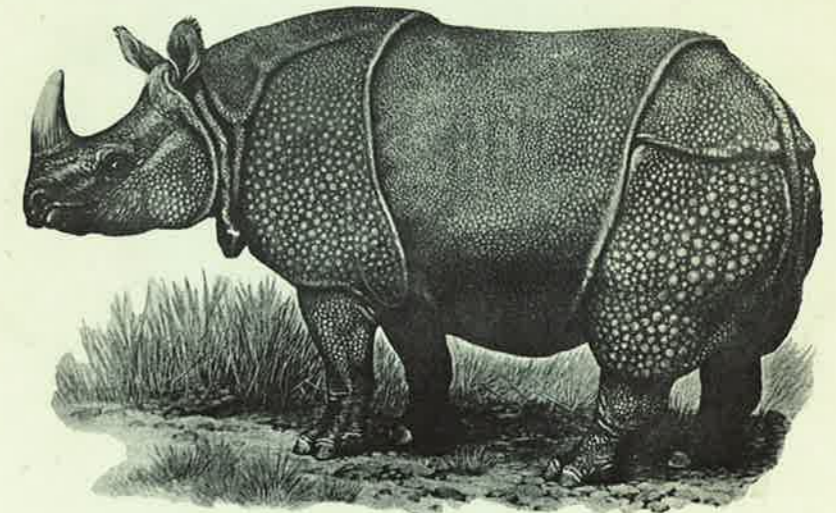


NATURE CONSERVATION  
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TABLE OF CONTENTS

THE WORLD WILDLIFE FUND

# " NATURE CONSERVATION IN NEPAL "

An Introduction to the National Parks and Wildlife  
Conservation Programme of His Majesty's Government

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HEMANTA R. MISHRA  
National Parks and Wildlife  
Conservation Office  
Kathmandu  
1974

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# TABLE OF CONTENTS

	Page
PREFACE .....	iii
SUMMARY .....	v
BACKGROUND INFORMATION .....	1
Introduction .....	1
Institutional Framework .....	2
External Assistance to Date .....	3
The HMG/UNDP/FAO National Parks and Wildlife Conservation Project .....	3
Assistance From Volunteer Agencies .....	5
The Proposed HMG/New Zealand Bilateral Cooperation on Sagarmatha (Mt. Everest) National Park .....	5
Conservation Education and Publicity .....	5
Research .....	7
Legislation .....	7
PLAN OF OPERATION .....	8
Long-term Objectives .....	8
Immediate Objectives .....	8
MAN POWER REQUIREMENTS .....	10
National Staff .....	10
Training of Personnel .....	12
FINANCIAL REQUIREMENTS .....	14
Basic Requirements .....	14
Fellowships and Training Costs .....	16
Land Acquisition Evaluation .....	16
Additional Requirements .....	18
CONCLUSION .....	18
References .....	18

## PREFACE

The creation and management of National Parks and Wildlife Reserves is a particularly difficult task for a developing nation like Nepal where economic growth and technological progress must necessarily be given priority in the allocation of limited financial resources. Environmental preservation is no less essential, but it is more difficult to justify. Nepal is proud that she has been able to achieve significant success in the field of natural preservation through the cooperation of His Majesty's Government with various assisting agencies and organizations. It is hoped that the future will hold more such cooperative ventures enabling the Kingdom's share of the World heritage of unique natural places and living things to be protected for future generations.

The National Parks and Wildlife Conservation Office is immediately responsible for the creation, protection and administration of specific proposed parks and reserves. It is hoped, however, that the model of environmental protection and ecological preservation being developed by the National Parks and Wildlife Conservation Office can have wider application throughout Nepal. It is amply evident that the effects of careless or faulty environmental management may be far reaching. Conversely, the Parks Office believes good ecology can be good economics both within the parks and reserves and elsewhere throughout the Kingdom of Nepal.

While at present funds and staff do not permit investigation and development of regional programs in connection with the the establishment of proposed parks and reserves, it is felt this broader context may be a key factor in the successful administration of the strictly protected areas. Economic integration of local populations into the broad management of protected areas is the best way to assure the necessary local support for this undertaking. The National Parks and Wildlife Conservation Office is seeking means by which the relatively poor local people can obtain sustaining benefit from the protected areas. Strict interpretation of preservation philosophy, at present, does little to engender genuine support or enthusiasm for the creation of National Parks and Wildlife Reserves.

This document is based on the field experience of the writer and a literature survey of existing reports of the National Parks and Wildlife Conservation Office of HMG, Ministry of Forests and the UNDP/FAO. A list of these reports is given under REFERENCES following the conclusion.

I wish to acknowledge the assistance of Messrs. Rabi Bista and Will Weber of the National Parks and Wildlife Conservation Office for their help and constructive criticism in preparing this report.

While I acknowledge the assistance of the above individuals and have listed the technical reports consulted in reaching the conclusions outlined, any error of fact or interpretation of facts is my own.

KATHMANDU, September, 1974.

Hemanta R. Mishra  
Ecologist, National Parks  
And Wildlife Conservation  
Office, HMG of Nepal.

