

## The Architecture Importance And Its Effect in Managing Natural Protectorates in Egypt

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### ABSTRACT

Natural protectorates in Egypt lack the appropriate infrastructure, sufficient cadres, the necessary capabilities wealth and The absence of the role of the urban planner and designer in putting a method for planning and designing natural protectorates and their management in a way that does not conflict with the policies of natural protectorates to achieve good management of these reserves and preserve These reserves include a richness and diversity of natural and aesthetic heritage and enhance the added value of tourism and the economies of these areas. The presence of many pressures on the ecosystems within the natural reserves in Egypt requires the existence of strategies and management methods to monitor and follow up the natural reserves with high efficiency and a careful effort based on knowledge and experience and to protect natural resources and biological diversity. With the increasing recognition of the importance of protected areas, it is timely to review their global status, not only in terms of location and extent but also of the range of issues that are critical in understanding their values, threats, management, and future prospects. There are many thousands of publications on protected areas, ranging from site- specific assessments of design and management; through broader issues of species and ecosystem conservation, the involvement of local and indigenous peoples, and the design of protected areas networks; to global issues addressing extent, status, threats, and management effectiveness. The purpose of this research is to present a comprehensive overview of the worlds protected areas in relation to these and many other issues, not only highlighting their importance to humanity but also examining the critical issues that will determine their relevance and long-term viability. This research therefore not only provides an overview of th current global protected areas situation but will also provide a benchmark for future evaluation of how well we have addressed these critical issues and imperatives.

تفتقر المحميات الطبيعية في مصر إلى البنية التحتية المناسبة والكوادر الكافية والإمكانات اللازمة والثروة وغياب دور المخطط والمصمم العمراني في وضع أسلوب لتخطيط وتصميم المحميات الطبيعية وإدارتها بما لا يتعارض مع سياسات المحميات الطبيعية لتحقيق الإدارة الجيدة لهذه المحميات والحفاظ على هذه المحميات بما يشمل ثراء وتنوع التراث الطبيعي والجمالي وتعزيز القيمة المضافة السياحية واقتصاديات هذه المناطق. مع تزايد الاعتراف بأهمية المناطق المحمية، فقد حان الوقت لمراجعة وضعها العالمي، ليس فقط من حيث الموقع والمدى ولكن أيضاً من حيث مجموعة القضايا ذات الأهمية الحاسمة في فهم قيمها وتهديداتها وإدارتها وأفاقها المستقبلية. هناك عدة آلاف من المنشورات المتعلقة بالمناطق المحمية، بدءاً من التقييمات الخاصة بالموقع للتصميم والإدارة؛ من خلال قضايا أوسع تتعلق بحفظ الأنواع والنظم الإيكولوجية، وإشراك الشعوب المحلية والأصلية، وتصميم شبكات المناطق المحمية؛ للقضايا العالمية التي تتناول المدى والوضع والتهديدات وفعالية الإدارة. يتناول البحث نظرة شاملة للمناطق المحمية في العالم فيما يتعلق بهذه القضايا والعديد من القضايا الأخرى، ليس فقط تسليط الضوء على أهميتها للإنسانية ولكن أيضاً دراسة القضايا الحاسمة التي ستحدد أهميتها وقدرتها على البقاء على المدى الطويل. ويخلص البحث لألقاء نظرة عامة على الوضع الحالي للمناطق المحمية العالمية، و توفير أيضاً معياراً للتقييم المستقبلي لمدى تعاملنا مع هذه القضايا الحاسمة والضرورات.

**Keywords:** Natural protectorates , Management plan , international organizations.

## **1-Introduction**

Egypt abounds with many impressive and worthy relics on the world level, from ancient monuments and historical treasures, which attract large numbers of foreign visitors, while Egypt's natural heritage – although it is less known – is no less important. In fact, the natural areas in Egypt are charming, diversified and of high quality, and 30 of the most impressive areas have been put under protection, which represents 15% of the area of the Arab Republic of Egypt.

With the increasing recognition of the importance of protected areas, it is timely to review their global status, not only in terms of location and extent but also of the range of issues that are critical in understanding their values, threats, management, and future prospects. There are many thousands of publications on protected areas, ranging from site-specific assessments of design and management; through broader issues of species and ecosystem conservation, the involvement of local and indigenous peoples, and the design of protected areas networks; to global issues addressing extent, status, threats, and management effectiveness. The purpose of this research is to present a comprehensive overview of the worlds protected areas in relation to these and many other issues, not only highlighting their importance to humanity but also examining the critical issues that will determine their relevance and long-term viability. This Master therefore not only provides an overview of th current global Natural protectorats situation but will also provide a benchmark for future evaluation of how well we have addressed these critical issues and imperatives.

Natural protectorates are essential to maintaining biodiversity, while effective management plans (MPs) are essential for the management of these areas. Thus, MPs must have relevant data analyses and diagnoses to evaluate ecological conditions of Natural protectorates.

## **2-Research Study Objectives**

Reaching to tools that enable us to develop a plan for the management and development of natural protectorates in Egypt to achieve the objectives of the reserve and the management of its natural resources. And help us to include more natural protectorates in Egypt to World Heritage sites and be itself eco-tourism projects that return with a financial return that contributes to supporting and revitalizing the tourism movement in Egypt.

## **3-Methodology**

The research study depends on Two axes:-

### **Theoretical study:**

Definition of natural Protectorates, Participatory Organizations of, Historical Background of natural Protectorates, natural Protectorates Regulations

,Functions of natural Protectorates ,Benefits of a natural Protectorates System, IUCN Categories System for natural Protectorates, natural Protectorates Network, History of Environment Protection in Egypt, Egyptian Protectorates Classification,laws,threats,management plans.

### **Analytical study:**

- Analysis international,national and arabian natural protectorates examples in different countries and Make an analytical comparison between management plan of each natural protectorate and extracting the results and recommendations.

### **Case study:**

- Analysis of burullus lake Current Condition((Description and contents,Natural Resources, Activities, Local people , Existing Land Uses).

- Analysis of burullus natural protectorate Classification ,Management Plan of burullus lake ,Analysis of the Surrounding uses ,the Main Participants in burullus lake natural protectorate, burullus lake Problems, burullus lake management plan then reaching to the results and recommendations and applying management tools that were extracted from analytical studies.

## **4-Definitions Of Natural Protectorates (Protected Areas)**

(1)- "An area that is dedicated with the principal objective not directly related to the protection and maintenance of biodiversity or natural"; or

(2)- "An area which protects cultural resources, which are presented with no relationship to their natural context. (Ex. some historic sites) "

(3)-" An area of land that has legal measures limiting human use of the plants and animals within that area; includes national parks, game reserves, protected landscape, multiple-use areas, biosphere reserves, etc." (McNeely et al, 1990).Protected areas are for more specifically defined than environmentally significant areas due to the involvement of legislative protection and regulatory management procedures. Globally recognized definitions have been issued by international organizations concerned with environmental affairs and have become binding to the nations that participate.

### **4.1-The Definition of a Protected Area Adopted by the International Union for the Conservation of Nature IUCN**

is:"An area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means." (IUCN, 1990).

**4.2-The definition of a protected area adopted by The World Conservation Monitoring Center (WCMC) is:**

"Legally established sites managed for conservation objectives-are an essential means for saving Biodiversity. These areas are managed for objectives ranging from strict nature preservation to controlled resource harvesting." (WCMC, 1995).

