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## Draft Management Plan Horsh Ehdén Nature Reserve

### Prepared by the Protected Areas Project Planning Team:

Faisal Abu-Izzeddin	IUCN Project Manager
Peter Hitchcock	IUCN Senior Consultant
Lina Yamout	Project Counterpart/Ministry of Environment
Fouad Frangieh	Horsh Ehdén Nature Reserve/Manager

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Antoine Nehme	Horsh Ehdén Nature Reserve/Assistant Manager
Assad Serhal	Al-Shouf Cedar Nature Reserve/Manager
Ghassan Jaradi	Palm Islands Nature Reserve/Manager
Ahla Hamdan	Al-Shouf Cedar Nature Reserve/Assistant Manager
Simon Jahshan	Protected Areas Project/Administrative Assistant
Samir Anouti	Protected Areas Project /Intern

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## FOREWORD

The formal establishment of protected areas to conserve important sites of natural heritage is recent and heralds a new age in Lebanon - the rediscovery of the natural landscape of this ancient land.

For thousands of years of its history Lebanon has been influenced and dominated by foreign powers as it passed from one empire to another. Lebanon's rich and varied culture is therefore the product of all these influences, from the Sumerian, Babylonian, Ancient Egyptian, Greek, Roman, Byzantine and Ottoman empires to the more recent French mandate.

What is remarkable is that despite the continuous use, and often abuse, of all its natural resources, a few remaining areas still recall the natural splendor that was once Lebanon.

However, with the rapid modernization of Lebanon these remaining natural areas are being destroyed through haphazard development. So it is now, with a sense of urgency, that we need to save the best examples of what is left of the original landscapes - the mountains, the forests, the wildlife, the beaches, the snow fed rivers, the caves, the valleys and the gorges.

The establishment of the first three natural protected areas namely Palm Islands Nature Reserve and Horsh Ehdén Nature Reserve (both established in 1992) and Al-Shouf Cedar Nature Reserve (established in 1996) is just the beginning of what is hoped will be a rediscovery and respect for the natural heritage of Lebanon. These areas are distinctly Lebanese. They do not need any foreign imports of plants or animals to "improve" them. All they need is for the Lebanese to adopt them, to help protect them, and to pass them on to their children as something to be proud of.

This Draft Management Plan was developed by the Protected Areas Project through the gradual process of management training workshops in 1997 and 1998. In these workshops the planning process was elaborated and information regarding the protected areas was collected. After careful editing to make the document more readable, it was printed and distributed to stakeholders in the Ehdén area for their comments and suggestions on the future management of their protected area.

## PART I - THE PROTECTED AREAS PROJECT

LEB/95/G31/A/1G/99 Strengthening of National Capacity and Grassroots In-Situ Conservation for Sustainable Biodiversity Protection, commonly known as the Protected Areas Project, commenced on 15 November 1996 and is scheduled to end on 15 November 2001.

The Protected Areas Project is financed by the Global Environment Facility (GEF) through the United Nations Development Programme (UNDP) with the technical and administrative guidance of the World Conservation Union (IUCN) and under the execution of the Ministry of Environment in Lebanon.

The Project's overall development objective is to conserve endemic and endangered wildlife and their habitats, incorporate wildlife conservation as an integral part of sustainable human development, strengthen the institutional capacity of government agencies and non-governmental organisations and promote national reconciliation.

The day-to-day management of the Horsh Ehden Nature Reserve has been contracted by the Protected Areas Project to the Friends of Horsh Ehden, a locally based non-governmental organisation, thereby involving local citizens in management of the reserve on behalf of the people of Lebanon.

The role of the Horsh Ehden Nature Reserve in the Protected Areas Project will be achieved through recognised practices in planning and policy development for management of the reserve, the establishment of a trained professional staff to manage the reserve, the provision of appropriate facilities to protect the heritage values of the area and to facilitating appropriate public use and enjoyment of the reserve.

By bringing together a natural resource (Horsh Ehden Nature Reserve), a local management NGO (Friends of Horsh Ehden), a supervisory Government Agency (Ministry of Environment) and the financial and technical inputs of international organisations and funds (GEF, UNDP and IUCN) - the project is on its way to establishing a model partnership for the in-situ conservation of biodiversity.

## **PART II - THE MANAGEMENT PLAN**

### **INTRODUCTION**

This plan is to guide the management of the Horsh Ehdén Nature Reserve. It has formal application only to publicly owned lands within the designated boundaries of the protected area.

This plan is designed to provide all interested persons with a clear documentation of the future management of the Horsh Ehdén Nature Reserve. This is based on the principle that the Horsh Ehdén Nature Reserve is a part of the heritage of the people of Lebanon and that they have a right to know how their heritage is to be managed.

The main users of the plan will be the Friends of Horsh Ehdén and its Management Team, which are entrusted to manage the reserve on behalf of the people of Lebanon. The other main users of the plan will be the Ministry of Environment and the Government Appointed Committee which the Minister is entitled to appoint, as provided for in Article 10 of Law 121 of 9 March, 1992.

This is the first plan for the Horsh Ehdén Nature Reserve and is designed to apply for five years by which time its performance will need to be reviewed. If circumstances require, the plan can be reviewed at anytime within the five years. That review will involve further public consultation to take into consideration the views of the Ministries of Environment and Agriculture, of local groups such as Municipalities and NGOs, as well as involved and informed individuals.

### **PLANNING PROCESS**

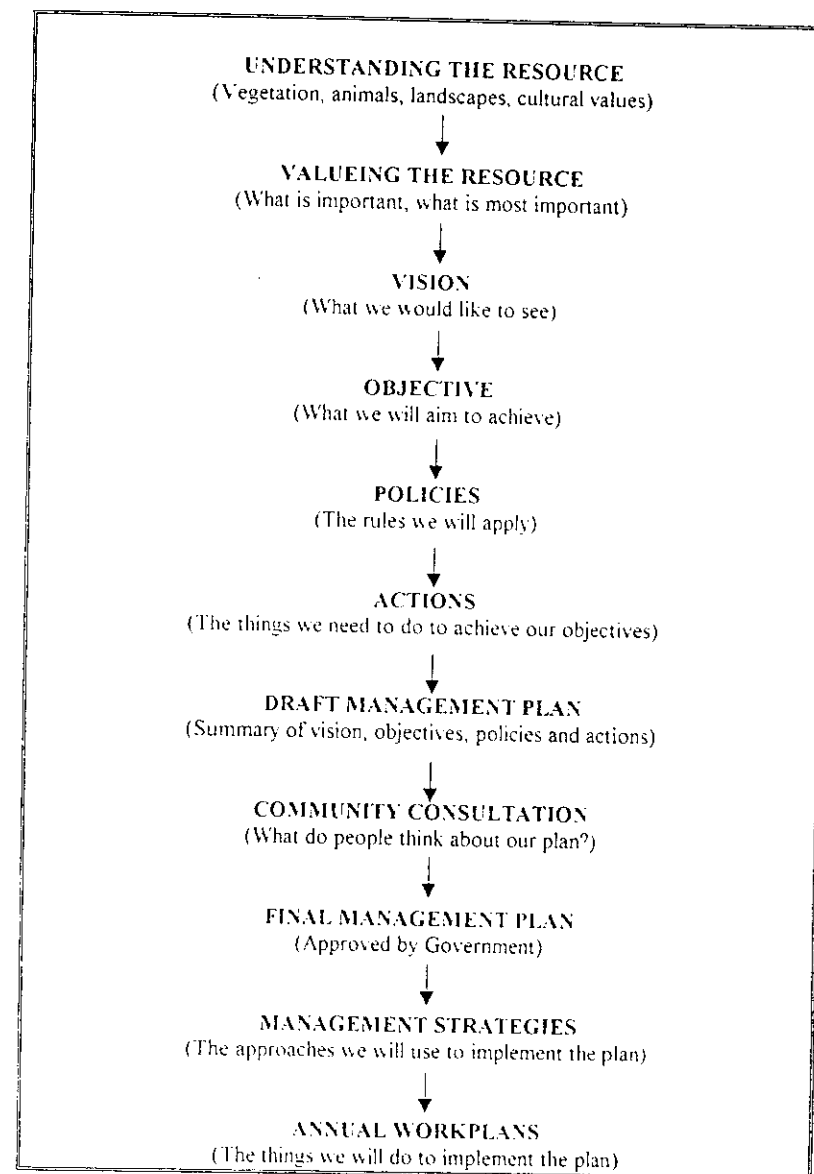
The plan has been prepared following a series of Training Workshops which were held in 1997 and 1998 which covered: a general survey of the natural and cultural values of the protected area, the development of a vision for the future of the area, setting of management objectives, the formulation of a set of rules or policies and then the programming of management activities aimed at achieving the adopted objectives.

