



List of acronyms

UNEP	United Nations Environment Programme
UNDP	United Nations Development Programme
MAP	Mediterranean Action Plan
RAC/SPA	Regional Activity Centre for Specially Protected Areas
GEF	Global Environment Facility
GFCM	General Fisheries Commission for The Mediterranean
UMA	Union du Maghreb Arabe
UNFCCC	United Nations Framework Convention on Climate Change

FOREWORD

The present draft programme was prepared by IUCN Centre for Mediterranean Cooperation on the basis of thematic priorities of IUCN overall programme for the period 2009-2012, bearing in mind the priorities identified by the North African members at the meeting held in Malaga from 3 to 4 September 2007.

This programme was submitted to and accepted by the members during the meeting held in Tunis from 14 to 15 March 2008. The North Africa programme covers the following countries: Algeria, Egypt, Libya, Morocco and Tunisia. It will be implemented by IUCN members from the region with the support of the IUCN Centre for Mediterranean Cooperation in Malaga.

INTRODUCTION

The countries of North Africa present diverse environments and landscapes with great richness and diversity of fauna and flora. They host different types of ecosystems such as coastal, island, mountain, desert, oasis and wetlands.

Those ecosystems are particularly threatened by different human-induced and climatic factors, and at times fail to ensure the goods and services necessary for socio-economic development of countries in North Africa, thus challenging the livelihoods of the people dependent on those ecosystems and on natural resources in general.

Besides, there are strong interrelationships between terrestrial ecosystems - mainly the arid ecosystems, which are subject to water stresses - and marine and coastal systems that become areas of attraction / shelter for people and are thus subjected to greater stresses.

Countries in North Africa are usually characterised by shared challenges concerning degradation of natural resources at the marine and terrestrial levels as well as by significant socio-economic problems (unemployment, poverty, etc.), namely in the arid zones representative of such region.

Countries in North Africa are characterised by their aridity and their northern marine boundaries. Hence, the populations in the region are expected to be the first to be impacted by the combined effects of climatic change and desertification processes, and are thus bound to face serious economic losses.

It is true that the extent of impact of climate change will vary according to the type of ecosystem and area, but the forecasts available indicate that both ecosystems and economies will be highly exposed. Depending on the different scenarios, crop yield and fisheries will decrease, which will in turn decrease food security and lead to eventual socio-economic migration, especially in the coasts where more than 70% of the population lives. It is thus imperative that measures for adaptation to this phenomenon are put in place.

Moreover, certain forms of use of natural resources have led to overexploitation, as in the case of water resources and some stocks of living marine resources. The sustainability of such use can only be guaranteed through approaches that enable the t078 Tc13.5 TD -0.0262 Tc 3.

sustainable use of resources - They are particularly adapted to the natural conditions in North Africa and should therefore be

The programme will develop means to ensure equitable socio-economic development for the people of North Africa and mainstream gender empowerment in its activities.

GENERAL CONTEXT

Geographical and demographic framework

The five countries of North Africa cover a total area of 5,275 million sq. km. and occupy the whole southern Mediterranean shore, with a coastal fringe that extends for about 5 200 kilometres.

Table 1: Geographical data on the countries of North Africa

(x1000)	Algeria	Egypt	Libya	Morocco	Tunisia
Total Land Area (ha)	238,74	100,145	175,954	71,085	16,361
Forest	2,145	72	358	5,680	510
	1%	~0%	~0%	8%	1%
Agriculture Land and Crop / Natural Veg	8,215	3,300	2,150	9,230	5,100

The current estimated population of the five countries is around 156 million residents and is growing at an average rate of 1,6%; it will thus have grown by about 11 million people by 2012, the date when the present programme will have been completed. The forecasts made by the Blue Plan¹ indicate that by 2025 the total population of the five countries of North Africa will be 197 million people.

Table 2: Changes in the total population of the countries of North Africa

	Total population in 1970	Total population in 2000	Estimated total population in 2007	Estimated total population in 2012	Estimated total population in 2025
Algeria	13,623	30,332	33,691,160	36,090,560	42,329,000
Egypt	32,364	66,007	74,095,640	79,873,240	94,895,000
Libya	1,986	6,038	6,820,320	7,379,120	8,832,000
Morocco	15,081	28,505	31,212,320	33,146,120	38,174,000
Tunisia	5,127	9,615	10,532,560	11,187,960	12,892,000
Total	63,054	130,882	145,819,440	156,489,040	184,230,000

Economic and political context

Since their independence, the countries of North Africa have followed economic development models with varying degrees of openness into the world economy.