**4.3- Participatory Organizations of PAs:**

A hierarchical structure is emerging for planning and overseeing environmental issues and associating them with development strategies at a global level. This operates through organizations such as:

**4.3.1 The United Nations (UN):**

Through its divisions, the UN is the leader organization that heads environmental conservation efforts as: "a responsibility shared by the international community".

**4.3.2 The United Nations Environmental Program (UNEP):**

The UNEP consists of several integrated and specialized divisions most notably, the UNEP-WCMC which locates and compiles information on protected areas.

**4.3.3 The International Union for the Conservation of Nature (IUCN) & Affiliates:**

The IUCN, established in 1960 (also identified as the World Conservation Union, formerly as commission on National Parks and Protected Areas), has provided classification guidance and include the largest network of management specialists. It is affiliate, the World Commission on Protected Areas (WCPA), is a leading scientific and technical body concerned with selection, establishment and management of protected areas. (UN, 19992)

**5-Threats To Natural protectorates**

Threats to natural protectorate	physical	On-ground
	Biological	On-ground social
	Direct human threats	Socio-political economic threats
	InDirect human	Design threats
	Legal status threats	Managerial threats

Figure (1): Types Of Threats To Protected Areas  
Sources: Hockings, Stollon & Dudley 2000. Ervin 2003, Worboys 2004.

**5.1 physical :-**

Like Fire larsoni, severe storm events, geological incidents.

**5.2 Biological :-**

Introduced plants, introduced animals and organisms.

**5.3 Direct human threats:-**

Habitat fragmentation, mining, poaching, hunting, and disturbance to fauna,fishing, collecting, grazing, and harvesting of flora, trampling, structure development, access development, utility corridors, communications structures,urbanization, pollution, collecting, managerial damage, vandalism, emergency response damage, arson, squatting, drug cultivation and trafficking, terrorism,and damage from violent conflict.

**5.4 Indirect human threats:-**

Adjoining community and land-use encroachments, impacts to climate,catchments, air and water quality, and poor land-use planning.

**5.5 legal satus threats:-**

Absent or inadequate legal protection, lack of clarity of ownership, inadequate legislation.

**5.6 On-ground :-**

Absence of on-ground management, absence of law enforcement, difficulty of monitoring management threats illegal activities.

**5.7 On-ground social threats :-**

Conflict of cultural beliefs and practices with protected area objectives, presence of bribery and corruption, pressures placed on managers to exploit protected area resources, difficulty of recruitment and retention of employees.

**5.8 Socio-political economic threats :-**

Lack of political support, inadequate funding, inadequate staffing, inadequate resources, absent or unclear policies, and community opposition

**5.9 Design threats:-**

Inadequate geographic size, shape, location, connectivity, or replication of an individual protected area and/or a system of protected areas to achieve effective conservation of biodiversity and other heritage.

**5.10 Managerial threats:-**

Absence of strategic planning, human resource and budget systems, plans of management, effective operations, and effectiveness evaluation systems.

**6-Values And Benefits Of Protected Areas**

In addition to their specific contribution to global biodiversity conservation, protected areas have a number of wide-ranging values and benefits. As early as 1959, the UNECOSOC noted that national parks and equivalent reserves were an important factor in the wise use of natural resources, and they"contribute to the inspiration, culture and welfare of mankind". IUCN (1994) defines the mam purposes of protected areas as:

- scientific research.
- wilderness protection.
- preservation of species and genetic diversity.
- maintenance of environmental services.
- protection of specific natural and cultural features.
- tourism and recreation.
- Education.
- sustainable use of resources from natural ecosystems.
- maintenance of cultural and traditional attributes.

Attempts to place a value on protected areas and the ecosystems they encompass invariably expand to consider many functions and activities essential for human existence, broadly defined as ecosystem goods and services. They provide us with food, water, and other resources, regulate our weather patterns, and provide us with precious medicines and crop varieties. Tourism, now one of the world's largest industries, is dependent in many areas on the attractions of protected areas, and sites generate income, foreign exchange earnings, and employment at local, regional, and national levels.

#### **Benefits of a Natural protectorates System:**

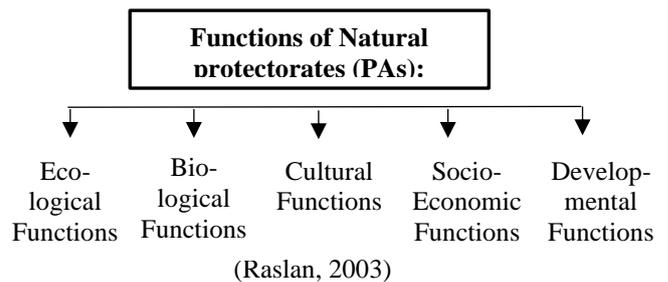
A system of protected areas is the core of any program that seeks to maintain the diversity of ecosystems, species, and wild genetic resources. Generally it protects the world's great natural areas for their intrinsic, inspirational and recreational values.

#### **A protected area system provides safeguards for:**

- Natural and modified ecosystems that are essential to maintain life support services conserve wild species and areas of particularly high species diversity, protect intrinsic and inspirational values, and support scientific research.
- Culturally important landscapes (including places that demonstrate harmonious relationships between people and nature), historic monuments and other heritage sites in built-up areas.
- Sustainable use of wild resources in modified ecosystems.
- Traditional, sustainable uses of ecosystems in sacred places or traditional sites of harvesting by indigenous peoples.
- Recreational and educational uses of natural, modified and cultivated ecosystems (Lucas, 1992).

#### **7-The Functions And Processes Of Natural Protectorates Management**

Beyond their traditionally accepted inherent environmental merits, Pas possess the capacity to perform functions which can be incorporated into various fields of development. Many of these are only recently being recognized. The following lists functions, which can be interpreted as uses and values of PAs:



#### **7.1 Ecological Functions:**

The designation of PAs indicates the value of both biotic and a-biotic resources within a site. This ensures the continuing flow of ecosystems services, the maintenance of sensitive geological and hydrological features, and the conservation and enhancement of an environment which is productive, healthy, harmonious and aesthetically pleasing.

#### **7.2 Biological Functions:**

PAs allow for the preservation and conservation of mature and stable ecosystems, this in turn, provides security for various dependant habitats, species and communities. Often, the overall goal of employing Pas inventories into land use plan is to maintain viable populations, genetic continuity and natural distributions of indigenous species and communities that occur within specific ecosystem.

#### **7.3 Cultural Functions:**

PAs provide options for humanity in a rapidly changing world and also help fulfill our ethical responsibility to respect nature. They also act as research areas for earth and life science studies and provide areas for public education of resources and their management.

#### **7.4 Socio-economic Functions:**

The identification and management of PAs is a valuable addition to the traditional socio-economic factors that have largely determined land use planning and management in the past. PAs as correctly managed entities are anticipated to be the most cost-efficient and, in many cases, the only means available for maintaining adequate levels of biological diversity at appropriate economic scales. (Raslan, 2003)

#### **7.5 Developmental Functions:**

As an integral component of sustainable development strategies, PAs provide long-term benefits to society by maintaining ecological processes and by providing orderly growth and development of land-use plans, biodiversity conservation can be incorporated into appropriate land management plans and sustainable developmental strategies.

#### **8-Natural Protectorates Network:**

Natural protectorates are considered a key part of conservation under the convention on Biological Diversity. Under a bioregional approach to

conservation, PAs are planned and managed as part of a mosaic of land uses that together seeks to satisfy environmental and social needs. The design of an area system therefore has to take account of a range of interrelated social and biophysical factors, both inside and outside the areas themselves.