The planning process has also involved preliminary consultation with a range of key stakeholders to ensure that the plan is based on accurate information and where possible accommodates the ideas contributed by others.

The planning process is documented in "Planning Guidelines", a printed document which was developed for the Protected Areas Project. A simplified outline of the process is presented in Diagram 1.

## THE PLANNING PROCESS

(Simplified)



## A GUIDE TO THE MANAGEMENT PLAN

### PART I THE PROTECTED AREAS PROJECT

Describes the Protected Areas Project and how it relates to this management plan.

### PART II THE MANAGEMENT PLAN

Describes what the plan is for, who it is for, the process used in its preparation, the period for which the plan will apply, and a guide on how the plan is arranged.

### PART III THE HORSH EHDEN NATURE RESERVE

This part of the plan summarises, in a systematic way, the geographic context, legal status, and the main natural and cultural values of the area. The key results of the evaluation process are presented as the most important natural and cultural values to be addressed in the management of the area. All values will be protected but the more important ones will get priority attention.

### PART IV THE FUTURE OF HORSH EHDEN NATURE RESERVE

This part sets out the management principles that are essential in developing realistic policies and management strategies for managing change within the protected area. This part also presents the vision which the management team sees for the longer-term future (20 years +) of the Horsh Ehdén Nature Reserve, and discusses the constraints on achieving the vision.

### PART V OBJECTIVES, POLICIES AND ACTIONS

**Objectives:** The vision has been refined into realistic achievable objectives, which are the aims for management during the 5-year life of the plan.

**Policies:** For management objectives to be met, management must be directed and disciplined. The rules which will be needed to control and direct management of the key conservation values, indeed all values, are presented as policies.

**Actions:** The actions which will be necessary to implement the plan, in particular seeking to meet the objectives of the plan, are detailed under each objective and then summarised at the end of Part V in a whole-of-plan prioritised list.

### PART VI IMPLEMENTING THE PLAN

This part outlines the annual development of the workplan, which will be needed to ensure that the objectives of the plan are met. It also briefly outlines the process for monitoring the progress in implementation of the plan and the process for future review of the plan.

#### Additional Material Available

A separate document, '*Draft Management Plan – Horsh Ehdén Nature Reserve: Appendices*', contains some of the results of the inventory process, such as lists of plants and animals recorded, and is available on request.

## PART III – HORSHEHDEN NATURE RESERVE

### GEOGRAPHIC CONTEXT

The dominant geographic feature of Lebanon is Mount Lebanon, a high mountain range running north-south the length of Lebanon, paralleling the Mediterranean coast. The range reaches its highest point of over 3,000 metres at Qornet Al-Sawda, Lebanon's highest mountain.

Horsh Ehden Nature Reserve is situated on the upper north western slopes of Mount Lebanon, ranging in altitude from 1200m to 2000m and 34° 19' N latitude and 36° 00' E longitude. The area of Horsh Ehden is about 1000 ha of public land, whereas the forested core of the protected reserve covers little more than 450 ha. The municipality of Ehden owns the land. Boundaries of the reserve are not officially fixed yet.

The north-south orientation of the range maximises the potential for precipitation from the moist air-streams off the Mediterranean. A classic orographic precipitation pattern results with rain falling on the summit and Mediterranean approach side of the range, becoming snow at higher altitudes in winter, with a rain shadow on the eastern (Bekaa) side of the range. Snow may persist over much of the surface over 2,000 metres for up to 6 months of the year. Temperature ranges between -2°C in winter and 25°C in summer.

Precipitation averages about 1100mm per year. As well as rain it receives substantial falls of snow every winter with 95 days of snowfall on more than 50% of the protected area. Snow may accumulate in the reserve up to several meters in depth. Snow drifts can be of sufficient magnitude to cause damage to the forest vegetation in steeper valleys.

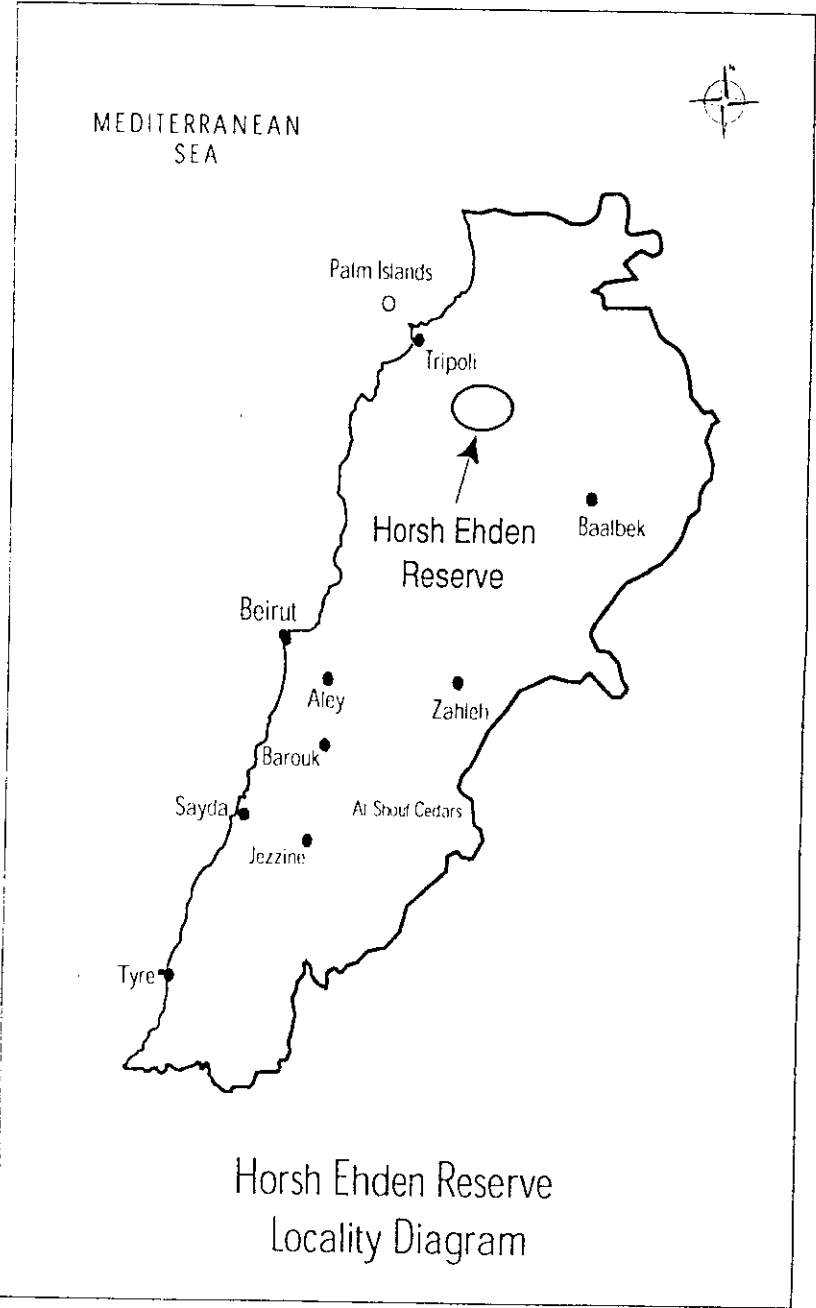
Precipitation as rainfall and snow on the western slopes is enhanced by atmospheric moisture and mist backing up against the range as a result of on-shore air movement. There is a high incidence of mist above 1000 meter of altitude in all seasons of the year.

Whereas the precipitation patterns and associated altitudinal and mist factors largely determine the overall vegetation pattern along the Mount Lebanon range, the surface discharge of some perennial subterranean streams is likely to have a local modifying effect on vegetation patterns and species composition.