Politically and economically, these countries, except from Egypt, are linked by the Union of the Arab Maghreb (UAM) Agreement, which also integrates Mauritania. This Union has a Secretariat based in Morocco whose mandate includes certain environmental issues. It should be noticed that the UAM's level of activity remains relatively low.

Four North African countries have signed Association Agreements with the European Union, which came into force in 1998 (Tunisia), 2000 (Morocco) and 2004 (Egypt). Algeria signed an Association Agreement with the European Union in December 2001. These Agreements replace the cooperation agreements signed in the 1970s and concern in particular economic exchanges, although they also deal with social concerns and the environment. The extent to which these Agreements have been implemented differs from one country to the next, but the desire for further relations and cooperation with the European Union is clearly displayed by the governments of the five countries of the region.

Economically speaking, the situation of the five North African countries differs considerably from country to country, especially regarding GDP and GDP per capita. However, the fight against poverty and the improvement made in the standard of living (income, education, health) and basic infrastructure are among the main priorities for the five countries. GDP per head varies according to country from US\$ 1 694 to US\$ 5 527, and the average poverty rate of the North African population is estimated at 19,5%.

According to World Bank data, poverty has clearly declined in recent years in North Africa, but the five countries are faced with major mid- to long-

Convention on the Conservation of Migratory Species of Wild Animals (1979)		1983	2002	1993	1987
Convention on the Conservation of European Wildlife and Natural Habitats (1979)				2001	1996
United Nations Convention on the Law of the Sea (1982)	1996	1983		2007	1985
Convention on Biological Diversity (1992)	1995	1994	2001	1995	1993
United Nations Framework Convention on Climate Change (1992)	1994	1995	1999	1996	1994
Kyoto Protocol (1997) to the United Nations Framework Convention on Climate Change	2005	2005	2006	2005	2005
United Nations Convention to Combat Desertification (1994)	1996	1995		1996	1995
Agreement for the Conservation of Cetaceans in the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (1996)	2007		2005	2001	2002

Main funding programmes

All the countries in the region are calling for foreign financial support to implement their environmental programmes. Part of this support is provided via bilateral cooperation with the European countries. Canada, the US and Japan are also making a contribution to this bilateral cooperation. Most of the external funding of the environmental projects is given multilaterally through United Nations programmes and European programmes. GEF has been one of the main sources of funding provided to the countries of the region in recent years for implementing environmental projects.

Main Guidance of the IUCN North Africa Programme

Principles followed for the preparation of the North Africa component of the IUCN-Med Programme

This sub-regional programme for North Africa was designed bearing in mind the five thematic priority areas of the IUCN's 2009-2012 programme, and in particular the programme for its Centre for Mediterranean Cooperation (IUCN-Med).

These five global IUCN thematic priority areas are:

- *Thematic priority area 1 - Conserving the diversity of life. Ensuring sustainable and equitable management of biodiversity from local to global levels.*

- **Thematic priority area 4** - *Managing ecosystems for human well-being. Improving livelihoods, reducing poverty and vulnerability, and enhancing environmental and human security through sustainable ecosystem management*
- **Thematic priority area 5** - *Greening the world economy. Integrating ecosystem conservation values in economic policy, finance and markets*

While keeping a strong link with the above-mentioned priority themes, the special features and requirements of the North Africa region were the main guiding principle when drafting this programme, considering specifically the conclusions and recommendations of the Meeting of the North Africa members held in Malaga in September 2007.

The areas of action by the main international organisations and cooperation agencies operating in the region were also taken into consideration to avoid overlapping and duplication. The programme was indeed designed to promote complementarity with the programmes of other actors while focusing on those areas where IUCN and its members could offer an added value.

Main orientations of the IUCN's North Africa Sub-Regional Programme

Thematic Priority Area 1 - Conserving Biodiversity in North Africa

The North African territory has remarkable marine and terrestrial biological diversity linked to its great geo-morphological variability and the diversity of fauna and flora species therein. The region's ecosystems and landscapes are also very diverse. Much of this territory has been subject to the human use of resources for centuries, increasingly so over the past thirty years, particularly in the coastal areas.

Like the rest of the Mediterranean, North Africa is a hot spot of endemism, both for fauna and flora. Moreover, many species considered as threatened at international level, or that have disappeared in other parts of the planet, are still present in the countries of North Africa. The arid conditions to which much of North Africa is subject adds to the complexity and accentuates the vulnerability of the region's species and ecosystems, despite the great degree of adaptation to aridity shown by many animal and plant species.

