

**Stocktaking and Gap Identification Report for the UNCBD  
(Biodiversity)**

**Prepared for**

**National Capacity Self Assessment Project  
(NCSA)/EGYPT  
GEF/UNDP**

**By**

**Mahmoud Hassan Hanafy (Ph.D)**  
Marine Science Dept. Faculty of Science  
Suez Canal University, Ismailia, Egypt

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## Abbreviations Used

<b>ARE</b>	<b>Arab Republic of Egypt</b>
<b>BCH</b>	<b>Biosafety Clearing House</b>
<b>BIOMAP</b>	<b>Biodiversity Monitoring and Assessment Project</b>
<b>CBD</b>	<b>Convention of Biological Diversity</b>
<b>COP</b>	<b>Conference of Meeting</b>
<b>CITES</b>	<b>Convention on International Trade in Endangered Species of Wild Fauna and Flora</b>
<b>CMS</b>	<b>Convention of Migratory Species</b>
<b>CHM</b>	<b>Clearing House Mechanism</b>
<b>CEPA</b>	<b>Communication, Education and Public Awareness</b>
<b>DANIDA</b>	<b>Danish International Development Agency</b>
<b>EA</b>	<b>Environmental Assessment</b>
<b>EEAA</b>	<b>Egyptian Environmental Affairs Agency</b>
<b>EU</b>	<b>European Union</b>
<b>EIECP</b>	<b>Egyptian Italian Environmental Cooperation Program</b>
<b>EEPP</b>	<b>Egyptian Environmental Policy Program</b>
<b>EPF</b>	<b>Environmental Protection Agency</b>
<b>FAO</b>	<b>Food and Agriculture Organization</b>
<b>GAFRD</b>	<b>General Authority for Fish Resources Development</b>
<b>GEF</b>	<b>Global Environmental Facility</b>
<b>GTI</b>	<b>Global Taxonomy Initiative</b>
<b>GAPDP</b>	<b>Gulf of AQABA Protectorates Development Programme</b>
<b>IUCN</b>	<b>International Conservation Union</b>
<b>IBC</b>	<b>International Broadcasting Convention</b>

<b>LIFE</b>	<b>Livelihood and Income From Environment</b>
<b>MEDWET</b>	<b>Mediterranean Wetlands</b>
<b>NCSA</b>	<b>National Capacity Self Assessment</b>
<b>NBSAP</b>	<b>National Biodiversity Strategy and Action Plan</b>
<b>NBU</b>	<b>National Biodiversity Unit</b>
<b>NEAP</b>	<b>National Environmental Action Plan</b>
<b>PERSGA</b>	<b>Regional Organization for Environment and Conservation of the Red Sea and Gulf of Aden</b>
<b>RAMSAR</b>	<b>Convention on Wetland of International Importance</b>
<b>RMNP</b>	<b>Ras Mohamed National Park</b>
<b>SBSTTA</b>	<b>Subsidiary Body on Scientific, Technical and Technological Advice</b>
<b>SKPDP</b>	<b>Saint Katharine Protectorate Development Project</b>
<b>UNESCO</b>	<b>United Nations Educational, Scientific and Cultural Organization</b>
<b>UNCBD</b>	<b>United Nations Convention on Biological Diversity</b>
<b>USAID</b>	<b>United States Agency for International Development</b>
<b>UNEP</b>	<b>United Nations Environmental Programme</b>
<b>UNDP</b>	<b>United Nations Development Programme</b>
<b>WWF</b>	<b>Worldwide Wildlife Foundation</b>

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## Executive Summery

## Executive Summery

The Convention on Biological Diversity (CBD) is one of the “Rio” Conventions which opened for signature at the United Nations Conference on Environment and Development in Rio de Janeiro, Brazil, in 1992. The Convention entered into force in December 1993. It is the first global agreement on the conservation and sustainable use of biological diversity, and is considered an “umbrella treaty” as it touches on every aspect of the sustainable use of biological diversity. It covers all ecosystems, species, and genetic resources, and links traditional conservation efforts to the sustainable use of biological resources. It also covers the rapidly expanding field of biotechnology, addressing technology development and transfer, benefit-sharing and biosafety through its Biosafety Protocol. The World Summit on Sustainable Development, held in 2002, identified the Convention as “*the key instrument for the conservation and sustainable use of biodiversity and the fair and equitable sharing of benefits arising out of the utilization of genetic resources.*” It recognizes that the conservation of biological diversity is "a common concern of humankind" and is an integral part of the development process.

The Report provides a synthesis of the current state implementation of the Convention in Egypt gives an indication of the level of knowledge and awareness and points to a path towards the preparation of a National Action Plan for Egypt.

The report outlines the mechanisms and systems that have been **developed** , their strengths and weaknesses, and points out some of the actions needed in order to improve the functioning and thereby making for effective and efficient implementation of the UNCBD in Egypt.

This report has attempted to summarize the last ten years of Egypt’s efforts to comply with requirements of the Convention of Biodiversity. With the adoption of the Biodiversity Action Plan and the implementation of such important donor funded

conservation initiatives, the issue of biodiversity conservation has earned itself considerable importance at both the policy and community levels in the country.

The report as well tackles the activities carried out as a result of becoming a party to the convention.

Also there are a number of biodiversity related activities which are relevant to the implementation of the Convention.

It was so obvious through the report that, the importance of donor assistance, especially in capacity building, is all the more vital so as to ensure that similar conservation initiatives can continue, and that the requirements of the CBD are met, in the future. Finally, the report points out the capacity constraints at the three levels to fulfil the obligations under the conventions with identification of the priorities.

This report was undertaken for the Egyptian Environmental Affairs Agency (EEAA), National Capacity Self Assessment Project (NCSA).

**The scope of work for this assignment includes:**

1. Review the obligations of UNCBD, particularly the guidance related to capacity development issued by the COP's meetings ;
2. Compile the relevant information, documents and other literature on the biodiversity and its current status at the national level.
3. Review and describe the existing capacity at both the national and local levels, including legislations, policies, strategies action plans, institutions, stakeholders and on line activities.
4. Inventory of the biodiversity with a short description of each project, particularly capacity building initiatives that formulates lessons learned.
5. Perform a preliminary examination of the crosscutting issues and synergies with the other two thematic area( climate change and desertification ) from the perspective of the climate change area

- 6 Provide basic information relating to the urgency of the issues, the level of the capacity needed, the centrality of the issue, the stakeholders involved and anticipated ease with which the issue could be addressed.
- 7 Participate in the national inception workshop and assist in the preparation and participation of the consultation workshop of the draft report.

## I. THE CONVENTION ON BIOLOGICAL DIVERSITY

*"Humanity has the ability to make development sustainable-to ensure that it meets needs of the present without compromising the ability of future generations to meet their own needs".*

(World Commission on Environment and Development (the Brundtland Commission) (1987.)

### 1. Introduction

Owing to the ever increasing human exploitation of natural resources as well as the pollution caused by human activities, it has been estimated that global biological diversity will suffer a 20 % loss by the year 2020. The effect of such a drastic change in the composition of life forms, in terms of the resultant impact on the ecological services they provide, has attracted significant concern from the international community. Consequently, a number of individual and cooperative efforts have been initiated towards curbing the loss of biodiversity over the last decade. The convention on Biological Diversity realized during Rio de Janeiro in 1992 is one of the world commitments towards conservation of natural resources.

#### 1.1 The United Nations Convention on Biological Diversity

Biological diversity is the term given to the variety of life on Earth and the natural patterns it forms. Biodiversity clearly includes the wide variety of plants, animals and microorganisms, but it also includes genetic differences within each species – for example, between varieties of crops and breeds of livestock. Chromosomes, genes, and DNA – the building blocks of life – determine the uniqueness of each individual and each species.

It is the combination of life forms and their interactions with each other and with the rest of the environment that has made the Earth a uniquely habitable place for humans. Biodiversity provides a large number of goods and services that sustain our lives.

Protecting biodiversity is in our self-interest. Biological resources are the pillars upon which we build civilizations. Nature's products support such diverse industries as agriculture, cosmetics, pharmaceuticals, pulp and paper, horticulture, construction and waste treatment. The loss of biodiversity threatens our food supplies, opportunities for recreation and tourism, and sources of wood, medicines and energy. It also interferes with essential ecological functions of the Earth.

The loss of biodiversity often reduces the productivity of ecosystems, thereby shrinking nature's basket of goods and services, from which we constantly draw. It destabilizes ecosystems, and weakens their ability to deal with natural disasters such as floods,

droughts, and hurricanes, and with human-caused stresses, such as pollution and climate change.

At the 1992 Earth Summit in Rio de Janeiro , world leaders agreed on a comprehensive strategy for *sustainable development* – meeting our needs while ensuring that we leave a healthy and viable world for future generations. One of the key agreements adopted at Rio was the *Convention on Biological Diversity*. This pact among the vast majority of the world's governments sets out commitments for maintaining the world's ecological processes as we go about the business of economic development.

### 1.1.1 Objectives.

The convention of biological biodiversity (CBD) is one of the "Rio" conventions which opened for signature at the United Nations Conference on Environment and Development in Rio de Janeiro, Brazil, in 1992. The convention entered into force in December, 1993. Egypt was among the first group of countries to recognize the importance of the conservation of nature and natural resources. Since 1936, Egypt was always among signatories of numerous international conventions and agreements. Egypt ratified the CBD in 1994 .

CBD is the first global agreement on the conservation and sustainable use of biological diversity, as it touches on every aspects of sustainable use of biological diversity. It covers all ecosystems (living and non-living components), species, and genetic resources. It also covers the rapidly expended field of biotechnology addressing development and transfer, benefit sharing and biosafety through its biosafety Protocol. The World Summit on Sustainable Development, held in 2002, identified the CBD Convention as "*the key instrument for conservation and sustainable use of biodiversity and the fair and equitable sharing of benefits arising out of the utilization of genetic resources*". To this end, all signatories are required to take all measures to ensure that the goal of CBD is achieved through coordination and cooperation between international governments and their respective civil societies. The CBD requires the contracting parties to fulfill certain obligations and take all measures to achieve the following three main **objectives (Article 1)**:

- (i) Conservation of the biological diversity
- (ii) Sustainable use of biodiversity, and
- (iii) Fair and equitable sharing of benefits due to utilization of genetic resources.

### **1.1.2 Principle**

The principle which guides the CBD is set out in Article 3 and states:

*“States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.”*

### **1.1.3 Obligations**

There are a number of obligations for Parties under the CBD which are listed in Articles 5-19 and 26. Obligations under Articles 5-19 include *inter alia*:

- a. Develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programmes which shall reflect, *inter alia*, the measures set out in this Convention relevant to the Contracting Party concerned;
- b. Integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies;
- c. Establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity;
- d. Develop, where necessary, guidelines for the selection, establishment and management of protected areas or areas where special measures need to be taken to conserve biological diversity;
- e. Regulate or manage biological resources important for the conservation of biological diversity whether within or outside protected areas, with a view to ensuring their conservation and sustainable use;

f. Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species, *inter alia*, through the development and implementation of plans or other management strategies;

g. Establish or maintain means to regulate, manage or control the risks associated with the use and release of living modified organisms resulting from biotechnology which are likely to have adverse environmental impacts that could affect the conservation and sustainable use of biological diversity, taking also into account the risks to human health;

h. Prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species;

i. Subject to its 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 equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices;

j. Promote and encourage understanding of the importance of, and the measures required for, the conservation of biological diversity, as well as its propagation through media, and the inclusion of these topics in educational programmes;

k. Introduce appropriate procedures requiring environmental impact assessment of its proposed projects that are likely to have significant adverse effects on biological diversity with a view to avoiding or minimizing such effects and, where appropriate, allow for public participation in such procedures; and

l. Promote and facilitate technical and scientific cooperation through a Clearing House Mechanism.

**Article 26** of the Convention states that: “*Each Contracting Party shall, at intervals to be determined by the Conference of the Parties, present to the Conference of the Parties, reports NCSA Stocktaking Report October 2004 on measures which it has taken for the implementation of the provisions of this Convention and their effectiveness in meeting the objectives of this Convention.*” To date, Parties have been required to submit three **national** reports to the Convention’s Secretariat.

#### **1.1.4 Implementation Mechanisms**

In order to facilitate effective implementation of the Convention, the Conference of the Parties, (COP) has (through its Subsidiary Body on Scientific, Technical and Technological Advice, (SBSTTA)), developed a number of thematic work programmes and identified certain cross cutting issues to be taken into consideration when implementing these programmes. Additionally, there are a number of cross-cutting issues related to Articles 6-20, some of which directly support work under the thematic programmes. A listing of the thematic areas cross cutting issues can be seen in Table 1&2 respectively.

##### **1.1.4.1 Thematic areas under the Convention on Biological Diversity**

- Freshwater biodiversity
- Marine and coastal biodiversity
- Agricultural biodiversity
- Forest biodiversity
- Dry and sub-humid lands
- Mountain biodiversity
- Island biodiversity

##### **1.1.4.2 Cross cutting issues under the convention on Biological Diversity**

- Protected areas
  - Assessment of biodiversity and strategic Environmental Assessment (SEA)
  - Monitoring and indicators
  - Global Taxonomy Initiative
  - Global Strategy for Plant Conservation
  - [Ecosystem Approach](#)
  - Sustainable use of biodiversity
  - Invasive alien species
  - Biodiversity & Tourism
  - Economics, trade & incentive measures
- 
- Traditional knowledge innovations and practices (Article 8(j))

- Access to genetic resources and benefit share
- Biosafety
- Incentives
- Technical and scientific cooperation
- Technology transfer and cooperation
- Public education and awareness
- Liability & redress
- 2010 Biodiversity target

Goal 3 of the Strategic Plan of CBD places emphasis on the development National biodiversity strategies and action plans, (NBSAPs), the integration of biodiversity concerns into relevant sectors, and active implementation of identified priorities in the NBSAPs as an effective framework for the implementation of the objectives of the Convention.

## 1.1.5 Conference of the Parties – COP

### 1.1.5.1 Background and Status

The Conference of the Parties is the governing body of the Convention, and advances implementation of the Convention through the decisions it takes at its periodic meetings.

To date the Conference of the Parties has held 7 ordinary meetings, and one extraordinary meeting (the latter, to adopt the **Biosafety Protocol**, was held in two parts). From 1994 to 1996, the Conference of the Parties held its ordinary meetings annually. Since then these meetings have been held somewhat less frequently and, following a change in the rules of procedure in 2000, will now be held every two years. To date the Conference of the Parties has taken a total of 182 procedural and substantive decisions.

