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ISLAMABAD  
Capital Development Authority  
PAKISTAN

Margallah Hills National Park  
Management Plan

***PART II***

***Conservation Education  
and  
Interpretation Plan***

UNDP/IUCN PAKISTAN  
September 1991

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## **PREAMBLE**

The present report represents the findings and recommendations in the form of a specific Plan for the development of CONSERVATION EDUCATION AND INTERPRETATION PROGRAMMES for Margallah Hills National Park, Islamabad, Pakistan as requested by the Government of Pakistan and IUCN Pakistan.

Moreover, the Plan will seek to establish guidelines for the implementation of the Conservation Education and Interpretation Programmes.

The proposed Plan is developed parallel with the general management planning for the MHNP. Consequently, the Plan is to be seen as an input to the formulation of Conservation Education and Interpretation Programmes of the Management Plan in addition to above.

The Terms of Reference for the Consultant is presented in Annex 1.

The report is based on the following sources of information:

- Discussions and meetings with CDA inclusive park staff, resource persons from various governmental agencies, universities and non-governmental organisations, and discussions with villagers living in the Park and vicinity.
- Review and analysis of existing information in documents, plans and reports.
- Field visits to the Margallah Hills National Park and related areas.
- Comments and suggestions given by critical reviewers of draft plans.

The Consultant, Ms Mette Hendrich Junkov, visited the Margallah Hills National Park, Pakistan from August 16 to September 16, 1991.

## CONTENTS

Preamble .....	i
Contents .....	ii
Summary .....	iii
<b>1. INTRODUCTION</b>	
1.1. Background .....	1
1.2. Framework for Conservation Education and Interpretation Planning .....	1
1.3. Purpose of the Conservation Education & Interpretation Programme Development .....	2
1.4. Objectives of the Conservation Education & Interpretation Programme .....	2
1.5. Target groups .....	2
<b>2. POINTS OF INTERESTS FOR CONSERVATION EDUCATION AND INTERPRETATION</b>	
2.1. Park establishment .....	6
2.2. History and Culture .....	6
2.3. Environment .....	8
2.4. Park Management .....	9
2.5. Park/people relationship .....	9
2.6. Existing facilities in the Margallah Hills National Park	
2.6.1. The Margallah Hills .....	9
2.6.2. Rawal Lake .....	10
2.6.3. Shakar Parian Park .....	10
<b>3. CONSERVATION EDUCATION AND INTERPRETATION PLAN FOR MARGALLAH HILLS NATIONAL PARK</b>	
3.1. Objectives .....	12
3.2. General Public	
3.2.1. News releases .....	12
3.2.2. Brochures/pamphlets .....	13
3.2.3. Radio .....	13
3.2.4. Audio-visuals/Video .....	14
3.3. Visitors	
3.3.1. Visitor Center .....	15
3.3.2. Guided tours .....	15
3.3.3. Self-guided tours .....	16
3.3.4. Hiking trails .....	16
3.3.5. On-site interpretation .....	17
3.3.6. Signs and Boards .....	17
3.4. Villagers	
3.4.1. Village meetings .....	17
3.4.2. Women for conservation .....	18
3.4.3. Schools .....	18
3.4.4. Conservation Demonstration Area .....	19
3.4.5. Conservation Bulletin Board .....	20
3.4.6. Village visits to MHNP .....	20
3.4.7. Park Initiator .....	20

3.5.	Educational Groups	
3.5.1.	Essay/Logo Contest	21
3.5.2.	Guide book for teachers	21
3.5.3.	Children's nature book	22
3.5.4.	Teachers training on conservation	22
3.5.5.	Students Camps	23
3.5.6.	Day-trips for students	24
3.6.	Special Interest Groups	
3.6.1.	Margallah Hills Society	24
3.6.2.	Asian Study Group	24
3.6.3.	Nature Clubs and Scouts	25
3.7.	Summary on requirements and priorities	25
3.8.	Conservation Education & Interpretation facilities	
3.8.1.	Ethics and Design	31
3.8.2.	Signs and Boards	32
3.8.3.	Visitor Center	33
3.8.4.	On-site Interpretation	34
3.8.5.	Trails	35
3.8.6.	Nature guides	35
3.8.7.	Mobile extension unit	35
3.9.	The Zoo	36
<b>4.</b>	<b>REQUIREMENTS FOR IMPLEMENTING THE PLAN</b>	
4.1.	Organisation	38
4.2.	Staff	39
4.3.	Technical and Financial Support	40
<b>APPENDIX 1:</b>	<b>Terms of Reference</b>	<b>41</b>
<b>APPENDIX 2:</b>	<b>Planning Process</b>	<b>42</b>
<b>APPENDIX 3:</b>	<b>Work Programme and Meetings</b>	<b>43</b>

## SUMMARY

The Margallah Hills National Park located in the midst of the Capital Area was established in 1979 with the purpose of conserving the environment in its natural state. Since its establishment the park has faced several constraints in achieving the objectives of conservation of the natural environment: urban encroachment, industrial developments, and general misuse of the available natural resources. The future developments of the Capital area will further increase this pressure. The main reasons for such exploitation is found to be due to either ignorance, short-term profit making, or simply the lack of alternatives depending on the population groups observed.

Enforcement of laws and improved park management will alleviate some of this pressure but it is recognized that true and lasting conservation of the park environment will only be achieved when the establishment of the park has gained widespread support, understanding and appreciation from all the different population groups living in Capital Territory.

On this background there is a clear and urgent need for park management to develop a conservation education and interpretation programme which will reach as large an audience as possible with the objectives to

- create an environment of cooperation, goodwill and appreciation for the protection of the Margallah Hills National Park between the park management and the different population groups, and
- increase the general awareness of the need for conservation both locally and among visitors.

At present there is no facilities, institutional set-up or staff capacity to support and develop such programmes within the Capital Development Authority (CDA). The present plan has therefore been developed with the aim to establish a **guide-line** for the level of a conservation education and interpretation programmes and activities to be reached in a foreseeable future. Furthermore, the plan addresses the institutional and organisational requirements as well as responsibilities for implementation of the programmes. In other words the Plan seeks to answer the questions: **What** has to be done? **How?** and by **Whom?**

The chart on the following page illustrates the process of analysis which has lead to the development of the Conservation Education and Interpretation Programmes. A process where conclusions at one stage cause the reasons for the proposed developments at later stages. The contents of the Plan follow the different stages of the chart.

In recognizing that the present and future threats to the park objectives are caused by different population groups with different reasons for doing so, the heart of the programmes have been developed around a preliminary identification of the main target groups which would have and/or have a direct impact on the resources. At the same time they would be the main beneficiaries of the programmes.

Two distinct methods of reaching the target groups have been developed:

- conservation education and interpretation offered within the park area (e.g. visitor center, nature guides, trails, on-site interpretation)
- conservation education and interpretation programmes offered outside the park boundary (outreach programme) (e.g. community participation, AV/talks in schools, radio, news-releases)

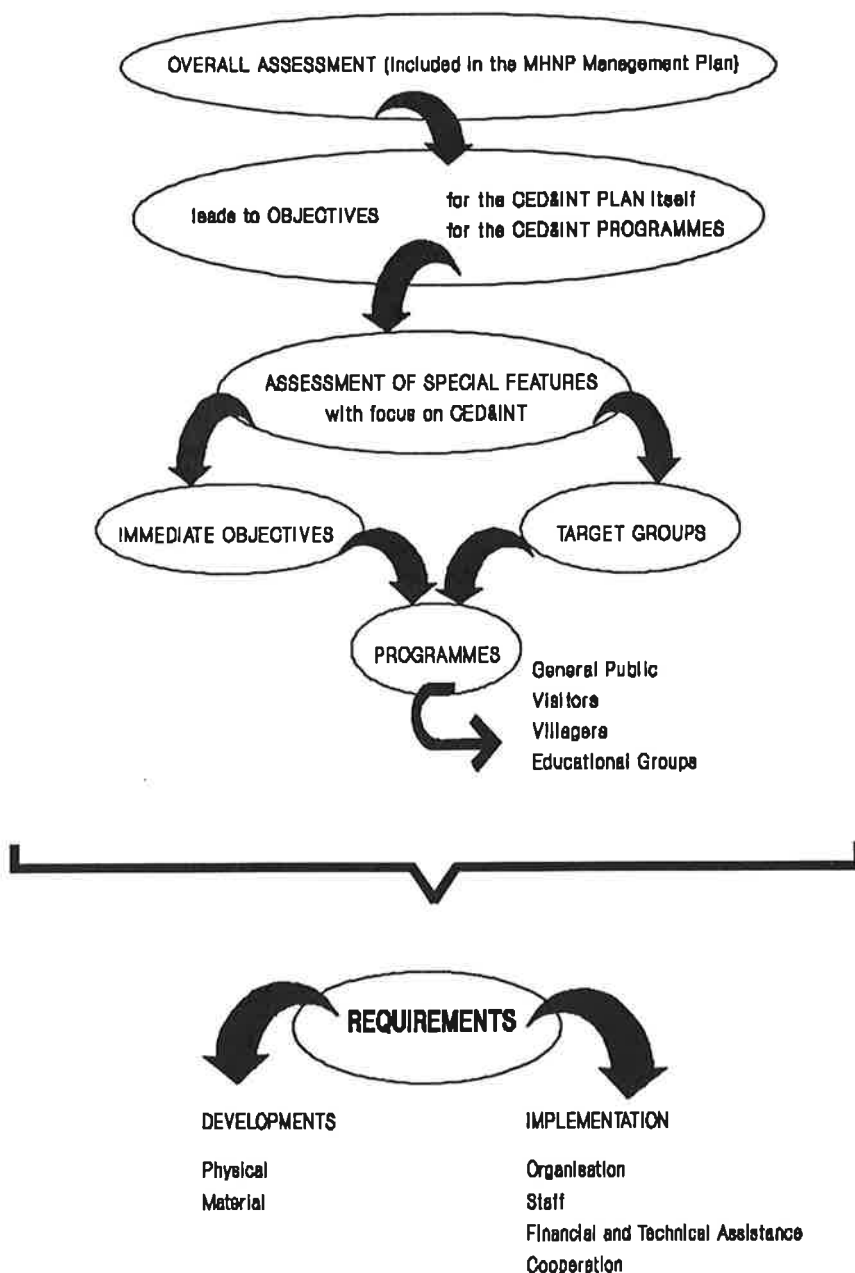
They complement and support each other. In addition, the park conservation education and interpretation programmes are sought to be supported and/or integrated with other on-going conservation awareness building programmes in the region as well as countrywide.

The implementation of the conservation education and interpretation programmes from scratch would require both physical and material developments and a proper organisation of the activities to be undertaken. This in turn requires adequately trained staff, financial and technical assistance.

The Plan proposes a functional Conservation Education Division to be established with a Conservation Education Officer in charge of the overall programme development. Staff with specific needed skills (e.g. photographer, draftsman) are assigned to the division together with staff who in the course of implementation of the plan would receive in-service training in the fields of conservation education and interpretation.

Initially, the set-up of the division and the implementation of basic conservation education and interpretation facilities would require a large budget as well as technical assistance either from within the CDA or external. Certain of the technical assistance requirements (e.g. site planning and some material production) can be met within the CDA whereas others would require external voluntary or consultancy services. The initial phases of the implementation of the Plan would thus benefit greatly from the support by a technical and financial assistance project.

**Framework for Conservation Education and Interpretation Plan development**



## 1. INTRODUCTION

### 1.1. BACKGROUND

The Environment Directorate of the Capital Development Authority (CDA) has, since its establishment in 1980, been in charge of developing the Margallah Hills National Park (MHNP) for the purpose of providing

*"...the protection, preservation, conservation and management of scenery, flora and fauna in a natural state for the enjoyment of the people in the Islamabad Capital Territory"*

Under the guidance of the Directorate the area was reforested, the construction of new buildings was restricted and hunting was forbidden. In addition large tracts of privately owned land were purchased. The first Management Plan for the Park was developed in 1979. However, the Plan and the Park Administration were unable to resettle the villagers and overrule demands for competing uses of the MHNP by grazing of livestock, frequent forest fires presumably set by people, urban encroachments and mining.

As pressure on the natural resources increased 1) it became evident to the CDA that steps to reverse the present trends had to be taken if the objectives of the Park establishment were to be achieved. The first step being to update the Management Plan and Programmes and more effectively involve concerned bodies and people in general in the management of the area. IUCN has therefore been requested to assist the team of Pakistani experts headed by the Chief Conservator of Wildlife in such development.

Because the main problems of achieving the objectives of the MHNP are caused by human activities more emphasis would need to be placed on the development of good public relations in the form of offering conservation education and interpretation programmes. These programmes would be essential for achieving long-term support for the management programmes and to encourage real appreciation of the MHNP.

The Margallah Hills National Park, being located in the immediate surroundings of Islamabad and therefore accessible by the majority of people, renders ample possibilities for nature interpretation and educational programmes due to its variety of landscape, ecology, flora and fauna, and human activity 2). In addition, the MHNP offers an excellent opportunity to actively involve villagers living in or adjacent to the MHNP in the conservation of the area.

### 1.2. FRAMEWORK FOR CONSERVATION EDUCATION AND INTERPRETATION PLANNING

Conservation education (C.E.) is a concept often used by people concerned with the protection of our environment. C.E. is seen as instrumental for reaching their development objectives and defined as:

*The art of teaching about nature (the total environment), its functions, its limits and possibilities for man's uses, and the reasons for total protection of parts of nature. Further, the process of C.E. seeks to assure that mankind understands, respects and lives in accordance with nature's limits and possibilities. In other words, that mankind changes attitudes and behavior from being the conqueror of land to become a common member and citizen of the earth 3).*

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- 1) Please, refer to The Margallah Hills N.P. Management Plan, Part I for information on the park in a regional context.
  - 2) For further information on features of the MHNP please refer to the Management Plan.
  - 3) This definition of Conservation Education is based on:  
A GUIDE ON ENVIRONMENTAL VALUES EDUCATION, Unesco/Unep Environmental Education Programme  
HOW TO PLAN A CONSERVATION EDUCATION PROGRAMME, United States Fish and Wildlife Service



Considering the present state of the earth's resources 4) **the need** to change attitudes is obvious. As the definition implies, the process not only seeks to modify mankind's ethics and relations with nature, but intends that mankind understands and evaluates the social, political and economic structures and networks that cause the earth's resources to be misused (locally and globally), and that will continue to work against the objectives of assuring sustainable use of earth's resources. As so defined the need for conservation education is worldwide and the concepts of conservation education should be the core of all formal and non-formal education. Conservation education is therefore more the teaching of a global environmental ethic (a philosophy) and not only a tool by which development objectives are achieved.

