist today. Lake Carla, the last and largest, a major Mediterranean wetland known for its fisheries and the large populations of migratory birds it hosted, was drained in the early '60s to provide agricultural land. As a result, the local society that depended on lake fisheries was destroyed, taking with it the traditions associated with this important activity. Many inhabitants moved to the cities, while some attempted to cultivate the land drained.

The results soon proved disastrous. For irrigation, the water of the lake was replaced by intense pumping. This caused a dramatic drop in the level of aquifers (today down to 300 meters in certain places) and the beginning of intrusion of salt water, although the sea was a few kilometres away. The fields soon became salinated and as a result cultivation became more and more difficult and less productive, while large parts of the lake bottom were abandoned. Pollution from agricultural and industrial run-off, initially filtered by the wetland, was led untreated into the Pagasitikos Bay, causing severe algae blooms and other eutrophication problems.

At present, a large government project has started with funding from the European Commission to restore a considerable part of the lake. It is hoped that, if successful, it will re-establish some of its functions and values. The rich cultural heritage of the Carla fisheries, however, cannot be recreated, but perhaps some of its remnants (boats and tools) will be preserved in a local museum to be established.

Rationale of concern for cultural aspects

7. The concern for the cultural values associated with wetlands and water is recent and has been limited to certain specialised circles of scientists, such as archaeologists and anthropologists. Lately, however, those responsible for wetland conservation and management have begun to pay attention to this question, within the broader context of the socio-economic approach. As a result, cultural values have become an issue of concern for the Convention on Wetlands. In April 2000, the Mediterranean Wetlands Committee, meeting in Djerba, Tunisia, devoted its technical session to this theme and developed guiding principles for the inclusion of cultural values in wetland sustainable use in the Mediterranean region. A year later, the Committee, meeting in Sesimbra, Portugal, debated the theme "Mediterranean Salinas: Cultural heritage and sustainability". World Wetlands Day 2002 was focused on cultural values and a set of fact sheets and poster were produced and widely disseminated. Ramsar's COP8 general theme is "Wetlands – water, life and culture" and its agenda includes Technical Session 5 on the theme "Cultural aspects of wetlands as a tool for their conservation and sustainable use". In addition, the Ramsar Bureau has been developing links with the European Archaeological Council and other groups of social scientists concerning the key importance of wetlands for archaeological and cultural landscape heritage conservation. The reasons of this growing interest are many and the major ones are mentioned below.

Box 4 : A positive concern for the cultural values of wetlands

The Ramsar Contracting Parties from Central and Western Asia, gathered at a regional meeting hosted in Tehran by the Islamic Republic of Iran on 3-5 February 2002, issued the ***Tehran Communiqué***, which includes the following statement:

“Recognizing the vital role of wetland ecosystems for biodiversity conservation and for the well-being of human communities; and welcoming the theme for World Wetlands Day 2002 and the 8th meeting of the Conference of the Parties (COP8), on “Wetlands: Water, Life, and Culture” which explores the cultural values of wetlands as a tool for their conservation, and emphasises the importance of people’s engagement in conservation efforts, we undertake to explore cultural issues in our national and local contexts and seek to make our public more aware of the cultural, as well as the natural, values of wetlands.”

8. As through the ages many human settlements have been located close to wetlands, significant archaeological remnants are found today within them or in their vicinity. Beyond isolated structures, these may include entire ancient cities, such as Nicopolis, in the Amvrakikos Gulf of Western Greece, some of them inhabited even today, as in the case of Empúrias, in Catalonia, Spain.
9. However, the particular interest of wetlands from the archaeological point of view is that they carry and preserve records of human activities through the ages, which cannot be found in other environments. Especially peatlands, due to their anoxic and waterlogged conditions, preserve well organic matter, such as wood, leather and textiles, as well as pollen, insects, plants and bodies, materials that in drier conditions degrade rapidly. Recent archaeological excavations in wetlands, carried out mainly in the United Kingdom, have unearthed a treasure of objects which permit a much better understanding of their period.
10. Wooden elements from prehistoric settlements have been found preserved in the muddy bottom of the Black Sea, informing us of their structure. Well-maintained ships have been discovered in Venice and Marseille. Thus wetlands, even if degraded or destroyed, retain a high degree of archaeological importance.

Box 5 : Sunken ships in the Venice Lagoon

In the autumn of 2001, a 1-hectare area of the Venice lagoon was temporarily drained at the site of a lost island, which included the 11th century Augustinian monastery of San Marco in Boccalama. The monastery was abandoned in 1347, the island was turned into a cemetery for plague victims, and it disappeared into the water in the 16th century, due to land subsidence.

The ensuing archaeological research not only found the traces of the monastery, but also discovered in good conditions two large ships, a galley (38 m. long by 5 m. wide) and a transport vessel (24 m. and 6 m.), which had been sunk to the bottom and covered with sand. Presumably they were on the verge of decommissioning and had been sent to act as barricades for the protection of the vulnerable island. Both were dated to the early years of the 14th century and their remains provided invaluable information on the construction of boats of that period.

Archaeological authorities have detailed information about 300 such cultural areas of interest in the bottom of the Venice Lagoon, whose locations are kept secret until excavation becomes feasible.

11. It should not be forgotten, however, that cultural values are not only associated with the past (either remote or recent), but also with the present, as culture evolves and is being created, in one form or another, on a continuous basis.
12. From a broader perspective, a large percentage of Ramsar sites have major cultural significance, as demonstrated by their corresponding Ramsar Information Sheets (RIS)^[4], as they include many of the elements that constitute cultural values.
13. Thus the importance of the cultural values of wetlands may broaden their appeal to significant sectors of society not initially concerned with nature conservation. These include not only specialists in the various forms of culture, from archaeology to music, but also the considerable segment of the wider public interested in culture. In this way, powerful alliances can be created, which would be of benefit to both sides.
14. As a result of the efforts to combine cultural values with the natural environment in wetlands, a single integrated interpretive tourism modality can be created, with strong attraction possibilities. The financial benefits and employment that could be generated through this will be a great asset for local communities, and will enhance their appreciation of wetlands as resources. These in turn will increase the economic valuation of wetlands and contribute to their conservation and wise use. Such an approach can be valid in many wetlands with significant cultural values, where visitors can be attracted to both their cultural and natural heritage. A particular case is the sites that have already a very strong visitor interest for their monuments, but little yet for their natural elements. In all cases, care must be taken that such activities do not exert undue pressures on wetlands.
15. It is not only financial considerations that concern local communities, and more particularly indigenous people. For them, culture is part of their tradition and social identity. Thus a fuller recognition of the significance, and sometimes the uniqueness, of the cultural values of wetlands should increase their self-esteem and their readiness to safeguard particular sites, and especially Ramsar sites. Experience throughout the world has shown that the conservation and wise use of wetlands depends to a considerable degree on the links of local populations to them. Enhancement of the cultural values, wherever they still exist, and efforts to preserve them where they are at risk of disappearing, can become a powerful tool in

strengthening the links of local populations to their wetlands, their 'sense of place', and thus involve them actively in their conservation.

Section II

Cultural values of wetlands

Inventory of cultural values

16. Without entering into the discussion of the exact definition of culture and the nature of cultural values, it seems evident that in the case of wetlands, these values emerge from a variety of elements, tangible or intangible, material or spiritual, ancient or contemporary. These can be identified, experienced and appreciated in many different ways, singly, combined or in an integrated manner. To view them separately is sometimes useful in analysing and describing them. However, they are all bound together by wetland space and are integral parts of it. In addition, many of them retain links to one another. Thus an inventory of the most significant cultural values of wetlands might include the ten categories listed below (which could be grouped in various other ways).

16.1 **Paleontological and archaeological records** in wetland water and sediments and especially peat. This category could be extended to include archaeological findings in the immediate vicinity of wetlands or in clear relation to them.