### 1.1.5.2 Meetings of the Conference of the Parties

COP 1	First Ordinary Meeting of the Conference of the Parties to the Convention on Biological Diversity Nassau, Bahamas (28 November - 9 December 1994)
COP 2	Second Ordinary Meeting of the Conference of the Parties to the Convention on Biological Diversity Jakarta, Indonesia (6 - 17 November 1995)
COP 3	Third Ordinary Meeting of the Conference of the Parties to the Convention on Biological Diversity Buenos Aires, Argentina (4 - 15 November 1996)
COP 4	Fourth Ordinary Meeting of the Conference of the Parties to the Convention on Biological Diversity Bratislava, Slovakia (4 - 15 May 1998)
ExCOP1	First Extraordinary Meeting of the Conference of the Parties to the Convention on Biological Diversity Cartagena, Colombia & Montreal, Canada (22 - 23

	February 1999 & 24 - 28 January 2000)
COP 5	Fifth Ordinary Meeting of the Conference of the Parties to the Convention on Biological Diversity Nairobi, Kenya (15 - 26 May 2000)
COP 6	Sixth Ordinary Meeting of the Conference of the Parties to the Convention on Biological Diversity The Hague, Netherlands (7 - 19 April 2002)
COP 7	Seventh Ordinary Meeting of the Conference of the Parties to the Convention on Biological Diversity Kuala Lumpur, Malaysia (9 - 20 February 2004)

### 1.1.5.3 Major themes at meetings of the Conference of the Parties

<b>First ordinary meeting</b>	Guidance to the financial mechanism; Medium-term programme of work;
<b>Second ordinary meeting</b>	Marine and coastal biological diversity; Access to genetic resources; Conservation and sustainable use of biological diversity; Bio safety;
<b>Third ordinary meeting</b>	Agricultural biodiversity; Financial resources and mechanism; Identification, monitoring and assessment; Intellectual property rights;
<b>Fourth ordinary meeting</b>	Financial resources and mechanism; Identification, monitoring and assessment; Intellectual property rights;
<b>Fifth ordinary meeting</b>	Dry land, Mediterranean, arid, semi-arid, grassland and savannah ecosystems; Sustainable use, including tourism; Access to genetic resources;
<b>Sixth ordinary meeting</b>	Forest ecosystems; Alien species; Benefit-sharing; Strategic plan 2002-2010;
<b>Seventh ordinary meeting</b>	Mountain ecosystems; Protected areas; Transfer of technology and technology cooperation.

### 1.1.5.4 Main Recommendations of the COP meetings

Meeting	Recommendation
COP 1	<p>- Financial resources should be allocated to projects that fulfil the eligibility criteria and are endorsed and promoted by the Parties concerned. Projects should contribute to the extent possible to build cooperation at the sub-regional, regional and international levels in the implementation of the Convention.</p> <p>-Projects should promote utilization of local and regional expertise. The institutional structure should over time assist all eligible countries to fulfil their obligations under the Convention. Policy and strategy may be revised, as necessary, by the Conference of the Parties.</p> <p>- Capacity-building, including human resources development and institutional development and/or strengthening, to facilitate the preparation and/or implementation of national strategies, plans for priority programmes and activities for conservation of biological</p>

	diversity and sustainable use of its components
COP 2	<ul style="list-style-type: none"> <li>- The importance of capacity-building as well as the availability of adequate financial resources to assist Parties in the implementation of Articles 6 and 8 of the Convention, and in this context requests the interim financial mechanism under the Convention to facilitate urgent implementation of Articles 6 and 8 of the Convention by availing to developing country Parties financial resources for projects in a flexible and expeditious manner</li> <li>- More effort on biological diversity is needed in research, training and other capacity-building activities (Convention on Biological Diversity Article 12). Important topics include development of policies, criteria and indicators, methodologies and technologies for sustainable forest management, and the impact of utilization of components of biological diversity, particularly those under threat, on ecological processes.</li> </ul>
COP 3	<ul style="list-style-type: none"> <li>- The need for capacity-building for the purposes of the clearinghouse mechanism in developing countries, including training on information systems technologies that will allow developing countries to take advantage of the recent developments in electronic communication, including the Internet</li> <li>- Encourages the Scientific Committee on Problems of the Environment and the Invasive Species Specialist Group of the World Conservation Union to continue their efforts to develop a global strategy and action plan to deal with the problem of alien invasive species;</li> <li>- Decides that the first national reports referred to in decision II/17 should be submitted no later than 1 January 1998, taking into account decision III/25 of the third meeting of the Conference of the Parties on the date and venue of its next meeting.</li> </ul>
COP 4	<ul style="list-style-type: none"> <li>- Stresses the urgent need for the further implementation of recommendation II/2 of the Subsidiary Body on Scientific, Technical and Technological Advice concerning capacity building in all fields of taxonomy to assist in the implementation of the Convention, through the incorporation of targeted actions in its work plan, including promoting regional activities to set regional agendas</li> <li>- Stresses the need to consider indigenous and traditional knowledge as an important existing information source that should be taken into account, and made available through appropriate mechanisms</li> </ul>
COP 5	<ul style="list-style-type: none"> <li>- Emphasizing also the priority of launching the Biosafety Clearing-House no later than the entry into force of the Protocol, and also the need to engage in capacity-building as soon as possible</li> <li>- Urges the implementation of capacity-building measures for</li> </ul>

	developing and implementing national and sectoral plans for the conservation and sustainable use of inland water ecosystems, including comprehensive assessments of the biological diversity of inland water ecosystems, and capacity-building programmes for monitoring the implementation of the programme of work and the trends in inland water biological diversity, and for information-gathering and dissemination among the riparian communities .
Ex COP 1	- Decides to establish a regionally balanced roster of experts nominated by Governments, in fields relevant to risk assessment and risk management related to the Protocol, to provide advice and other support, as appropriate and upon request, to developing country Parties and Parties with economies in transition, to conduct risk assessment, make informed decisions, develop national human resources and promote institutional strengthening, associated with the transboundary movements of living modified organisms.
COP 6	In recognition of the broad scope of the Convention, the need for adequate resources to implement the various programmes and address the cross- cutting issues, (particularly for developing countries), and the need for a focused approach for effective implementation, Parties adopted a Strategic Plan at the COP 6 to bring about a “convergence of actions around agreed goals and collective objectives.” The mission as defined in the strategic Plan is: <b><i>Parties commit themselves to a more effective and coherent implementation of the three objectives of the Convention, to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on earth.</i></b>
COP 7	The COP7 emphasized that national biodiversity strategies and action plans were the primary mechanisms for the implementation of the Convention and the Strategic Plan, and should be developed or reviewed with due regard to the relevant aspects of the four goals of the Strategic Plan, to enable greater contribution to the achievement of the 2010 target, consistent with national needs and priorities; and invites Parties to incorporate the goals, as appropriate, into the national biodiversity strategies and action plans when these are revised.

From the above recommendations, it is clear that the capacity development at the three levels individual, institutional and systemic is an integral part of the recommendations of the COP meetings. This should emphasize that the achievement of the obligations under

the UNCBD will not be possible without the appropriate effective capacity development pillar in place .

## **1.2 The Cartagena Protocol**

At its second meeting, held in November 1995, the Conference of the Parties to the Convention established an Open-ended Ad Hoc Working Group on Biosafety to develop a draft protocol on biosafety, focusing specifically on transboundary movement of any living modified organism resulting from modern biotechnology that may have adverse effect on the conservation and sustainable use of biological diversity. After several years of negotiations, the Protocol, known as the Cartagena Protocol on Biosafety to the Convention on Biological Diversity, was finalized and adopted in Montreal on 29 January 2000 at an extraordinary meeting of the Conference of the Parties. Egypt signed Biosafety Protocol in December 2000 and ratified it in November 2003.

The conclusion of the Biosafety Protocol has been hailed as a significant step forward in that it provides an international regulatory framework to reconcile the respective needs of trade and environmental protection with respect to a rapidly growing global industry, the biotechnology industry. The Protocol thus creates an enabling environment for the environmentally sound application of biotechnology, making it possible to derive maximum benefit from the potential that biotechnology has to offer, while minimizing the possible risks to the environment and to human health. So far, Members of Cartagena Protocol (MOP) have met twice in Feb. 2004 and Jan. 2005, Egypt submitted its first national report in Biosafety in Jan.2005.

## **2.3 International and Regional related conventions to UNCBD:**

Since 1936, Egypt always participate as party in the main international and regional conventions and agreements. Before ratification of the UNCBD, Egypt ratified many agreements and conventions including:

- Convention on the preservation of fauna and flora in their natural state, London, 1933 (ratified in 1936).
- Agreement on establishing general fisheries council for the Mediterranean, Rome, 1951.
- International Plant Protection Convention, Rome, 1953.
- International Convention on preventing oil pollution into the seas, London, 1963.
- Phyto-sanitary Convention for Africa, Kinshasa, 1968.
- African Convention on the Conservation of Nature and Natural Resources, Algeria, 1968 (ratified in 1972).
- Convention for the Protection of the Mediterranean Sea against pollution, Barcelona, 1976 (ratified in 1978)
- Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES), Washington, 1973.
- Protocol concerning Mediterranean , especially protected areas. Geneva, 1983 (ratified in 1986)

- Convention on Wetland of International Importance, especially Waterfowl Habitat (RAMSAR), (Rasmsar, Iran, 972), (ratified in 1988)..
- Convention of the Conservation of the Migratory Species of Wild Animals (CMS), Bonn, 1979 (ratified,1982).
- United Nations Convention on the Law of the Sea. Montego Bay, Jamaica, 1982 (ratified in 1983)
- Regional Convention for the Protection the Environment of the Red Sea and Gulf of Aden. Jeddah, 1990.
- Convention on Biological Biodiversity, Rio de Janeiro, 1992. (ratified in 1994).

After ratification of the UNCBD Egypt involved in some other related agreements and conventions such as:

- Agreement on the Establishment of the Near East Plant Protection Organization, Rabat, Moracco, 1993 (ratified in 1995).
- International Tropical Timber Agreement. Geneva, 1994 (ratified in 1996).
- Protocol concerning specially Protected Areas and Biological Diversity in the Mediterranean, Barcelona, 1995..

## 2. Status of the UNCBD in Egypt:

### 2.1 Background

Due to the unique geographical position, Egypt possesses a large variety of environmental systems. According to the system applied in the UNESCO map of the world, distribution of arid regions, based on the climatic condition (rain, temperature and humidity), Egypt can be divided, in general, into four bioclimatic provinces including: the hyperarid province with mild winter and hot summer; the hyperarid province with cool winter and hot summer, the coastal belt falling under the climatic maritime of the Mediterranean Sea; the sub-coastal bullet with a mild winter and hot summer. In total the number of recorded species in Egypt exceeds 20,000 species. However, it believes that this number is expected to be far more the reported number. For example, it has been belief that Egypt has 6,000 species of insects, but recent surveys have proved that the number is closer to 10,000 species. Please elaborate this or I think it needs to be rephrased .

The main threats to biodiversity in Egypt can be categorized into: the dramatic population explosion into the last decades; the accelerated industrial programme started in the second half of this century; intensive agriculture and land reclamation programme entailed the intensive usage of agricultural fertilizers especially after the construction of Aswan High Dam (1969) due to decline of soil fertility as a result of lack of silt and clays were introducing by the Nile River's flood, and more recently the flourishing of tourism industry. Other sources of threats to biodiversity in Egypt is illegal hunting and cutting trees.

The Arab Republic of Egypt (ARE) has paid special attention, over the past years, to issues of natural resources protection. It has also established a system and legislation for conservation of natural heritage under directives and support of the political leadership, emphasizing integration of development sectors with environmental protection and natural resource conservation for the benefit of the present generation and the generations to come. In 1983, law 102 of Protected Areas was issued, followed by the declaration of Ras Mohammed, South Sinai, the first protected area in Egypt. By 2003, Egypt had established 24 protected areas, extending over 10% of the total area of Egypt, and approaching the Global target.

Egypt has been in the vanguard of countries signing the Convention on Biodiversity (Rio 1992), which it ratified in 1994. It developed the National Biodiversity Strategy and action plan in 1997, with the participation of decision makers, representatives of the People's Assembly and NGOs. Law 4 / 1994 on environment protection; constituted a supportive national legislation helping to fulfill Egyptian obligations to the Convention on Biodiversity.

## **2.2 National legislation:**

The main national laws related to the UNCBD are:

The agriculture law, Law No. 53/1966: It was the main legislation protecting the wildlife, especially, birds useful to agriculture and certain endangered mammals and reptiles (chapter 3).

The fisheries law, Law No. 124/1983: Especially in the parts concerning sustainable fisheries. The General Authority for Fisheries Resources Development (GAFRD) is the responsible body to implement this law.

Law 102/1983 for Establishment of Protected Areas: It is the most valuable law for conserving the nature in Egypt. This law established the legal framework for the creation and management of protected areas. Egyptian Environmental Affairs Agency (EEAA) is the competent authority responsible for implementing this law.

Law no. 4/1994 for Environment: It is supportive to Law No. 102/1983 especially in the areas out side the declared protected areas. Although law No. 4/1994 is focused mainly on pollution issues, many provisions having implications for nature conservation and hunting management in Egypt. Article 26 forbids hunting, shooting and catching of species listed by the Agriculture Law No. 53/1966 or by Egypt participated international conventions such as CITES and IUCN.

Other numerous local ministerial decrees related to the UNCBD are established and implemented dealing with: regulating fishing activities, forbidding fishing of sharks, strengthen the environmental law enforcement, protection of coral reefs, environmental risk assessment, forbidding trade in coral reef fishes for aquarium, shells and other coral reef organisms, stop fishing of sea cucumber, minimizing the pollution... etc.

## **2.4 Country Activities, Documents and Projects under the Convention:**

Egypt signed the Convention on Biological Diversity in 1992 and ratified it in 1994. Its most recent report to the secretariat was submitted in 2005. Egypt ratified the Convention on International Trade in Endangered Species of Wild Fauna and Flora in 1978 and submitted its latest report to the secretariat in 2004. International cooperation is an important component of Egypt's biodiversity strategy. Egypt has signed more than eight international agreements having provisions for nature conservation. To fulfill the country's obligations under the Biodiversity Convention, a National Biodiversity Unit (NBU) was established within the Nature Protection Sector. At present the NBU is establishing a National Biodiversity Data Bank to facilitate the monitoring and management of Egypt's biological resources. Nature Protection Sector has been active in the conventions and following-up on convention compliance During the past few years, steps have been taken to improve regulation of international trade in endangered wildlife as obligated under the CITES convention of 1979.

Egypt cooperates with a number of international organizations, including UNEP, the European Union, WWF, and Bird life international.