Often confusion arises between the term conservation education and **nature interpretation**. Conservation education is the overall subject matter and interpretation is one of many methods of translating the message to the audience.

It is the opportunity to experience first hand the natural world that provides the principal distinction between interpretation and education. Interpretation is therefore a very important tool for managing protected areas.

### **1.3. PURPOSE OF THE CONSERVATION EDUCATION AND INTERPRETATION PROGRAMME DEVELOPMENT**

This Plan will assume the broad definition of conservation education and seek to establish a **guideline in the form of a working-paper** for the development of a conservation education and interpretation programme and materials for the Margallah Hills National Park.

Moreover, the Conservation Education and Interpretation Plan is developed parallel with the process of general management planning for the MHNP and will consequently facilitate the policy and programme formulation of the Management Plan on subjects related to conservation education and interpretation.

### **1.4. OBJECTIVES OF THE CONSERVATION EDUCATION & INTERPRETATION PROGRAMMES.**

In view of the problems outlined above and detailed in the Management Plan for MHNP the **long-term objectives** of the programmes are:

- An environment of cooperation, goodwill and appreciation for the protection of Margallah Hills National Park created between the national park and villagers as well as visitors.
- The general awareness of the need for conservation increased both locally and among visitors.

These long-term objectives would assist park management in achieving the **ultimate goal** of having all illegal use of natural resources within the area brought to a halt and thereby allow for the protection and improvement of the unique environment the park stages.

### **1.5. TARGET GROUPS FOR THE CONSERVATION EDUCATION AND INTERPRETATION PROGRAMME**

The conservation education and interpretation programme would need to be directed toward those people who come in contact with the national park. The location of Margallah Hills National Park in the close vicinity of the Capital of Pakistan makes it visible to the entire population of the Capital Territory as well as the nation.

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4) OUR COMMON FUTURE. The World Commission on Environment and Development, 1987. Oxford University Press, ISBN 0-19-2880-X.  
NATIONAL CONSERVATION STRATEGY, PAKISTAN. IUCN Regional Office, 1991

An analysis of the various target groups is therefore necessary to determine the most effective ways of reaching each group. Chart 1 presents a brief summary of such analysis where the sphere of influence for each group indicates the purpose of the conservation education and interpretation programme. It is necessary to keep in mind that although all groups would be important to reach at different levels and with different content due to their sphere of influence, emphasis would be on programmes directed toward the general public, visitors, population living in or adjacent to the park; and educational groups (school children) as they are likely to have a direct impact on the park resources.

**Chart No. 1: Target Groups and their sphere of influence**

TARGET GROUP	SUB-GROUP	SPHERE OF INFLUENCE
Politicians	Political Executive	Policy, Final decision and overall control
	Legislators	Legislation, Interaction between electorate and political executive
Bureaucracy	Planners	Steering of overall planning process and research allocation
	Administrators/Technocrats	Coordination of programmes and control over resource managers and development agencies
Resource Managers	Professionals	Quality of programmes and their implementation
	Enforcement personnel	Programme efficiency
Development Agencies & Resource Users	Public relations personnel	Programme acceptability
	Resource based trade and industries	Control of exploitation of the natural resources
	Development agencies: (irrigation, power, mining, transport etc.)	Control of environmental damage disproportionate to sustainable development benefit
	Other citizens	Lack of consciousness weakens consumption-discipline; popular support for conservation and viability of non-governmental conservation organisations
Visitors to the Park		Potential threat of over-use of the park, promotion of conservation consciousness
Population living in/or adjacent to the park		Natural resource dependency, control of over-exploitation of natural resources
School children		Potential future contributors to all spheres

From: MANAGING PROTECTED AREAS IN THE TROPICS, IUCN/UNEP Publication, 1986

### 1.5.1. General Public

The general public includes all people who only indirectly are in contact with the park. This group embraces politicians, planners, resource managers as well as the other citizens. The park management

would seek to arouse an interest for the conservation of park and eventually attempt that this group too becomes visitors to the area.

### **1.5.2. Visitors to the Margallah Hills National Park**

The majority of visitors 5) to the park is attracted by the excellent panorama views of Islamabad City from Daman-E-Koh and from the view points at Rawal Lake and Shakar Parian. Most visit the area for a relatively short period (less than 2 hours), driving (private cars or local transport) to the view points. Some will picnic (lunch) but most will just enjoy the views.

An increasing number of visitors, although still the minority, are interested in hiking in the hills. The Margallah Hills Society has been an excellent promotor of such hikes as well as arousing awareness of the need for conservation of the area. The Asian Study Group arranges similar hikes and has too contributed to the creation of conservation awareness by publishing hiking guides as well as checklists on the flora of the area.

Another type of visitors to the Margallah Hill Range are the people living in or adjacent to the park. These pass through the park mostly by local transport (Suzuki's or jeeps) to and from work in the Islamabad area and do not use the park facilities for recreational purposes.

A special group of visitors are the religious people who come to Nurpur and Golra to pay homage to their saints. They come in thousands per year and would be a target group for dissemination of information on the National Park and conservation in general.

### **1.5.3. Villagers**

The population living as neighbors or surrounded by the park is an important target group for the conservation education and interpretation programme. Whether inside the park or on the fringe they depend on or use, some more than others 6), the natural resources available for their daily sustenance. They are therefore skeptical towards any changes which may have an influence on their access to the resources. Winning the support of this group largely depends on whether they have real economic benefit from replacing misuse with sustainable use or whether they have **real alternatives** for creating a different life style (e.g. be skilled (trained) to obtain other decent employment than farming).

To this end, it is essential, in more detail, to survey their present occupancies, living conditions, and illiteracy rates 7) to be able to provide meaningful solutions to changes arising from implementation of park management as well as to adequately design the park community participation programme.

Primary schools are located in most of the bigger villages, Middle and High Schools in Talhar, Nurpur, Shahdara, Shah Allah Ditta. These schools would render a focal point for the park outreach programmes.

### **1.5.4. Educational Groups**

School children and other educational groups are likewise an important target group for the conservation education and interpretation programme and park management as such being potential future

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5) Findings from park visitor survey, August 1991.

6) To which extent the villagers depend on the resources within the park has yet to be studied in detail. Even so it appears that certain villages (in the eastern part of the park) depend solely on cattle raising while others, mainly in the central/western part, have additional income from work in the Islamabad Area.

7) Current estimated literacy in the country is about 30 %. While the rate of illiteracy varies in different parts of the country, it is extra ordinarily high amongst rural women and in any case higher than 80 %. (source: "Non-Formal Education Myth or Panacea for Pakistan", S.Khawaja & B.Brennan, 1990)

contributors to all spheres of influence. The present amount of schools which utilize the MHNP for educational purposes is not known 8) and it seems that a system of using the park for practical conservation studies has yet to be developed thoroughly. However, it is likely that some school children are taken on a day round trip to visit the Zoo, the view points at Damen-E-Koh, Rawal Lake and Shakar Parian among other recreational attractions in the Islamabad area.

WWF-Pakistan has for the past few years organised some school children in Nature Clubs including outings to the park and has recently embarked on a programme to train teachers in environmental education as well as assisting the Government in including environmental education in the School Curricula.

Furthermore, IUCN-Pakistan has launched a national environmental awareness and education programme which will seek to establish both formal and non-formal environmental education.

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8) The preliminary survey of visitors to the park showed that only 3% of all visitors came for educational purposes.

## 2. POINTS OF INTERESTS FOR CONSERVATION EDUCATION AND INTERPRETATION

The following chapter gives a summary of the most significant topics and features for the conservation education and interpretation programme found in or caused by the establishment of the Margallah Hills National Park. The summary based on an analysis of the area is incomplete as far as detail concerned due to insufficient information on the topics and the limited time available for needed investigation into these.

### 2.1. PARK ESTABLISHMENT

- The reasons for the establishment of the MHNP are clearly stated in Governmental declarations 9). Even so it is still not clear to many people, visitors as well as the villagers living in or adjacent to the park area, what the national park attempts to achieve and which consequences (cost/benefit) the establishment of the park in practical terms will have on their daily life.
- The Margallah Hills National Park 10) comprises three distinct management units.

The largest area, the Margallah Hill Range, of approximately 12,600 ha represents **the natural environment** changed by villagers living in direct contact and depending on the fertility of the land. The proper conservation of the area will gradually reestablish the environment in its natural stage providing unique prospects for out-door recreation in "unspoiled" nature with focus on wildlife viewing, hiking, camping etc.

The Rawal Lake of approximately 1,900 ha represents a **man-made park environment** which has the appearance of a natural ecosystem. In doing so for the purpose of continuous supply of drinking water man has reestablished part of a pre-historic lake which in earlier time covered the Potwar Plateau and, at the same time, created a rare opportunity for the population in the Capital Territory to experience lake environment and waterfowl, enjoy certain water sports besides the common out-door recreation activities such as picnics, strolls, jogging.

The Shakar Parian Sports Complex of approximately 1,300 ha represents a **urban park environment** which clearly demonstrates the influence of man, e.g. plantations consisting of exotic (non-native) species and well-trimmed landscape gardening and provides the urban population with an excellent recreational facility for activities such as sports, jogging, strolls, picnic etc.

The luxury of having these three different units of management for recreational purposes gives various options for conservation education on man's attitudes and changing concepts towards nature.

### 2.2. HISTORY AND CULTURE

- The protection of an area as national park includes the protection of historic/archaeologic sites as well as the obligation to create an awareness and appreciation of the traditional culture inherent to the area.

Today little information on the traditional culture of Margallah Hills is available and no research into the subject has been done. However, the subject would be of great importance for achieving a full understanding of the area and its development to be interpreted to the visitors.

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9) Please, refer to page 7 for the full wording of the Governmental Ordinance for Margallah Hills National Park.

10) Map No.1: Margallah Hills National Park

**THE GAZETTE OF PAKISTAN**

***The Islamabad Wildlife  
(Protection, Preservation, Conservation and Management)  
Ordinance, 1979  
Islamabad, Wednesday, December 19, 1979***

**National Park.**

- 1) With a view to protecting and preserving scenery, flora and fauna in natural state, the Federal Government may, by notification in the official Gazette, declare any area to be a national park.
- 2) The national park shall be accessible to public for recreation, education and research, subject to such restrictions as the Federal Government may impose.
- 3) Provision for access roads to, and construction of rest houses, hotels and other buildings in the national park along with amenities for public may be so made, the forest therein shall be so managed and forest produce so obtained as not impair the object for which it is declared a national park.
- 4) Except otherwise provided by this Ordinance and the rules, the following acts shall be prohibited in a national park, namely:
  - (i) Hunting, shooting, trapping, killing, or capturing of any wild animal within a radius of two kilometers of its boundaries;
  - (ii) Firing any fire-arm or doing of any other act which may disturb any wild animal or interfere with its breeding place;
  - (iii) Felling, tapping, burning, damaging or destroying of, or taking, collecting or removing therefrom, any plant or tree;
  - (iv) Clearing or braking up of any land for cultivation, mining or for any other purposes; and
  - (v) Polluting water flowing in or through it

Provided that the authorised officer may, for specific purposes, authorise the doing of any of the aforementioned acts.

**THE GAZETTE OF PAKISTAN**

***Margallah Hills National Park Establishment Ordinance***

***Extra, April 28, 1980***

S.R.O. 443(I)/80. - In exercise of the powers conferred by subsection (1) of section 21 of the Islamabad Wildlife (Protection, Preservation, Conservation and Management) Ordinance, 1979 (LXX of 1979), the Federal Government is pleased to declare the following areas to be the Margallah Hills National Park, namely:

- 1) Margallah Reserve Forest comprising compartments No. 2-5, 7-32, 28, 30-38 (i) and 41 (ii);
- 2) Military Grass Farm comprising compartments 1-25;
- 3) Lands falling in villages Mangial, Malach Dakhli, Phulgran, Subhan, Mandla, Jhang Bagial, Malpur (Bijran), Rumli, Narias, Padoh Dakhli, Noorpur Shahan, Ratta Hottar, Saidpur, Dhok Jiwan, Gandian, Kalinjar and Saniari;
- 4) Area bounden by Shahrah-i-Kashmir in the north, Shahrah-i-Islamabad in the west and Murre Road in the south and east up to its junction with Shahrah-i-Kashmir; and
- 5) Rawal Lake and area within a distance of 2 kilometers from the highest water mark of Rawal Lake.

- The Margallah Hills is thought to be an area in which ancient people (notably Buddhist) from Taxila sought refuge from the White Huns (c. 460-70 A.D.). So far no research of this subject has been done. Such research would prove valuable to seek a linkage between Taxila Valley and the Margallah Hills.
- Numerous important historic or archeological sites are found in or around the Margallah Hills 11). Most of these are interesting for religious, historic and cultural interpretation and education. Furthermore, several are visited by thousands of pilgrims during the year who come to pay homage to the saints Barri Imam (Nurpur) and Pir Mehar Ali Shah of Golra Sharif. The two shrines offer, by attracting such large numbers of people, besides their religious importance, a possibility for providing information about the MHNP and its purpose.
- Saidpur and Shah Allah Ditta with the nearby hindu shine have an interesting historic background founded by hindus but even more so because they are slices of authentic rural Pakistan. The history of the villages would need further investigation for the purpose of conservation education and interpretation.

### 2.3. THE ENVIRONMENT

The Margallah Hills offer an exceptional amount of topics regarding the natural and man-made environment for educational and interpretative purposes 12) besides giving the best bird's-eye view south over Islamabad.

- The creation of the Hills as result of changes and activities caused by the constant movements of earth's surface (plate-tectonics) changing the landscape from being an ancient lake to hills.
- The effect of the movements in terms of earthquake, volcanoes etc. using recent earthquakes in the region as examples as well as pointing out the fault line between the foot of the hills and the future extension of Islamabad.
- The rising and graduate degradation of the hills caused by wind and water erosion creating today's landscape which in turn give life to the different vegetation types and their natural inhabitants.
- The threatened environment of endangered flora and fauna species and their importance to man (the bio-diversity programme).
- The continuous take-over of one plant specie by another (natural and man-made succession patterns).
- The water we depend on (from spring, to river, to lake to our water tap).
- The process of living (Man and his need for Air, Water, Soil, Energy).

The above presents environmental topics from a holistic point of view encompassing a whole range of subjects which can be interpreted in a more detailed separate form whenever linked to the overall subject matter and/or when opportunity is given at specific locations for direct relation between the subject and first hand experience. For example:

- In depth interpretation on geology using abandoned quarry sites and road sides
- In depth interpretation on benefits and costs of quarry activities
- Interpretation on vegetation composition and its changes at specific sites under recuperation
- Acoustics in the Hills
- Wetlands and waterfowl ecology

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11) The location of historic and cultural sites in and around MHNP are specified in the Management Plan, Part I.