Box 6 : Research in French rivers and lakes

With the encouragement of the General Direction of Cultural Affairs, Ministry of Culture, through its Regional Services of Archaeology, and with the active participation of academic institutions, careful excavations and research have been carried out during the 1990s in the rivers and lakes of France and the neighbouring areas of Switzerland. The results have been registered in a wide variety of publications.

16.2. **Cultural landscapes and agro- and other production ecosystems**, as transformed by human action related to traditional primary production activities. This would include rice fields (flat or terraced), salinas, lagoons or estuaries exploited for fisheries, and other similar areas.

Box 7: Landscape poetry: the rice fields in Nepal and other Asian countries

Since the birth of agriculture, human primary sector activities have modelled the land on the basis of production needs and at the expense of immense labour. In traditional societies, the results were often landscapes of great beauty, in complete harmony with nature.

A case of exceptional beauty is the rice fields in Nepal. Formed through centuries of human toil in a steeply sloping land, the paddies follow the contours and trace their sinuous lines along hills and valleys. When flooded with water, their silvery surface produces miracles of reflection on the land, as one travels on the narrow and winding road from Kathmandu to Butwal. In parallel, and besides the production of rice, the ricefields provide important services in managing water flow, minimising erosion, and contributing to biodiversity.

Similar landscapes are found in many other parts of Asia, such as in Binong on the island of Java and the Philippine Cordilleras.

- 16.3 **Historical structures** in or related to wetlands, including buildings and settlements, hydraulic works, water mills, transport systems (such as jetties, roads, and bridges).

Box 8: The water wheels of Hamah in Syria

To raise water from the lower part of the town of Hamah to its higher neighbourhoods, an ingenious system was devised many centuries ago. A number of immense water wheels have been constructed, with diameters approaching twenty metres. Placed on the river that crosses the town, they are turned by its flow, thus lifting the water to the higher level.

The wheels are made of large pieces of wood, cleverly connected to give them stability and strength. They do not have symmetrical and concentric spokes, but the cross pieces are placed off centre, thus relieving the axle from direct stresses. Their construction and maintenance is the task of specialised workmen that inherit the knowledge from generation to generation.

Besides their utilitarian purpose, the water wheels create an imposing landmark in the heart of the town and have become an important tourist attraction. Unfortunately, due to the drought of the last years, water flow in the river has dwindled, and now only one wheel is still in operation, just for the visitors. It is feared that, if the situation continues, the techniques and cultural values associated with them will be lost.

- 16.4 **Artefacts**, and in particular transport equipment (such as boats and carts) and tools used in traditional activities related to wetland resources.

Box 9 : Traditional wooden boats as cultural artefacts

Boats made out of wood are a common and distinctive feature of practically all wetlands. Used mainly for fishing and transportation, they have existed since Neolithic times. Although no systematic study has been done on them, there are certain general features that can be pointed out.

- Wetland boats and the methods of their construction have changed very little during the past three millennia. As a result, their characteristic forms have remained practically unchanged, and have evolved slowly and slightly.
- Wood has been the most commonly used material, although there have been cases of reed and papyrus use (such as in India, Mesopotamia, and the Andean lakes). Contemporary materials, and especially reinforced artificial resins, have been introduced, but have been in use mainly in the developed world, due to their high cost.
- Invariably, they are flat-bottomed and keel-less so that they can go into very shallow waters. Their sides are often elevated for functional reasons, in particular to increase their carrying capacity.
- Oars or poles have been the main method of locomotion, which is slow, but silent and inexpensive. The introduction of internal combustion engines changed considerably the conditions of exploitation of wetlands, although their initial and operational costs are high.
- On the aesthetic side, traditional wetland boats are often of great beauty, as they combine austere functionality with a sleek elegance.

- 16.5 Past and present **collective water and land use management systems** (such as irrigation, water distribution and drainage associations, and traditional dispute settlement practices).

Box 10: Sustainable water management in India^[5]

In most parts of India, the perennial water cycle of drought and floods determines the life of inhabitants. Through the years, very sophisticated methods for using water effectively and economically have been developed and applied by local societies, in a decentralised manner, helping to create stable local governance institutions.

Tank irrigation systems are one of these methods. In the State of Tamil Nadu, there are today 39,202 tanks, some of them very ancient, which account for 22.9% of consumption. However, this share is decreasing, due to encroachment, urbanization, siltation and neglect. Efforts are being made to improve their rehabilitation, maintenance and use. Water harvesting is also a traditional approach in a climate of social solidarity. To promote it, water pilgrimages (*paani yatras*) are being organized this year in Chennai and Pondicherry. Their aim is to highlight participatory, efficient, sustainable and low-cost water management methods, interacting with the responsible organizations and communities.

Box 11: Traditional and modern water management in Ecuador^[6]

In the Ecuadorian part of the Andes, a large percentage of the irrigated land (320,000 of 400,000 hectares) has been managed traditionally through ancient community-based systems. In the '70s and '80s, however, the State intervened and started imposing a centralised management of water resources, through the *Instituto ecuatoriano de recursos hidráulicos*, which attempted to modernise the traditional water rights system. After 30 years of 'hydrological bureaucracy', the results were inter-community conflicts, split concessions, and ineffective operation.

To correct the situation, recent governments have attempted to apply a new, liberal approach, through a water privatization scheme (proposed by the World Bank and first applied in Chile). The political and economic crisis in Ecuador during the 1990s has not facilitated the implementation of the new system, which has been vigorously contested from many sides. At present, local communities are facing the problems of fragmented and inefficient water management and an endless series of conflicts over water rights, having lost their traditional wisdom, cohesion and mechanisms, without interest and investments from the markets and with minimal state advice and support. Yet all three sides must cooperate to find a common, satisfactory *modus operandi*.

Box 12 : Water management in the Arab world

Following faithfully the teaching of the Qur'an, and inhabiting essentially arid regions, the Arab people devised a comprehensive and wise approach to water management which had profound impacts in many parts of the world as the Islamic religion spread. Some of the main ones are the following:

The concept of *al-hima* is an obligation to establish reserve areas for the public good, which would be required for the conservation and wise management of rangelands and pastures, forest and woodlands, watershed and wildlife. The importance of these reserves for the conservation of wetlands and water resources cannot be underestimated.

The equitable management, however, of water resources made necessary the existence of social mechanisms for resolving disputes. Thus water tribunals were established, which met in public and heard complaints, before passing judgment. This efficient system was transmitted from the Moors to the Spaniards and are still in existence, for example in the city of Valencia, Spain .

On the technical level, many Arab cities (such as Fez and Marrakech in Morocco) had very complex networks for water distribution. These necessitated specialised expertise in construction and maintenance, which was provided by skilled workmen organized in guilds, with their own traditions and culture. Recently, efforts are being made to re-establish both the skills lost and the corresponding forms of social organization.

- 16.6 **Traditional techniques for exploiting wetland resources** (salt, rice, fish, reeds etc.) and their associated products and structures. Some of them may be still in practice, while others already abandoned.
- 16.7 **Languages, customary law systems, political structures, roles and customs**, including oral traditions, as they exist in the memories of local inhabitants or have perhaps been recorded in the past and can be found in appropriate bibliographic sources.
- 16.8 **Traditional knowledge**, including traditional medicine and ethnobotany. Such knowledge is practiced today in many places. In others it is at risk or has already been lost, due to many factors.
- 16.9 **Mythology, beliefs and religious aspects, including sacred sites and ritual ceremonies**. As water is one of the critical elements for sustaining life, it is natural that it has given rise to a multitude of beliefs. Thus, from mythology and the religious beliefs of indigenous societies to the contemporary teachings of the major churches, one common thread is reverence for water. On a broader level, many of the churches have become sensitive in recent years to nature conservation and the sustainable use of its resources, as stewardship of the Creation and veneration of the Creator, and have restudied their traditional texts from this perspective.

