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CONSERVING AFRICA'S NATURAL HERITAGE

Planning and Management
Protected Areas in the Afrotropical Realm

CONSERVER LE PATRIMOINE NATUREL DE L'AFRIQUE

Planification et Gestion
des Aires Protégées dans la Région Afrotropicale

Proceedings of the 17th Meeting
of IUCN's Commission on National
Parks and Protected Areas

Comptes-rendu de la 17^e
Réunion de la Commission
des Parcs Nationaux et des
Aires Protégées de l'UICN

Garoua, Cameroon
17-23 November 1980

INTERNATIONAL UNION FOR CONSERVATION OF NATURE AND NATURAL RESOURCES
MARCH 1981



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Conservation is the management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations.

Living resource conservation has three specific objectives:

- to maintain essential ecological processes and life-support systems
- to preserve genetic diversity
- to ensure the sustainable utilization of species and ecosystems.

Protected areas contribute to all three objectives.

(World Conservation Strategy, 1980)

La conservation est la gestion de l'utilisation par l'homme de la biophère de manière que les générations actuelles tirent le maximum d'avantages des ressources vivantes tout en assurant leur pérennité pour pouvoir satisfaire aux besoins et aux aspirations des générations futures.

La conservation des ressources vivantes a trois objectifs spécifiques:

- maintenir les processus écologiques essentiels et les systèmes entretenant la vie
- préserver la diversité génétique
- veiller à l'utilisation durable des espèces et des écosystèmes.

Les aires protégées contribuent aux trois objectifs.

(Stratégie mondiale de la conservation, 1980)

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**Compte-Rendu de la 17ème Réunion de la Commission
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**INTERNATIONAL UNION FOR CONSERVATION OF NATURE AND NATURAL RESOURCES
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FOREWORD

By Dr. Lee M. Talbot, Director General of the International Union for Conservation of Nature and Natural Resources

I am especially pleased to write a Foreword to the Proceedings of the 17th meeting of CNPPA because it covers two "firsts": the first CNPPA meeting ever held in Africa; and the first formal Proceedings volume to come from a meeting of the Commission. The volume marks an important step in the development of the Union's commission structure, adding a number of significant papers to conservation literature and bringing the activities of the CNPPA to the attention of the Union as a whole.

A number of accomplishments of the working session merit special note because of their importance for IUCN. The first was the critical and detailed examination of IUCN's protected areas programme by the people who plan and manage protected areas, i.e. those whose work the programme is designed to assist. This led to a number of helpful recommendations which will be included in the next programme planning cycle.

The second was the stress placed on training. Not only was the meeting held in Garoua, the site of the Ecole de Faune, but it was attended by the principals of both the Garoua and Mweka African wildlife management schools, some 52 rangers who were at Garoua for training, and several other international experts on training. IUCN welcomes this emphasis on developing human resources, which we consider to be one of the most important factors in enhancing the capacity for conservation throughout the world.

The third accomplishment was the further collection of basic data on protected areas and their management, to be included in the new Conservation Monitoring Unit (CMU) of IUCN, now being established at Kew and Cambridge in the United Kingdom. We are planning for the CMU to become one of IUCN's most important contributions to the link between conservation and development, providing essential information to development agencies, governments, scientists, and the public about the status of protected areas around the world and the ways they contribute to human welfare.

Fourth was the strengthening of the network of cooperation that was evident at the meeting. The Government of Cameroon, through the Delegate General of Tourism, acted as host, and attendance at the meeting was sponsored by several other African nations as well as by UNEP, Unesco, the US National Park Service, the Government of New Zealand, the Canadian International Development Agency, and the Nature Conservancy. This is the type of effective international cooperation which I would hope could be reflected in future meetings of all Commissions.

Finally, since the strength of IUCN is in the combination of its nearly 500 member organizations throughout the world and its network of specialized expertise within each of the six Commissions, it was particularly rewarding to see that CNPPA is actively expanding its membership network, adding potential members from over 20 African nations which were previously not represented on the Commission.

In closing, I would like to make the observation that although conservation often has appeared to be a series of disconnected reactions and confrontations, it is now becoming a continuing integrated, cooperative

AVANT-PROPOS

Lee M. Talbot, Directeur-général de l'Union internationale pour la conservation de la nature et de ses ressources

Je suis particulièrement heureux d'écrire l'avant-propos du compte-rendu de la 17^e réunion de la CPNAP, parce qu'il couvre deux "premières": la première réunion de la CPNAP jamais tenue en Afrique, et le premier volume du compte-rendu officiels qui émane d'une réunion de la commission. Ce volume marque un pas important dans le développement de la structure des commissions de l'Union en ce qu'il apporte une contribution importante à la littérature sur la conservation, et en ce qu'il attire l'attention de l'Union tout entière sur les activités de la CPNAP.

La session de travail a eu plusieurs résultats qui méritent qu'on s'y arrête à cause de l'importance qu'ils revêtent pour l'UICN. Le premier d'entre eux est l'examen critique et détaillé du programme de l'UICN en matière des aires protégées par ceux qui planifient et gèrent les aires protégées - ceux-là mêmes que le programme vise à assister. Cet examen a entraîné plusieurs recommandations utiles qui seront incluses dans le prochain cycle de planification du programme.

Le deuxième résultat est l'accent mis sur la formation. Non seulement la réunion fut tenue à Garoua, où se trouve l'Ecole de faune, mais de plus, y ont participé les directeurs des écoles de gestion de la faune africaine de Garoua et de Mweka, ainsi que 52 rangers fréquentant l'Ecole de Garoua, et plusieurs experts internationaux de la formation. L'UICN se félicite de l'accent mis sur le développement du potentiel humain, que nous considérons comme l'un des facteurs les plus importants de l'amélioration de la capacité de conservation partout dans le monde.

Le troisième fut la poursuite du rassemblement des données de base sur les aires protégées et leur gestion, à inclure dans la nouvelle Unité de surveillance continue de la conservation (USCC) de l'UICN, actuellement mise en place à Kew et à Cambridge au Royaume-Uni. Il est prévu que l'USCC apporte une contribution des plus importantes à la liaison entre la conservation et le développement, en fournissant des informations essentielles aux organismes de développement, aux gouvernements, aux scientifiques, et au grand public, sur l'état des aires protégées dans le monde, et sur la manière dont elles contribuent au bien de l'humanité.

Le quatrième fut le renforcement du réseau de coopération, apparu évident à la réunion. Le gouvernement camerounais, représenté par le Délégué général au tourisme, était l'hôte de la réunion, qui était patronnée par plusieurs autres nations africaines et par le PNUE, l'Unesco, le US National Park Service, le gouvernement néo-zélandais, l'Agence de développement international canadienne et le Nature Conservancy. C'est, je le crois, le type même de coopération internationale efficace qui devrait se retrouver à l'avenir dans les réunions de toutes les commissions.

Enfin, étant donné que la force de l'UICN réside dans le regroupement des 500 organisations qui sont ses membres, et dans son réseau d'experts spécialisés regroupés dans ses six commissions, il est particulièrement satisfaisant de constater que la CPNAP étend activement son réseau de membres, y ajoutant des membres potentiels de 20 nations africaines qui n'étaient pas représentés dans la commission auparavant.

process guided by the World Conservation Strategy, within which IUCN's own efforts are organized by its Conservation Programme for Sustainable Development. Through development of human resources, involvement of a broad membership, promotion of effective management of a wide range of protected area types, cooperation with development agencies, and integration of its activities with others in the Union, the CNPPA is playing a particularly active role as an integral component of IUCN in the implementation of the Strategy. As such it has the appreciation, gratitude and continuing whole-hearted support of all of IUCN.

Acknowledgements:

IUCN/CNPPA gratefully acknowledge the assistance of the United Nations Environment Programme (UNEP), Unesco, the Canadian International Development Agency, the US National Park Service, the World Wildlife Fund, and the Nature Conservancy in supporting participation in the meeting as well as the interest shown by governments in sponsoring their own participation. UNEP, Unesco, the US National Park Service, Parks Canada, and WWF also provide support to the CNPPA Programme and participate in its activities. The government of the United Republic of Cameroon generously provided considerable local support.

Pour terminer, je voudrais faire une observation: bien que la conservation apparaisse souvent comme une série de réactions et de confrontations sans lieu elle devient maintenant un processus de coopération continu et intégré, guidé par la Stratégie mondiale de la conservation, dont s'inspirent les propres efforts de l'UICN, organisés en un programme de conservation pour un développement durable. Par le développement du potentiel humain, la participation de nombreux membres, la promotion de la gestion efficace d'une grande variété des aires protégées, la coopération avec les organismes de développement et l'intégration de ses activités à celles d'autres organismes de l'UICN, la CPNAP devrait jouer un rôle particulièrement actif en tant que partie intégrante de l'UICN, dans la mise en oeuvre de la stratégie. Pour cela, elle a l'appréciation, la gratitude et le soutien plein et entier de l'UICN, dans son ensemble.

Remerciements:

L'UICN et la CPNAP remercient vivement le Programme des Nations Unies pour l'environnement (PNUE), l'Unesco, l'Agence canadienne de développement international, le US National Park Service, le World Wildlife Fund et le Nature Conservancy pour leur appui financier à la participation de cette réunion ainsi que les gouvernements pour l'intérêt qu'ils ont témoigné à subventionner leur propre participation. Le PNUE, l'Unesco, le US National Park Service, Parcs Canada et le WWF soutiennent également le programme de la CPNAP et participent à ses activités. Le gouvernement de la République Unie du Cameroun a généreusement fourni un appui local considérable.

CONSERVING AFRICA'S NATURAL HERITAGE

Proceedings of the Seventeenth Meeting of IUCN'S
Commission on National Parks and Protected Areas (CNPPA)

TABLE OF CONTENTS

Foreword by the Director General of IUCN	5
Acknowledgements	7
Table of Contents	9
Executive Summary	11
I. <u>Introduction:</u> IUCN's Commission on National Parks and Protected Areas . .	15
II. <u>Monitoring the Protected Areas of the Afrotropical Realm</u>	25
2.1 Introduction	27
2.2 The CNPPA System for Monitoring the Protected Areas of the World . .	28
2.3 The UN List of National Parks and Equivalent Reserves.	33
2.4 Distribution of protected areas by biogeographic province.	47
2.5 Country Report: Ethiopia, by Teshome Ashine.	56
2.6 Country Report: Kenya, by Jim Thorsell and Fred Pertet	66
2.7 Country Report: Cameroon, by the Delegation General of Tourism . . .	73
2.8 Country Report: Senegal, Gambia, and Guinea Bissau by Mamadou Diom .	80
III. <u>Developing Management Capacity</u>	87
3.1 <u>Training</u>	
3.1.1 Introduction: CNPPA's Role in Training	89
3.1.2 Developments at the College of African Wildlife Management, Mweka, and Her Training Needs, by Felix Nyahoza	90
3.1.3 School for the Training of Wildlife Specialists at Garoua, Cameroon, by Andrew Allo	104
3.1.4 Report on Inventory of Training Programmes for Middle-level Management of Protected Areas, by Gary Taylor.	110
3.2 <u>Helping the man on the ground</u>	
3.2.1 Introduction	129
3.2.2 Valor Award Nomination Form.	130
3.2.3 The Parks Valor Award presentation in Senegal.	132
3.3 <u>Effective management of protected areas</u>	
3.3.1 Introduction	136
3.3.2 Questionnaire on Management.	137
3.4 <u>Legislation</u>	
3.4.1 Introduction	143
3.4.2 Involvement of African nations in international conservation legislation	144

IV.	<u>International Support for Protected Areas Management</u>	147
4.1	<u>Unesco's Protected Areas Programme</u>	
4.1.1	Introduction	149
4.1.2	Unesco's Protected Areas Programmes, by the MAB Secretariat. . .	150
4.1.3	An indicative inventory of potential World Heritage Sites in the Afrotropical Realm, by CNPPA	157
4.2	<u>IUCN's Protected Areas Programme</u>	
4.2.1	Introduction and Recommendations	179
4.2.2	The IUCN/CNPPA Protected Areas Programme in Africa	191
4.2.3	Relevant recommendations of the Ouagadougou meeting.	217
V.	<u>Other Business</u>	223
5.1	Introduction	225
5.2	CNPPA Membership in the Afrotropical Realm	226
5.3	Information Sheet/Draft Agenda for the World National Parks Conference 1982	227
5.4	Report of the CNPPA Task Force on Traditional Lifestyles	237
5.5	Serengeti and Ngorongoro Diamond Jubilee	240
5.6	Lake Malawi National Park.	244
5.7	Waza National Park	246
5.8	General Recommendations	247
VI.	<u>Annexes</u>	249
6.1	<u>Opening speeches.</u>	251
a)	Allocution d'Ouverture, by M. Oumarou Aminou, Délégué Général de Tourisme	252
b)	Allocution d'Ouverture, by J. Ngog Nje, Ecole de Faune, Garoua .	255
c)	Opening address, by Kenton R. Miller, Chairman CNPPA	258
d)	Opening address, by Mona Bjorklund on behalf of UNEP	260
6.2	Participants List.	263
6.3	CNPPA Chairman's report to IUCN Council, November 1980	267
6.4	CNPPA Terms of Reference	271

CONSERVING AFRICA'S NATURAL HERITAGE:

Proceedings of the Seventeenth Meeting of IUCN's Commission
on National Parks and Protected Areas (CNPPA)

EXECUTIVE SUMMARY

The 17th meeting of CNPPA was held in Garoua, Cameroon from 17-23 November, the Commission's first gathering in Africa. The three major objectives were:

- to assess the current coverage of protected areas in the Afrotropical Realm
- to address the question of effective management
- to review relevant international support for conservation in Africa.

1. WHERE ARE THE PROTECTED AREAS OF AFRICA? The CNPPA system for monitoring the protected areas of the world in terms of biogeographic provinces was reviewed (2.2), along with the portions of the 1980 United Nations List of National Parks and Equivalent Reserves which deal with Africa south of the Sahara. Based on the review:

- 88 protected areas which are new or were otherwise not included on the 1980 UN List were proposed for addition to the List (bringing the total for the Afrotropical Realm to 333 protected areas) (2.3);
- all areas were assigned to the correct biogeographic province (2.4);
- the system of biogeographic provinces was discussed and revised, and protected areas were added to the province map (to be published in 1982);
- new or revised data sheets were submitted for 130 areas and will be included in the 1981 IUCN Publication on "Protected Areas of the Afrotropical Realm".

2. HOW CAN PROTECTED AREAS BE MANAGED MORE EFFECTIVELY? This question, which was addressed both in terms of Africa and of protected areas in general, was answered in four different ways:

a) Developing management capacity through training. Reports on the current programmes of the training schools for wildlife managers at Mweka, Tanzania and Garoua, Cameroon were presented (3.1.2. and 3.1.3) and 52 students from the Garoua school joined the meeting: a paper on middle-level training opportunities was presented and will be further developed into an IUCN/CNPPA publication in the near future (3.1.4). Discussions led to a decision taken for CNPPA to give considerably more attention to training, including the following (see 3.1.1 for full discussion):

- to provide all possible support to the African training schools, including seeking further funding through the World Heritage Fund and other sources;
- to encourage the use of students and teaching staff rather than foreign experts for certain tasks, such as preparing management plans and environmental impact assessments;
- to promote university-level training for key personnel at the protected area manager level, and encourage improved training for teaching staff.

CONSERVER LE PATRIMOINE NATUREL DE L'AFRIQUE

Résumé exécutif

La 17^e réunion de la CPNAP s'est tenue à Garoua (Cameroun) du 17 au 23 novembre - c'était la première réunion de la commission en Afrique. Les trois principaux objectifs étaient de:

- évaluer la couverture actuelle en aires protégées, de la région afrotropicale;
- aborder la question de l'efficacité de la gestion;
- examiner le soutien international à la conservation en Afrique.

1. OU SONT LES AIRES PROTEGEES D'AFRIQUE? Le système CPNAP de surveillance continue des aires protégées du monde en termes de provinces biogéographiques a été examiné (2.2) ainsi que les parties de la Liste des Nations Unies des parcs nationaux et réserves analogues - 1980, qui traitent de l'Afrique au sud du Sahara. Sur la base de cet examen:

- l'on a proposé d'ajouter à la liste 88 aires protégées nouvelles ou qui n'étaient pas inscrites sur la Liste de l'ONU de 1980 (ce qui porte à 333 le total des aires protégées de la région afrotropicale) (2.3);
- l'on a assigné correctement toutes les aires à leur province biogéographique (2.4)
- l'on a discuté et révisé le système des provinces biogéographiques, et ajouté des aires protégées à la carte des provinces (qui paraîtra en 1982);
- l'on a soumis des fiches de données nouvelles ou révisées sur 130 aires; ces fiches seront incluses dans la publication de l'UICN sur "Les aires protégées de la région afrotropicale" qui paraîtra en 1981.

2. COMMENT GERER PLUS EFFICACEMENT LES AIRES PROTEGEES? Cette question, posée pour l'Afrique et pour les aires protégées en général, a reçu quatre éléments de réponse différents.

a) Développer la capacité de gérer par le biais de la formation. Des rapports ont été présentés (3.1.2 et 3.1.3) sur les programmes actuels des écoles de formation des gestionnaires de la faune sauvage de Mweka en Tanzanie, ou Garoua au Cameroun; 52 étudiants de l'école de Garoua ont assisté à la réunion. Un rapport sur les possibilités de formation de cadres moyens a été présenté; il sera repris et approfondi prochainement dans une publication de l'UICN/CPNAP (3.1.4). A la suite des débats, la CPNAP a pris la décision d'accorder une attention bien plus considérable à la formation, notamment par ce qui suit (voir le compte rendu des débats à la section 3.1.1):

- apporter le maximum de soutien possible aux Ecoles de formation africaines, y compris en cherchant des sources de financement, notamment le Fonds du patrimoine mondial;
- encourager le recours aux étudiants et aux enseignants pour effectuer certaines tâches, telles que la préparation de plans de gestion et l'évaluation des impacts sur l'environnement, plutôt que de faire appel à des experts étrangers;
- promouvoir la formation universitaire pour le personnel clé de la gestion des aires protégées, et encourager l'amélioration de la formation du personnel enseignant.

- b) Helping the ranger on the ground. This is in many ways the most difficult, but the new IUCN Parks Valor Award could be a significant help, particularly if it were to be greatly expanded to include both valor and merit, and to have awards for each continent each year (3.2.1). The first Valor Award presentation was made in Senegal before the meeting (3.2.3).
- c) Assessing problems and progress. A questionnaire on management of protected areas was discussed during a workshop session. The result (3.3.2) will now be sent to CNPPA members around the world, and the responses will be entered in the new computerized CNPPA Data Base being established as part of IUCN's Conservation Monitoring Unit.
- d) Legislation. Adherence of Afrotropical nations to the various international conservation conventions was reviewed and suggestions were made on improving the impact of the legislation (3.4.1).

3. WHAT ARE INTERNATIONAL AGENCIES CONTRIBUTING TO PROTECTED AREAS MANAGEMENT?

Although FAO was not represented at the meeting, UNEP, Unesco, and IUCN did attend, and the latter two made detailed presentations of their programmes:

- a) Unesco discussed both the Man and the Biosphere Programme (MAB) and the World Heritage Convention (4.1.2), with World Heritage seen as particularly attractive since it carries financial provisions. However, only 5 Afrotropical Natural Heritage Sites have been declared, so it was decided that CNPPA should prepare an indicative inventory of potential sites, based on suggestions at the meeting and consultations with CNPPA members; the draft inventory contains 58 natural areas (4.1.3).
- b) IUCN's programme for protected areas in Africa (4.2) was reviewed by a workshop session, along with recommendations from the UNEP/IUCN Technical Meeting on the Conservation of Biotic Communities in West and Central Africa (4.2.3); highlights of suggestions from the workshop (4.2.1):
- the IUCN programme should be considered in relation to activities of other international organizations;
 - IUCN needs a clearer set of priorities, and WWF should raise funds directed at attaining these priorities;
 - research should be more management-oriented;
 - "international parks" should receive increased support;
 - Madagascar should receive special attention and support, in view of its many endemic species and great need for conservation action.

4. OTHER RESULTS FROM THE SESSION:

- it was decided to expand CNPPA membership significantly, to include at least one member from each country with national parks or protected areas; and over 30 new names were proposed from the Realm (5.2);
- plans for the World National Parks Conference 1982 were further elaborated, including preparation of a draft agenda (5.3);
- the gathering closed with a number of general recommendations, including a vote of thanks to our hosts at the Garoua School for the Training of Faunal Specialists and special recognition of the efforts of CNPPA's previous Executive Officer, Harold K. Eidsvik (5.8).

b) Aider le garde sur le terrain. Par bien des aspects, c'est le problème le plus difficile à résoudre, mais la Distinction pour services rendus aux parcs, qui vient d'être créée par l'UICN, pourrait apporter une contribution importante, surtout si l'on en élargissait la portée pour couvrir à la fois la valeur et le mérite, et si l'on décernait une distinction par continent chaque année (3.2.1). Le première Distinction pour services rendus aux parcs ont été remise au Sénégal avant la réunion (3.2.3).

c) Evaluer les problèmes et les progrès enregistrés. Les participants à un groupe de travail de la réunion ont discuté d'un questionnaire sur la gestion des aires protégées. Le résultat (3.3.2) sera envoyé partout dans le monde aux membres de la CPNAP, dont les réponses seront intégrées à la nouvelle base de données sur ordinateur de la CPNAP, qui fait partie de l'Unité de surveillance continue de la conservation de l'UICN.

d) La législation. L'adhésion des nations afrotropicales aux diverses conventions internationales de conservation a été examinée, et des suggestions concernant l'amélioration de l'impact de la législation ont été faites (4.3.1).

3. QUELLE CONTRIBUTION LES ORGANISMES INTERNATIONAUX APPORTENT-ILS A LA GESTION DES AIRES PROTEGEES? Bien que la FAO n'ait pas été représentées à la réunion, le PNUE, l'Unesco et l'UICN l'étaient, et l'Unesco et l'UICN ont présenté une partie de leur programme en détail:

a) l'Unesco a abordé tant le programme sur l'homme et la biosphère (MAB) que la convention sur le patrimoine mondial (4.1.2) - le patrimoine mondial apparaissant particulièrement intéressant car il prévoit des dispositions de financement. Toutefois, 5 sites seulement du patrimoine naturel afrotropical ont été déclarés; il a donc été décidé que la CPNAP préparerait a titre indicatif un inventaire des sites potentiels sur la base des suggestions faites à la réunion, et des consultations avec les membres de la CPNAP; l'inventaire comporte 58 régions naturelles (4.1.3).

b) Le programme de l'UICN sur les aires protégées d'Afrique (4.2) a été examiné par un groupe de travail de la réunion, ainsi que les recommandations de la réunion technique PNUE/UICN sur la conservation des communautés biotiques d'Afrique centrale et de l'ouest (4.2.3). Voici les principales suggestions du groupe de travail (4.2.1):

- le programme de l'UICN devrait être considéré en relation avec les activités des autres organisations internationales;

- l'UICN devrait se fixer des priorités mieux définies, et le WWF devrait réunir des fonds à utiliser pour atteindre ces priorités;

- les "parcs internationaux" devraient recevoir un soutien accru;

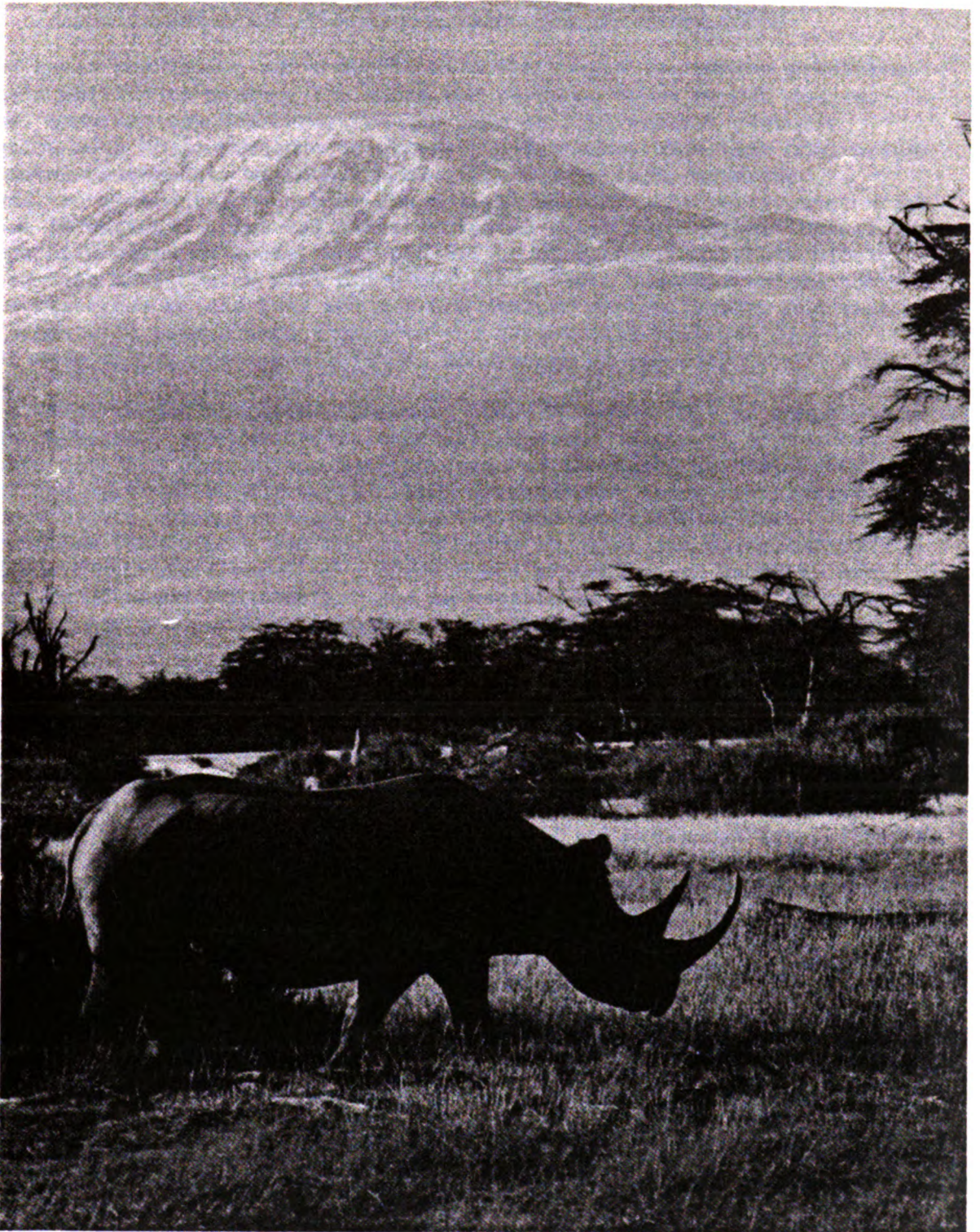
- Madagascar devrait recevoir une attention et un soutien particuliers du fait de son grand nombre d'espèces endémiques, et de son grand besoin de mesures de conservation.

4. AUTRES RESULTATS DE LA SESSION: L'on a décidé d'élargir de manière importante la composition de la CPNAP de manière qu'elle comprenne au moins un membre de chaque pays qui a des parcs nationaux ou des aires protégées; plus de 30 nouveaux noms ont été proposés pour la région afrotropicale (5.2);

- la préparation de la conférence mondiale des parcs nationaux (1982) s'est poursuivie; l'on a préparé un ordre du jour provisoire (5.3);

- la réunion s'est terminée sur l'adoption d'un certain nombre de recommandations d'ordre général, et sur un hommage rendu au précédent secrétaire exécutif de la CPNAP, Harold K. Eidsvik, pour le travail accompli (5.3).

CHAPTER I. INTRODUCTION
IUCN'S COMMISSION ON NATIONAL PARKS AND PROTECTED AREAS



Africa's national parks and protected areas are world famous for their spectacular concentrations of large mammals and dramatic scenery. CNPPA promotes measures to extend, maintain, and monitor the worldwide network of protected areas, aiming to link protected area management with socio-economic development. (Kenya's Amboseli National Park. Photo: Kenya Information Service)

CHAPTER I: INTRODUCTION:

IUCN'S COMMISSION ON NATIONAL PARKS AND PROTECTED AREAS

Expanding human population and resource utilization put increasing pressures on nature's ability to produce the goods and services which people desire. Therefore, many nations now recognize the need to link natural resource conservation with socio-economic development. Research, base-line monitoring, environmental assessment, maintenance of genetic materials, watershed management, environmental education and a whole host of other activities which take place in national parks and other protected areas have become intimate and inseparable parts of social and economic development. It is now widely recognized that development will bring only short-term benefits unless the renewable resources of the land and sea are managed appropriately, and that natural areas will remain intact only to the extent that they can play a practical role in the present and future ecosystems of humanity.

The World Conservation Strategy, issued by IUCN in March, 1980 in cooperation with WWF, UNEP, FAO, and Unesco, further stressed the values of protected areas: appropriately planned and managed reserves can serve as fundamental means for the survival of the earth's living resources; these areas provide the context within which research, monitoring, and education on the environment can take place; and the maintenance of plant and animal species -- with all their genetic diversity -- through the protection of habitats and ecosystems is of universal interest and is capable of uniting peoples of all nations in making a contribution to the total human habitat and world peace.

This expanded and more important role for protected areas is a serious challenge for land-use managers, calling upon them not only to plan and establish systems of protected areas, but to manage each area effectively in order to attain the conservation objectives defined for it. IUCN is vitally interested in providing any appropriate support that may be required by the world's managers of natural lands in order to carry out their new mandate. It does this through its Commission on National Parks and Protected Areas (CNPPA).

CNPPA is the leading international scientific and technical body concerned with the selection, establishment and management of national parks and other protected areas of conservation significance, being responsible for the part of the IUCN Programme which promotes the establishment of a worldwide network of effectively managed terrestrial and marine reserves. Through its over 150 members and consultants, it recommends and stimulates measures to extend, maintain, and monitor protected areas around the world.

The monitoring programme. Beginning with its meeting in Costa Rica in March 1979, CNPPA has instituted a system of continuously gathering information on protected areas through the participation of local professional institutions and knowledgeable individuals. Based on the system of biogeographical realms and provinces devised by Miklos Udvardy and published by IUCN in 1975, the system aims to collect basic data on all protected areas in the world, beginning with the over 1000 areas on the 1980 United Nations List of National Parks and Equivalent Reserves.

Although far from complete, there is now sufficient information to allow CNPPA to move into the evaluation phase. This involves the computerization of the basic data sheets, in connection with the IUCN Conservation Monitoring Unit being established in the U.K. By putting all of the protected area data on

CHAPITRE I: INTRODUCTION:

LA COMMISSION DES PARCS NATIONAUX ET DES AIRES PROTEGEES

L'expansion démographique et l'utilisation accrue des ressources exercent une pression croissante sur la capacité de la nature à produire les biens et les services demandés par l'homme. C'est pourquoi de nombreuses nations reconnaissent maintenant la nécessité de lier la conservation des ressources naturelles au développement économique et social. La recherche, la surveillance continue, l'évaluation environnementale, le maintien du matériel génétique, la gestion des bassins fluviaux, l'éducation environnementale et une multitude d'autres activités qui se déroulent dans les parcs nationaux et les autres aires protégées sont maintenant intimement liées au développement économique et social, dont on ne peut les séparer. Il est maintenant largement admis que le développement ne peut apporter que des bénéfices à court terme, à moins que les ressources renouvelables, terrestres et marines ne soient correctement gérées, et que les régions naturelles ne soient gardées intactes que dans la mesure où elles jouent un rôle pratique dans les écosystèmes actuels et futurs de l'humanité.

La Stratégie mondiale de la conservation, publiée en mars 1980 par l'UICN, en coopération avec le WWF, le PNUE, la FAO et l'Unesco, souligne davantage encore l'intérêt des aires protégées: correctement planifiées et gérées, les réserves sont un instrument fondamental de sauvegarde des ressources vivantes, de la terre; ces zones sont le cadre qui convient à la recherche, la surveillance continue et l'éducation environnementale. Garantir la pérennité des espèces animale et végétales - et de leur diversité génétique - par la protection de leurs habitats et écosystèmes, présente un intérêt universel; c'est une tâche qui peut unir les populations de toutes les nations et qui apporte une contribution à l'habitat humain dans son ensemble, et à la paix mondiale.

L'extension du rôle des aires protégées est un véritable défi que les gestionnaires des territoires doivent relever non seulement en planifiant et en créant des réseaux des aires protégées, mais encore en gérant chaque région avec efficacité pour atteindre les objectifs de conservation définis pour elle. L'UICN est vivement intéressée à apporter le soutien approprié dont pourrait avoir besoin partout dans le monde les gestionnaires des régions naturelles pour mener à bien leur nouveau mandat. Elle agit par l'intermédiaire de la Commission des parcs nationaux et des aires protégées (CPNAP).

Etant chargée de la partie du programme de l'UICN qui promeut l'établissement d'un réseau mondial de réserves terrestres et marines efficacement gérées, la CPNAP est le principal organisme international scientifique et technique de sélection, de création et de gestion de parcs nationaux et autres aires protégées importantes pour la conservation. Forte de ses 150 membres, elle recommande et encourage la prise de mesures visant à étendre, maintenir et surveiller en permanence les aires protégées du monde entier.

Le programme de surveillance continue. Depuis sa réunion de mars 1979 au Costa Rica, la CPNAP a institué un système de collecte permanente d'informations sur les aires protégées à laquelle participent les institutions professionnelles locales, et les personnes bien informées. Fondé sur le système des domaines et provinces, biogéographiques de Miklos Udvardy publié par l'UICN en 1975, ce système vise à réunir les données de base sur toutes les aires protégées du monde, à commencer par le millier de zones inscrites sur la Liste des Nations Unies des parcs nationaux et réserves analogues de 1980. Bien que loin d'être complète, l'information recueillie est maintenant suffisante pour que la CPNAP passe à la phase d'évaluation. Celle-ci implique la mise sur ordinateur des fiches de données de base, en collaboration avec l'Unité de l'UICN de

computerized data files, it will soon be possible for protected area managers to compare their areas with others around the world, in order to help them focus their management efforts appropriately. CNPPA will be able to respond to requests from international development agencies about protected areas which might be affected by a new development project anywhere in the world. IUCN and WWF will be provided with a much more objective basis for establishing priorities for providing support. A useful tool will be available to organizations like Unesco, UNEP, and a broad range of international conservation organizations.

Most important, collecting and presenting protected area data in a professional and competent manner will demonstrate to governments, development agencies, and individuals around the world that national parks and reserves can be valuable land-use tools for managing areas which should for various reasons be kept in a natural or semi-natural state.

Effective management. However well-designed a protected area system might be, it is only as good as its management. CNPPA is therefore committed to undertake all appropriate measures to stimulate the effective management of all protected areas. An important initial step was the IUCN/CNPPA paper produced in 1979 on "Categories, Objectives, and Criteria for Protected Areas". This promoted a shared understanding of what was meant by different kinds of protected areas and the sorts of conservation objectives which should be followed in each category of protected area.

But this is only a first step on a long journey, and the coming years will see an increased emphasis placed by CNPPA on promoting effective management through training, legislation, education, and assessing the problems and progress on the ground.

Promoting international support. IUCN and the World Wildlife Fund have provided support to protected areas for many years. Unesco, through its Man and the Biosphere Programme and the World Heritage Convention, has also provided important support, and the Food and Agriculture Organization of the UN, the World Bank, and many bilateral development agencies have also made major contributions. UNEP, through many projects in conjunction with IUCN, has played a significant role in protected areas conservation; a new three-year contract was recently signed which will provide considerable support from UNEP to IUCN's protected areas programme until the end of 1983.

CNPPA will continue to promote expanded international support for protected areas, seeking from the membership their guidance for priority areas and activities for concentration.

The Garoua meeting

In order to maintain effective communication with its membership network and to collect information from all biogeographic provinces, the Commission in recent years has been holding meetings twice a year, in each of the eight biogeographic provinces in turn.

For the Commission's first meeting ever held in Africa south of the Sahara, we gratefully accepted the kind invitation of the Delegate General of Tourism, M. Oumarou Aminou, and Dr. Andrew Allo, Principal of the Ecole de la Faune, to hold the meeting in Garoua, Cameroon. This was an especially appropriate venue, as it is the site of Dr. Allo's well-known school which is training protected area managers for most of francophone Africa. Some 52 students at

surveillance continue de la conservation, sise au Royaume-Uni. En mettant sur ordinateur toutes les données concernant les aires protégées, il sera bientôt possible aux gestionnaire des aires protégées de consulter un fichier sur ordinateur, ce qui leur permettra de comparer leur aire avec d'autres dans le monde pour les aider à orienter correctement leurs activités de gestion. La CPNAP pourra répondre aux demandes émanant des organismes internationaux de développement concernant les zones protégées qui risquent d'être affectés par un nouveau projet de développement en un quelconque point du globe. L'UICN et le WWF disposeront d'une base bien plus objective pour établir les domaines à soutenir en priorité. Par ailleurs, des organisations telles que l'Unesco et le PNUE et diverses organisations internationales de conservation disposeront d'un instrument fort utile.