12) Only the imagination would put a limit to the subjects to interpret. The challenge being to carefully select the topics of interest and importance.

## 2.4. PARK MANAGEMENT

- The implementation of the General Management Plan for MHNP would be a topic of great attention for education and interpretation on modern park management practices as well as giving the park management an opportunity to communicate its achievements, problems and future plans. Specific interesting topics would be:
- On-going environmental impact assessment of the water we drink (Rawal Lake)
- Breeding programmes (e.g. Barking deer, Cheer pheasant)
- Research programmes (e.g. Natural Succession Studies; the Influence of Fires on the Ecology; Culture of Margallah Hills)
- Rules and regulations for stay in the park
- How the public in general can assist park management in conservation of the MHNP

## 2.5. PARK/PEOPLE RELATIONSHIP

- The present uses of natural resources<sup>13)</sup> which are in conflict with the objectives of park management offer the possibility for conservation education and interpretation on man's dependency on nature for his sustenance and reasons for misuse of the natural resources (e.g. basic needs, population increase, unawareness of effects, desire for rapid economic gains);
- as well as the possibility to educate on how to apply a sustainable and appropriate use of the resources in agreement park management objectives.

## 2.6. EXISTING FACILITIES IN THE MARGALLAH HILLS NATIONAL PARK

### 2.6.1. The Margallah Hills

Following the main road (Pir Sohawa) into the park the first facility to encounter is the **children's adventure playground**, a gift from the Japanese. The playground is only open for children and contains different play equipment such as swings, slides, climbing towers etc. all laid out in a well trimmed garden.

**The Islamabad Zoo**, temporary established within the park, attracts a large number people. The Zoo is small and presents a relatively small number of wild animals and birds both native and exotic. Enclosures are small and inadequate and there is no provision of education or information on the different species displayed.

**The Natural History Museum** has established a display hall next to the Zoo containing fragmented displays on different animals including stuffed specimens. The individual descriptions of species are well done but the relationship between those on display is lacking.

Other recreational facilities in the Hills are mainly confined to the area around **Daman-E-Koh View Point** laid out with restaurant, parking area, paths, picnic areas, gardens, terraces and viewing points. Several "Koka's" (softdrinks stands) are situated in the surroundings. Information on the views over

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13) For information on: Present land-use and vegetation cover  
Inhabitants of the Park  
Landownership  
Road and trail network  
Major Areas of Conflict in regard to Park Management, Please, refer to Part I.



Islamabad is provided in form of a map painted on a cement block. In addition a couple of boards illustrate the DOS and DON'Ts for stay at the resort. Most of the Capital can be seen from here as well as the Rawal Lake and Rawalpindi and on a clear day after rain it is possible to see far out over the Potwar Plateau beyond Rawalpindi to the Salt Range on the horizon. The overall appearance of the Viewpoint is somewhat altered by inadequate maintenance and poor designs (notably the "Koka's") not blending with the natural environment.

The CDA operates **three guest houses** offering the possibility for overnight stay in the park. One is located further up the Pir Sohawa road from Daman-E-Koh on a smaller hill top with commanding views to the south. The second is located at Pir Sohawa on the ridge of the Hills. The third is situated on the northern slopes further to the east following the continuation of the Pir Sohawa road.

Smaller **rest places** (picnic sites) along the road side have developed in Chauki and Pir Sohawa both of which have excellent views to the south.

The available facilities are though confined to "Koka's" and tea shops.

There are several **un-developed areas** within walking distance from the Pir Sohawa Road which is suitable for low density developments of picnic areas or camp grounds. Further investigation of these sites may prove them suitable for interpretative purposes.

The Hill range is traversed by **numerous trails** some of which have been improved to be accessible by jeeps. The trails are established as means of transport between villages and out of the hills to Islamabad 14). In addition they would serve as a complete network of hiking trails when properly developed and signed. The Asian Study Group has produced a booklet on "Hiking around Islamabad" which gives a fairly good description on some interesting routes to follow. Supplementary information on what is to be seen along the trails, e.g the flora and fauna, would be beneficial for achieving further understanding and appreciation of the park.

The park has at present one ranger with some training in conservation education and no staff with expertise as **nature guides** often called "interpreters". The term "nature guides" will be used in this report.

### 2.6.2. Rawal Lake

The area round the lake has been planted with flowering trees and laid out with gardens, picnic spots, fishing spots, and secluded paths. A natural lake shore vegetation has seemingly established along parts of the northern shore and provide habitat for resident as well as migratory waterfowl.

Near Rawal Dam facilities are provided in form of parking area, snack bar, restaurant (rest house) and viewpoints laid out with terraces, gardens and paved paths. Interpretation on what is to be seen (e.g.the Rawal Dam, the creation of the Lake) and the fact that Rawal Lake is part of Margallah Hills National Park is not provided. The viewpoint appears in general well maintained although some steps and other constructions would need repair.

### 2.6.3. Shakar Parian Park.

The Shakar Parian Park contains several recreational facilities:

**The Recreational Park** with viewpoints, restaurants, parking area, paved paths, fountains and well maintained gardens. The viewpoint is divided in East Viewpoint which offers the most photogenic view of Islamabad and Margallah Hills. The West Viewpoint overlooks Rawalpindi. No information about the MHNP or what is seen from the viewpoints is available.

The **Lok Virsa**, the Institute of Folk and Traditional Heritage, with open-air exhibition of carved wooden doors in the garden, and a large indoor exhibition of local art, handicrafts and musical

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14) Please, refer to Maps on Road and trail network in MHNP Management Plan, Part I

instruments from different regions of Pakistan, provides a praiseworthy awareness programme on the cultural heritage of Pakistan.

The **Natural History Museum** will move to a location next to Lok Virsa and thereby provide an excellent facility for education about nature.

The **Rose and Jasmine Garden**, for the annual flower and rose shows, festivals and fairs.

The **Sports Complex** with indoor sports halls and stadium.

The Islamabad Club, a Riding School, and a Tourist Camp Ground, a Motel etc. are also located within the larger urban park area.

The Rawal Lake and Shakar Parian Parks, although being components of the Margallah Hills National Park, are managed by an urban park division within the Environment Directorate of CDA.

General information material (pamphlets, booklets) on the purpose and existence of the National Park and the diverse recreational facilities it offers is provided in scattered form through tourist guides, hiking guides, checklists on flora, and occasional news releases.

### 3. CONSERVATION EDUCATION AND INTERPRETATION PLAN FOR MARGALLAH HILLS NATIONAL PARK

#### 3.1. OBJECTIVES

In view of the long-term objectives of the Conservation Education and Interpretation Programme the following **management (immediate) objectives** are proposed:

- Interpretation on the park ecosystem, cultural resources and management established for the visitors to the park.
- Park community conservation awareness programme directed local population groups on park/people relationship developed.
- Public information service on information about the park developed.
- Conservation education and interpretation on "man and his environment" developed.

Whereas the Management Plan coordinates the conservation education and interpretive programme with other park activities, the present Plan will describe **how** the programme would be carried out.

The programme is divided in sections according to the target group in mind 15) and listed without order. Section 3.7. will outline the priorities and sequence of programme implementation.

#### 3.2. GENERAL PUBLIC

##### 3.2.1. News releases/Field visits for Journalists

Concept:

To use the local, district and national newspapers for dissemination of information about the MHNP to the general public. A group of journalists would be taken to the field and briefed on the problems of park management and development.

Organisation:

The Park Conservation Education Officer would organise regular collection of news and information on park activities and features. The Journalists' Resource Centre (JRC) would be contacted for handling of the features for dissemination through the media community. The MHNP would sponsor/provide accommodation for the field visits. Field visits would last the day or with overnight stays in CDA guest houses and be guided by interpretation staff.

Materials:

Newly produced or up-dated brochures of MHNP and AV/Videos available would be needed to give an introduction to the park.

Content:

Focus would be on the activities of park management in generating awareness among people on the conservation of flora, fauna and culture. Problems and benefits relating to such efforts would be highlighted. Interdependency between parks and people would be emphasized. The role of national parks in improving environmental quality would be stressed. In Urdu and English.

Required input:

Means of transport in the park  
Accommodation

### 3.2.2. Brochures/pamphlets

#### Concept:

The brochure/pamphlet is one of the most effective and economic means to reach a large number of people.

#### Organisation:

The Conservation Education Officer would in cooperation with JRC design the brochure. The CDA/MHNP is responsible for the production/printing of sufficient copies of the brochures. The brochures would be distributed to selected book shops, tourist information centers, the airport, Natural History Museum, libraries, the CDA and through MHNP (Visitor Center, Entrance Gates/Entry Points etc.).

#### Content:

The brochure would focus on: What to see and do; How to get there; What to experience; How to behave; Why a national park and include a fairly accurate map showing location of points of interests, routes and facilities. In Urdu and English.

#### Required input:

Consultancy fee for text and design  
Available photos and maps  
Printing of 50.000-100.000 copies

### 3.2.3. Radio

#### Concept:

To use the radio broadcast for creating awareness about national parks and conservation.

#### Organisation:

Existing radio programmes on related subjects would be investigated for the inclusion of specific conservation programmes. The Conservation Education Officer would co-ordinate with Radio Pakistan and supply essential information about conservation issues for the programme. Journalists at the programme would edit the inputs from the park management. Assistance in the development of the programmes would be sought from JRC. In addition the CEO would investigate, link up with, and encourage programme developments and materials which may be produced by NGO's.

#### Content:

Emphasis would be on the following themes:

- Global and local importance of the national parks and protected areas.
- Importance of preserving bio-diversity.
- Impact of national parks and protected areas on the climate and environment of the nearby urban areas.
- Role of students, teachers, social workers, and other sections of the society in the management of the park.
- Conservation efforts - successes and failures.
- Highlight environmental impacts of larger development projects such as irrigation schemes, dams, quarries, and factories.
- Case stories on rare and threatened species of wildlife.
- Highlight the importance of harmonious relationship between park and people.
- Practical conservation of resources.
- The water we drink.

#### Required input:

Radio broadcast charge  
Professional assistance  
External/donor funds

### 3.2.4. Audio-visuals/Video programmes

#### Concept:

Audio-visual/video programmes are one of the most interesting and attractive means of information dissemination. These provide an opportunity for face to face interaction with villagers and visitors to the park as well as providing the MHNP/Conservation Education Officer with materials to use in the outreach programmes. Audio visuals/video/films can be used as illustrations to talks given by the Conservation Education Officer or run with a pre-recorded narration.

#### Organisation:

A consultant would be hired to prepare the design of AV-programmes in consultation with the Park Director and Conservation Education Officer. Necessary slides and information would be supplied by the Park. The Conservation Education Officer would investigate, encourage and co-operate with other media organisations for the development of productions by them. The Conservation Education Officer and his/her staff would be responsible for operating the programmes in the Visitor Center and organising illustrated talks and shows at different gatherings at local schools and in the villages outside the park.

#### Materials:

To be produced by CDA/MHNP in Urdu and English (examples presented by themes):

AV/Illustrated talks:	"Parks and People" "Conservation management"
Slide/tape:	"The Margallah Hills National Park" "Wildlife in the Hills" "Hiking in the Hills" "Nature of Pakistan" 16)
Video:	"Living with a national park" "My village"

The Park Management can obtain videos/films from several national organisations (e.g. LOK VIRSA on cultural aspects, IUCN/JRC, WWF-Pakistan for General Conservation issues), and seek cooperation with other governmental as well as non-governmental organisations for subjects such as Health and Family Planning which may be needed in the village programmes.

Films/videos on nature and conservation issues are also available from many international organisations (WWF, UNEP, UNESCO, National Geographic Productions) and are, although not directly tailored for the Pakistani environment, important productions for arousing general interest in conservation as well as enhancing the understanding and appreciation of our natural environment.

#### Required input:

For productions under CDA/MHNP:

Consultant (Journalist/Editor)

Photo library including slides

Photo equipment

New slides/Duplications

Narration

Recording

AV-Video-TV-Screen equipment

Generator/storage

Budget allocation for obtaining videos/films from distributors.

Productions undertaken by other interest groups/donors.

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16) Theme based on the booklet "The Nature of PAKISTAN, A Guide to Conservation and Development Issues, No 1., IUCN/WWF-Pakistan.

### 3.3. VISITORS

#### 3.3.1. Visitor Center 17)

Concept:

The Visitor Center is a special building in which more detailed information about the Margallah Hills National Park and general conservation issues would be displayed. It is useful for showing natural processes, history and culture, and other features that cannot be observed on a short visit. The Visitor Center would, besides the display halls, include an Audio-Visual cum Lecture Hall, Library and children display and work room. A stand for sale of books, guides, and other items related to the park would also be included in the Center.

Organisation:

Consultant(s) would assist the CDA/Conservation Education Officer in the detailed planning and design of the Visitor Center. The planning and design staff of the Natural History Museum would be in charge of the display production under the guidance of CDA/Conservation Education Officer (and Consultant). The MHNP/Conservation Education Officer and his/hers staff would be responsible for running the Center and Audio-visual programmes.

Materials:

Building(s) and parking space  
Displays of various content and appearance  
AV/Videos and equipment as outlined in 3.2.4.

Content:

Themes of exhibits would evolve around a conceptual whole rather than in unrelated segments. Photos, paintings, drawings and models would be preferred to stuffed animals (to avoid duplication of the Natural History Museum) unless they have special significance. All information would be provided in Urdu and English.

Required input:

Consultant(s) on planning, design, and site planning of Visitor Centers  
Construction of building according to design  
Production of displays and information  
Audio visual equipment/Video inclusive electrical backup system (UPS)  
Storage cabinets for av/videos  
Installation and maintenance

#### 3.3.2. Guided tours

Concept:

To provide parties of visitors (in particular school children) guidance around in the park by foot. Routes would be chosen according to group size and composition, special interests and the possible impact such groups may have on the routes. Guided tours would last from 1/2-2 hours. The nature guide would point out and give talks on specific features on the route chosen.

Organisation:

The Conservation Education Officer would be responsible for organising the guided tours. Appropriate staff would be designated as nature guides and provided in-service training in this specialized field of park management.

Content:

Guided tours would cover a wide range of subjects depending on visitor group and the nature guide.

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17) Recommendations for structural design and exhibit development are included in section 3.8.3.

Required input:

Staff trained in interpretation techniques and in guiding.  
Trail layout to give a choice of routes.  
Improvement and maintenance of trails

**3.3.3. Self-guided trails**Concept:

To provide a network of trails of varying length (30-60 min) with self-explanatory information on the features encountered along the trail. Trails would be selected around themes e.g. "Vegetation in Margallah Hills", "From seabed to mountain trail", "Bird-watching and angling trail". Visitors would be provided with brochures on each trail (or buy a booklet on all such trails) which give them general information on location and natural features and in dept information on individual sites which are marked at the spot in some way 18).