Coniferous forest reaches its upper altitudinal limit within the reserve though there is some evidence that the present almost treeless landscape above the forests may have once supported woodland or forest of *Juniperus excelsa*.

Horsh Ehden enjoys a distinctive geographic context, being a relatively small forested hillslope area on the upper western flanks of a much larger tract of undeveloped montane land which includes the main plateau and summit of Lebanon's highest mountain, Qornet Al-Sawda.





## LEGAL STATUS

Government legislation, Law No. 121 of 9 March 1992, declared "The public domain of Horsh Ehdén a Nature Reserve".

According to Law No. 121, the legal authority for managing the reserve is the Government Appointed Committee comprised of volunteers and representatives of the municipality, appointed by the Minister of Environment.

Since May 1997, responsibility for day-to-day management of the reserve has been contracted by Protected Areas Project and approved by the Minister of Environment to the Friends of Horsh Ehdén in accordance with the terms of the Protected Areas Project.

Since that date the Friends of Horsh Ehdén, through their management team staff, have been managing the protected area. Various conservation measures have been initiated, including guided tours, ranger patrols and a public awareness campaign.

Wherever possible, the management team will work in partnership with national and local government agencies and the community and actively seek assistance from all parties. The management team in collaboration with the Government Appointed Committee will actively solicit appropriate research and monitoring programs and projects.

The legal authority of the Friends of Horsh Ehdén Committee and the management team will be regularly reviewed to ensure a continued level of authority to implement this plan.

## NATURAL HERITAGE

### **Biodiversity**

Horsh Ehdén forest is a unique assemblage of conifers, deciduous and evergreen broadleaf trees in an isolated phyto-climatic region with a highly varied topography.

Indicators of the biodiversity of the protected area include

About 1058 plant species. (of the 2863 native plant species in Lebanon)

Over 39 species of trees.

Over 20 species of mammals.

Over 156 species of birds.

Over 300 species of fungi

3 of the 9 bio-geographic zones recognised in Lebanon are represented in Horsh Ehdén Nature Reserve, thus contributing to its nationally important biodiversity.

The main forest communities of highest conservation importance are.

#### ***Cedrus libani* forest community**

The *Cedrus libani* forest community represents about 20% of the remaining cedar forests in Lebanon and is thus significant at the national level. This significance is increased by the ecological integrity of the community, its high biodiversity, range of age classes, inter relationship with other forest communities etc.

#### ***Abies cilicica* forest community**

The *Abies cilicica* forest community in Horsh Ehdén Nature Reserve is considered the natural southern limit of the species.

#### ***Juniperus excelsa* forest community**

The *Juniperus excelsa* forest community is a resource and a gene pool for possible reforestation projects at higher altitude. It is considered nationally significant as a gene stock for the reforestation of the high peaks of Mount Lebanon above the 2000 m altitude line.

#### ***Malus trilobata* forest community**

Horsh Ehdén is the only protected area in Lebanon containing the last remaining forest community of the endemic apple of Lebanon.

In the Lebanon context, the overall plant biodiversity rating for the Horsh Ehdén Nature Reserve is very high. More than 38% of the species of higher plants in Lebanon have so far been recorded in the reserve, notwithstanding that it represents less than 0.1% of the area of Lebanon.

### **Plants**

Horsh Ehdén Nature Reserve includes discrete plant communities characterised respectively by:

- Pinus brutia
- Cedrus libani (Lebanese cedar)
- Montane shrubland
- Abies cilicica

Quercus calliprinos  
 Quercus infectoria  
 Quercus cerris  
 Quercus infectoria and Quercus calliprinos  
 Juniperus excelsa  
 Ostrya carpinifolia and Fraxinus ornus  
 Cedrus libani and Abies cilicica  
 Therophytes (pelouse)

#### Rare or Threatened Species

Of the 1058 species of native plants recorded in Horsh Ehdn, approximately 212 or 20 % can be considered to be rare and 126 or 12% are considered threatened within Lebanon.

#### Other species

Of the 1058 plants species of plants recorded in Horsh Ehdn, about 115 are endemic to Lebanon of which 10 are endemic to Horsh Ehdn. Approximately 78 species of plants recorded in the reserve are currently recognised as medicinal plants.

### Mammals

#### Rare or Threatened Species

More than 20 mammals have been recorded (not including bats) in Horsh Ehdn Nature Reserve, representing 33% of mammals in Lebanon. Ten species of mammals are considered rare or threatened in Lebanon viz.

Hedgehog	Erinaceus concolor
Common field mouse	Apodemus sylvaticus
Wolf	Canis lupus pallipes
Wild cat	Felis silvestris tristrami
Porcupine	Histrix indica indica
Striped hyaena	Hyaena hyaena syriaca
Cape hare	Lepus capensis syriacus
Badger	Meles meles canescens
Weasel	Mustela nivalis
Squirrel	Sciurus anomalus syriacus

### Birds

Of the 156 bird species recorded in Horsh Ehdn Reserve (42% of the Lebanese avifauna)

3% are considered threatened at global level,  
 3.5% are considered vulnerable at regional scale,  
 12% are facing unfavourable conditions in Europe and  
 37% are rare in Lebanon

36 Species (23%) are resident breeders,  
 33 (21%) are summer breeders, of which 5 species may do so (Great Spotted Cuckoo, Nightjar, Roller, Sand Martin, Blue Tit and Ruppell's Warbler).  
 110 species are passage migrants and or winter visitors,  
 2 are vagrants (occasional in the area) and

16 species formerly bred

34 Rare species visit or breed in Horsh Ehden Nature Reserve, including:

- Imperial Eagle
- Bonelli's Eagle
- Blue Tit (first breeding record in Lebanon)
- Corncrake

**Other species of birds**

40% of the bird species in Lebanon visit or inhabit

70% of eagle species in Lebanon are visitors

38% owl species in the region are visitors or breeders.

**Geology**

The exposed rock in Horsh Ehden is a calcareous rock comprising mainly limestone from the "Cenomanien-Turonien" age with a thickness of 800-1000m

**Geomorphology**

Horsh Ehden Nature Reserve extends over four valleys with slopes ranging from 10% to 80%. One of the most distinctive features is a cliff formation more than 250 meters high and 1500 meters long. There are also areas of karst containing several caves. Given the extent of karst in the reserve it is possible that as yet unexplored caves occur in the reserve.

**Soils**

A preliminary study of the soils of Horsh Ehden has shown some sites to comprise undisturbed soil, a Mediterranean red soil, with a natural profile. This is rare in the Mediterranean region where one site with a 48% slope has depth of soil of 120 cm

**Hydrology**

The steep western slopes of the Mount Lebanon range, that includes Horsh Ehden Nature Reserve, ensures that much of the precipitation is gathered by fast flowing surface streams running directly to the Mediterranean. However, the Mount Lebanon range comprises porous and cavernous limestone so that a large proportion of the net precipitation percolates into the substratum to eventually discharge as springs on the lower slopes. These spring discharges are especially important on the western side of North Mount Lebanon where there are few permanent surface streams, including Nebaa Rachine the greatest stream discharge in Lebanon. About 10 such emergent streams occur within Horsh Ehden Nature Reserve and contributes to local humidity and soil moisture.

**Scenic Landscape**

Horsh Ehden is an integral part of a much larger area of wilderness landscape which extends north to include the Qornet Al-Sawda, Lebanon's highest mountain. The reserve is therefore integral to a tract of land which could qualify as wilderness zone using the criteria of the IUCN classification for protected areas.

Horsh Ehdén is a place where scenic beauty is very evident and includes:

- The colour changes in the fall, spring and summer highlighted by the richness of trees and shrubs species.
- Rock colours that range from orange, to grey and dark grey.
- Richness in algae and mosses that cover the rock surfaces and gives it attractive patterns.
- Spectacular high cliffs with trees growing on the rocks as 'bonsai',
- Snow covering ground in winter and flowers emerging from snow in early spring.
- Fog approaching and covering the reserve in almost all seasons.
- Sun casting golden orange colour on the reserve at sunset.
- Deep forested valleys
- The classic symmetry and pendulous branches of the cedars and Abies trees.
- Nebaa Jouite River flows all year and its audible roar gives life to a scenic view.
- A seasonal river in Wadi Al-Kiyama, which flows along the boundary of the reserve, is a particularly scenic stream especially during the snow melt.