Et - très important - réunir et présenter des données sur les aires protégées de manière compétente et professionnelle démontrera aux gouvernements, aux organismes de développement et aux personnes partout dans le monde que les parcs nationaux et les réserves peuvent être de précieux instruments d'aménagement du territoire pour gérer des zones qui, pour des raisons diverses, doivent être maintenues dans un état naturel ou semi-naturel.

La gestion efficace. Aussi bien conçu soit-il, un système de parcs nationaux ne vaut que par sa gestion. La CPNAP s'est donc engagée à entreprendre toutes les mesures appropriées pour encourager la gestion efficace de toutes les aires protégées. La rédaction, en 1979, d'un document UICN/CPNAP sur les "Catégories, objectifs et critères pour les aires protégées" fut une première mesure en ce sens. L'on promouvait ainsi la compréhension commune de la définition des différents types d'aires protégées et des sortes d'objectifs de conservation à suivre dans chaque catégorie de aires protégées.

Mais ce n'est qu'un premier pas sur une longue route, et ces prochaines années, la CPNAP mettra davantage l'accent sur la promotion d'une gestion efficace par la formation, la législation, l'éducation et l'évaluation des problèmes et des progrès enregistrés sur le terrain.

Promotion du soutien international. L'UICN et le World Wildlife Fund soutiennent les aires protégées depuis de nombreuses années. L'Unesco, par son programme sur l'homme et la biosphère et par la Convention sur le patrimoine mondial, leur a elle aussi apporté un important soutien, tandis que la FAO - institution de l'ONU - la Banque mondiale, et de nombreux organismes bilatéraux de développement apportaient également d'importantes contributions. Le PNUE, par de nombreux projets menés en conjonction avec l'UICN, a joué un grand rôle dans la conservation des aires protégées; un nouveau contrat de trois ans vient d'être signé par lequel le PNUE apporte un soutien considérable au programme des aires protégées de l'UICN jusqu'à la fin de 1983.

La CPNAP continue à promouvoir l'accroissement du soutien international aux aires protégées en demandant à ses membres de l'orienter sur les aires prioritaires et les activités sur lesquelles se concentrer.

La réunion de Garoua Afin de maintenir efficacement la communication au sein de son réseau de membres, et de réunir des informations provenant de toutes les provinces biogéographiques, la Commission a tenu deux réunions par an ces dernières années dans chacune des huit provinces biogéographiques, à tour de rôle. Pour la première réunion de la commission jamais tenue en Afrique au sud du Sahara, nous avons accepté avec reconnaissance l'aimable invitation du Délégué Général au Tourisme, M. Oumarou Aminou, et de M. Andrew Allo, Directeur de l'Ecole de la faune, de tenir la réunion à Garoua, au Cameroun. Ce lieu était particulièrement approprié, puisque s'y trouve l'Ecole bien connue de M. Allo, où sont formés les directeurs des aires protégées de la plus grande partie de l'Afrique francophone. Quelque 52 étudiants de l'Ecole ont rejoint les 24

the school joined the 24 members of CNPPA at the meeting, allowing a productive interchange of perspectives, particularly during the several workshop sessions held during the meeting.

In order to apply to the Afrotropical Realm the three broad roles of CNPPA (inventory/monitoring, effective management, and international support), the Garoua gathering was guided by three main objectives:

1. To assess the current coverage of protected areas in Africa south of the Sahara by biogeographic province; to revise the list of African protected areas (a mandate given to IUCN/CNPPA by the UN Economic and Social Council); and to collect basic information about the protected areas. (See Chapter II).
2. To address the question of effective management, including training of all levels of protected areas personnel, legislation, current management practices, and ways and means of helping the man on the ground. (See Chapter III).
3. To review relevant international support for conservation in the Afrotropical Realm, stressing IUCN/WWF/UNEP and Unesco programmes, with a view to developing a specific plan of action to guide support for effective protected area management in the region. (See Chapter IV).

To address these objectives, the agenda for the meeting was established as follows:

<u>Agenda item and topic</u>	<u>Expected output</u>
1. Opening and Introduction	
2. Valor Award	
3. CNPPA Monitoring of the Protected Areas of the World	Revised list of Afrotropical protected areas, including assignment of each area to a CNPPA category; revised map of biogeographic provinces, with protected areas; protected area data sheets
4. Development of Management Capacity	Definition of CNPPA's role in training
5. Effective Management of Protected areas	Revised questionnaire; trial of questionnaire; system for evaluation of protected areas management
6. Unesco's Protected Areas Programmes	List of potential World Heritage Sites; list of potential Biosphere Reserves
7. IUCN's Protected Areas Programme in Africa	Recommendations for a specific plan of action for the IUCN Programme on protected areas in Africa (based partially on the results of the Ouagadougou meeting)

membres de la CPNAP à la réunion, ce qui a entraîné un fructueux échange d'opinions, notamment lors des diverses sessions des groupes de travail tenues pendant la réunion. Pour appliquer au domaine afrotropical les trois grands rôles de la CPNAP (inventaire/surveillance continue, gestion efficace, soutien international), la réunion de Garoua a été guidée par trois principaux objectifs:

1. Evaluer la couverture actuelle en aires protégées, de l'Afrique au sud du Sahara, province biogéographique par province biogéographique; réviser la liste des aires protégées africaines (tâche confiée à l'UICN/CPNAP par le Conseil économique et social de l'ONU); et réunir les informations de base sur les aires protégées (voir chapitre II).
2. Traiter la question de l'efficacité de la gestion, y compris la formation du personnel des aires protégées à tous les niveaux, la législation, les pratiques actuelles de gestion, et la manière et les moyens d'aider l'homme de terrain. (Voir chapitre III).
3. Passer en revue le soutien international à la conservation dans le domaine afrotropical, en mettant l'accent sur les programmes UICN/WWF/PNUE et de l'Unesco, pour mettre au point un plan d'action spécifique pour orienter le soutien à une gestion efficace des aires protégées dans la région. (Voir chapitre IV).

Pour aborder ces objectifs, l'ordre du jour de la réunion a été fixé comme suit:

Point de l'ordre du jour
et thème

Résultats escomptés

1. Ouverture et introduction
2. Médaille des parcs de la valeur
3. Surveillance continue des aires protégées du monde par la CPNAP
4. Développement de la capacité de gestion
5. Gestion efficace des aires protégées
6. Programmes de l'Unesco sur les aires protégées
7. Programme de l'UICN sur les aires protégées en Afrique

Liste révisée des aires protégées afrotropicales, avec affectation de chaque région à une catégorie de la CPNAP; carte-révisée des provinces biogéographiques avec aires protégées; fiches de données sur les aires protégées

Définition du rôle de la CPNAP dans la formation

Questionnaire révisé; essai du questionnaire; système d'évaluation de la gestion des aires protégées.

Liste des sites potentiels du patrimoine mondial; liste des réserves de la biosphère potentielles

recommandations pour un plan d'action spécifique pour le programme de l'UICN sur les aires protégées d'Afrique (basé en partie sur les résultats de la réunion de Ouagadougou).

8. Conservation in Cameroon
9. Other Business
10. Recommendations and Closing

Since the meeting generated a number of important products which were felt should become a part of the current literature on protected areas, CNPPA is producing this Proceedings volume, with a chapter devoted to each of the major objectives of the meeting. This will provide a benchmark by which our future efforts can be judged, a stimulus to future meetings elsewhere, and a more comprehensive means of providing information to those CNPPA members and others who were unable to attend.

While it was generally felt that the meeting was productive, there were still a number of areas which need considerable improvements:

1. Attendance at the meeting was not representative of the protected area expertise available in Africa. This was largely due to a lack of budgetted funds, so in the future we will attempt to arrange meetings sufficiently far in advance so that travel for CNPPA members can be included in the regular budgets of their own organizations. The spotty attendance was also partly due to the relatively poor representativeness of our membership in Africa, but as one result of the meeting, we were able to identify over 30 potential new members, adding over 20 countries to our membership list and giving nearly complete coverage for the continent.
2. The meeting did not include representation from the development agencies, either national or international. If conservationists are to make their case more effectively in the arenas where the important decisions are made, they must improve their communication with the development agencies.
3. While considerable new information was received, it was in fact far short of what is required. In the future, it will be necessary to prepare the meetings more carefully, so that those who attend are able to bring all necessary materials with them when they come.
4. The meeting was so busy that there was insufficient time to discuss broad conservation issues in an open and relaxed yet guided atmosphere. In the future, each regional meeting should contain at least half a day devoted to "brainstorming sessions".

Conclusion

The Garoua meeting was a particularly important one for CNPPA for several reasons. It was the first to move beyond the inventory/monitoring phase and begin the active promotion of effective management; it was the first to bring professional land-use managers together with students studying to become protected area personnel; it was the first to develop an indicative inventory of potential World Heritage Sites; it was the first to generate a published volume of Proceedings (which, if successful, will be continued); and it was the first to be held in the Afrotropical Realm.

But all of these "firsts" imply that there will be "seconds", and indeed it is hoped that Garoua will soon be just one more milestone on the road to a worldwide system of effectively managed national parks and protected areas.

8. La conservation au Cameroun

9. Questions diverses

10. Recommandations et clôture

La réunion ayant abouti à un certain nombre de résultats importants qui devraient trouver leur place dans la littérature actuelle sur les aires protégées, la CPNAP a préparé le présent volume de compte-rendu en consacrant un chapitre à chacun des principaux objectifs de la réunion. L'on pourra s'y référer pour juger des efforts futurs; ce sera un encouragement pour les réunions qui se tiendront ailleurs par la suite, et une source d'informations complète pour les membres de la CPNAP et autres personnes qui n'ont pas pu assister à la réunion.

Si l'on s'est généralement accorde à dire que la réunion fut fructueuse, il y a néanmoins plusieurs points qui doivent encore être grandement améliorés:

1. La composition de la réunion n'était pas représentative de l'expertise en aires protégées existant en Afrique. Cela est en grande partie dû à l'absence de moyens financiers budgétisés; nous essayerons donc à l'avenir d'organiser les réunions suffisamment à l'avance pour que le voyage des membres de la CPNAP soit inscrit dans le budget ordinaire de leurs organisations respectives. Cette participation clairesemée était aussi due en partie à ce que notre commission est relativement peu représentée en Afrique. Mais l'un des résultats de la réunion fut que nous avons trouvé plus d'une trentaine de membres potentiels, ce qui ajouterait plus de 20 pays à notre liste, couvrant ainsi presque complètement le continent africain.

2. Les organismes de développement, nationaux ou internationaux, n'étaient pas représentés à la réunion. Si les conservationnistes veulent donner plus de poids à leurs arguments là où les décisions importantes sont prises, ils doivent améliorer leur communication avec les organismes de développement.

3. Si une moisson d'informations considérable a été reçue, l'on était quand même bien loin de ce qui est nécessaire. Il faudra à l'avenir, préparer les réunions plus soigneusement afin que ceux qui y participent puissent apporter avec eux tout le matériel nécessaire.

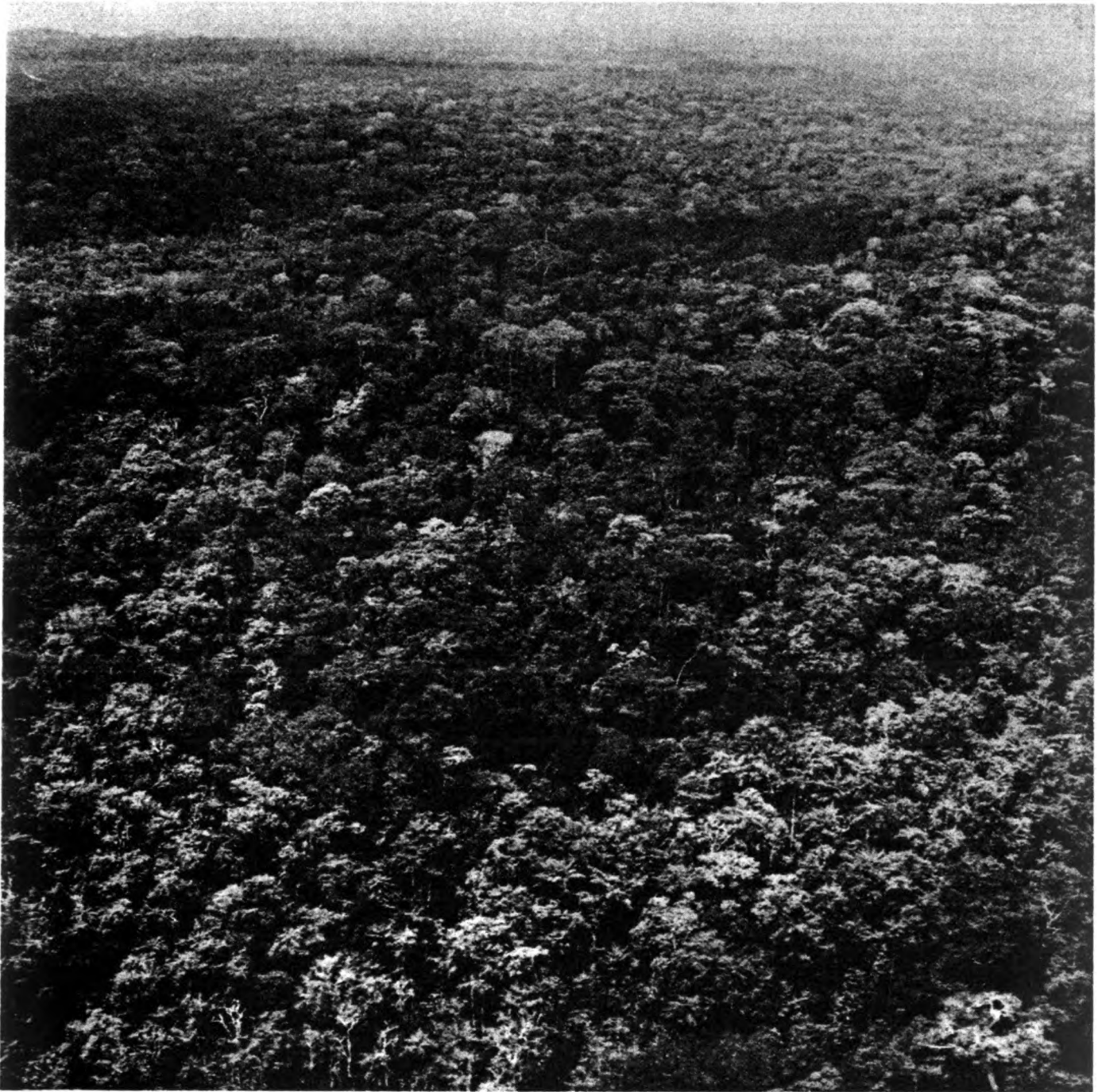
4. Il y a eu tant à faire que les participants n'ont pas en suffisamment de temps pour discuter des grandes questions de la conservation dans une atmosphère à la fois ouverte et défendue, et pourtant guidée. A l'avenir, chaque réunion régionale devrait consacrer une demie journée au moins à la recherche d'idées nouvelles.

Conclusion

La réunion de Garoua fut particulièrement importante pour la CPNAP pour plusieurs raisons. Elle fut la première à dépasser la phase inventaire/surveillance continue et à commencer activement la promotion de la gestion efficace: Elle a été la première à mettre en contact des professionnels de l'aménagement du territoire avec des étudiants qui feront un jour partie du personnel des aires protégées; elle a été la première à faire, à titre indicatif, l'inventaire des sites potentiels du patrimoine mondial; et elle a été la première à avoir lieu dans une région afrotropicale.

Mais toutes ces "premières" impliquent qu'il y aura des suites, et, en vérité, l'on espère que Garoua ne sera bientôt plus qu'un jalon supplémentaire dans la constitution d'un réseau mondial de parcs nationaux et aires protégées efficacement gérées.

CHAPTER II. MONITORING THE PROTECTED AREAS
OF THE AFROTROPICAL REALM



The tropical rainforest of the Tai National Park is the most important rainforest left in West Africa, requiring constant attention to prevent losses to other sorts of land-use. Tai conserves plant genetic resources of considerable actual and potential value to humanity.

(Photo: U. Rahm, WWF)

CHAPTER II: MONITORING THE PROTECTED AREAS OF THE AFROTROPICAL REALM

2.1 Introduction

One of the major objectives of the meeting was to assess the current coverage of the Afrotropical Realm's major biomes by protected areas, and to increase our knowledge about the protected areas. Documentation submitted to the meeting included:

- "The CNPPA system for monitoring the protected areas of the world".
- "United Nations List of National Parks and Equivalent Reserves in Africa".
- "Protected areas of the Afrotropical Realm: distribution by biogeographical provinces".
- A map at a scale of 1:4,000,000 showing all protected areas.
- A map at a scale of 1:6,000,000 showing biogeographic provinces and country boundaries.

Output: The meeting was asked to consider these documents and to revise them as required. This included assigning each protected area to its appropriate CNPPA category (based on the 1978 CNPPA paper on "Criteria, objectives, and categories for protected areas"); reviewing the assignment of protected areas to biogeographic provinces and locating them on both maps; and making corrections on the "UN List" and suggesting areas for addition. The lists beginning on page are the revised versions, based on the work of the meeting. (Further comments are encouraged).

In addition, country reports were submitted along with data sheets for the following countries:

1. Ethiopia, by Teshome Ashine (in absentia) (page 56)
2. Kenya, by Jim Thorsell and Fred Pertet (page 66)
3. Cameroon, by the Delegation General of Tourism (page 73)
4. Senegal, by Mamadou Diom (page 80).

Data sheets for a total of 130 areas were submitted to the meeting, and others are promised for the near future.

Follow-up action: Based on this information, a publication entitled "The Protected Areas of the Afrotropical Realm" will be prepared during the second half of 1981, to be submitted for further comments and revisions by the CNPPA network.

The scheme of biogeographic provinces will be revised, and new maps will be prepared to include vegetation and protected areas.

2.2 THE CNPPA SYSTEM FOR MONITORING THE PROTECTED AREAS OF THE WORLD

A. Introduction

Following two years of intensive deliberations within the Commission and with colleagues in other sections of the IUCN Secretariat, the World Wildlife Fund and IUCN member organizations, CNPPA in 1979 began to expand its effort to assess the national parks and other protected areas of the world.

This concern stems from the 1959 Resolution of the United Nations Economic and Social Council which charged IUCN with the task of forming and maintaining an up-to-date list of the world's national parks and equivalent reserves. Fred Packard, Jean-Paul Harroy, Jacqueline Henricot as well as other members of IUCN, along with the strong support of Sir Hugh Elliott and the IUCN Secretariat, have contributed major works listing the Parks and Equivalent Reserves of the world.

The evolving attitudes and procedures of economic and social development, environmental conservation and land and water resources utilization have of necessity created new concepts and approaches to the protection of plant and animal species. The diversity of cultures and socio-economic and political systems have led to the establishment of various means of managing natural areas. The world community has devised integrative programmes such as "Man and the Biosphere" and the "World Heritage Convention". In virtually all nations, the urgency to link natural area preservation to development through research, base-line monitoring, environmental assessment, genetic materials maintenance, watershed management, environmental education, and the like, has forced a shift in perspectives for wildland management. Conservation has now become an intimate and inseparable part of social and economic development. Efforts at development will be of consequence only for the short run unless the resources of wildlands are contemplated appropriately. Similarly, natural areas will remain only to the extent that they play a practical role in humankind's present and future existence.

The World Conservation Strategy has assigned a major role to the gathering and presentation of information on the protected areas of the world. The reasons for this are clear: national parks and other protected areas, when appropriately planned and managed, can serve as fundamental means to the survival of the earth's living resources; these areas provide the context within which research, monitoring and education on the environment can take place; and the maintenance of plant and animal species and their genetic diversity through the protection of habitats and ecosystems is of universal interest and is capable of uniting peoples of all nations in making a contribution to the total human habitat and world peace.

With the rapidity of change everywhere an effort to assess protected areas must be dynamic. IUCN efforts at publishing "lists" have been difficult because of the need to revise information frequently, and the efforts have been frustrating because of the difficulty in obtaining information on many parts of the world.

With these considerations in mind the Commission has designed a method for gathering information on protected areas which is (a) continuous, and (b) involves the participation of local professional institutions and knowledgeable individuals. This approach was presented and discussed at the 14th General Assembly in Ashkhabad and received the support of IUCN membership, the Secretariat and other Commissions.

CNPPA meetings, including Costa Rica in March 1979, Australia in October 1979, Scotland/Netherlands in May-June 1980, Cameroon in November 1980, and Peru in June 1981, are focussing on the implementation of this monitoring task, in hopes of having a considerable body of data to present to the 15th IUCN General Assembly in New Zealand in October 1981.

Further, beginning in January 1981, the data submitted by our regional coordinators will be included in a computerized data bank, starting in Virginia, USA, but being installed in Kew, U.K. by early 1982. This system, being established in cooperation with the Nature Conservancy, will make our data more accessible and greatly simplify the production of the various publications which are a vital part of bringing the results of our monitoring effort to the people who need these results. Further details are presented in Annex I to this paper.

B. Objective and Purpose

The objective of a monitoring programme is to ensure that the specific objectives of each protected area are attained and continue to be attained. This requires site specific information and personal contact relating to the effective management of protected areas on a regular basis.

The information is required so that effective intervention can be made to bring about corrective action. These interventions could be in the form of financial or technical assistance or by specific approaches to government leaders.

Monitoring can also provide the basis for establishing priorities for future action. This requires a biogeographical classification system which can identify first at a global level and secondly at a regional or national level the distribution of protected areas in relation to the species and ecosystems which require protection. Biogeographic provinces or ecosystems which are not adequately protected become priority targets for action.

C. Guidelines for Participants -- Phase I

Objective: To inventory the existing and proposed protected areas of the world, in support of the IUCN World Conservation Strategy.

Format: The IUCN World Directory of National Parks and Protected Areas will continue to be employed and expanded. It will provide the format with only slight modification. All efforts should be made to describe each protected area within the allotted space on two sides of one sheet of paper.

Criteria: The 1978 CNPPA paper on Objectives, Criteria and Categories for Protected Areas (copies available from the Executive Officer) will serve to orient the work. The map of the world's biological provinces prepared by Dr. M. Udvardy and now being modified will serve to determine "monitoring units" (copies also available from the Executive Officer). It can be expected that both documents will be modified during the course of the programme as concepts and details are clarified.

Method:

One individual has been invited to be the "coordinator" for each "monitoring unit" of the world. The coordinator is a person knowledgeable on the management and administration of the protected areas within the particular part of the world and is conversant or knowledgeable on the scientific aspects of ecological conservation.

Each coordinator is urged to identify and contact directly those technical and professional colleagues from local areas who can assist the coordinator in gathering pertinent information on protected areas. These assistants may come from government service, universities, research institutes and management agencies. While they would not necessarily be expected to participate actively in other Commission affairs, they would participate at the local level in the preparation of the information sheets on protected areas.

In the interest of consistency, it is suggested that each member, consultant or correspondent of CNPPA who is participating in the Commission's programme to monitor the protected areas of the world, follow these steps:

1. Examine the IUCN World Directory of National Parks and Protected Areas. Note the information sheets which have already been prepared for countries and portions of countries in your particular monitoring unit.
2. Check existing sheets for accuracy. Where corrections are warranted, please fill in a new sheet as appropriate. Blank sheets are provided.
3. Prepare sheets for each established national park and then proceed to other protected areas of the categories which have been officially established by the corresponding government.
4. Prepare sheets for each area which has been formally proposed within the programme or strategy of the local management agency.
5. Send photocopies (xerox, etc.) of each directory sheet to the Chairman and the Executive Officer.

It is presumed that each protected area will receive regular visits by the coordinator or his assistants to ensure that the protected areas remain valid. Changes in status are to be reported on new data sheets when appropriate.

It is expected that each coordinator will maintain a file of each information sheet and the data collected in their preparation. However, to maintain simplicity and practicality, only the single information sheet need be reproduced and circulated. By following the suggested format, each protected area can be presented on the two sides of a single piece of paper which can be reproduced in a standard copying machine. These sheets will then be assembled by the Steering Committee and reproduced by the Chairman and Executive Officer for use at IUCN Headquarters and all other members as desirable.

Procedure: All coordinators and their local teams from around the world are to work simultaneously on this effort. The Chairman and Executive Officer are to be kept up-to-date by simply sending them directory sheets to show new areas or changes in the status of existing areas.

Future CNPPA meetings will feature particular "realms" (Caramerica, Palearctic, Neotropical, etc.). The agenda at each meeting will include a review of the progress of monitoring in the host realm. The information sheets will be reviewed and a brief status report on the protected areas of the realm will be prepared. Attention to problems and suggested improvements in the method will be given.

In this way, it is expected that a status report on the protected areas of the entire world can be presented to the 15th General Assembly in 1981.

D. Outlook for Phase II

The preparation of information sheets on the existing and proposed protected areas provides the Commission with a basic tool to judge the status of protection for the world's living resources. This is a vital input to IUCN's World Conservation Strategy and will be required for updating that document and for the selection of priorities for action in the future.

However, this work only provides us with the first full overview of which areas are claimed to provide protection in particular biological provinces of the world. The next task at hand will be to determine whether the living resources of the world are protected in fact.

Phase II will concentrate on the evaluation of protected areas. Are the protected areas of sufficient size, the correct shape, given appropriate management, sufficiently protected? These will be the questions of major concern, among others. For this purpose we will require a clear concept of how to evaluate areas for their capacity to maintain plant and animal species. During Phase I, this concept is being elaborated and a trial questionnaire has been prepared.

Finally, it is important to re-emphasize that (a) the concepts of "biological province" and the "categories" will evolve during our work. While efforts should be made to standardize so that our results are comparable, there is no intrinsic value in "freezing" ideas. And, (b) the job of monitoring is a continuous, never-ending activity. At any given period the CNPPA should be able to respond to enquiries concerning the current status and distribution of the protected areas of the world.

E. Conclusion

This monitoring effort has a number of important applications. For example, it will allow protected area managers to compare their areas with others around the world, in order to focus their management efforts appropriately. It will allow IUCN and WWF to order priorities for support on a much more objective basis. It will allow CNPPA to respond to requests from international development agencies about protected areas which might be

effected by a new project anywhere in the world. The possible applications are limited only by our collective imaginations, and it is important to remember that the data we are collecting will be available to all who have contributed to the system.

Another vital point is that by collecting our data in a more professional and competent manner, we demonstrate to governments, conservation organizations, and individuals around the world that national parks and protected areas are very useful tools for managing areas which should for various reasons be kept in a natural or semi-natural state. By so clearly showing our professional commitment to ecologically sound development, we are enhancing the prestige of all national parks departments around the world. The immediate beneficiaries of this effort will be our network in the field. The ultimate beneficiary is nature itself, and mankind.

Please feel free to address any questions to Dr. Kenton Miller, Chairman of CNPPA, School of Natural Resources, University of Michigan, Ann Arbor, Michigan 48109, USA, or to Jeffrey A. McNeely, Executive Officer of CNPPA, IUCN, Avenue de Mont Blanc, 1196 Gland, Switzerland.

2.3 UNITED NATIONS LIST OF NATIONAL PARKS
AND EQUIVALENT RESERVES IN AFRICA

2.3 LISTE DES NATIONS UNIES DES PARCS NATIONAUX
ET RESERVES ANALOGUES EN AFRIQUE 1980

This list includes all African protected areas included in the 1980 UN List of National Parks and Equivalent Reserves, but with the four separate lists (National Parks and Equivalent Reserves, World Heritage Sites, Nature Reserves, and Biosphere Reserves) combined into a single list divided into the CNPPA categories.

Cette liste inclut toutes les régions protégées d'Afrique incluses dans la Liste 1980 des Nations Unies des parcs nationaux et des réserves analogues, mais en quatre listes distinctes (parcs nationaux et réserves analogues, sites du patrimoine mondial, réserves naturelles, réserves de la biosphère) combinées en une seule liste divisée selon les catégories de la CPNRP.

Areas underlined have data sheets in the World Directory or submitted to the meeting

Areas marked with an asterisk* are Biosphere Reserves

Il a y des feuilles d'information dans la Répertoire mondial pour les aires soulignées

Les aires accompagnées d'un astérisque* sont des réserves de la biosphères

Abbreviations

CA	Conservation Area	Zone de conservation
FOFR	Forest and Fauna Reserve	Réserve forestière et faunique
FR	Fauna Reserve	Réserve de faune
GR	Game Reserve	Réserve de gibier
GS	Game Sanctuary	Sanctuaire de gibier
NP	National Park	Parc national
NR	Nature Reserve	Réserve naturelle
SNR	Strict Nature Reserve	Réserve naturelle intégrale
WHS	World Heritage Site	Site de patrimoine mondial
WS	Wildlife Sanctuary	Sanctuaire de faune sauvage

Country/Pays	Biogeographic Code Biogéographique	Area/hectares Superficie	Date
ANGOLA			
Category II			
1. Iona	3.15.7	1,600,000	1964
2. Kissama	3.8.4	1,400,000	NA
3. Kameia	3.7.4	960,000	1957
4. Bikuar	3.8.4	790,000	1964
5. Kaneandala	3.8.4	60,000	1970
6. Moçamedes Reserve	3.15.7		
7. Mupa National Park	3.8.4		
8. Ambriz Reserve	3.8.4		
BENIN (DAHOMÉY)			
Category I			
1. Djona FR		225,000	
2. Pendjari FR		200,000	
3. Atacora FR		175,000	
Category II			
1. "W"	3.4.4	502,050	1954
2. Boucle de la Pendjari	3.4.1	275,500	1961
BOTSWANA			
Category I			
1. Central Kalahari GR	3.16.7	5,280,000	1957
2. Makgadigadi Pans GR	3.8.4	390,000	1970
3. Mikaelelo	3.8.4	388,000	1974
4. Khutse GR	3.16.7	250,000	1971
5. Moremi W.R.	3.8.4	181,300	1971
6. Mabuase Hube GR	3.16.7	180,000	1971
Category II			
1. Gemsbok (contiguous with Kalahari-Gemsbok NP in South Africa)	3.16.7	2,480,000	1971
2. Chobe NP	3.8.4	1,080,000	1967
3. Nxai Pan NP	3.8.4	210,000	1971

CAMEROON/CAMEROUN

Category I

1. Dja FR	3.2.1	526,000	1950
2. Santchon GR			
3. Campo FOFR	3.2.1	300,000	1932
4. Douala-Edea FOFR	3.2.1	160,000	1932
5. Korup GR	3.2.1	87,000	
6. Lobeke Lake NR	3.4.4	43,000	1974

Category II

1. Faro NP	3.4.4	330,000	1932
2. Bouba N'Djiddah	3.4.4	220,000	1968
3. Benoué	3.4.4	180,000	1968
4. <u>Waza</u> NP*	3.4.4	170,000	1968
5. Mozogo, Gokoro	3.4.4	4,500	1968
6. <u>Kalamaloué</u> NP	3.4.4	2,700	1972

Category IV

1. Pangar-Djerem GR	3.2.1	300,000	1968
2. Kimbi River GR	3.2.1	5,625	1964

CENTRAL AFRICAN REPUBLIC/REPUBLIQUE CENTRAFRICAINE

Category I

1. Vassako-Bolo SNR	3.5.4	150,000	1940
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Category II

1. Manovo-Gounda/Saint Floris	3.4.4	1,966,800	1933
2. Bamingui-Bangoran* IR	3.4.4	1,000,000	1936
3. Presidentiel Avakaba	3.4.4	175,000	1968
4. Andre Felix National Park	3.4.4	175,000	1968

Category IV

1. Zemongo FR	3.4.4	1,370,000	1925
2. Ouandjia-Vakaga	3.4.4	965,000	1940
3. Yata-Ngaya FR	3.4.4	509,000	1940
4. Girbingui-Bamingui	3.4.4	500,000	1934
5. L'aouk-Aoukale	3.4.4	319,000	1940
6. Nana-Barya	3.4.4	220,000	1953
7. Koukourou-Bamingui	3.4.4	150,000	1940

CHAD/TCHAD

Category I

1. Ouadi Rimé - Ouadi Achim FR	3.12.7	8,000,000	1969
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Category II

1. Zakouma	3.4.4	297,200	1965
2. Manda	3.4.4	110,000	1965

CONGO, PEOPLE'S REPUBLIC OF THE/CONGO, REPUBLIQUE POPULAIRE DU

Category I

1. <u>Lefini</u> FR	3.2.1	650,000	1951
2. <u>M'boko</u> GR	3.2.1	90,000	1955
3. <u>Lekoli-Pandaka</u> FR	3.2.1	68,000	1955
4. Mount Mavoumbou GR	3.2.1	50,000	1958
5. <u>Kilometre 77 (La Tsoulou)</u> Partial FR	3.2.1	30,000	1963
6. <u>Nyanga Sud</u> GR	3.2.1	23,000	1958
7. <u>Mont Fouari</u> FR	3.2.1	18,000	1958
8. <u>Nyanga Nord</u> FR	3.2.1	18,000	1958
9. Conkouati FR			

Category II

1. <u>Odzala</u> NP*	3.2.1	126,000	1940
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ETHIOPIA/ETHIOPIE

Category I

1. Gambella NP	3.14.7	1,080,000	
2. Yangudi Rassa NP	3.18.12	300,000	1978
3. Mago NP	3.18.12	220,000	1978
4. Nechisar	3.18.12	90,000	1972
5. Abijata-Shalla Lakes NP	3.18.12	80,000	1971

Category II

1. Omo National Park	3.18.12	345,000	1969
2. Bale Mountains National Park	3.18.12	167,500	
3. <u>Awash</u> NP	3.18.12	72,000	1969
4. <u>Simen Mountains</u> NP	3.18.12	16,500	1970 WBS

GABON

Category I

1. Sette-Cama NR	3.2.1	700,000	1966
2. Lope-Offoue NR	3.2.1	500,000	1962
3. Moukalaba NR	3.2.1	100,000	1962
4. Ndende NR	3.2.1	62,000	1962

Category II

1. <u>Wonga-Wongué</u> NP	3.2.1	358,000	1967
2. Okanda National Park	3.2.1	190,000	
3. Offoué Integral Reserve	3.2.1		

GAMBIA

Category II

1. Le Baboon Island NP	3.4.4	2,000	
2. Le Kiang West NP	3.4.4		
3. Le Delta River NP	3.4.4		

GHANA All Game Production Reserves are equivalent to GR

Category I

1. Kogyae SNR	3.1.1	32,375	1971
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Category II

1. <u>Mole</u> NP	3.4.4	492,100	1971
2. <u>Digby</u> NP	3.4.4	312,354	1971
3. <u>Bui</u> NP	3.1.1	207,200	1971
4. Nini-Suhien National Park	3.1.1	16,278	1976
5. <u>Bia</u> NP	3.1.1	7,700	1977

GUINEA/GUINEE

Category I

1. Mount Nimba SNR (also in Ivory Coast)	3.1.1	13,000	1944
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IVORY COAST/COTE D'IVOIRE

Category I

1. <u>Asagny</u> FR	3.1.1	30,000	1960
2. <u>Haut Bandama</u> NR	3.4.4	17,000	1973
3. <u>Mont Nimba</u> (also Guinea/ Guinée) SNR	3.1.1	5,000	1944

Category II

1. <u>La Comoé</u> NP	3.4.4	1,150,000	1968
2. <u>Tai</u> NP*	3.1.1	330,000	1972
3. <u>Marahoué</u> NP	3.1.1	101,000	1968
4. Mount Sangbé	3.4.4	100,000	1975
5. <u>Mont Peko</u> NP	3.4.4	34,000	1968
6. <u>Banco</u> NP	3.1.1	30,000	1953

Category IV

1. <u>N'Zo Partial Fauna Reserve</u>	3.	73,000	1972
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KENYA

Category I

1. Masai-Mara GR	3.5.4	151,300	1961
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Category II

1. <u>Tsavo NP</u>	3.14.7	2,082,114	1948
2. <u>Marsabit Reserve</u>	3.21.12	208,842	1962
3. <u>Masai Mara Reserve</u>	3.5.4	167,274	1948
4. <u>Sibiloi NP</u>	3.26.14	157,085	1973
5. <u>Boni Reserve</u>	3.14.7	133,960	1976
6. <u>Dodori Reserve</u>	3.14.7	87,739	1976
7. <u>Meru NP</u>	3.14.7	87,044	1966
8. <u>Aberdare NP</u>	3.21.12	76,619	1950
9. <u>Mount Kenya NP</u>	3.21.12	71,559	1949
10. <u>Amboseli NP</u>	3.14.7	39,206	1974
11. <u>Buffalo Springs Reserve</u>	3.14.7	33,915	pending
12. <u>Lambwe Valley Reserve</u>	3.5.4	30,814	1966
13. <u>Shaba Reserve</u>	3.14.7	23,910	1974
14. <u>Samburu Reserve</u>	3.14.7	22,510	pending
15. <u>Shimba Hills Reserve</u>	3.5.4	19,251	
16. <u>Mount Elgon NP</u>	3.21.12	16,923	1968
17. Tana River Primate Reserve	3.14.7	16,807	1976
18. <u>Nairobi NP</u>	3.5.4	11,721	1946
19. Lake Bogoria Reserve	3.5.4	10,705	1974
20. <u>Lake Nakuru NP</u>	3.14.7	5,763	1967
21. <u>Kisiti/Mpunguti Marine Park</u>	3.14.7	2,301	1973
22. <u>Ol Doinyo Sabuk</u>	3.5.4	1,842	1967
23. <u>Malindi Marine Park</u>	3.14.7	599	1968
24. East Turkana National Park	3.26.14		