**Need of Network:**

Protected areas should be designated within the framework of a larger protected areas system or network. Networks provide the possibility of a more dynamic management, including the potential for evolution and the movement of ecosystems and their components. Networks have particular importance during periods of climate change. Possible component factors in the design of a reserves network include,

**for example:**

- Corridors connecting protected areas, allowing migration of wild plant and animal species.
- Protection of transit sites for migratory birds.
- Establishment of a network of old-growth forest in fire refuge (stream sides, ridges and marshy areas) in commercially managed boreal forests; etc.

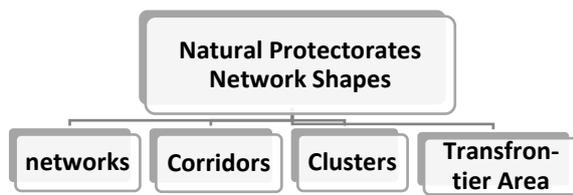


Figure (3): The Natural Protectorates network Shapes.

**8.1 networks:**

- Networks are groups of areas that are linked together on a physical and management level.
- The network should incorporate physical inter-linking, as far as possible.
- A terrestrial network should be biogeographically representative of a nation's state.

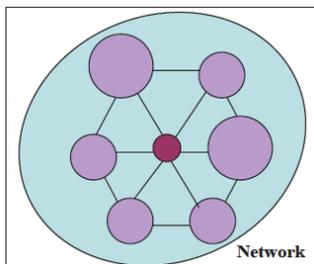


Figure (4): The network Shape.

**8.2 Corridors:**

- Corridors are generally linear areas of land.
- Corridors were designed to provide connectivity among habitat patches.

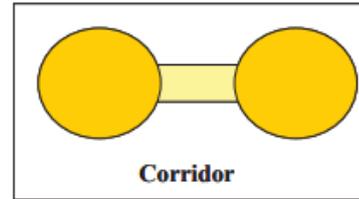
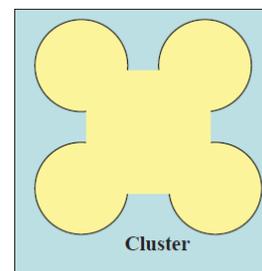


Figure (5): The Corridor Shape.

**8.3 Clusters:**

- Clusters are areas that lie in close proximity to one another and can therefore be considered a naturally occurring network.
- Clusters must have a systematic scientific management plan encompassing



protection, management and local people related ecodevelopment provisions

Figure (6): The cluster Shape.

**8.4 Transfrontier Area**

- Transfrontier areas are known to contribute significantly to linking areas across international borders.
- A recent global study shows that there are 136 known transfrontier area complexes, comprising a total of 406 adjacent Pas.

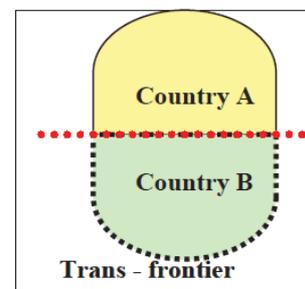


Figure (7): The Transfrontier Shape.

## 9- Categories Of Natural Protectorate Area

### MANAGEMENT:

#### IUCN categories:-

IUCN listed two groups of protected areas covering eight categories, as well as identifying two internationally recognized designations – Biosphere Reserves and World Heritage Sites (Natural). Subsequently, a third such designation was added of wetlands of International Importance.

#### CATEGORY Ia

**Strict Nature Reserve:** protected area managed mainly for science Area of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features and/or species, available primarily for scientific research and/or environmental monitoring.

#### CATEGORY Ib

**Wilderness Area:** protected area managed mainly for wilderness protection Large area of unmodified or slightly modified land, and/or sea, retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to preserve its natural condition.

#### CATEGORY II

**National Park:** protected area managed mainly for ecosystem protection and recreation Natural area of land and/or sea, designated to (a) protect the ecological integrity of one or more ecosystems for present and future generations, (b) exclude exploitation or occupation inimical to the purposes of designation of the area, and (c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.

#### CATEGORY III

**Natural Monument:** protected area managed mainly for conservation of specific natural features Area containing one, or more, specific natural or natural/cultural feature that is of outstanding or unique value because of its inherent rarity, representative or aesthetic qualities or cultural significance.

#### CATEGORY IV

**Habitat/Species Management Area:** protected area managed mainly for conservation through management intervention .

Area of land and/or sea subject to active intervention for management purposes so as to ensure the maintenance of habitats and/or to meet the requirements of specific species.

#### CATEGORY V

**Protected Landscape/Seascape:** protected area managed mainly for landscape/seascape conservation and recreation.

Area of land, with coast and sea as appropriate, where the interaction of people and nature over time has produced an area of distinct character with

significant aesthetic, ecological and/or cultural value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area.

#### CATEGORY VI

**Managed Resource Protected Area:** protected area managed mainly for the sustainable use of natural ecosystems.

Area containing predominantly unmodified natural systems, managed to ensure long-term protection and maintenance of biological diversity, while providing at the same time a sustainable flow of natural products and services to meet community needs.

## 10-Natural Protectorate In Egypt

The biodiversity of Egypt reflects several important facts: habitats mostly desert; strategic position among three continents (Europe, Africa, Asia); and diverse climate. The uniqueness of the River Nile as a conduit from tropical Africa contributes greatly in enhancing the biodiversity where there exist exceptional habitats of freshwater and wetlands of international importance for migratory and resident birds. Egypt is bounded on the north and east by two largely enclosed seas, the Red sea and the Mediterranean Sea, which is connected through Suez Canal, leading to improvement of coastal and marine biodiversity, especially those that migrated from the Red Sea, through Suez Canal, and has settled in the eastern Mediterranean.

Egypt hosts a sizeable number of endangered species recognized by IUCN as needing conservation management. At least 143 species of threatened animals are to be found in the country, including the highly endangered Slender Horned Gazelle and the Egyptian Tortoise. The flora includes 82 threatened species. Finally, Egypt represents a vital artery for bird migration, including 39 threatened species, and serves as a major flyway for migrating soaring birds and an important wintering ground for waterbirds. Thirty four Important Bird Areas have been listed to date by BirdLife International.

## 11-Origins Of Natural Protectorates In Egypt

The first conservation legislation this century came into being with the creation of the Royal hunting reserve at Wadi Rishrash in 1900. Current interest by the authorities in nature conservation was initiated when a delegation attended the 1955 Unesco meeting on nature protection in Beirut. The first protected site was established at El Omayed and was acquired by the University of Alexandria in 1974. The Presidential Decree of 5 March 1980, expressed concern for environmental matters established a mechanism for identifying and protecting threatened areas and species through cooperation between

provincial governors; the Academy of Scientific Research and the Ministry of Agriculture. Subsequently, Ministerial Decree No. 472 of 5 May 1982 ensured the prohibition of hunting all birds and animals in a number of sites in Sinai. Eventually the promulgation of Law No. 102/83, which was passed by the People's Assembly on 20 July 1983, provided for the legal framework upon which the government could establish protected areas throughout Egypt.

- The sole category referred to in the Law No. 102/83 is the natural protectorate. Article 1 defines the natural protectorate, its designation and delineation by individual Prime Ministerial decrees, under the recommendation of the Egyptian Environmental Affairs Agency (EEAA). Sub-categories covered under the Prime Ministerial decrees include scientific area, national Marine Park, conservation area, natural area and protected area.