#### **2.4.1 Activities, Documents carried out as a result of becoming a Party to the Convention:**

Due to becoming a party to the convention, Egypt has achieved many **outputs** including:

- Submission of the first National Report on Biodiversity to the CBD in 1998
- Submission of the Second National Report on Biodiversity to the CBD IN 2002
- Preparation of a National Biodiversity Strategy and Action Plan in 1998
- Preparation of the National Environmental Action Plan of Egypt (2002 – 2017)
- Preparation of Support programme to the Action Plan in 2003.
- Preparation of the 1<sup>st</sup>, 2<sup>nd</sup>, and the 3<sup>rd</sup> report on implementation of programme of work for the Global Taxonomy Initiative.
- Preparation of Egypt's Red List of Threatened species.
- Establishment of a National Biodiversity Unit responsible for implementing the Strategy and Action Plan
- Implementing of an Add – on Enabling Activities Project, funded by the Global Environmental Facility.
- Establishment of an Alien Invasive Species Working Group
- Preparation of National Program and Action Plan for Alien Invasive Species.
- Establishment of Inland Water Working Group & Preparation of National Program and Action Plan for Inland Water
- Preparation of the Hunting Management Strategy and Action Plan.
- Preparation of a National Program for Combating Desertification ( Biodiversity – Desertification Relationship )
- Establishing of a National Clearing House Mechanism website is currently in the final process.
- Submission of the third National Report on Biodiversity to the CBD in 2005.
- Preparation of an Add-on Enabling Activities Project ON Development of National Bio- safety Framework.
- Preparation of a National Strategy and implementation plan on Communication Education and Public Awareness about Egypt's Biodiversity
- Preparation a base line document on “the water quality and biodiversity of different components of the River Nile ecosystem”
- Preparation a National Strategy and Action Plan on Wetlands
- Conservation & Sustainable Use of marine resources in the Gulf of Aqaba
- Habitat Conservation and Sustainable (Samadi Initiative – Dolphin House)
- Establishing a vision for the National Gene Bank
- Conservation and Sustainable Utilization of ACACIA In Elba P.A . in Egypt.
- Preparation a National Strategy on Ecotourism.

### **2.4.1. 1 First National Report:**

Egypt's first National Report was submitted in 1998 as an "Interim Report on Article 6 of the Convention on Biological Diversity. This report was submitted pending the development of the NBSAP which would then replace the interim report. The report contains *inter alia*:

- Measures taken between 1936 and 1994 (before ratification of the CBD, included reviewing of the environmental legislation (national and international), in-situ and ex-situ conservation actions, data management and monitoring, education, training and public awareness, biotechnology and biosafety related regulations and guidelines.
- Measures to be undertaken for the implementation of the CBD included: review threats of biodiversity, protected areas, proposed 7 programmes on: Institutional Development and capacity building for biodiversity conservation in Egypt; protected area identification and management; National biodiversity inventory and monitoring; National wildlife management; Natural heritage resources management; National wetland management; National arid lands management; International conventions compliance; Education, public awareness raising and involvement for the conservation and sustainable utilization of biological biodiversity.
- Current status of the implementation of the provisions of the convention.

### **2.4.1. 2 Second National Report**

Egypt's second National Report has been submitted to the CBD secretariat in 2002. This report gives information status of the various Articles of the Convention, thematic areas and cross – cutting issues.

Further details requested???

### **2.4.1. 3 Development of a National Biodiversity Conservation Strategy & Action Plan**

To develop the national strategy to implement the CBD, 15 workshops were hosted in individual governorates and attended by different stakeholders. Participants in these workshops included university scholars, governorate officials in agriculture, fisheries, veterinary, education departments, representatives of NGOs and civil groups,..etc. A national conference held in Cairo during 26-27 November, 1997 to discuss the outcomes of these workshops and to address the main topics of the national strategy which submitted in 1998 . The main topics of the national strategy and action plans includes:

#### **2.4.1.3.1 Nature Protection Policy**

The government of Egypt has adopted a clear policy for protecting the rare natural wealth and its unique biodiversity and to serve as the basis for achieving economic and social development, providing ecological balance, and ensuring a better future for our citizens. The Nature Protection Policy relies on the following principles:

- Conserving natural resources for Egyptian, both present and future generations.
- Conserving national biodiversity as a basis for sustainable development and achieving integration with the different sectors of the state.
- Establishing a representative National Protected Area Network including all vital ecosystems, and endangered species.
- Employing economics-based, scientific management of protected areas, and supporting ecotourism in Egypt.
- Implementation of relevant legislations and international and regional agreements, in addition to raising ecological awareness.
- Cooperating with international organizations and donors to implement projects in protected areas.

#### **2.4.1.3. 2 National Biodiversity Strategy (1997-2017)**

The National Biodiversity Strategy was developed by almost 5000 Egyptian decision makers, scientists and experts in cooperation with ministries, governates and universities. It was discussed in a national conference. The Strategy was later incorporated in the National Plan of the Ministry of Planning as a basis for sustainable development of natural resources in Egypt.

#### **2.4.1.3. 3 Strategy's Main Objectives**

- Management of natural resources, and the numerous other elements, should be based on scientific grounds in order to ensure continuity of the natural ecological balance and prevent deterioration of ecosystems, and protecting creatures from loss or extinction.
- Developing Egypt's scientific and technological capacity in areas of biodiversity conservation, natural resource
- Development, and executive and administrative capacities that attain intended goals, and proceeding with research and studies.
- Mobilizing national efforts to conserve biodiversity with all its ecological, biological, and genetic elements, in order to ensure sustained survival and optimal use.
- Setting the plan of action aiming at involving civil society, individuals or NGOs - in Biodiversity Conservation.
- Establishing legislative basis and economic and social incentives that support conservation of biodiversity and sustainable development of natural resources.
- Integrating national action with regional and international action, and utilizing the bulk of scientific and technical expertise concerning conserving resources of biodiversity including gene resources.

#### **2.4.1.3. 4 Principles of Strategy Implementation**

- Biodiversity is ecologically and economically significant, and is a corner stone of sustainable development.
- Conservation of Biodiversity is a tool for developing natural resources, now and in the future, for the benefit of sustainable national development.
- Biodiversity is part of Egypt's natural heritage and conserving it is a national and international obligation.
- Successful biodiversity conservation efforts rely on scientific studies and environmental monitoring of internal and external interactions.
- Building of national capacity, implementation and sound management of biodiversity conservation programs and public awareness.
- Implementation of environmental legislations and observing relevant international conventions.
- This strategy is translated in five consecutive nature protection five-year plans. Currently, the 2002-2007 plan is underway. The plan includes 20 projects aiming at realizing the following goals:
  - Sound management of natural resources with view to striking a balance between development and ecosystems.
  - Integrating national action with regional and international action for biodiversity conservation and sustainability.

#### **2. 4.1.3. 5 Classification of the Egyptian protected areas:**

Based on the major sensitive habitats, the strategy categorized the Egyptian protected areas into four categories as follow:

**Marine Protected Areas (5 areas):** They include interconnected marine and terrestrial sectors based on conserving coral reefs and accompanying systems, marine ecosystem, mangrove bushes, marine islands and adjacent mountain and desert areas. They also serve as attractions for tourist seeking scuba diving and water sports in Egypt. These protected areas include: Ras Mohammed Protected area, Nabq, and Abu-Galum in South Sinai Governate, and Elba, (the Red Sea islands) and Wadi El Gemal in the Red Sea Governate.

**Wetland Protected Areas (8 areas)** These areas are located largely on the Mediterranean shores and the Nile River banks. They specifically include some northern lakes and coastal zones as well as the Nile islands. This sector mainly protects resident and migratory bird habitats, assists in managing of fisheries, local communities development and promotes ecotourism. Among these protected areas are: Zaranik in North Sinai Governorte, Ashtum El Gamil in Port Said Governorte, Omayed in Matrouh Governorte, Lake Qarun and the Wadi El-Rayan in Fayoum Governorte, and Saluga and Ghazal Islands in Aswan Governorte, in addition to 144 River Nile Islands.

**Desert Protected Areas (7areas):** Those are located in Sinai and the Eastern and

Western Deserts, they include mountains, plains and wadis. They protect flora and fauna diversity in these regions, regulate and promote safari tourism, and support local communities. They are the Al-Ahrash protected areas found in North Sinai Governorate and Taba and St. Katherine in North Sinai Governorate, Siwa in Matrouh Governorate, White Desert in New Valley Governorate, Wadi Asiuti in Assiut Governorate, and Wadi Allaqi in Aswan Governorate.

**Geological Protected Areas (4 areas):** They constitute unique geological phenomena identified as scientifically and touristically important destinations. They are: the Hassana Dome, the Petrified Forest, and Wadi Degla in Cairo Governorate, and Sannur Cave in Beni Suef Governorate.

#### **2.4.1.3. 6 Developing Protection and Maintenance Techniques**

- The protected Area Network is being expanded in phases. The most recently declared protected areas are Siwa in Matrouh Governorate, the White Desert in New Valley Governorate 2002, and the Wadi El-Gemal-Hamata in Red Sea Governorate, bringing the total number of protected areas in Egypt up to 24.
- Maintaining the five South Sinai protected areas Ras Mohammed, Nabq, Abu Galum, St. Katherine and Taba that were previously developed through the EU cooperation program. The Red Sea Environmental Policy Program fully received funds from USAID to support protection of marine biome and protected areas in the Red Sea. This cooperation will be sustained through launching of the LIFE project in 2005. The Italian government is also providing assistance through the Siwa and Wadi Rayan Protected Areas Development Projects Phase II.
- The Wetland Conservation project (MedWet) in Zaranik, Lake Burullus and Omayed and the Medicinal Plants Development Project in St. Katherine are carried out in cooperation with GEF and UNEP. The Mangrove Conservation Project is carried out in cooperation with FAO.
- The State budget for nature conservation has been channeled since 2004 towards developing the central sector Protected Areas including Wadi Degla, Fayoum, Wadi El-Rayan, and Sannour Cave as one-day tourist destinations. In addition to supporting sustainability of Protected Areas and transferring responsibilities after termination of the projects there.
- Setting up a database for endemic and endangered animal and plant species, and acting on classifying and specifying their economic and social value in coordination with academic and research centers, as well as participating in the Global Biological Taxonomy Initiative.
- A national Committee was formed prepare a national law on biosafety; the bill was drafted to be submitted before the People's Assembly.
- Developing Species and ecosystems restoration programs which have been negatively affected by human activities, such as coral reefs and mangroves and Acacia. Regulating scuba diving and other water sports according to

- the capacity of coral reef systems, and rational utilization of aquaculture.
- Submitting reports to international organizations regarding development of conservation procedures and on biodiversity the effects of global climate change. Implementing the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in cooperation with police, the customs authority, the Ministry of Agriculture, Border Guards and NGOs.
  - Using Information Technology and Geographical Information Systems in monitoring and assessing the conditions of important ecosystems and endangered species to help decision makers as well as academic researchers.
  - Coordinating and cooperating at the local level with the ministries of Agriculture and Land Reclamation, Tourism, Local Development, Transportation, Interior, Defense, Culture, Information, Higher Education and Academic Research and affiliated administrations. Moreover, coordinating cooperation at the international level, and exchanging expertise, with UNEP and UNDP, IUCN, UNESCO, International Environmental Conventions Organizations and donors.
  - Taking part in many international and national fora, most recently, the recently held Johannesburg World Summit on Sustainable Development, the Fifth Global Conference for Parks in Durban, the Eighth Conference of the Convention of the Parties (RAMSAR, Germany), the Fifth International Conference on Bird Migration (Spain), the Egyptian International Conference concerning Protected Areas (Sharm El-Sheikh), the First Conference of Parties to Cartagena Protocol on Biosafety, Second Exhibition of Mediterranean Parks, and finally, the International Summit on Sustainable Development in Small-Island Developing Countries.

The National Action Plan for Biodiversity Conservation in Egypt represents a major response to Egypt's commitment to 24 regional and international environmental agreements in the field of Biodiversity and nature conservation. The programmes and projects are designed to achieve the following objectives:

- Develop institutional and human resource capabilities in this field
- Mobilize national resources for biodiversity conservation
- Design and implement integrated management systems for natural protectorates
- Streamline national efforts for nature conservation with global commitment to this end

The National Biodiversity Conservation Strategy and Action Plan has been established in 1998, the biodiversity strategy and action plan defines six principles goals :

1. Management of natural resources and its various elements should be founded on scientific bases that ensure maintenance of natural balances, protection of ecosystems against degradation and conservation of living biota.
2. Development of Egyptian scientific and technological capabilities in the fields of biodiversity conservation and development of natural resources, and development of

institutional and managerial capacities so as to be able to implement programmes of action in fields of research, monitoring and inventories, and management of projects

3. Mobilize national capacities and resources to conserve biodiversity with its ecological, taxonomical and genetical elements; to ensure the sustainability and rational use of these elements.
4. Set programmes of action that ensure the positive participation of people, as individuals and as organizations, in the implementation of biodiversity conservation programmes, and in enjoying their equitable shares of benefits of these endeavours.
5. Establishment of legal instruments and economic and social incentives that support conservation and sustainable use of natural resources.
6. National actions should complement regional and international actions in the fields of biodiversity conservation, exchange equitably available scientific and technological knowledge related to conservation of biodiversity resources including genetic resources.

The National Plan of Action translates the National Strategy into programmes of action that can be developed into implement able projects related to creation of instruments and mechanisms of action that ensure achievement of the national goals

The NBSAP contains an assessment of Egypt's biodiversity and the legal and policy framework relevant to its sustainable use, also the major gaps and challenges affecting its conservation and sustainable use

#### **2.4.1. 4 Preparation of the National Environmental Action Plan (NEAP) of Egypt (2002 – 2017)**

The National Environmental Action Plan (NEAP) represents Egypt's agenda for environmental actions for the coming fifteen years. It complements and integrates with sectoral plans for economic growth and social development. The NEAP is the basis for the development of local environmental initiatives, actions and activities. It is designed to be the framework that coordinates for future environmental activities in support of sustainable development of Egypt.

#### **2.4.1. 5 Preparation of Support programme to the Action Plan in 2003**

This project is part and parcel of the wider Egyptian-Italian Environmental Program, referred to as the Egyptian-Italian Environmental Cooperation Program (EIECP), which is being carried out within the framework of donor initiatives aimed at assisting the Country in the implementation of the National Environmental Action Plan (NEAP). The national institution responsible for the whole Programme is the Egyptian Environmental Affairs Agency (EEAA), under the Ministry of Environment.

The development goal of EIECP is to contribute to the protection of Egypt's natural and cultural resources, through strengthening EEAA's capacities in planning and management for environmentally sustainable development. Specific objectives are as follows.