Organisation:

The Conservation Education Officer would organise or coordinate a survey of trails to obtain detailed information on each. Assistance in undertaking this activity should be sought from the Margallah Hills Society, Asian Study Group, WWF-Pakistan and other interest groups such as Nature Clubs. Suitable trails would be marked and signed accordingly by the park management. The CDA/MHNP would be responsible for production of brochures.

Required input:

Trail identification and marking of interesting subjects  
Trail improvement and maintenance  
Information and design of brochures/booklets  
Photos and maps  
Printing of 50.000 copies of each trail brochure

All brochures would be gathered in a booklet which would be on sale.

**3.3.4. Hiking trails**Concept:

To provide well marked trails for visitors to explore on their own the natural features of the Margallah Hills. Primitive camping sites and shelters would be provided along the trails at suitable places. An upgraded booklet of "Hiking around Islamabad" including locations of primitive facilities, general information on the features of the trails, and specific information on subjects of particular interest for each trail would be available for the hikers.

Organisation:

The Conservation Education Officer assisted by the Environmental Management Officer would be responsible for allocation and marking of the hiking trails. The CDA and The Asian Study Group have embarked on a project to upgrade the booklet on "Hiking around Islamabad". The CDA/MHNP/Conservation Education Officer would provide information on the facilities to be available and features of interest for inclusion.

The booklet would be made available for sale in the Visitor Center, at Viewpoints (Rawal Lake and Shakar Parian), in book shops in town and in the airport.

Required input:

Trail improvement and maintenance  
Marked trails 19)

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18) Recommendations for design of signs are given in section 3.8.2.

19) Recommendations for design of signs are given in section 3.8.2.

### 3.3.5. On-site interpretation 20)

#### Concept:

To provide visitors with information on specific significant features of the park on the spot where they see and experience the subject. The information can be supplemented by interpretive talks or be self explaining which is beneficial for visitors who arrive without a nature guide. On-site interpretation would be provided at locations where visitors frequently go by and other infrastructural facilities are provided e.g. in the vicinity of parking areas, picnic grounds or at entrance points to trails.

#### Organisation:

CDA/MHNP/The Conservation Education Officer would be responsible for design of displays, display shelters and the installation as well as maintenance. Assistance in display production would be sought from the design staff at the Natural History Museum.

#### Content:

Each On-site interpretation facility would deal with a specific subject in relation to what is to be seen in that particular area. Some suggestions: at **Rawal Lake** (one near the Dam (theme: dam construction), one along the trail (theme: wetland ecology), at **Pir Sohawa** (theme: road construction and the environment), at **Shah Allah Ditta** (one near the village (theme: history of the village and shrine) and one near the quarry (theme: quarry activity and landscape restoration)), at **Chauki** (theme: recuperation of forest cover), **Nurpur** (theme: MHNP, history).

#### Required input:

Displays and shelters

### 3.3.6. Signs and Boards

#### Concept:

To create a general awareness of the MHNP and provide visitors with guidance on where they are, what to see and where to go in the park area in the form of location maps, entrance signs and direction signs.

#### Organisation:

CDA/MHNP/The Conservation Education Officer would be responsible for the design and production of location maps, entrance signs and direction signs. The Facility Maintenance Officer would be responsible for the location of the signs.

#### Content:

Following a standardized layout location maps would display the whole of Margallah Hills National Park (roads, trails, facilities) pointing out the present specific location. Specific area maps would be provided at the entrance to major development areas (e.g. Visitor Center Area). Signboards displaying DOs and DON'Ts would be placed at appropriate sites (e.g. on the walls of "Koka's") not as free standing boards.

#### Required input:

A standardized sign layout for MHNP  
A sign location plan for MHNP  
Production of boards and signs

## 3.4. VILLAGERS

### 3.4.1. Village meetings

#### Concept:

To involve villagers in the protection of the park and its features and to advocate a sense of community



responsibility towards conservation of the park, meetings would be held in various villages (schools would be adequate meeting places). Village leaders, local school teachers and respected spokesmen would be identified by their respective communities for participation in these meetings.

Organisation:

The CDA/MHNP/The Conservation Education Officer would in liaison with the Park Manager and Officer staff be responsible for organising, preparing and inviting to the village meetings. Assistance and advice would be sought from NGO's who have expertise in Community Development. A minimum of 3 meetings/year would be held on a regular basis in each of the major villages (e.g. Shah Allah Ditta, Saidpur, Bhara Kao (or Nurpur), Gokina, and Shahdara) to which village representatives of smaller villages would be invited. The Park Manager or his Assistant is responsible for conducting the meetings.

Content:

The meetings would build a forum in which messages on nature conservation would be furnished and park management difficulties caused by village activities as well as problems facing the villagers addressed. Furthermore, the forum would address and advise on solutions to conservation as well as socio-economic development issues (e.g. advise on employment possibilities in connection with park developments, family planning, health, fuel-wood saving stoves). The Park acting as Initiator is described in more detail in section 3.4.7.

Required input:

For dissemination of conservation issues:  
Audio visual aids (section 3.2.4.)  
Resource persons on aspects of interest/discussions.

### **3.4.2. Women for conservation**

Concept:

To involve village women in the protection of the park and its features, non-formal meetings would be held in various villages both major and smaller. Leaders among the women would be identified by their communities for the organisation of contact and meeting arrangements.

Organisation:

A consultant would prepare the programme in liaison with CEO. The CDA/MHNP/Conservation Education Officer would be responsible for organising, preparing and invitation to the meetings. When the Conservation Education Officer is a man, a female conservation education/extension officer would be consulted for designing and conducting the programme. A minimum of 3 visits/year would be held on a regular basis in selected villages.

Content:

Messages on nature conservation would be furnished through talks and audio-visuals. Park management difficulties caused by village activities as well as problems facing the women would be addressed and discussed. Guidance on conservation measures to be taken for continuous supply of daily needs would be provided. General social issues (e.g. health, family planning, child-care etc.) would be addressed through discussions when needed.

Required input:

Female consultant on extension programmes for women  
Audio visual aids (section 3.2.4.)  
Resource persons on aspects of interest/discussion

### **3.4.3. Schools**

Concept:

To arouse an interest and curiosity about the MHNP would illustrated talks and AV/Video programmes be offered to the schools in the city and in villages located near the park. In other words the staff of MHNP would bring the park into the class rooms.

Organisation:

A Consultant would prepare the programme in liaison with the Conservation Education Officer. The CEO would be responsible for organising, coordinating and preparation of talks in the class room. He would rely on other staff and resource persons for specific subjects. The schools would be made aware of this facility and how to arrange for such talks by the distribution of an information pamphlet.

Content:

The content of the talks would vary according to age and background knowledge on the subjects or on requested subjects. Typically, an introduction to the park and the reasons for its establishment would be included. Mobile display (maps and features) of the park would assist the talks as well as available AV/Videos.

Materials:

Design and production of a set of mobile displays (map and features)  
AV-programmes and equipment for presentation (projector, screen, generator)  
Information pamphlet on the facility to be distributed to schools

Required input:

Consultant for programme planning  
Planning, design and production of mobile display  
Design and production of information pamphlet  
Resource persons  
AV-programme (section 3.2.4.)  
Equipment (section 3.2.4. and section 3.8.7)

#### **3.4.4. Conservation Demonstration Area**

Concept:

The intent of the demonstration area is to, in practical terms, illustrate conservation practices in resource use. The villagers will understand the concepts of practical conservation measures and the possibilities for preservation of flora, fauna and culture while utilizing the resources.

Organisation:

The planning and establishment of the demonstration area would be undertaken by a consultant in close consultation with the CDA/MHNP/Conservation Education Officer. Consultancy and establishment may be provided from external sources. A motivated household would be identified by Park Management. The demonstration area would be maintained by the owners with technical and financial assistance coordinated by staff of MHNP. Furthermore, the area would be made available for demonstration by other NGO's e.g. agricultural extension staff of development projects working in the rural area of the Capital Territory.

Content:

The area would seek to demonstrate:

- Soil protection methods.
- Multi-functional hedging of fields (shrubs for fodder and soil protection)
- Increased agricultural production
- Fodder and fuel trees
- Conservation for the continuous supply of daily needs
- Stall feeding, fuel efficient stoves, reforestation, fruit trees, vegetables etc.
- Trees and bushes for wildlife
- Health and sanitation (garbage disposals, drinking water etc.)

Required input:

Consultant  
Resource persons  
A household unit willing and motivated for applying conservation measures  
External funding

#### 3.4.5. Conservation Bulletin Board

Concept:

Bulletin Boards are inexpensive means of providing information to the public. These can be used in schools and at central village locations. Since the large scale production of information materials is not always possible, bulletin boards can serve the purpose of disseminating current and relevant information to the general public (e.g. bulletin boards in the Natural History Museum, the airport) and village communities. It has to be noted that only a small group of villagers (and very few women) can read. Consequently, the information displayed would need to be tailored for illiterate.

Organisation:

The CDA/MHNP would purchase bulletin boards which would be distributed by MHNP-staff to selected schools and other focal points in the villages. Teachers and local union officers would be urged to maintain and update the boards. Relevant information and news-materials would be supplied by the Conservation Education Officer and his staff. Further, the teachers in the schools would be encouraged to collect materials themselves e.g. through field work with students.

Content:

Relevant conservation news, notice of special events and activities related to the park and its surrounding villagers.

Required input:

15 Bulletin Boards

On-going information/news collection and distribution by staff of MHNP

#### 3.4.6. Village visits to the MHNP

Concept:

Guided tours around the different sections of the park would be offered to the village communities to stimulate an interest and pride in protection of the park.

Organisation:

The Conservation Education Officer would be responsible for organising the visits and groups. Nature guides would conduct the visits. Notice would be given through the village meetings inviting people for the visits. Group size would be limited to 20 persons at one time and the visit period offered would respect daily work hours to ensure maximum participation.

Content:

The talks would emphasize the park facilities developed and conservation achievements.

Required input:

Means of transport between the three sections of the park.

Alimentation

#### 3.4.7. Park Initiator

Concept:

To provide villagers with advise and guidance on how to pursue socio-economic development issues which would facilitate the conservation of natural resources as well as to establish preference for recruitment of villagers as parks personel.

Organisation:

The CDA/MHNP/Conservation Education Officer would have the obligation to initiate a dialogue between the villagers and, depending on issue, the agency in charge.

Content:

The dialogue between park staff and villagers established through the village meetings would determine

the issues to be dealt with.

An example: Specific (external funds may be obtained), small scale demonstration projects (e.g. cultivation of vegetables, irrigation, fodder and fuel trees plantings) would be encouraged by park management. The park management would act as "middlemen" (initiator) between government and development agencies and villagers in the establishment of such projects.

Required input:

Dedicated staff

### **3.5. EDUCATIONAL GROUPS**

#### **3.5.1. Essay/Logo Contest**

Concept:

To stimulate an interest and care for the protection of the park an essay and logo contest would be held among the school children (age 10 - 14) in the Capital Territory. The development of a Logo would in addition assist the creation of a Park image.

Organisation:

The CDA/MHNP/Conservation Education Officer and his staff would be responsible for organising, preparing hand-outs (poster) on the contest, and the distribution of information directly to schools as well as to local news papers. Special effort would be made to receive contributions from schools located in the villages. Further, the staff would be responsible for assembling the contributions and keeping track of contributions/authors (e.g. by numbers). A team of prominent citizens would be approached to volunteer as judges of the contest. A Conservation Prize would be given to the best Logo(s) and Essay(s). Once the competition is settled a ceremony would be arranged by CDA/MHNP and a number of contributions would be displayed at appropriate locations for the public view.

Content:

The hand-outs and announcements in newspapers would clearly state the objectives of the contest, who to participate and how the results would be evaluated. Also the required size (= size of a badge) of the logo and the maximum length of the Essay would be mentioned as well as how and where to give in contributions to the contest (e.g. full name, school, and grade for easy identification through the schools on a separate sheet of paper inserted with the contribution).

The Logo would be evaluated according to how well it symbolizes the features (or concepts) of the MHNP, its simplicity and individuality.

The Essay would be required to describe the Logo and hence reflects the author's perception of the MHNP. It should be noted that the best essay not necessarily follow the best logo. The essays would in addition serve further conservation education programme developments and hence be stored.

Required input:

Planning and design of the contest

Voluntary services provided by "judges"

Production of posters/hand-outs

Liaison with newspapers/JRC

Display room for presentation of contributions e.g. CDA city hall

NOTE: Similar contest would at a later stage be held on the development of a Margallah Hills National Park Poster. Such contests can be held every year or when the timing seems adequate.

#### **3.5.2. Guide book for teachers**

Concept:

To achieve appreciation and understanding of the park management the park would favor and assist

school teachers in using the park for educational purposes. The book would inform of the facilities available and give basic guidelines to the teachers on how to make use of the park for field visits.

Organisation:

The CDA/MHNP/Conservation Education Officer would be responsible for the design and production of the book. Teachers would be consulted for giving their input to the book. The book would be made available to local schools by the CDA/MHNP and be available for purchase in the Visitor Center. The Conservation Education Officer would be the teachers contact person in the MHNP and responsible for coordination of field visits.

Content:

In brief describe the natural features of the park and more detailed describe some specific subjects of interest for educational purposes. Further, the guide book would provide information on services provided by the park in relation to their stay.

Required input:

Planning and design of the guide-book  
Production and distribution of the book  
Staff available for guidance/assistance of teachers  
Children display and work room

### 3.5.3. Children's nature book

Concept:

The purpose of the Children's Nature Book is to give children in the vicinity of the MHNP an early introduction to the world of nature around them.

Organisation:

An appointed consultant will prepare an outline for the book with texts and pictures. The consultant would seek advice and criticism from school teachers and work in close consultation with staff of MHNP. The staff would supply pictures and stories on the animals and their habitat when needed. The production/publication of the book would be handled by CDA/MHNP/Conservation Education Officer. The staff would be responsible for distribution of the book to tea school children.

Content:

The animals around us...Margallah Hills.

A story with many drawings/pictures about each of the animals which would be seen in Margallah Hills forests. For every animal the following sequence would be followed:

- Did you know? (general about distribution)
- What does it prefer to eat?
- Who are its enemies?
- Life throughout the year
- Offsprings

Texts from the children's Logo/essay contest may be used where appropriate.

Required input:

Consultant/volunteer for writing the text.

Drawings/paintings of the animal (the animal life and behavior would be presented as a series of drawings/illustrations. Drawings would follow a consistent design).

Production and printing

### 3.5.4. Teachers training on conservation.

Concept:

Teachers are a vital resource for reaching the different population groups, especially school children. They are respected by villagers and therefore play an important role in awareness creation. Training of

school teachers on conservation issues is hence essential and would encourage teachers to conduct environmental education programmes at village level as well as in schools on a regular and sustained basis.