- The EEAA is the main administrative body responsible for the enforcement of environmental protection and conservation, and was established under Decree No. 631 of 1982. In 1983 a presidential directive established EEAA offices within each of the Governorate of Egypt. In 1979, the Egyptian Wildlife Service (EWS) was established under the authority of the Ministry of Agriculture Decree No. 349, with responsibility for management of natural protectorates and wildlife research. In 1991 the Minister of Cabinet Affairs and Minister of State for Administrative Development, and the Minister in charge of Environment issued Decree No. 30 for the reorganization of the EEAA.

**12-Natural Protectorates Definition (Egyptian Definition):**

The law No. 102/1983, issued on July31, 1983 defined a natural reserved area as:

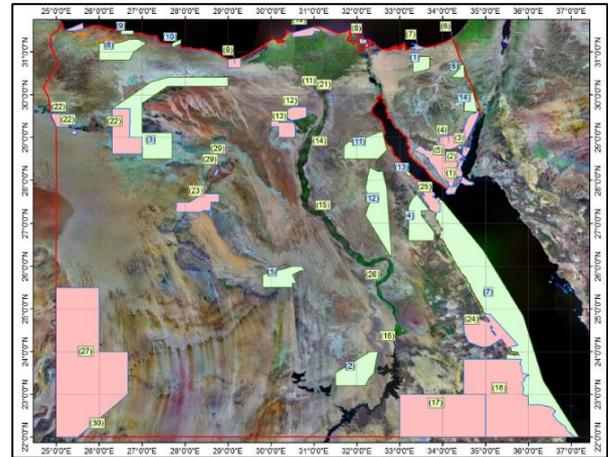
**Protected Area (PA) is: An area of land, or coastal or inland water, characterized by its flora, fauna and natural feature having cultural, scientific tourist or aesthetic value.**

These areas will be designate and delineated by Decrees of the Prime Minister under the recommendation of the Egyptian Environmental affaires agency (EEAA.).

It is forbidden to commit actions or carry out activities, which would lead to the destruction, damage, removal of plants, spoiling or destroying the geological structures and other features from the natural reserves. Law 102 of 1983 empowered the Prime Minister to designate certain areas to be declared as protectorates. A Prime Minister's decree defines the limits of each protected area and sets the basic principles for its management and for the preservation of its resources. Till now 24 protectorates are declared. (EEAA, 2000) In Egypt, protected areas is called protectorates, it is a different title to the same identity and characteristics.

**13-The Natural Protectorates Area Network Of Egypt**

In Egypt, there are 30 protected areas covering 15% of the terrestrial area, while over 9% of the coastal and near shore environment is protected.



Legend:  
 - Light Green box: Current natural  
 - Red outline: Borders of the Arab Republic of Egypt  
 - Light Pink box: Future natural

Image(1) Protected Areas Egyptian Map.

Table (2) Protected Areas in Egypt.

<b>Current natural protectorates</b>	
1- Ras Mohamed Protectorate	16- Saloga,Ghazal and the Small Islands Protectorate
2- Nabq Protectorate.	17- Wadi Al-Alaqi Protectorate
3- Abu Gallum Protectorate	18 – Elba Protectorate
4- Taba Protectorate.	19 - El-Brullus lake Protectorate
5- Saint Katherine Protectorate	20-Nile River Islands Protectorate
6- Ahrash Protectorate.	21- Wadi Degla Protectorate
7- Zaraniq and El Bardwael Marsh Protectorate	22 - Natural Siwa Protectorate
8- Ashtoom El-Gamil and Tennis Island Protectorate	23 - Natural White Desert Protectorate
9- Elomayed Protectorate.	24 - Wadi El Gemal Protectorate
10- The Petrified Forest Protectorates	25 - Red Sea Protectorate
11- Hassana Dome Protectorate	26 – El-Dababya Protectorate
12- Quaron Lake Protectorate	27 - El Gulf El Kebeer Protectorate
13- Wadi El-Rayan Protectorate	28 - El-Salum Protectorate

Continued Table (2) Protected Areas in Egypt

14- Wadi Sanor Cave Protectorate	29 - El-Wahat El-Bahreya Protectorate
15- Wadi Al-Asioutty Protectorate	30 - Mount Kamel Meteor Protectorate
<b>Future natural protectorates</b>	
1-El-Maghara Protectorate	7- El-Koser Protectorate
2-Karkar And Donkol Protectorate	8- El-Shwela Protectorate
3-El Qatara Low Protectorate	9- Ras El-Hekma Protectorate
4-Shayeb El-Banat Protectorate	10- Al -Galala Qblya Protectorate
5-Om El-Dabadeb Protectorate	11- Wadi Qena Protectorate
6-El -Qasema Protectorate	12- Ras Shoker Navigations Protectorate
7-Red Sea Protectorate	13-Wadi Grafy Protectorate

#### 14-Natural Protectorates Opportunities In Egypt

##### The development of protected areas system in Egypt would have wide national benefits:

-The value of protected areas as premium tourism destinations will be maintained and enhanced along with Egypt's competitive market advantages

-The protected area estate would be mainly funded from entrance and user fees, largely paid by foreign visitors, so reducing the burden on the Egyptian taxpayer.

-Well managed protected areas help underpin the nation's sustainable development, they generate significant investment and rural employment opportunities and help counter the drift to urban areas.

-The nation's biodiversity heritage would be better secured to provide future options in the face of climate change and biotechnology challenges.

#### 15-Threats Of Natural Protectorate In Egypt There are numerous main threats to biodiversity and protected areas system in Egypt:

**1.Habitat destruction:** One of the major threats is habitat destruction for developmental purposes. There is tremendous human development pressure on those areas that are most important for biodiversity, resulting in high degrees of habitat destruction, conversion and degradation.

**2.Coastal conversion and development:** On the marine side, the conversion of natural land cover along coastal areas has had a large impact on marine and coastal species and habitats.

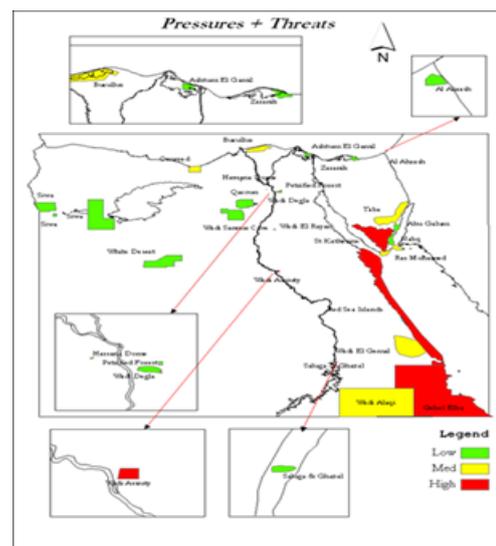
**3.Hunting:** Excessive hunting is endangering the very existence of several species of resident and

migratory birds and a number of hoofed animals (e.g. gazelles, antelopes).

**4.Pollution:** Pollution continues to be a major threat to protected areas. There are numerous sources of pollution in Egypt, as in other countries. However, the formation and levels of dust, small particles and soot are more characteristic in Egypt than presently found in industrialized countries. Some of the sources for these pollutants, such as industries, open-air waste burning and transportation, were also well known problems in most countries only 10 to 20 years ago. These are having adverse impacts on terrestrial biodiversity, while water pollution in the Nile and its tributaries are having major impacts on aquatic biodiversity.

**5.Invasive species:** Egypt, like nearly all countries, faces numerous threats to biodiversity from invasive alien species, including from rats, birds, insects and the American cotton worm.