#### **Recreational values**

The 'wilderness' qualities of parts of Horsh Ehdén Nature Reserve and of the adjacent montane areas, offers a special recreational opportunity for wilderness walking and cross country skiing.

## CULTURAL HERITAGE

### The Historic Significance of the Cedars of Lebanon

The Cedars of Lebanon have an almost magical place in history, not just in the history of Lebanon, but of a number of neighbouring countries and conquering empires.

The cedar forests of Lebanon enjoy the unique distinction as the oldest documented forests in history. The cedars were important enough in the history of man to be traceable to the very earliest written records, that of the Sumerians in the third millennium BC. In the ancient Sumerian "Epic of Gilgamesh", one of the oldest pieces of literature in the world, the Cedars feature prominently.

It was the Phoenicians along the coast of present-day Lebanon and from such ancient cities as Byblos, Tyre and Sidon who became the principal dealers in the timber of the cedar. Indeed, the cedars made a special contribution to the development of the Phoenician civilization by providing the timbers with which they developed their famous sea-going merchant boats thus becoming the first major sea-going trading nation in the world.

The Phoenicians traded the cedar to Egypt. Egypt in turn conquered the land of the cedars and gained direct access to the forests which were highly prized in the building of temples and boats. Later the Babylonians took a similar interest in the cedars and obtained them for use in building the fabled city of Babylon.

People around the world know of the cedars of Lebanon because of the numerous references in the Old Testament. The Bible records in some detail how King Solomon, King of Israel, requested of King Hiram of Tyre a supply cedar and to build a temple and a palace in Jerusalem.

In the 6th Century BC, Persian control of the Phoenician ports provided the Persians with the means of assembling a navy for use against their enemies the Greeks who were already embarrassing the Persians with their mobility in the Mediterranean as they leased and copied the Phoenician triremes.

The expansion of the Roman Empire into Syria and Lebanon had its detrimental effect on the cedars until the Emperor Hadrian installed the markers around the boundary of the remaining forests and declared them as Imperial Domain. Specimens of these markers have been preserved and held in museum collections.

Local Christian priests in Ehden in the 17th century AD prohibited the cutting of trees in Horsh Ehden and threatened the local community with ex-communication if they did cut or damage them.

The Ottoman Turks deforested all of the cedar growing areas within easy transport distance of their Hijaz railway to provide fuel for their wood-burning engines. Only the highest and most remote groves escaped damaged. A National Hero, Youssef beik Karam used Horsh Ehden as a hiding place and gathering place for his soldiers when he fought the Ottoman Empire.

In the modern day Lebanon the legendary cedar is still revered and remains prominent in the minds of all Lebanese. The cedar features on the national flag, the national airline, Government logos, the Lebanese currency and innumerable commercial logos. It is the feature of books, poetry, post cards, posters and art. The Cedars of Lebanon are truly an important part of the cultural heritage of the people of Lebanon.

#### **Cultural sites**

Although Horsh Ehdén has a long history for local people who used it in a variety of ways, there is very little material evidence in the forest of those uses except for:

- Cultivation: the presence of stone terraces,
- Lumber production: site of a wood cutting room and saw,
- Picnicing: a platanus tree planted at a water source for shade
- Camping: sites in the reserve for that purpose
- Graffiti: names and symbols engraved on tree trunks

Although there appear to be no identifiable direct references to the Horsh Ehdén forest in the ancient records, nor any on-site artefact or evidence of ancient use of the forest, there is certainly sufficient indirect evidence to assign cultural heritage value to the cedars of Horsh Ehdén as a part of the national cultural heritage. Indeed, the forest in Horsh Ehdén Protected Area is arguably the most intact forest of cedars in Lebanon and as such may better represent the appearance of cedar forests in ancient times. That degree of intactness is suggested by the diversity of understorey and the range of age classes in the forest and the apparent limited evidence of permanent loss of forest by grazing and browsing.

Horsh Ehdén Reserve is undoubtedly a place which could be presented in a very evocative way as an example of what the cedar forests may have been like in the days of King Gilgamesh, the Phoenicians, King Hiram, King Solomon and Emperor Hadrian. Given the species diversity of the forest, the often misty conditions, and the wilderness setting, Horsh Ehdén Nature Reserve provides opportunities for high quality visitor experiences.



## RESULTS OF EVALUATION

Each of the main heritage values identified in the inventory was subjected to evaluation to establish their *relative conservation importance*. The evaluation process highlighted the scarcity of information at the national level for a number of species of plants and animals, particularly for the animal species. The variable standard of data at the national level has contributed to the difficulty of reliably establishing the status of many species and hence the relative importance of their presence in Horsh Ehden Nature Reserve. Notwithstanding the variable reliability of the data available, a number of features of the reserve are clearly of great conservation value, both at the local and national level, and in some cases at the regional and international level.

Of particular importance for the purpose of conservation management is

- Exceptional diversity of native plants species
- Outstanding example of cedar forest of national cultural heritage value
- Outstanding example of *Cedrus libani* forest (diversity of age classes, species diversity, 20% of remaining cedar forest in Lebanon)
- Outstanding ecological condition (lack of degradation, pollution, introduced species etc )
- Habitat of rare and threatened animal and plant species
- Habitat of national and local endemic species of plants
- Outstanding example of Lebanese and Mediterranean natural ecosystem.
- Outstanding natural beauty
- Important ecological educational value
- Potentially outstanding high quality visitor experience in a forest, especially for those seeking solitude.

It is important to note that some of these key conservation values extend beyond the boundaries of the reserve and/or are dependent upon protection of some of those lands outside the reserve

## PART IV – FUTURE OF HORSH EHDEN NATURE RESERVE

### MANAGEMENT PRINCIPLES

Past use and inadequate management has resulted in degradation of the natural and cultural values of Horsh Ehdén Nature Reserve. Therefore the vision and the objectives developed for this management plan require an improvement in the environmental condition of these natural and cultural values.

Further, it will be necessary to ensure that any change which is externally imposed is managed to achieve a positive outcome. Management of the Horsh Ehdén Nature Reserve is therefore essentially about initiating and managing change so that the changes achieve the management objectives set out in this plan.

It is also recognized that various changes may occur during the life of the five years of the plan. Some of these will occur naturally, some initiated as a part of management and some imposed from outside the area and the plan. Unless the net result of these changes is towards achieving the management objectives we will not achieve our conservation objectives.

To maximize the chances of achieving those objectives we propose to adopt four guiding principles.

1. **“No net detriment”**

The ‘No net detriment’ guiding principle is that all management or other activities, actions or decisions should result in ‘No net detriment’ or deterioration to the environmental values or condition of the protected area.

2. **“Net benefit”**

The guiding principle of net benefit is that all management or other activities, actions or decisions should, as far as practicable result in a ‘net benefit’ or net improvement in the environmental values, integrity or condition of the protected area.

3. **Natural Heritage Charter (NHC)**

This document contains a set of basic principles, which have been developed to guide the management of natural heritage sites to a standard adequate to maintain the heritage values in the longer term. It has received international endorsements and represents a convenient set of principles to guide the management of protected areas in Lebanon.

4. **Burra Charter**

The Burra Charter is a set of principles and standards which have been developed to guide the management of cultural heritage sites to maintain the cultural heritage values. The Burra Charter has the endorsement of ICOMOS-the International Committee on Monuments.

## A VISION FOR THE FUTURE

The vision for the year 2020 for the Horsh Ehdén Nature Reserve is that it will be widely regarded in the Middle East and Mediterranean regions as the premier protected area because of its success in sustainable conservation. Such a reputation can only be achieved by:

### 1. Conservation of biodiversity

- No loss of species in 22 years of management
- Populations of all rare and threatened species are increased or sustained. Some locally extinct species successfully reintroduced.
- Natural ecological processes are operating with minimal need for management intervention.
- The landscape of the reserve is perceived as natural and is largely devoid of evidence of human presence

### 2. Environmental education

Horsh Ehdén is renowned throughout the region (Middle East) for its high standards of environmental education, especially in forest ecology.