Box 13 : The sacred nature of water

In most religions, water is considered a sacred element of great importance. As the Qur'an states: "We made from water every living thing"^[7]. Some other examples of the religious use of water:

- The sacred bathing in the Ganges.
- The sacrament of baptism in Christianity.
- Ablutions before prayer in Islam.
- The blessing of the waters in many religions.

16.10 **The arts** that have drawn inspiration from wetlands and water include mainly:

- a) many expressions of popular art, such as "naïve" and other forms of painting, including engravings on rocks, sculptures, carvings and hand-crafts in general, as well as music, dance, poetry, etc., and including traditional festivals in many parts of the world;
- b) literature, such as Swift G. (1983), *Waterland*, William Heinemann Ltd, London, UK, pp. 310.;
- c) painting and sculpture, such as the landscapes of Joseph Mallord William Turner (1775-1851) and John Constable (1776-1837) and the work of Chinese and Japanese artists for many centuries;
- d) music and dance (see table below); and
- e) cinema and theatre, such as "Rizzo amaro" (Italy) and the "African Queen" (Lake Victoria).

Naturally, there are great differences from society to society, but generally water and wetlands have provided inspiration for many of the art forms.

Table 1: Characteristic classical music works related to wetlands and/or water

<i>Composer</i>	<i>Period</i>	<i>Title</i>
Handel, Georg Friedrich	1685-1759	Water Music Suite
Respighi, Ottorino	1879-1936	Fontane di Roma (Fountains of Rome)
		Gli Ucelli (The Birds)
Schubert, Franz Peter	1797-1828	Trout Quintet
Smetana, Bedrich	1824-1884	Vlatava
Tchaikovski, Peter Ilyich	1840-1893	Swan Lake
Telemann, Georg Philipp	1681-1767	Hamburg Ebb and Flood

Box 15 : Japanese water music^[8]

“On September 4 (2001), we organized ‘The Japan Water Sound Night’ at the site of the opening ceremony. The event attracted a capacity audience. The performance of melodies on a water theme, played by *shakuhachi* (bamboo flute), *koto* (Japanese harp) and *kozutsumi* (Japanese hand drum), received a standing ovation at the end. Through this concert, I recognized the characteristics of both the universal as well as the local features in common of ‘water and music’.” Hideacu Toda

Current situation and trends

17. The current situation concerning wetlands and their cultural values is far from satisfactory. Obviously, substantial wetland loss (well documented in all regions) also destroys the cultural values associated with them. The plight of indigenous people, natural guardians of wetland values, has resulted in the gradual or rapid erosion of those values. In addition, globalization has an impact on traditional cultures and has caused widespread homogenization, reinforced by industrial development, urbanization, intensive agriculture, and mass tourism pressures. Thus the technical and social framework for preserving wetland values is not propitious and the current trends, unless reversed, are far from positive.
18. Substantial archaeological knowledge related to wetlands has been gathered during the recent past, although not in every part of the globe, but there has been little effort to manage and conserve this invaluable heritage. The European Archaeological Council estimates that in England 90% of blanket bogs and 94% of raised bogs, both depositories of archaeological treasures, have been destroyed during the past century by agriculture, forestry, landfill, and peat extraction. The situation is similar in other parts of the world. Often such destruction occurs before archaeological research is carried out and, through it, knowledge is acquired and preserved.
19. Other forms of cultural expression related to wetlands have been neglected because of lack of understanding and appreciation. Perhaps an exception is traditional salt extraction and salinas, where considerable work has been carried out in recent years, especially in the Mediterranean [Petanidou 1997]. However, a growing interest in traditional civilizations is growing, perhaps as a natural response to globalization, and this might assist in the rediscovery of wetland cultural values.

Box 16 : Maintaining the cultural values of salinas [MedWet 2001]

Salinas (salines, salt-pans) are shallow, usually coastal, lagoons in which saline water is allowed to evaporate under the heat of the sun and the resulting salt crystals are gathered for domestic and industrial use. They provide habitats for many species and maintain high cultural values, in buildings, artefacts, exploitation methods, landscapes, and life styles. In many parts of the world, however, salinas are today facing intense pressures in the face of changing social values and economic stresses, notably their conversion from low intensity to mechanised production, or their abandonment or conversion to other uses such as urbanization, rice production, or aquaculture. All of these affect their role as a cultural landscape and the co-existence of sustainable salt production and natural biodiversity.

On the other hand, networks to promote such solutions have been established. For traditionally managed salinas there exist opportunities to maintain such management, working with salters and local communities, in recognition that it maintains both their cultural and historic values and landscapes and their wetlands and biodiversity importance. As this may not be economically feasible on a large scale, traditional management should be applied in at least part of each salina. For the rest, management regimes can be developed that maximise the maintenance of biodiversity without jeopardising salt production capacity, and that capitalise on the tourism potential of such systems, through appropriate infrastructure (salt museums, ecotourism facilities, guided visits, etc.).

In addition, abandoned salina sites can be returned to a natural state as saltmarshes, including the maintenance of their hydrology, as long as property rights are respected and economic considerations taken into account.

Cultural aspects and the Convention on Biological Diversity (CBD)

20. CBD established an Ad hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity. Article 8(j) deals with the maintenance of knowledge, innovations and practices of indigenous and local communities.
21. On the recommendation of the Ad Hoc Working Group, CBD COP6 [adopted Decision VI/xx with recommendations for the conduct of cultural, environmental and social impact assessment regarding developments proposed to take place on, or which are likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities.
22. [The Decision requests the Ad Hoc Working Group to carry out further work on guidelines for the conduct of cultural, environmental and social impact assessments, with the aim of strengthening the social and cultural aspects, to complement, and in conjunction with guidelines for incorporating biodiversity-related issues into environmental assessment legislation and/or processes and in strategic environmental assessment. The Decision addresses those secretariats of intergovernmental agreements, agencies, organizations and processes whose mandate and activities involve potential significant impacts.
23. [The CBD recommendations state that through the cultural impact assessment process, issues that are of particular cultural concern should be identified, such as beliefs and religions, customary practices, forms of social organization, systems of natural resources use, including patterns of land use, places of cultural signifi-

cance, sacred sites and ritual ceremonies, languages, customary law systems, political structures, roles and customs. The recommendations also state that there is a need to respect both the custodians and holders of traditional knowledge and the knowledge itself, and that the possible impacts on all aspects of cultural, including sacred, sites should therefore be taken into consideration while developing cultural impact assessments.]

24. [CBD COP6 also adopted Decision VI/xx on the Outline of the Composite report on the status and trends regarding knowledge, innovations and practices of indigenous and local communities relevant to the conservation and sustainable use of biodiversity, and the plan and timetable for its preparation. Phase 1 of the preparation of the Report will include issues related to the state of the retention of traditional biodiversity-related knowledge, and the identification and assessment of measures and initiatives to protect, promote and facilitate the use of traditional knowledge. Subsequent phases of the preparation of the Report will include issues related to the relationship between biological, cultural and linguistic diversity, identification of national and community level processes that may threaten the maintenance, preservation and application of traditional knowledge, and lessons learned and identification of best practices for the maintenance, preservation and application of traditional knowledge.]

Conclusions: a major role for Ramsar

25. The Convention on Wetlands, including the Contracting Parties, the Ramsar Bureau and its regional activities (such as the Mediterranean Wetlands Initiative, MedWet), as well as its International Organization Partners, should play a key role in the implementation of the Guiding principles that follow and in catalysing the launching of the proposed actions. In this process, the Convention on Wetlands should actively seek partners from the cultural sector and decentralise as much as possible the necessary activities, retaining only a general coordination role. In a first phase, these efforts could perhaps be incorporated in the work plan of the Ramsar Bureau. In the medium term, however, once the programme starts expanding, it will require more substantial human (and, therefore, financial) inputs to carry out the tasks agreed, which must be secured through appropriate fundraising.
26. In addition, the debate concerning the use of cultural values as one of the criteria for the listing of Ramsar sites should continue. In this context, it should be noted that the 26th meeting of the Standing Committee discussed a range of issues concerning the role of cultural and socio-economic issues in the Convention, including the question of a new criterion, and how to enhance that role, and requested the preparation of a discussion document to facilitate debate on this matter at COP8 in Technical Session 5.