- Strengthen Egyptian capacities to analyse, plan and implement adequate measures for the rehabilitation and conservation of natural, cultural and man-made environments.
- Enhance current strategies and approaches to protect and expand the available natural resources base, aiming to increase productivity, reduce migration and improve the living conditions in the rural areas.
- Contribute to reinforce the role of EEAA, as the central coordinating and supervising body, and of its partner institutions for the protection and promotion of the environment. Within this framework, the main objective of the Siwa Oasis Project is to enhance the capacity of key stakeholders and institutions to manage in a sustainable way the natural and cultural heritage resources, while supporting the development of community initiatives. In consideration of the temporal and conceptual continuity between the first and second phase of the Project, objectives and expected results for both are illustrated together here below. The Project has three specific objectives.
- Establishment of a collaborative management system for the Protected Area in Siwa region, to preserve biodiversity and cultural heritage through their sustainable and equitable use. The Area will also serve as a focus for regional planning and development of environment friendly economic activities.
- Contribute to the development of the Siwa region as a leading ecotourism site, by engaging local communities, the private sector and other key stakeholders, including non governmental organisations (NGOs), in the diversification and development of non-intrusive eco-tourism facilities and services.

- Strengthen the mandate and institutional capacity of EEAA to develop and enforce environmental policy in the Siwa region. Expected outputs are as follows.
- The institutional capacity for field conservation is strengthened through legal, human resources and infrastructure development.
- The collaborative management of the Protected Area is operational and based on an appropriate, equitable and sustainable use of biodiversity resources.
- The monitoring and evaluation system of biodiversity resources, and of their utilisation and management, is tested and operational.

#### **2.4.1. 6 Preparation of the 1st, 2nd, and the 3rd report on implementation of programme of work for the Global Taxonomy Initiative.**

The Conference of the Parties, in the annex to decision VII/31, decided that the programme of work for the Global Taxonomy Initiative will be one of the items for in-depth review at its eighth meeting. The Conference of the Parties, in paragraph 5 of decision VII/31, also agreed that the review of the programme of work would focus on:

- (i) Assessing the implementation and effectiveness of the programme of work for the Global Taxonomy Initiative;
- (ii) Updating the programme of work if necessary, by retiring or replacing activities and by making adjustments to reflect changes in the international context; and
- (iii) Providing practical support for national and regional implementation.

The Strategy is guided by eight essential strategic goals that are the foundation of the management of GTI in Egypt:

1. Assess taxonomic needs and capacities at national level.
2. Public awareness and education
3. Improve access to and exchange of taxonomic information and products
4. Accelerate the full taxonomic cycle
5. Global Partnership Maintaining Taxonomy as a Discipline
6. Maintaining Taxonomy as a Discipline
7. Improve access to and analysis of policy level information within the taxonomic community
8. working on cross-cutting issues of the Convention include key taxonomic objectives:
  1. Assessing available knowledge
  2. Assessing increasing taxonomic infrastructure
  3. Improve access to and exchange of taxonomic information and products
  4. Accelerate the full taxonomic cycle
  5. Public awareness and education
  6. Marine and coastal biological diversity:
  7. Inland waters biological diversity
  8. Invasive Alien Species

## 9. Global Partnership

### 10. Prepare a national proposal project for taxonomy in Egypt

This report was prepared by officers who are involved in biodiversity-related activities. And submitted to the CBD in 2005.

#### **2.4.1.7 Preparation of Egypt's Red List of Threatened species.**

In Egypt, there are several endangered species; these are wild animals and plants whose populations are decreasing in number due to various factors. Animals including birds are mainly threatened by habitat destruction and hunting. Habitat destruction also affects plants which further suffer from overgrazing and over harvesting. The following list has been put together by the International Union for Conservation of Nature (IUCN) and includes the plant and animal species which are considered to be in danger of extinction, some of which have already disappeared from the country. It is referred to as the Red Data list of Egypt.

#### **2.4.1. 8 Establishment of a National Biodiversity Unit responsible for implementing the Strategy and Action Plan.**

To fulfill the country's obligations under the Biodiversity Convention, a National Biodiversity Unit (NBU) was established within the Nature Protection Sector. A workshop on Egypt's biological diversity was held in November 1992, from which a National Biodiversity Action Plan was formulated. The NBU, in cooperation with the scientific community, has since produced a number of landmark studies of Biodiversity, including the National Habitat Diversity Study in 1993 and the National Biodiversity Country Study in 1995. At present the NBU is establishing a National Biodiversity Data Bank to facilitate the monitoring and management of Egypt's biological resources. In 1997 the NBU began development of a National Biodiversity Country Strategy. It is hoped that the Government will be able to raise funds for Biodiversity projects in Egypt, such as those, which have been identified by the National Biodiversity Action Plan. Some of these projects include captive breeding for endangered wildlife, a gene bank to preserve plant and animal genetic resources, and a Natural History Museum to promote biodiversity research and education.

#### **2.4.1. 9 Implementing of an Add – on Enabling Activities Project, funded by the Global Environmental Facility.**

In 2004, The Global Environmental Facility funded an Add – on Enabling Activities to be implemented during year 2005 the following activities:

- Assessment of conservation of Sustainable use of wildlife
- Assessment of globally threatened species
- Hunting Management
- Invasive Species
- Strategies for Implementation

#### **2.4.1.10 Establishment of an Alien Invasive Species Working Group and Preparation of National Program and Action Plan for Alien Invasive Species.**

The development of a national strategy summarizing goals and objectives should be the first step in formulating an alien species control plan. The Strategy is guided by nine essential strategic goals that are the foundation of the management of invasive alien species:

1. Prevention of new invasions;
2. Early detection and Rapid response to new invaders;
3. Control and management of established and spreading invaders.
4. Rehabilitation and Restoration
5. Increase public awareness
6. Build research capacity
7. Promote international cooperation
8. Promote sharing of information
9. Legal and Institutional Frameworks

The Egyptian action plan for invasive species is based upon the recommendations of the workshop on invasive species which was held in Cairo the Guest House of Ain Shams University, where 62 participants attended, representing the ministries of Environment, Higher Education and Scientific Research, Agriculture and Land Reclamation, Health, Interior, Information, Defense, Transportation, Finance, and participants from some concerned governmental Authorities and NGOs.

The proposed actions in the plan address:

1. Early Intervention – Prevention, Early Detection, and Rapid Response
2. Containment, Control and Restoration
3. Reaching Important Audiences through Education and Training
4. Broadening Knowledge through Research and Technology Transfer
5. Assuring Adequate Funding
6. Creating an Adequate, Effective Legal Structure
7. Coordinating Our Efforts

#### **2.4.1.11 Establishment of Inland Water Working Group and preparation of National Program and Action Plan for Inland Water**

The Egyptian Inland water biodiversity program is guided by three essential strategic elements:

1. Conservation, Sustainable Use and Benefit- Sharing
2. Institutional and Socio-Economic Enabling Environment

### 3. Knowledge, Assessment and Monitoring.

The action plan for Element I (Conservation, Sustainable Use) includes the following tasks:

1. Habitat
2. Species
3. Protected areas
4. Recovery of threatened species.
5. Invasive species

Element II- Institutional and Socio-Economic Enabling Environment include the following tasks:

1. Programmes, policies and legislation
2. Transfer Low-cost appropriate technology
3. Global Initiative on Communication, Education and Public Awareness
4. Promote involvement of local and indigenous communities in the conservation

Acts for element III (Knowledge, Assessment and Monitoring) include four tasks:

1. Develop and improve understanding of inland water biodiversity
2. Develop Rapid Assessments Programs
3. Environmental Impact Assessments.
4. Monitoring arrangements

#### **2.4.1.12 Preparation of Hunting Management Strategy and Action Plan.**

Hunting management also plays a role in Egypt's biodiversity strategy. Many different types of hunting take place in Egypt; these are classified as hunting for sport, tourism, subsistence or commercial trade. Hunting has tended to be excessive in Egypt, leading to the depletion of the nation's wildlife. Since 1992, Egypt has made significant improvements in hunting management with steps taken to organize sport hunting for game birds, in particular for tourism. To control illegal hunting, a system has been set up to monitor hunting in the desert, and raids have been carried out on shops selling protected species of wildlife. In 1996 a study was conducted with support from DANIDA to explore ways to enhance the implementation of the provisions of Law 4/1994 pertaining to hunting. The study recommended that a hunting management system be devised in Egypt to manage hunting on a sustainable basis with a coordinating body established to oversee implementation of the system. It is important to note here also that there has been considerable improvement in the institutional and legal set-up for the implementation of CITES Convention and the enforcement of related national laws.

#### **2.4.1.13 Preparation a National Program for Combating Desertification (Biodiversity – Desertification Relationship)**

Afforestation in Egypt is considered as a multi–function approach. When probably implemented, afforestation can be an effective tool to: erosion prevention, food security for increasing population through protection of arable and new reclaimed lands from wind and combating desertification, protection of human settlements from wind and sand, and decreasing pollution as growing trees which absorb carbon dioxide from the atmosphere during photosynthesis and store the carbon in plant structure, beside the attraction of forests especially in arid regions for the local inhabitants as well as tourists.

At the same time, there is no doubt about the ecological benefits of the afforestation and its relationship with desertification in Egypt. Therefore, it is recommended to be carried out on large-scale man made forests by using treated sewage water. It started as experiments, and has successfully been implemented at different sites on a pilot scale. To date, there are at least a dozen of such man made forests established with a total planned area of about 12000 Feddan (1 Feddan = 4200 m<sup>2</sup>) . They are at different stages of development; some are at an advanced stage and others need further enhancement and development. Additional forests need to be established in desert areas in the country to reduce of pollution loads to desert environment, protection of desert habitats and biodiversity, reduce Co<sub>2</sub> concentration in the atmosphere and thus help to climate change, fixation of sand dunes, preventing soil acting as a windbreak and combating desertification.

Desertification in rangeland starts when vegetation cover starts to deteriorate. The following four phases of desertification are commonly observed in rangelands of Egypt:

##### **- Slight desertification phase**

This phase is marked more by decrease in the quality rather than the quantity of forage due to the decrease of high palatable species of good forage value. Normally forage production under this phase decline by 10–20 % of its potential. Water and wind erosions remain within their normal averages or accelerate in a few locations only.

Such retrogression phase is common in most interior or far rangelands areas that lack permanent watering points, have steep topography, partially protected by tribal roles or where grazing purposes is controlled by governmental agencies; and local communication or for military purposes.

##### **- Moderate desertification phase**

The early stages of this phase start with the appearance of invader plants of those alien to communities. The plants are mainly mobile annuals and are followed by weedy perennials of which some are of low palatability and other are valueless or even poisonous or harmful to livestock. They are mainly composed of *Astragalus spinosus*, *Zilla spinosa*, *Alhagi maurorum*, *Fagonia* spp., *Cirtullus colocynthis*, *Anabasis setifera*, *Cleome* sp., *Marrubium* sp., *Thymelaea hirsuta*, *Peganum harmala*, *Daemia* sp., *Euphorbia* spp., *Solanum* spp., *Hyoscyamus* spp. and *Calatropis procera*. During this phase, forage production decline by about 25-40 percent of its potential, wind and water erosion begin to exceed their normal rates as marks of sheet and gully erosion start to appear and sand may accumulate in the form of hummocks or dunes. This is a common phase in the majority of Egyptian rangelands.

- *Severe desertification phase*

In this phase the changes is more drastic as the palatable species (decreases) assume complete disappearance and the total forage production decline by nearly 50-70 percent or more. The ratio of total biomass to forage production is further increased, the ratio of the bare soil increases, dunes and gravel plains become more conspicuous, and loss of top soil and erosion pavements become the dominant scene. These conditions are common in areas subjected to continuous and early overgrazing (i.e. range areas between or closed to rainfed cultivated areas, touristic constructions, roads, watering points and near settlements).




- *Very severe desertification phase*

This is the worst stage of plant and soil retrogression, it is characterized by the striking appearance of a barren state produced by the inability of the remaining subsoil to support vegetation. The already advanced process of sheet and gully erosion may be seen to have cut steep gully banks, exposed pedstalled plants, increased dunes and extended gravel plains. The ranges are eventually transformed into sterile land, where forage production drops by 75-100 percent. This stage of desertification is very common in areas around permanent watering points, near permanent or occasional settlements (towns, villages, nomads tents) and around the markets of animals and livestock production. In such places, brisk winds and dust storms are very common.

#### **2.4.1.14 Establishing of a National Clearing House Mechanism website .**

The Biodiversity Monitoring and Assessment Project currently in the final process of establishing the CHM

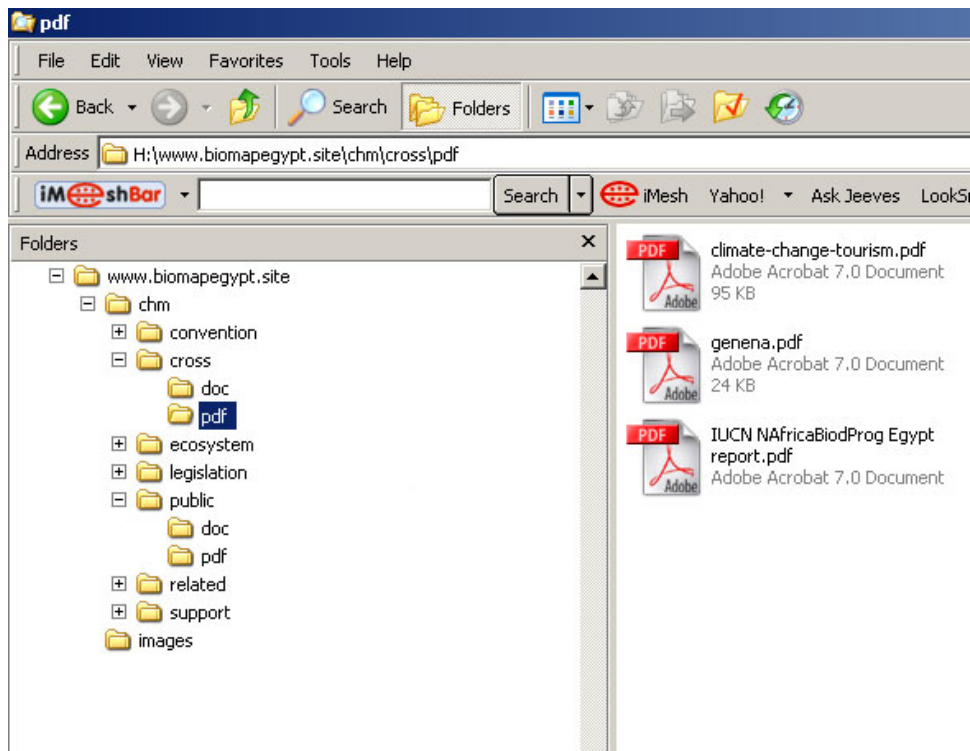
- The page Content :