### 3. Management excellence

The managers of the reserve are known for their professional skills and effectiveness in achieving conservation and management outcomes in a cost-effective way.

### 4. Community support

The reserve has achieved a high level of community support. The immediate surrounding communities are proud of their reserve and the prestige and income that it has brought to their communities.

### 5. Financial sustainability

The managers of the reserve have developed a very successful model of financial sustainability without compromising the heritage values of the reserve.

### 6. Visitors

- The reserve receives a high level of visitors and the quality of visitor experience and satisfaction remains high and this is achieved with a minimal impact on the values and integrity of the reserve.
- Independent evaluation has established that the visitor use of the reserve has been achieved with a net benefit to the reserve and is seen as a model for other protected areas.

### 7. Contribution to a National Protected Area System

The success of the Horsh Ehdén Nature Reserve has contributed to the political and community support for the development of a comprehensive protected area system for the whole of Lebanon.

**HORSH EHDÉN NATURE RESERVE**

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## CONSTRAINTS ON ACHIEVING THE VISION

The following is a list of the main constraints on realization of the vision for the Horsh Ehdan Nature Reserve.

### 1. Resources

- Levels of funding
- Reliability of funding
- Ability to raise alternative and supplementary funds

### 2. Political

- Level of Government support
- Level of Ministerial support
- Level of community support

### 3. Personnel

- Ability of management team to operate as a team
- Training and skills of staff
- Personnel management skills
- Performance of management team
- Remuneration levels of staff positions
- Job satisfaction of staff

### 4. Field Management

- Availability of equipment
- Capacity to respond to emergent issues such as fire
- On-site boundary delineation

### 5. Knowledge and technology limitations

- Knowledge of protected area
- Type and location of the important heritage values in the reserve

### 6. Community

- Neighbor relations
- Community support
- User satisfaction and support
- Community relations in general

### 7. Authority and delegation

- Degree of authority over the reserve
- Level and type of delegation
- Other authorities permitted to operate in reserve
- Lack of official authority on lands outside of protected area

## **PART V – OBJECTIVES, POLICIES AND ACTIONS**

### **OBJECTIVES**

These objectives will become the principle aims for the management of Horsh Ehdén Nature Reserve during the five-year life of the Management Plan, and are a direct result of the preceding "A Vision for the Future".

#### **Objective 1 – Natural Heritage Conservation**

To provide protection, conservation and management of natural heritage values for future generations.

#### **Objective 2 - External Development**

To enhance the value of the reserve by seeking the protection of adjacent natural lands

#### **Objective 3 – Internal Development**

To ensure that all development activities in and near the reserve are subjected to proper evaluation.

#### **Objective 4 - Structured Approach to Management**

To maximise maintenance of natural processes and conditions by careful planning and execution of research, monitoring and other approved activities

#### **Objective 5 - Research and Monitoring**

To facilitate appropriate research and monitoring consistent with or supportive of the management of the reserve

#### **Objective 6 - Community Support.**

To achieve substantial community support for the management of Horsh Ehdén Nature Reserve

#### **Objective 7 - Education, Recreation and Tourism.**

To provide opportunities for a range of educational, recreational and ecotourism activities and to ensure that these are ecologically and socially acceptable

#### **Objective 8 – Staff Training and Institution Building**

To facilitate capacity building of all individuals and organisations involved in managing Horsh Ehdén Nature Reserve

#### **Objective 9 – Financial Sustainability**

To develop means by which the effective management of the Horsh Ehdén Nature Reserve is financially sustainable

## OBJECTIVES =&gt; POLICIES =&gt; ACTIONS

## OBJECTIVE 1 - NATURAL HERITAGE CONSERVATION

To provide protection, conservation and management of natural heritage values for future generations.

## POLICIES

- POLICY 1.1      **Management Principles:** Management will be in accordance with the principles of the Natural Heritage Charter (see Glossary)
- POLICY 1.2      **Species Protection:** All native species of plants and animals will be protected and conserved
- POLICY 1.3      **Species in rehabilitation:** All native species of plants and animals used in rehabilitation of the protected area will be propagated from local material or from sources which can be guaranteed genetically identical to populations in the protected area
- POLICY 1.4      **Non-native species:** No species of plants or animals which are not native to the reserve will be introduced to the reserve
- POLICY 1.5      **Introduced species:** All introduced species of plants and animals will be eradicated where practicable and consistent with any cultural heritage considerations
- POLICY 1.6      **Non-target species:** Prior to eradication activities all reasonable efforts will be made to investigate, recognise and prevent threat to non - target species or individuals
- POLICY 1.7      **Domestic animals:** No domestic animals will be permitted to visit, graze or reside in the reserve
- POLICY 1.8      **Rare or threatened species:** Management priority will be given to conservation of all rare and threatened species with the highest priority being for species which are globally rare and threatened
- POLICY 1.9      **Import of soil:** No soil or other material which may contain organic material (seeds and other contaminants) will be introduced to the reserve

- POLICY 1.10 **Import of material:** No rock, soil or other inorganic material will be introduced to the reserve except where authorised under this plan (e.g. material for visitor facilities)
- POLICY 1.11 **Excavation:** No rock or soil material will be excavated or removed from the reserve except where required for activities otherwise authorised under this plan (e.g. scientific research, professional archaeological excavations, visitor facilities)
- POLICY 1.12 **Archaeological:** Major excavation in soil will be undertaken only subject to prior archaeological investigation or presence of an archaeological professional at the time of excavation.

#### ACTIONS

- ACTION 1.0 **Management Plan:** Develop a program for implementation of this management plan.
- ACTION 1.2 **Training:** Conduct training workshops for all members of the Local Management NGO and Management Team on the theory and practical application of the policies and standards applying to the achievement of Objective 1.
- ACTION 1.3 **Introduced Species:** Develop and implement Introduced Species Management Strategy and Action Plans
- ACTION 1.4 **GIS:** Develop and maintain a geographic information system (GIS) for data management.

**OBJECTIVE 2 – EXTERNAL DEVELOPMENT**

**To enhance the value of the reserve by seeking the protection of adjacent natural lands.**

**POLICIES**

- POLICY 2.1**      **Prevent development adjoining reserve:** Development of the generally undeveloped natural lands bordering the Horsh Ehdén Nature Reserve will be discouraged where detrimental to the long term conservation of Horsh Ehdén Nature Reserve and its wilderness context.
- POLICY 2.2**      **Prompt conservation of land adjoining reserve:** Recognition of the conservation importance of the lands adjacent to Horsh Ehdén Nature Reserve will be actively promoted and its protection from inappropriate development sought

**ACTIONS**

- ACTION 2.1**      **Boundary marking:** Complete the on-ground identification of Horsh Ehdén Nature Reserve
- ACTION 2.2**      **Adjoining lands:** Identify lands adjacent to the Horsh Ehdén Nature Reserve which are critically important for the protection and enhancement of the values of the reserve, especially the lands within the stream catchments which flow into the reserve
- ACTION 2.3**      **Monitor development:** Establish a process to monitor any development proposals in surrounding lands.
- ACTION 2.4**      **MOU with Municipality:** Negotiate a Memorandum of Understanding with the Municipal Council(s) responsible for the natural lands north and east of the reserve for the purpose of seeking protection from inappropriate development.
- ACTION 2.5**      **Advice to Minister:** Prepare and present a report to the Minister of Environment on the environmental significance of the natural lands adjacent to Horsh Ehdén Nature Reserve, particularly the contribution they made to the value of the reserve.



### OBJECTIVE 3 – INTERNAL DEVELOPMENT

To ensure that all development activities in and near the reserve are subjected to proper evaluation.