“Decision SC26-14: The Standing Committee determined to have a broad-ranging discussion on the role of cultural and socio-economic issues in the Convention, and on how to enhance that role, and requested the preparation of a discussion document to facilitate talks at COP8. Uganda was invited to work with the Bureau, the Chair of STRP and any other Party and IOP interested to contribute, in the preparation of the discussion paper.”

27. It should also be noted that a paper prepared by the CBD Secretariat and Ramsar Bureau concerning the CBD and Ramsar approaches to criteria and classification of inland water ecosystems will be considered by CBD COP6 (April 2002). This paper notes that the CBD includes some criteria (notably concerning wild relatives of domesticated species; species, communities, or genes of social, scientific, or cultural importance; and importance for research) that Ramsar does not. The COP8 discussion paper should also examine the CBD's suggestions and the extent to which they might make expansion of the Ramsar Criteria desirable.

28. Thus the approval by Ramsar COP8 of a Resolution on the cultural values of wetlands should constitute the launching platform for the sustained efforts of the Convention in this field, which must have both a medium-term (5 years) and a long-term (20 years) horizon.

Box 18 : Cultural values and societies: a plea from Wetlands International

“In many cases, not just some cultural values, but entire societies with all their social and cultural values depend fully on well-functioning wetlands or specific wetland habitats. (Significant) ecological change can thus destroy not just some cultural values, but the foundation of culture: the human societies including their cultural heritage that have formed over thousands or years in these particular habitats or in relation to (some of) their functions. Almost any indigenous society that relies on wetlands or wetland productivity for its basic livelihood falls under this. All of these have their own, often unique cultural and social features. It will be easy to make a very long list of such societies and the wetlands on which they depend. In some regions or even countries over half the population may fall in this category.

Destruction of the wetlands or wetland functions on which these societies depend can be regarded as an infringement on the human rights of these societies/cultures and could amount to “cultural genocide”.

Cultures and their environment do change and evolve of course, and they cannot be “preserved” as museum pieces. However, there is a major difference between, on the one hand, a culture adapting from within to gradually changing environmental, social and economic conditions (which generally allows building on and enriching the cultural heritage), and on the other hand, a culture being confronted with an “overnight” annihilation of its (wetland) resource base (for instance as a result of a dam, deforestation, pollution, drainage, etc), which may lead to a complete disintegration of the society and its cultural heritage.

I, therefore, would like to plead for a ninth criterion for Ramsar site designation.”

Marcel Silvius, Wetlands International

29. All of this work on cultural values of the Convention on Wetlands must be based on a sound scientific basis. It is proposed, therefore, that a special working group for that purpose be established in the framework of STRP, which should include experts on cultural heritage management.

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Annex

Draft Guiding principles for identifying the cultural aspects of wetlands and incorporating them into the effective management of sites

General principles

1. This document proposes a number of general principles for identifying, preserving and reinforcing the cultural values of wetlands, which could be supplemented with additional ones at future meetings of the Conference of the Parties, as more knowledge and experience are obtained. Some of them may overlap, but this is only natural as cultural values are often related and require an integrative approach.
2. There is a strong link between **wetland conservation and benefits to people**. In addition, a positive correlation between conservation and the sustainable use of wetlands has been repeatedly demonstrated. Therefore, conservation requires the involvement of indigenous and local communities and cultural values offer excellent opportunities for this.

Guiding principle 1 – Identifying cultural aspects and collaborators

To make the best possible use of the opportunities offer by cultural aspects for involving indigenous and local communities in wetland conservation, a systematic effort is necessary when undertaking wetland management planning to:

- a) identify the governmental and non-governmental organizations and/or individuals within the communities and in the wider vicinity of the wetland site concerned with cultural issues;
- b) contact these organizations and/or individuals to explain the links between cultural values and wetland conservation, in order to enlist their active support;
- c) work closely with them to prepare a first inventory of all cultural aspects listed below in the section on Specific guidance, both existing cultural aspects and those that may have disappeared;
- d) identify the cultural aspects that may have the best potential to contribute to effective management of the site; and
- e) for cultural aspects that may have disappeared, filter those strongly related to wetlands and water and assess the possibility to re-establish them, with the view to undertake trial efforts in this direction.

3. On the cultural level, **wetlands and water** should be treated in an integrated manner, as their inextricable links have existed since early civilizations and are still pertinent today. It is reasonable, therefore, to consider wetlands and water as one entity when assessing or promoting the cultural aspects related to them.

Guiding principle 2 - Linking the cultural aspects of wetlands and water

In order to make a close link between the cultural aspects of wetlands and water in general:

- a) promote the understanding by decision-makers and the public of the role of wetlands in the water cycle;
- b) identify such linkages in oral traditions, religion and mythology and the arts and make them widely known;
- c) place particular emphasis on traditional methods of water management related to wetlands, and draw from them useful lessons and public awareness material;
- d) identify opportunities provided by religious/cultural events and festivals focusing on water to advance the notions of wetland conservation and wise use; and
- e) continue to present water as a key issue in wetland management and in the application of the Convention on Wetlands.

4. The protection of **cultural landscapes** which have resulted from traditional human activities should be an important component of policy and management objectives. Traditional activities often created landscapes compatible with the natural environment, of considerable biodiversity and of a unique beauty. Examples include the sculptural rice fields in many parts of Southeast Asia, the canals of the Neretva River in Croatia, and the land terracing in most Mediterranean islands. In numerous parts of the world, the traditional activities that have moulded the landscape for millennia are regressing or disappearing. As a result, the landscapes dependent from them are starting to erode and may also disappear with time, leading to the loss of their cultural values.

Guiding Principle 3 - Protecting the wetland-related cultural landscapes

In order to achieve the long term conservation of wetland-related cultural landscapes:

- a) proceed to identify and inventory them, including their conservation status and their prospects to be maintained in the long term;
- b) encourage official recognition at the national and international level of wetland-related cultural landscapes as part of the national and, where appropriate, international heritage, with a view to provide to them effective protection status;
- c) promote their protection in policies that concern them directly or may affect them indirectly;
- d) ensure that these landscapes are taken into account in territorial planning and in the determination and control of land and water uses;
- e) in the case of wetland-related cultural landscapes that still maintain some of the traditional activities that have formed them, as in the case of salinas, promote economic and regulatory measures for stimulating these activities and ensuring their sustainability. Wherever this proves impossible, search for other means to maintain the beauty and function of the cultural landscapes; and
- f) where advisable and useful, promote the inclusion of wetland-related cultural landscapes in tourism promotion activities.

5. Invaluable lessons can be learned from **traditional approaches to water and wetland resources management** (especially sustainable use, floods, recurrent drought and desalinization), which can be useful in developing contemporary approaches to the same issues. These approaches are still practiced with good results in many parts of the world, such as the Saharan oases, with highly effective and sustainable results.

Guiding principle 4 - Learning from traditional approaches

Before promoting and/trying to incorporate new water management technologies and approaches:

- a) make an inventory of the traditional approaches to water resources management, both those still in practice and, if possible, those that have been abandoned;
- b) undertake a careful analysis and assessment of their advantages and weaknesses;
- c) study the possibilities of improving these approaches through the careful use of cost-effective contemporary and innovative methods. The goal should be to meld the old with the new, not necessarily to replace the traditional practices;
- d) test the composite approaches in selected pilot cases; and
- e) make the lessons learnt widely known, in developing and developed countries and in countries with economies in transition.