The objectives of the training are to acquaint teachers with the basic concepts of nature conservation, protected areas' management and how they can make use of the park in their school curriculum.

Organisation:

The WWF-Pakistan programme on teacher training in environmental education would be assisted by the park staff whenever required. The Conservation Education Officer would be responsible for coordination with WWF-Pakistan on required input to their programme.

In addition, the CDA/MHNP/Conservation Education Officer would be responsible for providing teachers from the villages around the park training on conservation issues. A consultant would develop a training course using staff of MHNP as resource persons. The CDA/MHNP/ Conservation Education Officer would conduct the courses to be held with groups of 15 teachers for a period of 2-3 days.

Content:

The course would mainly focus on environmental protection, environmental education, how to use the national park as a resource for education and how to organise students field camps. Field trips to different facilities in the park would be organised for participants to get first hand knowledge of various aspects of the park.

Materials:

All available C.E. materials and AV/video programmes would be used including the produced "Guide book for teachers", described in 3.5.2.

Required input:

Consultant on training course development  
Alimentation for participants

### 3.5.5. Student Camps

Concept:

Educational camps for students in the national park provide an opportunity for the students to gain first hand knowledge and experience of the wilderness area. It would be a self-learning process which can create interest and curiosity about the relationships between flora, fauna and entire ecological processes.

Organisation:

The programme for field study camps would be planned and run by the teachers themselves but coordinated by the CDA/MHNP/Conservation Education Officer, who also would provide assistance for achieving parts of the programme when required.

For initial camps non-governmental organisations such as the WWF-Pakistan Nature Clubs, Adventure Clubs and Scouts would be used as consultants for the teachers to organise the camps. Each camp would accommodate 20 students for a period of 3 days (2 nights) or according to the educational programme established by the teachers and approved by staff of MHNP.

Camp grounds would be assigned by the MHNP. Students and teachers would be responsible for keeping the camp during their stay and leaving it in correct shape (meaning cleaned and un-spoiled). Tents and camping utilities (e.g.stoves, sleeping bags, cooking utilities) would be provided either by students themselves or rented from the MHNP.

Content:

The MHNP/Conservation Education Officer (and staff) would, in addition to the educational programme established by the teachers, provide talks and information/teaching on subjects specifically related to the national park. Content would vary according to age groups and educational background of the students in mind.

Required input:

Camp grounds and basic facilities (latrines/water/garbage disposal).  
Camping packages for rent.  
Maintenance of camp grounds

**3.5.6. Day-trips for students**Concept:

In combination with the extension school-programme local teachers would be encouraged to use facilities in the MHNP for day field trips with their students.

Organisation:

If needed the MHNP/Conservation Education Officer would assist in coordinating and providing teachers information e.g. Nature guides would give talks and show AV/Videos if required. Further, the teachers may have specific subjects they want to examine with their students. Nature guides or other MHNP staff would, if needed, assist in such programmes.

Materials:

Existing materials and facilities

Required input:

The schools/students would themselves carry all expenses if any.  
MHNP staff available

**3.6. SPECIAL INTEREST GROUPS****3.6.1. The Margallah Hills Society**Concept:

To engage the Society, which is established for the protection of Margallah Hills, in raising awareness on issues of concern and in conflict with park objectives frequent meetings (non-formal/formal) would be held to ensure coordination, updating of information and planning of activities.

Organisation:

The Margallah Hills Society would be represented at Park Advisory Committee meetings. Both parties (CDA/MHNP and MHS) would organise and arrange meetings whenever needed for discussions on important issues or activities to be promoted. The CDA Park staff would be available for assisting in activities undertaken by the Society.

Content:

The content of meetings would depend on issues and activities.

Required input:

Distribution of materials

**3.6.2. Asian Study Group**Concept:

To promote an interest in undertaking field studies/surveys of the features in the Margallah Hills the MHNP would seek to establish proper contact with the ASG by giving talks, distribution of information materials, and by assisting activities undertaken by ASG in the park. Furthermore, members of the ASG would be invited for meetings on the park where their field of experience may be required.

Organisation:

The CDA/MHNP/Conservation Education Officer would be responsible for contact and distribution of information materials as well as coordinating ASG activities with other activities in the park.

Content:

Content of information would vary according to subjects.

Materials:

Copies of booklets, pamphlets, brochures and other distributable information materials on the park.

Required input:

Distribution of materials

### 3.6.3. Nature Clubs and Scouts

Concept:

Same as for Students Camps and Day-trips for students section 3.5.5. and section 3.5.6.

Organisation:

The Nature Clubs are promoted by WWF-Pakistan who would be responsible for organising the Camps and Day-trips to the park. The Scout Organisation has likewise their own set-up. The CDA/MHNP/Conservation Education Officer would be in charge of the coordination of camps and assist when needed in their programme.

Content:

Same as in section 3.5.5. and 3.5.6.

Required input:

Coordination of visits

Maintenance of camp grounds

## 3.7. SUMMARY ON REQUIREMENT AND PRIORITIES

The above plan for conservation education and interpretation programme development is extensive and attempts to cover all aspects of the programme which the park management would be carrying out to achieve its long-term objectives. A summary of all physical as well as material developments is presented in Chart No. 2.

Being extensive the Plan guides the level of conservation education and interpretation activities to be reached in a foreseeable future. The programmes would have to be developed from scratch. But where to start? how to progress? who would do what? all valid questions which need to be answered before the onset of the programme.

The most direct way to answer some of these questions is to provide annual work plans telling **what** has to be done **when** by **whom** and the budget involved. Starting from scratch it is not expected that all activities can be developed within one year. A realistic period would rather be 2 1/2 - 3 years. Some of the programmes are more important than others and would hence be addressed first. The following charts 3 to 6 propose work plans for the first 3 years as an illustration and prioritization on the activities.

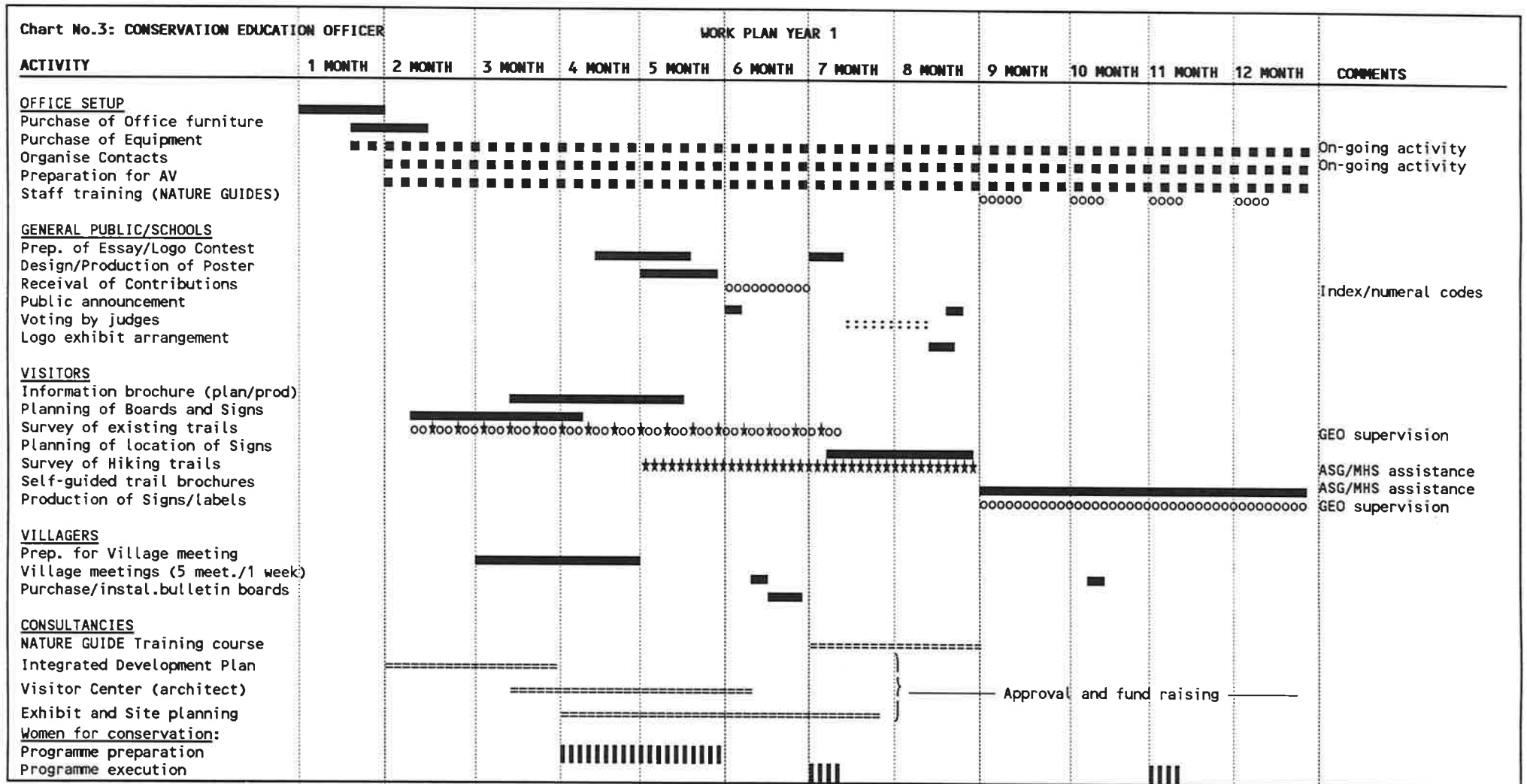
Not included in Work Plans or List of Output is the role the Conservation Education Officer would have as supporter or initiator of productions or activities assumed by other interested organisations.

The CEO would need to promote research activities in subjects of interest for the overall understanding of the park area (e.g. historic and cultural heritage), encourage knowledgeable professionals to venture into publishing of handbooks on their specialty (e.g. on the Geology and Fossils in the Hills, Archeological Sites etc.), or support e.g. film directors who venture into productions concerning conservation in Pakistan and MHNP. Another important task for the Officer in charge would be to establish a network of contacts to professionals who would be called upon for their specific qualifications regarding material developments.



Chart No.2: SUMMARY OF PHYSICAL AND MATERIAL DEVELOPMENTS CONCERNING CONSERVATION EDUCATION AND INTERPRETATION

Physical developments:	Budget involved:
• Conservation Education Office including: Information/Office for the Conservation Education Officer (CEO) Photo library/office (slides/picture files, dark room, photo and AV/Video equipment) Work room (drawing table, light table, files) Workshop for carpentry and painting Garage for Vehicle	Rs.
• Visitor Center including: Exhibit Hall Audio-Visual cum Lecture Hall inclusive AV/Video equipment Library Children display room Reception Hall and Sales Stand (books, postcards, posters etc.)	Rs.
• Around the Visitor Center: Parking Short trails Entrance to some long trails Picnic area Restaurant/Cafeteria Location Maps (the MHNP and the Area around the Visitor Center) Boards on DOs and DON'Ts	Rs.
• On-site Interpretation at various locations including: Stand for exhibit Picnic area/rest area Trails Parking space near certain sites Location maps	Rs.
• Self-guided trails including: Map of trail layout at the entrance to trails Well-maintained trails Signs or labels pointing out specific features (ref. to the accompanying trail brochure) Litter cans along the trail	Rs.
• Hiking trails including: Signs or labels guiding the routes (ref. to booklet on "Hiking in Islamabad Area") Smaller information boards on DOs & DON'Ts next to primitive campgrounds	Rs.
• Entrance Points including: Location Maps on boards Parking space	Rs.
• Viewpoints including: Information boards on the MHNP Signs or labels on trails to show the way	Rs.
• Conservation Demonstration Area	Rs.
<b>Materials:</b>	
• Production of general Information Brochure	Rs.
• Production of AV/Illustrated Talks e.g. "Parks and People" "Conservation Management"	Rs.
• Production of Slide/Tape e.g. "The Margallah Hills National Park" "Wildlife in the Hills" "Hiking in the Hills"	Rs.
• Production of videos on conservation	
• Mobile Display Component	Rs.
• Planning and Production of Visitor Center Exhibit	Rs.
• Conservation Bulletin Boards	Rs.
• Poster/Logo/Essays	Rs.
• Guide book for teachers	Rs.
• Children nature book	Rs.
• Planning and Production of On-site Interpretation exhibits e.g. "Rawal Lake Dam" "Rawal Lake" - "Mud Matters" "Roads and Nature" "From Hindu Orchards to Stone Quarry" "The process of succession"	Rs. Rs. Rs. Rs. Rs.
• Self-guided trail brochures and trails	Rs.
• Location Maps	Rs.
• Trail signs or labels	Rs.
• Area Information Boards	Rs.



█ Conservation Education Officer (CEO)  
 ooooo Workshop/Foresters/Guards/Mali's, CEO supervision  
 ===== Consultancies (local or external)  
 ||||| Consultant to women for conservation programme

■ ■ ■ CEO On-going activities  
 : : : : : Voluntary assistance (Judges)  
 ★ ★ ★ ★ ★ Voluntary assistance (MHS, ASG, WWF)

World Wide Fund for Nature = WWF  
 Margallah Hills Society = MHS  
 Asian Study Group = ASB





**Chart No. 6: SUMMARY OF OUTPUT PER YEAR**

OUTPUT FIRST YEAR	OUTPUT SECOND YEAR	OUTPUT THIRD YEAR
<ul style="list-style-type: none"> <li>• Conservation Education Office Established</li> <li>• Purchase of some Equipment (Photographic equipment, Projector, Screen)</li> <li>• Photo-library instituted</li> <li>• Purchase of pre-made conservation films/videos/AV</li> <li>• Network of professional contacts established (e.g. private photo collections, publishers, editors, painters)</li> <li>• Logo for MHNP</li> <li>• 2 staff trained in interpretation and extension</li> <li>• Regular contact to villagers</li> <li>• Trails surveyed and mapped</li> <li>• Information brochure published</li> <li>• 2 Trail brochures (2 self-guided trails located)</li> </ul> <p><b>PLANS</b></p> <ul style="list-style-type: none"> <li>• Integrated Development Plan</li> <li>• Visitor Center Architectural Design</li> <li>• V.C. Exhibit Layout and Design</li> <li>• Site Plan for Visitor Center Area</li> <li>• Site Plans for Viewpoints/Picnic Areas along the Pir Sohawa Road</li> <li>• Plan for Women extension work</li> </ul>	<ul style="list-style-type: none"> <li>• 2 Staff trained in interpretation and extension</li> <li>• AV/Talks on MHNP available</li> <li>• Visitor Center incl. exhibit</li> <li>• Teacher guidebook for MHNP</li> <li>• Mobile Display Component</li> <li>• Purchase of Vehicle (Mobile Ext)</li> <li>• 2 Self-guided trails brochures and trails</li> <li>• Location Maps/Signs situated</li> <li>• Nature guides</li> <li>• Consistent Women extension programme</li> </ul>	<ul style="list-style-type: none"> <li>• Teachers trained in C.E. and in MHNP</li> <li>• Consistent Extension programme</li> <li>• Children Nature Book</li> <li>• Conservation Booklet</li> <li>• AV/Slide "Margallah Hills N.P."</li> <li>• AV/Slide "Hiking in the Hills."</li> <li>• Regular visitation programme</li> <li>• Regular extension programme</li> <li>• Regular Public programme</li> <li>• Regular School programme</li> </ul>

### ABOUT THE WORK PLANS

The work plans are tentative and proposals for how to carry out the programmes (priorities) and to allocate the approximate time involved for their implementation.