#### POLICIES

- POLICY 3.1      **Management Principles:** Management will be in accordance with the following Guiding Principles:
- Natural Heritage Charter
  - Burra Charter (Cultural heritage)
  - “No net detriment” environmental impact principle
  - “Net benefit” development approval principle
- POLICY 3.2      **Prohibition of development:** No development within Horsh Edden Nature Reserve is permitted except where consistent with the approved management plan.
- POLICY 3.3      **Development control:** No development which is not essential to the management of the reserve will be permitted within the reserve, except where there are no prudent and feasible alternatives outside the reserve and the level of environmental impact is acceptable
- POLICY 3.4      **Impact assessment:** All proposals for development within the reserve will be subject to environmental impact assessment. For externally initiated proposals it will in the first instant be the responsibility of the proponent to conduct the initial impact assessment.
- POLICY 3.5      **No net detriment:** All development proposals will require the proponent to address how the principle of “no net detriment” is to be achieved.
- POLICY 3.6      **Net benefit:** All development proposals will be investigated and evaluated for possible contributions to “net benefit” to the protected area. All proposals for net benefit will be optional and negotiable.
- POLICY 3.7      **Compliance with plan:** All development proposals are to be assessed for compliance with the management plan and such assessment is to be documented and publicly available on request.

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- POLICY 3.8**      **Minister not to be pre-empted:** If for any reason a development is proposed which is inconsistent with the management plan, that development cannot be approved prior to the Minister of Environment making a decision about whether he is prepared to amend the management plan to allow the proposed development
- POLICY 3.9**      **Conditions on Approval:** Subject to prior consultation with the Ministry of Environment, any development which conforms to this plan may be approved with any reasonable conditions attached. Copies of any approval will be publicly available on request.
- POLICY 3.10**     **Development outside reserve:** For development outside the reserve, the objective will be to identify and minimise any impact on the reserve by negotiation with the proponent, landholder or relevant local authority.
- POLICY 3.11**     **Co-operation with Municipalities:** The reserve management will work co-operatively with local Municipal Councils in the interests of minimising environmental impact of developments on the reserve
- ACTIONS**
- ACTION 3.1**      **Training:** Hold workshops to train all members of the management team and NGO in the theory and application of the Natural Heritage Charter
- ACTION 3.2**      **Liaison with Municipalities:** Develop and maintain liaison with local authorities and establish a process for the early identification of any development in the vicinity of the reserve
- ACTION 3.3**      **Impact Assessment:** When documented proposals are submitted without impact assessment details, the manager will, within 30 days, issue a Terms of Reference for the impact assessment to be undertaken by the proponent

**OBJECTIVE 4 - STRUCTURED APPROACH TO MANAGEMENT**

**To maximise maintenance of natural processes and conditions by careful planning and execution of research, monitoring and other approved activities.**

**POLICIES**

- POLICY 4.1**            **Management Plan:** Priority will be given to implementation of this Management Plan.
- POLICY 4.2**            **Planning methodology:** Planning methodology will be adopted wherever practicable to achieve optimum outcomes to management problem-solving.
- POLICY 4.3**            **Monitoring:** Monitoring will be designed to facilitate informed periodic review of this management plan.
- POLICY 4.4**            **Strategies:** The management plan will be complemented by the preparation of systematically developed strategies, programs and actions.

**ACTIONS**

- ACTION 4.1**            **Monitoring:** Establish a monitoring process to monitor progress in implementing the management plan.
- ACTION 4.2**            **Training:** Conduct training workshops for training staff in strategic planning.
- ACTION 4.3**            **Applied research:** Conduct an annual review of the results of all relevant research to determine management applications.

## OBJECTIVE 5 - RESEARCH AND MONITORING

**To facilitate appropriate research and monitoring consistent with or supportive of the management of the reserve**

### POLICIES

- POLICY 5.1**      **Guiding principles:** Management will be in accordance with the following Guiding Principles:
- Natural Heritage Charter
  - Precautionary Principle
  - Burra Charter (Cultural heritage)
  - "No net detriment" environmental impact principle
  - "Net benefit" enhancement principle
- POLICY 5.2**      **Preferred Research Agenda:** A Preferred Research Agenda (PRA) will be developed and maintained for the Horsh Eghen Nature Reserve. The Preferred Research Agenda will detail and prioritise research needs to support the management objectives and priorities of the reserve
- POLICY 5.3**      **Promote research:** The Local Management NGO and Management Team will promote and facilitate sound scientific research which
- Is a high priority on the Preferred Research Agenda (PRA)
  - Can be demonstrated to have a high probability of producing information of direct benefit to the reserve and
  - Will have 'no net impact' on the reserve.
- POLICY 5.4**      **Other research:** All proposals for research which are not on the endorsed Preferred Research Agenda will be evaluated according to:
- Probability of net benefit for the reserve
  - Environmental impact
  - Visitor impact
  - Ethics and community relations implications
  - Reputation of research personnel (particularly scientific credentials, ethics and performance in producing documentation of results)
- POLICY 5.5**      **Research Permit:** All research projects within the reserve will require a research permit
- POLICY 5.6**      **Value adding:** The Manager may seek to negotiate changes to the research to achieve a greater level of acceptability and benefit for the protected area

- POLICY 5.7**      **Termination:** Permits may be terminated at any time where there has been a clear breach of permit conditions.
- POLICY 5.8**      **Permit conditions:** A set of core conditions will be developed and will apply to all research permits.
- POLICY 5.9**      **Permanent records:** The Reserve Manager will maintain permanent collections of all research results and will annually prepare a summary of all research conducted under permit in the protected area.
- POLICY 5.10**     **Assistance to researchers:** Financial and other assistance for research may be offered for research projects listed on the Preferred Research Agenda.
- POLICY 5.11**     **Unauthorised research:** All research conducted in the protected area without a permit is unauthorized. Any researcher responsible for unauthorized research activities in the protected area may forego the right to be granted a research permit on other occasions.
- POLICY 5.12**     **Dispute:** Any disputation regarding a decision about an application for a research permit or conditions attaching to a permit will in the first instant be referred to the Chair of the Government Appointed Committee. If the dispute remains unresolved, the applicant may appeal for arbitration by a person nominated by the National Council for Scientific Research.
- ACTIONS**
- ACTION 5.1**      **Preferred research agenda:** Prepare a Preferred Research Agenda (PRA) which prioritises research needs for the reserve.
- ACTION 5.2**      **Training:** Conduct workshops to train all members of the Management Team and Local Management NGO in the theory and practical application of the policies applying to the achievement of Objective 6.
- ACTION 5.3**      **Procedures:** Develop and implement Procedures and Permit forms for research activities.
- ACTION 5.4**      **Workshops:** Conduct workshops for interested researchers to explain research policies for the reserve.

<b>OBJECTIVE 6 - COMMUNITY SUPPORT</b>
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<b>To achieve substantial community support for the management of Horsh Edden Nature Reserve.</b>
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**POLICIES**

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| POLICY 6.1 | <b>Community relations strategy:</b> Building of community support will be guided by a Community Relations Strategy, focusing particularly on building pride in the reserve by the citizens of Edden and other local communities. |
| POLICY 6.2 | <b>Sense of ownership:</b> Community relations strategies and activities will promote a sense of local and national ownership and national pride in the reserve.  |
| POLICY 6.3 | <b>Promotions:</b> All promotions of the reserve will be consistent with the management plan and avoid creating unrealistic and undeliverable expectations.   |
| POLICY 6.4 | <b>Local community a priority:</b> High priority will be given to maintaining ongoing communications with the local community and with neighbours of the reserve.   |
| POLICY 6.5 | <b>The right to know:</b> The principle of "the community has the right to know" will be adopted.   |
| POLICY 6.6 | <b>Ethical communications:</b> All communications with individuals and organisations in the community will be ethical and non-discriminatory at all times.  |

**ACTIONS**

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| ACTION 6.1 | <b>Community relations strategy:</b> Develop a Community Relations Strategy and review progress on an annual basis |
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**OBJECTIVE 7 - EDUCATION, RECREATION AND TOURISM**

**To provide opportunities for a range of educational, recreational and eco-tourism activities and to ensure that these are ecologically and socially acceptable.**