6. Traditional **self-management practices** that have demonstrated their value over time should be strengthened, as they led to the empowerment of local societies, and constitute in themselves an invaluable part of the socio-cultural assets. That is why contemporary governance approaches should be introduced in a balanced and sensitive manner taking them into account. The role of 'elders' or socially recognized community leaders in allocating resources equitably, for example, which was widely respected in many countries, has had a stabilising influence which would be lost if they were replaced by government services or the private sector. Special care, therefore, should be taken when applying modern governance systems that traditional ones are not discarded, but are instead complemented and can benefit from contemporary technological and management developments.

Guiding principle 5 - Maintaining self-management practices

The steps outlined in Guiding Principle 4 are also applicable in this case. In addition:

- a) analyse the social characteristics of traditional self-management practices and extract lessons useful for the present and the future;
- b) in case of practices already abandoned, assess the reasons of their abandonment and determine whether they could be re-established, wholly or in part;
- c) for each new resource management proposal, evaluate the cultural and social impact that it might have (see Guiding principle 25 on cultural impact assessment below); and
- d) ensure the active participation in management of local societies and indigenous people, using the Ramsar guidelines contained in Ramsar Handbook 5.

7. The cultural aspects of wetlands have the potential to become a strong element of interest and attraction for a considerable percentage of visitors, bringing benefits to local populations and demonstrating the importance of wetlands; but this will not occur automatically. **Educational and interpretive activities** in wetlands (ecotourism and cultural routes, eco-museums, etc.) should be promoted in an organized and consistent manner, taking into account the carrying capacity of each site.

Guiding principle 6 – Incorporating cultural aspects in educational and interpretive activities in wetlands

In order to incorporate cultural aspects in educational and interpretive activities at wetland sites:

- a) take into account all appropriate cultural aspects in management planning, and treat them distinctly in all its phases, from preliminary inventories and analysis, to final proposals;
- c) make provisions to provide appropriate infrastructure, facilities and services for visitors, by including them in spatial planning of wetland sites and of their surrounding areas;
- d) institute visitor control and monitoring tools and mechanisms to minimise the damage that they may cause on fragile habitats and other sensitive elements of natural and cultural heritage. Special attention should be given to the control of mechanised traffic, which should be restricted to certain designated areas only, while alternate means of transport should be provided; and
- e) in addition, include sections on the cultural aspects of wetlands in eco-museums, visitors' centres and other similar facilities, and consider the production of pertinent publications about this matter.

8. **Gender, age and social role issues** should be explicitly taken into account to identify the roles played in relation to cultural aspects by women and men and by members of the group at different stages of their life cycles. In the case of women, in many cases, they are the custodians of traditional management practices and social habits (such as modes of preparing food), are in charge of natural resources use, in particular water, and are the ones who transmit the cultural values to the new generations. Men, in turn, may be the custodians and practitioners of particular cultural aspects, such as hunting, an activity with strong cultural components, both in traditional and modern societies. Members of the group may have particular roles according to their ages, for example as members of the group that have had their initiation into adulthood at the same time, youth groups (both of men and females), and the elders. In addition, there are social roles that have strong and significant cultural components, including those of the traditional or elected local authority, local land owners and business leaders, teachers, medical doctors, religious figures, artists, traditional healers, shamans, and fortune-tellers. Thus gender, age and social role issues should be taken into account in the entire process, starting from the planning and inventory phases.

Guiding principle 7 – Ensuring adequate treatment of gender, age and social role issues

In order to ensure an adequate and equitable treatment of gender, age and social role issues in relation to the cultural aspects of wetlands:

- a) invite representatives of local women and men groups, age groups and members of the community with recognized and valued social roles to participate in the initial inventory of cultural aspects and in the identification of their significance;
- b) evaluate ways and means to involve these groups and individuals in an appropriate manner in wetland management;
- c) ensure an active role of such groups and individuals in educational and public awareness campaigns directed at appreciating the cultural aspects of wetlands, as a tool to ensure their effective management; and
- d) promote the participation of community groups in the development of tourist and other income-earning activities related to cultural aspects, ensuring that there is no discrimination due to gender and/or age in the access to the benefits.

9. The **differences of approach** between culture specialists and wetland managers should be **bridged**, as they have interests which should not be in conflict. Up to now their concerns have seemed to be divergent. In recent times, however, culture specialists have started understanding the impact of environmental issues on the cultural heritage. From their side, wetland managers, normally trained in the natural sciences, have become increasingly sensitive to aesthetic considerations in planning visitors' facilities and exhibitions, to the importance of the remnants of older civilizations in or close to the sites under their responsibility, and to other cultural aspects. Thus a propitious climate has been developing, which should facilitate collaboration and eventually synergy between the concerns of these specialists.

Guiding principle 8 - Bridging the differences of approach

In order to bridge the different approaches that may exist between specialists coming from different backgrounds in the natural and social sciences:

- a) make efforts to find a common language between the two disciplines and define carefully some key concepts such as 'cultural values' and 'management of cultural values', and if necessary chose a more easily accepted concept such as "cultural aspects";
- b) promote the understanding of each others' objectives and attempt to agree upon certain common ones;
- c) include culture specialists in wetland management project teams, from the initial project development phases; and
- d) develop a joint methodology for managing cultural values in wetlands, benefiting from the scientific background and the experience of both sides. This can best be done through pilot cases, where collaboration can be nurtured in a controlled environment and the results evaluated and then exported for wider use (see specific examples in the next section)

10. **Collaboration with international organizations concerned with cultural issues and with the interface between culture and biodiversity and culture and development** should be established and strengthened, as appropriate. Such organizations may include:

- Convention on Biological Diversity;
- Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention), focusing on World Heritage Sites overlapping with Ramsar Sites (see also paragraph 42 below);
- International Committee on Archaeological Heritage Management (ICAHM);
- International Council of Museums (ICOM), with a focus on the appropriate methods of presenting cultural elements in wetland sites;
- International Council on Monuments and Sites (ICOMOS), mainly in developing guidelines for the protection of historic buildings and structures;
- UNESCO;
- WARP – the Wetlands Archaeological Research Project, a network with 300 members worldwide;
- World Bank, coordinating donor interest and support^[9];
- European Archaeological Council^[10].

Guiding principle 9 - Mobilising international cooperation in the area of culture issues related to wetlands

In order to reinforce the capacity of the Ramsar Administrative Authorities and wetland managers to incorporate fully the cultural aspects of wetlands into their management, identify the international and regional institutions that have an expertise on this matter or that may be interested in developing it, and enlist their support in international, regional, national and local activities aimed at incorporating or reinforcing the inclusion of cultural aspects in the management of wetlands.

Specific guidance

11. The above general Guiding principles can be further complemented by reference to some of the key cultural aspects of wetlands, taking into account regional, national and local specificities.
12. **Paleontological and archaeological records** in wetland water sediments and especially peat. In some cases, the first requirement on this matter could be the promotion of applied research. This is necessary because a large part of the cultural heritage of wetlands is still hidden and its discovery, conservation and enhancement present difficult scientific and practical problems. As funds for such research are often limited and the time necessary for it long, rapid survey methods may provide a cost- and time-effective approach. The results of such research could improve vastly the existing knowledge of wetland cultural heritage, and could also help in raising public awareness of the cultural richness existing in them, thus augmenting substantially their values and attraction to both local inhabitants and visitors. The second requirement is to encourage an interest in cultural values among specialised groups such as the International Peat Society, the International Mires Conservation Group, the Society of Wetland Scientists and others.