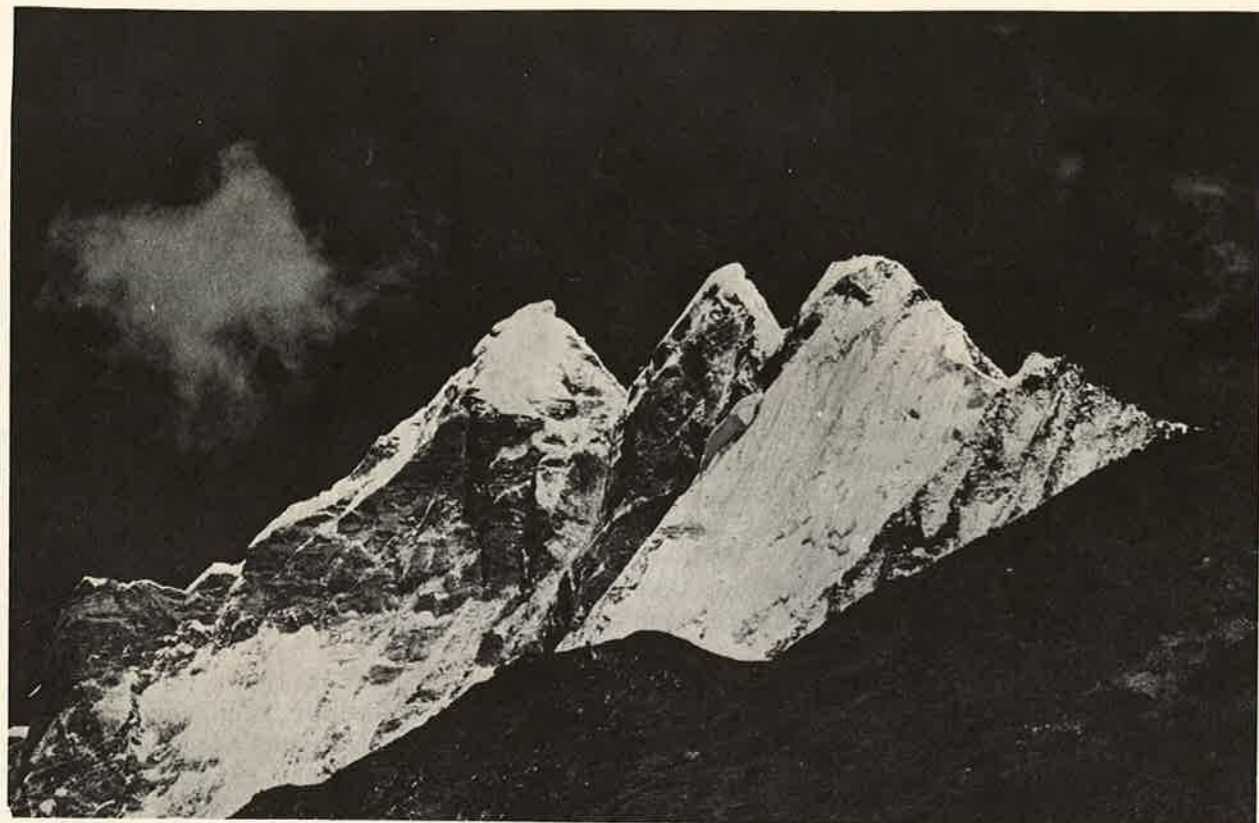
## SUMMARY

The Kingdom of Nepal displays a unique ecological spectrum by virtue of its geographical location and altitudinal variation from 300 ft. to the highest point on earth.

Despite its obvious ecological importance, the natural environment of Nepal both in the lowland terai and highland Himalayas is rapidly disappearing. To insure that wilderness areas are preserved, His Majesty's Government has established the National Parks and Wildlife Conservation Office. This Office is responsible for formulating and implementing the country's conservation schemes. This office is also receiving technical and financial assistance from international organizations like the United Nations Food and Agriculture Organization, The World Wildlife Fund and the U.S. Peace Corps.

About 481 national staff and an estimated total of at least 50 man-years overseas training will be required to fulfill the man-power requirements in accordance with the Five-Year Plan. The estimated cash input required for the period of the Five-Year Plan (July, 1975-July, 1980) amounts to Rs. 88,516,000 (approx. US \$8,222,000). This is excluding projects suggested under additional needs.

Since this amount is gigantic for HMG to bear on its own, it is suggested international assistance be sought for various aspects of the overall development program.



PROPOSED NATIONAL PARKS of Nepal contain some of the world's most spectacular mountain scenery. This triple peak is in Langtang National Park.

## NEPAL PROPOSED NATIONAL PARKS AND WILDLIFE RESERVES



Four National Parks and five wildlife reserves are planned for the Kingdom of Nepal to preserve some of the unique floral, faunal and scenic features of the Nation.

## Background Information

### Introduction

Though relatively limited in area, Nepal, by virtue of its geographical location and great altitudinal range, (from 300 to 29,000 ft.) displays an ecological spectrum of unique variety. In a distance of less than 100 miles one can travel from the sub-tropical forests of the terai to the sparse alpine vegetation of the Himalayas and the southern fringes of the great Central Asian Plateau. Between these extremes one may find numerous vegetational types from the great sal (*Shorea robusta*) forests of the south to the pine, oak and rhododendron of the intermediate altitudes, the birch, silver fir and hemlock of the higher valleys, and the bare, treeless steppes of the trans-Himalayan region in the extreme north.

The rolling, densely-forested hills and broad 'dun' valleys of the terai were formerly renowned for the abundance and variety of their wildlife, and though now being rapidly depleted as a result of agricultural settlement, deforestation, poaching and other causes, this part of Nepal can probably still boast a more varied fauna than almost any other area in Asia. Mammal species include elephant, rhinoceros, gaur, buffalo, tiger, leopard, clouded leopard, sloth bear, Himalayan bear and no less than five different members of the deer family, in addition to the ubiquitous wild boar, monkeys and other small mammals, reptiles and birds.