**POLICIES**

- POLICY 7.1**      **Visitor impact:** Visitor use will be managed to have minimal environmental impact, be consistent with conservation objectives and, as far as practicable, have some tangible 'net benefit' for the Horsh Ehden Nature Reserve.
- POLICY 7.2**      **Quality of experience a priority:** Given the fragility of the locality and transport and logistic limitations, emphasis will be on quality of experience in lieu of quantity. Priority will be given to environmental education and quality interpreted eco-tourism visitor use in preference to pure recreational tourism.
- POLICY 7.3**      **Visitor behaviour:** Visitor use is to be represented as a privilege and not an unconditional right. Visitors will be encouraged to recognise that the privilege to visit is accompanied by certain obligations regarding behaviour and minimisation of environmental impact.
- POLICY 7.4**      **Regulation of access:** Visitor access and activities may be regulated in accordance with conservation objectives and policies, including where necessary, periodic closure of access.
- POLICY 7.5**      **Quality visitor experience:** The natural landscape recreational setting will be protected to maintain the quality and distinctiveness of the visitor experience.
- POLICY 7.6**      **User Pays:** The 'User-Pays-Principle' will be applied where practicable and appropriate to visitor use of the reserve, but having regard to the local socio-economic conditions, public equity etc.
- POLICY 7.7**      **Visitor conduct:** Prepare a Visitor Code of Conduct and promote in appropriate ways

**ACTIONS**

- ACTION 7.1**      **Visitor code of conduct:** Develop a Visitor Code of Conduct and promote in appropriate ways.
- ACTION 7.2**      **Visitor management strategy:** Develop and implement a Visitor Management Strategy consistent with this plan.
- ACTION 7.3**      **Education workshop:** Conduct an Environmental Education Workshop and develop an Environmental Education Program.



**OBJECTIVE 8 – STAFF TRAINING AND INSTITUTION BUILDING**

**To facilitate capacity building of all individuals and organisations involved in managing Horsh Ehdén Nature Reserve.**

**POLICIES**

- POLICY 8.1**      **Protected Areas Project:** The Friends of Horsh Ehdén and the Management Team will be mindful of the important responsibility they have in the Protected Areas Project in testing the model of protected area management by a non-government organisation and be aware of the national and international implications of their performance
- POLICY 8.2**      **Personnel management:** The team model of personnel management, with maximum delegation, will be adopted as the most cost-effective management model.
- POLICY 8.3**      **Personnel management:** Personnel management will adopt the merit principle for employment and have regard for the principles of Employment Equal Opportunity (EEO).
- POLICY 8.4**      **Delegation/Terms of Reference:** A formal set of 'terms of reference' will be jointly developed and maintained by the Local Management NGO and the Management Team to clarify the roles of all personnel participating in management of the reserve
- POLICY 8.5**      **Institution building:** Develop an Institution Building Strategy for Friends of Horsh Ehdén and staff

**ACTIONS**

- ACTION 8.1**      **Training:** Draft and implement a Training Program for Local Management NGO members and Management Team personnel
- ACTION 8.2**      **Team building** Engage an independent consultant to implement a Team Building Workshop and program for all personnel.
- ACTION 8.3**      **EEO:** Provide all staff and committee members with a copy of a standard set of EEO guidelines and provide briefings on the merit principle

ACTION 8.4      **Performance Agreement:** Develop a performance agreement between the Local Management NGO (Friends of Horsh Edden) and the Manager of the Management Team.

ACTION 8.5      **Institution building:** Develop an Institution Building Strategy for the Local Management NGO (Friends of Horsh Edden )and Management Team.

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**OBJECTIVE 9 - FINANCIAL SUSTAINABILITY**

**To develop means by which the effective management of the Horsh Ehdn Nature Reserve is financially sustainable.**

**POLICIES**

- POLICY 9.1**            **Sustainable funding:** Every effort will be made to secure a sustainable flow of funding and other resources to support the management program for the Horsh Ehdn Nature Reserve.
- POLICY 9.2**            **Funding diversification:** Planning for financial support will adopt the principle of funding diversification to increase security of funding, avoiding dependence alone on neither public nor private funding, nor any one source from either sector
- POLICY 9.3**            **User pays principle:** The "User pays principle" will be progressively introduced to ensure that the main beneficiaries of the protected area are contributing equitably towards the cost of the provision of any visitor services, including environmental maintenance
- POLICY 9.4**            **Cost benefit analysis:** All proposals for commercial activities and income generation by the Local Management NGO will be subject to thorough cost/benefit analysis, including the costing of staff time.
- POLICY 9.5**            **Code of Conduct:** All fund raising and other resourcing will be guided by a 'Code of Conduct' to ensure all activities are lawful, ethical and not bring the protected area into disrepute or have detrimental impact on the protected area

**ACTIONS**

- ACTION 9.1**            **Income generation:** Develop and implement a 5 year Resources and Income Strategy (RAIS) which includes funding, goods and services.
- ACTION 9.2**            **Sponsorship Prospectus:** Develop and maintain a Sponsorship Prospectus comprising a selection of projects of predetermined priority for which funding is sought

## PRIORITIZED LIST OF ACTIONS

A list of all actions identified, by objective and priority rated (very high, high, medium, low)

ACTIONS	PRIORITY
<b>Objectives 1 – Natural Heritage</b>	
1. <b>Management Plan:</b> Develop a program for implementation of this management plan.	High
2. <b>Training:</b> Conduct training workshops for all members of the Local Management NGO and Management Team on the theory and practical application of the policies and standards applying to the achievement of Objective 1.	High
3. <b>Introduced Species:</b> Develop and implement Introduced Species Management Strategy and Action Plans Develop and maintain a Geographic Information System(GIS) for data management	Medium
4. <b>GIS:</b> Develop and maintain a geographic information system (GIS) for data management.	Medium
<b>Objective 2 – External Development</b>	
1. <b>Boundary marking:</b> Complete the on-ground identification of Horsh Ehdén Nature Reserve	High
2. <b>Adjoining lands:</b> Identify lands adjacent to the Horsh Ehdén Nature Reserve which are critically important for the protection and enhancement of the values of the reserve, especially the lands within the stream catchments which flow into the reserve	High
3. <b>Monitor development:</b> Establish a process to monitor any development proposals in surrounding lands.	Medium
4. <b>MOU with Municipality:</b> Negotiate a Memorandum of Understanding with the Municipal Council(s) responsible for the natural lands north and east of the reserve for the purpose of seeking protection from inappropriate development.	High
5. <b>Advice to Minister:</b> Prepare and present a report to the Minister of Environment on the environmental significance of the natural lands adjacent to Horsh Ehdén Nature Reserve, particularly the contribution they made to the value of the reserve	Medium
<b>Objective 3 – Internal Development</b>	
1. <b>Training:</b> Hold workshops to train all members of the management team and NGO in the theory and application of the Natural Heritage Charter.	High
2. <b>Liaison with Municipalities:</b> Develop and maintain liaison with local authorities and establish a process for the early identification of any development in the vicinity of the reserve.	Medium

3. <b>Impact Assessment:</b> When documented proposals are submitted without impact assessment details, the manager will, within 30 days, issue a Terms of Reference for the impact assessment to be undertaken by the proponent	<b>Medium</b>
<b>Objective 4 – Structured Approach to Management</b>	
1. <b>Monitoring:</b> Establish a monitoring process to monitor progress in implementing the management plan.	<b>High</b>
2. <b>Training:</b> Conduct training workshops for training staff in strategic planning	<b>High</b>
3. <b>Applied research:</b> Conduct an annual review of the results of all relevant research to determine management applications	<b>Medium</b>
<b>Objective 5 – Research and Monitoring</b>	
1. <b>Preferred Research Agenda:</b> Prepare a Preferred Research Agenda (PRA) which prioritises research needs for the reserve.	<b>High</b>
2. <b>Training:</b> Conduct workshops to train all members of the Management Team and Local Management NGO in the theory and practical application of the policies applying to the achievement of Objective 5.	<b>High</b>
3. <b>Procedures:</b> Develop and implement Procedures and Permit forms for research activities	<b>High</b>
4. <b>Workshops:</b> Conduct workshops for interested researchers to explain research policies for the reserve	<b>Medium</b>
<b>Objective 6 – Community Support</b>	
1. <b>Community Relations Strategy:</b> Develop a Community Relations Strategy and review progress on an annual basis needed).	<b>Medium</b>
<b>Objective 7 – Education, Recreation and Tourism</b>	
1. <b>Visitor Code of Conduct:</b> Develop a Visitor Code of Conduct and promote in appropriate ways.	<b>Very high</b>
2. <b>Visitor Management Strategy:</b> Develop and implement a Visitor Management Strategy consistent with this plan.	<b>High</b>
3. <b>Education Workshop:</b> Conduct an Environmental Education Workshop and develop an Environmental Education Program	<b>Medium</b>
<b>Objective 8 – Staff Training and Institution Building</b>	
1. <b>Training:</b> Draft and implement a Training Program for Local Management NGO members and Management Team personnel.	<b>Medium</b>
2. <b>Team building:</b> Engage an independent consultant to implement a Team Building Workshop and program for all personnel.	<b>High</b>
3. <b>EEO:</b> Provide all staff and committee members with a copy of a standard set of EEO guidelines and provide briefings on the merit principle.	<b>Medium</b>
4. <b>Performance Agreement:</b> Develop a performance agreement between the Friends of Horsh Ehdn and the Manager of the Management Team	<b>Medium</b>