LESOTHO

Category II

1. Sehlabathebe	3.22.12	6,500	1970
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LIBYA/LIBYE

Category I

1. Zellaf NR	2.17.6	100,000	1978
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Category II

1. Kouf	2.17.6	40,000	1978
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MADAGASCAR

Category I

1.	<u>Tsingy de Bemaraha</u> <u>Natural Reserve</u>	3.9.4	152,000	1927
2.	<u>Andogabela Natural Reserve</u>	3.3.1	76,020	1939
3.	<u>Zahamena Natural Reserve</u>	3.3.1	73,160	1927
4.	Ankaranfantsika	3.9.4	60,520	1927
5.	<u>Marojejy Natural Reserve</u>	3.3.1	60,150	1952
6.	<u>Taaratanana Natural Reserve</u>	3.9.4	48,622	1927
7.	<u>Tsimanampetsotsa</u> <u>Natural Reserve</u>	3.10.4	43,200	1927
8.	<u>Andringitra Natural Reserve</u>	3.3.1	31,160	1927
9.	<u>Tsingy de Namoroka</u> <u>Natural Reserve</u>	3.9.4	21,742	1927
10.	<u>Betampona Natural Reserve</u>	3.3.1	2,228	1927
11.	<u>Lokobe Natural Reserve</u>	3.9.4	740	1927

Category II

1.	<u>Isale National Park</u>	3.9.4	81,540	1962
2.	<u>Ambre Mountain National Park</u>	3.9.4	18,200	1958

MALAWI

Category II

1.	<u>Nyika NP</u>	3.7.4	304,385	1966
2.	<u>Kasungu NP</u>	3.7.4	204,800	1922
3.	<u>Liwonde National Park</u>	3.7.4	58,616	1973
4.	<u>Lungwe NP</u>	3.7.4	12,800	1928
5.	Lake Malawi National Park	3.29.14	6,868	1980

Category IV

1.	Nkhota-Kota Game Reserve	3.7.4	176,000	1954
2.	Majete Game Reserve	3.7.4	65,000	
3.	Mwabui Game Reserve	3.7.4	15,500	1954

MALI

Category I

1.	Elephants NR	3.4.4	1,200,000	(2 guards only)
2.	Badinko NR		193,000	
3.	Rina NR		136,000	
4.	Kongosambougou NR		92,000	
5.	Kenie-Baoule NR		67,800	
6.	Sudan NR		37,000	

Category II

1.	Ansongo-Menaka NP	3.4.4	1,750,000	(2 guards only)
2.	Boucle de Baoulé	3.4.4	350,000	1954

Category IV

1. Fina FR	3.4.4	136,000	
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MAURITANIA/MAURITANIE

Category II

1. Banc d'Arguin (marine component)	3.12.7	1,173,000	1978
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MAURITIUS/MAURICE

Category I

1. <u>Macchabée/Bel Ombre</u> NR*	3.25.13	3,594	1951
2. <u>Round Island</u> NR	3.25.13	159	1957

MOZAMBIQUE

Category I

1. Niassa GR			
2. Maromeo GR			

Category II

1. Banhine	3.8.4	ca. 700,000	1972
2. Zinave	3.8.4	ca. 500,000	1973
3. Gorongosa	3.7.4	377,000	1960
4. Bazaruto (marine)	3.8.4	ca. 8,000	1971

NAMIBIA (SOUTHWEST AFRICA /AFRIQUE DU SUD-OUEST)

Category I

1. Hardap GR	3.16.7	15,845	1957
2. Cape Cross Seal Reserve	3.15.7	6,000	1968
3. <u>Daan Viljoen</u> GR	3.15.7	3,953	1962

Category II

1. <u>Namib Desert/Naukluft</u> NP	3.15.7	2,283,609	1904
2. <u>Etosha</u> NP	3.15.7	2,227,000	1907
3. <u>Skeleton Coast</u>	3.15.7	1,639,000	1971
4. Fish River Canyon Park	3.15.7	46,117	1965
5. Waterberg Plateau Park	3.16.7	40,000	1972
6. <u>Naukluft Mountain Zebra</u> NP	3.15.7	21,986	1964

NIGER

Category I

- | | | | |
|--------------------|--------|---------|------|
| 1. <u>Tamou</u> NR | 3.12.7 | 142,640 | 1962 |
|--------------------|--------|---------|------|

Category II

- | | | | |
|--|-------|---------|------|
| 1. "W" (also in Benin and Upper Volta) | 3.4.4 | 334,375 | 1954 |
|--|-------|---------|------|

NIGERIA

Category I

- | | | | |
|---------------------|--------|---------|------|
| 1. Lake Chad GS | 3.12.7 | 704,480 | 1978 |
| 2. Bordu GR | 3.1.1 | 350,000 | 1966 |
| 3. Yankari GR | 3.1.1 | 225,285 | 1955 |
| 4. Chineurme Duguma | 3.1.1 | 35,431 | 1978 |

Category II

- | | | | |
|----------------|-------|---------|------|
| 1. Kainji Lake | 3.1.1 | 530,900 | 1975 |
|----------------|-------|---------|------|

RWANDA

Category II

- | | | | |
|--|---------|---------|------|
| 1. Kagera | 3.5.4 | 251,000 | 1934 |
| 2. Volcanoes (contiguous with Virunga NP in Zaire) | 3.20.12 | 23,000 | 1925 |

SENEGAL

Category I

- | | | | |
|---------------|--|---------|------|
| 1. Ferlo-Sud | | 663,700 | 1972 |
| 2. Ferlo-Nord | | 487,000 | 1972 |

Category II

- | | | | |
|---|-------|---------|------|
| 1. <u>Niokolo-Koba</u> NP | 3.4.4 | 913,000 | 1954 |
| 2. Delta du Saloum (14,600 land, 58,400 water) NP | 3.1.1 | 73,000 | 1976 |
| 3. <u>Djoudj</u> NP | 3.4.4 | 16,000 | 1971 |
| 4. <u>Basse-Casamance</u> NP | 3.4.4 | 5,000 | 1970 |
| 5. Langue de Barbarie NP | 3.1.1 | 2,000 | 1976 |
| 6. Ile de la Madeleine NP | 3.4.4 | 500 | 1976 |

SEYCHELLES

Category I

- | | | | |
|----------------|---------|--------|------|
| 1. Aldabra SNR | 3.24.13 | 19,000 | 1976 |
|----------------|---------|--------|------|

SIERRA LEONE

Category I

1. Mamunta R.	3.1.1	16,000	1979
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SOMALIA/SOMALIE

Category II

1. Lag Badana	3.14.7	334,000	1978
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SOUTH AFRICA/AFRIQUE DU SUD

Category I

1. <u>Umfolozi</u> GR	3.8.4	47,753	1897
2. <u>St. Lucia</u> GR	3.8.4	36,826	1897
3. <u>Giant's Castle</u> GR	3.22.12	34,284	1903
4. <u>Mkuzi</u> GR	3.8.4	25,091	1912
5. <u>Hluhluwe</u> GR	3.8.4	23,067	1897
6. <u>Blyde River</u> NR	3.22.12	22,664	1965
7. <u>Itala</u> NR	3.8.4	19,524	1972
8. <u>Tussen-die-Riviere</u>	3.17.7	18,597	1972
9. <u>Suikerbosrand</u>	3.8.4	13,336	1974
10. <u>Ndumu</u> GR	3.8.4	10,117	1924
11. <u>Willem Pretorius R.</u>	3.8.4	8,278	1970
12. <u>Cape of Good Hope</u> NR	3.11.6	7,675	1965
13. <u>Loteni</u> NR	3.22.12	3,984	1953
14. <u>Umtanvuna</u> NR	3.8.4	3,137	1971
15. <u>Table Mountain</u> NR	3.11.6	2,904	1963

Category II

1. <u>Kruger</u> NP	3.8.4	1,948,528	1926
2. <u>Kalahari Gemsbok</u> NP (contiguous with Gemsbok NP, Botswana)	3.16.7	958,103	1931
3. <u>Royal Natal National Park</u>	3.	8,856	1916
4. <u>Addo Elephant</u> NP	3.8.4	7,735	1931
5. <u>Karoo</u>	3.17.12	6,852	1977
6. <u>Mountain Zebra</u> (Bergkwagga) NP	3.22.12	6,536	1937
7. <u>Aughrabies Falls</u>	3.17.7	5,403	1966
8. <u>Golden Gate Highlands</u> NP	3.22.12	4,792	1963
9. <u>Prince Edward Island Reserve</u>	5.4.13	4,400	1948
10. <u>Tsitsikama Forest and Coastal</u> NP (marine)	3.11.6	3,318	1964
11. <u>Bontebok</u> NP	3.11.6	2,786	1961

SUDAN/SOUDAN

Category I

1. Numatina GR	3.5.4	675,000	1939
2. Zeraf GR	3.5.4	675,000	1939
3. Kidepo GR	3.14.7	200,000	1975
4. Bengagai R.	3.5.4	150,000	1939
5. Boma R.	3.14.7	135,000	1960
6. Shambe GR	3.5.4	100,000	1935
7. Achana GR	3.5.4	30,000	1939
8. Juba GR	3.5.4	30,000	1939
9. Fanyikang Island R.	3.5.4	13,000	1939
10. Bire Kpatua GR	3.5.4	12,500	1939
11. Mbarizunga GR	3.5.4	12,100	1939
12. Mongalla R.	3.5.4	7,500	1939

Category II

1. Southern	3.5.4	1,600,000	1939
2. Dinder National Park	3.13.7	650,000	1935
3. Nimule	3.5.4	33,370	1976

Category IV

Bandingeru Game Reserve	3.13.7		
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SWAZILAND

Category I

1. Kalolotsha	3.8.4	16,188	-
2. Hlane GS	3.8.4	14,164	1967
3. Mdzindza GS	3.8.4	4,856	-
4. Mlilwane GS	3.8.4	4,452	1963

TANZANIA/TANZANIE

Category I

1. Selous GR	3.7.4	5,120,000	1951
2. Rungwa	3.5.4	896,000	1951
3. Ugalla	3.7.4	486,400	1965
4. Mkomazi	3.14.7	358,400	1951
5. Maswa	3.5.4	217,600	1969

Category II

1. <u>Serengeti</u>	3.5.4	1,476,300	1956
2. <u>Ruaha</u> NP	3.5.4	1,295,000	1964
3. <u>Ngorongoro</u> CA - muly. land use VIII	3.5.4	528,000	1959
4. <u>Mikumi</u> NP	3.5.4	323,000	1964
5. <u>Tarangire</u> NP	3.5.4	260,000	1970

WHS

6.	<u>Katavi</u> NP	3.7.4	225,300	1974
7.	<u>Kilimanjaro</u> NP	3.21.12	75,600	1973
8.	Rubondo Island	3.27.14	45,700	1977
9.	<u>Lake Manyara</u> NP	3.5.4	32,500	1960
10.	<u>Arusha</u> NP	3.14.7	13,700	1962
11.	<u>Gombe Stream</u> NP	3.28.14	5,200	1943

TOGO

Category I

1.	Koué NR	3.4.4	40,000	NA
2.	Kamassi NR	3.4.4	17,000	NA

Category II

1.	Kazao-Malfacassa NP	3.4.4	200,000	1950
2.	Keran NP	3.4.4	109,200	1950

Category IV

1.	Togodo FR	3.4.4	35,000	1952
2.	Fosse Aux Lions FR	3.4.4	9,000	1950

TUNISIA/TUNISIE

Category II

1.	Djebel-Bou-Hedma National Park	2.28.11	11,625	1977
2.	Ichkeul NP*	2.28.11	10,775	1979
3.	Djebel Chambi National Park	2.28.11	6,000	1977
4.	Iles Zembra-Zembretta NP*	2.17.6	391	1977

UGANDA/UGANDA

Category I

1.	<u>Pian-Upe</u> GR	3.5.4	228,710	1964
2.	<u>Bokora Corridor</u> GR	3.5.4	203,360	1964
3.	<u>Matheniko</u> GR	3.5.4	158,650	1964
4.	<u>Bugungu</u> GR	3.5.4	74,800	1968
5.	<u>Karuma</u> GR	3.5.4	71,270	1964
6.	<u>Toro</u> GR	3.5.4	54,850	1906
7.	<u>Lake Mbuoro</u> GR	3.5.4	53,580	1964
8.	<u>Kibale Forest Corridor</u> GR	3.5.4	33,910	1964
9.	<u>Kigezi</u> GR	3.5.4	32,830	1952
10.	<u>Katonga</u> GR	3.5.4	20,660	1964
11.	<u>Ajay</u> GR	3.5.4	15,600	1962
12.	<u>Kyambura</u> GR	3.5.4	15,510	1965
13.	<u>Gorilla</u> GR	3.5.4	8,800	1964

Category II

1.	<u>Kabalega</u> NP	3.5.4	384,000	1952
2.	<u>Ruwenzori</u> NP	3.5.4	220,000	1952
3.	<u>Kidepo Valley</u> NP	3.5.4	125,000	1962

UPPER VOLTA/HAUTE-VOLTA

Category I

1.	Singou Total Reserve	3.4.4	192,000	
2.	Arly NR	3.4.4	76,000	1954

Category II

1.	^W NP(also in Benin and Niger)	3.4.4.	190,000	1953
2.	<u>Po</u> NP	3.4.4	155,000	1976
3.	Deux Bales National Park	3.4.4	115,000	

Category IV

1.	Singou FR	3.4.4	192,800	1955
2.	Nabere FR	3.4.4	36,500	1957

ZAIRE

Category II

1.	<u>Salonga</u> NP	3.2.1	3,656,000	1970
2.	<u>Upemba</u>	3.6.4	1,173,000	1939
3.	<u>Maiko</u> NP	3.20.12	1,083,000	1970
4.	Virunga (contiguous with Volcanoes NP in Rwanda and Ruwenzori NP in Uganda)	3.20.12	809,000	1925
5.	<u>Kahuzi-Biega</u> NP	3.20.12	600,000	1970
6.	<u>Garamba</u>	3.5.4	492,000	1938
7.	<u>Kundelungu</u> NP	3.6.4	213,000	1970

Category IV

1.	Yangambi Floristic Reserve	3.2.1	250,000	1976
2.	La Luki Forest Reserve	3.2.1	33,000	1979

ZAMBIA/ZAMBIE

Category II

1.	<u>Kafue</u> NP	3.7.4	2,240,000	1950
2.	<u>South Luangwa</u> NP	3.7.4	905,000	1938
3.	<u>Sioma Ngwezi</u> NP	3.7.4	527,600	1972
4.	<u>North Luangwa</u> NP	3.7.4	463,600	1939
5.	<u>Liuwa Plain</u> NP	3.7.4	366,000	1972

6.	<u>Mweru-Wantipa</u> NP	3.7.4	313,400	1942
7.	<u>Lukusuzi</u> NP	3.7.4	7272,000	1938
8.	<u>Sumbu</u> NP	3.7.4	202,000	1942
9.	<u>West Lunga</u> NP	3.7.4	168,400	1951
10.	<u>Lavushi Manda</u> NP	3.7.4	150,000	1941
11.	<u>Lusenga Plain</u> NP	3.7.4	88,000	1942
12.	<u>Isangano</u> NP	3.7.4	84,000	1957
13.	<u>Blue Lagoon</u> NP	3.7.4	42,000	1973
14.	<u>Lochinvar</u> NP	3.7.4	41,000	1972
15.	<u>Kasanka</u> NP	3.7.4	39,000	1941
16.	<u>Luambe</u> NP	3.7.4	25,470	1966
17.	<u>Nyika</u> NP	3.7.4	8,000	1972
18.	<u>Mosi-Oa-Tunya</u> NP (contiguous with Victoria Falls NP in Zimbabwe [Rhodesia])	3.7.4	6,600	1972

ZIMBABWE (RHODESIA)/ZIMBABWE (RHODESIE)

Category I

1.	<u>Chete</u> GR	3.7.4	180,100	1963
2.	<u>Mushandika</u> WS	3.8.4	12,900	1975
3.	<u>Melsetter Eland</u> WS	3.7.4	1,200	1975

Category II

1.	<u>Wankie</u> NP	3.8.4	1,465,100	1949
2.	<u>Gonarezhou</u> GR	3.8.4	496,400	1975
3.	<u>Chizarira</u> GR	3.7.4	191,000	1975
4.	<u>Mana Pools</u>	3.7.4	137,000	1975
5.	<u>Matusadona</u>	3.7.4	137,000	1975
6.	<u>Victoria Falls</u> (contiguous with Mosi-Oa-Tunya in Zambia)	3.8.4	58,300	1952
7.	<u>Matopos</u>	3.8.4	44,200	1926
8.	<u>Rhodes Matopos</u>	3.8.4	43,200	1953
9.	<u>Rhodes Inyanga</u>	3.8.4	32,130	1950
10.	<u>Kazuma Pan</u>	3.8.4	31,290	1975
11.	<u>Kyle</u>	3.8.4	18,000	1963
12.	<u>Chiminimani</u>	3.8.4	17,110	1950
13.	<u>Mushandike</u>	3.8.4	12,900	1954
14.	<u>Ngezi</u> NP	3.8.4	5,800	1956
15.	<u>Sebakwe</u> NP	3.8.4	2,700	1969

Category IV

1.	<u>Chirisa Game Reserve</u>	3.7.4	171,300	1969
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2.4 PROTECTED AREAS OF THE AFROTROPICAL REALM
DISTRIBUTION BY BIOGEOGRAPHICAL PROVINCES

2.4 REGIONS PROTEGEES DU DOMAINE AFRO-TROPICAL
REPARTITION PAR PROVINCES BIOGEOGRAPHIQUES

The 1980 UN List of National Parks and Protected Areas listed, for the first time, the biogeographic province for each area, following the classification of IUCN Occasional Paper No. 18 (1975). The areas on the 1980 List are grouped here by biogeographic province.

Pour la première fois, la Liste 1980 des Nations Unies des parcs nationaux et des régions protégées compte une province par région, suivant en cela la classification du document occasionnel No. 18 de l'UICN (1975). Les régions de la Liste de 1980 sont groupées ici en provinces biogéographiques.

<u>PROTECTED AREA/REGIONS PROTEGEES</u>	<u>AREA/SUPERFICIE</u> Hectares
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3.1.1 Guinean Rainforest Province

Bui NP, Ghana	207,200
Nini-Suhien NP, Ghana	16,278
Bia NP, Ghana	7,700
Taï NP, Ivory Coast	330,000
Marahoué NP, Ivory Coast	100,000
Banco NP, Ivory Coast	3,000
Kainji Lake NP, Nigeria	530,900
Kogyae SNR Ghana	32,375
Mount Nimba SNR, Guinea	13,000
Asagny Fauna NR, Iv. Coast	17,000
Mont Nimba SNR Iv. Coast	5,000
Bordu GR, Nigeria	350,000
Yankari GR, Nigeria	225,285
Chineurme Duguma NR, Nigeria	35,431
Mamunta R. NR, Sierra Leone	16,000

3.1.1 Province total/Total de la province	1,889,169
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3.2.1 Congo Rainforest

Dja FR Cameroon	526,000
Campo FOFR, Cameroon	300,000
Pangar-Djerem GR, Cameroon	300,000
Douala-Edea FR, Cameroon	160,000
Odzala NP, Congo	110,000
Sette-Cama NR, Gabon	700,000
Lope-Offoué NR, Gabon	500,000
Wonga-Wongué NP, Gabon	358,000
Okanda NP, Gabon	190,000
Moukalaba NR, Gabon	100,000
Ndende NR, Gabon	62,000
Offoué Integral Reserve, Gabon	
Salonga NP, Zaire	3,656,000
Yangambi Floristic Res., Zaire	250,000

La Luki Forest Reserve, Zaire	33,000
Lefini FR, Congo	650,000
M'bomo GR, Congo	90,000
Lekoli-Pandaka FR, Congo	50,000
Mont Mavoumbou GR, Congo	42,000
Kilometre 77 (La Tsoulou) Part. GR, Congo	30,000
Nyanga Sud GR, Congo	23,000
Mont Fouari FR, Congo	18,000
Nyanga Nord FR, Congo	18,000
Kimbi River NR, Cameroon	5,625
Conkouati FR, Congo	
Santchon GR, Cameroon	

3.2.1 Province total/Total de la province 8,171,625

3.3.1 Malagasy Rainforest

Andogabela NR, Madagascar	76,020
Zahamena NR, Madagascar	73,160
Marojejy NR, Madagascar	60,150
Andringitra NR Madagascar	31,160
Betampona NR, Madagascar	2,228

3.3.1 Province total/Total de la province 182,628

3.4.4 West African Woodland/Savanna

Djona FR, Benin	225,000
Pendjari FR, Benin	200,000
Atacora FR, Benin	175,000
Boucle de la Pendjari NP, Benin	275,500
"W" NP, Benin	502,050
"W" NP, Niger	334,375
"W" NP, UpperVolta	190,000
Bouba N'Djiddah NP, Cameroon	220,000
Benoué NP, Cameroon	180,000
Waza NP, Cameroon	170,000
Delta du Saloum NP, Senegal	73,000
Kalamaloué NP, Cameroon	2,700
Langue de Barbarie NP, Senegal	2,000
Mozogo Goko NP, Cameroon	1,400
Manovo-Gounda/Saint Floris, CAR	1,966,800
Zemongo FR, CAR	1,370,000
Bamingui-Bangoran NP, CAR	1,000,000
Ouandjia-Vakaga, CAR	965,000
Ytat-Ngaya FR, CAR	509,000
Girbingui-Bamingui, CAR	500,000
L'aouk-Aoukale, CAR	220,000
Koukourou-Bamingui, CAR	150,000
Presidentiel Avakaba, CAR	175,000
Andre Felix NP, CAR	175,000
Saint Floris NP, CAR	170,000
Zakouma NP, Chad	297,200
Manda NP, Chad	110,000
Le Baboon Island NP, Gambia	2,000
Le Kiang West NP, Gambia	

Le Delta River NP, Gambia	
Mole NP, Ghana	492,100
Digya NP, Ghana	312,354
La Comoé NP, IC	1,150,000
Mount Sangbé NP, IC	100,000
Mont Peko NP, IC	34,000
Ansongo-Menaka NP, Mali	1,750,000
Elephants NR, Mali	1,200,000
Badinko NR, Mali	193,000
Rina NR, Mali	136,000
Fina FR, Mali	136,000
Kongosambougou NR, Mali	92,000
Baoulé NP, Mali	77,100
Kenie-Baoule NR, Mali	67,800
Sudan NR, Mali	37,000
Niokolo-Koba NP, Senegal	913,000
Djoudj NP, Senegal	16,000
Basse-Casamance NP, Senegal	5,000
Ferlo-Sud, Senegal	663,700
Ferlo-Nord, Senegal	487,000
Ile de la Madeleine NP, Senegal	500
Po NP, UpperVolta	155,000
Faro FOFR, Cameroon	330,000
Lobeke Lake NR, Cameroon	43,000
Haut Bandama NR, Iv.Coast	123,000
Kazao-Malfacassa NP, Togo	200,000
Koué NR, Togo	40,000
Togodo FR, Togo	35,000
Kamassi NR, Togo	17,000
Fosse Aux Lions, FR, Togo	9,000
Keran NR, Togo	6,700
Singou Total Reserve, Upper Volta	192,800
Deux Bales NP, Upper Volta	115,000
Arly NR, Up.Volta	76,000
Po NR, Up.Volta	43,500
Nabere FR, Upper Volta	36,500

3.4.4 Province total/Total de la province 19,446,079

3.5.4 East African Woodland/Savanna

Marsabit NP, Kenya	208,842
Aberdare NP, Kenya	76,619
Mount Kenya NP, Kenya	71,559
Lambwe Valley Reserve, Kenya	30,814
Shimba Hills NP, Kenya	19,251
Mount Elgon NP, Kenya	16,923
Nairobi NP, Kenya	11,721
Lake Bogoria Reserve, Kenya	10,705
Ol Doi Nyio Sabuk NP, Kenya	1,842
Kagera NP, Rwanda	251,000
Southern NP, Sudan	1,600,000
Nimule NP, Sudan	33,370
Serengeti NP, Tanzania	1,476,300
Ruaha NP, Tanzania	1,295,000
Ngorongoro CA NP, Tanzania	528,000
Mikumi NP, Tanzania	323,000

Tarangire NP, Tanzania	260,000
Lake Manyara NP, Tanzania	32,500
Kabalega NP, Uganda	384,000
Ruwenzori NP, Uganda	220,000
Kidepo Valley NP, Uganda	125,000
Garamba NP, Zaire	492,000
Vassako-Bolo SNR, CAR	150,000
Masai-Mara GR, Kenya	151,300
Numatina GR, Sudan	675,000
Zeraf GR, Sudan	675,000
Bengagai R. NR, Sudan	150,000
Shambe GR, Sudan	100,000
Achana GR, Sudan	30,000
Juba GR, Sudan	30,000
Panyikang Island R. NR, Sudan	13,000
Bire Kpatua GR, Sudan	12,500
Mbarizunga GR, Sudan	12,100
Mongalla R. NR, Sudan	7,500
Rungwa NR, Tanzania	896,000
Mawa NR, Tanzania	217,600
Pian-Upe GR, Uganda	228,710
Bokora Corridor GR, Uganda	203,360
Matheniko GR, Uganda	158,650
Bugungu GR, Uganda	74,800
Karuma GR, Uganda	71,270
Toro GR, Uganda	54,850
Lake Mburo NR, Uganda	53,580
Kibale Forest Corridor GR, Uganda	33,910
Kigezi GR, Uganda	32,830
Katonga GR, Uganda	20,660
Ajay GR, Uganda	15,600
Kyambura GR, Uganda	15,510
Gorilla GR, Uganda	8,800
3.5.4 Province total/Total de la province	11,560,976

3.6.4 Congo Woodland/Savanna

Upemba NP, Zaire	1,173,000
Kundelungu NP, Zaire	213,000
3.6.4 Province total/Total de la province	1,386,000

3.7.4 Miombo Woodland/Savanna

Kameia NP, Angola	960,000
Nyika NP, Malawi	304,385
Kasungu NP, Malawi	204,800
Nkhota-Kota Game Reserve, Malawi	176,000
Majete Game Reserve, Malawi	65,000
Liwonde National Park, Malawi	58,616
Mwabui Game Reserve, Malawi	15,500
Lengwe NP, Malawi	12,800
Gorongosa NP, Mozambique	377,000
Katavi NP, Tanzania	225,300
Gombe Stream NP, Tanzania	5,200

Kafue NP, Zambia	2,240,000
South Luangwa NP, Zambia	905,000
Sioma Ngwezi NP, Zambia	527,600
North Luangwa NP, Zambia	463,600
Liuwa Plain NP, Zambia	366,000
Mweru-Wantipa NP, Zambia	313,400
Lukusuzi NP, Zambia	272,000
Sumbu NP, Zambia	202,000
West Lunga NP, Zambia	168,400
Lavushi Manda NP, Zambia	150,000
Lusenga Plain NP, Zambia	88,000
Isangano NP, Zambia	84,000
Blue Lagoon NP, Zambia	42,000
Lochinvar NP, Zambia	41,000
Kasanka NP, Zambia	39,000
Luambe NP, Zambia	25,470
Nyika NP, Zambia	8,000
Mosi-Oa-Tunya NP, Zambia	6,600
Chizarira NP, Zimbabwe	191,000
<u>Chirisa Game Reserve, Zimbabwe</u>	171,300
Mana Pools NP, Zimbabwe	137,000
Matusadona NP, Zimbabwe	137,000
Selous GR, Tanzania	5,120,000
Ugalla NR, Tanzania	486,400
Chete GR, Zimbabwe	180,100
Melsetter Eland WS, Zimbabwe	1,200

3.7.4 Province total/Total de la province 14,770,671

3.8.4 South African Woodland/Savanna

Kissama NP, Angola	1,400,000
Bikuar NP, Angola	790,000
Kaneandala NP, Angola	60,000
Mupa NP, Angola	
Ambriz Reserve, Angola	
Chobe NP, Botswana	1,080,000
Nxai Pan NP, Botswana	210,000
Kruger NP, S. Africa	1,948,528
Addo Elephant NP, S. Africa	7,735
Wankie NP, Zimbabwe	1,465,100
Gonarezhou NP, Zimbabwe	496,400
Victoria Falls NP, Zimbabwe	58,300
Matopos NP, Zimbabwe	44,200
Rhodes Matopos NP, Zimbabwe	43,200
Rhodes Inyanga NP, Zimbabwe	32,130
Kazuma Pan NP, Zimbabwe	31,290
Kyle NP, Zimbabwe	18,000
Chiminimani NP, Zimbabwe	17,110
Mushandike NP, Zimbabwe	12,900
Ngezi NP, Zimbabwe	5,800
Sebakwe NP, Zimbabwe	2,700
Makgadik Gadi Pans GR, Botswana	390,000
Mikaelelo NR, Botswana	388,000
Moremi WR, Botswana	181,300
Umfolozi GR, S.Africa	47,753
St. Lucia GR, S.Africa	36,826

Mkuzi GR, S.Africa	25,091
Eluhlwe GR, S.Africa	23,067
Itala NR, S.Africa	19,524
Ndumu GR, S.Africa	10,117
Umtanvuna NR, S.Africa	3,137
Willem Pretorius NR, S.Africa	8,278
Suikerbosrand NR, S.Africa	13,336
Kalolotsha NR, Swaziland	16,188
Hlane GS, Swaziland	14,164
Mdzindza GS, Swaziland	4,856
Mlilwane GS, Swaziland	4,452
Mushandike WS, Zimbabwe	12,900
Banhinev NP, Mozambique	700,000
Zinave NP, Mozambique	500,000
Bazaruto (marine) NP, Mozambique	8,000
Niassa GR, Mozambique	
Maromeo GR, Mozambique	

3.8.4 Province total/Total de la province 10,130,382

3.9.4 Malagasy Woodland/Savanna

Tsingy de Bemaraha NR, Madagascar	152,000
Isale NP, Madagascar	81,540
Anaranfantika NR, Madagascar	60,520
Taaratanana NR, Madagascar	48,622
Tsingy de Namoroka NR, Madagascar	21,742
Ambre Mt. NP, Madagascar	18,200
Lokobe NR, Madagascar	740

3.9.4 Province total/Total de la province 383,364

3.10.4 Malagasy Thorn Forest

Tsimanampetsotsa NR, Madagascar	43,200
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3.10.4 Province total/Total de la province 43,200

3.11.6 Cape Sclerophyll Province

Tsitsikama NP, Sth. Africa	3,318
Bontebok NP, Sth. Africa	2,786
Cape of Good Hope NR, Sth.Africa	7,675
Table Mountain NR, S.Africa	2,904

3.11.6 Province total/Total de la province 16,683

3.12.7 Western Sahel Province

Banc d'Arguin NP Mauritania	1,173,000
Ouadi Rimé - Ouadi Achim, NR, Chad	8,000,000
Tamous NR, Niger	142,640
Lake Chad GS, Nigeria	704,480

3.12.7 Province total/Total de la province 10,020,120

3.13.7 Eastern Sahel Province

Dinder NP, Sudan	650,000
Bandingeru GR, Sudan	

3.13.7 Province total/Total de la province 650,000

3.14.7 Somalian Province

Gambella NP, Ethiopia	1,080,000
Tsavo NP, Kenya	2,082,114
Boni Reserve, Kenya	133,960
Dodori Reserve, Kenya	87,739
Meru NP, Kenya	87,044
Amboseli NP, Kenya	39,206
Shaba Reserve, Kenya	23,910
Tana River Primate Reserve, Kenya	16,807
Lake Nakuru NP, Kenya	5,763
Kisiti/Mpunguti Marine Park NP, Kenya	2,301
Malindi Marine Park NP, Kenya	599
Buffalo Springs Reserve, Kenya	
Samburu Reserve, Kenya	pending
Lag Badana NP, Somalia	334,000
Rubondo Island NP, Tanzania	45,700
Kidepo GR, Sudan	200,000
Boma R. NR, Sudan	135,000
Mkomazi NR, Tanzania	358,400

3.14.7 Province total/Total de la province 4,632,543

3.15.7 Namib Province

Iona NP, Angola	1,600,000
Mocamedes Reserve, Angola	
Namib Desert/Naukluft NP, SW Africa	2,283,609
Etosha NP, SW Africa	2,227,000
Skeleton Coast NP, SW Africa	1,639,000
Fish River Canyon Park NP, SW Africa	46,117
Naukluff Mountain NP, SW Africa	21,986
Cape Cross Seal Reserve NR, SW Africa	6,000
Daan Viljoen NR, SW Africa	3,953

3.15.7 Province total/Total de la province 7,827,665

3.16.7 Kalahari Province

Gemsbok NP, Botswana	2,480,000
Kalahari Gemsbok NP, S. Africa	958,103
Waterberg Plateau Park NP, SW Africa	40,000
Central Kalahari GR, Botswana	5,280,000
Khutse GR, Botswana	250,000
Mabuase Hube GR, Botswana	180,000
Hardap GR, SW Africa	15,845

3.16.7 Province total/Total de la province 9,203,948

3.17.7 Karroo Province

Aughrabies Falls NP, S. Africa	5,403
Tussen-die-Riviere NR, S. Africa	18,597
3.17.7 Province total/Total de la province	24,000

3.18.12 Ethiopian Highlands

Omo NP, Ethiopia	345,000
Yangudi Rassa NP, Ethiopia	300,000
Mago NP, Ethiopia	220,000
Bale Mts. NP, Ethiopia	167,500
Nechisar, Ethiopia	90,000
Abijata-Shalla Lakes NP, Ethiopia	80,000
Awash NP, Ethiopia	72,000
Simen Mountains NP, Ethiopia	16,500
3.18.12 Province total/Total de la province	1,291,000

3.19.12 Guinean Highlands
(no areas listed)3.20.12 Central African Highlands

Volcanoes NP, Rwanda	23,000
Arusha NP, Tanzania	13,700
Maiko NP, Zaire	1,083,000
Virunga NP, Zaire	809,000
Kahuzi-Biega NP, Zaire	600,000
3.20.12 Province total/Total de la province	2,528,700

3.21.12 East African Highlands

Kilimanjaro NR, Tanzania	89,000
3.21.12 Province total/Total de la province	89,000

3.22.12 South African Highlands

Sehlabathebe NP, Lesotho	6,500
Karoo NP, S. Africa	6,852
Mountain Zebra (Bergkwagga) NP, S. Africa	6,536
Golden Gate Highlands NP, S. Africa	4,792
Giant's Castle GR, S. Africa	34,284
Loteni NR, S. Africa	3,984
Blyderivierspoort NR, S. Africa	22,664
3.22.12 Province total/Total de la province	85,612

3.23.13 Ascension and St. Helena Islands
(no areas listed)

3.24.13 Comores Islands and Aldabra

Aldabra SNR, Seychelles 19,000

3.24.13 Province total/Total de la province 19,000

3.25.13 Mascarene Islands

Macchabée (system) NR, Mauritius 3,594

Round Island NR, Mauritius 159

3.25.13 Province total/Total de la province 3,753

3.26.14 Lake Turkana

Sibiloi NP, Kenya 157,085

South Turkana NR, Kenya 109,100

3.26.14 Province total/Total de la province 266,185

3.27.14 Lake Victoria

(no areas listed)

3.28.14 Lake Tanganyika

(no areas listed)

3.29.14 Lake Nyasa

Lake Malawi NP, Malawi 6,868

3.29.14 Province total/Total de la province 6,868

2.5 NATIONAL PARKS AND PROTECTED AREAS OF ETHIOPIA

by

Teshome Ashine, General Manager
Wildlife Conservation Organization

I. Introduction

Ethiopia possesses a unique and abundant wildlife consisting of a colourful birdlife and varieties of animals. It includes representatives of the wildlife common in East Africa, as well as a number of rare species of birds and animals distinctly Ethiopian and not found anywhere else. There are 103 species of mammals with varieties of reptiles and amphibians. The birdlife consists of 823 species. Of these 7 species of mammals and 23 species of birds are endemic to Ethiopia. The Forestry and Wildlife Conservation Development Department preserves these wildlife resources through a number of national parks, game reserves and controlled hunting areas. More conservation areas are planned and proposed to be established.

The philosophy and objectives of wildlife conservation are based on the principle that wildlife have the right to exist and that wildlife resources are a proud national heritage to be conserved and developed for the continued benefit of the present generation and the generations to come. Wildlife has a definite role in the future development of the nation particularly in relation to economics, education and science.

2. Brief review of the history of Wildlife Conservation in Ethiopia

Until 1964, any attempt at conservation in Ethiopia was carried out by a hunting licence section in the Ministry of Agriculture. In 1964 this section was named Wildlife Conservation Department. In 1969 the Awash and the Semien Mt. National Parks were legally established.

In 1970 the Wildlife Conservation Organisation was constituted as an autonomous body to look after conservation. Laws promulgated in 1972 and amended in 1974 empowered the Organisation to regulate all hunting and trade in wildlife and their products. The Organisation also created a conservation education unit and an anti-poaching control unit.