In the Himalayas there are bear, serow, goral, Himalayan Tahr, musk deer, two species of wild sheep, snow leopard, red panda and other mammals, in addition to brilliantly plumaged pheasants (eight species) and other rare and ecologically unique fauna. Botanically the Himalayas are of major importance as the source of a wide variety of endemic plants, including spectacularly colourful rhododendrons, magnolias, orchids and other species which are the progenitors of many well known horticultural plants.

Despite the obvious ecological importance of the unique fauna and flora of Nepal, it is fast-disappearing as a result of poaching, deforestation, over-grazing and other harmful influences.

If present trends continue, much of it will soon be irredeemably lost. The great Indian one-horned rhinoceros of the terai has been reduced from 800 to about 200 in the past 20 years. Wild buffalo in Nepal do not now number more than 40, and elephant not more than 30. Even the tiger, once abundant in the sub-tropical forests of the south, has been so reduced by hunting and habitat destruction that the total population probably does not exceed 100. Similarly in the Himalayas the snow leopard, great Tibetan sheep (*Ovis ammon hodgsoni*) and musk deer are now in imminent danger of extinction, while the delicate flora of many areas is also similarly threatened.

Though the loss of irreplaceable forests and the wildlife which they support is a tragedy in itself, this is by no means the only consideration. There can be few other regions in the world where conservation of the natural environment is of more crucial importance to mankind, nor where its destruction will produce more disastrous repercussions. Yet the areas of deforested mountain sides in the high Himalayan valleys increases rapidly year by year, and with it the landslides, soil erosion, floods, loss of soil fertility, silting of dams and other calamitous but readily predictable results. National Parks and Reserves cannot alone solve this vast problem, but they can at least ensure the protection of significant examples of the major ecosystems, and at the same time provide a valuable demonstration in environmental management.

Flora and fauna comprise an important part of Nepal's national culture and heritage. They are also of scientific, educational and recreational value to mankind as a whole. These reasons alone justify the creation of National Parks and Reserves and other measures necessary to ensure their conservation so that they may be handed on to future generations. However, an even more urgent and practical reason for taking action now, before it is too late, lies in Nepal's growing economic dependence on the tourist industry. Unfortunately she has few exports which can attract much needed foreign exchange, but she does have unrivalled mountain scenery, wildlife and a spectacular variety of flowering plants which already attract tourists and can, if properly safeguarded, attract very many more in the future.

National Parks can play a major role in the expansion of Nepal's economically-important tourist industry as they have in Africa, North America and elsewhere. However, time is running out. If the National Parks and Wildlife Conservation Programme now planned is to succeed, external support through the provision of technical and financial assistance must be made available in the very near future, both in the planning and development of National Parks and Reserves and in providing the infrastructure necessary for their effective management.

### Institutional Framework

Wildlife conservation in Nepal has hitherto been the responsibility of the Forest Department, though its effectiveness in this field has been severely limited through lack of funds and trained personnel, and since its preoccupation with forestry and timber production has allowed little time for wildlife management problems. Consequently the Department's activities in the past in this direction has been restricted largely to the issue of hunting licences, the control of hunting in Forest Reserves, the declaration of certain Royal Hunting Reserves, and Sanctuaries wherein wildlife has been subject to varying degrees of protection.

In 1970 three qualified Forest Officers were assigned to wildlife management duties providing the nucleus of a new National Parks and Wildlife Conservation Section which was subsequently established in 1972.

The "section" was elevated to the status of an "office" in 1973 the following number and additional posts were allocated. This "office" is specifically responsible for implementing National Parks and Wildlife Conservation works in the Kingdom. The Office is staffed as follows:-

H.Q. Kathmandu:- 16 (including 5 Gazetted Officers)

Royal Chitwan National Park:- 152 (including one Gazetted Officer and 138 armed guards)

Langtang National Park:- 49 (including one Gazetted Officer and 33 guards)

The Headquarters of the National Parks and Wildlife Conservation Office in Kathmandu is divided into subunits:-

- a. Administrative
- b. Conservation Education and Publicity
- c. Ecological Survey
- d. Licencing, Shikar (Hunting) and Law Enforcement
- e. National Parks and Reserves

It is intended that this office should be expanded into a separate Department under the HMG Ministry of Forest in the near future.

### External Assistance to Date

At the request of His Majesty's Government a wildlife biologist was provided in 1968 for one year under the UNDP/FAO/ST Trisuli Watershed Development Project to undertake an initial assessment of wildlife conservation problems in Nepal. As a follow-up on this work a wildlife management advisor to Government was appointed in 1970 on a UNDP/FAO/TA assignment for two (later extended to three) years.

A donation of US\$15,140 was received in 1971 from the World Wildlife Fund towards the cost of developing the Chitwan National Park and a further sum of US\$132,000 has been requested for the period 1974-75 for equipment and construction of the infrastructures in the Royal Chitwan National Park, the Royal Karnali Wildlife Reserve and the Royal Sukla Phanta Wildlife Reserve and for conservation education and publicity.