Guiding principle 10 - Encouraging applied research on paleontological and archaeological records in wetland water sediments and especially peat

The following actions may be required:

- a) to promote thematic applied research, as well as archaeological fieldwork on specific sites, through systematic programmes of survey and excavation, on issues that may include:
 - a.i) historic models of wetland exploitation, providing also useful lessons for future sustainable use;
 - a.ii) effects of re-wetting on organic archaeological and palaeo- environmental evidence, including issues of water quality;
 - a.iii) history of the hydrology of cultural heritage sites;
 - a.iv) development of new methods for rapid assessment of potential cultural content in cases of imminent threats;
 - a.v) preservation of archaeological remains *in situ*, to analyse the changing burial environment of wetland sites; and
 - a.vi) balancing educational and recreational access to wetlands with the need to protect their archaeological heritage.
- b) to develop rapid survey methods to assess wetland sites with high cultural potential to which efforts should be concentrated in a first phase;
- c) to use the results of such research for education and public awareness purposes, to enhance knowledge and appreciation of wetland values; and
- d) to encourage specialised wetland groups to include cultural values in their programmes.

13. **Wetland-related cultural landscapes and traditional production and agro-ecosystems (ricefields, salinas, exploited estuaries etc.).** In many cases cultural landscapes and traditional production systems are under threat due to technological innovations and changes in the socio-economic conditions. There is a need to take a proactive approach to their conservation and, when required, their revitalization.

Guiding principle 11 - Safeguarding wetland-related cultural landscapes and traditional production systems

The required actions may include:

- a) to proceed to a detailed inventory of the existing cultural landscapes in each country, including the identification of the traditional production activities that are at their origin, and recording their conservation status and the prospects for their long-term viability;
- b) to promote in-depth feasibility studies for the sustainability of the activities that originated the cultural landscapes and/or those that are being practiced on them;
- c) to identify complementary activities that can reinforce the economic feasibility of such activities (such as education, ecotourism and sports); and
- d) to work with governments and, where appropriate, aid agencies and international donors, to develop programmes aimed at the long-term conservation of wetland-related cultural landscapes.

14. **Historical structures** (buildings and settlements, hydraulic works, transport systems, etc) in wetlands or closely related to them. Sufficient knowledge already exists on the conservation and restoration of such structures. Yet they are very numerous and in danger of disappearance in many places.

Guiding principle 12 - Protecting historical structures in wetlands or closely related to them

The following actions may be required:

- a) to identify historical structures such buildings and settlements, hydraulic works, transport systems, etc., located in wetlands or closely related to them, and to inventory them through description and photographic and drafting means, registering their conservation status;
- b) to study their historical, architectural and technical characteristics, encouraging, where appropriate, schools of architecture to include such work in their programmes;
- c) to consider assigning to these structures an appropriate protection status (such as 'listing'), and thus preserving them from eventual demolition;
- d) to develop projects and/or programmes for their long-term conservation, including their purchase if necessary, restoration, and maintenance; and
- e) to consider converting these structures, where appropriate, into visitor centres, eco-museums, conference centres and/or hotels, with the aim to ensure their maintenance, taking into account the sharing of benefits with the local communities and other stakeholders.

15. **Wetland-related artefacts** (transport equipment and tools). In wetland fisheries, for example, only traditional wooden boats could be allowed, thus encouraging their construction and use.

Guiding principle 13 - Preserving wetland-related artefacts

The following actions may be required:

- a) to identify and inventory all wetland-related artefacts and tools used in each site;
- b) to consider ways and means to maintain them in use, if at all feasible, especially in the case of traditional boats;
- c) to develop projects to ensure that the know-how to produce them is not lost;
- d) to identify and apply appropriate incentives for their maintenance, use and production;
- e) to collect ancient artefacts, to restore and conserve them, and to mount exhibitions in local museums or in visitor centres; and
- f) to organize thematic museums, preferably close to wetland sites, if rich material is available.

16. Past and present **collective water and land use management systems** (such as irrigation, water distribution and drainage associations, and traditional dispute settlement practices). Insufficient attention has been given to such social organization structures, which, for a given period of time, have been a sophisticated and effective response to specific problems, most of them focusing on the critical resource of water and on its equitable allocation; and yet they have been integral parts of the traditional culture and may contain invaluable lessons for the present and the future. In addition, some locations and structures associated with them merit preservation.

Guiding principle 14 - Preserving collective water and land use management systems

The actions required may include:

- a) to identify, analyse and record the existence of collective water and land use management systems;
- b) to assess the possibility of their maintenance or, if this is not possible, their partial integration in contemporary management systems;
- c) to preserve and enhance the tangible elements associated with them;
- d) to incorporate the results in educational and public information activities; and
- e) to work with local government structures and civic societies to enlist their participation in the maintenance of these systems.

17. **Traditional techniques for exploiting wetland resources** (salt, rice, fish, reeds, etc.) and their associated products and structures. In a rapidly changing world, it is not possible to maintain artificially traditional production methods and products, but given their social and cultural significance and the growing interest in at least some countries in naturally-produced food, efforts should be made to maintain traditional techniques

Guiding principle 15 - Maintaining traditional techniques used in wetlands and/or around them, and the resulting products

The following actions may be required:

- a) to encourage the careful and sensitive study of the economic aspects of traditional production systems in wetlands and/or around them, and of the resulting products;
- b) to devise imaginative methods for promoting and marketing traditional products, including extensive use of the Internet; and
- c) to associate local techniques and products with education and sensitization campaigns on the cultural aspects of wetlands.

18. **Wetland-related oral traditions.** Such traditions are still maintained and transmitted by word of mouth from generation to generation in many societies, and in particular among indigenous people, as a means of transmitting knowledge and social values. In many societies, though, as the means of communication and of information storing and dissemination became more sophisticated, starting with printing and expanding with electronic and digital means, some of these traditions were not considered important enough to be recorded. So they are in great danger of being forgotten and lost.

Guiding principle 16 - Safeguarding wetland-related oral traditions

The following actions may be required:

- a) to record in a systematic manner wetland-related oral traditions;
- b) to promote the appreciation of the value of these traditions as part of the cultural heritage and to encourage local groups to maintain them;
- c) to consider establishing an archive of oral traditions in digital form; and
- d) to disseminate by all appropriate means the information collected.

19. **Wetland-related traditional knowledge.** The Convention on Biological Diversity is considering this issue through the Ad-Hoc Open-ended Inter Sessional Working Group on Article 8(j) and Related Provisions¹¹¹. The Ad-Hoc Group defines traditional knowledge as “the knowledge, innovations and practices of indigenous and local communities around the world. Developed from experience gained over the centuries and adapted to the local culture and environment, traditional knowledge is transmitted orally from generation to generation. It tends to be collectively owned and takes the form of stories, songs, folklore, prov-

erbs, cultural values, beliefs, rituals, community laws, local language, and agricultural practices, including the development of plant species and animal breeds. Traditional knowledge is mainly of a practical nature, particularly in such fields as agriculture, fisheries, health, horticulture, and forestry.” In addition, especially in medicine, there is a resurgence of the systematic practice of traditional methods, including the use of medicinal plants, hot springs, mud baths, etc.

Guiding principle 17 - Keeping traditional knowledge alive

The actions required may include:

- a) to search for linkages between such traditional knowledge and wetlands, and in particular with wetland flora;
- b) to establish systematic cooperation with the organizations interested in this matter, such as the Society for Economic Botany, the International Society for Ethnobiology, the Center for International Ethnomedicinal Education and Research, the Society for Medical Anthropology, and others;
- c) to urge that the Ad-Hoc Open-ended Inter Sessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity incorporates fully all wetland-related issues in its work and that the Ramsar Administrative Authorities and the Ramsar Bureau contribute to the preparation of the CBD's Composite report on the status and trends regarding the knowledge, innovations and practices of indigenous and local communities relevant to the conservation and sustainable use of biodiversity;
- d) to disseminate information about traditional medicines related to wetlands as part of public awareness activities, and to encourage the trends to use again traditional medicines in societies that had, to a large extent, abandoned them, in those aspects related to wetlands and water.