File	Type	Logo
Adobe Acrobat	*.PDF	
Microsoft Word	*.DOC	
Website	URL	

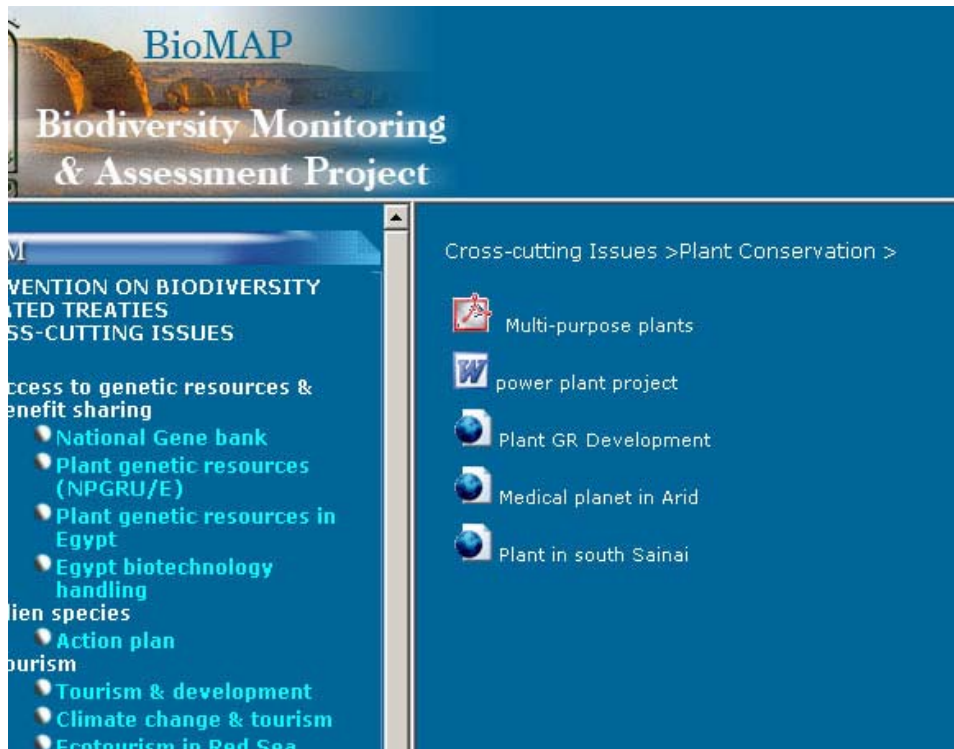
- Preparing an infrastructure to all folders and navigation menu :

Folder	Link Name	HTML	DOC	PDF	Links
Convention	Convention on biodiversity	21	5	11	7
Cross	Cross-Cutting issues	11	3	9	19
Ecosystem	Ecosystem themes	2	0	2	2
Legislation	Legislation	3	2	3	2
Public	Public Awareness	3	0	2	19
Related	Related Treaties	2	0	2	19
Support	Support for the Environment	3	0	21	6

- Inside each Folder we found two folder one for MS Word Document Other For Acrobat File And on the root you well find the Html Pages



- Each HTML page contain File , file type, file logo to make usability very easy & ease to download and browse and know



- where you are (Position Awareness)

#### **2.4.1. 15 Submission of the third National Report on Biodiversity to the CBD in 2005.**

Egypt's third National Report has been submitted to the CBD secretariat in 2005. This report gives information on status of the various Articles of the Convention, thematic areas and cross – cutting issues.

#### **2.4.1.16 Preparation of an Add-on Enabling Activities Project ON Development of National Bio safety Framework.**

The National Bio-Safety Committee (NBC) composed of number of institutions is the official body responsible for ensuring that biotechnology continues to be safe and facilitating access to modern biotechnology generated abroad. Every organization involved in the NBC is mandated to establish its own Bio- Safety Committee (IBC). The NBC is formed of EEAA (representing Ministry of Environment), Ministry of Health, Ministry of Agriculture, Ministry of Industry, Ministry of Trade, Ministry of Foreign Affairs, and the Ministry of Higher Education and Scientific Research. The Egyptian Environment Affairs Agency

(EEAA) has initiated several activities and programs, which cover the approach of environmental management of biotechnology in coordination with other line ministers. Each IBC is responsible to:

- Establish a program for inspection;
- Assemble a set of oriented guidelines that comply with the NBC guidelines;
- Review periodically r-DNA researches; and
- Adopt emergency plans covering accidental spills and personal contamination

The Global Environmental Facility recently agreed to support establishing a Biosafety Clearing House Mechanism to enable Egypt to participate in the project, “*Building Capacity for Effective Participation in the Biosafety Clearing-House (BCH)*” Nature Conservation Sector will be the body responsible to implement this project.

#### **2.4.1.17 Preparation of a National Strategy and implementation plan on Communication Education and Public Awareness (CEPA) about Egypt's Biodiversity**

This strategy takes the vital next step of planning how to achieve the generic outcomes of the CEPA strategy through a programme of targeted action. Narrowing the field of view in this way allows more detailed arrangements to be made for a number of set activities. It also allows resources and staff to be allocated. This strategy is aimed:

**“To raise awareness of biodiversity and the importance of conservation through a series of targeted activities that contribute to delivering the outcomes of the draft national Communication Education and Public Awareness (CEPA) strategy under the Convention on Biological Diversity”.**

In addition it has two supplementary aims:

1. To position the Nature Conservation Sector as the leading organisation for delivering conservation in Egypt
2. To ensure future generations are equipped with sufficient knowledge around biodiversity issues in order to be able to address any issues that might arise in the future.

#### **2.4.1.18 Preparation of a base line document on the water quality and biodiversity of different components of the River Nile ecosystem**

The biodiversity of the River Nile is of intrinsic interest for a number of reasons. Firstly, the Nile is one of the world's largest rivers. Secondly, the river rises in tropical Africa with tributaries from Lake Victoria and Ethiopia and finally flows for over 1000 km through an arid region where little or no rainfall supplements the original flows. This flow is now highly regulated due to the construction of dams, in particular the High Dam at Aswan which is believed to have completely altered sediment loads and nutrient downstream. Thirdly the river catchments in Egypt has a population of about 75 million for whom it is the main source of drinking water, irrigation water and water for industrial processes. It also receives sewage and industrial effluents from many major cities and factories.

The mentioned baseline document on the water quality and biodiversity of different components of the River Nile ecosystem have clearly indicates that:

1. The Nile is a regulated river and already a highly modified watercourse due, primarily to the construction of the Aswan High Dam.
2. Despite this regulation the achievement of maximum ecological potential is essential for the sustainable conservation and management of the Nile.
3. Some parts of the river are under severe pressure and are not achieving maximum ecological potential.
4. There has clearly been a loss of biodiversity.
5. Missing of enough information on the Islands of the Nile. There are over 150 of these in Egypt which are inhabited by millions of people.
6. Policy makers need to be attracted to biodiversity and the scientists need to market them more effectively.
7. Quite a lot of information is available in various forms but this information must be put into a useful. Gaps in the data and information need to be identified.
8. Introduction of many invasive species without control.
9. Confliction between responsibilities and missing of co-operation between governmental organizations prevent successes
10. It is important to create a strategy and action plan for the Nile taking account of all current initiatives and conventions and use principles of CBD.

#### **2.4.1.19 Preparation of strategy and Action Plan on Wetlands:**

The MedWet Coast programme is a regional initiative aiming at protecting the ecological systems within Mediterranean wetlands and coastal areas. The programme focuses on three main protected areas of international significance:

- Zaranik is located along the northern coast of the Sinai Peninsula and composed of salty marches falling to the east of Lake Bardaweel. The area is significant habitat for migratory birds and endangered Mediterranean Sea turtles. The MedWet Coast programme relies on public participation and the development of eco-tourism;
- Omayed, is located west of Alexandria and accommodating important fauna and flora species. The programme will primarily support biodiversity studies in the area and the implementation of initiatives to protect endangered species; and
- Lake Borollos is situated along the northern coast of the Nile Delta, and considered among internationally significant wetland areas in the Mediterranean. The programme aims at developing an integrated management plan for the lake, taking into consideration present and future economic activities while addressing environmental problems affecting the lake.

#### **2.4.1.20 Conservation & Sustainable Use of marine resources of the Gulf of Aqaba:**

This programme has included many activities as follow:

##### **Carrying-capacities assessment for South Sinai diving sites:**

Examine and identify of the carrying-capacity of coral reefs by assessment of: the extent of recreational activities, past and present, and their various impacts; the predicted impact of future use based on projected visitor numbers and the capacity of the natural marine environment to sustain different types of recreational use.

##### **Reduction of risk from maritime accidents and pollution: including**

Review and analyse the impacts of shipping, including international shipping, local pleasure craft and marina operations Primary aims as follows:

- a- initiate process to prepare proposal for the identification of Straits of Tiran as a Particularly Sensitive Sea Area (PSSA);
- b- install permanent reef markers to reduce recreational boat accidents ;
- c- conduct review of major pollution sources in local marina and present mitigation measures;
- d- enhance protective measures for Ras Mohammed mangroves from occasional pollution accidents.

##### **Sustainable development of living marine resources: Sea cucumber**

The apparent overexploitation of coral reef areas for sea cucumber fisheries was investigated. Key aims were as follows:

1. Investigate of the impact of commercial exploitation on sea cucumber populations and methods of restoring them sustainably.
2. enhance local capacity to understand and assess factors contributing to the health of sea cucumber populations;
3. develop guidelines for management of sea cucumbers to ensure sustainability of populations.

##### **Sustainable development of living marine resources: Ornamental fish**

Investigation of impact of commercial exploitation on ornamental coral reef fish, using the following approaches:

- assessing targeted coral reef fish populations;
- Investigate impacts of overfishing upon abundance and population size class
- establishing dialogue with key stakeholders;
- examine rearing programmes to support restocking;
- define policy recommendations for damage limitation and avoidance.

##### **Effective community mobilization for public awareness**

Promotion of public awareness of the need to conserve the marine environment and coral reefs in particular, developing communications strategies to reach a range of target audiences included:

- training for local operators and community members;
- education programmes for staff, NGOs, governmental authorities and others;
- production of interpretation materials specifically targeting multidisciplinary range of visitors and other stakeholders;
- use of various interpretation media and electronic communications channels.

#### **2.4.1.21 Habitat Conservation and Sustainable Use (Samadi Initiative – Dolphin House)**

Samadai reef “Dolphin House” has proven to be an ideal model for applying policy to conserve a biodiversity and to reach sustainable finance for biodiversity conservation through revenue generation by using economic instrument ( service fee ). It demonstrates that protection of nature and development can co – exist, and provides a strong case for the conservation of marine biodiversity in Egypt and elsewhere.

#### **2.4.1.22 Establishing a vision for the National Gene Bank**

The main objective of establishing a National Gene Bank is to preserve genetic resources of wild and domesticated varieties of plants and animals which would otherwise be lost beyond retrieval. The gene bank would be among the ex Situ mechanisms of biodiversity conservation. Its major functions include:

1. collection of genetic resources of wild and economic varieties, with special emphasis on the wild relatives of crops and fodder plants, poultry and animals,
2. short-term preservation of genetic resources in the laboratory (in vitro), in the fields of the gene bank (ex situ) and in their natural habitats (in situ),
3. long-term preservation of genetic resources (i.e. storage) in seed banks, tissue cultures or the storage of embryos and gametes in special inert gases,
4. preservation of genetic resources of microorganisms using appropriate media and techniques for the various groups concerned.

Scientific activities in the gene bank include also studies and research in the technologies of conserving genetic resources, molecular genetics and providing other centers of plant and animal husbandry with genetic materials required for the production of improved races and cultivars. Modern technologies of genetic engineering have added new dimensions to the tasks of a gene bank such as prospecting for genes with special interest in different plants, animals and micro-organisms as well as the documentation of

their genetic codes. The geographical range of the work of the gene bank might be extended to cover similar activities in the Middle East. Thus, this bank may have regional programmes of co-operation in the fields of surveying genetic resources, training, research and exchange of information.

#### **2.4.1.23 Conservation and Sustainable Utilization of ACACIA IN ELBA P.A. in EGYPT.**

This study is an attempt to better understand the role played by Acacia species in the rural economy of Elba protected area as a part of eastern desert and the drier regions of Africa. Acacia species are widely distributed through the arid and semi arid regions of Africa, often the dominant tree and in some areas forming mono specific communities .although in Arabia through Iraq and Iran eastwards to Pakistan and India and in the last year in Egypt particularly Elba region species of Prosopis may replace Acacia both ecologically and economically

#### **2.4.1.24 Preparation of a National Strategy on Ecotourism**

Ecotourism is a responsible type of tourism that is well-aware of ecological sustainability, the matter which ensures repeated visits of tourists to enjoy the charming nature and biological riches. Out of this concept, ecotourism activities were incorporated into the National Biodiversity Strategy, and ecotourism became one of the fundamental principles of declaring new protected areas. The current and future protected area network is the cornerstone of ecotourism where the unique natural and cultural heritage abound, the diverse flora and fauna and geological formations, that are all well managed by high quality cadres with the participation of local population. Tourism investors are now genuinely convinced of the need to protect these areas, for they constitute capital assets for their investments and ensure sustainable viability. More than a million tourists, 70% foreigners, visited these protected areas in 2004, which in turn supported other surrounding attractions. In the Protected Areas Training Center, tourist guides are made aware of and acquainted with the scientific ways and techniques of protection. Since most of the protected areas are found in remote areas which lack in basic infrastructure or services, they turn to play a very crucial role in providing an outstanding tourist service and taking much care of the visitors, as well as giving assistance to local communities. The Protected areas have modeled the typical Bedouin ecolodges, in St. Katherine and Taba protected areas, using local materials compatible with the surrounding environment and clean energy; the private sector also has established a Bedouin ecolodge in Siwa. Currently, other designs are being made in Wadi El Gemal-Hamata protected area. All those mentioned constitute a significant tourist attraction as tourists are provided the opportunity to live genuinely rustic, Bedouin life.

## **2.4.2 On going and implemented related Projects to the UNCBD:**

### **2.4.2.1 Gulf of Aqaba Protectorates Development Programme (GAPDP)**

Ras Mohammed is Egypt's first and only 'national park'. There are extensive raised fossil reefs in the near-shore areas, as well as vast areas of living coral reefs with a rich diversity of flora and fauna. Terrestrial wildlife is also important. The Sinai coast has undergone enormous tourism growth, which can inflict considerable damage on fragile arid and reef ecosystems.

the EU has assisted with the establishment of four nature reserves (Gulf of Aqaba Protectorates- RMNP- Nabq Protected Area- Abou Galum Protected Area- Taba Protected Area ), by providing management guidance, solid institutional foundations, capacity building for rangers and others, infrastructure to help make this fully operational. In this collaboration with the Egyptian Environment Affairs Agency (EEAA) a balance is being sought between respecting traditional lifestyles of the bedouin population while creating room for economic activities centred on tourism and keeping nature intact, both on land and at sea, to secure the sustainability of socioeconomic choices of different groups

### **2.4.2.2 Saint Katherine Protectorate Development Project (SKPDP)**

The primary purpose of the St. Katherine protectorate development project is to develop and implement an integrated resource management plan which insure the conservation and sustainable development of the natural and cultural resources of the St. Katherine protectorate and bring local and national benefits to the people of Egypt. The project has been scheduled over a five years period from 1996 –2002. The main objective of the project included:

1. Development of the protectorate infrastructure program
  2. Institution of a Bedouin support and participatory management programme
  3. Establishment of a waste management and a sustainable urban development programme
  4. implementation of an historical and cultural restoration assessment programme
  5. Institution of natural resource conservation management and monitoring programs
  6. Implementation of public awareness and visitor management programs
- Institution of human resources development programs

### **2.4.2.3 Egyptian Environmental Policy Program (EPPP)**

In 1999, USAID and the Egyptian government launched the Egyptian Environmental Policy Program (EPPP) to address the country's most pressing environmental challenges.