**6.Climate Change:** Climate change is increasingly becoming a threat to biodiversity in Egypt. In particular, hydrological stresses from extreme heat events and drought are stressing aquatic species. Some studies show that by 2030, there will be 15% less precipitation, requiring resilience and adaptation measures to be put in place as soon as possible to cope with the strain on human and natural communities alike. In addition to drought-related impacts, Egypt will also experience sea-level rise, increasing salinity along coasts, flooding of some low-lying parts of the northern Delta and some coastal zones, increasing rates of coastal erosion, penetration of salt water in soil, intrusion of seawater into groundwater, reduced agricultural productivity, impacts on fish production, increased desertification, and high impacts on grazing.



Image(2) Geographical distribution of the cumulative scores of Pressures and Threats identified for the Egyptian system of Protected area

16-Egypt Natural Protectorate Authoritative Bodies:

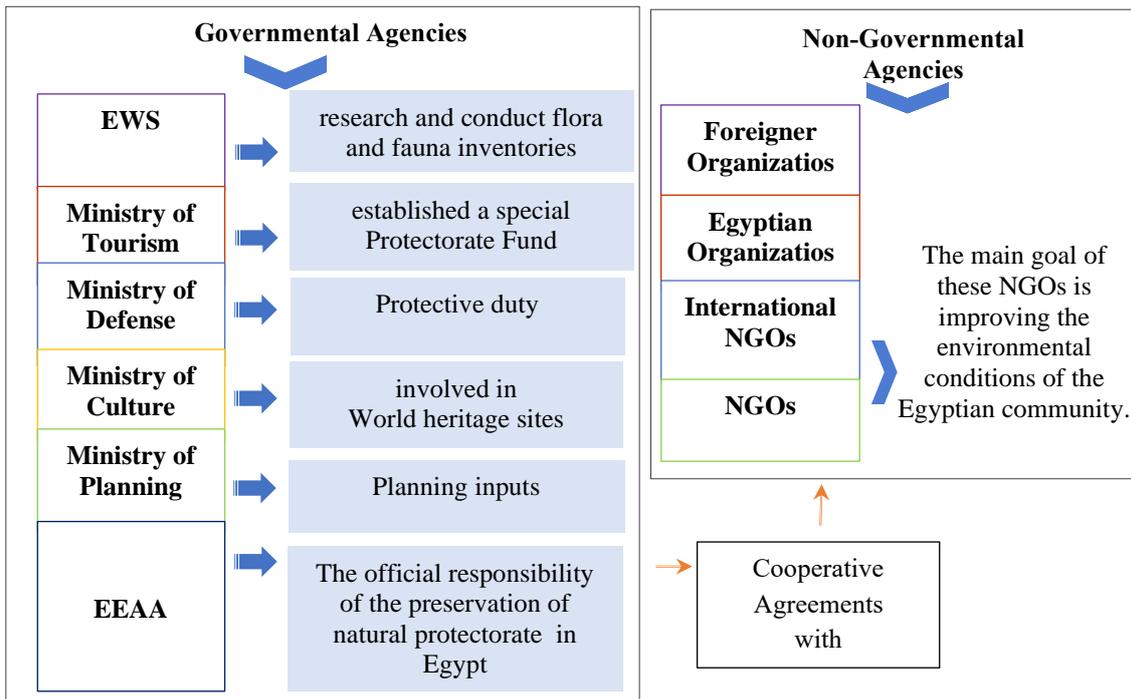


Figure (8): Governmental and non governmental bodies take the responsibility of protectorates.(Source: Researcher) based on different sources

17-Egyptian Protectorates Classification

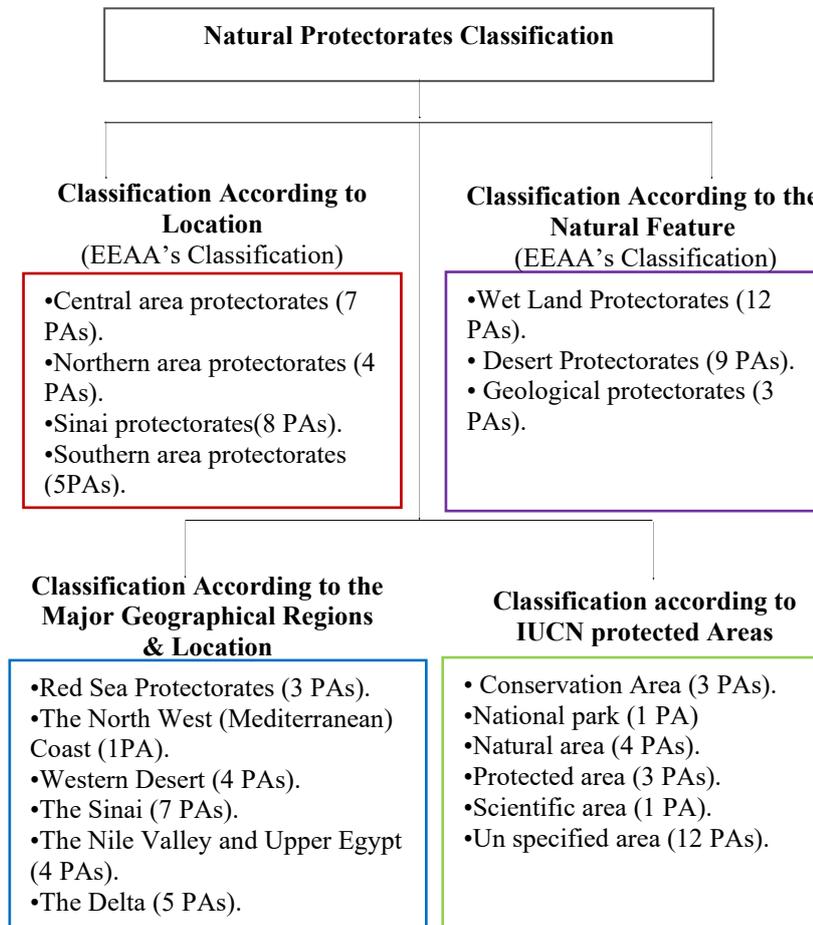


Figure (9) Natural Protectorates Classification in Egypt .

### 18-Egypt's Natural Protectorates Legislation

#### 1-National Legislative Protection:-

The first legislation came into being with the creation of the royal hunting reserve Wade Rishrash in 1900. Interest was re-initiated with the 1955 UNESCO convention. Since that, a number of laws concerning the environment have been introduced.

Table (2) National laws and decrees of protection in Egypt Source (Rraslan, 2003)

Title	Year	Action
<b>a- president decrees and laws</b>		
President decree (march,1980)	1980	Establishment of a mechanism for: identifying /protecting areas / species through cooperationbetween provincial governors and ministry of agriculture
President law no.101/1985	1985	Provides financial assistance for population prevention and nature conservation in Egypt, as the "Tourism and environment fund"
<b>b- ministered decrees and laws</b>		
ministered decree 28 of 1967	1967	Specification of wild and animal species under protection covered by article 117 of law 53 of 1966
ministered decrees 349 of 1979	1979	Establishment of the Egyptian wild life service as the first governmental authority concerned with the protection of the wild life in the country
ministered decree no. 472/ 5 may 1982	1982	Following presidential decree (1980), this ensured prohibition of hunting of birds and animals in various Sinai sites

Continued Table (2) National laws and decrees of protection in Egypt Source (Rraslan, 2003)

<b>c- Decrees and laws</b>		
Law 53 of 1966 (agriculture law)	1966	Among its article117 prohibits hunting of species useful to agriculture, 118 prohibits cultivation of plants harmful to these species.
Law 72 of 1968	1968	Concern prevention of pollution of sea water through oil spills
Law 48 of 1982	1982	Protection of the Nile River and watercourses against pollution
Law No.102/83	1983	Provision for the legal framework for governmental establishment of PAs.
Decree No. 1611 1989	1989	Issued by ministry of justice granting police power to the manager of EEAA governorate branch, the protectorate manager, and second protectorate researcher.
Law 4 of 1994	1994	Defines scope and responsibilities of EEAA, establish EPF, the setting up of environment incentives system.