20. **Wetland-related religious aspects, beliefs and mythology:** Religion in its broader interpretation, most often solidly based on a long historical development, can be an important medium for reaching and mobilising a large number of people in most parts of the world. Its traditional links with water can be strengthened to convey a powerful message. Beliefs and mythology, in particular foundation myths, may also have a powerful significance for the conservation of wetlands, in particular those in, or related to, sacred sites.

Guiding principle 18 – Incorporating wetland-related religious beliefs and mythology-related aspects in the efforts to conserve wetlands

The following actions may be required:

- a) to study in detail for each religion and belief and mythological systems their links with nature, water and wetlands, with the active participation of religious institutions and leaders and the custodians and practitioners of the belief and mythological systems in indigenous and local communities;
- b) to use this knowledge to present the conservation and sustainable use message in the appropriate form;
- c) to work with the churches and/or religious leaders and the appropriate members of indigenous and local communities to encourage them to convey these messages and to participate actively in the efforts for the respectful management of the Creation.

21. **Wetland-related aspects of the arts** can provide a very significant medium for approaching and sensitising the wider public. In all societies, the arts play an important role, and in many of them the arts are embedded in their very structure and are of particular significance. The “arts” include all forms of popular art as well as the professional expressions in the fields of music, singing, dance, painting, literature and cinema production.

Guiding principle 19 - Using the arts for wetland conservation

The required actions may include:

- a) to identify art forms and specific works that have been inspired by wetlands and water, in cooperation with artists and art-related institutions at the local and national level;
- b) to use and promote these art expressions as means to advance the conservation and wise use of wetlands;
- c) to cultivate the interest of the art community in wetland and water management;
- d) to incorporate appropriate art in visitor reception facilities and especially in eco-museums; and
- e) to sensitize wetland managers, and all those involved with wetlands and water, to culture and to the art forms that express it.

Implementing the Guiding principles

22. The Guiding principles listed above should be implemented systematically through a variety of means, many of which are indicated in detail in the corresponding guiding principle. In addition, the general measures included below would greatly facilitate the implementation process .
23. **Inventory and the Ramsar Information Sheet (RIS) for the designation of Wetlands of International Importance.** The cultural aspects of wetlands should be fully incorporated in wetland inventory systems. Cultural aspects should also be recorded with as much detail as possible in the RIS, so as to take them into account when preparing management plans for these sites.

Guiding principle 21- Recording cultural aspects in the Ramsar Information (RIS)

The actions required may include:

- a) to ensure that cultural aspects are fully incorporated in all wetland inventory systems, with the cooperation of experts on identification and recording of cultural elements;
- b) to ensure that when filling out the RIS for new designations of Wetlands of International Importance, as well as when preparing updates of the RIS of Ramsar sites designated in the past, the cultural aspects of the sites in question are fully researched and reflected in the RIS.

24. **Management planning.** Cultural aspects of wetlands should be fully incorporated in the management planning of sites, as a means to involve the concerned indigenous and local communities and stakeholders that feel identified with these cultural aspects.

Guiding principle 22 – Incorporating the cultural aspects of wetlands in management planning

The required actions may include:

- a) to research and inventory all relevant cultural aspects in the site in question and to select those that will be subject of concrete management interventions, with the active participation of the concerned communities, groups, institutions and individuals, taking into account these Guiding principles; and
- b) to incorporate in the management plan specific activities addressed to the cultural aspects of the site.

25. **Monitoring mechanisms** for wetland ecological character should include indicators related to cultural aspects. In general, indicators are measurable - and therefore objective - means for identifying and documenting trends, both positive and negative. They are also invaluable for communicating these trends in a convincing way to decision-makers and the public. Usually, within the wetland monitoring context, indicators are set for ecological and often social parameters, but not yet for cultural ones.

Guiding principle 23 - Monitoring cultural values

The required actions may include:

- a) to prepare and incorporate indicators for cultural parameters in the monitoring of the status of ecological character of wetlands and its change or possible change, on the basis of scientific work of development and testing such indicators; and
- b) to train practitioners in the gathering of cultural-related data and its interpretation.

26. Protection and enhancement of wetland-related cultural aspects should be incorporated in **legal and institutional frameworks**; in turn, nature and culture protection measures should be integrated and streamlined. In this context, it should be realised that policies and measures addressing wetland conservation are often implemented with a degree of laxity, while legislation for the protection of archaeological heritage is much stricter. Streamlining the two should ensure a higher degree of implementation (and if necessary enforcement) of both, avoiding the least common denominator effect.

Guiding principle 24 – Making use of institutional and legal instruments

The required actions may include:

- a) to review the existing legal and institutional framework concerning wetlands and water, on the one hand, and cultural values on the other, and identify weaknesses (see Ramsar Handbook 3);
- b) to incorporate cultural-related issues in national wetland policies or equivalent instruments; and
- c) to enact or when necessary strengthen legislation for the conservation of cultural wetland landscapes.

27. **Environmental impact assessments (EIAs)**, when adequately applied, have proven useful in mitigating negative impacts from development activities on wetlands. They should be now extended to include cultural values as well, as a means for their conservation and enhancement. Within the framework of the Convention on Biological Diversity, [CBD COP6 has adopted Decision VI/xx containing Recommendations for the conduct of cultural, environmental and social impact assessments regarding developments proposed to take place on, or which are likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities.]

Guiding principle 25 - Assessing the impacts on cultural values

To actions required may include:

- a) to propose and encourage, when required, modifications/additions in the existing national legislation governing the application of environmental impact assessments (EIA) to incorporate proper consideration of the cultural aspects of wetlands;.
- b) to include the cultural aspects of wetlands in all EIAs of wetland and water development and management projects, as well as of any projects or programmes that may affect wetlands;
- c) to promote the incorporation of similar considerations in the process for the enactment and enforcement of legislation on strategic environmental assessment (SEA); and
- [d) to apply the Recommendations for the conduct of cultural, environmental and social impact assessments regarding developments proposed to take place on, or which are likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities, adopted under Decision VI/xx of the Convention on Biological Diversity.]

28. Wetland-related **communication, education and public awareness (CEPA)** actions concerning the cultural aspects of wetlands should be instituted and strengthened, as they are practically non-existent at present. The reasons may be both limited understanding and appreciation of the issue, as well as lack of appropriate material and trained personnel.

Guiding principle 26 - Improving wetland-related communication, education and public awareness (CEPA) in the area of the cultural aspects of wetlands

Actions required may include:

- a) to sensitize teachers at the various levels of education, starting with schools in the wider vicinity of major wetland sites, about the cultural aspects of these sites;
- b) to develop educational and public awareness materials and training modules;
- c) to encourage the production and dissemination of videos and films on the cultural aspects of wetlands;
- d) to design and launch public awareness campaigns, addressed to local inhabitants, the wider public, and wetland visitors, on the values and significance of the cultural aspects of wetlands and their recovery when they are been lost or abandoned;
- e) to incorporate the promotion of the cultural aspects of wetlands in national and local tourism campaigns, taking into account the carrying capacity of each wetland in relation to its potential for tourism activities; and
- f) to use the mass media and wetland-related traditional festivals as means to disseminate information and appreciation of the cultural aspects of wetlands.

29. The **quality labeling** of wetland-related traditional products could be promoted as a means to maintain traditional production practices, which are often rich in cultural values. The increasing demand of healthy food and ecologically sound products is today reinforced by the growing interest on local specificities, as a counterweight to a globalised and homogenised world. Relating traditional products from wetland sites with cultural elements can assist in making use of these social trends and lead to a greater demand for them.