Firstly, all activities require funding both sufficient and timely. Without finance very few of the activities would be possible. The financial support will be discussed in 4.4.

Secondly, "A Plan does not do it, people do" 21). To provide Conservation Education and Interpretation require well skilled staff. No staff has at present such experience. Staff and training will be discussed in 4.2.

Thirdly, once the Conservation Education Office is established more topics turn up and require attention before the scheduled programme.

21) Often said by Dan Taylor, IUCN Consultant, Margallah Hills National Park Management Planning.

### 3.8. CONSERVATION EDUCATION & INTERPRETATION FACILITIES

#### 3.8.1. Ethics and Design

The Management Plan summarises all the physical facilities that must be developed to accomplish the various management programmes. The present Plan has in greater detail summarised the facilities required for implementation of the conservation education and interpretation programme. Regardless of functions all physical developments, small or large, are fix points for visitors and by-passers. Consequently, they create an image of the park.

Careful consideration should therefore be given to the style and design of facilities acknowledging the need for instituting a suitable and distinguished image of the Margallah Hills National Park. But what is suitable? Not two persons would have the same opinion on style and design and what would be appropriate for the park. On the other hand, guidance is given through the objectives of the park emphasising the establishment of a natural environment.

The following recommendations 22) would be applied as **concept** for style and design. Moreover, the MHNP would pursue to maintain the cultural heritage of the region exhibited in the structures to be developed.

Most of the developments in the park would require more detailed planning and studies of certain subjects in the form of **Site Plans, Architectural Designs, Exhibits layouts, Location Maps layouts etc.** 23).

Thus the following sections will present ideas and recommendations rather than concluded designs.

#### Ethics

Advertisements within the park are intrusive and must be resisted. Let it be painted on a building or as a signpost. In particular the "Koka's" would need refurbishing to blend with their surroundings. Traditional craftsmanship exercised on the structures, instead of advertising PEPSI, would greatly improve the sight of the buildings and give them an identity as part of the national park.

Buildings should be designed to be energy-sufficient (e.g. air- condition provided through the architectural design rather than artificial air-conditioning) and if possible use alternative energy sources.

Garish color schemes should be avoided. Within the national park all effort should be made to utilize natural colors (earth-, rock-, green colors). Various existing structures (such as the antenna at Daman-E-Koh) would need renovation.

#### 3.8.2. Signs and Boards

**RECOMMENDATIONS FOR DESIGN CODE**

- Man-made structures should interfere as little as possible with the natural ecosystem.
- Structures should be as unobtrusive as possible. They should not dominate their natural surroundings nor detract from the intrinsic natural values of the area.
- They should be made of local materials whenever possible: stone, timber, mud-brick etc.
- Buildings should be in local styles and blend with their surroundings. If possible buildings should be screened by natural bluffs or groves of trees.
- Suitable siting of buildings depends not only on their strategic aspects, also functional considerations should play a role.
- Roads and paths should be unobtrusive. Whenever possible they should flow with the land contours rather than cut across them. They should be designed to minimize erosion and therefore be of slight gradient with adequate drainage.

22) MANAGING PROTECTED AREAS IN THE TROPICS, IUCN/UNEP Publication, 1986

23) Please, refer to ANNEX 2: The planning process

Concept:

To create a consistent recognizable image of the MHNP a framework for map boards, signs and labels would be developed to be used for all signs inclusive the normal road regulation signs within the park. This would entail the design of a standard layouts, choice of materials, colors and letter style (fonts). Text would be in both Urdu and English.

Materials:

Durability, appearance as well as security against vandalism would need to be considered before selection. Suggestions are made to paint on steel boards and cover with a thin plastic film or varnish. This may seem to be the most practical solution for location maps, certain direction signs and labels. All larger boards would be mounted on two poles (wooden), smaller signs and labels on one pole.

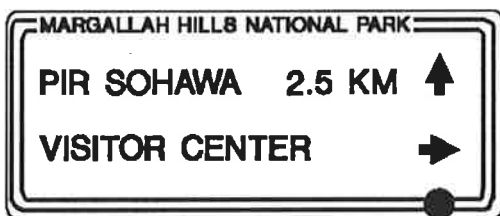
Design:

The following sketches illustrate some ideas and suggestions for board- and sign layout. In common for all Location Maps is the use of the internationally recognized standardized label system for marking recreational facilities on maps and in the field (24).

Location Map:

The example shows the style in mind: rounded corners, a border in which the name and logo are accommodated, a simple but accurate map of the MHNP, showing roads, major trails, actual location, facilities through symbols, and a brief on features of the Park.

The approximate size of location maps are 160 cm x 110 cm (map scale 1: 35.000) for which reason they would be mounted on two wooden poles.

Signs:

The Park would need numerous different signs: for direction, for information and interpretation on specific subjects (e.g. the Ancient Highway and the Nicholson Monument) for facilities, road control, etc.

Whatever purpose they would confine to the standard layout: rounded corners, a border, letter style and same use of colors.

Colors:

Colors would be chosen so the information displayed is easy seen at a distance. Dark background/light letters or the other way around. Taking this in consideration and applying it to Pakistan and the MHNP there seems to be little option than to choose a combination of green (slightly darker than the national banner) and white (slightly beige). For location maps a combination most suited would be light background/green border and letters/logo. For signs along the road the reverse combination may be suited.

Location of signs:

Once trails and facilities have been surveyed and evaluated a overall plan for location of signs (inclusive

24) Contact to US Fish and Wildlife Service may prove beneficial in obtaining a sample of the Internationally recognized symbols which can be reproduced and painted by craftsmen.

road direction signs) would be developed for the whole park. In placing the signs attention would be paid to the Design Code presented on page 31.

### 3.8.3. Visitor Center

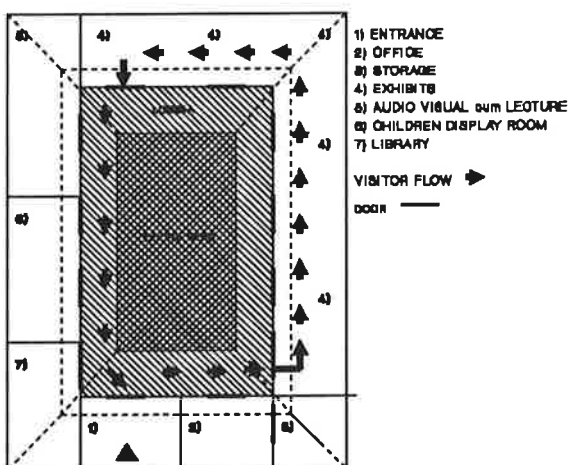
The Visitor Center, its surroundings and design of exhibitions would generate the first impression of the park. Thus it would be regarded a first priority to prestigiously demonstrate the concepts of conservation.

The location of the Visitor Center in the Park plays a significant role in this as well as the actual site planning. The actual location of the Visitor Center depends on the zonation plan of the Management Plan by which there seems to be options only with access from the Pir Sohawa Road with a location in connection with the Zoo area or a location in connection with the Daman-E-Koh Viewpoint. The exact location of the Visitor Center would be assessed concurrently with the location of all other facilities 25) and infrastructural developments (the Integrated Development Plan) which would take place in the cause of implementing the Management Plan.

The architectural design, choice of materials, layouts, and landscaping would need to be in harmony with what the national park strive to accomplish and reflect the commitment to conservation of nature as well as cultural heritage. Furthermore, the Visitor Center should be functional both in architectural design and in exhibits.

The following sketches present some preliminary ideas on design and layout of the Visitor Center. It is though strongly recommended to seek professional assistance (architect, l'arch) for the detailed planning of this component.

Fig. 1: VISITOR CENTER - PLAN



The concept used for this preliminary design is the traditional "compound" structure with a central courtyard surrounded by a roofed corridor (loggia). The outer walls are fairly closed with only one main entrance. Once inside, the center opens up around the courtyard. A miniature model (made of real material) of the MHNP could be displayed in the center.

Other designs would be suitable as long as they reflect the cultural heritage of the Hills.

**Brief on possible Themes for the Exhibit:**  
 in sequence from Entrance to Exit

- **Introduction to Margallah Hills N.P.**  
 Why a national park?  
 MHNP for your well-being: the Hills, Rawal Lake, Shakar Parian  
 What can be seen and done?
- **The forces of nature:**  
 (The process of living)  
 The creation of Margallah Hills  
 From Lake to Hills:  
 Earthquakes, land movements  
 Geology, fossils to be seen  
 Wind, rain, rivers forming the landscape and soil which in turn nourish the growth of plants which we depend on.
- **The environment we have today:**  
 The different ecological balances established by man through time (including history).
- **The threatened environment:**  
 Man pushing nature aside  
 What can be lost?
- **Can we gain by conservation?**  
 What can you do?  
 What can we do together?

25) Section 3.9. discusses in more detail possibilities and limitations of the location of the Islamabad Zoo in relation to the National Park and its facilities.



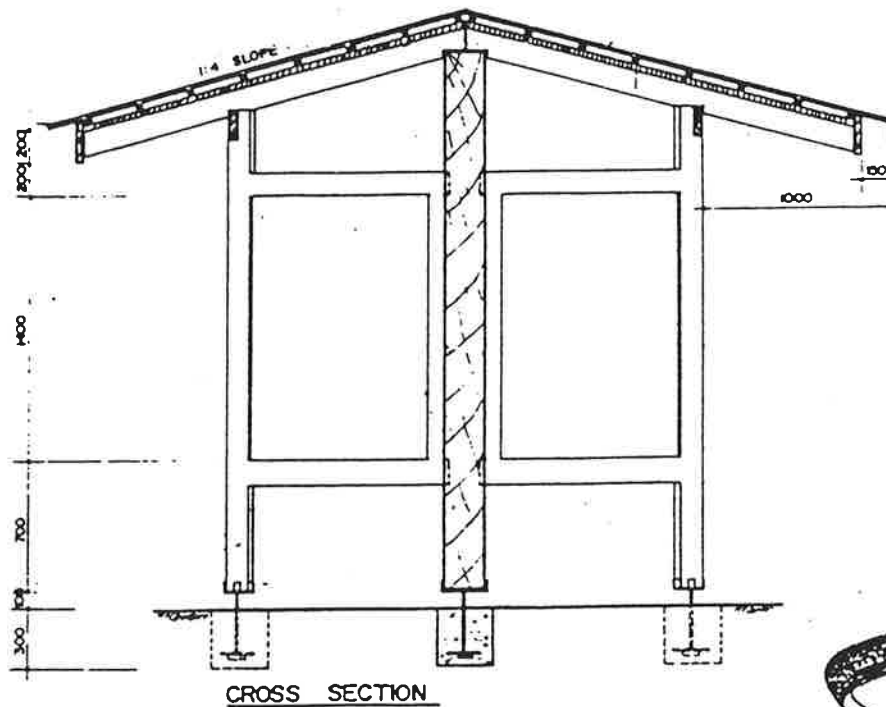
### 3.8.4. On-site interpretation

The On-site Interpretation facility would provide information on a specific subject on the spot where it is possible to relate to the feature. The information presented would be self-explanatory and engaging. The structures would provide shelter for the exhibit as well as for the viewers. Further, it is recommended to utilize the same architectural design of the structure for all on-site interpretation facilities to be located in the park. Again, this would facilitate the easy recognition and identification of the park.

#### Design

Being outdoor exhibits, consideration would be given to durability, maintenance and discouragement of vandalism in the choice materials and design.

The following sketch proposes a design which is easy recognizable, gives ample space for the exhibit, and appropriate shelter for the viewers.



### 3.8.5. Trails

The trail network in the park would be divided in three classes:

- Short (max. 60 min) circuit trails, well-maintained and labeled for reference to brochures. Surface of compact gravel and minimum width of one meter.
- Short (max. 60 min) circuit trails, well-maintained and designed with surface of compact gravel (width minimum one meter) for easy walking and handicap transport (wheel chairs) for guided tours. The self-guided trails can be used also for guided tours.
- Hiking trails of various length and destinations marked only with direction signs. Most of the existing hiking trails would require some repair and track cleaning (e.g. removal of larger stones).

#### Marking and labelling

The short self-guided trails would be labelled in accordance with the specific trail brochure. The labels would be placed discreetly near the subjects, visible yet unobtrusive, along the trail edge. Labels could be numbered and/or reflecting the issue in focus and be made of water-resistant material e.g. steel plates mounted on short poles/sticks of wood.

Hiking trails would be marked along the routes. The marking would be long-lasting and weather resistant. Each trail would be distinguished by a color or a symbol engraved or placed on natural subjects like rocks and stones. At cross ways signs could be used but preferably natural subjects. Few trails have at present a bright colored arrow painting on rocks. This style could be improved to blend better with the environment.

### 3.8.6. Nature Guides

Nature guides would follow a group of visitors around on trails, give AV/talks in the Visitor Center, in schools and at other public places whenever requested or following a scheduled programme e.g. every day at a specific time give AV/talks in the Visitor Center. It is envisaged that the Conservation Education Officer in charge would need to publicize the facilities provided by the guides and how and when to arrange for guidance through the media, brochures and through initiatives taken by the section itself.

Nature guides are specially trained persons who with enthusiasm and imagination would inform and involve the audience in the nature of the MHNP and on general conservation issues. Staff of the MHNP would be trained as nature guides but consideration would also be given to (formally or informally) draw on the knowledge and skills of village people from the area. The park would assist in training of a selected group as well as coordinating their activities. An example would be a person from Shah Allah Ditta or Nurpur providing interpretation services to visitors entering the park at this location with the possibility to use the On-site Interpretation facility for information on their services to the visitors. Section 4.2. will further discuss the required qualifications of the staff and the in-service training programmes.

Besides formal contact through the nature guides visitors and villagers would encounter other park staff from whom they may require information. All staff must therefore be helpful, knowledgeable and competent in the various aspects of the park and its management.