The five countries of the region are Parties to the Convention on Biological Diversity. As part of implementing this Convention, Algeria, Egypt, Morocco and Tunisia have developed national strategies to conserve biodiversity and adopted national action plans to put their strategies into effect. These countries received a financial contribution from UNDP to prepare strategies and national action plans on the basis of national studies which have for each country made an assessment of biological diversity and identified the main threats and priorities. A13.1e Tw dlogtire6u-0.02887, Algeria,58m3.5 ca is s.5 TDec7eenu2 Tw (9) Tj 153.75 0

Egypt	<ul style="list-style-type: none"> - Ecosystems in the hyper-arid regions with moderate winters (desert in the eastern part of the country and the southern part of the country's western desert) - Ecosystems in the hyper-arid areas with cold winters (mountainous massif of the southern Sinai) - Ecosystems in the coastal belt with Mediterranean influence - Fresh-water ecosystems - Marine ecosystems, particularly coral reefs and mangroves
Morocco	<ul style="list-style-type: none"> - Forest and steppe ecosystems - Saharan ecosystems - Marine and coastal ecosystems - Continental wetlands ecosystems - Cave ecosystems
Tunisia	<ul style="list-style-type: none"> - Forest ecosystems - Wetlands ecosystems - Coastal area ecosystems - Marine and lagoon ecosystems - Steppe ecosystems

The main directions of the national strategies to protect biological diversity were defined by these countries bearing in mind the main threats (see Table below):

Table 6: Main threats and mitigation options

Country	Main threats to biodiversity	Main directions of the national strategy to protect biological diversity
Algeria	<ul style="list-style-type: none"> - Loss/modification of habitats - Forest fires - Overexploitation of resources - Pollution - Invasive species 	<ul style="list-style-type: none"> - Development of protected areas - Protecting biological diversity by protecting habitats - Fight against degradation of natural resources - Systematic inventorying of fauna and flora - Creation of a gene bank

Country	Main threats to biodiversity	Main directions of the national strategy to protect biological diversity
Egypt	<ul style="list-style-type: none"> - Demographic pressure - Hunting and excessive taking of resources - Globalisation and its negative impacts on use of resources - Lack of human and financial resources - Degradation of habitats due to agriculture and industrial pollution - Invasive species 	<ul style="list-style-type: none"> - Managing natural resources on scientific basis that guarantee that the natural equilibrium is maintained -

Results of the **IUCN-Med Component** Programme

Results of the **IUCN-Med Sub-regional** Programme for North Africa

Suggested targets / activities

Results of the IUCN-Med Component Programme	Results of the IUCN-Med Sub-regional Programme for North Africa	Suggested targets / activities
	<p>4) The capacity of national authorities in technical means and knowledge on species in danger and invasive species is improved in at least two countries in the region</p>	<p>a) Elaboration of a guide for the monitoring authorities (customs, national/royal guard, maritime police etc.) for better recognition of the species concerned by CITES and better knowledge of the regulations concerning these</p> <p>b) Information and awareness campaign</p>

Thematic Priority Area 2: Facing the Threats and Challenges of Climate Change

The North African countries rely greatly on the use of natural resources, and the effects of climate change will have direct impacts on the resilience of ecosystems and on the

Nationally, the risks linked to climate change can only be taken into account if decision-makers possess clear and simplified data on the vulnerability to climate change of areas, ecosystems and populations. Now such information is only available to the countries of the region in fragmented or incomplete forms, and the elaboration of adaptation strategies and programmes depends enormously on this. Demonstration actions are needed to show the feasibility of certain adaptation methods and techniques, and for decision-makers and the people to be aware of the possibilities offered and also of the limits of adaptation to be put into effect. Capacity development enables the social system, especially institutions, to create adequate frameworks and develop actions aimed at adapting to climate change. The main objective of capacity building is to improve the institutional framework so that adaptation to climate change can occur. Elements of capacity development for adaptation include: a) society involvement, b) education, information and encouragement of behavioural change, c) research, d) monitoring at all levels and e) more integration of the various disciplines (genetic, ecological, silvicultural, social, economics, etc.

IUCN, through its experience and its network of members and partners, can play an extremely important part here.