#### **From the last table we recognize the following:**

- From 1966 until 1980 there was no laws specialized in PAs.
- There are no new laws established since 1994.
- There is no specific laws define the punishment of destroy or damage any part of the PA (Fauna, flora or geographical compounds).

#### **2-International Activities, Conventions and Agreements:-**

Since 1936, Egypt has acted party to a large number of regional and international conventions and agreements dealing with the conservation of nature in general and biodiversity in particular. The next table is based on the UNEP Egypt profile.

Table (3) International Conventions of protection in Egypt

Convention (place and date Ratified)	Authority Egypt
African convention on the conservation of nature and national resources (Algeria,1968)	----
Convention on Wetlands of International Importance especially asWaterfowl habitat (Ramsar, 1971)	EEAA

continued Table (3) International Conventions of protection in Egypt

Convention on international trade in Endangered species of wild fauna and flora (Washington, 1973)	EEAA
Convention for the protection of Mediterranean sea against pollution (Barcelona,1976)	EEAA
Convention on the conservation of the migratory species of wild animal (bonn,1979)	EEAA
Protocol concerning Mediterranean specially protected areas (Geneva,1982)	EEAA
Regional convention for the conservation	----
Convention on the conservation of the migratory species of wild animal (bonn,1979)	EEAA

**19-Egyptian Protectorates Analysis:**

- The first protectorate in Egypt was Ras Mohammed protectorate, it was declared in 1983. Mount Kamel Meteor Protectorate is declared in 2012, it is the latest protectorate in Egypt.
- Egyptian protectorates are located in 12 governorates, except Nile river island protectorate which locate in 16 governorates.
- Almost 50% of the Egyptian PAs are unspecified in the IUCN categories system.

**20-Egypt’s Unesco World Heritage Sites**

- Egypt is home to a total of **7 UNESCO World Heritage Sites**. The majority of these are of cultural significance, while one has made the list thanks to its importance in natural history.
- Three of the sites date back to the Old Kingdom of Egypt.

**- The UNESCO World Heritage List for Egypt is as follows:-**

- Abu Mena (cultural heritage)
- Ancient Thebes with its Necropolis (cultural heritage)
- Historic Cairo (cultural heritage)
- Memphis and its Necropolis – the Pyramid Fields from Giza to Dahshur (cultural heritage)
- Nubian Monuments from Abu Simbel to Philae (cultural heritage)
- Saint Catherine Area (cultural heritage)
- Wadi Al-Hitan (Whale Valley) (natural heritage)

**Iucn System Of Natural Protectorates Land Use Classification:**

**1-Natural Area:**

Established and managed principally to sustain the protected area’s natural biological communities, habitats, ecosystems and processes, and the ecological services, uses and values they provide to this and future generations.

- Strict natural area
- Managed natural areas
- Wilderness areas
- Natural environment recreation areas.

**a- Strict Natural Area:**

Protected area managed mainly for science. This area represents ecosystems, geological or physiological features and/or species, available primarily for scientific research and/or environmental monitoring.

**b-Managed Natural Areas:**

This area is necessary to protect nationally significant species, group of species, biotic communities, or physical features of the environment, where these require specific human manipulation for there perpetuation.

**c-Wilderness Areas:**

protected area managed mainly for wilderness protection. It is a Large area of unmodified or slightly modified land, and/or sea, retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to preserve its natural condition.

**d-Natural Environment Recreation Areas:**

A large area inside the protected area contains the recreational facilities, visitors activities, road network, parking zone and any other visitor's facilities. It also contains places for camping, sport, and Picnicing.

**2-Cultural Area:**

Established and managed principally to protect, understand and interpret submerged cultural resources that reflect the nation’s history. (Tolba, 2003).

**21-Management Planning Of Natural Protectorates**

**Definition of management plan:**

1. “a written, circulated and approved document which describes the site or area and the problems and opportunities for management of its nature conservation, land form or landscape features, enabling objectives based on this information to be met through relevant work over a stated period of time” (Eurosite 1999).

2. “the guide by which Parks Canada manages the resources and uses of a national park. It contains the management objectives and the means and strategies for achieving them.The plan is not an end in itself; rather it constitutes a framework within which

subsequent management, implementation and planning will take place” (Parks Canada 1978).

3. “a document that guides and controls the management of a protected area. It details the resources, uses, facilities and personnel needed to manage the area in the future. It is a working document that presents a program for the coming 5–10 years” (Ndosi 1992).

4. “a document that guides and controls the management of protected area resources, the uses of the area and the development of facilities needed to support that management and use. Thus a Management Plan is a working document to guide and facilitate all development activities and all management activities to be implemented in an area” (Thorsell 1995).

5. “a document that sets forth the basic and development philosophy of the park and provides strategies for solving problems and achieving identified management objectives over a ten-year period. Based on these strategies, programs, actions and support facilities necessary for efficient park operations, visitor use and human benefit are identified. Throughout the planning effort, the park is considered in a regional context that influences and is influenced by it” (Young and Young 1993).

## 22-The Benefits Of Management Planning

Apart from meeting legislative requirements, the most compelling reason for producing Management Plans is to provide benefits to the protected area and those who rely upon its good management. A good management planning process which has the support of staff and local people, provides the following benefits:

### Improved management of the protected area

The primary product of management planning should be more effective management of the protected area. Management planning encourages more effective management by:

1. ensuring that management decisions are based on a clear understanding of the protected area, its purpose, and the important resources and values associated with it.

2. providing guidance for managers in the form of a framework for day-to-day operations and long-term management. A Management Plan should provide the manager with a long-term vision for the protected area, as well as guidance on how to direct the management of the protected area towards this vision. It should assist in day to-day decisions about complex problems, by clarifying management objectives and prioritising them. This should resolve conflicts, address bad risks, remove ambiguity on

how the area is to be managed and explain how the decisions were arrived at.

3. providing continuity of management. Having an agreed Management Plan in place provides a useful briefing document for new staff and helps them to maintain the direction and momentum of management. This is particularly important for small or voluntary organisations where there is high staff turnover, and management may be carried out by a succession of staff and volunteers.

4. by helping to identify and define management ‘effectiveness’. If the management objectives within a Management Plan are well written, specific and can be measured, they can be used as a basis for determining whether management of the protected area is effective or whether changes in management (or indeed in the plan) are required. (A fuller discussion of this topic is to be found in Best Practice Guidelines No. 6, Hockings et al., 2000)

## 23-The Management Planning Process

Management planning is a continuous process – a ‘circle’ with three main elements:

1. Preparation of a Management Plan .
2. Implementation of the plan .
3. Monitoring and review of the plan.

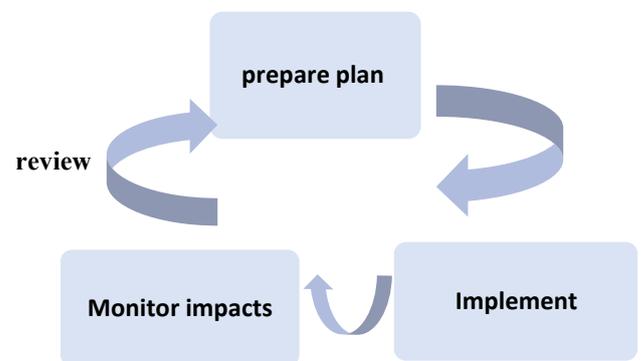


Figure (10) Management planning of Natural Protectorates .