The Provisional Military Government of Socialist Ethiopia in 1975 declared in its economic policy, "It should, however, be emphasized that the conservation of wildlife, birdlife etc., particularly of the rare species will be viewed primarily as a national objective in their own right and not only as a means of attracting visitors. The task of their preservation will be actively pursued by the State". Pursuant to this policy declaration the Forestry Department and the Wildlife Conservation Organisation were amalgamated. In September, 1980 the Government through its Proclamation No. 192 established the Forest and Wildlife Conservation and Development Authority as a fully autonomous body empowering it

to declare and establish conservation areas and regulate all aspects of conservation.

3. Ethiopia's conservation areas listed for the World Directory.

3.1 Areas already listed in the World Directory

- a) Awash National Park
- b) Semien Mt. National Park

3.1.2 Areas to be listed in the World Directory

National Parks

- a) Omo National Park
- b) Mago National Park
- c) Nechisar National Park
- d) Abijatta-Shalla Lakes National Park
- e) Bale Mt. National Park
- f) Yangudi Rassa National Park
- g) Gambella National Park (Proposed)
- h) Dhalac Marine National Park (Proposed)

3.1.3 Wildlife Sanctuaries

- a) Harrar Elephant Sanctuary
- b) Yavello Wildlife Sanctuary (Proposed)

3.1.4 Wildlife Reserves (Proposed)

- a) Jikau Wildlife Reserve
- b) Tedo Wildlife Reserve
- c) Tama Wildlife Reserve
- d) Stefane (Chew Bahar) Wildlife Reserve
- e) Bale Wildlife Reserve
- f) Awash West Wildlife Reserve
- g) Alledoghi Wildlife Reserve
- h) Gewane Wildlife Reserve
- i) Mille-Sardo Wildlife Reserve
- j) Yob Wildlife Reserve
- k) Nakfa Wildlife Reserve
- l) Chire Wildlife Reserve
- m) Gash-Setit Wildlife Reserve

4. Conservation Areas

4.1 Awash National Park

Legal Status - Gazetted in 1969

Location - Shoa Region - 200 km from Addis Ababa.

Area - 720 sq. km.

Major species of animals.

Beisa Oryx, Lesser and Greater Kudu, Bushbuck, Grevy's Zebra, Soemmering's Gazelle, Lion, Cheetah, Serval, Mongoose (4 species), Civet, Honey badger, Swayne's Hartebeest, Warthog, Bushpig, Bat-eared fox, Stripped Hyena, Hare, Defassa Waterbuck, Genet Cat, Spotted Hyena, Caracal, Aardvark, Aardwolf, Black-backed Jackal, Hippopotamus, Mountain Reedbuck, Crocodile, Leopard, Klipspringer, African Wild Cat, Spotted-necked Otter, Hamadryas and Anubis baboons, Colobus and Grivet monkeys, Ostrich.

Birds - About 450 species.

Special Significance

- (1) Mount Fentalle is a semi-dormant volcano in the park.
- (2) Hot springs at the northern end of the park.

Wildlife reserves adjacent to the Awash National Park

- (1) Awash West Wildlife Reserve - Area 700 sq. km.
- (2) Alledoghi Wildlife Reserve - Area 800 sq. km.

Controlled Hunting Area.

Awash West Controlled Hunting Area.

4.2 Semien Mt. National Park

Legal Status - Gazetted in 1969

Location - Gondar Region - (Base camp - Debarik)
750 km North of Addis Ababa.

Area - 225 sq. km.

Major species of wildlife

Walia Ibex, Semien Fox, Gelada and Hamadryas baboons, Klipspringer, Bushbuck, Hyrax, Colobus monkey, Spotted Hyena, Serval and Leopard.

Birds - About 400 species, Lammergyer, the bone breaker is the most outstanding.

Special significance.

Spectacular scenery - Accepted as a World Heritage Site in 1979 by the UNESCO.

4.3 Omo National Park.

Legal Status - Not yet gazetted - has been under development since 1969.

Location - Kaffa region.

Area - 3450 sq. kms.

Major species of animals

Eland, Buffalo, Zebra, Waterbuck, Greater and Lesser Kudu, Grant's Gazelle, Oryx, Topi, Lion, Elephant, Giraffe, Ostrich, Hippopotamus, Crocodiles, Klipspringer, Duiker, Hunting dog, Rhinoceros, Leopard, Cheetah, Reedbuck, Tiang, Lelwell's Hartebeest, Warthog and Hyrax.

Birds - About 400 species.

Special significance

- (1) The nomadic tribes, Hamar, Geleb, Bume, Caro, Mursi and Surma.
- (2) Palaeontological find - Australopithecus Jaw bone 2.5 million years old.

4.4 Abijatta-Shalla Lakes National Park.

(Predominantly a bird sanctuary)

Legal Status - not gazetted - has been under development since 1971.

Location - Shoa region - 200 km south of Addis Ababa.

Area - 800 sq. kms.

Major species of birds (total species about 300)

Pelicans, Flamingoes, Egyptian Geese, Storks, Eagles, Egrets, Herons, Cormorants, Ibises, Sand-grouse, Plovers Ducks and other waterfowls.

Species of animals in the area

Klipspringer, Greater Kudu, Grant's Gazelle, Oribi, Mountain Reedbuck, and Colobus monkeys.

Special Significance

- (1) The Sankalle Swayne's Hartebeest sanctuary - under the jurisdiction of the park. Swayne's Hartebeest abound here (they are endemic sub-species).
- (2) The immigrant birds from the northern hemisphere in the months of December, January and February.

4.5 Bale Mt. National Park.

Legal Status - Not yet gazetted - has been under development since 1970.

Location - Bale Region - 400 km. Southeast of Addis Ababa.

Area - 1675 Sq. kms.

Major species of animals

Mountain Nyala, Semien Fox, Menelik's bushbuck, Klipspringer, Olive baboon, Warthog, Leopard, Caracal, Duiker, Hyrax, Golden Jackal, Abisynian Hare.

Birds - About 500 species of birds.

Special Significance.

- (1) The alpine lakes in the park
- (2) The rivers are full of trout and provide good fishing.
- (3) Adjacent to the park lies the Sophomer Caves.

Wildlife reserves

Bale Wildlife Reserve.

Controlled Hunting Area

- (1) Arssi Controlled Hunting Area
- (2) Bale Controlled Hunting Area.

4.6 Nechisar National Park.

Legal Status - not yet gazetted - has been under development since 1972.

Location - Gamo Goffa region.

Area - 900 sq. kms.

Major species of animals

Swayne's Hartebeest, Buffalo, Greater Kudu, Burchell's Zebra, Grant's gazelle, Mountain Reedbuck, Warthog, Defassa Waterbuck, Crocodile, Leopard, Lion, Klipspringer, Colobus monkey, Anubis,

Crested porcupine, Spotted Hyena, Hippopotamus, African Wildcat, Serval, Caracal, Civet, Guenther's dikdik, Lesser mongoose, Dwarf Mongoose, White-tailed Mongoose, Grim's duiker, Common bushbuck, Bat-eared fox, Black-backed jackal.

Birds - Recorded species 190.

Special Significance.

- (1) Lakes Chamo and Abbaya provide excellent fishing, particularly Nile Perch. Nile Perch has been recorded to weigh upto 100 kilos.
- (2) Large herds of Burchell's zebra and Grant's gazelle are a species feature of the Nechisar.

4.7 Yangudi Rassa (Wild Ass) National Park

Legal Status - not yet gazetted - has been under development since 1976.

Location - Harrarghe and Wollo regions - 350 km. Southeast of Addis Ababa.

Area - 3000 sq. kms.

Major species of animals.

Wild Ass, Oryx, Soemmering's gazelle, Ostrich, Gerenuk, Warthog, Greater and Lesser Kudu, Serval and Cheetah, Grevy's zebra, Ostrich, Golden jackal, Leopard.

Birds - About 300 species.

Wildlife Reserves

- (1) Gewane Wildlife Reserve
- (2) Mille-Sardo Wildlife Reserve.

Controlled Hunting Area.

Afdem-Gewane Controlled Hunting Area.

4.8 Nago National Park

Legal Status - Not Gazetted - has been under development since 1978.

Location - Gamo Goffa region.

Area - 2200 sq. kms.

..//..

Major species of animals.

Buffalo, Zebra, Waterbuck, Greater and Lesser Kudu, Grant's gazelle, Oryx, Topi, Lion, Elephant, Giraffe, Ostrich, Hippopotamus, Crocodiles, Klipspringer, Duiker, Hunting dog, Rhinoceres, Leopard, Cheetah, Reedbuck, Tiang, Lelwell's Hartebeest, Warthog and Hyrax.

Birds - About 400 species.

Special significance

Buffalo and Oryx.

4.9 Gambella Conservation Area.

Legal Status - Not gazetted - under protection and development since 1973.

Location - Illubabor Region.

Area - Approximately 10800 sq. km.

Major species of animals.

Elephant, Buffalo, Lechwe, White-eared kob, Lion, Leopard, Cheetah, Serval, Mongoose, Rhinoceres, Oryx, Burchell's zebra, Topi, Hyrax, Waterbuck, Warthog, Klipspringer, Bushbuck, Roan antelope, Oribi, Bushpig, Genet, Spotted Hyena, Crocodile and Giraffe.

Birds

About 500 species of birds.

Special significance

Migration of large herds of white-eared kob.

Controlled Hunting Areas

- (1) Akobo Controlled Hunting Area
- (2) Dabus valley " "

4.10 Harrar Elephant Sanctuary

Legal Status - Not gazetted.

Location - Harrarghe Region.

Area - 6000 sq. kms.

Major species of animals

Elephant, Gazelles, Lions, Hyena, Dibatag, Beira antelope, Leopard, Cheetah, Serval, Civet, Caracal, Genet cat, Greater Kudu, Warthog, Gerenuk, Wild Ass, Oryx,

Birds - About 400 species.

Special significance

Protection of the remaining few herds of elephants in the area.

Adjacent Controlled Hunting Areas

- (1) Tchercher and Arbagugu Controlled Hunting Area
- (2) Erer-Gota Controlled Hunting Area
- (3) Harrar-Wabi Shebelle Controlled Hunting Area.

5. Endemic species of wild animals and birds.a) Mammals - 7 species

Walia Ibex, Mountain Nyala, Semien Fox, Gelada Baboon, Wild Ass, Swayne's Hartebeest, Menelik's Bushbuck.

- b) Wattled Ibis, Blue-winged Goose, Harwood's Francolin, Rouget's Rail, Spot-breasted Plover, White-collared Pigeon, Yellow-fronted Parrot, Black-winged Lovebird, Prince Ruspoli's Turaco, Banded Barbet, Goldenbacked woodpecker, White-tailed Swallow, Abyssinian Long-claw, White-winged Cliff-Chat, Ruppell's Chat, Abyssinian Catbird, White-backed Black Tit, Yellow-throated Seed-eater, Black-headed Siskin, White-billed Starling, Black-headed Forest Oriole, Stresemann's Bush-Crow, Thick-billed Raven.

6.. Legal status

As mentioned earlier, only two conservation areas the Awash and the Semien Mt. National Parks are gazetted. The Omo, Mago, Nechisar, Bale Mt., Abijatta-Shalla Lakes and Yangudi Rassa National parks are already under development although their legal position is yet to be established. The Dahlac Marine Park and the Gambella National Park have already been surveyed. As a matter of fact the Gambella National Park in the past existed as a wildlife reserve. All the wildlife reserves have also been surveyed and their boundaries identified.

On 5th September, 1980 the Provisional Military Government of Ethiopia issued the Proclamation No. 192 of 1980 entitled "A Proclamation to provide for the Conservation and Development of Forest and Wildlife Resources". This proclamation establishes a Forest and Wildlife Conservation and Development Authority. Under Para 12 of sub-section 3 of this Proclamation, the Authority is empowered " in co-operation with the appropriate Government offices,

demarcate, register and administer state forests, national parks, game reserves, sanctuaries and areas for afforestation, controlled hunting and scenic attractions". In view of this the newly established Authority is swiftly moving ahead the legal establishment of all these conservation areas.

7. Management and staffing

The Forest and Wildlife Conservation and Development Authority at present has fourteen wildlife experts and two biologists. Another ten trainees are undergoing field service prior to being send to wildlife management training institutions. The total number of wildlife (game) guards number 293 with the auxilliary staff numbering 84.

All the national parks have a warden in charge and have a supporting staff of wildlife guards, drivers, mechanics and other administrative staff.

With the legal establishment and full development of all conservation areas, it is expected that the total staff would be somewhere in the region of one thousand.

Yet the number of the existing staff particularly the trained manpower is far from adequate. With the legal establishment of all the conservation areas and the consequent expansion of conservation activities this need is certainly going to accelerate. Plans have already ^{been} prepared to meet this growing need by training more technical personnel. The plans include on-the-job training for the existing wildlife guards cadre and others to be recruited, training of wildlife biologists, managers, conservation education officers and advanced graduate training abroad since such technical training is not locally available.

8. Conservation education

A very serious bottleneck in the development of conservation programmes in Ethiopia has been the lack of awareness on the part of the people that wildlife resources are a precious national heritage to be conserved for all times. A conservation education unit was created in 1972. With the meagre resources available, this unit has since then done its best to spread the gospel of conservation throughout the country. The lack of trained conservation education experts, equipment, educational materials and vehicles has been the main drawbacks.

The need to acquaint the people at all levels about the reasons for conservation continues to exist. They have also to be acquainted with the general wildlife regulations, the boundaries and location of all the conservation areas. This applies more to the concerned government officials. Conservation also needs to be introduced as a part of the curriculum from the elementary to the university level.

9. A National Wildlife Conservation Plan.

All the possible areas of wildlife concentrations in Ethiopia have been identified. It is pursuant to this identification and related surveys that all the conservation areas have been proposed and established. A comprehensive plan for the physical development of these conservation areas has been prepared.

But the most pressing need is to prepare a viable management plan for all these areas, the wildlife therein and their habitat. The preparation of such a plan needs considerable expertise which, regrettably, is lacking.

10. CNPPA and Ethiopia's Conservation Programme

10.1 Two national parks the Awash and the Semien Mountains are already included in the World Directory. The remaining conservation areas too need to be included in the World Directory as they are already established de facto. Under the new Proclamation of 1980, mentioned under Legal Status, the Forest and Wildlife Conservation and Development Authority has been vested with the powers to declare them legally, which the Authority is immediately proposing to do.

10.2 Ethiopia's conservation programme is in its infancy. These programmes were initiated only in 1970. Locally the funds are not available for implementing the conservation and development programme, although the government is doing what it can. The assistance needed is, in particular, in training technical personnel, providing experts, equipment and vehicles for conservation education, the preparation of a national wildlife management plan and also in studying in detail the endemic species.

10.3 Ethiopia's Government is today more than ever aware of the significance of and need for conserving the wildlife resources. The Government is also aware of the international nature of the needs of conservation and that it is no longer only a domestic affair. The continued and more active support of CNPP will go a long way in conserving Ethiopia's wildlife heritage.

2.6 NATIONAL PARKS, RESERVES
AND PROTECTED AREAS
OF KENYA

J.W. Thorsell, Resource Planner
F. Pertet, Co-Head

Wildlife Planning Unit
Ministry of Environment and Natural Resources
Kenya

NATIONAL PARKS, RESERVES AND PROTECTED AREAS OF KENYA

A Introduction

In recent years there have been substantial changes in the composition and administration of the protected areas of Kenya. These changes have resulted from a growing recognition of the role of parks and reserves as an integral part of the national development process. The strong commitment to environmental conservation by the Government of Kenya is reflected in the recent growth of the national reserve system which is outlined below.

The purpose of this paper is to present a summary inventory of the current state of Kenya's evolving system of protected areas. We do not attempt to describe here the various programs and activities of the Department of Wildlife Conservation and Management. These have recently been presented at the 6th African Wildlife Conference in the "Kenya Country Report".

Our inventory is based on the preparation of 37 CNPPA Protected Area Information Sheets. Twenty-five of these sheets are new submissions and 12 are updated and corrections of the sheets presented in the 1977 World Directory. These sheets should also provide additional information to revise the Kenya section of the 1980 UN List.

As will be demonstrated below, the protected areas of Kenya are grouped in three classifications to conform to CNPPA's paper on "Categories, Objectives and Criteria for Protected Areas". These are: Category II National Parks (22 areas), Category IV Nature Conservation Reserve (25 areas), and Category VI Resource Reserve (Interim Conservation Unit) (14 areas). Criteria and objectives for each of Categories will not be reiterated here.

It should be mentioned that the exercise of completing the data sheets has also served the purpose of providing the baseline information necessary for the preparation of a systems plan for Kenya that the WPU is undertaking.

For many of the new reserves information is lacking even on the basic resources of the area. Field reviews were possible in only a few areas. Corrections and additions to these sheets will be made as the data become available.

B Parks and Reserves Listed for the Directory

Thirteen National Parks and 24 National Reserves are listed in Table 1. The total area under protection is 4,361,512 hectares including 2,553,969 ha in parks and 1,807,543 ha in reserves.

This represents 7.5% of the total area of the Republic of Kenya. Included in this list are two Marine Parks and two Marine Reserves. One national park, Saiwa Swamp, is less than 1000 ha and thus would not be included on the List.

The question of the appropriate category for National Reserves requires some explanation. The basic differences between parks and reserves are:

- land in reserves is vested in local County Councils who operate the reserve and receive Grants-in-aid for their administration (one exception is the special case of the Shimba Hills Reserve).
- the Department of Wildlife Conservation and Management will eventually be responsible for staffing and managing all national reserves and will do so using the powers of the same regulations as govern national parks.
- some exploitation of national reserves may be permitted in the form of seasonal water rights and grazing by pastoralists and local fishing in the marine reserves.

We have resolved these issues by classifying reserves as both Category II and VI depending on our assessment of their current management. Reserves that do not experience resource exploitation and are actively managed as de facto national parks are grouped under Category II. Ten reserves fall in this group. The remaining 14 reserves do not receive significant protection, do not at present provide any economic returns through tourism, and are either occupied or extensively utilized for resource extraction purposes. These reserves are thus seen as Resource Reserves/Interim Conservation Units pending further clarification of their objectives and management strategies.

C Growth of the Park and Reserve System

The evolution of the park and reserve system in Kenya shows two patterns of growth. The national park system began with the establishment of Nairobi National Park in 1946. With the addition of Tsavo in 1948, the park system was 82% complete in terms of its total present area. Significant additions, however, were made in the period 1966-68 and 1973-74 when the last national park in Kenya was established.

The growth of the national reserve system shows a very different pattern. Five reserves were established in the period beginning 1948 to 1973. The remaining 19 reserves comprising 75% of the total present area were created in the past seven years. This has reflected the government policy to orient revenues to local authorities and landowners.

It should be noted that several areas were reserves before they became parks and most areas have had boundary modifications. For purposes of clarity the data for the attached graphs show cumulative growth based on current size and designation.

Finally, several additional reserves and one park proposal are in the planning stages. Further growth of the system is thus anticipated.

D Distribution of Protected Areas in Relation to Conservation Objectives

A basic policy directive for the protected areas of Kenya is provided in "Sessional Paper No. 3 of 1976: Policy on Wildlife Management in Kenya". This document states that a major objective of the parks and reserves is "to preserve in a reasonably natural state examples of the main types of habitat which are found in Kenya for aesthetic, scientific, and cultural purposes".

We are not able to state at this time how far the current system of parks and reserves goes towards meeting this objective. We are aware from Lamprey's benchmark paper which reviewed the state of biome protection for all of East Africa in 1974 (IUCN, 1976), that several gaps still persist. It may be that surpluses occur as well. The development of a protected area systems plan in the course of the next year will allow us to pursue a systematic approach to ensuring survival of representative samples of all Kenya's varied habitats.

TABLE 1

NATIONAL PARKS AND RESERVES OF KENYA

<u>Park or Reserve</u>	<u>Category</u>	<u>Areas</u>
Tsavo National Park (E and W)	II	2,082,114 ha
Marsabit National Reserve	II	208,842
South Kitui National Reserve	VI	183,300
Losai National Reserve	VI	180,600
Kora National Reserve	VI	178,780
Masai Mara National Reserve	II	167,274
Sibiloi National Park	II	157,085
Boni National Reserve	VI	133,960
Rahole National Reserve	VI	127,057
South Turkana National Reserve	VI	109,100
Dodori National Reserve	II	87,739
Meru National Park	II	87,044
Aberdares National Park	II	76,619
North Kitui National Reserve	VI	74,500
Mount Kenya National Park	II	71,559
Bisanadi National Reserve	VI	60,600
Arawale National Reserve	VI	53,324
Amboseli National Park	II	39,206
Buffalo Springs National Reserve	II	33,915
Lambwe Valley National Reserve	II	30,814
Kiunga National Marine Reserve	VI	25,000
Shaba National Reserve	II	23,910
Samburu National Reserve	II	22,510
Malindi/Watamu Marine National Reserve	VI	22,343
Ngai Ndethya National Reserve	VI	21,209
Shimba Hills National Reserve	II	19,251
Mount Elgon National Park	II	16,923
Tana River Primate National Reserve	II	16,807
Nairobi National Park	II	11,721
Lake Bogoria National Reserve	II	10,705
Nasalot National Reserve	VI	9,200
Mwea National Reserve	VI	6,803
Lake Nakuru National Park	II	5,763

NATIONAL PARKS AND RESERVES OF KENYA (cont.)

<u>Park or Reserve</u>	<u>Category</u>	<u>Areas</u>
Kisite Marine National Park	II	2,301 ha
Ol Donyo Sabuk National Park	II	1,842
Malindi/Watamu Marine National Park	II	1,600
Saiwa Swamp National Park	II	192
	TOTAL:	<u>4,361,512 ha</u>

E Other Categories of Protected Areas

In addition to lands included in parks and reserves there are two other designations that can be included under Category IV lands: Local Sanctuaries and Nature Reserves.

Local Sanctuaries are limited to 2600 ha in size and perform the function of protecting locally significant resource features from disturbances, primarily hunting. Vegetation is not protected. Not all of the areas below have been formally gazetted and none have a budget. Staff inputs are limited to occasional inspection visits by Wardens. Insufficient data does not permit completion of data sheets. Areas are listed in Table 2.

Nature Reserves have been created under the Forest Act and are administered by that Department. No cutting, grazing or disturbance of the vegetation is permitted and no hunting or fishing is allowed. Table 3 itemizes the reserves that have been declared.

It should be noted that the existence of a legally established sanctuary or nature reserve area does not ensure the survival of the habitat it contains. It follows that what is needed is an evaluation of the effectiveness of these designations in properly managing the area.

F International Affiliations

In terms of internationally recognized designations Kenya has created 3 biosphere reserves: one in a Marine environment (Malindi/Watamu), one in a tropical mountain environment (Mt. Kenya) and one in a primarily arid environment (Mt. Kulal). No World Heritage site has been designated.

TABLE 2

LOCAL SANCTUARIES - KENYA

<u>NAME</u>	<u>MAJOR RESOURCE VALUES</u>
Ithanga Lake (Limuru)	Bird
Isiolo Township	Wildlife - general
3 Farms - Machakos District	Reedbuck/Klips Pringer
Machakos Township	Waterbirds
Kiambu District	Waterbirds
Nairobi City Dam	Waterbirds
Kitui Township	Wildlife - general
Maralal	Wildlife - general
Central Island - Turkana	Crocodiles, Birds
Kithioko Dam - Mutonguni	Birds
Malaba	Wetland
Suguta	Fossils
Nzoia Delta	Heronry
Kihancha	Forest Birds
Losuk	Waterhole
Muhoro Bay	Waterbirds
Kisima	Waterbirds
Mutomo	Unique Flora

TABLE 3

DECLARED NATURE RESERVES - FOREST ACT

<u>Area</u>	<u>Size (ha)</u>	<u>Year Established</u>
S.W. Mau	43032	1962
Arabuko Sokoke	4331	1977
Kisere (Kakamega)	484	1967
Yala (")	469	1967
N. Nandi	3434	1978
Kakamega Forest Station	210	1967
Uaso Narok (Nyahururu)	1575	Proposed 1980

G References

- IUCN 1978 "Categories, Objectives and Criteria for Protected Areas". CNPPA Final Report.
- IUCN 1980 "United Nations List of National Parks and Equivalent Reserves" CNPPA.
- Kenya Department of Wildlife Conservation and Management 1980, Kenya "Country Report", Presented at the 6th African Wildlife Conference, Nairobi.
- Lamprey, Hugh F. 1976 "The Distribution of Protected Areas in Relation to the Needs of Biotic Community Conservation in Eastern Africa". In: IUCN, Proceedings of a Regional Meeting on the Creation of a Coordinated System of National Parks and Reserves in Eastern Africa, IUCN Pub. New Series Paper 45.

2.7 LES PARCS NATIONAUX ET RESERVES ANALOGUES DU CAMEROUN

par

LE DELEGATION GENERAL AU TOURISME

Avec sa position géographique allant du 2^e au 13^e degré de latitude-nord, le Cameroun présente une telle diversité dans ses sols, son relief, son climat, son réseau hydrologique, sa végétation qu'on a pu le qualifier d'Afrique en miniature.

Cette extrême diversité d'écosystème traduit par une flore, une faune terrestre et aquatique extrêmement diversifiées par le nombre de biotopes et niches écologiques.

Toute la gamme des mammifères sauvages et d'avifaune allant de la forêt dense humide guinéenne et congolaise aux formations sahéliennes en passant par la forêt semi-décidue et les nombreuses formations de savane ouest africaine.

Le Cameroun possède de ce fait un capital faune qui fait sa fierté. C'est pourquoi compte tenu des ces riches potentialités, et conscient des problèmes de la conservation, le Cameroun a su créer et maintenir les Parcs Nationaux et Réserves Analogues judicieusement repartit sur l'ensemble de son territoire.

SITUATION DES PARCS NATIONAUX ET AIRES PROTEGEES DU CAMEROUN

La République Unie du Cameroun compte 16 parcs nationaux et réserves analogues couvrant une superficie totale de 2.347.800 ha soit environ 5% de la superficie du territoire national.

En incluant les autres aires protégées (périmètres de reboisement, réserves forestières, jardins botaniques etc.).

Les superficies totales des aires protégées sont de 2.818.000 ha ce qui représente 6% du territoire national. Ce taux reste encore inférieur à 20% qui est notre objectif, mais de nombreux projets de créations d'aires protégées sont à l'étude.

Sur ce total, il existe 6 parcs nationaux couvrant une superficie de 905.900 ha.

La gestion de ces aires protégées relève de la compétence de deux départements ministériels:

- Le Ministère de l'Agriculture en ce qui concerne les Réserves de Faune, les Réserves Forestières, les Zones d'Intérêts Cynégétiques et autres.
- La Délégation Générale au Tourisme en ce qui concerne les Parcs Nationaux.

I - SITUATION ACTUELLE DES PARCS NATIONAUX DU CAMEROUN

Si les différents textes de l'Administration Française ont, en dehors de Mbi Crater et Kimbi Game Réserve, créé des réserves forestières et des réserves de Faune entre 1932 et 1950, ce n'est qu'après l'indépendance que les parcs nationaux ont vu le jour, résultant de la transformation de certaines réserves de faune.

Ces parcs au nombre de 6 sont situés dans la partie septentrionale du pays qui, du point de vue biogéographique se situe dans la région soudano-sahélienne. La raison de leur existence dans une seule région biogéographique alors que le pays en compte plusieurs résulte d'une part dans les facilités d'aménagement en zone soudanienne et sahélienne et du manque de crédits et difficultés d'aménagement en forêts denses humides.

En effet, la vision est excellente dans les Savanes après les feux de brousse et la non abondance des points d'eau provoque une concentration d'animaux ce qui permet un tracé judicieux des pistes de visite au moindre coût.

Dans les forêts denses de la partie sud du pays l'abondance des points d'eau et de nourriture provoque une dispersion du gibier dont la vision est rendue difficile par la densité du sous-bois et fourrés. Le tracé des pistes nécessiterait du matériel spécial ce qui rend très élevé le prix d'ouverture des routes.

Mais dans un soucis constant de conservation et d'aménagement des parcs nationaux, des projets de création des parcs nationaux en forêt dense humide ont été mis sur pied.

LISTE DES PARCS NATIONAUX

<u>NOM</u>	<u>DATE CREATION</u>	<u>SUPERFICIE</u>	<u>AMENAGEMENT</u>
Waza	1968	170,000 ha	oui
Kala-Maloue	1972	4,500 ha	oui
Mozogo-Gokoro	1968	1,400 ha	non
Benoué	1968	180,000 ha	oui
Bouba-Ndjida	1968	220,000 ha	oui
Faro	1980	330,000 ha	en projet pour 1982

1.1 L'ADMINISTRATION DES PARCS NATIONAUX

Jusqu'en 1973, la gestion des parcs nationaux était confiée au Commissariat Générale au Tourisme et au Ministère de l'Agriculture; mais il se posait dans la plupart de cas le problème de responsabilité de prise de décision. C'est dans le sens de rationalisation des mesures de protection et dans un soucis constant de la recherche d'une plus grande efficacité en matière de gestion que le Chef de l'Etat a signé le 20 mars 1974 Décret créant un Service des Parcs Nationaux au sein du Commissariat Générale au Tourisme. Cet organisme est devenu un an plus tard Délégation Générale au Tourisme avec une Sous-Direction des Parcs Nationaux. Depuis 1975, de progrès sensibles ont été enregistrés dans l'aménagement des Parcs Nationaux.

1.2 GESTION ET DEVELOPPEMENT DES PARCS NATIONAUX

La politique du Gouvernement en matière de Parcs Nationaux étant d'y développer le Tourisme de vision, le Gouvernement a mis au point une politique de développement du tourisme compatible avec notre objectif de conservation:

"L'utilisation et la jouissance des parcs nationaux doivent se faire de telle manière et avec les moyens tels que leur intégrité et leur richesses écologiques naturelles soient préservées". (Article 16 du Décret du 16 mars 1978 portant réglementation des parcs nationaux).

L'aménagement des pistes de visite, l'augmentation et l'amélioration des infrastructures d'hébergement et d'accueil des parcs tout en évitant de dégrader leur cachet naturel ont été le soucis constant de la Délégation Générale au Tourisme.

Par rapport à 1970, les réalisations ont été multipliées par deux voire par trois.

Le budget annuel des parcs nationaux est de 24,5 millions CFA pour le personnel de surveillance, 34 millions pour les aménagements et 50 millions pour l'équipement.

II REALISATIONS EFFECTUEES DANS LE DOMAINE DES PARCS NATIONAUX DEPUIS 1970

Les réalisations des dix dernières années ont été les suivantes:

1. Chaque parc a été doté de Poste Radio télécommunication reliant ce dernier aux Services Centraux de l'Administration de Garoua et Yaounde.
2. Augmentation du reseau des pistes de vision, de surveillance et pare-feux de 900 en 1974 à 1,500 en 1980.
3. Deux pistes d'atterrissage pour avion type DC4 ont été créer à Waza et à Bouba-Ndjida.
4. Achat de deux engins lourds pour l'ouverture des pistes de vision.
5. La capacité d'hébergement a atteint 176 lits contre 96 en 1970.
6. L'effectif des gardes de parc qui n'était que 31 en 1974 comprend aujourd'hui 120 agents Camerounais, équipés d'armes, bidons, musettes, vélos.
7. Chaque conservateur est doté d'un ou plusieurs véhicules on parfait état.

2.1 TEXTES SUR LES PARCS NATIONAUX

En matière de surveillance et de répression anti-braconnage, fléau qui fait peser une grave menace sur la faune en générale et les parcs nationaux en particulier, divers textes repressifs aggravant les sanctions antérieurs ont été pris par le Gouvernement et les visites ont été strictement réglementées:

- Décret no. 78/076 du 11 mars 1976 portant réglementation des parcs nationaux.
- Arrêté no. 217/CAB/PR du 7 octobre 1978 portant une indemnité de risques au profit des Agents en service dans les parcs nationaux.
- Loi no. 78/23 du 29 décembre 1978 relative à la protection des parcs nationaux.
- Décret no. 79/369 du 12 septembre 1979 fixant les conditions de transaction en matière d'infraction à la réglementation des parcs nationaux.
- Circulaire présidentielle no. 15/CAB/PR du 26 septembre 1979 fixant les attributions de la Délégation Générale au Tourisme et du Ministère de l'Agriculture dans le domaine de la protection de la faune.
- Arrêté no. 2653 du 1er octobre 1979 fixant les modalités d'accès, de visite et de circulation dans les parcs nationaux.

2.2 SENSIBILISATION - EDUCATION DU PUBLIQUE

Les textes aussi repressifs qu'ils soient ne peuvent atteindre les résultats escomptés que lorsqu'ils sont complétés par un programme de sensibilisation et d'éducation du public. C'est pourquoi un premier séminaire national sur les parcs nationaux s'est tenu à Garoua en juin 1976; au cours de ce séminaire, le premier Club des Amis de la Nature du Cameroun a été créé et ce Club assure une éducation non négligeable du public en liaison avec les Services des Parcs Nationaux (Radio-Press).

En rapport avec les Ministères de l'Agriculture, de l'Elevage, de l'Education Nationale et de l'Information, une action de sensibilisation sera entreprise au niveau des écoles visant à donner à la jeunesse le goût de la conservation de la nature.

2.3 FORMATION - RECHERCHES

Formation

Dans le domaine de la formation, il y'a lieu de se féliciter de la présence au Cameroun de l'Ecole pour la Formation des Spécialistes de Faune de Garoua qui assure la formation des cadres moyens pour la gestion de la Faune.

Les cadres supérieurs pouvant se spécialiser en matière de faune sont formés au département de foresterie l'Ecole Supérieur Agronomique de Yaoundé.

Les gardes de parc sont recrutés sur place et sont formés à l'Ecole de Faune avant d'être envoyés sur le terrain.

Recherches

Les recherches sont encore limitées à quelques travaux entrepris par les quelques chercheurs nationaux et étrangers dans le cadre de présentation des thèses de fin d'études supérieurs.

Notons cependant que le Projet PNUD-FAO CMR 72/025 qui a pris fin en 1976 avait pour but de faire des études sur le plan d'aménagement des parcs nationaux de Waza et Kala-Maloue, malheureusement les conclusions des études faites par les chercheurs n'ont pas été conformes aux objectifs fixés.

3. PROBLEMES PRINCIPAUX DES PARCS NATIONAUX

Si le Gouvernement Camerounais a fait d'énormes progrès en matière de gestion et de protection des parcs nationaux, il n'en demeure pas moins que l'Administration des parcs nationaux rencontre des problèmes difficiles.

3.1 PROBLEME D'EAU A WAZA

Ce parc de 170,000 ha situé dans le Bassin du Lac Tchad connaît des problèmes d'eau depuis la sécheresse qui sévit dans les régions sahéliennes d'Afrique depuis 1972. Pour la nutrition des animaux du parc dont la biomasse est évaluée à 5,060 kg/km² nous ne disposons que des mares temporaires dont certaines ont été creusées au 15^e siècle par les SAO et d'autres récemment.

La sécheresse de 1972 a provoqué la mort de 2,500 antilopes et 8 girafes soit une perte sèche d'environ 50 millions de Frs. Cette année la mise en eau du barrage de retenue de la Semry de près de 8 milliard de m³ a perturbé d'avantage les problèmes hydrologiques de Waza et a occasionné la mort de 200 antilopes, 5 lions, 5 girafes et 200 singes.

En l'absence des crues du Logone dont le régime baisse progressivement d'année en année, une sécheresse mortelle fait planer un doute sur le périmètre du Parc de Waza.

Nous avons ouvert 2 canaux de 8 km chacun pour drainer vers le parc les eaux de débordement du Logone à partir des zones de crue minimale.

Deux puits de 300 à 400 mètres de profondeur sont en cours de forage dans la nappe artésienne, mais les chances de trouver l'eau sont encore loin.

Un projet d'extension du Parc jusqu'au Logone Matia zone de migration des bêtes avec creusement de canaux est en cours d'étude, mais tous ces projets nécessitent des études appropriées.

3.2 BRACONNAGE

Ce fléau met en danger l'existence de nos parcs et nos moyens de surveillance en personnel, matériel sont encore insuffisants.

3.3 LA VIABILISATION DES PISTES DE VISITE

Dans les parcs nationaux nécessite encore des études appropriées.

3.4 PROBLEME DE PERSONNEL

L'administration des parcs nationaux manque encore des cadres supérieurs formés en matière de gestion et de planification des parcs nationaux.

A une époque où les ressources naturelles diminuent rapidement sous la pression du développement accéléré de l'agriculture et des industries diverses, nous souhaitons avoir le concours technique et matériel des organismes internationaux et des pays développés pour atteindre les objectifs nobles de conservation de nos ressources.

4. PROJETS ET CONTRIBUTION DES ORGANISMES ETRANGERS

En matière des parcs nationaux notre pays a bénéficié de l'assistance des Volontaires du Corps de la Paix USA, et d'un seul projet "d'Assistance aux parcs nationaux de la zone de Savane". Le rapport final de ce projet comme nous l'avons dit n'a pu faire ressortir le résultat souhaité par le Gouvernement.

Nous avons reçu une aide de la Société Zoologique de Frankfort pour la construction de deux Camps de Gardes autour des parcs nationaux de Waza et Benoue.