### 3.8.7. Mobile extension unit.

Various of the Conservation Education programmes require the park staff to extent their services to the villages and schools in the neighborhood of the park. A vehicle which can be equipped with a generator, slide and film equipment and the staff needed for delivering the talks and chair the meetings would be required. The vehicle would be for the use of the Conservation Education unit.

### 3.9. THE ISLAMABAD ZOO

The Islamabad Zoo is temporarily located within the boundaries of the MHNP. An area outside the city of Islamabad has been allocated for the construction of what is to become the genuine Islamabad Zoo. The actual planning of the new Zoo still has to take place and there is doubt about if and when this would happen.

The present Zoo attracts a large number of visitors although its appearance and care for the animals are unfortunate. In fact, what the Zoo demonstrates is in gross contradiction to the objectives of the MHNP namely to protect wildlife in a natural stage which signifies a respect for wildlife. Thus it is inevitable that action is needed as the present situation is unacceptable both in terms of being located in the national park and for the sake of the wildlife. What would be the alternatives?

- Close it down and give the animals to proper Zoos until appropriate CDA funding is available for the development of a acceptable Zoo.
- Decide to allocate the funding for renewal of the Zoo in the Marghzar area.
- Decide to allocate the funding for the building of a new Zoo in the area outside Islamabad.

The first option would be unacceptable to the citizens of Islamabad who appreciate the possibilities of seeing and learning about wildlife which can be offered through the Zoo.

The other options have both pro's and contra's but are technically feasible if required budget is available.

#### Marghzar area.

Although usually not located in the midst of a national park (being an urban attraction by concept) the Zoo would, if properly designed, support the understanding and true appreciation of our complex natural environment. Its location next to the Pir Sohawa Road close to the boundary makes it the main entrance to the MHNP and forms a transition zone between the urban development and the natural environment in the hills.

The following sketch, *Fig. 2*, illustrates a feasible, for park management, solution to the combination of the Zoo and the MHNP. Emphasis would be on developing high quality for few animals and gradually expand, according to a consolidated plan when possibility arises.

#### Banni Gala Reserve Forest.

There are different opinions about how suitable the planned site to the east of Islamabad is for the location of a Zoo: too far away from the majority of people; wrong shape (300-1200 m wide and 4000 m long) and topography etc. No doubt the area has its problems but could nevertheless serve the purpose if properly designed and problems of transport etc. are solved which may in fact cause this solution to be more expensive than the Marghzar area.

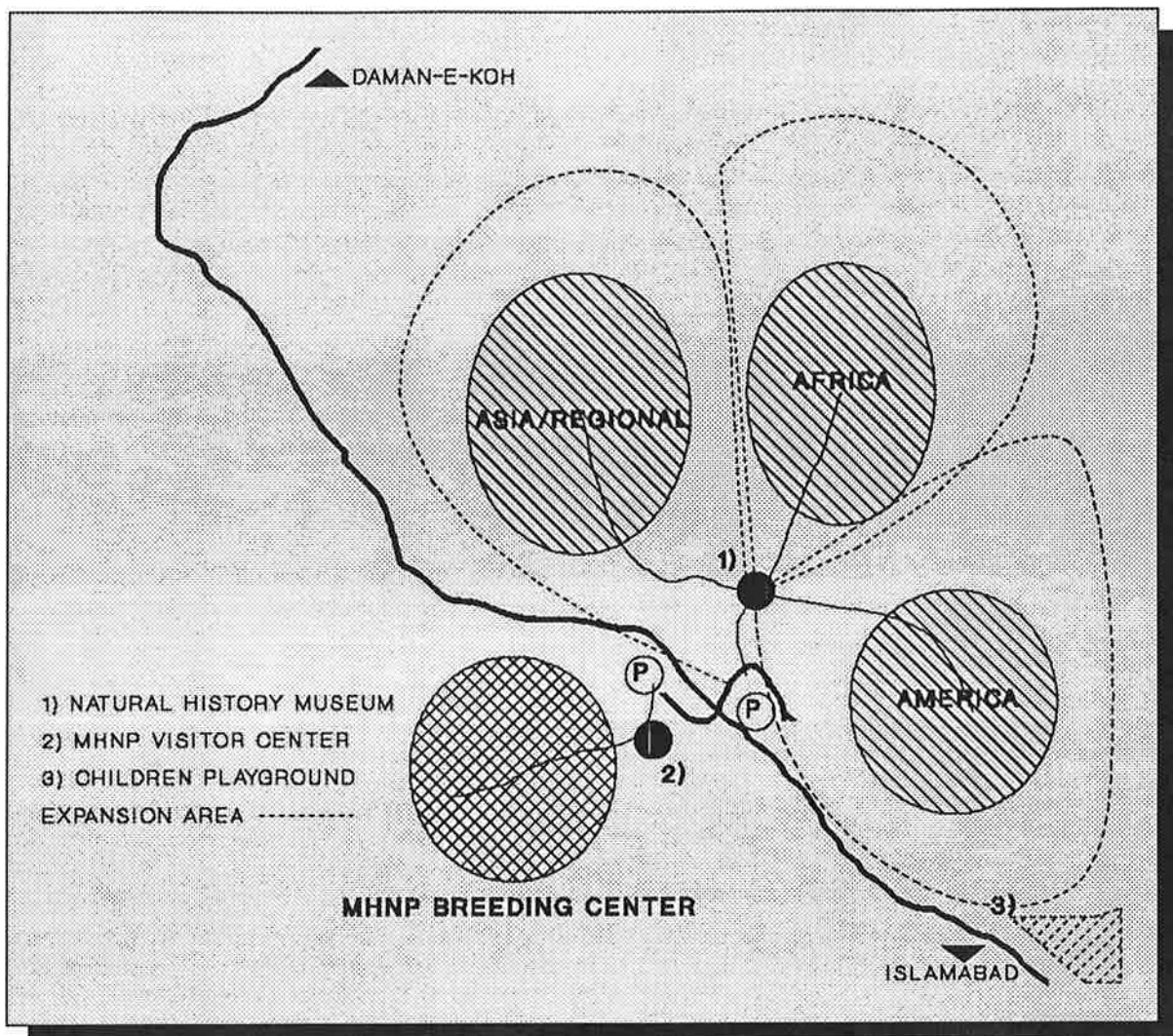
#### Proper design?

Proper enclosure design of the Zoo would demonstrate respect for the wildlife by **providing enclosures which are man-made copies of their real environment** or habitat inclusive areas of retreat.

#### Conservation education and interpretation

The most noble obligation of Zoological Gardens is to provide the visitors with information, knowledge about the wildlife on the spot where they have the possibility for first hand experience. In other words "interpretation". The habitat-like enclosures would provide the first impression of the animals. Secondly, information on distribution and status of remaining population (marked on small maps of the world), facts about the animal (height, weight, breeding patterns and offsprings etc), habitat requirements, preferred meals and how it relates to other animals, and special characteristics (e.g. how different moods are displayed in the behavior of the animal) would be given. Information would be given on the spot and could be told in more detail in a booklet which would be on sale.

Fig.2: ZONATION CONCEPT



More general conservation issues concerning the state of the environment would be located at the entrance to the different sections (e.g. the Asian/Regional, the African, the American (north and south), the European Sections) of the Zoo.

The above is regarded as the minimum of the information required. The design codes developed for the MHNP as such would be applied to all information boards and signs of the Zoo.

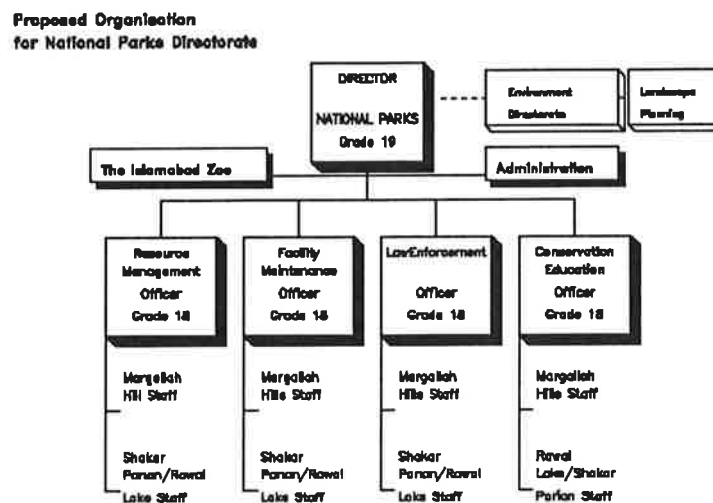
The design of enclosures, visitor flow and facilities, as well as the information to be provided would need to be developed separately by a team of professionals with special expertise in this field.

## 4. REQUIREMENTS FOR IMPLEMENTATION OF THE PLAN

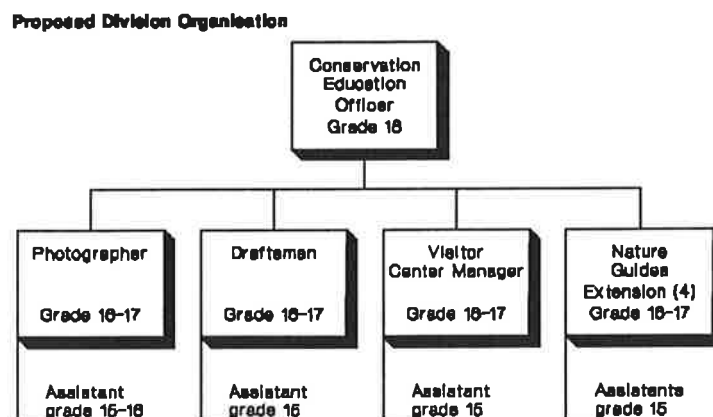
### 4.1. ORGANISATION

The successful implementation of the Programmes would depend on many factors one of which is the organisation and planning of the programmes and how they relate to other tasks of the park management. At present the organisation of work is divided into geographical areas. The proper management of the park require performance of specialized functions (resource management, law/enforcement, maintenance, and conservation education and interpretation. As the park is relatively small would each of these functions need to cover the whole park (Margallah Hills, Rawal Lake and Shakar Parian) with lower staff assigned to functional duties within these areas.

The MHNP Management Plan proposes the following organisation:



The Conservation Education and Interpretation Division would engage the following staff:



The total staff requirement would initially be about fifteen (excluding Mali-level), 2 of the nature guides/extension workers would be assigned duty in Margallah Hills, 2 others in Rawal Lake/Shakar Parian Park. The photographer, draftsman and their assistants would be assigned to the main National Park Directorate Office. Several of the Division's tasks would require good coordination between this and the other divisions such as trail surveys and improvement, research in fields of interest for conservation education etc. The overall setup of the Directorate is thus important to ease communication between the different functional divisions.

#### 4.2. STAFF

Some of the present staff members would be assigned duty with the Conservation Education and Interpretation Division. Staff engaged in conservation education need special skills, many of which is not included in the formal education at low level as well as higher level (e.g. B.Sc. Forestry). Many of the staff presently employed have been through the Middle School (class VII), few have higher degrees.

Selection of staff for functions within the division would thus be based on other criteria than formal education. Qualities such as creativity, open-mindedness, ability to cooperate, interest in working with/for people would have high priority. In short, staff need to be experienced generalists rather than specialists. In addition to this in-service training would be required.

The first step in developing the Division would be to assign a suitable candidate as Conservation Education Officer (grade 18) who would be responsible for the overall programme. Secondly, this candidate would require training either overseas or on-the job through technical assistance. The latter has the advantage that the training would relate specifically to conditions in Pakistan and would provide a consistent programme start up. During the initial phases of the establishment of the Division suitable candidates for duties within would be identified. These would receive properly designed in-service training course.

This course, of about 7 weeks duration, would give the participants an opportunity to learn about nature conservation in the Margallah Hills National Park, tools for interpretation, and extension work. It would include the following:

COURSE OUTLINE	LECTURE	PRACTICAL EXPERIENCE
Fundamental principles of conservation education (Objectives and content)	X	
Planning conservation education and interpretation programmes. (Analysis of target groups, subjects)	X	X
Conservation Education in Pakistan (Cooperation between different organisations, assistance)	X	(X)
Extension planning and implementation	X	X
Interpretation planning and implementation (Guided tours/Talks)	X	X
Special facilities (Visitor Center, trails, demonstration areas, education centers)	(X)	X
Techniques appropriate for presentation of education materials. (Audio Visuals, photographic techniques, graphic design and printing, sound recording, photo selection and photo librarianship)	(X)	X
Study/field visits (to other national parks)		X
Individual projects (each participant would complete a small project which relates to a real situation e.g. give a talk/slide show on the history of Nurpur)		X
Evaluation of materials and activities (methods of evaluations, evaluation of own projects)	X	X
X = primary method of teaching (X) = secondary method of teaching		

More general in-service training in visitor communication on top of other required training is needed for the staff employed in the other divisions of the proposed National Parks Directorate. This because they often will have informal contact with visitors and therefore must be proficient in general issues about the park.

#### 4.3. TECHNICAL AND FINANCIAL SUPPORT

Being a completely new setup within the present structure of CDA it is inevitable that the division initially would require a large budget. It may therefore be necessary to investigate possibilities for financial and/or technical support for the initial phases of the project or for specific material development, the Visitor Center etc.

Once the major infrastructural and programme developments have taken place a yearly allocation for on-going programmes and maintenance would be the responsibility of CDA.

The work plans (Chart 3-5) outline the needs for technical support, consultancies, for development of specific tasks such as architectural design, site plans, certain conservation education materials and the in-service training course. Not all consultancies would be required from outside the government. For example:

- Site planning: The Landscape Planning Directorate
- Exhibit production: The Natural History Museum

Other activities would require external local consultancies such as the production of AV/materials, booklets, and the design of the Visitor Center where emphasis would be on applying vernacular tradition.

On-going technical support to the setup of the programme (e.g. counterpart to the Conservation Education Officer) may be necessary to consolidate and/or develop new programmes until staff have gained sufficient experience and confidence to carry out the programmes.

Technical support can be sought through a number of national or international organisations, notably WWF-Pakistan (technical assistance and project funding), IUCN (technical assistance in all matters related to the programmes), UNDP (technical assistance, project funding), UNESCO (technical and financial assistance), bi-lateral donors (technical assistance and project funding), as well as local organisations like Margallah Hills Society (voluntary and technical assistance).

For this reason it is important to plan and describe programmes in detail for the development of **resource support proposals**, on broad or specific subjects, to agencies and conservation supporters in donor countries.