**24-Natural Protectorates Management Planning Steps:**

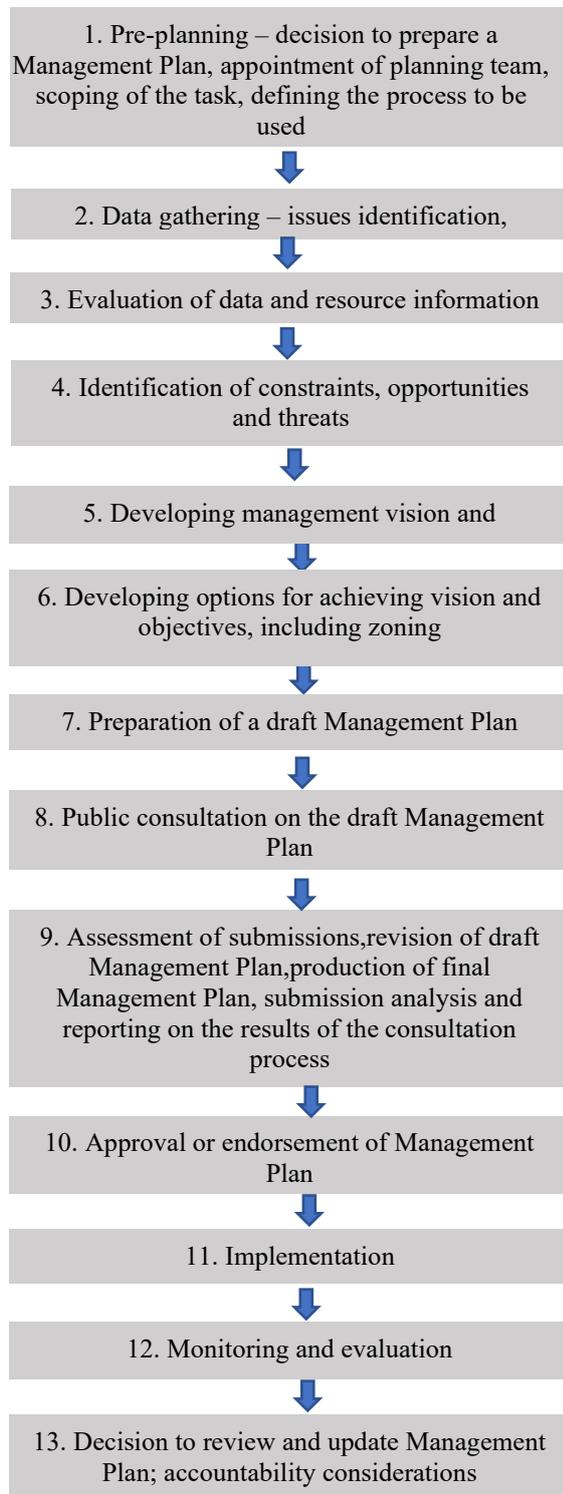


Figure (11) Natural Protectorates Management Planning Steps.

**25-The Management Planning Team:-**

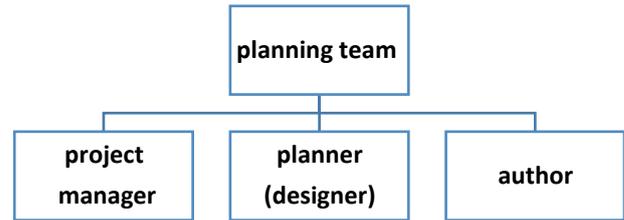


Figure (12) Management planning Team of Natural Protectorates.

**To be successful, the planning team should:**

a. be interdisciplinary and contain experts with different professional backgrounds, e.g. ecologists, landscape architects, park planners, social scientists (such as sociologists and anthropologists), resource managers, engineers and technical experts. The expertise required will depend on the circumstances of the protected area, its socio-economic conditions, and the management issues and prescriptions to be developed;

b. involve the management and staff from the protected area in question. As Parrpoints out: "it is very largely these individuals who will implement the plan. Equally important, they probably have the best perception of what really can be achieved within the protected area, with any given budget, over a period of time" (Parr 1998);

b. include other staff from within the organisation (district, regional or Head Office staff) to provide guidance on policy, regional and national context;

d. possess insight and imagination. Its members should have the ability to think creatively and solve problems. Team members should also possess the skills needed to communicate their ideas and values to each other and to external interests:

"The process of planning is people oriented. The planning process deals with what people, both inside and outside the park management organisation, want done and how they think it should be achieved. Planning is a process for structuring thinking about these issues and communicating them, either in writing or some other form.

Skills in communication, be it in writing or in handling negotiations in large and small meetings are now indispensable from the list of skills that should be available on any park management planning team. Increasingly planning is about being able to handle people rather than pieces of paper" (Lipscombe 1987);

e. include local people on the team where feasible and appropriate. They will be able to contribute knowledge of local conditions and their involvement should encourage the acceptance of the plan by local communities. If they are not directly.

### **1. Project manager**

The primary responsibility of the project manager is to ensure that the plan is prepared to schedule and budget. This will involve identification of the tasks involved, preparation of a work plan, allocation of responsibilities, ensuring deadlines are met etc.

### **2.Planner/Planning adviser**

The role of the planner within the team is primarily one of co-ordinator,communicator and facilitator. "It is his [or her] responsibility to pull together a diversity of opinion and factual data to create a whole out of myriad parts" (Eidsvik 1977). The planner is also there to contribute a knowledge of the planning process itself and to "provide the design skills for formulating and evaluating the possible policy alternative and assist in the choice of the best solution" (Forster 1973). Often the planner is also the collector, organiser and processor of technical information (Driver 1970).

The planner is not normally an expert in individual technical subjects and as such is not a direct decision-maker when it comes to deciding policy or management direction. His or her role is to facilitate the decision-making process. However, planners often do make direct decisions about the information that is included in the process and how it is used, and can therefore have an influence over the decisions made (Driver 1970). The planner must be aware of this responsibility and have integrity and objectivity when sorting and presenting information to the rest of the team.

The planner should be able to think systematically. He or she should have the ability to ask the right questions, weigh the evidence contributed by the scientific experts on the team and work with them to determine management alternatives and the relative long-term effects on values held by various interests (Forster 1973). Writing about planning for National Parks in North America in the 1970s (where the focus was on landscape preservation and the provision of recreational opportunities), Forster also listed these as desirable attributes: "awareness and aesthetic appreciation of the landscape and of the values and functions of environmental form", and "an understanding for the interpretation of human needs and for the construction of facilities associated with the context of park values and ecological principles"(Forster 1973).

### **3. author**

The ability to communicate in writing is the most important skill the author or editor of the plan must possess. Writing a Management Plan is a difficult

task that requires considerable skill – something that should not be underestimated when assigning this responsibility within a planning team. For this reason, some organisations provide 'set text' (where possible) for certain sections of plans or detailed guidance on the required content and style of each section. The Kwa Zulu Natal Nature Conservation Service provides assistance in this way, with detailed guidance in both a planning manual and a computer template for the Management Plan (Sandwith 2000 pers. com.).

## **26-The International Dimension To Management Planning**

### **26.1.The management of World Heritage sites:-**

The purpose of management of a World Heritage property is to ensure the protection of its "outstanding universal value" for the benefit of the present generation, and its transmission unimpaired to future generations.