En sollicitant de vive voix le concours technique et matériel immédiat des organisme internationaux spécialisés dans le domaine de la faune sauvage, notamment de l'UICN, WWF, Unesco, PNUD, FAO, PNUE et autres, le Gouvernement Camerounais fait savoir que plusieurs projets sont en ce moment en gestation et d'autres sont en cours d'élaboration:

- Etude des plans d'aménagement des parcs nationaux existant en zone de savane.
- Extension du parc national de la Benoue
- Etude et mise en place d'une infrastructure de base au parc national de Faro crée en 1980.
- Construction des camps de gardes dans les differents parcs.
- Création des unités de recherche dans le parcs.
- Etude de la création des parcs nationaux en forêt dense humide: deux projets en cours dans les réserves de Korrip et Pangar Djerem.
- Etude de la création des zones tampons autour des parcs nationaux.

5. RESERVES DE FAUNE - LISTE NOMINATIVE

<u>No. ORD</u>	<u>DESIGNATION</u>	<u>DATE DE CREATION</u>	<u>SUPERFICIE (ha)</u>
1 ^o	Réserve forestière et de faune de Kalfou	1933	4,000
2 ^o	Réserve de faune de Kimbi	1964	5,600
3 ^o	Réserve de faune de Pangar et Djerem	1968	300,000
4 ^o	Réserve de faune de Dja	1950	500,000
5 ^o	Réserve de faune de Douala-Edea	1932	160,000
6 ^o	Réserve de faune de Kampo	1932	300,000
7 ^o	Réserve de faune de Lac Ossa	1968	4,000
8 ^o	Réserve de faune du Lac Lobeke	1924	43,000
9 ^o	MBI Crater Game Reserve	1964	370
10 ^o	Réserve forestière et de faune de Korup	1964	125,000

DE LA GUINEE BISSAU

par

MAMADOU DIOM

Sous-directeur des parcs
nationaux du SénégalPREFACE

Je voudrais tout d'abord présenter à l'assemblée les regrets de Monsieur André Dupuy, Directeur des Parcs Nationaux du Sénégal qui n'a pu être libéré pour participer à vos assises.

Que la Commission reçoive donc ici ses excuses sincères, le renouvellement de son attachement toujours constant à la cause de la conservation de la nature et son encouragement à votre noble action.

I PARCS NATIONAUX ET AIRES PROTEGEES AU SENEGALIntroduction

Le Sénégal, à l'instar des autres jeunes états africains, a très tôt cherché à concilier au maximum le développement économique et la sauvegarde de son environnement.

Dans ce contexte s'est imposé dès le début, l'idée d'exploiter sans limite les richesses naturelles renouvelables ou non. Cela s'est traduit par des défrichements excessifs et irrationnels, des aménagements intempestifs qui détruisèrent une multitude de biotopes, souvent de façon irréversible.

Le Gouvernement sénégalais a vite compris qu'une exploitation anarchique ne pourrait être profitable à long terme, c'est pourquoi l'idée a été lancée de protéger ce qui reste de la nature avant qu'il ne soit tard.

Au vu de cet idéal et pour protéger plus efficacement ces richesses naturelles, le Gouvernement sénégalais a mis en exécution une politique énergique de conservation et de protection de la nature.

II CREATION DE PARCS NATIONAUX ET RESERVES

Le Sénégal, sous l'impulsion de son Président qui est un grand poète et un fervent admirateur et protecteur de la nature, a choisi de tout mettre en oeuvre pour sauver quelques parcelles de son territoire, véritables sanctuaires naturels.

LE PARC NATIONAL DU NICKOLO-KOBA

Ce parc, créé depuis 1954, a été réorganisé et a vu son aire aggrandie pour comprendre actuellement une superficie de 900,000 hectares gardée par quelques trois cents agents mis à la disposition du service des parcs nationaux et dotés d'un matériel logistique appréciable. Ce vaste territoire représente une unité écologique solide qui permet à certains ongulés d'effectuer des déplacements saisonniers tout en restant dans les limites de protection.

LE PARC NATIONAL DE BASSE CASAMANCE

Ce parc a l'avantage de se situer dans la partie méridionale du Sénégal, une région constituée de grandes forêts secondaires, de savanes guinéennes et de mangrove. L'intérêt évident qu'il y avait de préserver un échantillon de cette zone n'a pas échappé au gouvernement sénégalais qui a créé ce parc par décret du 10 avril 1970.

LE PARC NATIONAL DES OISEAUX DU DJOUDJ

Devant l'énorme quantité d'oiseaux paléartiques venant séjourner chaque année dans le Nord du Sénégal, le service des Parcs nationaux a rapidement compris la nécessité de protéger une telle richesse. C'est ainsi que le parc a été créé le 14 avril 1971.

LE PARC NATIONAL DE LA LANGUE DE BARBARIE

Le réseau des Parcs nationaux devant être complété par un échantillon de cordon dunaire littoral, cette lacune a été comblé par la création de ce parc le 9 janvier 1976.

LE PARC NATIONAL DES ILES DE LA MADELEINE

Le petit archipel dénommé "Iles de la Madeleine" au large de Dakar, à quelques quatre kilomètres, présentant un grand intérêt scientifique, fut érigé en parc national le 16 janvier 1976. Cet ensemble comprend les fonds marins qui l'entourent dont des fonds rocheux abritant une faune spécifique.

LE PARC NATIONAL DU DELTA DU SALOUM

Il s'agit ici du delta du Saloum comprenant plusieurs îles de sable. Il est inclus dans ce parc une partie de la forêt classée de Fathala et la Pointe de Sangomar.

Un projet d'intégrer dans cette protection la totalité de la forêt de Fathala est actuellement en cours.

LA RESERVE ORNITHOLOGIQUE DE KALISSAYE

La dernière de la série d'être créée. Cette réserve fut mise en place le 29 juillet 1978. Elle couvre une superficie intégralement protégée de 250 ha

environ et comprend l'extrémité de la pointe de Sankoye, les deux îlots de Kalissaye et les eaux maritimes baignant cet ensemble sur une distance de cent mètres.

III MESURES GOUVERNEMENTALES DE PROTECTION ET DE CONSERVATION AU SENEGAL

La création de ces aires protégées ne suffit pas et il a fallu mettre en exécution toute une série de mesures parmi lesquelles:

- L'adhésion du Gouvernement de la République du Sénégal aux différentes conventions en matière de protection et de conservation des ressources naturelles: Ramsar, Washington, Bonn, etc.
- Coordination des activités de recherches scientifiques dans le domaine naturel avec la collaboration de l'Institut fondamental d'Afrique noire et l'Orstom de Dakar.
- La publication de textes réglementaires portant application de la politique du Gouvernement en matière de protection.
- La décision de subventionner annuellement les "Les Clubs Jeunes Nature" créés sur l'ensemble du territoire de la République sous l'égide de la Direction des Parcs Nationaux.
- L'action par le Gouvernement de crédits de transfert dans le Budget national d'équipement pour un soutien logistique à l'action de conservation et de protection entreprise par le service des Parcs Nationaux.
- L'amélioration de l'émission télévision "Faune d'Afrique" et la programmation d'émissions de sensibilisation à la chaîne nationale et dans les chaînes régionales.

Cependant, il est à noter une faiblesse du système due à l'insuffisance des moyens qui résulte de la situation des pays en voie de développement confrontée aux difficultés conjoncturelles de toute sorte.

C'est pourquoi, nous profitons de l'occasion ici présente de reformuler le voeu que les organismes internationaux de protection de la nature, les pays industriels redoublent l'effort qu'ils n'ont pas cessé de fournir dans leur aide à notre action de protection et de conservation de la nature.

IV LES PROJETS EN COURS

1. Projet réserve mondiale de la biosphère

A la demande de l'Unesco et après un réexamen du dossier, le Gouvernement du Sénégal propose le Delta du Sine Saloum comme Réserve mondiale de la biosphère. En effet, cette zone correspond non seulement à une zone représentative des milieux naturels se rattachant aux divers biomes terrestres et aquatiques mais encore, elle contient des formes de mise en valeur spécifique, voire des formes de dégradations anthropiques dont l'étude par rapport au milieu devait améliorer nos connaissances sur un aménagement national des ressources naturelles.

Par ailleurs, sur la conservation à long terme des ressources génétiques, la réserve devra se porter à des activités de recherches interdisciplinaires et d'éducation non seulement pour notre pays mais encore pour des pays de la même zone bioclimatique.

Il sera envisagé, si les moyens le permettent, un laboratoire de campagne dans la réserve ainsi qu'un éco-musée pour aider aux objectifs d'éducation assignés à une telle entreprise.

2. Projet de création d'un parc international

L'UICN avait saisi le Gouvernement sénégalais qui avait aussitôt donné son accord pour la création d'un parc international dans le Delta du Saloum. En effet, cette implantation ne pose pas de grandes difficultés quant à sa réalisation; le Parc national du Delta du Saloum jouxtant le parc gambien.

3. Projet de création nouvelle d'aires protégées - la réserve spéciale des oiseaux de Gueumbeul

C'est une vaste zone immergée d'eau où viennent hiverner des milliers d'oiseaux. La végétation est peu dense avec quelques arbustes mais les salicornes dominent. La mangrove de la zone de Gueumbeul a été fortement menacée par l'exploitation irrationnelle et c'est cela qui a alerté les autorités compétentes pour sa mise en protection. C'est l'une des mangroves les plus septentrionales du Sénégal.

La réserve de faune et de mise en défens de Palmarin

Pour compléter le réseau de réserves spéciales, le projet de création de Palmarin s'avère très important de par sa position géographique, voire de migration qui jouxte le Parc national du Delta du Saloum, mais également la concentration d'une avifaune variée.

L'endroit est une vaste dépression qui fait garder l'eau durant huit mois pendant lesquels les oiseaux d'eau migrant ou de passage y trouvent nourriture et quiétude. L'avifaune aquatique se compose en grande partie de limicoles. On y trouve également une grande concentration de flamants roses, pélicans blancs, pélicans gris dans les étangs. Les laridés et les sternidés y sont bien représentés.

V DEFICIENCES ET ACTIVITES PERTURBATRICES

Le développement économique nécessaire imposé aux jeunes états africains ne va pas sans perturber cette politique de conservation et au Sénégal, un certain nombre de problèmes mérite d'être soulevés dans ce sens.

1. Aménagement du bassin

Il convient de prévoir l'impact sur l'organisation des réserves naturelles; ceci peut se faire par des études de la dynamique des biocénoses, la productivité et les problèmes de production des écosystèmes vivant en équilibre dans le

Parc national du Niokolo-Koba. L'aménagement de ces zones va modifier considérablement le milieu par la déviation des lits des cours d'eau, la création de réservoirs ou lacs artificiels.

Un intérêt particulier a toujours été porté par l'Etat sénégalais et les organismes de conservation de la nature tels le WWF et l'UICN, aux écosystèmes naturels ou semis naturels où se sont concentrés les flores et faune primitives et qui, après avoir résisté jusqu'ici à l'action destructive des hommes par des "mises en valeur", se trouvent aujourd'hui de plus en plus menacés.

C'est pour cela que la Direction des Parcs nationaux, membre du comité national de l'OMVG, a proposé que des études annexes soient intégrées dans le programme concernant l'ambiance écologique futur qui risque très certainement d'être déséquilibrée.

2. Aménagement du bassin du fleuve Sénégal

Ces mêmes difficultés risquent de se retrouver avec la zone humide du Djoudj qui est continuellement menacée par les aménagements intempestifs des sociétés de la région du Fleuve. Mais le risque le plus grand réside dans la mise en oeuvre très prochaine des travaux des barrages de Diama et de Nanamtali. La division des sciences écologiques de l'Unesco saisie, est entrain d'étudier ce problème.

PARCS NATIONAUX ET RESERVES DE LA GAMBIE

Un jeune service vient d'y être créé avec un effectif théorique d'une trentaine de personnes dont une vingtaine actuellement en service.

Le Baboon Island National Park

Jusqu'à ce jour, un seul parc national existe dans ce pays: le Baboon Island National Park. Ce parc est d'une superficie d'environ 2,000 hectares. C'est un ensemble d'îles situées dans le bassin de la rivière Gambie et baignées par de l'eau douce.

La végétation dans cette aire est de type sud soudanien. Seuls quelques hippopotames et des crocodiles y survivent. Pour la faune terrestre, les petites antilopes de savane y sont encore représentées ainsi que les singes tels les babouins, les singes rouges, les singes verts.

Point Particulier - Pour ce parc, il est à noter l'installation récente après son transfert du Parc national du Niokolo-Koba, du projet chimpanzé (réadaptation à la vie sauvage).

Cependant, il existe deux projets de parcs nationaux.

Le Kiang West National Park

Ce nouveau parc en projet serait également un parc d'ambiance soudanienne et devra se situer sur la rive gauche de la rivière Gambie à une centaine de kilomètres en aval du Baboon Island National Park.

On y trouve une flore et une faune d'ambiance soudanienne.

Point Particulier - Pour ce parc, il est à noter qu'il va bénéficier d'une assistance du World Wildlife Fund (WWF) pour la mise en place d'une clôture grillagée sur l'ensemble de son périmètre.

Réintroduction - Il est aussi question de faire dans ce parc une réintroduction d'espèces diverses car actuellement la faune y a pratiquement disparue.

Avis sur ce Projet - A notre avis, ce genre d'opération ne permet plus à ce pseudo parc de réunir les normes internationales permettant d'en faire un véritable parc national.

Le Delta River National Park

Enfin, il existe un projet pour la création d'un troisième parc qui portera le nom de Delta River National Park.

Ce parc se situerait à l'embouchure de la Gambie et aurait pour objectif principal de protéger la mangrove de cette zone et sa faune spécifique.

Ce future parc jouxtera l'actuel parc sénégalais du Delta du Saloum et permettra de déboucher sur la création du future parc international (pourparlers en cours).

Point Particulier - Il est à noter que pour le Baboon Island National Park et le Delta River National Park la réalisation des barrages dans le cadre de l'organisation pour la mise en valeur du bassin de la Gambie aura des effets suffisamment néfastes pour menacer profondément les écosystèmes naturels dans ces parcs.

L'Abuko Game Reserve

Cette réserve, d'une superficie de 350 hectares, entièrement close, est installée à la porte de Banjul (capitale de la Gambie) et on y trouve une remarquable infrastructure éducative en matière d'environnement naturel.

PARCS NATIONAUX ET RESERVES DE LA GUINEE BISSAO

Le Directeur des Parcs nationaux du Sénégal s'est rendu, en mission officielle, en Guinée Bissao. Il a pu noter une ferme volonté gouvernementale de mise en oeuvre d'un programme de parcs nationaux.

Mais actuellement, seules cinq personnes se trouvent dans une structure administrative chargé de régler ce problème et les réalisations sont encore inexistantes sur le terrain.

A la suite de prospection dans le pays, de survol et d'enquêtes auprès des populations, on a pu noter une faune et une flore qui paraissent encore remarquables dans tout le territoire et notamment dans la partie Sud.

C'est dans cette région méridionale qu'un parc de forêt mériterait d'être créé.

Cependant, le plus grand intérêt est représenté par l'Archipel des Bijagos. Cet archipel est situé à environ cinquante kilomètres au large de la côte de Guinée Bissao. Il est constitué d'un ensemble d'iles très boisées (forêts primaires), de hauts fonds sableux et d'atolls.

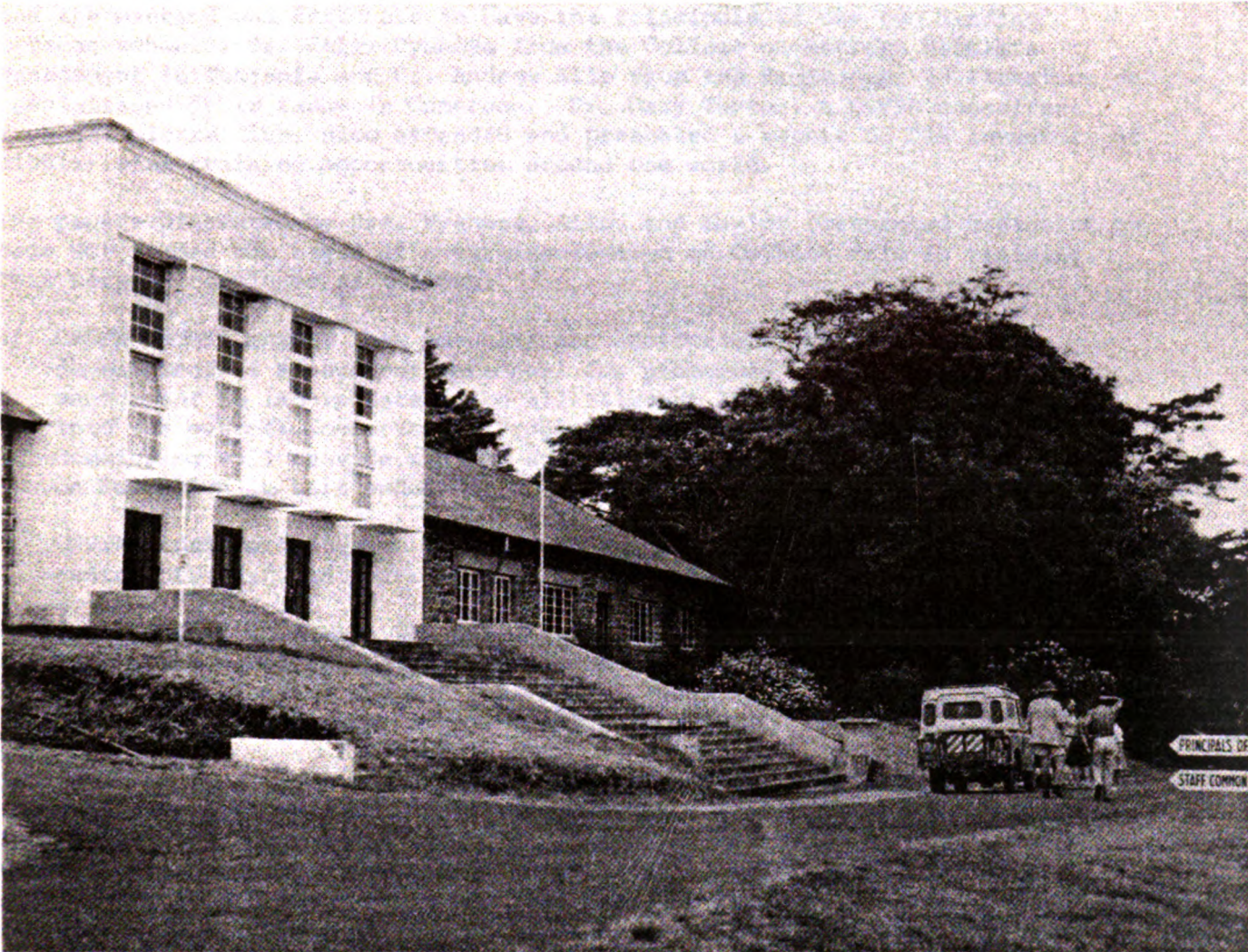
Cet ensemble insulaire et marin est exceptionnel de par la richesse de sa faune mammalogique relictuelle et son avifaune aquatique.

Dans cette zone humide d'importance internationale existe une population d'oiseaux migrateurs hivernant en quantité à peu près égale à celle du Banc d'Arguin (Mauritanie). Des flamants roses ont été observés en très grand nombre dans cette zone et il est très probable qu'ils y soient nicheurs.

Des anatidés éthiopiens s'y reproduisent en grand nombre.

Sur certaines petites iles de l'archipel, la forêt primaire semble encore présente et est susceptible de receler encore l'hippopotame main et d'autres espèces rarissimes.

Il y aurait donc bien d'inciter le Gouvernement de Guinée Bissao à créer d'urgence dans cet archipel un parc national d'une part et d'autre part d'inclure cette zone humide dans la convention de Ramsar et de proposer l'ensemble de l'archipel comme réserve mondiale de la biosphère. Il serait également souhaitable d'inscrire cette zone sur la liste du Patrimoine mondial, ne serait ce que pour sauvegarder l'intérêt exceptionnel que représente les ultimes populations humaines de ces iles.

CHAPTER III. DEVELOPING MANAGEMENT CAPACITY

The College of African Wildlife Management (above) in Mweka, Tanzania, and the Ecole pour la Formation des Spécialistes de la Faune in Garoua, Cameroon, are Africa's most important institutions for training protected area staff. (Photo: F. Vollmar, WWF)

CHAPTER III: DEVELOPING MANAGEMENT CAPACITY

3.1 Training

3.1.1 Introduction: CNPPA's Role in Training

Africa is a world leader in training middle-level managers of protected areas, and the meeting was fortunate to have the Principals of the two leading African schools, Dr. Felix Nyahoza from the College of African Wildlife Management in Tanzania and Dr. Andrew Allo from the Ecole pour la formation de spécialistes de la faune in Cameroon. Dr. Gary Taylor, a CNPPA consultant from the Sierra Club, also attended and presented a report on his inventory of middle-level training opportunities around the world.

The papers presented by Drs. Nyahoza, Allo, and Taylor (presented beginning on page 90) formed the basis of a working session on CNPPA's role in training. This session concluded as follows:

- a) CNPPA should ensure that adequate and appropriate attention for the development of management personnel for protected areas and for wildlife management be incorporated into all relevant IUCN/WWF field projects and into the overall Conservation Programme for Sustainable Development. The Commission will provide maximum support and cooperation to the Commission on Education in this endeavour.
- b) CNPPA should promote and support the interests of regional training centres for national parks and wildlife.
- c) CNPPA should work with the Principals of Garoua and Mweka and the Commission on Education to explore and analyze alternative opportunities to expand financial support for the colleges, including costs of staff development, equipment, scholarships, and others.

Follow-up action: Gary Taylor's inventory of middle-level training opportunities will be revised and expanded, then published and distributed by IUCN/CNPPA. The CNPPA Executive Officer will visit the College of African Wildlife Management to work with the Principal to seek ways and means of solving the short-term deficit problem (possibly through an appeal to WWF), to provide advice on preparation of a request to the World Heritage Fund for the provision of equipment, to draw up an IUCN/WWF project proposal for a pilot project to use Mweka staff and students to supply services in demand by development agencies (e.g. management plans, environmental impact statements, feasibility studies, etc.), and to discuss ways and means of ensuring permanent funding for the college.

3.1.2 DEVELOPMENTS AT THE COLLEGE OF AFRICAN WILDLIFE

MANAGEMENT MWEKA AND HER TRAINING NEEDS

F. Nyahoza
Principal

INTRODUCTION

The college of African Wildlife Management at Mweka was established in 1963 in an endeavour to fulfil the objectives of the 1961 Arusha Manifesto. This document declared the concern and deep interest which the Government of Tanzania has in the conservation of wildlife. This declaration expressively demonstrates that conservation is not limited to the wildlife of Tanzania alone but encompasses the wildlife of the whole of Africa. It also emphasizes the realisation that conservation demands specialised knowledge and that properly trained manpower is a cornerstone for sound wildlife management. Finally it affirms that the achievement of these goals depends heavily on the cooperation between the Tanzanian Government and other nations and organisations interested in conservation. Thus the Government of Tanzania has openly invited all nations and organisations interested in the conservation of natural resources to join hands with her in ensuring the continued protection and preservation of wildlife for our future livelihood and for posterity. The training of conservation personnel has been given high priority since the declaration of the Arusha Manifesto.

The initiators of the training programmes at Mweka were primarily concerned with producing technically trained personnel who would bridge the gap between the game scout cadre and the wildlife biologists and research professionals. The programmes were designed such that those who completed the two-year diploma programme would be vested with responsibilities of game wardens while those who completed the one-year certificate course would fill the game assistants grades.

At the time training courses were started at the College there were not many Game Biologists or Wildlife Conservation Professionals in Africa. Meanwhile many of the wardens who manned the few game areas which existed at that time had had no specialist training in this field. It must also be realised that this was the advent of independence for a number of African countries from colonial governments. A considerable number of expatriate colonial staff had to be replaced either because they did not wish to serve under African leadership or because an Africanisation programme had been embarked on in respective countries. In order to fill these gaps a crash training programme was considered imperative and the courses at Mweka have gone a long way to achieve these objectives.

**INTERNATIONAL COOPERATION: FINANCIAL, MATERIAL
AND PERSONNEL ASSISTANCE AND AFRICAN COUNTRIES
PARTICIPATION**

By the time the College opened its doors to the first students seven benefactors had already generously granted assistance of one form or another in order to give this institution a firm foundation. These benefactors included the Government of Tanganyika, African Wildlife Leadership Foundation, Frankfurt Zoological Society, United States Agency for International Development, the Government of the Federal Republic of Germany, Ford Foundation and Rockefeller Brothers Fund. It may therefore be safely concluded that the establishment of formal training for managers of African Wildlife attracted considerable international interest which was accompanied by tremendous enthusiasm. Consequently funds and reasonable amounts of materials and facilities were made available.

The first intake of 25 students (cadets) represented five countries, namely the Republic of Cameroon, Kenya, Nyasaland (now Malawi), Tanzania and Uganda. This acceptance of students from four other countries demonstrated practically the willingness of Tanzania to cooperate with other countries in the training of wildlife conservation technical personnel. This Government stand has been further affirmed by three facts:

First, the number of participating countries has increased from the initial five nations to the present 15 African countries. The door is still open to more countries which will need to avail themselves of the training facilities offered by the College. A list of countries which have participated in the College programmes is given in Table I and the countries represented on the current courses (1980/81) are given in Table II.

Second, Membership of the Governing Body was expanded in 1974 from the essentially East African composition to a more regional representation consisting of Tanzania, Kenya, Uganda, Zambia, Nigeria, OAU and African Wildlife Leadership Foundation. The Act, the legal instrument establishing the College, demands that in appointing members of the Governing Body the Minister (responsible for wildlife) must give due consideration to all governments and organisations interested in the conservation of African Wildlife. Both the United Nations Environment Programme (UNEP) and FAO preferred to serve on the Governing Body in observer capacity. It has always been expected that IUCN would serve on the Governing Body, following an invitation from the Ministry of Natural Resources and Tourism; However, this invitation has not yet been accepted.

Third, the Government of Tanzania has continued to encourage various governments and non-governmental organisations to assist the College in every way possible. Much of the assistance which the College has received through bilateral and multilateral arrangements has been directly negotiated by Tanzania. This entailed the government extending to the College funds which would otherwise have been spent on other pressing national projects. Indeed, this considerable sacrifice reaffirms the concern that the United Republic of Tanzania has for the conservation of African wildlife. Benefactors who have assisted the College since 1963 are listed in Table III.

Furthermore Tanzania has demonstrated her commitment to support the College by shouldering increased financial responsibilities in a period of economic crisis. Since 1974/75 the Government annual subvention has increased from the original fixed amount of Tshs. 120,000/= (\$15,000) to this year's (1980/81) subvention of Tshs. 1,074,000/= (\$134,250.00) which is 34.4% of this year's recurrent budget. Subventions over the past six years and the current academic session have been:

1974/75	Tshs. 220,000/=	approx.	\$ 27,500.00	+
1975/76	" 417,000/=	"	52,125.00	+
1976/77	" 523,500/=	"	65,437.50	+
1977/78	" 600,104/=	"	75,013.00	+
1978/79	" 678,000/=	"	84,750.00	
1979/80	" 984,000/=	"	123,000.00	
1980/81	" 1,074,000/=	"	134,250.00	

+ These subventions did not include salaries of Instructors and Technical staff seconded to the College from the Tanzania Civil Service (Ministry of Natural Resources and Tourism).

Three facts are noteworthy at this point. (a) Despite these subventions the Government pays a fee for every Tanzanian student at the same rate as students from the other countries. (b) Entry into National Parks and Game Reserves for training purposes and pertinent operations are free to the College. (c) The number of places taken by Tanzania has averaged just 39% of the total intake.

It is depressing to note that despite Tanzania's increased interest and efforts in encouraging widened international participation in the programmes of the College, financial; material and personnel assistance, through bilateral, multilateral and non-governmental organisations has been so drastically reduced that since 1974/75 we have been forced to admit the Certificate and Diploma intakes in alternate years. The effects of this course of action, imposed upon us by lack of essential facilities, are clearly shown in the drop of average annual output of Certificate holders. Similarly the annual turnover of Diploma holders has stagnated, even though block intakes have increased from an original average of 23.33 to a new level of 35.33, an increase of 51.4%. These sad facts are given in Table IV.

DEVELOPMENTS

Curriculum Development

Eight years after the College had been in operation (1971) UNDP/FAO appointed a consultant to review the course outline upon which the training of the certificate and diploma students was based. This consultant, Dr. W.M. Longhurst, expressed concern over "serious deficiency in teaching arising from lack of a detailed syllabus or handbook". One of my immediate tasks when I took over the leadership of the College in 1974 was to formulate detailed syllabi for both the Certificate and Diploma courses and for the relatively new Post-Graduate Diploma course. The objectives of this task were to detail as much as possible each subject covered in the three courses, to update the subject matter and to emphasize adequate understanding of the relevant aspects of the course through both theoretical and practical training.

The UNDP Mweka Evaluation Mission (1975) stressed the need to carry out further work on the curriculum. It recommended that priority should be given to the development of written course materials suitable for the needs of the Mweka students. Consequent to these observations and the experience gained from our classroom and field operations our first syllabus was revised in 1977. Efforts have been continued to ensure the betterment of the various sections of the syllabus such that the more recently revised version of the original curriculum will be published at the beginning of 1981. Collection of most of the essential materials has been completed and our current teaching is based on this new version of the syllabus.

The practical aspect of the course is given due consideration such that between 18.5% and 25% of the time the students spend on campus is devoted to practical training and exercises. Depending on the course and the year of the respective course, field training occupies between 26% and 35% of our total annual time that we are in session. Our emphasis is on the quality of the training that can be achieved during these field operations.

Field trips require considerable equipment and materials including tents, campbeds, nets, raincoats, boots, hardware, field clothing, surveying equipment of various types, audio-visual aids, long range and short range communication radios, and mountain climbing and mountain rescue gear. We do not have most of these items. Those which we have are in discouragingly low supplies which are inadequate for our needs. The Government of the United States, through the National Park Service, has generously given us some draughting equipment. We are very grateful to the United States Government for this generous assistance, but we are still in great need for more of these items and other essential teaching aids. We are therefore looking toward IUCN and WWF for renewed enthusiasm in our training activities and hope that this enthusiasm will be followed by positive direct and indirect assistance.

Staffing and Staff Development

Extension of the duration of both the Certificate and Diploma courses to two academic years as well as the strengthening of the Post-graduate Diploma course necessitates a minimum faculty of 19 instructors. However, in order to ensure proper and adequate coaching in the practical aspects of the courses it is considered that a total of 28 instructional staff, including assistant instructors and demonstrators, will be necessary.

Besides staffing there is need to develop the expertise of these members of staff. Many of the instructors we have and possibly most of those who will join the College in future will not be adequately experienced in field operations. Their faculties in this respect will have to be developed in order to raise their confidence to a level befitting a trainer. Furthermore there is need to enhance their academic backgrounds. We have been rather unfortunate in this respect in that we have not been able to get enough scholarships for this purpose.

However, the Royal Government of Denmark have offered us 12 man years of scholarships towards advancement of instructional staff. Certainly a lot more such assistance is desperately needed in order to maintain high training standards for well groomed wildlife managers. Both US National Park Service and Unesco offered the College short-term study tour scholarships for instructors during

this session. This assistance is acknowledged with gratitude.

Major courses taught

Our training programme is divided into three major areas, namely Natural Sciences, Wildlife Management and Estate Management, Recreation and Conservation Education. Each of these areas covers a variety of subjects:

1. Natural Sciences: Mammology, General vertebrate and invertebrate biology, Ornithology, Ecology (both terrestrial and aquatic), Earth Science, Botany, Herpetology, Geography and Climatology.
2. Wildlife Management: Wildlife Management Techniques, Handling of Wildlife Products, Taxidermy, Management of Birds, Wildlife Diseases, Range Management, Ballistics and Weapon training, and Statistics.

3. Estate Management, Recreation and Conservation Education:

Parks: Park planning, Park interpretation and Park Management, Land use planning, Tourism, Maintenance of park facilities, e.g. campsites, roads, buildings, vehicles.

Conservation Education: Public Awareness, Environmental Conservation, Problems of pollution.

Field Engineering: Surveying, Boundary demarcation, Road and other infrastructure construction; designs of facilities.

Law: Law and court procedure, Conservation conventions, Anti-poaching programming and general patrol procedure.

Administration: Personnel and Office Management, Budgeting and Budget Control, Resource Management Economics, simple accounting; public relations.

General subjects: First aid; survival, self defence and mountain climbing; rescue.

All these subjects are covered adequately in both the Certificate and Diploma courses. Greater details are given in the latter course and administration; general planning and Management skills are relatively more emphasised in this course than they are in the Certificate programme.

Proposed Training Development

Subject to availability of funds and facilities we wish to establish and organise refresher courses for field conservation personnel. We also propose to organise regular seminars for wildlife officers, conservation educators, decision makers (in fields which directly affect conservation) and for general educators. A well prepared and confident faculty is a prerequisite for these operations. Firm funding will also be a determining factor for the initiation and running of these courses.

Physical and Capital Development

Increasing the training period is naturally accompanied with increased student numbers. Hence pertinent facilities have to be increased not only in terms of teaching materials but also accommodation for both students and staff, classrooms, seminar rooms, offices, messing and recreation facilities. The grant from DANIDA will provide us with three dormitory blocks (for 96 student occupancy), a new library (to sit about 100 readers), a recreation/assembly hall (to sit about 150 people), storage space attached to a small reading block (for about 30 readers) and nine staff houses. Originally provisions of this grant had included costs of furnishings for these buildings. Unfortunately building costs have escalated to such a level that all the funds made available will be expended on constructions. We therefore are in urgent need of funds with which to purchase furnishings for these buildings.

Even with this assistance we will still be short of 10 senior staff and 55 junior staff quarters. We also need two classrooms and three seminar rooms. Funds to realise these needs as well as money to provide furnishings for these units are desperately needed. Luckily the Government of the United Republic of Tanzania has already generously annexed to us the land on which these structures may be constructed.

Our transport units are not too bad, at the moment, thanks to the generosity of the Government of the Federal Republic of Germany and that of the Royal Government of Denmark. Both of these governments have donated to the College a total of twelve new vehicles and four trailers over the past twelve months. However, we need two Land Rover Station wagons for specific operations in mountainous game areas where our other small vehicles cannot operate.

FINANCIAL CONSTRAINTS

Financial problems relating to teaching material needs, operations, staff development and physical and capital development have been alluded to under the respective subsections mentioned earlier. Indeed if we are to survive and operate normally, funds have to be found from somewhere. It is both frightening and discouragingly alarming that the recurrent budget for 1980/81 of this International Institution which serves a recognized regional conservation cause is suffering a deficit of Tshs. 345,724/= (\$43,215.50).

Due to the worldwide economic crisis and the ever-increasing costs of all essential items which we need for our training programmes, our recurrent costs have increased almost threefold over the six-year period from 1975/76 to 1980/81. The present costs of maintaining a student for one year is estimated at Tshs. 52,240/= (\$6,530.00). This situation has necessitated raising the annual fee from Tshs. 18,000/= (\$2,250.00) to Tshs. 30,000/= (\$3,750.00) per student per annum (which is still only a little over half the real maintenance costs). The new fee level becomes effective from July 1, 1981. This decision raises two very fundamental worries:

(a) It will be very difficult for many countries to afford this new fee. The likely decision for such countries will probably be to refrain from training their wildlife managers. Indeed such a step will be catastrophic to the whole of the conservation cause. On the other hand the Governing Body, without any other source of

liquid cash than the annual subvention from the Government of Tanzania, had no alternative but to raise the fees.

(b) Even with the raise in the fees to the new level we will still face a deficit of Tshs. 22,240/- (\$2,780.00) per student per annum. While the Government of the United Republic of Tanzania has always pledged to support the College in every manner possible, it must be realised that in so doing Tanzania is shouldering single-handedly a regional responsibility as if this were an entirely national project. On the other hand any event that might raise another project to a priority level considered to be more pressing than our training programme will cause severe cuts in the funds which we have received annually. Certainly Tanzania has heartily sacrificed her resources for the benefit of the conservation of African wildlife to an extent which has stretched her means quite considerably. But there might be a limit to this sacrifice. External encouragement relating to the support of Mweka will certainly be welcome by Tanzania.

RECOMMENDATION: AN APPEAL FOR ASSISTANCE

Based on the foregoing observations it is strongly requested that international organisations interested in the conservation of wildlife, and hence the training of the manpower to effect conservation programmes, should address themselves to ways and means of getting the College on a firm balanced budget so as to enable it to meet the increasing operating costs and also to modernise and increase the physical facilities which are necessary in meeting her training commitments. IUCN, WWF, UNDP, UNEP, and Unesco should be the cornerstones upon which this insurance should be founded. These organisations may, as one of the means to realise a firm budget for the College, persuade countries participating in the College programmes to make direct financial contributions towards the training operations and maintenance of the College facilities.

While it is appreciated that both IUCN and WWF have taken keen and active interest in the conservation of threatened and endangered species in various countries, the training of those who will take charge of future conservation and management responsibilities has been grossly and disappointingly neglected. As may be seen from Table III Mweka has never received any appreciable assistance from these sources since 1971, even though requests for help have often been submitted to these promoters of conservation.