### National Parks and Wildlife Conservation Project

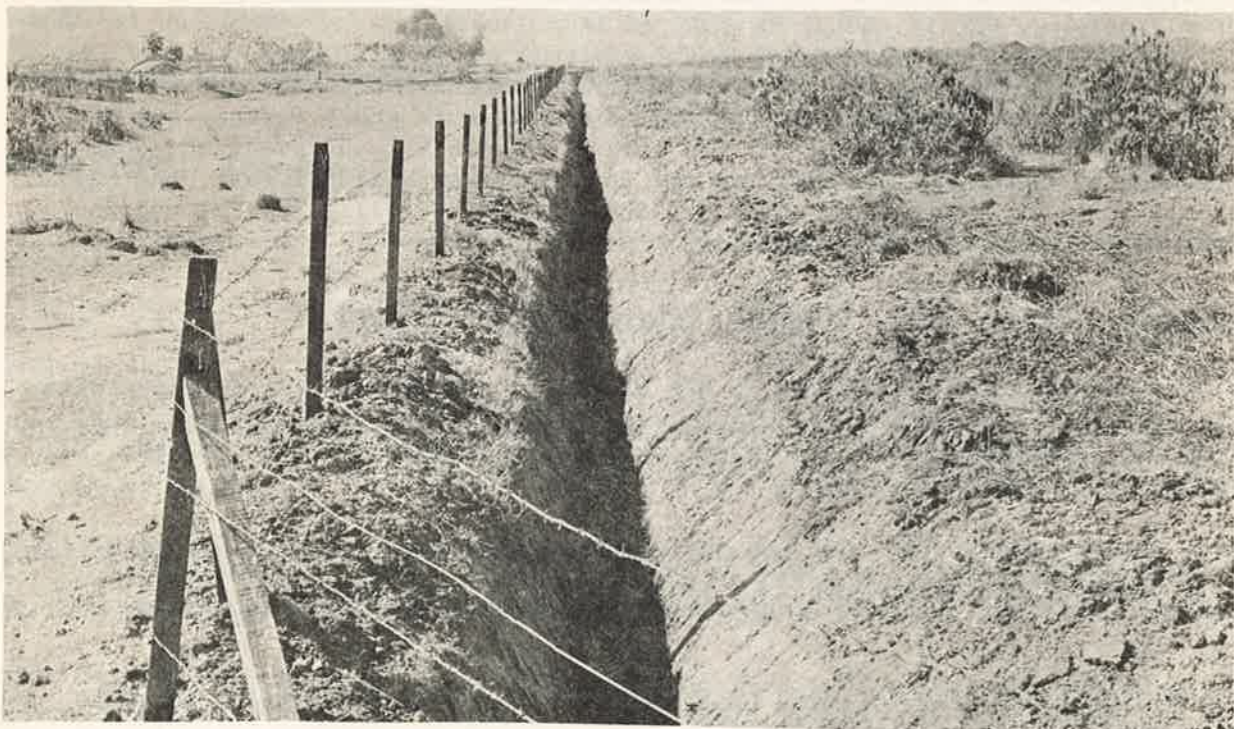
To make conservation management of the country's valuable but diminishing wildlife resources more effective, His Majesty's Government initiated a National Parks and Wildlife Conservation Project in collaboration with the United Nations Development Programme in 1973.

Under the agreement, the Food and Agriculture Organisation of the United Nations provided three experts and a consultant to assist His Majesty's Government National Parks and Wildlife Conservation Office with various conservation activities.

In addition to the experts, the UNDP/HMG/FAO Project has provisions for two fellowships (24 m/m) each for post graduate courses at overseas universities,



INTERNATIONAL Cooperation has played a major role in the success of National Parks and Wildlife Reserves in Nepal thus far. More such cooperative efforts are necessary if the Kingdom is to meet its environmental preservation goals. Here Prince Bernhard of the Netherlands, Chairman of the World Wildlife Fund meets His Royal Highness Prince Gyanendra of Nepal at the Third World Wildlife Congress in Bonn in 1973.



RHINO FENCE in Chitwan National Park helps to keep the One-horned Rhinoceros in and the domestic animals out of Nepal's first National Park. The fence was constructed as the result of a grant made available through the World Wildlife Fund.

and four fellowships for graduate studies and training, in addition to the purchase of equipment that is necessary for the project.

The duration of the Project is 3½ years.

### Assistance From Volunteer Agencies

The U.S. Peace Corps and the Swiss Association for Technical Assistance have each provided volunteers to help in the development of Nepal's National Parks and Wildlife Reserves.

An ecologist Peace Corps Volunteer is currently carrying out ecological survey work in the proposed park areas while a Peace Corps conservation education specialist is working in the education and publicity section of the Office. Further involvement of U.S. Peace Corps personnel for education and ecological survey work is being considered.

A Swiss volunteer has worked as an architect designing park buildings for Langtang National Park.

### The Proposed HMG/New Zealand Project for Mt. Everest

His Majesty's Government is negotiating with the Government for bilateral cooperation for the establishment and development of the Sagarmatha (Mt. Everest) National Park.

It is envisaged the HMG/NEWZEALAND Project initially shall be of three years duration with a possibility of extension. The New Zealand Government's contribution amounts to about US\$350,000 for the first three years.

This sum includes provision for two New Zealand experts, fellowships and capital expenditures required. HMG in-puts will cover the costs of staffing and local expenditure.

### Conservation Education and Publicity

As it has been emphasised often, particularly by His Royal Highness Prince Gyanendra, conservation works in Nepal can make little progress unless a conservation education and publicity scheme is launched. The scheme primarily should be directed to make the local people aware of the value of their natural environment.