World Heritage properties may sustain a variety of actual or proposed uses. Some uses may be essential to the maintenance of a property, for example traditional uses by indigenous peoples. Furthermore, any uses should be ecologically and culturally sustainable. For some properties, human use would not be appropriate.

Each property should have an appropriate Management Plan or other documented management system. The management system should demonstrate effective administrative, contractual, and/or traditional management mechanisms, protection systems and/or planning controls. An explanation of how these management mechanisms, protection systems and planning controls operate, should also be provided by the State Party in the nomination. In some circumstances, a Management Plan or other management system may not be in place at the time when a site is nominated for the consideration of the World Heritage Committee. The State Party concerned should then indicate when such a Management Plan or system would be put in place, and how it proposes to mobilise the resources required for its preparation and implementation.

Effective management planning involves a cycle of long-term and day-to-day actions to protect, conserve and present the World Heritage property. Common elements of the recommended management approach for World Heritage sites include:

- a cycle of planning, implementation, monitoring, evaluation and feedback;
- planning based on a thorough understanding of the property;
- the full involvement of partners and stakeholders;

- capacity-building for all involved in the planning process; and
- application of the Precautionary Principle.

Close attention should be given to the development of management planning approaches, designed according to the capacity of the World Heritage property and its cultural and natural context. Approaches may vary according to different cultural perspectives, the type of property, resources available and other factors. They may incorporate traditional practices, existing urban or regional planning instruments, and other planning control mechanisms, both formal and informal depending on the circumstances.

An accountable, transparent system showing how a property is to be monitored is essential. The management approach should also include a mechanism for Periodic Reporting on a six year cycle as an integral part of the planning effort.

### **26.2. Ramsar Sites**

Wetlands are dynamic areas, open to influence from natural and human factors. In order to maintain their biological diversity and productivity and to allow wise use of their resources by human beings, some kind of overall agreement is needed between the various owners, occupiers and interested parties. The management planning process provides this overall agreement.

When developing management planning, which will be applied to all wetlands and not just to reserves, the following considerations should be taken into account:

- Management planning is a way of thinking which involves recording, evaluating
- and planning. It is a process subject to constant review and revision. Management
- Plans should, therefore, be flexible, dynamic documents.
- It is essential to emphasise that – in essence – the process described below is very
- simple. It involves three basic actions: describing, defining objectives, and taking
- any necessary action. Preparation of an elaborate plan must never be an excuse for
- inaction or delay. It will be useful to produce a very brief executive summary for
- decision-makers in order to allow decisions of principle and funding to be taken
- rapidly.
- Review of the plan may lead to revision of the site description and objectives
- (particularly the operational objectives).

The format of the Management Plan for Ramsar sites, as is reflected in these guidelines, should comprise the following elements:

#### **a. Description**

#### **b. Evaluation and objectives**

- Evaluation
- Long-term objectives
- Factors influencing achievement of long-term objectives

- Operational objectives

#### **c. Action plan/prescriptions**

- Work plan
- Projects
- Work programmes
- Annual review
- Major review

For further details in relation to Ramsar management planning, the reader is referred to the Ramsar handbook.

### **26.3. UNESCO Biosphere Reserves**

Biosphere Reserves have no fixed format to be adhered to in drafting Management Plans. By their nature, Biosphere Reserves will nearly always include a combination of public and privately owned lands. Accordingly the development of management prescriptions for inclusion in a Management Plan may not be feasible except at the broadest level. That is not to say that different components may not have Management Plans developed for them. Indeed it is frequently the case that core protected areas have detailed Management Plans while the remaining areas adhere to less prescriptive but widely cast objectives, for example in land use policies. Other objectives for buffer and transition zones may relate to sustainable practices, for example to promote the production of “organically grown” fruit produce, or operate sound water use practices.

Broad consultation in the development of relevant policies and practices is vital in the development of Management Plans for Biosphere Reserves. Unless there is such participation in their development and adoption, it is unlikely that the desired framework will be accepted or adhered to, and the objectives met. Consultative management planning is accordingly an essential requirement for Biosphere Reserves.

## **27-Managing Natural Protectorate In Egypt**

### **27.1. Conflicts in the Natural protectorates Management:**

Many of the problems affecting Natural protectorates in Egypt are a direct result of the lack of sustainable, effective system to address management issues. Conservation activities and efforts promoting Natural protectorates management and the sustainable use of natural resources are largely isolated from the conception phase through to implementation, resulting in a deficit in the capacity in the field of conservation.

**This occurs due to the following:**

- The lack of an organizational framework that specifies the responsibilities and duties of involved authorities and participants.
- The indefinite nature of the status of ownership and authority within PAs.
- Communication deficiencies between involved parties and uncoordinated development strategies between government agencies and the duplication of roles. Conflicts can be defined by the level at which they occur, and parties involved:
- **Inter - governmental:** these occur when the activities of government agencies within Natural protectorates, are inconsistent or uncoordinated in their aims.
- **Governmental/External Institutions:** these occur when governmental actions are conflict with the activities, opinions or efforts of concerned NGOs, academic institutions or international organizations.
- **Governmental/Legislative:** Legislative non-compliance of government agency involving its activities within Natural protectorates.
- **Governmental/Stakeholder:** The conflict of actions of the government with those of private owners/ local communities.

**27.2.Conflicts in the Natural protectorates Definitions and Classifications:**

Protected areas in Egypt have a local name; protectorate. This terminology rarely used in any other country. This may make a confusion or misunderstanding to the tourists or nature lovers. Also classification of PAs in Egypt is managed by two systems:

- **Local Classification:** this classification is submitted by EEAA, and it is the official classification in our country. It is classified PAs according to location (This type classifies Natural protectorates into 4 sectors), or according to natural feature (This type classifies Natural protectorates into 3 sectors).
- **International Classification:** the IUCN protected areas categories is the worldwide classification. Here in Egypt Only 50% of the Egyptian Natural protectorates are classified in this system and the other Natural protectorates are unspecified in this classification.

**27.3.Conflict in Aims**

**The main conflict is between aims of conservation and aims of development in Egypt:**

The conservation strategy aims to not commit actions deeds or carry out activities which would lead to the destruction or deterioration of the natural environment or which would detract from the aesthetic standards within the reserved area. (EEAA- Department of Nature Protectorates, 1989).

In contrary, the development strategy aims to set communities and to create activities that improve productions and reproductions. This conflict appears in many of Egyptian protectorates between some legislative bodies like; EEAA and Ministry of New Communities in new Cairo city (a fight on the land of the Petrified Forest).

**27.4. Shortage in the Publication of the Natural protectorates:**

One of the most important problems that face Egyptian Natural protectorates is shortage in the publication. Sinai's PAs is known to the public, but other Natural protectorates suffer from neglecting from the government's publication. Only residents of the adherence area of Natural protectorates know that there is a protected area. But they may not know what is a protected area is. This situation put Natural protectorates in crisis, because of the damage and violation which may happen to the Natural protectorates compounds.

**27.5. Shortage in the Financial Support of Natural protectorates:**

Non-Governmental Organizations (NGOs) in Egypt have an important role to play in the financial support of Natural protectorates. In this respect, the Egyptian government has been encouraging and supporting the establishment of various NGOs, especially those working in the fields of environmental awareness and protection. Most of the financial support of Natural protectorates came from international conventions, as EEAA suffers from the shortage of the Natural protectorates budget from government. (Sinai protectorates are financially managed from the European Union).

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