It is also extremely unfortunate that most assistance to Mweka was stopped at the time when a Tanzanian national was appointed to head the College. This was also the time when the duration of training was extended from one to two years, and the time when various countries in Africa had started showing increasing interest in training game and park wardens and their assistants as is exemplified in increased requests for training places at the College.

JUSTIFICATION FOR FIRM AND POSITIVE ASSISTANCE

The facilities of the College have served a truly regional sector of anglophone African countries. This has been evidenced by the progressively increasing number of African countries participating in the training programmes of this institution, generally representing between 7 and 12 countries every year.

Even though the Government of Tanzania has contributed annually about 35% (in some years it has been as high as 47%) of the College recurrent budget her share of training places has been as low as 33% (the highest being 39%). It is therefore obvious that not only has this Nation been actively keen on conservation but she is also interested in the enhancement of conservation activities of other sister nations. She has thus been unselfish in freeing the majority of places at the College to interested countries and has also made good deficits in the College budget, which otherwise would have made it almost impossible for the College to operate. Hence external assistance to the College will be in recognition of active support that we have been receiving from Tanzania over the seventeen years that the College has been in existence.

The Governing Body, the sole policy making organ of the College, has remained international in composition and regional in function. All decisions made by this Body embody the conservation interests of many anglophone African countries and are implemented without either hinderance or undue influence from Tanzania.

The achievements made by the College to date have included 790 graduates who are now serving 14 African (and one European) countries. The services of these graduates are reflected in increased establishment of national parks and game reserves in their respective countries, hence stepped up conservation interests and activities. The performance of these graduates has generally been reasonably pleasing. Productivity has been considerably high when these graduates have been properly allocated to the jobs for which they have been trained. Consequent to the high performance of our graduates, requests for training places at the College have increased from year to year such that this year alone (1980/81) we had 70 applications for places on the Certificate course; sixty of these were qualified for admission but we only had facilities for 48 students. We were therefore forced to disappoint 12 qualified applicants. This has far-reaching implications on future conservation operations in Africa. Trends in increased admissions are shown in Table IV.

Finally since the programmes at Mweka affect all countries which participate in them and also most likely countries contiguous to these, it is important that a study aimed at intergrating the experiences of as many of these countries as possible be undertaken and consequently the intergrated experiences be the basis for the development and updating of the College curriculum. Through such an undertaking the College will be enabled to check on the field performance of her graduates, which will also help in reviewing our teaching effectiveness.

**SUMMARY OF AREAS FOR WHICH URGENT ASSISTANCE
IS NEEDED**

1. Desperately need for recurrent expenses for 1980/81:
Tshs. 345,724/= (\$43,215.00).
2. Firm and assured annual budget, preferably organised on a regional basis strongly supported by international organisations such as IUCN, WWF, UNDP, UNEP, OAU and possibly by non-governmental organisations such as AWLF, Zoological Societies and Foundations.
3. Physical facilities: classrooms, staff quarters, staff offices, and seminar rooms.
4. Teaching materials including books, both text and reference materials, surveying equipment, compasses and binoculars.
5. Field operations gear:
 - (i) Camping equipment: tents, campbeds, raincoats, nets, kit-bags, hoversacks, mountaineering equipment, field clothing, boots, hats and heavy jackets/coats.
 - (ii) Long range (3) and short range (15) communication radios.
6. Transport: 2 land rover station wagons.
7. Staff development:
 - (i) Scholarships to assist staff to advance their knowledge in wildlife management techniques and other areas of their teaching competence.
 - (ii) Moderate research facilities in order to enhance teaching of field operations.
 - (iii) Staff exchange between Mweka and Garoua and possibly other training institutions with similar goals in order to facilitate curriculum development.

FINALE

I am very much encouraged by the renewed interest of IUCN in the affairs of Mweka and hope that the Union will assist us in every way possible to ensure that the very first Wildlife Management training institution ever to be established in Africa shall prosper and continue the noble training of the conservationists with which she has been charged. We sincerely need your active support, both direct and indirect.

ACKNOWLEDGEMENT

I am very grateful to the United States Park Service for enabling me to attend this meeting through provision of all the expenses involved. May I also acknowledge the kind invitation by Dr. Kenton Miller, Chairman of CNPPA, extended to me to participate in this meeting.

TABLE I: GRADUATES BY COUNTRY:

JUNE 1965-JUNE 1980

<u>Country</u>	<u>Certificate</u>	<u>Diploma</u>	<u>Post-graduate</u>	<u>Total</u>
Tanzania	199	100	7	306
Kenya	165	68	-	233
Uganda	26	13	1	40
Malawi	8	2	1	11
Botswana	13	4	-	17
Zambia	32	12	-	44
Sierra Leone	6	2	-	8
Ghana	18	20	2	40
Nigeria	20	10	6	36
Cameroon	2	4	1	7
Ethiopia	12	11	4	27
Sudan	9	3	-	12
Somalia	2	-	-	2
U.K.	1	-	-	1
Liberia	4	-	2	6
Total:	249	517	24	790

TABLE II: 1980/81 STUDENT INTAKE: BREAKDOWN BY COUNTRY

<u>Country</u>	<u>Certificate</u>	<u>Diploma</u>	<u>Post-graduate</u>	<u>Special Course</u>	<u>Total</u>
1. Tanzania					
Game Division	17	17			
Tawico	2	2			
T.P.RPI.	1				39
2. Kenya					
Wildlife Cons. and Management Department	10	11			
Narok County C.	1				22

3. Nigeria					
Borno State	2			1	
Bauchi State		1			
Enugu State		1			
New Bussa State			1	1	
Ondo State		1			8
4. Ghana					
		1	1		2
5. Liberia					
	3	1			4
6. Zambia					
	3				3
7. Egypt					
			2		2
8. Uganda					
	3				3
9. Ethiopia					
		3			3
10. Sudan					
Juba	3				3
Khartoum	3				
	<u>48</u>	<u>38</u>	<u>4</u>	<u>2</u>	<u> </u>
	==	==	==	==	==

Grand Total: 92
==

TABLE III: COLLEGE BENEFACTORS: 1973 - 1980

<u>Benefactor</u>	<u>Assistance Item</u>	<u>Year</u>	<u>Personnel</u>	<u>Year</u>
Govt. of Tanzania	Land, buildings, vehicle and equipment, subvention	1963 -	Instructors	1963 +
+ Federal Republic of Germany	Vehicles, camping, vehicle spare parts, office and teaching equipment	1963 -	Instructors	1963-1980 +
++ UNDP-FAO	Buildings, vehicles, tentage and Office	1965-1974	Instructors Clerical Staff	1965-1975
A.W.L.F.	Vehicle, In-door rifle range, teaching equipment, vivarium and buildings	1965-1973		
Ford Foundation	Other assistance (Financial, 1979/1980)		Instructors Clerical Staff	1964-1965 1964-1968
+ United States	Buildings, teaching equipment aero-plane, tentage and boats	1965-1968 1979-1980+	Instructors	1966-1969 1979-1980+
Frankfurt Zoological Society	Vehicle, teaching materials	1965-1978	-	-
Rockefeller Brothers Fund	Scholarship Fund, dormitory block	1963/1965	-	-
+ Canada	Machinery, audio-visual and taxi-dermy equipment	1972-1976	Instructors	1972-1976
East African Wildlife Society	Books	1976/1977		
+ United Kingdom	Vehicles, library books and office equipment	1968&1978	Instructors	1963-1964
WWF/IUCN	Teaching materials	1968-1971	-	-

+ Royal Danish Government	Vehicles, buildings and Scholarships, expatriate teaching staff, staff exchange	1979 continuing	may be from 1980
+ Kenya Government	-	-	Instructor 1979+
++ UNEP	Fellowships	1977/1978 to 1979/80	
Unesco (World Heritage)	Study tour scholarships	1980-1981	
+ Bilateral assistance			
++ Multilateral assistance			

TABLE IV: ADMISSIONS AT BEGINNING OF ACADEMIC YEARS 1972/73
TO 1980/81

<u>Year</u>	<u>Certificate</u>	<u>Diploma</u>	<u>Post-graduate + Diploma</u>	<u>Special Course</u>	<u>Total</u>
1972	52 ++	21 ++	1		74
1973	44 ++	25 ++	4		
	<u>96</u>				
	==				
	<u>1st year</u>	<u>2nd year</u>			
1974	51	-	<u>24</u> ++	2	77
			<u>70</u>		
			<u>1st year</u>	<u>2nd year</u>	
1975	-	47	-	32	2
1976	46	-	32	-	5
1977	-	46	32	-	5
1978	47	-	-	36(4)	-
1979	-	45	30 +++	-	4
1980	48	-	-	38(11)	4
					2
					92

+ started in 1969/70 Academic year

++ former 1-year programmes

+++ 1 withdrew after the first term, 2 failed to make it into the second year on academic grounds

() Entrants holding a 2-year Certificate in Wildlife Management.

Notes:

- Between 1974/75 and 1979/80 144 students registered for the Certificate course; 138 obtained their certificates. Thus the turnover of successful students averaged 23 certificate holders per year over that period. This is approximately 50% of the turnover prior to increasing the training duration from 1 to 2 years. The reason for the drop was due to lack of facilities at the time the decision to increase the training duration was implemented. The situation is still the same today.
- Between 1975/76 and 1978/79 Academic years 68 students were admitted for the Diploma course and all of them qualified for the award of the diploma. Thus the turnover during this period was 17 diploma holders per year. The average intake for this course increased considerably during this period relative to the preceding period 1964/65-1974/75 but the annual average turnover has remained as before. However, if facilities would have been adequate to allow intake of new (first year) entrants every academic year, the number of graduating diploma holders would have been about twice the turnover shown.
- The postgraduate diploma course which started in 1969/70 has continued to attract reasonably high demand and its organization and management has been satisfactory.
- The special courses are specially designed on request and programmes are tailored to suit the demands of the sponsoring organization(s). Thus the number of students registering for these courses is normally low.

3.1.3 SCHOOL FOR THE TRAINING OF WILDLIFE SPECIALISTS AT
GAROUA, CAMEROON

By

Dr. Andrew Allo
Principal

INTRODUCTION

During the IUCN General Assembly of September 1963 in Nairobi, the delegates were rejoicing at the recent inauguration at Mweka, Tanzania, of the College of African Wildlife Management, which would train for the anglophone countries the wildlife management personnel very much needed for managing national parks and equivalent reserves. It was also an opportunity for delegates from the francophone African States to make a draft of a similar project but with instruction in French and to seek the support of the UN, certain European countries and international governmental as well as non-governmental organizations.

Without enumerating all the meetings and conferences that led to the creation of the Garoua School, it is nevertheless necessary to point out that it was principally at the 3rd Session of the ad hoc Wildlife Working Group at Lome (Togo) in January 1969 that a final decision was taken.

In a special recommendation, the francophone states asked that FAO, UNDP (Special Fund) and the Government of the then Federal Republic of Cameroon, take the necessary steps to ensure that training began at the Garoua School as soon as it was possible.

FAO and UNDP took the responsibility to bring the Garoua School into being. They were joined by many bilateral, governmental and private organizations. However, the heaviest burden was carried and is still being shouldered by the United Republic of Cameroon in finances, infrastructure and scarce qualified manpower.

OBJECTIVES

The objectives of the institution were and still are:

- to train wildlife and national parks management technicians who are already in the service and possess some training in forestry;
- to give appropriate training to students or other public servants in which the level of instruction would depend on the possibilities and needs of different countries. And grant certificates to its graduates, which would entitle them to satisfactory reclassification in their respective public services.

CURRICULUM DEVELOPMENT

At Fort Lamy in February 1967, the francophone states opted for a short course to replace a two-year programme initially proposed by a group of consultants. It was emphasized that over and above the training, instruction be given in the following fields for 6-9 months:

- wildlife management
- training in civil engineering
- administration
- vehicle mechanics
- handling and manipulation of fire-arms

It was soon realized that training as requested above was inadequate. In addition, indispensable knowledge has been accumulated over the years from wildlife studies in the parks and reserves, and the evaluation of plants and animal populations. With this and the expressed needs of the countries concerned in mind and remembering that the management and exploitation of wildlife resources is and will remain for a long time yet a complex science, the training was redesigned to include:

Biological Aspects:

1. Biology and natural history
2. Botany and range management
3. Ornithology and taxidermy
4. Veterinary techniques
5. Zoo management
6. Ecological principles

Technical Aspects:

7. Wildlife management techniques
8. National parks management
9. Fire-arms
10. Motor mechanic and aspects of civil engineering
11. Survey

General - support courses

12. Principles of economy - applied to resource management
13. Administration - extension and public awareness
14. Legislation - as applied to wildlife management

Priorities in training

Emphasis is given to practical field work. About one-third of the duration of studies is spent in the field. Also, the students have been required to work for 1½ - 2 months on a research subject back in their respective countries, either in a park or in a game reserve, the result of which is submitted in partial requirement for graduation.

Field training activities are carried out on campus, in the national parks of the Cameroon and Nigeria, and in a study area of 150,000 ha, 80 km south of Garoua, allocated to the School by the Government. The purpose of all this is to produce manpower that is immediately operational in the field. However, the present duration is somewhat insufficient to cover the out-lined programme in any depth.

ACHIEVEMENTS

November 1980 makes it exactly ten years since the School received the first batch of students. To this date, 356 wildlife and national parks managers have been trained at the School. They come from 19 different countries, which include: Benin, Burundi, Cameroon, Congo, Gabon, Ivory Coast, Central African Republic, Senegal, Tchad, Upper Volta, Madagascar, Togo, Morocco, Tunisia, Zaire, Mali, Niger, Nigeria and Twanda.

Table: Evolution of students trained

Duration	10 months					2 years				
Years	70/71	71/72	72/73	73/74	74/75	75/76	76/77	77/79	79/81	
No. trained	18	22	36	42	39	45	50	54	50	
No. countries	5	10	10	13	12	11	13	12	14	
No. of places requested								87		
No. countries requesting								15		

In retrospect and in describing the evolution of the Garoua School there cannot be any doubt as to its success. If yardsticks were necessary to measure the achievements of this institution, these would be the number of qualified technicians already trained, the postings and/or assignments our graduates have received and the ever-growing demand for places as shown by the requests for the 1977/79 school year: the demand is now even greater since the School adopted a 2-year cycle instead of 10 months. Unfortunately, its infrastructure does not permit the admission of successive annual admissions.

In an attempt to follow up our graduates, redesign a programme that is in keeping with the wishes and expectations of those that employ our graduates, and find out what the future manpower needs of the utilizing countries would be until 1980, the school sent out a questionnaire to the various countries in 1974. The results of this questionnaire showed that the school will not be able to meet the needs of the countries concerned without an extension of its infrastructure and the training of more teaching staff.

DIFFICULTIES

Infrastructure: For the moment this seems adequate but if the School will have to take in students every September, instead of every other year, the dormitories, classrooms, etc. would be greatly insufficient.

Equivalence to the Diploma: There has been a constant fight to get the School's diploma recognized and to have the graduates reclassified in their services as stipulated in the initial plan for the School (this was not the case with the Mweka diploma). Only recently has the Cameroon Government taken steps towards a formal recognition of the diploma from Garoua; several other countries have recognized our diploma and many others are in the process of doing so.

Staff development: Most of the original staff of some 10 permanent expatriates have left the School, having reached the end of their contracts either with their Governments in the case of the Germans or with their agency as is the case with FAO. The present staff situation which is critical is as follows:

Expatriate staff	3 French	- Veterinary techniques - Biology and Natural History - Ecology
	1 Dutch	- Botany and Range Management
Cameroon staff	3 full-time	- Ecology - Wildlife Management techniques - Park Management - Zoo Management - Economics - Fire-arms
	1 full-time assistant	- Ornithology and Taxidermy
	4 part-time	- Motor mechanics - Legislation (wildlife) - Administration - Survey
	4 untrained	

It has been very difficult to get national staff, let alone find means of support for their training. This rather sad situation is a result of defects in the conceptional framework under which the School was developed; no provision was made for national staff development and training.

Consultants: In an attempt to alleviate this situation, FAO has programmed a number of consultants from December 1980 through April 1981 to give some

limited support in the teaching programme of the School. This and other forms of assistance are hit-and-run solutions are certainly not long-lasting. A more durable solution is the recruitment and training of national staff and it is in this regard that a special plea is made to international organizations who are conscious of the work that needs to be done.

Scholarships: The tremendous aid received from some countries and organizations in providing scholarships to students deserves to be mentioned. These include FAO, IED, FAC, RFA, Dutch PB, RBF, AWLF, and Frankfurt Zoological Society. These agencies and countries also helped in the building of the school.

While thanking them for this aid, without which many countries might not have been able to send students to Garoua, permit me to ask for even greater help in providing scholarships to enable brighter students from this institution continue their studies in universities abroad within the fields of ecology, habitat wildlife and national parks management. It is important to note that there is at present no such level of trained manpower from the French-speaking countries of West and Central Africa - Cameroon being probably the only exception.

Some of the urgent needs of the School

1. <u>Staff</u>	Location	<u>Cost</u>	
		CFA	US \$
4 x 5 man/years of scholarship for training of teaching staff in:			
Botany and habitat management			
(B.Sc.)	USA	6,160,000	28,000
Wildlife management	USA	6,160,000	28,000
Parks and recreation	USA	6,160,000	28,000
Wildlife biology	USA	6,160,000	28,000
Veterinary sciences	USA	6,160,000	28,000
2. 2 x 2 man/years scholarship			
Instructor motor mechanics	Togo	3,080,000	14,000
3. 6 man/months scholarship			
Instructor ornithology and taxidermy	Paris/ UK	1,760,000	8,000
4. 12 man/months/year - parti- cipation in conferences, study tours and staff exchange with Mweka College, Tanzania over 4 years			
		11,760,000	52,000

Infrastructure and Equipment (equipment should be imported duty-free)

1. Conference/Assembly Hall with
capacity of 250-300

Digitized by Google
33,000,000 150,000

	CFA	US \$
2. 2 dormitories (to enable admission of students every year)	44,000,000	200,000
3. Laboratory equipment	2,200,000	10,000
4. Transport 4 4-wheel drives for training in the field	11,000,000	50,000
- 2 minibuses	7,920,000	36,000
- 1 truck	4,840,000	22,000
- 1 car	4,840,000	22,000
5. 3 classrooms	13,500,000	60,000

<u>Contribution of the Cameroon Government</u>		<u>US \$/year</u>
1. National staff	Salaries	80,000
2. International staff	Housing	10,000
3. Running costs of the School		227,000
4. Equipment of new buildings i.e. conference hall and dormitories		
	US \$/year	+317,000

Conclusion

The School is and will remain for some years to come the only institution for the training of wildlife and parks managers for some 19 French-speaking countries. In the implementation of a World Conservation Strategy, the role of a qualified and devoted staff is predominant, and it is the role of providing this qualified manpower that the Garoua and Mwaka Schools have been assigned. Our institutions have staff and infrastructural difficulties that need the attention of the international community that should and must realize that the hosting countries have sacrificed a lot and continue to do so to keep the institutions from sinking into the mud of indifference. The future of the conservation of biotic communities and the management of national parks in the 19 different countries that are served by the Garoua School will depend to a large extent on the inputs of international organizations in the evaluating of needs, curriculum development, staff development and training and infrastructure to meet the ever growing needs. The incorporation of wildlife and national parks management in any national development programme requires competent personnel capable of putting together the information required by planners in order to guarantee the perpetuity of this natural resource. Is there any other role greater than this?

3.1.4 INVENTORY OF TRAINING PROGRAMMES FOR MIDDLE-LEVEL
MANAGEMENT OF PARKS AND PROTECTED AREAS

by

J. Gary Taylor, Ph.D.
Member, IUCN Commission on Education

On 1 June 1980 I was asked by IUCN's Commissions on Education and on National Parks and Protected Areas to undertake the following tasks:

1. An inventory of programmes, worldwide, designed for individuals of \pm twelve years of schooling, opting for middle-management positions in protected areas. Programmes to include:

- a) Established Regular Course situations
- b) Tailor-made study tours
- c) Regular Study seminars such as the annual programme offered by the University of Michigan/U.S. National Park Service and Parks of Canada.

2. Preparation of a listing of such programmes in a format useful for developing country trainees, their sponsors and relevant government and non-government agencies.

3. In interim progress report for use of the IUCN Education Meeting in August 1980.

4. For background purposes, a separate outline, based on knowledge gained from the survey, describing the present situation and identifying trends, problems and gaps in middle-management training.

The following pages summarize progress to date.

Preliminary Inventory Results

An Outline Based on Survey Data - The Present Situation, Trends, Problems and Gaps

Unfortunately, these comments must be considered as quite preliminary, since a number of questionnaires have not yet been received. A follow-up mailing is currently being made to catch those that have not yet responded. Naturally, it is optimistic to assume a 100% response to a global inventory in a few months.

Nevertheless, the results to date show an impressive desire to cooperate among many of the institutions, and among the IUCN, MAB and Sierra Club contacts. The response also perhaps suggests the high interest in the question of training of middle-level management.

The Present Situation

No doubt many CNPPA members have a more acute sense of the present situation based on their collective experience with the shortage of middle-level managers in contrast with the substantial protected area land around the world.

Based on survey evidence alone, however, there seems to have been an acceleration of program activity since the mid-1970's. (Of the 24 questionnaires received to date, 14 programmes have been established since 1975). Much of this new activity is taking place on a short-course, in-service basis, and is not specifically tailored for developing country nationals.

Herewith a brief statistical tabulation of the nature of the programmes based on the questionnaires in hand:

Degree given:	<u>Certificate</u>	<u>Diploma</u>	<u>None</u>			
	8	10	6			
	<u>In-Service</u> <u>or other</u> <u>Nomination</u>	<u>"O" Level</u>	<u>"A" Level</u>	<u>12 years</u> <u>School</u>	<u>Field</u> <u>Experience</u>	
Entrance Requirements	14	1	1	7	6	
	<u>Short</u> <u>Variable</u>	<u>1-2 weeks</u>	<u>3-4 weeks</u>	<u>1-2 months</u>	<u>2-12 months</u>	
Length of Course	2	3	7	2	5	
	<u>1-2 years</u>	<u>More</u>				
	3	2				
Language Requirement	<u>French</u>	<u>Spanish</u>	<u>Dutch</u>	<u>German</u>	<u>English</u>	<u>Other National</u>
	2	2	1	1	13	3

Because of the number of institutions not yet responding, these results are statistically insignificant, but can stand as a reasonable "first cut" into the nature of the present situation. To generalize: most of the respondents draw their middle-level training recruits from their own in-service ranks. For the majority, the training period is less than a year, and most of that is for four weeks or less. Over half the programs in this sample are held in English.

Trends

No significant trends can be identified from the questionnaire results alone to date. Various communications suggest, however, that the regional approach to training at the middle-management level is still preferred, but that regional facilities, particularly in South America, continue to be inadequate.

Problems and Gaps

For the purposes of this survey, a problem is a uniform definition of "middle-level". According to Craig MacFarland, at CATIE, the Latin American definition of "ranger" differs from the Northern Hemisphere. In Central America, a "ranger" is equivalent to the field manager level (superintendents or administrators of wildlands, chief guides, etc.) as distinguished from the warden or guard level. When the final listing is prepared, this definitional question should probably be clarified. Questionnaire results to date, however, suggest that respondents were able to interpret any differences in terminology in the light of their own situations.

In terms of mid-level training itself, the main problems seem to be a continuation of a surfeit of recruits for the various regional programmes. To date, the survey, for example, has identified institutions from the following countries who have no training now and are looking for places to send their rangers for training: Dominican Republic; National Parks and Wildlife Office, Sarawak, Malaysia; National Park Service, Portugal; Botanical Institute, Peking, China. (see Annex II)

The Final Listing of Programmes

For a variety of reasons, the methodology used in this survey will bring in more training programmes than IUCN will wish to list in communiques with developing country trainees, their sponsors, and relevant government and non-government agencies.

In most cases this will be because the programmes (like many in Europe) are not aimed at this audience, or because they are held at either too junior or too senior a level for the purposes of this

inventory, When the bulk of the questionnaires have been received however, IUCN should have in hand a valuable picture of the various training programs around the world and may wish to consider a publication of some kind.

For those programmes fitting the definition of page 1, however, the following should probably be included. CNPPA members are earnestly asked to provide comments, notices of omission, definition, exclusion, so that the list can be as current and accurate as possible. (complete programme information, if available, is presented in the main listing, attached.)

Established Regular Courses

Africa

1. School for the Training of Wildlife Specialists
Garoua, Cameroon
- *2. College of African Wildlife Management
Mweka, Tanzania
- *3. School of Forestry - "O" Level Training of Game Assistants
Accra, Ghana
- *4. Park and Wildlife Personnel, College of Wildlife Management
Moshi, Tanzania
- *5. Degree of Graduate Wildlife Ecology Program, Ibadan University
Ibadan, Nigeria
- *6. Game and Park Guards Wildlife School. Lame Bura
c/o Federal Forestry Department, Lagos, Nigeria
- *7. Wildlife Training Institute (under construction)
Naivasha, Kenya

Southeast Asia

8. School of Environmental Conservation Management CIAWI
Bogor, Indonesia
- *9. Diploma Course in Bulolo Forestry College - Morobe Province
Papua New Guinea

* indicates questionnaire not yet received

Southeast Asia (cont'd)

- *10. Diploma in Land Administration
University of Papua New Guinea

India

- 11. Training in Wildlife and Sanctuary Management
Hyderabad, India (Crocodile Breeding and Management Institute
- *12. Training in Wildlife Management, Forest Research Institute
Dehradun, India

Oceania

- 13. Ranger's Training in Turangi (New Zealand Government -
Department of Lands and Surveys)
Wellington, New Zealand
- 14. Diploma in Parks and Recreation (Park Ranger option)
Lincoln University College, Canterbury, New Zealand
- 15. Park and Wildlife Management (1981 start)
Goulbourne College, N.S.W. Australia
- 16. Wilderness Reserves and Wildlife
Queensland Agri-College, Lawes, Queensland, Australia
- 17. International Training Course in the Administration of
National Parks and Resources
Canberra City, Australia
- *18. Associate Diploma in Wildlife and Park Management
Salisbury College, Salisbury, South Australia
- *19. Associate Diploma - Parks Administration and Management
Goulbourne N.S.W. Australia

South America

- 20. Departamento de Manejo Forestal Seccion Fauno Silvestre
y Parques Nacionales
Universidad Nacional Agraria, La Molina, Lima, Peru
- *21. Escuela de Guarda Parques, Curso de Formacion
Buenos Aires, ARGENTINA

South America (cont'd)

- *22. National Park Ranger Course - Servicio Nacional de Guarda
Parques Nacionales
San Carlos de Bariloche, Argentina

Europe

To date, I have been able to identify no programmes in Europe which fit our criteria and that should be included in a brochure or other IUCN announcement. Programmes received from England, Germany, Switzerland, Sweden and France are apparently not designed to handle foreign nationals. The Countryside Commission in Scotland conducts a Training Program for their own rangers, which has occasionally been open to overseas trainees.

Tailor-Made Study Tours, Regular Study Seminars and Short Courses

To date, I have been able to identify only the following programmes that fall, or could fall, into this category.

1. Mobile Seminar on Planning and Management of Wildlands and Watersheds in Central America
CATIE, Turrialba, Costa Rica
2. Intensive Course and Special Problem-Project in Planning and Management of Wildlands
CATIE, Turrialba, Costa Rica
3. Special Workshops on planning, management or interpretation of Wildland Units.
CATIE and National Institutions in host country
Turrialba, Costa Rica
4. International Seminar on National Parks and Equivalent Reserves - National Park Service, U.S. Department of Interior; University of Michigan and Parks Canada
5. Training programmes designed and arranged for international Park professionals - National Parks Service, National Park Service, U.S. Department of the Interior
Washington, D.C., U.S.A.
6. Training Courses at National Park Service Training Centers
National Park Service, U.S. Department of the Interior
Washington, D.C., U.S.A.

Tailor-Made Study Tours, Regular Study Seminars and Short Courses (cont'd)

7. A variety of highly individualized training situations offered by the New Zealand Department of Lands and Survey in conjunction with Lincoln College, especially their course #1 which is tailor-made for individual students.

With this preliminary listing in mind, here are a few points that the Chairman and the members may wish to take up for discussion and further action by the Secretariat:

1. Shall the definition of middle-level, i.e.: "individuals with \pm 12 years of schooling, opting for middle-management positions in protected areas" be the controlling criteria for programmes selected for inclusion in the final list?
2. Shall only those programmes which accept developing country nationals be included in the final list?
3. Is the format that has been used in this preliminary report (i.e. the order and presentation of programme detail) satisfactory for the final list?
4. What method will be used to convey amendments, additions, etc. to the consultant?
5. What, if any, use can be made of the preliminary information that has been received, but is not suitable for this final list?

Finally, I would like to convey my appreciation to all members of the CNPPA who assisted in this project, and especially to Rob Milne, Kenton Miller, Bing Lucas, Hal Eidsvick, Alan Putney, Craig MacFarland and Emanuel Asibey.

IUCN Middle-Level Training Survey

Complete Listing of All Questionnaires Received and Information Sources Suggested

Africa

1. Training of Game and Park personnel for all French Speaking Africa
2. School for the Training of Wildlife Specialists
3. Andrew A. Allo - Director Institution; J. Ngoy-Nje, Director of Studies
4. Br. 271 Garoua, CAMEROON
5. 1st and 2nd cycle Diplomas
6. 1st cycle: GCE "O" level or Brevet and field experience
2nd cycle: GCE "A" level or BAC "F" with some field experience
7. 1970
8. 1st cycle: 2 years; 2nd cycle: 2 years
9. Excellent knowledge of French
10. Tuition: 600.000 CFA/year/student. Living expenses: 300.000 CFA plus books and transport
11. 52 every other year
12. Game and Park Wardens (Conservateur - in French)
13. 2/3 theory, 1/3 field work, study tours and individual field projects

Sources queried but questionnaire not yet received

- Wildlife Training Institute, Naivasha, KENYA (under construction)
- School of Forestry - "O" level training of game assistants - Accra, GHANA
- Park and Wildlife Personnel, College of African Wildlife Management, Moshi, TANZANIA
- Degree of Graduate Wildlife Ecology Program, Ibadan University Ibadan, NIGERIA
- Game and Park Guards Wildlife School, Lame Bura, c/o Federal Forestry Department, Lagos, NIGERIA
- College of African Wildlife Management, Mweka, TANZANIA

Key: 1=Program; 2=Sponsoring Institution; 3=Program Director; 4=Address
5=Nature of degree, certificate; 6=Entrance requirements;
7=Date established; 8=Period required to complete program;
9=Language requirements; 10=Costs; 11=Number of students;
12=Occupations of recent graduates; 13=Comment

Southeast Asia

1. School of Environmental Conservation Management - CIAWI
2. Indonesian Government
3. Mol. Duryat, L.P. van Lavieren
4. P.O. Box 109. Bogor, INDONESIA
5. Diploma
6. 6th level or higher - Field experience preferred
7. November, 1978
8. 10 months (includes 5 months classroom, 4 months fieldwork)
9. English
10. Fees for tuition, lodging and catering borne by Indonesian Government
11. 35 per training course
12. Park Superintendents, wardens
13. The CIAWI School is the S.E. Asian counterpart of GAROUA and MWEKA Schools in Africa

Sources queried but questionnaire not yet returned

- Department of Wildlife and National Parks - Kuala Lumpur, MALAYSIA
- Faculty of Science and Environmental Studies - Agricultural University of Malaysia - Sendung, Selangor, MALAYSIA
- Division of Wildlife and National Parks - Forest Department, Kuching, Saronick, MALAYSIA
- Natural Parks Board - Sabak MALAYSIA
- Diploma Course in Bulolo Forestry College, Morabe Province Papua, NEW GUINEA
- Diploma in Agriculture - Vukal Agricultural College, East New Britain Province, Papua, NEW GUINEA
- Diploma in Land Administration - University of Papua, NEW GUINEA
- Tailor-Made Study Tour, Department of Lands, Survey and Environment, Papua NEW GUINEA

Philippines

1. Parks Administration and Wildlife Management Training
2. Bureau of Forest Development (BFD)
3. Chief, Bureau of Forest Development Training Center
4. Visayas Avenue, Diliman, Quezon City, Philippines
5. Certificate of Attendance
6. Middle Level Park and Wildlife Personnel
7. July, 1978
8. One month
9. English
10. @ \$16 per day
11. 30
12. Employed in BFD
13. To date conducted only one program

India and Nepal

1. Training in Wildlife and Sanctuary Management
2. Government of India, Ministry of Agriculture, Department of Agriculture and Cooperation
3. Dr. H.R. Bustard, Mr. Pushp Kumar (part-time)
4. Krishi Bharan, New Delhi - 110 001 INDIA or HYDERBAD
5. Diploma
6. Graduates preferably M. Sc. Post Grad. qualification in Forestry
7. December, 1978
8. Nine months
9. English
10. Met by Central Government
11. Currently 14 - proposed 25
12. With parent Forest Departments
13. A Programme of the Central Crocodile Breeding and Management Training Institute

Sources queried but questionnaires not yet received

- Training in Wildlife Management, Forest Research Institute, Dehradun, INDIA
- Wildlife Management-Conservation Ecology Trust, Bangalore, INDIA (proposed)
- Forestry Institution, Hetura, Chitwan, NEPAL

Oceania

1. Rangers Training in Turangi
2. New Zealand Government Department of Lands and Surveys
3. Noel Good, P.H.C. Lucas
4. Private Bag - Wellington 8001
5. Certificate
6. School Leaving Certificate
7. 1976
8. 1 to 2 years
9. English
10. Contact New Zealand Government - Department of Lands and Surveys
11. Not given
12. Employees of National Parks and Wildlife Conservation Office

Oceania (cont'd)

1. Park and Wildlife Management
 2. Goulburn College of Advanced Education
 3. Mr. G. Tuck
 4. Goulburn, N.S.W. AUSTRALIA, 2580
 5. Associate Diploma (External)
 6. High School Certificate or Equivalent
 7. 1981
 8. Three years external
 9. English
 10. (nil)
 11. Anticipating 100+
 12. Park Workers
-
1. Wilderness Reserves and Wildlife
 2. Queensland Agricultural College
 3. R.J.S. Beeton
 4. Lawes, Queensland, AUSTRALIA, 4345
 5. Associate diploma
 6. 12 years schooling or ability to succeed in course as judged by College Committee
 7. 1978
 8. Two years
 9. English
 10. Student services fee \$64.00 p.a.; Residential Accomodation (if required) \$1,450 p.a.; Visa fee- payable to Immigration and Ethnic Affairs
 11. 30
 12. Middle level park managers, cadet rangers, zoo keepers, resident staff
 13. Specifically designed for local conservation Service
-
1. International Training Course in the Administration of National Parks and Reserves
 2. Australian National Parks and Wildlife Service and Department of Foreign Affairs (Australian Development Assistance Bureau) and New Zealand Department of Internal Affairs
 3. Allan Fox (ANP & WS)
 4. Box 636, Canberra City, AUSTRALIA, 2601
 5. Certificate on completion (by ADAB)
 6. Nomination by national authorities from Africa, Asia, Oceania, South America acceptable to Australian Department of Foreign Affairs under various aid schemes
 7. 1976
 8. 3 month travelling seminars
 9. English
 10. Borne by ADAB and ANP & WS
 11. 20 maximum per seminar
 12. Mainly Australasian trainees-Tasmania, Victoria, N.S.W., Greensland and Papua New Guinea

Oceania (cont'd)

1. Aboriginal Ranger Training - Kakadu National Park
2. Australian National Parks and Wildlife Service
3. Allan Fox Ian Morris
4. Box 636 Canberra City, AUSTRALIA 2601
5. Certificate issued
6. Selection by Traditional Landowners. Northern Land Council
(aboriginal) and ANP & WS
7. February, 1979
8. 12 months
9. nil
10. Shared by ANP & WS and Department of Youth Affairs
11. 4-6 per year
12. Park Rangers - Kakadu National Park
13. Ultimate aim to produce aboriginal park rangers at every level

1. Ranger Training - State Assistance
2. Australian National Parks and Wildlife Service
3. Allan Fox
4. Box 636, Canberra City, AUSTRALIA 2601
5. No paper qualification gained
6. In-service selection by State Authorities
7. 1978
8. 2-3 weeks
9. nil
10. Living expenses borne by state - course costs by ANP & WS
11. Maximum 30
12. Park and Wildlife Rangers
13. Supplements state programs - provided to update experience,
philosophy and methodology

Sources queried but questionnaires not yet received

- Associate Diploma in Wildlife and Park Management, Salisbury College
Salisbury, SOUTH AUSTRALIA
- Associate Diploma - Parks Administration and Management
Goulbourne, NSW
- Certificate of Applied Science (Conservation and Resource
Development) - National Park Service of Victoria, East Melbourne,
Victoria