Since this year (1974), the National Parks and Wildlife Conservation Office has established a conservation education and publicity unit.

This unit conducts a publicity programme in cooperation with news media, journalists and Radio Nepal.

The education programme has also included publications of booklets, initiation of essay contests, film shows and other activities aiming to use the mass media



CONSERVATION EDUCATION is considered an essential part of the overall program of the National Parks and Wildlife Conservation Office. Education and publicity efforts are addressed to a wide variety of audiences, from local villagers to students to national political officials.



ECOLOGICAL RESEARCH is an important aspect of environmental preservation efforts. In Chitwan National Park ecologists have been using radio tracking techniques on animals like this leopard to determine facts on their home range, movements and behaviour. The research is being sponsored by the Smithsonian Institute of the United States.

to acquaint the nation with the country's conservation and environmental requirements and problems.

The National Parks and Wildlife Conservation Office is also working in close collaboration with the Tribhuvan University to introduce the teaching of ecology into the curriculum, with the Hetauda Forestry Institute which is working to establish a wildlife management programme and with the Nepal Nature Conservation Society.

The conservation education section expects to enlarge its sphere of activity to include extension education programmes in critical wildlife areas.

### Research

As in most developing countries, scientific research leading to the formulation of sound management plans is lacking due to a shortage of funds and trained personnel.

Thus His Majesty's Government of Nepal encourages research schemes originating from external sources provided the findings are shared and the research is consistent with Nepal's conservation activities.

Three major studies are presently being undertaken in collaboration with investigators from the Smithsonian Institution (U.S.A.), Michigan State University (U.S.A.) and Cambridge University (U.K.).

Other research proposals are also being considered.

### Legislation

With the august blessing of His Majesty the King, and on recommendations of the Rastriya Panchayat, the Kingdom's conservation programme was given a legal status in 1973 by implementing a new National Parks and Wildlife Conservation Act (2029).

The Royal Chitwan National Park has been gazetted (1973) and under the provision of the Act, the "Royal Chitwan National Parks Regulation" have also been introduced.

In addition to the above, the "National Parks and Wildlife Conservation Regulations (2030)" have also been introduced to regulate hunting, and restrict export, import and trade in wild animals. In fact, the provisions made in this regulation is almost identical to the IUCN sponsored convention on Trade in Endangered Species of Wild Fauna and Flora.

It is intended that separate regulations and by laws will be issued for each of the National Parks and Reserves to meet local conditions and requirements.



## Plan of Operation

This section briefly illustrates the objective and plan of operation for the period between 1974-1980.

### Long-term Objectives

The aim of the Project is to ensure effective conservation and management of the country's valuable but fast diminishing wildlife resources and their habitats, and to establish National Parks and Reserves which, in addition to their conservation role, will be able to play a valuable part in the development of Nepal's growing and economically important wilderness-oriented tourism industry without destruction of the country's natural environment.

### Immediate Objectives

Expansion of the present National Parks and Wildlife Conservation Section of the Forest Department into a separate fully-autonomous department with direct responsibility for the development and administration of National Parks and Reserves and for the management of wildlife resources throughout Nepal.

Introduction and implementation of the new basic legislation already prepared and of the subsidiary regulations necessary for its effective administration, including the gazettment of National Parks and the Reserves and the promulgation of appropriate laws pertaining thereto.

Establishment of the following National Parks and Wildlife Reserves, including demarcation of boundaries, recruitment of field staff and the preparation of management plans.

Royal Chitwan National Park:— an area of approximately 210 square miles in the terai which comprises the last remaining habitat of the Indian one-horned rhinoceros in Nepal and also includes tiger and a wide variety of other species. Readily accessible from Kathmandu both by road and by air, Chitwan is already one of the country's most popular tourist attractions and the development of additional visitor facilities are planned. The Royal Chitwan National Park was gazetted in 1973.

Langtang National Park:— an extensive tract of scenically spectacular mountainous country in the Himalayas some 40 miles north of Kathmandu. Conservation measures in Langtang are urgently needed both to safeguard vanishing flora and fauna and for the protection of important watersheds and river catchments. The area has considerable tourist potential.

Sagarmatha (Mt. Everest) National Park:— an area to include Mount Everest (Sagarmatha), several other major peaks and the headwaters of the

Dudh Khosi and Imja Khola. The area is of special importance in ensuring the protection and proper management of a region of unique significance to mankind and to guard against its undesirable exploitation. This could become one of the world's most famous National Parks. His Majesty's Government is negotiating with the New Zealand Government on bilateral cooperation for the development of this Park.

Lake Rara National Park:— a small mountain Park in area, which would include Lake Rara, Nepal's largest lake, and its heavily-forested catchment area, together with a part of the Chuchamara Dara Hills to the south. Situated at between 9,000-15,000 ft. amid scenically superb surroundings, this National Park would provide an ideal focus for tourism in northwest Nepal, and at the same time provide an opportunity to safeguard valuable fast diminishing forests of this region together with their wildlife.

Sukla Phanta Wildlife Reserve:— an area of approximately 60 square miles in the western terai which includes the only surviving population of swamp deer (Cervus duvauceli) in Nepal, in addition to tiger and other species.

Karnali Wildlife Reserve:— a former Royal Shikar Reserve on the east bank of the Karnali River, in the terai, which is of particular importance as a habitat for tiger and a variety of other wildlife.