Activities proposed in the context of Thematic priority area 2 - Facing the Threats and Challenges of Climate Change

Remarks:

- The activities to be implemented in each of the countries will be identified in consultation with the members
- The text between the square brackets represents options to be assessed

Results of the IUCN-Med Component Programme	Results of the IUCN-Med Sub-regional Programme for North Africa	Suggested targets / activities
Participation and capacities of North African countries is effectively enhanced within global climate change policy negotiations	1. IUCN climate change knowledge and strategies (adaptation and mitigation) relevant to different ecosystems and/or economic activities (i.e. agriculture, tourism...) are conveyed to members and partners to enhance their effective participation in national and regional climate change debates	<ul style="list-style-type: none"> a) Socio-economic evaluation of impacts of climate change on local populations and priority ecosystems including marine ecosystems and/or economic activities b) Gather Knowledge on adaptation options applied and/or tested in the region and disseminate it to relevant actors c) Reflect the concerns of members in IUCN position papers and disseminate these papers for supporting their negotiation skills d) Strengthen capacity and propose initiatives relevant to credit mechanisms / carbon markets and cleaner development mechanism

Results of the IUCN-Med Component Programme	Results of the IUCN-Med Sub-regional Programme for North Africa	Suggested targets / activities
	4. Socio-economic and ecological resilience to extreme weather events is increased	<ul style="list-style-type: none"> a) Identify a number of pilot critical areas/landscapes (according to the Ecosystem Approach scale) where extreme weather events are having a higher impact due to climate change and where to test adaptation options in the field. b) Undertake participatory spatial planning to assess risks, resilience needs, more resilient land uses and landscape patterns, adaptive management options and restoration needs. c) Identify good governance options and adopt flexible policies and incentives to support adaptation needs and more resilient land uses/social conditions d) Develop ecological restoration plans to increase landscape resilience

Thematic Priority Area 3 – Identify and develop energy options that are equitable, ecologically sustainable and adaptable to North African Countries

The energy situation differs greatly among the five countries of the region. Algeria and Libya possess important energy resources and are listed among countries whose energy balance shows a surplus, whereas Egypt, Morocco and Tunisia do not possess sufficient energy resources to satisfy their requirements and thus rely on imports.

The increase in the oil price in the year 2007 had a great impact on the economies of the five countries of the region. Egypt, Morocco and Tunisia have seen their oil bills rise, going beyond the most pessimistic scenarios of their forecasts. This has led to budgetary revisions in the course of the year for Morocco and Tunisia. For Libya and Algeria, the situation has been utterly different. Oil income has greatly exceeded their respective forecasts for 2007.

Without being very large, exchanges exist between the countries in the region as regarding energy. This is so for Tunisia, Libya and Algeria, for example, whose 'high voltage' electricity networks are interconnected. Because of their different energy situations, the five countries do not give the same degree of priority to energy saving and to developing alternative energy options. Hydraulic energy is not much used for the production of electricity in the five countries, with the exception of Egypt, which produces a large part of its electricity from its Aswan Dam facilities. This form of energy is not likely to develop much in the region over the coming years.

Policies to encourage alternative energy solutions should be carefully considered as not to have negative environmental and social impacts. For that, it is important to carry out Strategic Impact Assessment at national level in the three most concerned countries in the region (Egypt, Morocco and Tunisia).

For some areas in the North African countries, cutting wood for energy purposes constitutes a very important threat to the terrestrial plant cover. To help reduce pressure on the region's natural, especially forest resources, it would be wise in the context of the present programme to develop pilot actions aimed at demonstrating the interest of certain techniques for improving energy efficiency, as well as looking at alternative energy options, such as solar energy as an alternative to firewood consumption and for larger-scale energy production.

Activities proposed in the context of Thematic Priority Area 3 - Identify and develop energy options that are equitable, ecologically sustainable and adaptable to North African Countries

Remarks:

- The activities to be implemented in each of the countries will be identified in consultation with the members
- The text between the square brackets represents options to be assessed

Results of the IUCN-Med Component Programme	Results of the IUCN-Med Sub-regional Programme for North Africa	Suggested targets / activities
Impact management tools and methods (avoidance / mitigation/offsets) are incorporated into energy development initiatives in at least 2 countries in the Mediterranean	1) Impacts on ecosystems of production of alternative energy (wind, bio-fuel, biogas) assessed and mitigated in three countries in the region	<ul style="list-style-type: none"> a) Cost-benefit analysis (investment versus advantage) and Strategic Impact Assessment on ecosystems of the development of alternative energy in Egypt, Morocco and Tunisia b) Studies on the best mechanisms for biodiversity compensation/offsetting (protected area designation, landscape restoration, carbon credits...) are developed and effectively implemented in at least 2 countries c) Assess the impact of bio fuels on and communicate results to government of the region