It supports activities in the following areas: improving air quality, conservation and sustainable use of the Red Sea land and marine resources, promotion of economic instruments for improved environmental management, solid and Hazardous Waste Management, decentralization of environmental management responsibilities, inspection and voluntary compliance, strategic environmental planning, environmental disaster preparedness, energy efficiency, and promotion of domestic gas use. The main achievements of this project included:

1. Development of a monitoring system for sensitive coral and mangrove areas in the Red Sea
2. Completion of the first Environmental Protection Fund (EPF) cycle and initiation of the second including launching a communication campaign strengthen EPF's outreach in the investment market
3. Approval and publication of a national solid waste strategy;
4. Creation of an inter-ministerial working group on hazardous waste
5. Increased use of environmental impact analysis in the development of tourism projects in the Red Sea.
6. Environmental management system being implemented in selected Red Sea tourism properties leading to environmental improvements; and Environmental awareness campaigns in support of these efforts are under way.

#### **2.4.2.4 Conservation and Sustainable Use of Marine Resources along Gulf of Aqaba Coast:**

The DA project for the Sustainable Development of Coastal and Marine Resources along the Gulf of Aqaba was an effective initiative that has achieved significant results and practical learning.

This project was conducted by the Nature Conservation Sector of the Egyptian Environmental Affairs Agency in co-operation with the Regional Organization for the Protection of the Environment of the Red Sea and Gulf of Aden (PERSGA). A series of DA project activities that were carried out over 12 months were specifically designed to address five issues. Within each component applied research was undertaken to identify and analyze present trends and provide management strategies and recommendations for both practice and policy.

#### **2.4.2.5 Biodiversity Capacity Building Add –on Enabling Activities**

The project funded by the Global Environmental Facility (GEF) in 2004 to strengthening the capacity building of Egypt Biodiversity in the following issues:

- a. Assessment of conservation of Sustainable use of wildlife.
- b. Assessment of globally threatened species
- c. Hunting Management

- d. Invasive Species
- e. Strategies for Implementation

#### **2.4.2.6 Livelihood and Income from Environment (LIFE): (on-going)**

The LIFE project is one of the on-going project focus on field activities to consolidate the gains of EEPP and promote sustainable economic growth for the people of the Red Sea Governorate. The design provides for three main objectives related to jobs, sustainable tourism, and resource protection, and key cross cutting activities such as environmental assessment, gender issues, awareness, education, and communication.

#### **2.4.2.7 Conservation of Wetlands and Coastal Ecosystems on the Mediterranean coast (Med-Wet): (on-going)**

International interests in wetlands began in 1971, with the Ramsar (Iran) Convention on Wetlands. This intergovernmental convention ended with a treaty, whose mission is “the conservation and wise use of wetlands by national action and international cooperation as a means to achieving sustainable development throughout the world.” Today more than 116 nations are contracting parties to the convention, and more than 1000 wetlands around the world have been added to the Ramsar List of Wetlands of International Importance.

The Mediterranean wetlands and coastline are considered areas of high biodiversity, where more than 50% of their plant are endemic to the region, and more than 50 species are endangered. Moreover, it is a crucial area on the route of migratory birds. Therefore, the MedWet program for the conservation of Mediterranean wetlands was organized in 1991, from the Gerado conference held in Italy.

The MedWet Coast program started in October 1999, as a five year regional project. MedWet Coast’s goal is to conserve biodiversity in wetlands and ecosystems in the Mediterranean region. The program funded by the Global Environmental Facility (GEF). The projects’s core in Egypt is constituted of three protected areas: Zarank in North Sinai Governorate, Burullus in Kafr El Shiekh Governorate and Omyed in Matrouh Governorate.

#### **2.4.2.8 Conservation and Sustainable Use of the Medicinal Plants in Egypt: (on-going)**

The project aims at conserving globally significant medicinal plant species and associated habitats in St Katherine protectorate as follows:

- 1- Foreclose the use of critically endangered medicinal plant species in hotspots.

- 2- Introduce small-scale community-based cultivation, processing and medicinal plant marketing to relieve pressure from wild sources in orchards gardens
- 3- Introduce best practices for sustainable collection of wild medicinal plants throughout the protectorate
- 4- Promote alternative energy sources in demonstration areas
- 5- Disperse grazing pressure throughout the protectorate
- 6- Protect community intellectual property rights and replicate project successes in Egypt.

#### **2.4.2.9 Conservation and Sustainable Use of Mangrove Forests in Egypt: (on-going)**

The Assessment and Management of Mangrove Forests in Egypt for Sustainable utilization and Development Project funded by International Tember Tropical Organization. The Mangrove forests represent 465 ha on the Red Sea Coast, these provide an important pool of biodiversity of international value as well as being locally important for income generation in adjacent communities.

The project carrying out a detailed study of the biological, silvicultural, environmental and socio-economic value leading to the preparation and implementation plans for sustainable management and conservation of the mangrove area.

An important component of the proposal is the collaborative management of the Mangrove forest resource with adjacent communities as a primary plank of the strategy, with development of sustainable cottage industry based on the resources. The project aims to improve sustainable development of the Mangrove forest areas of Egypt and the surrounding populations. the objective has been carefully developed to link the sustainable management and conservation of the mangrove ecosystem with improving the sustainable livelihoods of the surrounding population who are currently dependent to some degree on that ecosystem. The project specific objective is to Secure the Egyptian Red Sea Mangrove stands and ensure its conservation and sustainable Management.

#### **2.4.2.10 Capacity Building and Institutional Support to NCS Project: (on-going)**

This project will strengthen the institutional capacity of the Nature Conservation Sector (NCS) of the MSEAA/EEAA for planning and implementing nature conservation activities on a sustainable basis. These actions will contribute to the preservation and protection of the biotic communities of flora and fauna, as well as other natural resources constituting Egypt's Biodiversity assets. The project will facilitate EEAA staff efforts to establish and manage a representative national system of protected areas by providing staff and technical assistance in the key areas of planning, environmental impact assessment, licensing of economic activities and monitoring and evaluating their impacts within the National Protected Areas. The project will enhance NCS;s efforts to coordinate marketing, resource development and public relations activities. The project also supports

activities in three protected areas ( Siwa Oasis, Wadi El Rayen protected area and Elba National Park ) serving as demonstration sites for testing and implementing measures designed to effectively devolve management of NCS functions.

The NCSCB Project is a product of an exercise based on discussion with the EEAA, Italian government and other stakeholders. NCSCB will consolidate some of the achievements from EIECP phase I, particularly those lessons learned from activities to establish the Wadi Rayan Protected Area Project in Fayoum and the Siwa Protected Area as part of the Siwa Environmental Amelioration Project. It also will address problems identified by the National Environmental Action Plan (NEAP : 2002-2017).

The project design was based on an extensive consultation process with the MSEA/EEAA as well as other implementing agencies and local authorities to ensure their commitment and ownership of the project concepts. The design of the project management and institutional arrangements should encourage local authorities to participate in decision - making thus promoting decentralization and enhancing their management capabilities

#### **2.4.2.11 Biodiversity Monitoring and Assessment Project (Bio-Map): (on-going)**

This project will provide assistance for three years to the Nature Conservation Sector and the Biodiversity Department of the Egyptian Environmental Affairs Agency (EEAA), Ministry of State for Environmental Affairs (MSEA) for planning and implementing nature conservation activities on a sustainable basis. The primary strategy is to focus on the expanding the monitoring and assessment capabilities of the Biodiversity Department and strengthening MSEA/EEAA's capacity for analyzing and developing biodiversity policy within the Nature Conservation Sector, These actions will ultimately contribute to the preservation and protection of Wild life resources in protected areas, as well as other natural resources all over Egypt constituting Egypt's biodiversity assets. The project will facilitate EEAA staff efforts to assess and monitor biodiversity through capacity building in the key areas of planning, environmental impact assessment, licensing of economic activities and monitoring and evaluating their impacts within the National Protected Areas and other natural biodiversity significant areas in Egypt **The ongoing activities of the BIO MAP should be feeding in the NCSA process as the NCSA is tackling the oconventions ligations and constraints at the national level and the BIOMAP focusing on the institutional part of these costraints**

#### **2.4.2.12 Wadi El Rayan Protected Area Development Project: (on-going)**

The project will strengthen the institutional capacity building of the Nature Conservation Sector (NCS) of the MSEA/EEAA for planning and implementing nature conservation activities on a sustainable basis in Wadi El Rayan Protected Area.

The project will facilitate EEAA NCS staff efforts by providing staff and technical assistance in the area of management, planning, environmental impact assessment, licensing of economic activities and monitoring and evaluating their impacts within the National Protected Areas. The project will enhance NCS efforts to coordinate marketing, development of funding resources and public relations activities. It will also provide training and technical support for Environmental Management Unit staff presently working in the Fayoum Governorate.

As a project of the larger Egyptian Italian Environmental Cooperation Program, the outputs of the WRPA project also will be shared with other EIECP projects operating in the Siwa Oasis and Gebal Elba National Park.

Policy outputs will be directly linked to the EIECP funded projects, Legal and Institutional Framework and the NCS capacity building project. The intent is that WRPA will serve as a demonstration site for testing and implementing measures designed to effectively devolve management of NCS functions to the level of the protectorate.

#### **2.4.2.13 Siwa Oasis Protected Area Development Project: (on-going)**

The project funded by the Italian Cooperation. The objective of the project is to contribute to the economic development and environmental amelioration of Siwa by supporting community activities aimed at the sustainable development and at the conservation of natural and cultural resources.

#### **2.4.2.14 Elba National Park Development Project: (on-going)**

The project will have activities covering marine, coastal and terrestrial regions in the Elba PA, with the main focus on terrestrial areas. The project is aimed to contribute to the protection of Egypt's natural and cultural resources, as Elba PA is managed in a sustainable manner with the participation of local stakeholders, contributing to the economic development of region, and a funding plan is prepared. The project main achievement included:

- 1- Management plan is prepared and implemented for Elba PA, in a participatory manner with local stakeholders.
- 2- A funding plan, aimed at attracting development funding, is prepared and possible sources for financing are identified.
- 3- Training and learning programs are developed and implemented to build capacity of the PAMU to manage and conserve Elba PA.
- 4- A strategy is established for linking Elba PA with Wadi Allaqi PA with a view to holding discussions with Sudan on trans- boundary conservation issues.

#### **2.4.2.15 South Sinai Regional Development Project: (on-going)**

The recently-signed regional programme for development of South Sinai aims to:

1. promote local communities (Bedouins) and their social and economic development;
2. reinforce support for sustainable tourism development through increased geographical distribution and diversification of activities, as well as preserve the unique cultural heritage of the region and its population;
3. reinforce environmental management and control in Protectorates, municipalities and tourist facilities;
4. improve delivery of social and public services to urban and rural populations, with increased employment opportunities for local communities and in particular for women;
5. Strengthen the decentralization process in decision making and financing.

This five-year programme, expected to end in 2011, is not the end of the process; it is merely a beginning to ensure that the strong economic growth of South Sinai, which has been largely built on the unique natural environment and resources of the area, continues unhampered.

#### **2.4.2.16 Sustainable Development for Environmental Management Along Ras Mohamed National Park Coast: (on-going)**

Execution of a pilot study and master plan for the Marine Environmental protection and the development of a sustainable ecotourism in the Red Sea around Sharm El Shiekh and the Sinai mountains.

Pilot study aimed at pointing out direct links between the economic benefits of ecotourism and the protection of marine ecosystems from Sharm El Shiekh to Sudan.

Master Plan for encouraging ecotourism in order to generate significant funds that can be used to support community – based biodiversity conservation efforts. Ecotourism development is one of the rare forms of tourism development which can support the protection of the natural zones through the conservation programmes. It is not only creates jobs and provides local populations with sources of income, but it also creates awareness between both inhabitants and tourists of the need to preserve the natural and cultural capital.

The project will undertake the following:

- 1- Developing material, training courses, workshop and studies for the marine protection of Red Sea.
- 2- Increase the capacity building related with marine environmental issues of Red Sea and Coast line.
- 3- Taking into account the social impact of the project for the local population
- 4- Increased income benefits for the local populations
- 5- Creation of employment and new activities related to ecotourism
- 6- Multiplying the linkages of ecotourism with other traditional activities such as agriculture, fishing and handicrafts activities.
- 7- Putting in place distribution mechanisms to share the benefits of ecotourism development in order to reinvest the revenues generated in protecting biodiversity heritage
- 8- Increase local ownership and awareness on environmental policy implication.

### **3. Challenges for implementing CBD:**

On the national level, conservation of biodiversity is facing many challenges. The major challenges include:

- Egypt, like many world countries, is heading towards economic transformation within globalization and free foreign trade and the definite accelerating growth of national investments and the increasing volume of trade. This will be further reflected as the demand on natural wealth increases, necessitating striking delicate balance between conservation and development activities, and maximizing economic and social revenue of natural resources.
- There is still a range of protected areas that lack inadequate infrastructure, human cadres and capabilities necessary to achieve sound management and conserve their natural wealth, such as Elba, White Desert, Siwa, Degla and Nile Islands protected areas. These protected areas harbor a wealth and diversity of natural and aesthetic heritage that enable them to increase tourism added value and the economies of these zones.
- Enhancement of tourist development, as an important resource of national income, and further development of urban communities with the increased population growth, have constituted pressuring factors on the planned protected areas.
- Out of the experience gained over the past twenty years, protected areas should be declared in sequence and provided with human cadres and

capabilities before their fundamental elements are adversely affected.