Tappu Wildlife Reserve:— a small area in the eastern terai which includes Nepal's last surviving population of wild buffalo (Bubalus bubalis), now reduced to a total of some 40 animals. One of the long-range objectives of this Reserve would be to build up a healthy breeding population of buffalo in Tappu on which to base restocking operations in other areas.

Shey Wildlife Reserve:— an area in the trans-Himalayan region of Dolpo, in northwest Nepal, where there are unusually large numbers of Blue Sheep (Pseudois nayaur) in addition to other typically Himalayan fauna and flora. It also includes the famous Lake Phuksundo and the Kanjiroba Himal.

Narayani Wildlife Reserve:— a small reserve adjoining the western boundary of the Chitwan National Park which would serve as a buffer-zone to the Park and provide protection for the small remnant population of rhinoceros on the north bank of the Narayani River.

Surveys to identify other areas where special conservation measures may be necessary or desirable, including the possible establishment of strict Nature Reserves in certain regions of unusual ecological interest and the creation, where appropriate, of Hunting Reserves to be managed for purposes of sport/hunting on a sustained yield basis.

Initiation of a conservation education programme in the University and schools and a for the general public, including the introduction of conservation as a subject in the University and school curricula, broadcasts, lectures, newspaper articles and the preparation of information, leaflets, posters, wall charts etc. Also the introduction of a

training programme in wildlife conservation and management at the Government Forestry Institute, Hetaura.

It is hoped that most of the immediate objectives would be achieved during the 3½ year duration of the UNDP/HMG/FAO National Parks and Wildlife Conservation Project.

It is recognised that the full achievement of the above objectives will be beyond the scope of the resources available, and that substantial supplementary support will, therefore, be needed from bilateral and other donors.

## Manpower Requirements

### National Staff

The following national staff will be required for the Project as presently planned, though possible changes in Government priorities may necessitate some later modification in timing.

#### a. Headquarters, Kathmandu

<u>Title</u>	<u>Rank</u>	<u>Starting Date</u>
Chief National Park and Wildlife Conservation Officer	Gaz. I	1974
Wildlife Officer National Parks and Reserves	Gaz. II	1973
Ecologist	Gaz. II	1974
Wildlife Officer Shikar and Law Enforcement	Gaz. III	1974
Assistant National Park and Wildlife Conservation Officer	Gaz. III	1973
Conservation Education and Publicity Officer	Gaz. III	1974
Senior Accountant	Gaz. III	1974
14 miscellaneous administrative personnel (clerks, junior accountant, storeman, driver, peons etc.).	Non Gaz.	1973/74

TOTAL: 21

#### b. Royal Chitwan National Park

Senior Warden	Gaz. I	1975/76
Warden	Gaz. III	1973
Officer in charge of Armed Guards	Gaz. III	1973
2 Assistant Wardens	Non Gaz. I	1973/74

137 Armed Guards	Non Gaz.	1973/74
16 miscellaneous personnel	Non Gaz.	1973/74
<u>TOTAL 158</u>		

#### c. Langtang National Park

Warden	Gaz. III	1973
2 Assistant Wardens	Non Gaz. I	1973/74
42 Armed Guards	Non Gaz.	1973/74
9 miscellaneous personnel	Non Gaz.	1973/74
<u>TOTAL 54</u>		

#### d. Mt. Everest National Park

Warden	Gaz. III	1974/75
2 Assistant Wardens	Non Gaz. I	1974/75
49 Armed Guards	Non Gaz.	1974/75
8 miscellaneous personnel	Non Gaz.	1974/75
<u>TOTAL 60</u>		

#### e. Lake Rara National Park

Warden	Gaz. III	1974/75
Assistant Warden	Non Gaz. I	1974/75
20 Armed Guards	Non Gaz.	1974/75
6 miscellaneous personnel	Non Gaz.	1974/75
<u>TOTAL 28</u>		

#### f. Sukla Phanta Wildlife Reserve

Warden	Gaz. III	1974/75
Assistant Warden	Non Gaz. I	1974/75
36 Armed Guards	Non Gaz.	1974/75
6 miscellaneous personnel	Non Gaz.	1974/75
<u>TOTAL 44</u>		

#### g. Karnali Wildlife Reserve

Warden	Gaz. III	1974/75
2 Assistant Wardens	Non Gaz. I	1974/75
36 Armed Guards	Non Gaz.	1974/75
7 miscellaneous staff	Non Gaz.	1974/75
<u>TOTAL 46</u>		

h. Tappu Wildlife Reserve

Assistant Warden	Non Gaz. I	1974/75
17 Armed Guards	Non Gaz.	1974/75
4 miscellaneous staff	Non Gaz.	1974/75
<u>TOTAL 22</u>		

i. Shey Wildlife Reserve

Assistant Warden	Non Gaz. I	1974/75/76
14 Armed Guards	Non Gaz.	1974/75/76
5 miscellaneous personnel	Non Gaz.	1974/75/76
<u>TOTAL 20</u>		

j. Narayani Wildlife Reserve

Assistant Warden	Non Gaz. I	1974/75/76
22 Armed Guards	Non Gaz.	1974/75/76
5 miscellaneous personnel	Non Gaz.	1974/75/76
<u>TOTAL 28</u>		

N.B. The grand total of permanent staff required is 481.