ANNEXES



## IUCN - THE WORLD CONSERVATION UNION

TERMS OF REFERENCE  
FOR  
INTERPRETATION CONSULTANT

## SUPPORT FOR EFFECTIVE MANAGEMENT OF MARGALLAH HILLS NATIONAL PARK

## PAKISTAN

1. Under the supervision of the Team Leader, the Interpretation Consultant will perform the following tasks:
  - 1.1. Assist the Team Leader in developing a management plan for Margallah Hills National Park and its buffer zone as a basic document for more effective management of the area.
  - 1.2. Prepare an interpretation programme for the park and drafts of suitable material (brochures, posters, site plans for education centres, nature trails, etc.).
  - 1.3. Assist the Team Leader in preparing and conducting the workshop, preparing the final draft plan, as well as the training and education materials.
2. Workplan:

The Consultant will conduct the project from <sup>16th</sup> ~~15th~~ August to <sup>17th</sup> ~~18th~~ September, 1991.
3. Outputs:

In consultation with the Team Leader prepare a comprehensive report which should be submitted to IUCN before 30th September 1991.

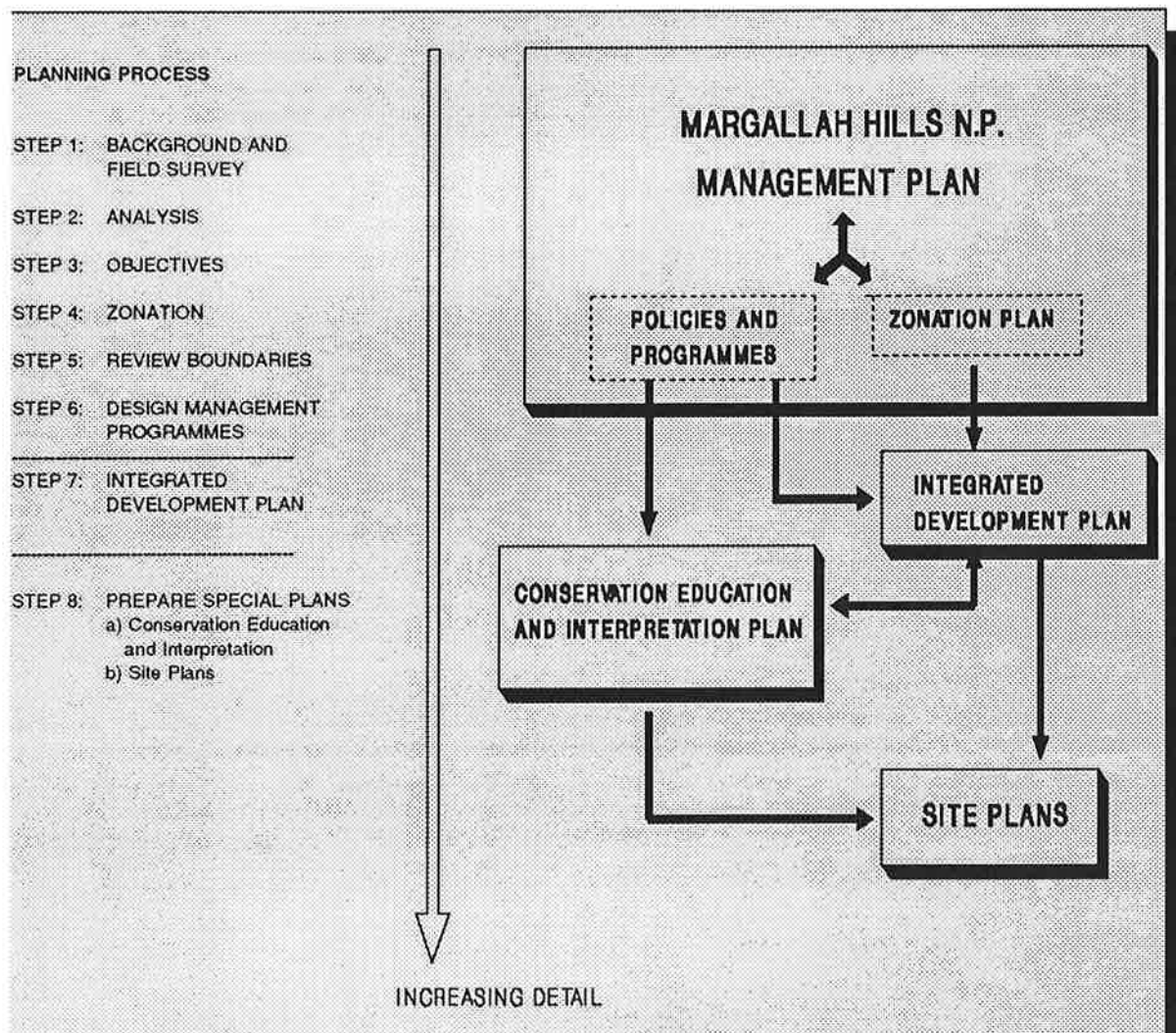
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## ANNEX 2

### The Planning Process

The following chart illustrates in brief the overall process of management and development planning 26) for Margallah Hills National Park. Furthermore, the different sequences indicates the procedure in relation to decision making:



26) Adopted from MANAGING PROTECTED AREAS IN THE TROPICS, IUCN/UNEP, 1986

**ANNEX 3**  
**WORK PROGRAMME AND MEETINGS FOR**  
**CONSERVATION EDUCATION & INTERPRETATION PLANNING**

<u>DATE</u>	<u>ACTIVITY</u>	<u>MEET WITH</u>	<u>TIMING</u>
16/8 Friday	Travel		
17/8 Saturday	Arrival Karachi	Ms. Aban Kabraji, IUCN Mr. Latif Rao, Ministry of Food & Agriculture	10.00 pm
18/8 Sunday	Brief on files Flight to Islamabad  Brief on progress	IUCN Office Karachi Mr. Dan Taylor, IUCN Cons., MHNP, Management Planning	9.00 am 5.00 pm
19/8 Monday	Field trip up Pir Sohawa Daman-E-Koh, The Zoo	Mr. Dan Taylor Park Staff	9.00 am 2.00 pm
20/8 Tuesday	Field trip to Taxila Shah Allah Ditta Stone crushers/quarries	Mr. Dan Taylor Mr. Shehzad, IUCN Officer Villagers	9.00 am
21/8 Wednesday	Information on vegetation Ecology  Conservation Ed. Programme  Field trip to Lake Rawal/ Islamabad Park	Dr. Rubina Akhter Dr. Pervaiz Naim  Dr. B. Mirza	9.30 am  1.00 pm
22/8 Thursday	Field trip Rawal lake/ Urban encroachments  Information on development Maps  Discussion on MHNP planning	Mr. Dusan Botka/UNDP Master Plan Planning Cell  Dept. Director Mazha Hussein	9.00 am  1.00 pm 3.30 pm
23/8 Friday	Population survey of the Park  Draft writing	Dept. Director Mazha Hussein	10.00 am
24/8 Saturday	Discussion on MHNP planning  Discussion on MHNP planning findings and Work Plan, mv	Mr. Abeeddullah Jan  Mr. Latif Rao, Dan Taylor	9.30 am 12.00 am
25/8 Sunday	Map of Rare plants Checklists on plants Recommendations for Interpretation  Recommendations for Interpretation, Culture, History of the Area	Dr. Nazeer Chaudhri  Mr. Uxi Mufti	9.00 am 11.30 am

<u>DATE</u>	<u>ACTIVITY</u>	<u>MEET WITH</u>	<u>TIMING</u>
	Maps, Architecture? Zonation?	The Planning Cell, Mr. Botka	1.00 pm
	Presentation of Ideas/Progress UNDP intentions	UNDP. Ms. Fatma, Progr.Off.	2.00 pm
	Existing programmes of C.E Existing materials/AV/Films Interpretation and geology Writing of draft report	Ms. Jahar Ara, WWF, Ed.Off. Mr. Wasim Zuberi	3.30 am 6.00 pm Evening
26/8 Monday	Field trip to un-acquired lands land/village; road around in eastern sector; hike back Writing of draft report	Dan Taylor IUCN Officer Jamil Villagers	All day trip  Evening
27/8 Tuesday	Meeting and MP discussion	Dr.S.Azhar Maqsood Rangeland Research Inst.	9.00 am
	Interpretation in the Natural History Museum, Ideas,  Writing of draft report	Mr. Azhar Hassan	10.00 am  Evening
28/8 Wednesday	Presentation of the Master Plan for Islamabad Area	Mr. Botka CDA, Planning Cell CDA Chairman	12.30 am
	Team discussion of subjects	Dr. L.Rao, Mr.D.Taylor	3.30 pm
	Search for relevant books	Asian Study Group Libr.	5.00- 6.00 pm
	Dinner in honor of Mr.Botka,	CDA, Chairman	7.30 pm
29/8 Thursday	Team discussion	Mr.Dan Taylor, Dr.L.Rao	9.30 am
	Map search, zonation	Planning Cell, CDA	12.00 am
	Visit to Rawalpindi	Family of Abdul Gajul	4.00 pm
	Draft writing		
29-31/9	Draft writing		
1/9 Sunday	Briefing/discussion of MHNP	Presidential Advisor, Roedad Khan Director forests Abeerullah Jan, Team	10.00 am
	Draft writing		
	Perception of the Management Planning, Staff roles	Staff of the Park	5.00 pm onwards

<u>DATE</u>	<u>ACTIVITY</u>	<u>MEET WITH</u>	<u>TIMING</u>
2/9 Monday	Draft writing Discussion on Management and	Mr. Khurshid Najam, WWF Lahore	2.00- 4.00 pm
3/9 Tuesday	Review of Conservation Ed. Preliminary design of pamphlet Draft writing	Mr. Suhail Ahmad Ghazi Range Officer, E.D./CDA	9.00 am- 3.00 pm
4/9 Wednesday	Draft discussion/development Pamphlet/brochure design	Mr. Suhail Ghazi Range Officer, E.D./CDA	9.00 am 4.00 pm
5/9 Thursday	Draft writing Pamphlet/brochure	Mr. Suhail Ghazi	
6/9 Friday	Draft writing		
7/9 Saturday	Progress discussion	Mr. Nasir Dogar, IUCN Karachi	10.00 am 11.00 am
8/9 Sunday	Draft writing Pamphlet/brochure	Mr. Suhail Ghazi	
9/9 Monday	Draft writing Team meeting Organisation of staff	Mr. Latif Rao Mr. Dan Taylor, IUCN	2.00 pm 4.00 pm
10/9 Tuesday	<b>CE&amp;I PLAN Draft finished for distribution</b> MHNP discussion	Ms Fatma Shah, UNDP Mr.M.Brown, UNDP/UNCHS Mr. Dan Taylor,Mr. Latif Rao	8.30 am 10.15 am
10/9 cont. Tuesday	Discussion MHNP politics Pamphlet/brochure	Deputy Director, Planning Directorate and team Mr. Suhail Ghazi	10.30 am 2.30 pm 4.00 pm
11/9 Wednesday (Holiday)	Design and content of brochure Distribute copies of CED&INT Plan Discussion on Education	Mr. Suhail Ghazi Ms. Sabiha Daudi,IUCN, Karachi Mr. Dave Ebbutt, IUCN Consultant	9.00 am 6.30 pm
12/9 Thursday	Design and content of brochure	Mr. Suhail Ghazi	10.00 am
13/9 Friday	Design and content of brochure Preparation of presentation	Mr. Suhail Ghazi	10.00 am
14/9 Saturday	Presentation and discussion of Conservation Education and Interpretation Plan	Chair: Roedad Khan List of participants is found in Annex 3a	11.00 am 1.00 pm
15/9 Sunday	Presentation/discussion of CE&INT Plan	Ms. Fatima Shah, UNDP	2.00 pm 3.00 pm

<u>DATE</u>	<u>ACTIVITY</u>	<u>MEET WITH</u>	<u>TIMING</u>
16/9 Monday	Departure from Islamabad Arrival Karachi Meeting IUCN	Ms. Aban Kabraji Mr. Nasir Dogar	9.00 am 12.00 am
	Departure Karachi/Moscow Arrival Moscow		8.00 am
17/9 Tuesday	Departure Moscow Arrival Copenhagen		10.00 am

### ANNEX 3a

**LIST OF PARTICIPANTS IN THE PRESENTATION MEETING  
ON SEPTEMBER 14, 1991,  
The Committee Room of the Cabinet Division  
Conservation Education & Interpretation Plan**

<u>INVITED</u>	<u>ATTENDED/REMARKS</u>
Mr. Roedad Khan	Chairman of the Meeting
<b>CDA:</b>	
Mr. Fariduddin Ahmad, Chairman	Last minute cancellation due to another important meeting
Mr. Anwar Said, D.G. (Design)	Yes
Mr. Maqbool Elahi, D.D.G. (Planning)	Attended by Mr. Shafiq Ali Siddiqui, Director Regional Planning on his behalf.
Mr. Haider Waseem, D.D. (Planning)	Yes
Mr. Rashid M. Randhawa, D.G.(Environment)	Yes
Mr. M. Rafiq Khattak, Director Environment	Ill
Mr. Muzhar Hussain, D.Director Environment	Yes
Mr. Sheikh Abdul Qadir, Chief Landscape Arch.	Yes
<b>UNDP:</b>	
Resident Representative/Deputy Res.Rep.	No
Ms. Fatima Shah, Programme Officer	No
<b>FOREST DEPARTMENT PUNJAB:</b>	
Mr. I.A. Qazi, CCF	Yes
<b>MURREE KAHOTA DEVELOPMENT AUTHORITY (MKDA):</b>	
Brig. Mohammad Taj, Director General	Yes
Mr. Rana Mohammad Masood, Cons. of Forest	No out of station
<b>NWFP:</b>	
Mr. Yar Mohammad, Chief Cons.of Forest	Attended by Mr. Mohammad Mumtaz Malik, Conservator (Wildlife) on his behalf.
<b>WWF-PAKISTAN:</b>	
Mrs. Jehan Ara Moeen, Senior Ed.Officer	In Geneva
<b>MARGALLAH HILLS SOCIETY:</b>	
Mr. Waseem A. Zubari	Yes
<b>LOK VIRSA:</b>	
Mr. Uxi Mufti, Executive Director	No
<b>MINFA:</b>	
Mr. Abeedullah Jan IGF/ Rana Rafiq Ahmad (DIGF)	Mr. Jan out to Australia
Mr. Kalimullah Shirazi, Dept.Director Wildlife	Yes
<b>INDIVIDUAL EXPERTS:</b>	
Mr. Z.B.Mirza (WWF-Pakistan)	Yes
<b>IUCN AND MANAGEMENT PLANNING TEAM:</b>	
Mrs. Aban Marker Kabraji, Country Rep.	Yes
Mr. Dan Taylor, Consultant	Yes
Mr. Abdul Latif Rao, Consultant	Yes
Ms. Mette Hendrich Junkov, Consultant	Yes