Japan

1. National Park Ranger Program
 2. Training Institute for Environmental Pollution Control
(Environmental Agency of Japan)
 3. Masao Shigiya
 4. 526 Tokorozawa, Tokorozawa City, Saitama Prefecture, JAPAN 359
 5. N.A.
 6. Rangers of national and quasi-national parks
 7. March, 1973
 8. A: 2 weeks/year for 2 years; B: 1 week/year for 6 years
 9. Japanese
 10. ¥ 10,000 per week (paid by organization they belong to)
 11. A: 11; B: 34 (1979)
 12. Central and Local Government Employees
 13. The program is designed for personnel of governmental office
in Japan
-
1. (1) Wildlife Protection (administrative), (2) Nature Conservation
(administrative)
 2. Environmental Agency of Japan
 3. Masao Shigiya
 4. 526 Tokorozawa, Tokorozawa City, Saitama Prefecture, JAPAN 359
 5. N.A.
 6. Central and local government employees concerned with environ-
mental administration
 7. March, 1973
 8. (1) 10 days; (2) 10 days
 9. Japanese
 10. ¥ 14,000 (paid by organization they belong to)
 11. (1) 57 ('79); 59 ('80); (2) 47 (1979)
 12. Central and local government employees
 13. Designed for personnel of governmental office in Japan

South America

1. Departamento de Manejo Forestal Sección Fauna Silvestre y
Parques Nacionales
2. Universidad Nacional Agraria, La Molina
3. Dr. Augusto Tovar, Manuel Rios, Carlos Ponce
4. Apartada 456, Lima 1, PERU
5. Certificate of Attendance or Certificate of Approbation
6. Complete Secondary, Employees in Service of National Parks
7. 1964
8. 2-6 weeks
9. Spanish
- 10.
11. 10-20 per course

South America (cont'd)Sources queried but questionnaires not yet received

- Escuela de Guarda Parques, Curso de Formacion, Santa Fe 690
Buenos Aires, ARGENTINA
- Escuela de Guarda Parques, Isla Victoria, Parque Nacional
"Nahuel Huapi" 8400 Bariloche, ARGENTINA
- Conocoto Forest Technician Training School, Ministerio de
Agricultura, Quito, Ecuador
- National Park Ranger Course, Servicio Nacional de Guarda Parques
Nacionales, San Martin 24, San Carlos de Bariloche, ARGENTINA

Central America and the Caribbean

1. Mobile Seminar on Planning and Management of Wildlands and
Watersheds in Central America
 2. CATIE (Centro Agronomico Tropical de Investigación Enseñanza)
 3. Craig MacFarland
 4. Turrialba, COSTA RICA
 5. Diploma (CATIE)
 6. Be an official (or functionary of a government natural resources
management institution in home country) and be officially
proposed for seminar by (said) institution or be a field
manager (of a wildland unit or watershed project)
 7. 1977
 8. 1-1½ preparation before course plus 15-16 days in course
 9. Spanish
 10. Approximately \$1,200-1,600 (depending upon country of origin
and itinerary)
 11. 25-30
 12. Field managers and heads of technical departments in government
-
1. Intensive Course and Special Problem-Project in Planning and
Management of Wildlands
 2. CATIE
 3. Craig MacFarland
 4. Turrialba, COSTA RICA
 5. Diploma or credit toward CATIE degree
 6. CATIE student, B.A. or field experience, superintendent of park
 7. 1980
 8. 3 months
 9. Spanish
 10. Approximately \$2,000-2,500
 11. 10 CATIE; 6-10 special
 12. Field managers and heads of technical departments in government

Central America and the Caribbean (cont'd)

1. Special Workshop on Planning, Management or Interpretation of Wildland Units
2. CATIE and national institutions in host country
3. Craig MacFarland
4. Turrialba, COSTA RICA
5. CATIE and host country institution diploma
6. Specialist in subject field, field manager
7. 1978
8. 2-3 weeks
9. Spanish
10. Variable, approximately \$600-1,000
11. 15-20 from host country, 6-12 from Central America and Dominican Republic

1. In-Service Training for Wildlands Personnel at Various Levels and Specialties
2. CATIE and national institutions in host country
3. Craig MacFarland
4. Turrialba, COSTA RICA
5. None formal, certificate (letter) provided
6. Sponsorship by national home institution and specialization in area of interest in home country
7. 1979
8. Highly variable, 2-12 weeks
9. Spanish
10. Approximately \$400-500, all inclusive
11. Up to 3-4 (tailor-made)

1. Program of Environmental Education
2. Universidad Estatal a Distancia (Costa Rican Open University) UNED
3. Mario A. Boza
4. San José, COSTA RICA
5. Course Approval Diploma
6. High School Diploma and be working with National Park Service
7. 1978
8. Short courses of two weeks extension
9. Spanish
10. Paid for by National Park Service
11. 8-20 per course
12. Employees of the Park Service

Sources queried but questionnaires not yet received

-Diploma Course in Forestry, c/o Forestry Division, P.O. Box 30
Port of Spain, TRINIDAD and TOBAGO

Central America and the Caribbean (cont'd)Sources queried but questionnaires not yet received

- Seminario en Manejo de Parques y Areas Silvestros, Turrialba
COSTA RICA
- Caribbean Environmental Natural Area Management Program,
Savanna Lodge, The Garrison, BARBADOS

Europe - Netherlands

1. 3 year course for middle level degree
2. College for Forestry and Land and Water Development
3. irA. Bierma
4. Laarweg 6, 6882 AA Velp (g) NETHERLANDS
5. Diploma
6. 4 years secondary school
7. N.A.
8. 3 years
9. Dutch
10. ± f1,000- 1500 per year
11. ± f175
12. Foresters, landscape planners
13. Not suitable for developing country nationals

Sources queried but questionnaires not yet received

- Forestry, Rural Engineering, Bosbouw en Cultuur Schniseln School
Velp, Netherlands

Scotland

1. Countryside Commission for Scotland Training Program
2. Countryside Commission for Scotland
3. D. Aldridge (Assistant Director), Mrs. R. Grant (Education and Training)
4. Battleby, Redgorton, Perth, SCOTLAND
5. Ranger training course awards and certificate
6. Priority given to those working in Scotland, entrants selected on basis of application forms
7. October, 1969
8. Various - 1 week to 10 weeks
9. English
10. £15 per diem (1980) plus nominal charge for tuition/admin.
11. Maximum 25
12. Includes some courses not offered by other European organizations (e.g. Interpretive Planning). Primarily for personnel working in Scotland

Scotland (cont'd)Sources queried but questionnaire not yet received

-Forestry Commission, Corstorphine Road, Edinburgh, SCOTLAND

England

1. Sponsored In-Service Training in Countryside Conservation and Training
2. Countryside Commission
3. Graham Taylor and Terry Robinson
4. John Domer House, Crescent Place, Cheltenham, ENGLAND
5. No assessments made, nor awards given
6. Candidate must be employed full time in countryside conservation or recreation
7. 1975
8. Various - 2 days to 10 days
9. English
10. £20-150 depending on duration
11. 20-30
12. N.A.
13. 14 or so short, in-service courses for British Nationals

Sources queried but questionnaire not yet received

- Nature Conservancy Council, 19 Belgrave Square, London, ENGLAND
- Nature Conservancy Staff Training, Nature Conservancy Council, George Street, Huntingdon, ENGLAND
- Losehill Hall National Park Centre, Cheltenham, Gloucestershire, ENGLAND and Castleton via Sheffield, ENGLAND

IrelandSources queried but questionnaires not yet received

- Forest and Wildlife Service, Dublin 2, IRELAND
- Department of Agricultural Biology, Bellfield Campus, Dublin, IRELAND

Switzerland

1. Study Seminar for Park Managers
2. Schweizerischer Bund für Naturschutz
3. Dr. Peter Luder
4. Aletsch Conservation Center, CH-3981 Riederalp, SWITZERLAND
5. N.A.
6. N.A.
7. January, 1980
8. N.A.
9. German or French
10. N.A.
11. 30
12. N.A.
13. The seminars are not regularly organized

Sources queried, questionnaires not yet received

- Swiss League for the Protection of Nature, Sekretariat, Postfach 73
CH-4020, Basel, SWITZERLAND
- Bundesamt für Forstwesen: -Abteilung für Natur- und Landschafts-
schutz - Abteilung für Jagdwesen und Wildschutz, Bern SWITZERLAND
- Administration of the Swiss National Park, Nationalparkhaus,
Zernez, SWITZERLAND

Federal Republic of Germany

Two separate communications suggest that there are no training programs as such at the present time.

Scandinavia- SwedenSources queried but questionnaires not yet received

- The National Environment Protection Board, Fack, SWEDEN
- The National Board for Forestry, Jonkoping, SWEDEN

Courses in Sweden are almost entirely aimed at national problems and are held in Swedish

United States of America

1. International Seminar on National Parks and Equivalent Resources
 2. National Park Service- USDI, University of Michigan, Ann Arbor, Parks Canada, Ministry of the Environment, Canada
 3. Mr. Tom D. Thomas
 4. International Seminar Program, National Parks and Equivalent Resources, School of Natural Resources, University of Michigan, Ann Arbor, Mich. 48109, U.S.A.
 5. Certificate
 6. Must submit application prior to March of each year
 7. 1965
 8. One month (begins around August 1st)
 9. English
 10. \$2,000
 11. Limit of 36
 12. Senior administrators to Park Rangers
-
1. Training programs designed and arranged for international park pro
 2. National Park Service, U.S. Department of the Interior
 3. Chief, International Park Affairs Division
 4. 18th and C Street, N.W. Washington, D.C. 20240
 5. None
 6. Professionals employed in national parks
 7. 1962
 8. Length of training flexible
 9. English recommended but not required
 10. Trainee must pay all expenses
 11. Prefer trainees arrive singly
 12. Ranges from Park Rangers to Members of Parliament
-
1. Training Courses at National Park Service Training Centers
 2. National Parks Service; U.S. Department of the Interior
 3. Chief, International Park Affairs Division
 4. 18th and C Street, Washington, D.C. 20240
 5. Certificate of Course Completion
 6. Must arrange and pay for all lodging, transportation and meals
 7. 1961
 8. One to three weeks
 9. English
 10. Lodging, transportation and meals
 11. 1 or 2 international park professionals per course
 12. Range from top administrators to secretaries with emphasis on ranger skill

3.2 Helping the man on the ground

3.2.1 Introduction

In many ways, CNPPA's most difficult task is helping the man on the ground. Projects can provide equipment and training, but we all feel that the park ranger, forest guard, and game scout is still the most important and least-rewarded link in the whole management chain. While it is clearly the responsibility of governments to provide for the welfare of their employees, it is often difficult for them to provide extra recognition to protected areas personnel. In order for IUCN/CNPPA to provide such recognition to at least a few outstanding individuals, the IUCN International Park Valor Award was instituted in 1980, with the first award being presented immediately prior to the Garoua meeting (see following items).

The Valor Award honours parks personnel for "acts of unusual courage involving a high degree of personal risk in the face of danger". In the discussion of the award, everyone was enthusiastic in support of the principle of recognizing outstanding field personnel. Several suggestions were made about how to improve the impact of the award on field personnel, including:

- A letter from the Director General of IUCN to encourage recognition from the relevant government whenever an act of valor is reported, even if a prize is not awarded;
- greatly expand the award system, possibly to include awards for each realm for which there are suitable nominees, or to award first, second, and third place recognition;
- develop further awards, to include merit in addition to valor;
- publish a major article in PARKS Magazine about the award, including descriptions of the various acts of valor being nominated;
- design a nomination form and send it out with PARKS Magazine.

Follow-up action. A nomination form was designed at the session, and is included here. It will be sent out with the CNPPA newsletter and sent to the Editor of PARKS for consideration for sending out with the Magazine. An article for PARKS will be written by the CNPPA Executive Officer or other suitable individual following the second round of nominations. For the second round, multiple awards may be given, though the cash award will accompany only the first prize. Following the second round of nominations, CNPPA will embark on a major effort to increase the endowment of the Valor Award; consideration will be given at that time to expanding the award system to include merit as well as valor.

INTERNATIONAL UNION FOR CONSERVATION OF NATURE AND NATURAL RESOURCES

COMMISSION ON NATIONAL PARKS AND PROTECTED AREAS

VALOR AWARD NOMINATION FORM

1. Nominator (individual or institution making the nomination):

- a) Name of individual
- b) Institution
- c) Address

2. Candidate proposed for nomination:

- a) Name
- b) Position
- c) Address

3. Act of Valor (precise description of the event and circumstances, including date, place, individuals involved, eyewitness evidence by local and governmental personnel): (use additional sheets if necessary)

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4. Documentation (attach or enclose photographs, newspaper articles, legal depositions, etc.)

5. Approval (enclose or attach letters from nominee's employer, civil authorities, etc.)

6. I certify that this declaration is true and complete.

.....
Signature of Nominator

.....
Signature of Nominee

.....
Date

.....
Date

UNION INTERNATIONALE POUR LA CONSERVATION DE LA NATURE ET DE SES RESSOURCES

COMMISSION DES PARCS NATIONAUX ET DES AIRES PROTEGEESDISTINCTIONFICHE DE NOMINATION

1. Responsable de nomination (individu ou institution faisant la nomination)
 - a) Nom de l'individu
 - b) Affiliation
 - c) Adresse
2. Candidat proposée à la nomination
 - a) Nom
 - b) Affiliation
 - c) Adresse
3. Acte de valeur (description précise de l'événement et des circonstances: date, lieu, individus impliqués, témoins action entreprise au niveau des individus locaux ou gouvernements) (utiliser des fiches supplémentaires si nécessaire):

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4. Documentation (annexer les photos, extraits de journal, dépositions légales, etc.)
5. Approbation (décrire ou attacher des lettres des employeurs, des dirigeants civils, etc.)
6. Je certifie que la présente déclaration est exacte et complète.

.....
Signature du responsable de nomination

.....
Signature du candidat

.....
Date

.....
Date

3.2.3 The Parks Valor Award Presentation in Senegal

3.2.3 La présentation de la médaille internationale de la valeur au Sénégal

Discours du Vice-Président de la CPNAP lors de la remise de la Médaille internationale de la valeur au Sénégal

Monsieur le secrétaire général du Gouvernement
 Monsieur le directeur des parcs nationaux
 Messieurs les conservateurs
 Messieurs les récipiendaires
 Mesdames, Messieurs

C'est avec la plus grande satisfaction que je participe, en tant que représentant du Directeur général de l'Union internationale pour la conservation de la nature et de ses ressources, à cette cérémonie de remise de la Médaille internationale de la Valeur, qui aura lieu ici pour la première fois.

En effet, Messieurs, les caporaux Insa Diatta et Yaya Danfa, du Parc national Niokolo-Koba au Sénégal, ont largement mérité d'être les premiers récipiendaires de cette nouvelle distinction mondiale, offrant ainsi encore une satisfaction à leur grande nation.

Parmi les nombreux candidates à cette médaille provenant de plusieurs continents, il y avait d'autres personnes dont les actes de valeur sont étaient aussi notables. Mais, Le Comité de Sélection, a dûment pris note de la rigoureuse observation des procédures administratives et légales qui prouvent le haut niveau des connaissances civiques des effectifs des parcs nationaux du Sénégal lequel, sans réduire l'initiative et l'efficacité du corps, assure un bien meilleur service à la communauté.

L'Union internationale pour la conservation de la nature connaît bien et apprécie hautement les efforts du Sénégal pour utiliser sagement ses ressources naturelles. Tout spécialement, il assure l'héritage, aux générations futures, d'échantillons représentatifs des écosystèmes naturels uniques qui ornent son territoire national. Pour cette raison, elle lui a offert la plus grande coopération dans les limites de ses encore modestes possibilités économiques. Mais l'UICN est un organisme dont la grandeur et l'utilité dépendent de l'intérêt de ses états membres et de ses organisations gouvernementales et non-gouvernementales associés. Son rôle est donc essentiellement catalytique, c'est-à-dire aider à s'aider soi-même. En ce sens, le Sénégal n'a pas besoin d'orientation, comme le témoigne bien le grand effet multiplicateur des petites collaborations qu'il a reçues.

Messieurs, les caporaux Insa Diatta et Yaya Danfa: que mes paroles finales soient pour vous féliciter chaleureusement et pour vous rappeler que les médailles que vous recevrez bientôt ne représentent pas seulement vos mérites personnels, mais aussi ceux de tellement de héros inconnus qui ont donné leur vie pour la nature au Sénégal, en Afrique et dans le monde entier.

Discours de Monsieur André Sonko, Secrétaire général du Gouvernement, à la cérémonie de remise de la Médaille internationale de la Valeur de l'Union internationale pour la Conservation de la nature aux caporaux Insa Diatta et Yaya Danfa, du Parc national de Niokolo-Koba.

Dakar, le 10 novembre 1980

Monsieur le Vice président de la Commission des Parc nationaux et des aires protégées
 Monsieur le Directeur des parcs nationaux du Sénégal
 Messieurs les Conservateurs
 Messieurs les récipiendaires
 Messieurs,

La suggestion originale de M. Jacques Verschuren de créer un insigne international de la bravoure, signe distinctif qu'auront à arborer quelques privilèges méritant, a été présentée par Monsieur Fred Packard lors de la 16^e réunion de la Commission des parcs nationaux et des aires protégées de l'Union internationale pour la conservation de la nature qui s'est tenue le 2 juin 1980 à Battleby.

Le Sénégal se félicite de ce que les premiers récipiendaires de cette médaille soient deux garde faunes de la Direction des Parcs nationaux, les caporaux Yaya Danfa et Insa Diatta du Parc national du Niokolo-koba qui se sont brillamment distingués aux cours de différentes opérations de contre braconnage.

Permettez moi, Monsieur le Vice Président, de vous présenter toute la gratitude du Chef de l'Etat, du Premier Ministre et du Gouvernement sénégalais pour l'honneur que vous nous avez ainsi fait et qui traduit, une fois de plus, votre sollicitude pour l'entreprise de protection et de conservation de la nature que nous menons depuis l'Indépendance.

Cette sollicitude s'est en effet déjà manifestée par de nombreuses contributions à notre pays. Je citerai entres autres:

- le projet de recherche sur les tortues marines
- la protection des derniers éléphants du Sénégal
- le projet éco-musée
- le projet de l'Unité mobile audio-visuelle.

Votre présence parmi nous ce jour, la distinction que vous nous accordez sont, pour nous, la preuve que votre soutien se poursuivra. De votre côté, nous continuerons de faire en sorte de mériter ce soutien.

Notre lutte contre la braconnage sera intensifiée. Déjà, vous le savez, le Gouvernement a créé six parcs nationaux - ceux de la Basse Casamance, du Delta du Saloum, du Djoudj, de l'Ile de la Madeleine où nous nous trouvons, de la Langue de Barbarie et du Niokolo-Koba, ainsi qu'une réserve d'oiseaux - celle de Kalissaye. Trois-cents "soldats de la nature" assurent, de façon permanente, la protection des zones concernées.

Le Sénégal, vous le savez aussi, a adhéré aux conventions de Washington, de Ramsar et de Bonn.

Plus récemment, il a renforcé les moyens de lutte contre le braconnage.

Ainsi, la loi n° 80-43 du 25 août 1980 autorise les agents des Eaux et Forêts ainsi que ceux des Parcs nationaux à faire usage de leurs armes contre les braconniers, dans certaines situations. C'est que les braconniers sont devenus plus audacieux et dangereux. Poussés par le goût immodéré du gain, les braconniers n'hésitent plus à tirer sur les gardes. Il a donc fallu réagir.

Par ailleurs, le décret n° 80-445 du 29 avril 1980 prohibe la commercialisation de dépouilles ou trophées provenant d'animaux intégralement protégés au Sénégal ainsi que d'objets provenant de ces dépouilles ou trophées.

Je voudrais, en terminant, renouveler nos remerciements à l'UICN/WWF, vous féliciter, M. le Directeur des Parcs nationaux pour les résultats appréciables que vos hommes ont obtenus, vous féliciter et vous encourager, messieurs les récipiendaires, et inviter tous les garde faunes ainsi que tout le personnel des Parcs nationaux à redoubler d'efforts et de vigilance afin que la cause de la protection et de la conservation de la Nature triomphe.

POUR LEUR COURAGE DANS LA LUTTE CONTRE LE BRACONNAGE

**DEUX GARDE-FAUNES SENEGALAIS
DECORES DE LA MEDAILLE DE VALEUR**

Deux garde-faunes sénégalais, les caporaux Yaya Dainta et Insa Niokolo-Koba ont été décorés hier de la médaille internationale de la valeur. Ils ont reçu leurs décorations de mains de M. Marc Dourojeanni, vice-président de la commission des Parcs nationaux et des aires protégées de l'Union internationale pour la conservation de la nature (IUCN). La cérémonie était présidée par M. André Sonko, secrétaire général du gouvernement en présence de M. Dioné, conservateur du parc des Alimadies et de M. Dupuis, directeur des parcs nationaux.

Nos deux compatriotes deviennent, ainsi les premiers récipiendaires de cette distinction dont l'idée a été retenue lors de la 16^e réunion de la commission des Parcs nationaux et des Aires protégées de l'IUCN qui s'est tenue le 2 juin 1980 à Battleyby.

M. André Sonko a été félicité à cette occasion du choix porté sur les deux garde-faunes sénégalais. Il a ensuite tenu à adresser ses remerciements au gouvernement sénégalais pour la sollicitude dont il a cessé de faire preuve l'IUCN pour l'entreprise de protection et de conservation de la nature que nous menons depuis l'indépen-

dance. Cette sollicitude dira le secrétaire général du gouvernement s'est déjà manifestée par de nombreuses contributions aux actions entreprises par notre pays. Ces contributions concernent, entre autres, le projet de recherche sur les tortues marines, la protection des derniers éléphants du Sénégal, le projet de musée et celui de l'unité mobile audio-visuelle.

M. André Sonko a ensuite assuré le vice-président de l'IUCN que la lutte contre le braconnage sera intensifiée. C'est ainsi, dira-t-il, que le gouvernement sénégalais a créé six parcs nationaux (basse Casamance, Delta Saloum, Dioudji, Ile de la Madeleine, langue de Barbaria, Niokolo Koba, Kalissaye) et que 300 «soviets de la nature» assurèrent de façon permanente la protection des zones épiciernées.

Après avoir rappelé que le Sénégal adhère aux conventions de Washington, de Ramsar et de Bonn, M. Sonko a énoncé les mesures prises par le gouvernement pour lutter contre le braconnage. Il s'agit tout d'abord d'une loi (80-43 du 25 août 1980) qui interdisait les agents d'usage de leurs armes contre les braconniers dans certaines situations. Puis il y a le décret 80-145 qui prohibe la commercialisation de dépouilles ou

trophées «provenant d'animaux intégralement protégés au Sénégal ainsi que d'objets provenant de ces dépouilles ou trophées».

Pour M. Marc Dourojeanni, les caporaux Dainta et Diatta ont «largement mérité d'être les premiers récipiendaires de cette nouvelle distinction mondiale offrant ainsi une grande satisfaction à leur nation».

Le vice-président de l'IUCN a ensuite mis l'accent sur le mérite des récipiendaires. Mérite d'autant plus grand qu'il y avait parmi les candidats «d'autres personnes dont les actes de bravoure étaient tout aussi valables. Mais le comité de rédaction a pris dûment note de la rigoureuse observation des procédures administratives et légales qui prouvent le haut niveau des connaissances civiques des garde-faunes sénégalais».

C'est pourquoi, a estimé M. Dourojeanni, ces décorations récompensent, non seulement le mérite personnel de ces deux gardes-côtes mais aussi celui d'autres héros ayant donné leur vie pour la nature au Sénégal, en Afrique et dans le monde.

Auparavant, M. Roger Dupuis directeur des parcs nationaux avait félicité les caporaux pour le courage dont ils avaient fait preuve



dans la lutte contre les braconniers contribuant ainsi à la sauvegarde des éléphants menacés de disparition.

Signataires que les caporaux Yaya Dainta et Insa Diatta ont été honorés pour avoir osé affronter et mis hors d'état de nuire une bande

de braconniers armés de fusils automatiques. L'un des braconniers avait d'ailleurs trouvé la mort au cours de cet accrochage, en février 1980.

Un sympathique déjeuner a mis fin à la cérémonie.

Mamadou Oumar NDIAYE

3.3 Effective Management of Protected Areas

3.3.1 Introduction

CNPPA's Task Force on Effective Management has been working for over a year to develop ways and means of assessing standards of management for protected areas. Based on comments received from members, a draft questionnaire aimed at collecting some of the information needed for determining the management status of protected areas was presented at the meeting and given a trial run by all those attending. The questionnaire was then analyzed to assess its usefulness to the manager on the ground. A number of suggestions were made, all of which have been incorporated on the following questionnaire. Three major conclusions:

- The act of filling out the answer sheet was seen as a very useful exercise in itself, giving the manager a "checksheet review" of what management should be.
- The questionnaire is a very useful tool for assessing current management standards as seen by the protected area manager, but does not in itself fully address the question of effective management.
- The questionnaire should be developed further based on the comments received, then sent out to solicit information from all of the protected areas on the UN List.

Output: The revised questionnaire, as presented beginning on the following page.

Follow-up action: The revised questionnaire will be sent by the Executive Officer to the CNPPA network for further action. Initial results will be presented at the next meeting of CNPPA, in Peru in June 1981.

Commission on National Parks and Protected Areas (CNPPA)Questionnaire on Effective Management of Protected Areas

Introduction: This questionnaire is being sent to members of the CNPPA network around the world in order to make an initial assessment of the standards of management of protected areas on the 1980 United Nations List of National Parks and Equivalent Reserves. It is accompanied by an answer sheet for each of the protected areas within the area of expertise of each of our members, with basic information on the area printed at the top of the answer sheet. We ask each of our coordinators to send a copy of this questionnaire along with the appropriate answer sheets to their contacts in the field, in the hope that those who are actually managing the protected areas will be most able to provide accurate information. If necessary, please translate the questionnaire into any appropriate language, but please do keep the same answer sheet format so the information from all protected areas is comparable.

The information gained from the questionnaire will be used to help IUCN/WWF to determine priorities for future activities in the field, for contributing management data to the Conservation Monitoring Unit, and to give a worldwide assessment of management standards to the IUCN General Assembly for their consideration for future action. We plan to follow up each report every three years, in order to chart any changes in management effectiveness, management problems, and improvements that follow projects aimed at supporting local protected area managers. We therefore urge you to give this questionnaire your fullest consideration and to make every effort to ensure that your contacts in the field cooperate in filling out the answer sheets accurately. Please send the completed answer sheets to the Executive Officer, CNPPA, IUCN, Avenue du Mont Blanc, 1196 Gland, Switzerland, who will also be glad to answer any queries about the questionnaire. Many thanks for your cooperation.

1. Based on the IUCN/CNPPA paper, "Categories, Objectives, and Criteria for Protected Areas", published in August 1978 and summarized in the 1980 UN List of National Parks and Protected Areas, this area falls into which of the following categories:
 - a) Category I Scientific Reserve/Strict Nature Reserve
 - b) Category II National Park
 - c) Category III Natural Monument/Natural Landmark
 - d) Category IV Managed Nature Reserve/Wildlife Sanctuary
 - e) Category V Protected Landscape.

2. Regarding clearly defined objectives to guide management, this area:

- a) has objectives specific to the area
- b) has only broad objectives
- c) objectives are only implied
- d) lacks objectives at present.

3. Regarding legislation, this area:

- a) is fully protected by national legislation and has a set of local regulations specific to the area
- b) is protected by national legislation but does not yet have a set of local regulations specific to the area
- c) is inadequately protected by national legislation but has local regulations
- d) is inadequately protected by national legislation and lacks local regulations as well
- e) is sufficiently protected by national legislation and does not require local regulations.

4. Regarding a management plan, this area:

- a) has a management plan with legal status and it is being implemented
- b) has a management plan but it has not been accepted/approved/implemented
- c) management plan is being prepared
- d) lacks a management plan at present
- e) lacks a management plan and local circumstances do not call for one at this time.

5. Regarding boundaries, this area:

- a) has fully and carefully demarcated boundaries which effectively define the area
- b) has demarcated boundaries in certain key areas and this is felt adequate
- c) has some boundaries demarcated, but these are felt insufficient
- d) lacks demarcation of boundaries
- e) lacks or partially lacks formal demarcation of boundaries but this is deemed unnecessary.

6. Regarding zoning, this area:
- a) has a system of zones which effectively control human use
 - b) has a system of zones which partially controls human use
 - c) does not yet have a system of zones, but such a system is planned
 - d) does not have a system of zones
 - e) does not have a system of zones, nor is a system required at present.
7. Regarding protection of natural resources, this area:
- a) is fully and effectively protected from any sort of resource exploitation
 - b) is protected at a level appropriate to area objectives
 - c) is used only by local people for their own needs
 - d) suffers from poaching of trees, illegal grazing, or poaching of animals
 - e) suffers from legal exploitation of resources.
8. Regarding budget, this area:
- a) has sufficient budget to attain its objectives
 - b) receives a budget, but this does not enable all objectives to be attained
 - c) receives a budget which allows only basic maintenance and staffing
 - d) lacks a budget.
9. Regarding personnel, this area:
- a) has sufficient personnel to attain the specified management objectives
 - b) has sufficient numbers of personnel, but personnel are not sufficiently trained to attain management objectives specified
 - c) lacks sufficient personnel at present.
10. Regarding political support (check more than one if necessary):
- a) the central government has made a clear commitment to attain the conservation objectives of the area
 - b) the local/provincial government has made a clear commitment to attain the conservation objectives of the area
 - c) the local people are in support of the area
 - d) lack of political support is a major problem.

11. Regarding benefits to local people, this area:
- a) brings real benefits to the local people in terms of watershed protection, employment opportunities, buffer zone development or other related developments
 - b) brings some benefits to the local people
 - c) brings few benefits to the local people
 - d) brings virtually no benefits to the local people.
12. Regarding local participation, this area:
- a) has a local advisory committee and involves local people in decision-making
 - b) involves at least some local government officials
 - c) involves local people only informally
 - d) does not involve local people at all.
13. Regarding research, this area:
- a) has a strong, well integrated programme of basic and applied research which provides support to the management objectives
 - b) has only basic, academic research which provides indirect input to improved management
 - c) has a planned research programme that has not yet begun
 - d) has no research, either basic or applied
 - e) has no on-going or planned research programme and local circumstances do not call for one at this time.
14. Regarding basic ecological information, this area has which of the following:
- | | |
|-----------------------------------|-----------------------|
| a) inventory of mammals | h) geological map |
| b) inventory of birds | i) soil map |
| c) inventory of other vertebrates | j) climatic data |
| d) inventory of invertebrates | k) hydrological data |
| e) complete inventory of plants | l) topographic map |
| f) partial inventory of plants | m) aerial photographs |
| g) vegetation map | n) research station |

15. Regarding tourism, this area:

- a) is important for tourism and has all necessary facilities
- b) receives many tourists, but facilities are inadequate
- c) receives so many tourists that the reserve staff has little time for other management activities
- d) is of only minor interest for tourism at present
- e) does not include tourism as an objective.

16. Regarding education, this area:

- a) has adequate educational facilities and is well used by local/national educational institutions
- b) is used by local/national educational institutions for planned, supervised field trips but there are few local facilities
- c) is used by students for informal, unsupervised field trips
- d) is seldom used for educational purposes.

17. Regarding genetic resources this area:

- a) has a number of species of plants/animals of potential or actual benefit to man and these are being specially protected or studied
- b) probably has a number of species of plants/animals of potential or actual benefit to man, but there is little available data about them
- c) has only a moderate number of species of plants/animals of potential or actual benefit to man, and these are being specially protected or studied
- d) appears to have few species of plants/animals of potential or actual benefit to man.

18. Regarding watershed management, this area:

- a) receives high rainfall and provides a well-protected watershed for surrounding areas
- b) receives high rainfall but watershed is not sufficiently well protected
- c) receives moderate rainfall and area is sufficiently well protected to benefit surrounding areas
- d) receives moderate rainfall but watershed is not sufficiently well protected
- e) is in a low rainfall area or otherwise not important for watershed protection.

19. Regarding equipment, this area (check more than one if necessary):
- a) is sufficiently well equipped to attain its management objectives
 - b) needs more vehicles/boats
 - c) needs more uniforms/equipment for rangers
 - d) needs more housing/guard-posts/headquarters buildings.
20. Regarding role of IUCN/CNPPA, this area (check more than one if necessary):
- a) is sufficiently well managed that no outside support has been requested
 - b) has received/is receiving support from IUCN/CNPPA
 - c) receives outside support from organizations other than IUCN
 - d) needs outside support, which is being sought
 - e) needs outside support but such support is not being sought.

3.4 Legislation

3.4.1 Introduction

The meeting was provided a summary of the position of the various African States in regards to a number of international conventions, as well as membership in IUCN. Virtually every conservation-oriented meeting held in Africa recommends improved involvement of the States in international legislation, and the CNPPA meeting was no exception.

The session was asked specifically to note the current involvement of the African States in international legislation and to discuss ways and means to encourage improved involvement by those States which have still not joined the several conventions. A number of points were made in this regard.

- a) CITES, the Convention on International Trade in Endangered Species of Wild Fauna and Flora, was considered to be an excellent piece of legislation and most states are signatories. A major problem of specific interest to East African countries is the disposal of confiscated materials, particularly elephant ivory and rhinoceros horns. Given the high value of these products, it is increasingly difficult to store them safely.
- b) Ramsar, the Convention on Wetlands of International Importance, Especially as Waterfowl Habitat, was discussed very briefly, concluding with a question about what the advantages of the Convention are for the countries of Africa. It is hoped that the Wetlands meeting held in Cagliari after the Garoua session will lead to a greatly improved convention which will be more attractive to Afrotropical states.
- c) World Heritage, the Convention Concerning the Protection of the World Cultural and Natural Heritage, was of considerable interest and participants stated their intention of promoting ratification of the treaty by their countries (in cases where they have not already ratified).
- d) The African Convention on Conservation of Nature and Natural Resources was felt to be extremely useful for the countries which had joined, expressing common interest in conservation of protected areas both on land and in the sea. The meeting once again called on other States to join the Convention and suggested that there was a need for a Secretariat to ensure that the Convention maintains a sufficiently high profile.

A final general point was made: the main problem in the Afrotropical Realm is not legislation, either national or international; rather the main problem is developing systems and administrative structures for enforcing the existing laws. It was felt that IUCN's Commission on Environmental Policy, Law, and Administration should place increasing stress on policy and administration.

Follow-up action. The CNPPA Executive Officer will send copies of the World Heritage Convention to Afrotropical countries which have not yet signed the Convention, especially Uganda, Kenya, Madagascar, and Malawi. The request that CEPLA devote more effort to policy and administration will be passed on to the Chairman by CNPPA's Chairman.

3.4.2 African Involvement in International Conservation
Conventions - 1980

Country	African Conv. on Cons. of Nat. & Nat. Resources	CITES	World Heritage	Ramsar Wetlands	Bonn Migratory Species	IUCN Membe
Algeria			X			
Angola						X
Benin						X
Botswana		X				X
Burundi						
Cameroon					(X)	
Cape Verde						
Central Afr. Rep.	X	X			(X)	
Chad					(X)	X
Comoros						
Congo						
Djibouti	X					
Egypt	X	X	X		(X)	X
Equatorial Guinea						
Ethiopia			X			X
Gabon						
Gambia		X				
Ghana	X	X	X			X
Guinea			X			
Guinea-Bissau						
Ivory Coast	X				(X)	X
Kenya	X	X				X
Lesotho						
Liberia						X
Libya			X			
Madagascar	X	X			(X)	X
Malawi	X					X
Mali	X		X			
Mauritania						X
Mauritius		X				
Morocco	X	X	X	X	(X)	X

Country	African Conv. on Cons. of Nat. & Nat. Resources	CITES	World Heritage	Ramsar Wetlands	Bonn Migratory Species	IUCN Member
Mozambique						X
Namibia						
Niger	X	X	X		(X)	
Nigeria	X	X	X			X
Rwanda						X
Senegal	X	X	X	X		X
Sierra Leone						X
Somalia					(X)	
South Africa		X		X		X
Sudan	X		X			X
Swaziland	X					X
Tanzania	X	X	X			X
Togo		X			(X)	
Tunisia		X	X	X		X
Uganda	X					X
Upper Volta	X					
Zaire	X	X	X			X
Zambia		X				X
Zimbabwe						

Note: The Bonn Migratory Species Convention is open for signatures only and is not yet in force.

CHAPTER IV. INTERNATIONAL SUPPORT FOR PROTECTED AREAS MANAGEMENT

International support has made a major contribution to the management of protected areas in Africa, as at Ethiopia's Simien National Park (above), a World Heritage Site which has also received considerable IUCN/WWF attention over the past 10 years. CNPPA is dedicated to the promotion of continued international support to protected areas. (Photo: F. Vollmar, WWF)

CHAPTER IV. INTERNATIONAL SUPPORT FOR PROTECTED AREAS MANAGEMENT

4.1 Unesco's Protected Areas Programme

4.1.1 Introduction

Unesco supports protected area conservation in two major ways: the World Heritage Convention; and the Man and the Biosphere Programme (MAB) (in particular, MAB Project 8, which aims at establishing a worldwide network of representative protected areas called "Biosphere Reserves").

CNPPA cooperates closely with Unesco in both areas, serving as technical advisor for natural areas under the World Heritage Convention, and as technical advisor on biosphere reserves. In its latter role, CNPPA recently produced an IUCN paper in cooperation with Unesco on "The Biosphere Reserve and its Relationship to Other Protected Areas".

For the World Heritage Convention, CNPPA has offered to the World Heritage Committee to compile indicative lists of protected areas which might be suitable for consideration on the World Heritage List. In compiling such a list, CNPPA will call upon all of its members to provide information and suggestions about their own countries. The basis of the first such indicative list was compiled at the Garoua session, with further information compiled later at IUCN.