### Training of Personnel

To date, only one officer of HMG in the entire Kingdom holds a university degree in animal ecology and wildlife management (Master of Science, Edinburgh University). This officer has also undertaken some field training in overseas countries. In addition, another officer has received some field training in American and African National Parks. To plan, implement and develop the Kingdom's National Parks and Wildlife Conservation schemes, Nepal needs at least 15 well-trained, qualified Gazetted Officers and 18 Non-Gazetted Class I Officers. While junior staff, armed guards and miscellaneous personnel can be trained within the country, at least 15 Gazetted Officers and 18 non-Gazetted Officers must sent overseas for studies and training since training facilities are not available within Nepal.

Thus it is essential that Nepal seek scholarship and fellowship schemes through bilateral or multilateral sources.



RHINO GUARDS in Chitwan National Park often patrol the park boundaries by boat alert for evidence of poachers or illegal encroachment on forest or grassland areas.



HABITAT DESTRUCTION within the proposed National Parks and Wildlife Reserves is still a problem. Education, expertise and money are needed to solve the complex problems of environmental preservation in a developing country like Nepal.

## Financial Requirements

Though His Majesty's Government regards its newly-launched conservation programme as a high priority and is providing substantial budgetary support for conservation schemes, its numerous commitments in other sectors preclude the provision of sufficient funds for development and implementation of all the Parks, Reserves and conservation works now planned.

Since areas like Sagarmatha (Mt. Everest) are of value not only to Nepal, but to mankind as a whole, His Majesty's Government feels justified in appealing to the international community to provide technical and financial support for their conservation and management.

The following table (Table I) shows the summary of expenditure required by the National Parks and Wildlife Conservation Office for planning, administrating and managing Nepal's National Parks and Reserves.

TABLE I.

Summary of Expenditures <sup>1/</sup>

<u>Project Title</u>	<u>Between July 1973 - July 1975 <sup>2/</sup></u>	<u>From July 1975 - July 1980 <sup>3/</sup></u>
Kathmandu HQ	N.C. Rs.	N.C. Rs. 3,631,000
Royal Chitwan N.P. }	3,502,000	7,299,000
Langtang N.P. }		4,059,000
Mt. Everest N.P.	515,000	6,924,000
Lake Rara N.P.	262,000	2,693,000
Sukla Phanta W.L.R.	412,000	1,641,000
Karnali W.L.R.	315,000	1,600,000
Koshi Tappu W.L.R.	170,000	855,000
Shey W.L.R.		1,258,000
Narayani W.L.R.		755,000
Shikar Reserves		2,126,000
<u>TOTAL <sup>4/</sup></u>	N.C. Rs. 5,176,000 (US\$ 492,900 approx)	N.C. Rs. 32,841,000 (US\$ 3,128,000 approx)

<sup>1/</sup> Based on five year plan as submitted to National Planning Commission.

<sup>2/</sup> Last two years of the Fifth Five-Year Plan. Separate budget for National Parks and Wildlife Conservation Office was allocated only from July, 1973.

<sup>3/</sup> Period of the Fifth Five-Year Plan.

<sup>4/</sup> Total does not include the costs of fellowships, training, or land acquisition.

It is expected that financial and technical requirements until the end of the current Fifth Five-Year Plan shall be fulfilled by direct cash input by His Majesty's Government in addition to contributions by a few international donors like the World Wildlife Fund and the UNDP/FAO.

Thus it is stressed that a major bulk of cash input shall be required for the forthcoming Fifth Five-Year Plan.

Table 2 shows the cash requirements for national staff and other capital expenditures for conservation work in the whole Kingdom. As costs for fellowships training and land acquisition is not included in Table 1, Table 2 indicates an approximate cost for these items.

### Fellowships and Training Costs

Fellowships and training costs are based on the assumption that 50 man-years overseas study and training will be required with each man-year training costing approximately US\$ 10,000.

This amount (US\$ 10,000 per man-year) is based on existing FAO fellowship grants and includes travel, expenses, living allowances and university fees etc.

The 50 man-years are allocated as follows:-

- i. Two year post graduate studies for 15 gazetted officers - 30 man-years.
- ii. One year training for 18 non gazetted class I officers - 18 man-years.
- iii. Total of 24 man-months short training, study, tour, refresher course for senior officers of His Majesty's Government - 2 man-years.

TOTAL: 50 man-years

It is emphasised that the amount indicated could be scaled up or down depending upon the country of study or University or the kind of study or training.

### Land Acquisition Evaluation

Most of the proposed National Parks and Reserves contain certain amounts of agricultural land and villages under private holdings. The boundaries of these Parks and Reserves have been selected emphasising more their ecological and environmental significance than anything else.

At present, most of these reserves and parks suffer from heavy human pressures and the natural environment is deteriorating rapidly. Thus, it is inevitable that eventually the villages in and around the National Parks must be removed. This is only possible both socially and politically by "buying them off", i.e. by paying appropriate compensation for private property.

Precise facts and figures indicating the exact acreage of occupied land and the amount of compensation to be paid are not available. But the figures quoted are approximations of the amount involved and are calculated as follows:

<u>Area</u>	<u>Amount in N.C. Rs.</u>
Royal Chitwan N.P.	7,000,000
Lake Rara N.P.	100,000
Langtang N.P.	1,400,000
Sagarmatha (Mt. Everest) N.P.	2,000,000
Sukla Phanta W.L.R.	3,500,000
Karnali W.L.R.	350,000
Koshi Tappu W.L.R.	35,000,000
Others	650,000
Total	50,000,000

TABLE 2.