5. <b>Institution building:</b> Develop an Institution Building Strategy for Friends of Horsh Edden and staff.	<b>High</b>
<b>Objective 9 – Financial Sustainability</b>	
1. <b>Income generation:</b> Develop and implement a 5 year Resources and Income Strategy (RAIS) which includes funding, goods and services.	<b>High</b>
2. <b>Sponsorship Prospectus:</b> Develop and maintain a Sponsorship Prospectus comprising a selection of projects of predetermined priority for which funding is sought.	<b>High</b>

## **PART VI - IMPLEMENTING THE MANAGEMENT PLAN**

### **ANNUAL WORKPLAN**

One of the important means by which the Management Plan will be implemented is by preparation of an Annual Workplan for implementation by the Management Team. It is essential that these Workplans are based on the Management Plan, in particular on the list of Actions contained in Part III of the Plan.

Similarly, the budget process will closely conform with the Management Plan, in particular with the Actions section of Part III.

It is recognised that the budget and other constraints may necessitate temporary departure from the order in the list of actions. However, every endeavour will be made to maintain the order of activities set out in the plan.

Integration and linking of actions to improve efficiency and cost effectiveness will be undertaken whenever funding and logistics allow.

### **PLAN REVIEW PROCESS**

The preparation of this draft management plan is a requirement of the Protected Areas Project of Lebanon. Following the receipt of comments on this draft plan, the revised plan will be submitted for Ministerial approval in 1999.

In keeping with international practice, the plan will be subject to extensive review within 5 years of Ministerial approval. That review will involve community consultation. Prior to review of the plan, the managing authority will have prepared an independent report on performance measured against the objectives and identified actions in the plan. That report will be made available as a part of the review process.

### **MONITORING OF IMPLEMENTATION**

The Government Appointed Committee will be responsible, on behalf of the Minister of Environment, for regular review of the implementation of the management plan.

The Government Appointed Committee will be required to report to the Minister, advising the results of their assessment of progress and making any recommendations that it sees as necessary to improve the progress in implementation.

The Government Appointed Committee for the reserve, in collaboration with the Ministry of Environment will be expected to

- Periodically meet with the local management NGO and the Management Team to establish progress and problems being encountered by the Friends of Horsh Ehdin in implementation of the plan.

- Periodically, in the company of the local management NGO, inspect the reserve to observe the condition of the reserve and compliance with the management plan
- Prepare annual reports to the Minister, incorporating the report presented during the relevant year from the local management NGO and any other information relevant to the implementation of the plan
- Make recommendations to the Minister on any changes necessary to improve the compliance with and implementation of the plan.



## GLOSSARY OF TERMS

<b>Biodiversity</b>	The natural biological diversity, including, but not limited to the diversity of species, plant communities and natural associations of plants and animals. But see the Natural Heritage Charter.
<b>Burra Charter</b>	A document which provides a set of principles to guide the management of cultural heritage sites. It was developed by Australia ICOMOS and has been endorsed by the international organisation of ICOMOS.
<b>Code of Conduct</b>	A set of rules to govern the conduct of a person or organisation to ensure that conduct stays within pre-defined limits. Often relates to matters of ethics and propriety. E.g. a visitor code of conduct would be a set of rules which should guide the behaviour of visitors to a protected area. A code of conduct generally is a guide rather than an enforceable regulation.
<b>'Community right to know.'</b>	The right of a community to have information about activities and decisions that are supposedly being taken on their behalf. In the case of protected areas, which are described as being part of the community's heritage, the community is entitled to know what decisions are being taken about the management of their heritage.
<b>Cultural heritage</b>	Heritage may be defined as the places and things that a people or community regard as part of their inheritance and which they consider worthy of protection. Cultural heritage is mainly those places or objects which are man-made as distinct from natural.
<b>Eco-tourism</b>	A type of tourism which is primarily nature-based. Various definitions but the essential parts are: <ul style="list-style-type: none"><li>• Minimal impact on the natural heritage</li><li>• Preferably positive benefits to protected areas</li><li>• Minimal detrimental impact on local community</li><li>• Preferably positive benefits to local community</li><li>• Increases visitor awareness, appreciation and support for ecological conservation</li></ul>
<b>Endemic species</b>	A species found only in a given area. For example, a Lebanon endemic is a species found only in Lebanon.

<b>EEO</b>	Equal Employment Opportunities - a set of guidelines for application of the merit principle in the workplace. The actual contents may vary from place to place but usually aim to ensure that all employees or staff are treated fairly and equally without regard to such things as race, religion, gender or marital status. The merit principle from which it is derived is simply that jobs, employment, tasks, promotions etc. are awarded on merit, to the person most qualified for a task, job etc.
<b>Geo-diversity</b>	The natural non-living geological and geographic diversity, by definition, exclusive of biodiversity. But see Natural Heritage Charter.
<b>GIS</b>	Geographic Information System. (GIS) Usually a computer based system for storing and processing geographic information. A GIS usually has the capability of presenting the information in a map form, including as interactive overlays of information. E.g. vegetation map over geology map.
<b>ICOMOS</b>	International Committee on Monuments and Sites [CHECK]
<b>Karst</b>	A term used to describe the distinctive surface and underground landscape associated with weathered limestone. Karst is characterised by such features as caves, underground drainage, discharge of surface streams to underground voids and caves.
<b>Local Managing NGO</b>	The locally based NGO which has been given official delegation or responsibility for day-to-day management of a protected area under the Protected Areas Program.
<b>MOU</b>	Memorandum of Understanding. A document negotiated between two or more organisations or individuals (commonly only 2 parties) to record any matter on which the parties have been able to 'come to an understanding' or agreement. An MOU may be a few lines or many pages in length. An MOU may be periodically updated to reflect any progress in additional matters of agreement.
<b>Natural heritage</b>	Heritage may be defined as the places and things that a people or community regard as part of their inheritance and which they consider worthy of protection. Natural heritage is that part of heritage which is derived from nature as distinct from man-made features or human contrived things.

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مركز مشاريع وقضايا القطاع العام

<b>Natural Heritage Charter</b>	The Australian Natural Heritage Charter. A set of protected area management principles aimed at a precautionary approach to protection of natural heritage values. It has been internationally recognised and is available on the Internet.
<b>'Net benefit'</b>	The protected area management principle by which any management action or decision is directed at delivering a net benefit to the protected area, preferably an improvement to the values, integrity or condition.
<b>Precautionary Principle</b>	An internationally used environmental principle which requires that lack of scientific certainty should not be used as an excuse for not taking action to address a known environmental problem. For example, if a species is threatened with extinction, lack of certainty about what is causing the threat should not be a reason for inaction. It is often more widely interpreted in converse for management of protected areas - if you don't know or understand the impacts of a proposed action or development, avoid that action or decision. But see the Natural Heritage Charter.
<b>Rare species</b>	A species which is very uncommon, either naturally or as a result of human impacts.
<b>Threatened species</b>	A species which is seen to be threatened with possible extinction if the threat is not removed or controlled. A species may be classified as threatened, even if it is not yet rare.
<b>'User pays principle'</b>	The management principle that seeks to transfer the cost of provision of certain services or infrastructure (e.g. visitor facilities) to the people who use and/or receive the most benefit from those services. (e.g. visitors to a protected area being expected to contribute financially to the services or facilities which they enjoy).