- Protected areas need to be constantly funded to ensure updating of protection systems with advanced scientific techniques, utilizing biotechnology and the IT booms.
- It is one world now. Like other countries, Egypt is liable to invasive species that travel across countries and influence their biodiversity, as well as genetically-engineered species and other organisms that negatively affect safety of humans, animals and plants, in addition to the global climate change and other cosmic factors. All this necessitates reinforcing national capacity, national and international cooperation in order to face these changes.
- Due to the open skies among nations, mobility of transport, growth of global tourism research and studies, it has become imperative to exert more efforts to protect intellectual property rights of the national gene resources and the cultural heritage that constitute strategic stocks for the generations to come.
- In order to start building upon the past twenty year achievements and realizing the objectives of the National Biodiversity Strategy (up to 2017), one of the major priorities is to develop scientific management in protected areas especially following the termination of foreign cooperation projects.
  - All these challenges and other internal and external factors command considering radical solutions to achieve self funding for Biodiversity and Protected Area management programs, as well as economics-based institutional development of the nature protection sector, and forming national board of trustees for overseeing

To overcome these challenges, future vision is needed including:

- Providing institutional support to activate the national Biodiversity Strategy though forming a Supreme Board Authority for overseeing the national reprogram and mobilizing financial and technical resources, both internal and external, to undertake its activities under the international changes.
- Developing a balanced organizational structure for nature protection, within jurisdiction of the State Ministry of Environmental Affairs, and providing specialized manpower and adequate financial capabilities to achieve protection and conservation over 15-17% of the area of Egypt, in addition to conserving biodiversity in Egypt within the context of the national and international obligations. A proposal has been submitted to the Cabinet Premier in 2003 on the economic management of protected areas through establishing a holding company involving three companies for ecotourism breeding of wild animals and planting medicinal and aromatic plants. The preliminary economic feasibility study indicated that this holding company could achieve a 25% annual investment return.
- Standardizing management, monitoring and evaluation systems in the

protected areas and important ecosystems according to agreed specific standards and indicators, and continuing the Protected Areas management plans and developing all related scientific and technological capacities, and enhancing integration of these protected areas into the national economy and public involvement.

- Developing a National Ecotourism strategy in cooperation with the Ministry of Tourism, the Egyptian Federation of Tourist Chambers, investors, and the Civil Society. Setting a well-defined plan of ecotourism activities that identify the roles played by the / different sectors and overseeing its implementation. Moreover, setting a remarkable map designating the hundred most important ecotourism destinations, in which current and future protected areas stand as pilot models. In addition to participating in media and cultural program campaigns as well as Specialist Training programs.
- Achieving maximum benefit from foreign cooperation programs, particularly natural resources management in the Red Sea in cooperation with the USAID; Conservation of medicinal plants in St. Katherine in cooperation with GEF; Rehabilitation of Mangrove trees in cooperation with the FAO; Achieving regional development in South Sinai in cooperation with the EU; Realizing sustainable development along the coastline of Ras Mohammed Protected Area. Sustainable management of biological resources and developing the Wadi Rayan, Siwa and Elba protected areas in cooperation with the Italian Government. Sustainability must be ensured for all these programs after they have reached their end of term.
- Preparing academic and technical studies of natural wealth and biodiversity in order to declare new protected areas according to the priorities of zones in the Egyptian Western Desert. Encouraging cooperation with donors to develop these protected areas, as well as projects of establishing the Egyptian museum natural history breeding centers, gene banks and rehabilitation negatively affected species.
- Setting and implementing ad hoc programs on fighting all invasive species, issuing the Biosafety Law, and activating the Intellectual Property Act on natural and cultural heritage and participating in development of environmental laws. In addition to developing capacities and achieving coordination and cooperation to address these challenges.
- Supporting and developing all education, awareness raising, and information programs and involving civil society and women to further reinforce protection and conservation techniques in a manner that enhance public opinion and promoting their partnership.

Since biodiversity conservation efforts are divided between various sectors and institutions as well as depended upon wide variety of issues such as political willing, management capabilities, public education and awareness, conflict level between different stakeholders, economical status, level of impact on the natural resources ..etc, prioritization of each challenges facing the implementation of each article in the convention can be summarized in the following table:

**Challenges priorities to implement CBD Articles, ranked on a basis of: 0= no challenge, 1=low challenge, 2= medium challenge, 3= high challenge**

	CBD Article No.																		
	5	6	7	8	8h	8j	9	10	11	12	13	14	15	16	17	18	19	20	
Lack of willing and political support	0	2	2	0	2	2	2	1	2	1	1	1	2	2	2	2	2	2	
Lack of effective participation of local communities and stalkhoder in the conservation process	2	2	2	2	3	3	3	2	3	2	2	2	3	3	3	3	3	3	
Lack of addressing biodiversity issues in the agenda of other sectors and agencies	2	2	3	2	3	3	3	2	3	3	2	2	3	2	2	2	3	2	
Lack of contingency and progress precautions	3	3	3	3	3	3	3	3	3	2	2	2	3	3	3	3	3	3	
Lack of necessary institutional capabilities to implement CBD	3	2	3	2	2	3	3	2	3	2	2	3	2	3	2	2	3	3	
Lack of technology transfer and experience	2	2	3	2	3	3	3	2	2	2	2	2	3	3	2	3	2	3	
Loss of the traditional knowledge	3	3	2	3	3	3	3	3	3	2	2	2	3	3	3	3	3	2	
Lack of scientific research capabilities to support all goals of the convention	3	2	3	2	2	3	2	2	2	2	2	2	2	2	2	3	3	2	
Lack of proper access to knowledge and information	2	2	3	2	2	3	2	2	2	2	2	2	3	2	2	3	3	2	
Lack of education and public awareness	2	2	2	2	2	3	2	2	2	2	2	2	2	0	2	0	3	3	
Lack of proper mechanism to maximize the use of the available scientific and traditional knowledge	3	3	3	3	3	3	2	2	2	3	2	2	2	2	3	3	3	3	
Lack of full understanding for	3	3	3	3	3	3	3	3	3	3	2	2	3	3	2	3	3	3	



## 4. Capacity Constraints for implementing UNCBD

Based on the previous challenges, 10 main constraints can be addressed as follows:

a. Limited of proper institutional capabilities to implement the convention:

The National Conservation sector lacks the status equal to the task and due to the present low profile, competent, professional and dedicated staff are limited, and due to salary constraints very difficult to recruit. On the governmental structure level, the Nature Conservation Sector is considered as administration within EEAA (i.e. less than sector and higher than department). Therefore, the capabilities of such administration to manage the declared protected areas currently 10% of Egypt's area as well as to implement national and international convention and agreements are very limited. The development of a strong identity for the Conservation Biodiversity Sector will improve the productivity and enhance the support from the private sector.

b. Limited of proper capacity building due to shortage in staffing, equipment and tools to implement the convention:

Although Egypt has taken a large step to conserve the most valuable key areas, proper capacity needed to implement the convention is representing one of the highest priority constraints. Based on "declare now and study later" to meet with the huge uncontrolled development in many parts of Egypt, large areas have been declared. Up to date Egypt declared 24 protected areas, represents approximately 10% of Egypt, as the most proper tool to conserve biodiversity. In addition, it is planned to raise the number of the declared protected areas to 40, to represent 17% of Egypt. Despite the growth in the number and areas declared in Egypt (wetland, arid systems, marine habitats, Dolphin habitats), there are not enough capacity to control and manage these areas. For instance, the total staff number working in this sector does not exceed 570 staff, on a rate of 0.5 person/100km<sup>2</sup> comparing with international standard rate of 27 persons/100km<sup>2</sup>. Besides that, the necessary tools needed (equipment, training, knowledge) to implement the convention still a serious constraint facing the nature conservation sector, EEAA.

c. Limited of self-sustained mechanism to finance and manage the implementation of the convention:

While gigantic steps towards the conservation of the natural resources are evident, there are still some aspects that need to be improved. The most important of these are those limiting factors that require a great input of financial resources and training. Revenue generation strategy on national level as a tool to manage the natural resources is urgently needed. New approach on economical base is needed to manage the natural resource, in particular, in the protected areas.

d. Limited of a national knowledge, awareness and management skills:

There is a generally low level of environmental awareness in Egypt. The enormous task of public awareness in a large number of population requires a large staff and a vast increase in the present human and financial resources. Environmental control is limited mainly due to the limited human capacity and low level of environmental awareness. The limited progress in

the national conservation education is mainly due to the extreme shortage of staff and the means to produce the necessary material and present a reasonable profile in the media.

e. Limited of the institutional mechanism to assess the impact of other regional and international conventions and agreements on biodiversity:

To fit the approach of globalization, Egypt signed many international conventions and agreements, concerning international trade, economy health and others. The impact of these convention and agreements on the implementation process of the CBD and proper synergies needs to be addressed on the national level.

f. Limited of addressing biodiversity issues in the agenda of other sectors and agencies

Implementation of the CBD is coordinated by the ministry of state for Environmental Affairs. One of the main goal to establish the National Biodiversity Unit (NBU) as a department within NCS of the EEAA is to strengthen the coordination between concerned ministries, agencies and authorities including: ministry of Agriculture and land reclamation; Egyptian Wild Life service; Environmental Management offices of the governorates; Ministries of Education, Scientific Research, Foreign Affairs, Defense, Interior and Health; National Universities; Egyptian Academy of Science and Technology; NGOs and civil society. Many of these ministries and agencies still needs to address the issues of the convention in their agenda as well as the role of the NBU still need to be strengthened to establish a proper coordination.

g. Limited of instrumental process to evaluate the national economical value of biodiversity

Although biodiversity in many areas of Egypt plays very important role in the development process such as tourism industry and some traditional business of local communities, there is no proper instrumental process to evaluate the economical value of the biodiversity. In many causes, the national plan to develop certain areas, never be taken the biodiversity as one of the necessary criteria to determine the type and the level of the development based on benefit analysis and minimizing impact. This is mainly related to the lack of documentation and process to evaluate the economical value of biodiversity. Land filling of 3,000,000m<sup>2</sup> of coral reefs in the area of Hurghada (Red Sea) to construct resorts and hotels during 1980s, the implementation of Law No. 4/1994, is an obvious example indicating the lack of necessary knowledge on the economical value of biodiversity.

h. Absence of proper link between research institutes and universities and the national implementing agencies

It is important to adopt a scientific approach which should be based on a inventory of the biodiversity. The documentation of native biota with the degree of impact is being worked out at many Egyptian universities and institutes. The main funding agencies for biodiversity research are mainly the universities and the Ministry of High Education and Scientific Research. Limitation of capacity and funding is one of the major constrain facing the research capabilities especially in the field of natural resource management and taxonomy. Special attention should be given by the governmental implementing agencies to establish and strengthen the link with the research agencies to improve the techniques

for conservation and sustainable use of the natural resources by supporting research and training.

i. Lack of proper national vision and instrumental mechanism on technology development and transfer

Like most countries, Egypt has faced many challenges due to technological development and interlinked global ecosystems, as well as, revolutionary genetic engineering, free trade, growing world tourism, along with limited financial resources. Therefore, Egypt has considered international cooperation in nature protection as a top priority, which played a pivotal role realizing intended goals.

## **5. Approach to the synergies between the three Convention**

As noted in the Millennium Ecosystem Assessment, environmental approaches for combating desertification, conserving biodiversity and mitigating climate change are linked in numerous ways. Desertification and land degradation affects global climate change through soil and vegetation losses, while biodiversity in turn influences carbon sequestration and therefore helps to regulate climate change. Given that climate change and desertification and land degradation are major causes of biodiversity loss and that biodiversity conservation and sustainable use can contribute to both climate change mitigation and adaptation, and to combating desertification, the governing bodies of the United Nations Framework Convention on Climate Change, the Convention on Biological Diversity and the United Nations Convention to Combat Desertification have repeatedly emphasized the importance of promoting synergy at the local, national and international levels.

In particular, the Conference of the Parties to the Convention on Biological Diversity has noted that there are opportunities to implement climate-change mitigation and adaptation activities in ways that are mutually beneficial and synergistic and that contribute simultaneously to the United Nations Framework Convention on Climate Change and its Kyoto Protocol, the Convention on Biological Diversity, the United Nations Convention to Combat Desertification, the Vienna Convention for the Protection of the Ozone Layer and its Montreal Protocol on Substances that Deplete the Ozone Layer, the Ramsar Convention on Wetlands, and other international agreements, all within broader national development objectives. **The Conference of the Parties has further acknowledged that the ecosystem approach under the Convention could facilitate the formulation and implementation of activities aimed at mitigating and adapting to climate change while contributing, in a synergistic manner, to sustainable development and biodiversity** conservation.

In addition, broad options for enhancing cooperation at different levels have been highlighted by the Joint Liaison Group of the three Rio conventions (UNEP/CBD/SBSTTA/10/INF/9). These include:

- (a) Encouraging collaboration among national focal points as a key to fostering synergy at the national level through formal networks;

- (b) Collaboration at the level of the convention bodies and secretariats to promote policy coherence, enhance the provision of technical expertise and to enhance cooperation in achieving complementary objectives;
- (c) Capacity-building at the national level, as one of the essential elements for implementation;
- (d) Technology transfer at both the secretariat and national levels through sharing of experiences, information, and identification of technologies of joint interest and relevance;
- (e) Research and monitoring, including sharing of data;
- (f) Promoting complementarity between national biodiversity strategies and action plans under the Convention on Biological Diversity, national action programmes under the United Nations Convention to Combat Desertification, and national adaptation programmes of action for the least developed countries under the United Nations Framework Convention on Climate Change.

Options and opportunities for further synergy among the three Rio conventions through the forest/forestry sector were also outlined at the Workshop on Forest and Forest Ecosystems on promoting synergy in the implementation of the three Rio Conventions organized in Viterbo, Italy, in April 2004 by the secretariats of the United Nations Convention to Combat Desertification and the Convention on Biological Diversity in cooperation with the Secretariat of the United Nations Framework Convention on Climate Change. These options focus on the following national-level activities:

- (a) Activities related to afforestation, reforestation, sustainable forest management, forest landscape restoration, technology transfer, traditional and scientific forest related knowledge; and
- (b) Facilitating the interaction between national focal points using existing forest policy and planning mechanisms such as national forest programmes.

Many provisions and decisions/resolutions from the governing bodies of the United Nations Framework Convention on Climate Change, the Convention on Biological Diversity, the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar, Iran, 1971), and the Convention on the Conservation of Migratory Species of Wild Animals also contain concrete adaptation activities that address climate change. Selected examples derived from the ongoing UNEP project on “issue based modules for coherent implementation of biodiversity conventions” is provided in table 2 in the report of the Ad Hoc Technical Expert Group on Biodiversity and Adaptation to Climate Change (UNEP/CBD/SBSTTA/11/INF/5). The table suggests a wide variety of opportunities for synergy and complementarity among Parties to different multilateral environmental agreements in fulfilling their agreements while concurrently addressing climate change mitigation and adaptation under the following elements: (i) development of adaptation options; (ii) assessment of adaptation options; (iii) effective management of particular ecosystems; (iv) promotion of societal actions; (v) restoration of degraded ecosystems; and (vi) integration of adaptation activities into other policies and strategies.