#### Expenditures required for the Fifth Five-Year Plan

<u>Title</u>	<u>Amount in N.C. Rs.</u>	<u>Amount in US\$ (approx) 5/</u>
<b>A. <u>Recurrent Expenditures</u></b>		
1. Salaries and Allowances	7,788,000	742,000
2. Services	150,000	14,300
3. Rental	169,000	16,100
4. Maintenance	478,000	45,500
5. Expendable Items (office material, ration, clothing, fuel etc).	9,912,000	944,000
<b>B. <u>Rewards and Donations</u></b>	220,000	21,000
<b>C. <u>Capital Expenditures</u></b>		
1. Construction and Development (office buildings, tourist accommodation checkpoints, roads, demarcation of boundaries, etc.)	13,552,000	1,290,200
2. Machinery and Equipment	727,000	69,200
<b>D. <u>Fellowships and Training</u></b>	5,520,000	500,000
<b>E. Land Acquisition</b>	50,000,000	4,760,000
GRAND TOTAL	Rs. 88,516,000	US\$ 8,222,300

5/ US\$1 = NC Rs. 10.50 (approx)

The figures indicated in Table 2 do not include the salary of overseas experts or other specialised ex-patriate personnel that may be required.

## Additional Needs

While the initial emphasis of the National Parks and Wildlife Conservation Office is on the creation and protection of the areas designated, it is important to realize that this is only the first step in the development process.

The Parks and Reserves will require certain facilities for purposes of interpretation and recreation. To fill this need the National Parks and Wildlife Conservation Office envisions an interpretive center in each park or reserve.

Additionally development of the parks should include nature trails and small interpretive exhibits for the benefit of visitors. These will require the services of a skilled park planner.

Also needed in the parks and reserves are tourist accommodations ranging from lodges to campsites. The construction of these projects is contingent on the final boundaries of the park and the management philosophy adopted, but HMG feels that it is not too late to begin planning for these eventual requirements.

## Conclusions

Though the conservation programme of Nepal is of recent introduction, significant success has been achieved particularly in providing necessary legislation, staff, budget and in formulating an overall systematic plan of operation.

It emphasized that a major aspect of the success has been due to His Royal Highness Prince Gyanendra's initiatives, directions and involvement in ensuring that Nepal progresses on sound environmental principles.

As such, the plan of operation seems financially very ambitious for an under-developed country like Nepal and can only succeed with substantial assistance from international agencies.

## References

- Blower, J.H. (1973) "Proposed Lake Rara National Park" Memorandum to Secretary of Forest, HMG (18th Feb. 1973) (Typed).
- Caughley, G.J. and Mishra, H.R. (1968) "Wildlife and Recreation" HMG/UNDP/FAO Trisuli Watershed Development Project, Kathmandu (Typed and mimeographed).
- Caughley G.J. and Mishra H.R. (1968) "Interim Suggestions on Wildlife in Nepal". HMG/UNDP/FAO, Trisuli Watershed Development Project, Kathmandu (Typed and mimeographed).
- Mishra, H.R. (1973) "Conservation in Khumbu: The Proposed Mt. Everest National Park". (A preliminary project proposal) HMG Press, Kathmandu.

- Mishra, H.R. and Gupta, R.B. (1973) "The Asiatic Wild Buffalo of Koshi-Tappu: An Interim Report" HMG Press Kathmandu
- Mishra H.R. and Poppleton F. (1973) "Operation Tiger" (A preliminary project proposal for Conservation of Wildlife in Nepal's terai with particular reference to the Royal Karnali Wildlife Reserve, Royal Sukla Phanta Wildlife Reserve and the Royal Chitwan National Park). National Parks and Wildlife Conservation Office, Kathmandu (Typed).
- National Parks and Wildlife Conservation Office (1974) "Report to the Planning Commission on the Fifth Five-Year Plan" National Parks and Wildlife Conservation Office, Kathmandu (Typed in Nepali).
- Nepal Gazett (1973) "National Parks and Wildlife Conservation Act 2029" Nepal Gazett Vol. 23 (55) Falgun 28, 2029 HMG Press, Kathmandu (In Nepali).
- Nepal Gazett (1973) "National Parks and Wildlife Conservation Regulations 2030" Nepal Gazett Vol. 23 (47) Falgun 28, 2030 HMG Press, Kathmandu (In Nepali).
- Nepal Gazett (1974) "Royal Chitwan National Parks Regulations 2030" Nepal Gazett Vol. 23 (46) Falgun 28, 2030. HMG Press Kathmandu (In Nepali).
- Schaller, George B. (1974) "A Wildlife Summary of the Shey Gumpa Area in Dolpo District, Nepal" Report to HMG, National Parks and Wildlife Conservation Office, Kathmandu (mimeographed).
- Shah, HRH Prince Gyanendra Bir Bikram (1973) "Address to the Third International Congress of the World Wildlife Fund, Bonn, Oct. 5, 1973" WWF. Murges.
- HMG/UNDP/FAO (1973) "Project Document" National Parks and Wildlife Conservation Project, Kathmandu (mimeographed)
- HMG/UNDP/FAO (1973) "Langtang National Park. Preliminary Development Plan Working Document No. 1" National Parks and Wildlife Conservation Project, Kathmandu (mimeographed).
- Upreti, B.N. (1973) "Report on the Royal Chitwan National Park" National Parks and Wildlife Conservation Office, Kathmandu (typed).