Guiding principle 27 - Promoting quality labelling of traditional wetland products

The required actions may include:

- a) to identify appropriate partners from the private and public sectors for promoting wetland-related products and to undertake efforts to relate these;
- b) to promote the quality and origin labeling of wetland products as a means to increase their attractiveness and demand;
- c) to encourage advertising campaigns of wetland products under the responsibility of appropriate national and local authorities as well as of the interested communities and the private sector; and
- d) to ensure that the economic benefits of these undertakings reach the local communities, thus making possible the maintenance of traditional production activities.

30. **Development of projects** for conserving cultural aspects of wetlands should be promoted and **donors** should be encouraged to support such initiatives. It is evident that the application of the principles contained in this guidance require considerable funding. At present such funding is either absent or exists in limited amounts through the budgets of central and sub-national cultural services and institutions.

Guiding principles 28 - Finding the necessary resources

The required actions may include:

- a) to incorporate cultural activities in wetland management projects, which would allow resources to be channelled to this sector;
- b) to identify funds for basic research on the cultural aspects of wetlands through specialised financing lines at the national and international level; and
- c) to create awareness among donors of the contribution of cultural aspects to the sustainable use of wetland resources.

31. In many countries, **horizontal cooperation** on wetlands and water – even at the government level, and between clearly related sectors – is weak or absent. Thus operational relations between government sectors dealing with wetlands and water and those with culture should be established, as in most countries they do not exist today.

Guiding principle 29 - Encouraging cross-sectoral cooperation

The actions required may include:

- a) to initiate dialogue between the sectors dealing with wetlands and water and the sectors dealing with cultural issues;
- b) as a first step, to invite the culture sector representatives to participate as full members in the National Ramsar/Wetland Committees;
- c) to undertake joint policy reviews aimed at the conservation of both the natural and cultural heritage in wetlands; and
- d) in all cases, to ensure the active participation of indigenous and local communities and stakeholders in such collaborative processes (see Ramsar Handbook 5)

Proposed actions

32. Maintaining and enhancing the cultural values of wetlands will require long-term efforts by a wide variety of actors and stakeholders throughout the world. The following list of suggestions should be considered by the Convention and its collaborators for implementation when the required resources are identified or become available.

Wider actions

33. A short- and medium-term **strategy** for the identification, safeguard and use of the cultural aspects of wetlands should be developed, defining measurable and realistic objectives, a clear distribution of roles and responsibilities, activities to be carried out with priorities assigned, the resources required, and appropriate indicators to allow the monitoring of progress made. The Convention should coordinate this task, but wide participation of all the relevant organizations interested in this matter. The strategy should include both a general approach and regional components. It could be drafted during 2003, widely circulated for comments and indications of commitment to its implementation, and submitted for endorsement by Ramsar COP9.
34. As part of the Strategy, a systematic **inventory of cultural aspects** based on the Ramsar Information Sheet (RIS) of Ramsar sites should be organized and maintained and their results widely disseminated. Compatible methods and tools for such inventories should be prepared in advance and widely disseminated, so that the information collected is both verifiable and comparable.
35. Universities and other research and learning institutions should be encouraged to undertake more **applied research** to increase the knowledge of all cultural aspects related to wetlands and the results disseminated in a form useful to wetland managers and policy makers. In addition, existing scientific knowledge of cultural aspects should be found through bibliographic research and repackaged and disseminated so that it can become accessible to those responsible for wetlands.
36. **Examples of good practice** in the area of identification, safeguarding and use of the cultural aspects of wetlands should be identified and made widely known. This work could be organized on a regional basis. The Mediterranean Wetland Initiative (MedWet) could take the lead and identify such examples in the Mediterranean Basin. Ramsar Contracting Parties and/or its International Organization Partners could undertake similar work for other regions. In a first phase, the pilot cases selected could be posted on the Ramsar Web site, while their publication and dissemination in an appropriate form should be envisaged.
37. **Practical tools, mechanisms and other concrete guidance** should be provided to those responsible for wetland management, complemented by training and know-how transfers. As first steps a practical manual (see point 40 below) and a training module should be produced. This should constitute one of the first projects to be developed and launched, once the executant(s) and potential donors are identified.
38. A wide **programme of public awareness activities** concerning the cultural aspects of wetlands should be organized through Web sites, publications, exhibitions, events (such as the World Wetland Day 2002 celebration) and other appropriate means. A most effective medium could be the reconnection of existing traditional festivals to wetlands and efforts to re-establish those that have been abandoned. A typical example would be the El Rocío procession through the Doñana National Park (Ramsar site) in Andalusia, Spain. These festivals attract large segments of the local populations (as well as visitors) and encourage an active participation of those attending, in contrast to other, more passive means of communication. A global inventory of such traditional festivals related to wetlands and water should be carried out on a priority basis.

Specific initiatives

39. A **traveling exhibition** on culture and wetlands prepared by the Ramsar Bureau and other interested organizations and circulating globally (physically and through the Web) may be a cost-effective means for increasing public awareness and sup-

port. Already the European Archaeological Council has proposed to participate in such an endeavour.

40. A **manual** on the conservation and enhancement of cultural values related to wetlands and water is a necessary tool at an early stage. Although there is little practical experience available in the management of many types of wetland-related cultural resources and the enhancement of their values, sufficient material has been gathered to provide an initial basis for such a manual. It would certainly not be either complete or exhaustive, but it would act as a powerful tool for the sensitization of those responsible for wetlands and for bringing them into contact with culture-oriented institutions and individuals.
41. An intense effort should be made to **include social and cultural values in all on-going wetland management projects** and to incorporate them in all new project proposals. Already this has started in certain cases:
 - a) in MedWetCoast, a GEF/FFEM, USD 15.5 million, 5-year project, concerning 15 sites in 6 countries, an inventory of cultural elements has been included as part of the diagnosis of each site. In addition, two case studies for managing cultural heritage are being carried out in greater detail in two sites, in Egypt and Tunisia;
 - b) the Initiative for the Pantanal and the Everglades is considering incorporating cultural values in its programme, with the help of the Ramsar Bureau;
 - c) in the GEF project under development for the Prespa Park, a transboundary wetland site shared by Albania, Greece and the FYR of Macedonia, cultural values have been included in the project brief, with the intention of incorporating the management of the rich cultural interest of the area in the project activities.
42. Particular attention should be given to launching integrated management **projects for sites** that are **included both under Ramsar and the Convention on World Heritage** and/or are **Biosphere Reserves under the Man and the Biosphere Programme (MAB)** that are found to have important cultural components.

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1. Prepared by Thymio Papayannis , Special Advisor to the Secretary General.
 2. An interesting report on such a settlement in NW Greece is found in Hourmouziades G.H. (1996), *The Prehistoric Lakeside Settlement of Dispilio (Kastoria)*, Codex, Thessaloniki , Greece , 64 pp.
 3. For the impact of malaria on the Mediterranean people, see Braudel F. (1990), *La Méditerranée*, 9th edition, Armand Colin, Paris , France , pp. 56-59.
 4. According to a research project carried out in the summer of 2000 by David Pritchard, BirdLife International, on some 600 Ramsar Information Sheets.
 5. As reported by Pasumai Thaayagam (Green Motherland).
 6. Based on the paper: Ruf T. (2000), "Water disputes in the Ecuadorian context up to the third millennium: The transition of Santa Rosa ", presented at the IASCP 8th Conference, Bloomington (USA), 30 May to 5 June 2000 .
 7. Qur'an: Surat al-Anbiya' (21), ayah 30.
 8. As reported in the World Water Forum Newsletter No 44, September 2001, on the occasion of the Fourth Inter-American Dialogue on Water Management, held in Iguacu , Brazil .
 9. Its Environmental Assessment Sourcebook Update (September 1994) provides a useful basis.
 10. The EAC has taken a lead in the joint cultural and natural approach to wetlands.
 11. CDB's Article 8(j) establishes that "Subject to national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the suitable sharing of the benefits arising from the utilization of such knowledge innovations and practices."