Results of the IUCN-Med Component Programme	Results of the IUCN-Med Sub-regional Programme for North Africa	Suggested targets / activities
Dialogue with energy sector initiated to assess energy options and mainstream conservation issues into their development activities	2) Initiatives by the energy sector that promote exchange of knowledge and technology across the Mediterranean are developed and implemented	<ul style="list-style-type: none"> a) Organise workshops and discussion with the private sector to enhance knowledge and identify possible alternative energy options b) Develop studies and exchange experiences on best available energy options within the specific context of North Africa including south cooperation opportunities. c) Elaborate guidelines on best practices, in collaboration with IUCN Business and Biodiversity programme, and share with members and partners to guide their actions and decisions d) Pilots projects within the tourism sector to promote energy efficiency ex : eco labelling

Results of the IUCN-Med Component Programme	Results of the IUCN-Med Sub-regional Programme for North Africa	Suggested targets / activities
<p>Incentives are developed to ensure sustainable use of ecosystem dependent energy sources in at least 3 pilot sites</p>	<p>3) Sources of energy based on natural ecosystems are optimized and rationalized in their use by using pilots actions and incentives tools and measures</p>	<ul style="list-style-type: none"> a) Develop pilot actions to introduce energy efficient techniques within rural communities and identify barriers that might affect their utilisation b) Investigate the feasibility of solar energy to reduce the amount of wood used and the Greenhouse Gas Emissions c) Promote north-south and south-south cooperation and transfer of knowledge and technology relevant to energy efficiency and optimisation of the use of wood for firewood and charcoal production (new pruning techniques and good management practices that are less harmful to forests, and better performance of charcoal production) ex: rehabilitation of tamarix d) Identify and propose incentives through payments for ecosystem services (PES), such as agreements with water/hydro-energy/water dependant companies e) Pilots project activities that can generate income for population very dependant on forest ecosystems

Thematic Priority Area 4 – Su

Activities proposed in the context of Thematic priority area 4 – Sustainable management of ecosystems in North Africa for human well-being and livelihood improvement

- Remarks:
- The activities to be implemented in each of the countries will be identified in consultation with the members
 - The text between the square brackets represents options to be assessed

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Results of the IUCN-Med Component Programme	Results of the IUCN-Med Sub-regional Programme for North Africa	Suggested targets / activities
<p>Security (food, health) of communities, especially in drylands and forest/range land, increased through innovative systems to apply traditional resource management in at least 5 pilot initiatives</p>	<p>2) Traditional practices for agriculture, livestock farming and use of natural resources rehabilitated to guarantee the communities' food security and self-sufficiency in the framework of one regional project</p>	<ul style="list-style-type: none"> a) Inventory traditional practices of water harvesting, soil ploughing and growing crops in the arid areas b) Information campaign directed at women and youth in arid and/or isolated areas about traditional techniques of resource management c) Undertake a situation analysis on pastoralism in North Africa d) Hold a series of workshops and information events on sustainable pastoralism and disseminate findings e) Undertake studies on the aromatic and medicinal plants sector to understand and evaluate the different economic opportunities

Results of the IUCN-Med Component Programme	Results of the IUCN-Med Sub-regional Programme for North Africa	Suggested targets / activities
<p>Improved natural resource governance (land tenure, property rights...) is supported in the region to contribute to the livelihoods of local communities and the sustainable management of ecosystems</p>	<p>3) Improved governance of natural resources, especially in drylands, forests/rangeland, marine ecosystem and protected areas, is supported to mitigate ecosystem degradation and livelihood insecurity</p>	<ul style="list-style-type: none"> a) Identify the main drivers for land degradation in North Africa and undertake analysis of economic policies and perverse incentives that drive land degradation b) Propose institutional and governance support mechanisms that promote sustainable management of natural resources, especially in drylands and protected areas c) Review selected legislation relevant to resource management and propose advice for improvement d) Undertake training relevant to improved governance of resources e) Identify innovative financing mechanisms for protected area management f) Introduce gender empowerment and job generation activities to ensure improvement of livelihoods g) Contribute to the regional conservation activities of the Alboran Sea and participate in the North-South Mediterranean scientific and knowledge-generating group

Results of the IUCN-Med Component Programme	Results of the IUCN-Med Sub-regional Programme for North Africa	Suggested targets / activities
Ecosystem goods and services contribute directly, sustainably and equitably to improved livelihoods in at least 8 selected areas.	4) The local communities benefit from the ecosystem services while ensuring their appropriate functioning	wp3 -12.12075 5 TDg012.75 T/f.75 0 TD 2 1 T-0.1875 9

Activities proposed in the context of Thematic priority area 5 –