Negative impacts to biodiversity can be minimized, and positive benefits enhanced if biodiversity considerations are incorporated formally and routinely into adaptation planning. In particular, these activities should take into account the maintenance and restoration of ecosystem resilience, which is an essential element to sustain the delivery of ecosystems goods and services. As stressed in the report of the Ad Hoc Technical Expert Group on Biodiversity and Adaptation to Climate Change (UNEP/CBD/SBSTTA/11/INF/5), reduction of other pressures on biodiversity arising from habitat conversion, over-harvesting, pollution, and alien species invasions constitute important adaptation measures in order to enhance ecosystem resilience. Section 5 of the Desertification Synthesis of the Millennium Ecosystem Assessment echoes the previous advice that focusing on prevention of desertification and land degradation offers the greatest opportunities for both maintaining the provision of ecosystem services and benefiting biodiversity.

Adaptation activities that address climate change, conservation and sustainable use of biodiversity, and land degradation and desertification in the context of relevant thematic areas covered by the Convention on Biological Diversity. can have positive, neutral, or adverse effects on biodiversity and the sustained provision of ecosystem goods and services. Adaptive-management and risk-assessment tools can help to minimize adverse biodiversity effects during the design, implementation and monitoring of adaptation activities.

In this context, various approaches, methods and tools that are currently available can be used for planning, designing and implementing adaptation activities. The amalgamation of these approaches, methods and tools provide concrete opportunities for exploiting and addressing the synergies between the objectives of multiple environmental conventions and sustainable development goals. A comprehensive list of tools and approaches to design and implement adaptation activities has also been prepared under the United Nations Framework Convention on Climate Change.

The approaches, methods and tools are complementary and fall into two main categories; “top-down” (modelling or scenario-driven) and “bottom-up” (community or vulnerability-driven) and incorporate information and policy links. These approaches, methods and tools can be combined into a climate change adaptation framework for biodiversity and specific tools can be used in different stages of the framework. The suggested framework, which is annexed to the present note, incorporates both scenario-driven and vulnerability-driven approaches and is also consistent with the framework for assessment of impacts, vulnerability and adaptation suggested by the Intergovernmental Panel on Climate Change, adaptation policy frameworks for climate change, risk-management approaches, Ramsar risk-assessment framework (Ramsar resolution VII.10), and national adaptation programmes of action (NAPAs) by Parties to the United Nations Framework Convention on Climate Change. It includes iterative steps such as problem identification, ensuring and seeking participation from multiple partners, assessing the knowledge base, preparing and implementing adaptation action plans.

The observed changes in the climate system (e.g. increased concentration of carbon dioxide, increased land and ocean temperature, changes in precipitation and sea level raise), have affected the timing of reproduction of animals and plants and/or mitigation of animals, length of the growing season, species distribution and population sizes, and

frequency of pests and disease outbreaks. The projected impacts due to changes in the mean climate, extreme climatic events and climate variability include:

- a. The climatic range of many species will move pole-ward or upward in elevation from their current location.
- b. Many species that are already vulnerable are likely to become distinct.
- c. Changes in the frequency, intensity, extent and locations of climatically and non-climatically induced disturbances will affect how and at what rate the existing ecosystems will be replaced by new plant and animal assemblages.
- d. Some ecosystems are particularly vulnerable to climate changes

There are significant opportunities for mitigating climate changes, while enhancing the conservation of biodiversity. On global level, these mitigation measures includes: reducing of the green house gas emissions from energy and biological sources or enhancing the sinks of greenhouse gases. Adaptation is comprised of activities that reduce a system's (human and natural) vulnerability to climate changes.

The Ad Hoc Technical Expert Group (AHTEG) on Biodiversity and Adaptation to Climate change was established to assist the Subsidiary Body on Scientific, Technical and Technological Advice (SBTTA) in its further work on the interlinkages between biodiversity and climate changes (decision VII/15), by undertaken a supplementary assessment on the integration of biodiversity consideration in the implementation of adaptation activities to climate change, and preparing advice taking into consideration the thematic areas of the convention for planning and/or implementing activities to address adaptation to climate change. In paragraph 14 of decision VII/15, the Conference of the Parties requested SBTTA, as the next stage of its work on the interlinkages between biodiversity and climate change to develop, for the consideration of the Conference of Parties, advice and guidance for promoting synergy among activities to address climate change at the national, regional and international level where appropriate, including activities to combat desertification and land degradation, and activities for the conservation and sustainable use of biodiversity.

## 6. Conclusion

The issues of freshwater shortage, erosion of the northern coastal areas of the Mediterranean sea, and the biodiversity as attraction tool for tourism industry are fundamental to the country as a whole. On the regional level, Egypt possesses two major human achievement effects the biodiversity of the whole Mediterranean Sea. Suez Canal as a link between the Red Sea and Mediterranean Sea as well as Aswan High Dam. Although, both are fundament for the national economy of the country, they are considered as two major impact on biodiversity on the regional level. On the international level, the marine resources of Egypt as international traffic road between south and north still needs to be determined.

Although Egypt established national biodiversity strategy and action plan, many of the mentioned national fundamental issues are not addressed. The following table address prioritize some of the major issues for a proper implementation of the CBD.

**Priorities and current status of each priority (0, no; (\*) low; (\*\*) medium; (\*\*\*) high achievement)**

High priority	High
Review and improve the existed national strategy and action plan for biodiversity convention based on the national and regional interests (0)	Raising the capability of the National Biodiversity Unit (NBU) as supporting Mechanism to implement and monitor the national biodiversity strategy and action plan (**)
Establish national gene bank and national center for restoring the threaten and endangered species of flora and fauna (0)	Rehabilitation of coral reef ecosystems (0)
Declaration of the Red Sea Northern Islands (**)	Implementation of national hunting management plan (**)
Promote the institutional status of NCS and building capacity (**)	Preparation of national strategy for public awareness and education (*)
Establish and implement protected area management plans including land use plan (***)	Develop a national plan for natural products industry, sustainable use of medical living resources and restore the over-harvesting/fishing areas (0)
Preparation of National biodiversity and natural heritage inventory and monitoring program (**)	Review and adapt the environmental laws especially Law No.4 to support different biodiversity issues (0)
Establish and implement management plan for River Nile Islands protected area (*)	Protection of the traditional knowledge and establish a traditional knowledge registration system (0)
Reduce the pollution in River Nile and Northern Lakes (Idku, Burrulus and Manzalla) (*)	Establish a national policy on handling and use of the modified organisms (0)

Preparation of policies and legislation to regulate the access to biological resources and equitable benefit sharing (*)	
Preparation of the national strategy for alien invasive species management plan (**)	
Inventory the role of Suez Canal as major human impact on the biodiversity of the Red Sea (0)	
Establish a national museum of natural history (*)	
Establish a national indicator mechanism to monitor the efficiency of CBD implementation (0)	

## **Needs for capacity building to implement UNCBD**

In most countries, establishment of protected areas has been the main strategy for conservation of biodiversity. Since the IVth World Parks Congress in 1992 the area under protection has expanded to cover 11.5% of the earth's land surface. This should mean that biodiversity is much better protected than it was a decade ago.

But its not, because only a small fraction of the area in question is effectively protected, and there are still serious gaps in the coverage of some ecosystem and species.

The challenges are immense given the direct threats to protected areas resulting from habitat loss, fragmentation, unsustainable exploitation, and invasive species.

Moreover, there is an overwhelming lack of the capacity, policies, incentives and mechanisms to bring about an equitable distribution of costs and benefits necessary to ensure that protected areas are effectively managed and conserved in the long term, particularly in the face of global change.

The conference of the Parties to the CBD set an ambitious goal of achieving by 2010 "a significant reduction of the current rate of biodiversity loss at the global, regional and national levels, as a contribution to poverty alleviation, and to benefit all life on earth". This goal was reiterated in the Johannesburg Plan of Implementation agreed upon at the World Summit for Sustainable Development (WSSD).

The Durban Congress sent a strong message of support to COP7, in particular the congress recommended the CBD to:

- 1 identify and fill-in the existing gaps in the global protected area system on the basis of sound science and take action to promote the development of ecological networks, corridors and trans-boundary protected areas, and to link with efforts to conserve and sustainably use biological diversity across the broader landscape
- 2 put in place mechanisms to ensure the necessary participation and equitable sharing of benefits of protected areas, particularly with indigouins and local communities, and
- 3 create the necessary enabling conditions, including the development of institutional and human capacity, supportive policy and legal frameworks that cut across all sectors, assessment mechanisms, and most importantly, the financial support to make all this happen.

Capacity building is one of the prime elements which will facilitate effective implantation of the Convention of Biological Diversity obligations. Capacity building is the strengthening and/ or development of human resources and institutional capacities.

In this regard, countries, organizations and the private sector are called upon to contribute actively to capacity building, at the local, national, regional and international levels.

Changes in institutional and environmental governance frameworks are sometimes required to create the enabling conditions for effective management of ecosystems, while in other cases existing institutions could meet these needs but face significant barriers. Many existing institutions at both the global and the national level have the mandate to address the degradation of ecosystem services but face a variety of challenges in doing so related in part to the need for coordinated responses at multiple scales. However, since a number of the issues identified in this assessment are recent concern and were not specifically taken into account in the design of today's institutions, changes in the existing institutions and the development of new ones may sometimes be needed, particularly at the national scale.

In particular, existing national and global institutions are not well designed to deal with the management of common pool resources, a characteristic of many ecosystem services. Issues of ownership and access to resources, rights to participation in decision making, and the regulation of particular types of resource use or discharge of wastes can strongly influence the sustainability of ecosystem management and are fundamental determinants of who wins and loses from changes in ecosystem.

### **Strengthening capacity to manage protected areas in an era of global change**

Protected area managers need stronger capacities- and, in some cases, new skills- to build and manage comprehensive protected area systems that respond to the full range of global change factors.

Most fundamentally, areas managers need to develop the capacity for adaptive management, an approach to planning and management that analyzes problems systematically, draws out lessons from experience, and uses those lessons to change and strengthen management approaches.

### **Building a supportive policy and legal framework**

PAs can only thrive in a supportive legal and policy framework, and national governments ultimately hold the authority and responsibility for establishing that framework.

Political and legal systems vary so greatly around the world that it is impossible to prescribe "one size fits all" approach, but three dimensions are - or should be- addressed by all countries:

- 1- Articulating a general national policy on the conservation and sustainable use of biodiversity
- 2- Enacting specific legal provisions governing the establishment and management of PAS, including attention to "horizontal" coordination among sectors to resolve and minimize inevitable conflicts between conservation and use of natural resources and "vertical" coordination of the relative authorities and capacities of central versus sub-national units of government; and
- 3- Ensuring sufficient will and capacity to implement and enforce pa policies and regulations in the field

## **Strengthening institutional capacity**

At the institutional level, capacity development aims to increase the effectiveness of the total system as it pertains to overall organizational performance and functioning, as well as the ability of the management regime to adapt to change. Institutional capacity and reporting, changes in procedures and communications, and changes in the deployment and management of human resources.

*Institutional structures:* Although there is no single best model, experience shows that when responsibility for protected area management falls within government institutions also responsible for commodity production and economic development there is often limited compatibility between conservation and development functions. On the other hand, autonomous protected area agencies established without a strong legal mandate or sufficient technical and financial capacities may find themselves equally marginalized in inter-agency competition. In other instances, authority for protected areas is spread over multiple agencies, generally resulting in a complex and developed management structure, which acts as a barrier to effective conservation. Experience has demonstrated that when protected areas have solid legislative grounding and are governed by agencies exclusively focused on conservation and protected areas management, with sufficient financial and decision – making autonomy, they have the greatest effectiveness and efficiency.

*Management plans:* One of the most important methods for the development of institutional capacity is the formulation of management plans for particular sites which specify the objectives for which the area is being managed, define legal and operational rules, and lay out programmes and activities that together provide a strategic path for managing the area to achieve the stated objectives.

*Partnerships:* Global change factors are increasingly pressing in upon protected areas at just the time when the need to expand and connect protected areas across the landscape is growing. Furthermore, most countries' protected area agencies lack sufficient resources, capacities, and political clout to fulfill their mandates on their own.

## **Strengthening individual skilled and capacities**

At the individual level capacity development is characterized by the methods through which attitudes, behaviours and actions are changed. This generally occurs by imparting knowledge and developing new skills through training. It can also involve “learning – by – doing”, and increasing performance through changes in management, motivation, morale, and levels of accountability and responsibility. Key building blocks for individual skill and capacity development include:

### Operational capacity of the protected area authority

- A sustainable flow of resources to support the staff's operational activities;
- Staff quantity, quality and retention;
- Autonomy of protected areas authority to plan and implement activities;
- Ability of the protected area authority to influence policy and decision – making.

### Approach of the protected area authority to staff development and training

- Existence and use of job descriptions and terms of reference for staff;
- Existence and use of performance targets, individuals appraisals and standards;
- Opportunities for career development, promotion and advancement;
- Staff perceptions of their role and value in the organization.

### Availability of training and other development opportunities

- Identification of needs and planning of training
- Availability of wider learning and personnel development opportunities

The challenges posed by global change alter the context within which protected areas are managed, and thus modify the range of skills and capacities needed by managers. Some of the new skills that protected areas managers increasingly need include:

1. management skills such as strategic planning, financial management and fund raising, and good communication;
2. adaptive skills such as application and integration of information arising from research and monitoring, as well as the ability to identify and analyze lessons learned;
3. cultural and social expertise relating to partnership development, particularly processes, dispute and conflict resolution, and networking with a complex array of stakeholders;
4. technical skills in project design, report writing and the use of existing and emerging information technologies; and
5. policy expertise, such as understanding broader legal frameworks and sectoral policies within which protected area strategies and activities are implemented.

**Common capacity needs across regions and across conventions (UNFCCC, UNCBD, and UNCCD):**

1. Low levels of awareness and knowledge limit the ability for discussion, decision - making and action.
2. Lack of information management, monitoring and observations hampers policy and decision-making.
3. Lack of synchronization of national policy, legal and regulatory frameworks leads to confusion between sectors and between national, regional and local levels.
4. Incentive systems and market instruments are inadequately developed.
5. Institutional mandates either overlap or have gaps, key institutions are not involved, and interactions between institutions are not always effective.
6. Science and technology are ineffectively mobilized in support of policy and decision-making.
7. Preparing for, skill in participating in, and reporting back on, international negotiations and agreements is weak.
8. Coordination, and processes for interaction within the country are poorly developed.
9. Cooperation and networking within regions are often lacking.
10. Individuals tend to be ineffectively deployed, mobilized, motivated or given responsibility.
11. Institutional effectiveness is hampered by weak management and resource constraints.
12. Lack of financial resources and technology.

**Conclusion:**

While there has been some progress in implementing this Convention, there is need for a concerted action to move from policy and legislation and Action Plan development to actual implementation. An area which will need to be addressed is that of access to information. It is clear from the stocktaking exercise that much needs to be done to facilitate information sharing.

Consideration should be given to a single CHM, that is, for the 3 Conventions, which would act as a gateway to information on the activities carried out under the 3 'Rio' Conventions.