Output. The paper on "Natural Areas of the Afrotropical Realm for Consideration on Possible World Heritage Sites" (4.1.3).

Follow-up action. This list will be further revised based on comments received, then presented to the World Heritage Committee for their consideration. It will form a basis for encouraging countries to accede to the World Heritage Convention (if they have not already done so), and will provide guidance on which areas should be of particular interest to CNPPA.

4.1.2 UNESCO'S PROTECTED AREAS PROGRAMME

by the MAB Secretariat

1. Introduction

The last decade has seen the birth of several initiatives concerned with the protection of natural or semi-natural environment of areas judged to be of international importance. This concern is the marked contrast to the earlier pattern in nature conservation in which the selection of national parks or other protected areas was made strictly on the basis of a framework describing the national resources and where any international element was generally accidental, depending on the coincidence of areas on either side of a frontier.

Since 1970 the situation has considerably changed in that a number of international legal instruments have been adopted for internationally co-ordinating efforts in the field of natural heritage conservation and the launching of international programme for enhancing conservation and management of natural resources. Thus in 1970 the Man and Biosphere Programme (MAB) was officially launched at the 16th Session of the General Conference of Unesco and the broad outlines of the programme were established in 1971 at the first session of the MAB International Co-ordinating Council which proposed 13 project areas for co-operative research, among them MAB Project 8 entitled "Conservation of Natural Areas and of the Genetic Material they contain". A 14th project on environmental protection was added at the 18 Session of the Unesco General Conference in 1974.

In 1971 the Convention on Wetlands of International Importance Especially as Waterfowl Habitat was adopted by the International Conference on the Conservation of Wetlands and Waterfowl at Ramsar, Iran, for which Unesco accepted to be the depositary and IUCN to provide the Secretariat for the management of the Convention.

In 1972, the same year that the United Nations Conference on the Human Environment was held in Stockholm, during which the United Nations Environmental Programme was established, the Convention Concerning the Protection of the World Cultural and Natural Heritage was adopted by the Unesco General Conference at its 17th Session. For this Convention, Unesco is not only the depositary but also provides the Secretariat. IUCN has been one of the initiators of this Convention and assists the World Heritage Committee in an advisory function in the identification of natural properties which qualify for the World Heritage List. The two above-mentioned legal instruments and the Inter-Governmental MAB Programme are three major areas in which Unesco helps to implement the World Conservation Strategy, which was launched early this year by the members of the Ecosystems Conservation Group (UNEP, FAO, Unesco, IUCN) and the World Wildlife Fund.

2. The Ramsar Convention

The Convention on Wetlands of International Importance, Especially as Waterfowl Habitat was adopted at Ramsar, Iran, on 2 February 1971.

By 30 June 1980, 27 States had become Contracting Parties (three more had signed the Convention but had not yet ratified it) and 214 wetlands covering nearly six million hectares had been designated by Contracting Parties for inclusion in the List of Wetlands of International Importance provided for under Article 2.1.

The Ramsar Convention is unique in being the only world-wide treaty so far concluded for the purpose of preserving certain types of ecosystems together with the species, in particular migratory waterfowl species, that are ecologically dependent on these ecosystems. All possible efforts should therefore be made to ensure that the objectives that it sets out are met to the fullest extent possible.

The World Conservation Strategy, which was prepared by IUCN in cooperation with UNEP and in collaboration with FAO and Unesco, and which received the support of many governments, recognizes the importance of the Ramsar Convention and stresses the need for more nations to adhere to it. However, the strategy also points out certain shortcomings in the Convention as presently drafted:

"The Wetlands Convention at present lacks force, requiring only that states select at least one wetland for conservation, but not providing criteria to guide selection, guidelines for management, or adequate safeguards against delisting a wetland once selected. Experience has shown that an international conservation convention must have a secretariat and financial mechanism to be effective, but the Wetlands Convention lacks both."

Notwithstanding, the Strategy states that, if the Convention were revised, it could "become an important force for the protection of coastal and other wetlands essential for supporting fisheries (as well as for supporting waterfowl, which is the chief concern of the Convention at present); but in either case criteria for selection of wetlands and clear obligations on states for their conservation are essential."

The Ramsar Convention was one of the first world-wide conservation treaties to be concluded, which probably accounts for the shortcomings referred to in the World Conservation Strategy. In 1971, more than a year before the Stockholm Conference, States were probably not yet prepared to accept binding provisions and financial commitments. As a result, a step by step approach to the problem of wetland preservation was believed to be preferable. This was reflected in the Convention text adopted by the Ramsar Conference which can be considered as a first step towards an effective system of wetland conservation and also as the maximum that signatory States were prepared to accept at that time.

Since 1971, however, several other world-wide conservation conventions have been signed. These are the Convention Concerning the Protection of the World Cultural and Natural Heritage (1972), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (1973), both now in force, and the Convention on the Conservation of Migratory Species of Wild Animals (1979). In addition, a European Convention on the Conservation of European

Wildlife and Natural Habitats was concluded in 1979. All these treaties contain fairly stringent conservation commitments, including financial provisions, and provide for the establishment of a Secretariat.

It is therefore at least arguable that, if the Wetlands Convention had been adopted at a more recent date, it would have contained stronger obligations.

So far, only four African countries -- Morocco, Senegal, South Africa and Tunisia -- are Contracting Parties to the Convention. To induce further States to become Contracting Parties for improved coverage in Africa is therefore the first priority for making the Convention a viable instrument for wetland protection in Africa. Even more important than the need to encourage new ratifications is the need to persuade Contracting Parties to designate further sites to the Ramsar List.

3. The World Heritage Convention

The International Convention for the Protection of the World Cultural and Natural Heritage ("World Heritage Convention") was adopted by the General Conference of Unesco in 1972.

The principle of international co-operation in safeguarding the cultural and natural heritage of mankind is not new. What the 1972 provides, for the first time, is a permanent framework -- legal, administrative and financial -- for such co-operation.

It also makes a significant innovation in linking together what were traditionally regarded as two quite different sectors: the protection of the cultural and of the natural heritage. And it introduces the specific notion of a "world heritage" whose importance transcends all political or geographical boundaries.

The World Heritage Convention came into force in December 1975, after twenty Unesco Member States had adhered to it. By November 1980, the number of States Parties had grown to 55. The process of identifying those cultural and natural sites which qualify for protection under the Convention has started, and technical assistance through the World Heritage Fund has already been provided to a number of States Parties.

So far, 85 natural and cultural properties of outstanding universal value have been in the World Heritage List by decision of the World Heritage Committee. Out of these only 18 properties are natural sites and 6 are mixed cultural/natural properties. Unesco hopes to rectify this imbalance between natural and cultural properties on the World Heritage List with the help of IUCN, particularly its Commission for National Parks and Protected Areas which plays the role of an advisory body in the implementation of the Convention.

The Convention has made good progress in Africa with 16 African countries being Contracting Parties to the Convention. The African States Parties are Algeria, Egypt, Ethiopia, Ghana, Guinea, Libya, Mali, Morocco, Niger, Nigeria, Senegal, Seychelles, Sudan, Tanzania,

Tunisia and Zaire. So far, the following natural sites in Africa are included on the World Heritage List: Simen National Park/Ethiopia, Ngorongoro Conservation Area/Tanzania and three national parks of Zaire (Virunga, Garamba, Kahuzi-Biega).

The Convention opens to States Parties possibilities of technical co-operation to support their own efforts to preserve their cultural and natural heritage. Co-operation can take a number of forms:

- preparatory assistance for the elaboration of nominations to the World Heritage List;
- preparatory assistance for drawing up large-scale requests for technical co-operation;
- preparatory assistance for drawing up inventories of cultural and/or natural properties suitable for inclusion in the World Heritage List;
- emergency assistance for properties included in the World Heritage List or potentially suitable for inclusion therein, which are in imminent danger of important damage or destruction;
- conservation measures for properties included in the World Heritage List or considered suitable for inclusion;
- fellowships for training in conservation methods and techniques;
- assistance to national or regional training centres.

This assistance can be provided in a number of ways:

- studies concerning the artistic, scientific and technical problems raised by the protection, conservation, presentation and rehabilitation of the cultural and natural heritage;
- provision of experts, technicians and skilled labour to ensure that the approved work is correctly carried out;
- Training of staff and specialists at all levels in the fields concerned;
- Supply of equipment which the State concerned does not possess or is not in a position to acquire;
- low-interest or interest-free loans which might be repayable on long-term basis;
- the granting, in exceptional cases and for special reasons, of non-repayable subsidies.

A number of African States Parties to the Convention have already benefited from technical co-operation financed out of the World Heritage Fund. As regards to natural properties, preparatory assistance has been granted to Ethiopia, Nigeria, Senegal and Zaire, technical co-operation has been made available for the World Heritage sites in Tanzania and Zaire and six fellowships have been awarded to conservation specialists from Tanzania and Zaire.

No doubt, the system of international co-operation established under the World Heritage Convention makes this international instrument very attractive to developing countries in Africa.

4. The International Network of Biosphere Reserves
(MAB Project 8)

The Biosphere Reserve concept was introduced in 1971 by Unesco's MAB Programme.

Biosphere Reserves form an international network of protected areas in which an integrated concept of conservation is being developed, combining the preservation of ecological and genetic diversity with research, environmental monitoring, education and training.

Biosphere Reserves are selected as representative examples of the world's major ecosystems. Generally speaking, they are made up of a strictly protected central or core zone surrounded by a larger buffer zone where both experimental and manipulative research as well as traditional land use are carried out.

Particular emphasis is given to co-operation and participation of the local population, thus ensuring a stronger social acceptance of conservation activities. Biosphere Reserves provide a framework for international co-operation in research on comparable ecosystems and in finding practical solutions to similar environmental problems.

IUCN -- particularly its Commission for National Parks and Protected Areas -- has played a crucial role in developing the biosphere reserve concept and continues to do so in its implementation phase.

Experience since the establishment of the first Biosphere Reserves in 1976 has shown that pragmatism is necessary in implementing MAB Project 8 on a national and regional level.

Although a variety of approaches are being taken, the following major elements form a regular part of the Biosphere Reserve concept. These are somewhat different in emphasis to other national conservation programmes, but complement these programmes:

- (1) Emphasis upon use of natural areas in research, including the kind which provides an improved scientific base for conservation.
- (2) Emphasis upon conservation of ecosystems, rather than upon conservation of individual species.
- (3) Emphasis upon providing sites for long-term, continuous research and monitoring.
- (4) Choice of sites for representativeness, rather than for uniqueness.
- (5) Provision of an international framework for co-operation among nations in conservation and research, this framework being Unesco's Intergovernmental MAB Programme.

Fortunately, the Biosphere Reserve concept has considerable flexibility and can readily be adapted to meet the specific needs of different regions of the world. For example, in selecting areas for designation as Biosphere Reserves, some countries have emphasized the conservation aspects of MAB Project 8, while others have emphasized research. Furthermore, the largest and best potential sites for conservation purposes are often remote from scientific institutions and separated from their research sites. To accommodate this, the concept has been developed of a Biosphere Reserve cluster, composed of a central conservation reserve (the core), associated where available with a contiguous buffer zone and with nearby experimental reserves, each of which may provide for the needs of manipulative research. Such a cluster of separate reserves with different conservation and research objectives can be as successful in fulfilling the goals of a Biosphere Reserves as one in which all the zones are contiguous.

As of November, 1980, 191 biosphere reserves have been established in 49 countries, encompassing more than 120 million ha of terrestrial and coastal-marine ecosystems. In addition, more than 500 research projects presently carried out in biosphere reserves provide baseline data for natural resources conservation and management. So far 19 biosphere reserves have been established in the Afrotropical Realm as follows: Cameroon (1); Central African Republic (2); Congo (1); Guinea (2); Kenya (4); Mauritius (1); Nigeria (1); Senegal (2); Sudan (2); Uganda (1); and Zaire (2).

With Unesco's support and within the framework of Unesco's inter-governmental MAB Programme, consultant advice has been provided to the majority of African countries; a great number of study grants have been made available in the past for training of conservation specialists and researchers.

Research in a number of African biosphere reserves is being supported with the help of Unesco's regular programme or participation programme; in addition to multilateral assistance from UNEP and bilateral assistance from developed countries.

A number of African biosphere reserves contribute to the MAB Project 1 network of integrated pilot projects in the humid tropics such as Tai Forest/Ivory Coast, Omo/Nigeria, Basse Lobaye/Central African Republic, Yangambi/Zaire. A principal objective of this research network within MAB Project 1 is to help develop the scientific basis for the long-term predictable use of natural resources and for the management of ecosystems in the tropical and subtropical forest zones of the world. Another important aim is to promote self-reliance of the countries of the humid and subhumid tropics in research and management and to encourage the continuing participation of the various sectors of the community in the processes of research on and management of natural resources in these zones.

In an analogous way, some of the African biosphere reserves support MAB Project 3 research and training activities in arid and semi-arid lands. An outstanding example for this is the Mount Kulal biosphere reserve in Kenya in which the Integrated Project on Arid Lands (IPAL)

is being carried out with considerable support from the Federal Republic of Germany. The main aim of this project is to provide guidelines for the optimal management of arid/semi-arid lands.

5. Relationship between Biosphere Reserves and World Heritage Sites

Biosphere reserves qualify only in exceptional cases as World Heritage sites since these two categories of protected areas have different characteristics. One major difference between biosphere reserves and World Heritage sites is that biosphere reserves are established in order to preserve ecosystems representative of the world's terrestrial and aquatic biomes and their subdivisions, whereas World Heritage sites serve the protection of outstanding cultural and natural properties of universal importance. Therefore, World Heritage sites must fulfil criteria of uniqueness and universal value, and biosphere reserves that of representativeness and naturalness. Biosphere reserves are, in fact, distinct from any other category of protected areas. Other protected areas may have conservation, research or education and training as their prime purpose, while biosphere reserves depend upon having a combination of all three. Biosphere reserves are at the heart of the MAB Programme, of which they form an integral part, by focussing on the relationships between man and the biosphere, on natural ecosystem conservation and research. They are linked to other MAB project areas and are internationally co-ordinated by the intergovernmental structure of MAB.

This considerable difference between World Heritage sites, other protected areas and biosphere reserves does not exclude, however, that part or the whole of protected areas of other categories may be included in a biosphere reserve provided that they meet the criteria for inclusion in the biosphere reserve network. Also the opposite is true, namely that some of the biosphere reserves with unique characteristics may qualify as World Heritage sites. The inclusion of such biosphere reserves in the World Heritage sites should be pursued for several reasons such as their enhanced protection under the stipulations of the World Heritage Convention and possible financing of urgently needed conservation measures out of the World Heritage Fund.

4.1.3 NATURAL AREAS OF THE AFROTROPICAL REALM FOR CONSIDERATION

AS POSSIBLE WORLD HERITAGE SITES

By

IUCN's Commission on National Parks and Protected Areas (CNPPA)

I. INTRODUCTION

1. The World Heritage Convention. The Convention Concerning the Protection of the World Cultural and Natural Heritage was adopted by the 1972 General Assembly of Unesco in recognition of the obligation of all nations to protect those outstanding natural and cultural areas which are of such unique value that they form a part of the heritage of all mankind. It provides a permanent legal, administrative, and financial framework designed to complement, aid and stimulate national programmes aimed at conserving this World Heritage.

2. By adopting the Convention, nations recognize that each country holds in trust for the rest of mankind those parts of the world heritage--both natural and cultural--that are found within its boundaries; that the international community has an obligation to support any nation in meeting this trust, if its own resources are insufficient; and that mankind must exercise the same sense of responsibility to the works of nature as to the works of its own hands.

3. The World Heritage Committee. The Convention establishes both the "World Heritage Fund" and, as the instrument of cooperation in which all powers under the convention are vested, an intergovernmental "World Heritage Committee". The Committee has three main functions:

- to identify, on the basis of nominations submitted by States Parties, cultural and natural properties of outstanding universal value which are to be protected under the Convention and to list these properties on the World Heritage List";
- to decide which properties included on the World Heritage List are to be inscribed on the "List of World Heritage in Danger" (which can lead to emergency assistance);
- to determine in what way and under what conditions the resources in the World Heritage Fund (1981 technical assistance budget: US\$1.2 million) can be used most advantageously to assist States Parties in the protection of their World Heritage properties.

4. The role of IUCN/CNPPA. IUCN, through CNPPA, has been given responsibility under the Convention for advising Unesco on natural areas for inclusion on the World Heritage List. Such areas must be judged to be "of outstanding universal value" from the point of view of science, conservation, or aesthetics.

5. Criteria for including a natural property on the World Heritage List. A natural property proposed for the List must meet at least one of the following four criteria (though meeting more than one criterion does not necessarily imply a more valuable site):

- (i) be an outstanding example representing the major stages of the earth's evolutionary history (e.g., fossil beds, geological sites, ice-age landscapes);
- (ii) be an outstanding example representing significant ongoing geological processes, biological evolution, and man's interaction with his natural environment (e.g., volcanoes, tropical rainforests, terraced agricultural landscapes);
- (iii) contain superlative natural phenomena, formations, or features, or areas of exceptional natural beauty (e.g., superlative mountains or waterfalls, great concentrations of animals);
- (iv) contain the foremost natural habitats where threatened species of animals or plants of outstanding universal value can survive.

6. The IUCN/CNPPA policy. From the perspective of natural area conservation, the Convention will achieve its objectives only if it attracts more State Members and only if more natural properties are included on the list. (Just 18 of the 85 World Heritage Sites are natural properties--5 in the Afrotropical Realm--and there are only 10 Afrotropical State Members). Therefore, IUCN/CNPPA are committed to stimulate both increased membership in the Convention and the addition of more natural properties to the World Heritage List.

7. The relationship between World Heritage Sites and other categories of protected areas. The primary objective of a World Heritage Site is to protect the natural features for which the area was considered to be of world heritage quality. This is normally accomplished through existing national legislation and most World Heritage Sites will already have National Park or Strict Nature Reserve status. In some cases, reserved forest areas may be considered, but only when they are assured of perpetual protection. Some World Heritage Sites may also be Biosphere Reserves, but Biosphere Reserves are typically chosen for their representativeness of a given ecosystem type, while World Heritage Sites include only "areas of outstanding universal value".

II. AN INDICATIVE INVENTORY OF POTENTIAL WORLD HERITAGE SITES

8. Background. In May 1980, IUCN proposed an inventory of natural sites to the Committee's Bureau. At the Fourth Session of the Committee, held in Paris in September 1980, the Committee "noted with satisfaction IUCN's plans for the preparation of a worldwide inventory of natural sites through worldwide distribution of questionnaires and organization of a series of expert meetings during the next two years". The first expert meeting, which specifically addressed a World Heritage Inventory, was held in Garoua, Cameroon, in November 1980, and led to this indicative inventory.

9. Purposes. The inventory is envisaged to have several uses:

- to assist countries in the preparation of the country inventories requested by the World Heritage Committee;
- to illustrate to countries the sorts of areas they have within their borders which may be worthy of World Heritage consideration--for countries who have not yet become Members of the Convention, this may help convince them to do so;

- to provide the World Heritage Committee with a list of outstanding areas to illustrate the potential number of sites to be considered, to facilitate comparisons between nominated sites, and to help redress the imbalance between natural and cultural sites;
- to stimulate the submission of nomination forms for the properties listed, and
- to provide guidance to the Committee for providing preparatory assistance to States Parties in need of such assistance.

10. Limitations. The inventory was compiled on the basis of suggestions made at the Garoua working session, discussions with individuals knowledgeable about Africa, and a literature search. It is not meant to be exhaustive or definitive, nor to replace national inventories; it is in no way binding on any government. The list presented here is a draft only, and is being sent to the CNPPA network for further comments before a revised version is presented to the May 1981 meeting of the World Heritage Committee Bureau. As it is only indicative, further investigation may reveal that some sites do not meet the criteria stated in paragraph 5.

11. The inventory. The inventory is listed by country, in alphabetical order, irrespective of whether the country is a State Member of the Convention (countries which are members are marked by an asterisk*); in cases where the property covers more than one country, it is listed under the first country and cross-referenced under the other countries. For each property, the name of the property is underlined, followed by a short statement of its universal significance and the criteria under which it qualifies for consideration for inclusion on the World Heritage List.

12. Existing World Heritage Sites, plus properties which are being considered by the Committee or are under preparation for nomination are not included on the Indicative inventory, but are included in Part III, "Analysis and Priorities".

13. Country: BENIN, NIGER, UPPER VOLTA

Name of property: "W" National Park

Universal significance: An international site comprising 3 national parks with common boundaries, "W" National Park covers 1,026,425 ha along a reach of the Niger River that makes a double turn in the form of a W-shaped bend at the boundary of the three countries. It is one of the most important wildlife reserves in West Africa, forming a transition between desert and savanna; major habitat types include semi-arid Sahel, Sudanese wooded savanna, Guinea savanna, and dense gallery forests along the watercourses. Wildlife is typical for this part of Africa, containing all of the large species; areas adjacent to the park are important for migratory waterfowl. Its current status of protection requires further investigation, which may indicate that a greatly expanded area, to include the Pendjari, Arli, and various hunting reserves, would make a more appropriate World Heritage Site. The effects of phosphate mining on the Niger side will need to be assessed.

Criteria: (ii). (iii), (iv)

14. Country: BOTSWANA

Name of property: Okavango Delta

Universal significance: This inland delta supports one of the richest faunas in southern Africa, forming a permanent source of water in the midst of arid habitats. It has its source in the Angola highlands, with internal drainage. It supports, among many others, hippo, sitatunga, sable, roan, elephant, and crocodile, as well as many migratory birds. Now seriously threatened by endosulphan pesticide spraying aimed at eradicating the tse-tse fly, at a cost of \$6 million.

Criteria: (ii), (iii)

Name of property: Central Kalahari Game Reserve

Universal significance: This game reserve comprises 5,280,000 hectares, and contains the best combination in Africa of semi-arid game and hunting-and-gathering human groups (the Kalahari Bushmen). It is likely to be subdivided for livestock, but a large portion should be zoned for conservation.

Criteria: (ii), (iii)

15. **Country:** CAMEROON

Name of property: Mt. Cameroon

Universal significance: Mt. Cameroon (4070 m) is the outstanding representative of the Guinean Highlands, with a high degree of endemism of plants and animals. It was a Pleistocene forest refuge during dry periods and a source of colonizers during wetter periods. It would qualify for consideration for the "World Heritage in Danger" list, as it is not now protected and is being eaten away by shifting cultivators.

Criteria: (ii), (iii), (iv)

Name of property: Dja Forest Reserve

Universal significance: This site, covering 526,000 ha, is a large tract of lowland tropical rainforest, one of the world's most threatened habitats. It contains some 14 species of primates, including the endangered lowland gorilla and chimpanzee. It is also inhabited by Pygmy hunting Societies.

Criteria: (ii), (iii), (iv)

16. **Country:** CENTRAL AFRICAN REPUBLIC *

Name of property: Bamingui-Bangoran National Park

Universal significance: Covering about a million hectares, this site comprises habitat types from Guinea/Sudanese savanna to gallery forests and wetlands; it is sufficiently large to encompass the annual ranges of migratory species such as elephant; giant eland are notable. Typical herbivores graze in the grasslands, and the scrub supports black rhino (its major central African refuge).

Criteria: (iv)

17. Country: GUINEA* IVORY COAST AND LIBERIA

Name of property: Nt. Nimba Strict Nature Reserve (Guinea portion nominated WHS 1980)

Universal significance: Comprising 18,000 hectares between the two countries, Mt. Nimba was a Pleistocene forest refuge, with a remarkably rich endemic flora and fauna. The lower slopes are covered in dense semi-deciduous forest, giving way, above 1000 m, to montane forest rich in epiphytes. The summits of this long, iron-rich mountain are covered in montane savanna. An amphibian of special interest is the viviparous toad Nectophrynoides occidentalis, which occurs in the montane savannas.

Criteria: (ii), (iii), (iv)

18. Country: ETHIOPIA*

Name of Property: The Afar Triangle

The Afar Triangle is of extreme geological importance, the world's only terrestrial focal point for new oceans in the making. A wild and rugged country, with deserts below sea level, towering escarpments, fissures, volcanoes, and craters, the Afar region is the meeting point of the Gulf of Aden and Red Sea rifts, which are perpendicular to each other; and the northern terminal of the great rift system running down eastern Africa. Many of the basic discoveries of the processes of plate tectonics have been based on the geology of the Afar Triangle.

Criteria: (ii), (iii)

Name of property: Simien Mountains National Park (elected WHS 1978)

Universal significance: This park of 22,500 hectares contains the most dramatic mountain scenery in Africa, with cliffs 1500 metres high inhabited by the endangered and endemic Walia Ibex. The alpine woods, heath forest and montane moorland is also the habitat of the endemic Simien fox, and the Gelada baboon is also endemic to this part of Ethiopia. Some 400 species of birds have been recorded.

Criteria: (iii), (iv)

Name of property: Bale Mountains National Park (nominated WHS 1979)

Universal significance: Bale Mountains National Park, at 167,500 hectares, is nearly eight times the size of the Simien Mountains National Park. It contains similar vegetation and wildlife, and is especially noted for the healthy populations of Mountain Nyala. Surveys are required to determine if this site, for all its spectacular beauty, is justified in addition to the Simien site.

Criteria: (iii), (iv)

Name of property: Abiyatta-Shalla Lakes (nominated WHS 1979)

Universal significance: The proposed Abiyatta-Shalla Lakes National Park offers important nesting places of white pelicans, white-necked cormorants, and lesser flamingoes in an exceptionally beautiful natural setting. The lakes are remnants of large rift valley lakes which existed earlier in the Pleistocene; one is now a nesting lake, while the other is a feeding lake, with the relationship between the two lakes of outstanding ecological interest.

Criteria: (ii), (iii)

19. Country: IVORY COAST (See also GUINEA)

Name of property: Tai National Park

Universal significance: The most important lowland rainforest site in all of West Africa, Tai is a 330,000 ha park which has been a centre of evolution throughout the Pleistocene, serving as a refugium during dry periods, then acting as a centre of dispersal during the moist periods. It has a high diversity of endemic plants, and supports a rich fauna as well. This site would qualify for consideration for the List of World Heritage in Danger.

Criteria: (ii), (iii), (iv)

20. Country: KENYA

Name of property: Sibiloi National Park

Universal significance: Sibiloi, embracing the central and southern islands of Lake Turkana as well as Teleki Volcano, harbours the last faunal elements characteristic of the northern frontier of Kenya, including elephants, buffalo, northern topi, Grevy's zebra, and oryx; Lake Turkana, now alkaline and isolated, was once connected with the Nile and supports giant Nile perch and a large population of Nile crocodile. The central island is the main breeding ground for crocodiles in Lake Turkana (though it has been severely damaged by local fishermen) and the southern island is a superb wilderness area. The uninhabitable Telki volcano has a species of lizard which can withstand ambient temperatures approaching 50°C. The surrounding Suguta Valley is an important nesting ground for flamingoes. In addition, Sibiloi protects important fossil beds where discoveries of early human ancestors have been made.

Criteria: (i), (ii), (iii), (iv)

Name of property: Masai Mara National Reserve

Universal significance: Masai Mara is world-renowned for its migration of plains game, including wildebeest, zebra, topi and Thomson's gazelle, with their attendant predators. During the annual migration, the animals move between Serengeti and Mara, which together form a complete ecosystem. Serengeti is already proposed as a World Heritage Site: once Kenya accedes to the Convention, it would propose to Tanzania to link Mara with Serengeti to form a truly international site, recognizing one of the world's great large animal ecosystems.

Criteria: (iii)

Name of property: Mt. Kenya National Park

Universal significance: The second highest mountain in Africa, Mt. Kenya (5,194 m) is old enough to have developed a large number of endemic plants and several endemic animals. The equator runs across the northern slopes, yet the mountain has permanent snow and glaciers, with adjacent alpine flora; vegetation is complex, with giant lobelias and groundsels of particular interest.

Criteria: (ii), (iii)

Name of property: Aberdare National Park

Universal significance: This park comprises 76,619 ha of montane forests and moors in the Aberdare Mountains, much of it over 3000 m. The area is very moist, with numerous streams cascading from a high moorland, with rolling ridges covered with tussock grass, heath, St. Johnswort, and others, down through bamboo and montane forest. Giant forest hog, bongo, and colobus monkeys live in the rainforest, with other typical African wildlife roaming throughout the park.

Criteria: (iii), (iv)

Name of property: Tsavo National Park

Universal significance: Tsavo National Park, at 2,082,114 hectares, is one of the largest protected areas in Africa, supporting vast populations of elephants, black rhinos, and other large mammals in a great diversity of habitats, including savanna, acacia woodland, riverine forests, palm thickets, and mountain forest. Of particular interest are the Mzima Springs, with 200 million litres of crystal-clear water produced daily, forming pools so clear that the hippos can be seen underwater. At the Mudanda Rock is a natural dam where hundreds of elephants congregate during the dry season, and the Lugard Falls are noted for the fantastic shapes of the water-worn rocks.

Criteria: (ii), (iii), (iv)

21. Country: Liberia (see Guinea)

22. Country: MADAGASCAR

Name of property: Ankarafantsika Nature Reserve

Universal significance: Foremost protected area of Madagascar, this reserve's 60,520 hectares protects no less than 7 of the island's 20 species of archaic prosimians as well as other wildlife species endemic to Madagascar; notable among these are the Madagascan boa and iguana, with relatives from South America rather than from Africa.

Criteria: (i), (ii), (iii), (iv)

Name of property: Nosy Mangabe Strict Nature Reserve

Universal significance: This 520 hectare island contains five species of lemurs and may be the most secure habitat of the Aye-aye, a primate which is so aberrant that it is placed in its own family, Daubentonidae. The island is covered in superb rainforest, with many species of orchids and endemic frogs and chameleons; it has a rare gecko Europlatus fimbriatus which mimics lichen. It is well-protected because it is also the site of tombs of ancient royalty.

Criteria: (iv)

Name of property: Perinet Forest Reserve

Universal significance: Perinet is the best remaining example of Eastern Rainforest and contains no less than nine species of lemur inhabiting a wide range of habitats, from forest to bamboo to lakeside reedbeds: mouse lemur, fat-tailed dwarf lemur, lepilemurs, brown lemurs, avahi, black-and-white

ruffed lemurs, hapalemur, diademed sifaka, and indri. Unfortunately, the area is virtually unprotected, the forests are being logged, and hunting is common; the area would qualify for the List of World Heritage in Danger.

Criteria: (iv)

Name of property: Andohahela Strict Nature Reserve

Universal significance: This reserve is of exceptional interest and importance in that it comprised two entirely separate and widely contrasting zones, situated respectively to the east and west of the eastern escarpment, only a few kilometers apart. Visiting the western sector of the reserve has been described as "like stepping back into the Triassic," with its strange Didierea cactus-like forest which is considered as the finest surviving example of this endemic family of plants. The forest also harbours four species of lemurs, two of which -- the crowned sifaka and the lepilemur -- are endangered. The humid eastern section marks the southernmost limit of the Eastern rainforest. Both forests are being damaged, and this site would qualify for the List of World Heritage in Danger.

Criteria: (i), (ii), (iii), (iv)

Name of property: Toalambiby, Ampasambazimea, and Caves of Androhomana

Universal significance: Three of the most important sites where subfossil lemurs, aardvarks, elephant birds, giant crocodiles, tortoises larger than those on Galapagos, and pygmy hippos have been found with remains of extant lemurs and the humans who arrived on the island some 1500 years ago; this provides clear evidence that the extinct forms, many of them giants, formed part of the human history of the island.

Criteria: (i)

23. Country: MALAWI

Name of property: Lake Malawi National Park

Universal significance: Lake Malawi contains the largest number of species of fish of any lake in the world by a considerable margin; about 95 percent of the fish are endemic, including about 350 species of the family Cichlidae (roughly 30 percent of this family of economically important fish). The lake has a number of distinct habitats, including rocky shore, islands and reefs, river estuaries, sandy and marshy lakeshores, shallow shelving sand- and mud-bottomed areas, and the deepwater open lake.

Criteria: (ii)

Name of property: Nyika National Park

Universal significance: Nyika covers 304,385 hectares of the Nyika plateau, a long ovoid of gently rounded granite alternated with blocks of sediments. The plateau has a rather temperate climate in the midst of tropics allowing a somewhat more humid environment which supports a rich and diverse fauna throughout the year. Crawshay's zebra is an endemic subspecies; roan antelope sometimes form herds of 50; and several endangered species have healthy populations.

Criteria: (iii), (iv)

24. Country: MALI

Name of property: Baouli Loop National Park (nominated WHS 1979)

Universal significance: Baouli Loop National Park covers 77,100 hectares of Ordovician sandstone in which erosion has produced complex and picturesque shapes. The diversity of form and structure is matched by the diversity of vegetation, from bamboo forests to desert. There are many ruins of old villages, and traces of very early human presence.

Criteria: (i), (ii), (iii)

25. Country: MOZAMBIQUE

Name of property: Gorongosa National Park

Universal significance: Gorongosa's 377,000 ha comprises four different habitats: subtropical palm jungle; thorn scrub; wide, open grassland; and marshy land teeming with waterholes. Minor habitats include gallery forests along riverbanks, lakes and pools. The wildlife is typical for this part of Africa, with an outstanding attraction being the "Acampamento Velho," a group of abandoned houses now occupied by lions. Two species of crocodile occur, Nile and long-snouted, and about 340 species of birds have been recorded.

Criteria: (ii), (iii), (iv)

26. Country: NAMIBIA

Name of property: Etosha National Park

Universal significance: This huge 2,227,000 ha park is situated around the Etosha Pan, which can flood to a meter deep during heavy rains. The park covers part of the coastal Namib desert, one of the world's oldest, and extends to the semi-arid regions of the interior, with the vegetation becoming richer to the east. Both lesser and greater flamingoes breed on the Etosha Pan.

Criteria: (i), (ii), (iii)

Name of property: Namib Desert

Universal significance: Dry as the Sahara but much cooler, the Namib desert forms most of the coastline of Namibia. It has some of the world's biggest sand dunes, over 300 m high. High species endemism, including species specially adapted for living in arid climates.

Criteria: (iii), (iv)

Country: NIGER*

(see BENIN)

27. Country: SENEGAL

Name of Property: Niokolo-Koba National Park (nominated WHS 1980)

Universal significance: This 813,000 hectare national park is the largest in Senegal, containing healthy populations of endangered species such as

elephants, Derby's eland, bubal hartebeest, leopard, and wild dog. Over 325 species of birds, 70 mammals, and 35 reptiles have been recorded. The area has been a site of human occupation for at least 100,000 years.

Criteria: (iii), (iv)

Name of property: Djoudj National Park (nominated WHS 1979)

Universal significance: Djoudj is a 16,000 hectare wetland which is a very important site for migratory waterfowl. Over 2 million species make seasonal use of the area, with pelicans a particular feature.

Criteria: (iii)

28. Country: SEYCHELLES*

Name of property: Aldabra Strict Nature Reserve

Universal significance: Some 400 km from the nearest mainland, this 19,000 ha reserve encompasses the entire atoll and lagoon. It is uninhabited, except by some 150,000 giant tortoises and other forms of endemic plants and animals; the most famous of these is the flightless white-throated rail, the only survivor of several flightless species, such as the dodo, which once inhabited the Indian Ocean region. Green sea turtles come ashore in larger numbers than anywhere else in the Indian Ocean to lay their eggs, and the atoll protects the largest breeding colony of frigate birds in the western Indian Ocean. The island has been called "the most scientifically interesting coral atoll in the world oceans."

Criteria: (i), (iii), (iv)

(Note: The main islands of the Seychelles are included in the Indo-Malayan Realm.)

29. Country: SOUTH AFRICA

Name of property: Kruger National Park

Universal significance: Created a Game Reserve in 1898, Kruger covers 1,948,528 hectares and is the largest protected area in South Africa. With a rich mixture of habitats, the area supports a wide variety of large mammals, including elephants white rhinos, black rhinos, sable antelope, lions, and many others. Over 400 species of birds have been recorded.

Criteria: (ii), (iii)

Name of property: Royal Natal National Park

Universal significance: This 8,856 hectare park has unmatched mountain scenery, with soaring towers and buttresses of the Great Escarpment in the Natal Drakensberg. Thick sandstone beds are covered with successive layers of basaltic lava; the high rainfall from the Indian Ocean has eroded spectacular formations of tabular spurs far above the river courses. Giant's Castle National Park, with an area of 34,284 ha., with some of the world's oldest mountains, is an alternative site.

Criteria: (iii)

Name of property: Karoo Desert

Universal significance: The Karoo Desert is comprised of ancient sedimentary rocks of continental origin, with the layers of sediment beginning with glacial tillites and ending with volcanic basalts, giving a geological history of the past 200 million years. Volcanic pipes are characteristic. Many fossil dinosaurs have been discovered. The vegetation is Karoo Bush, a mixture of species derived from the tropics to the north and the subtropic Cape Bush to the south.

Criteria: (i), (iii), (iv)

Name of property: Tsitsikama Forest National Park

Universal significance: Outstanding example of Cape lowland vegetation, with Podocarpus, olive, Cape chestnut. Less than a hundred meters above sea level, the forest resembles moist East African forests of 2000 meters and above. The forest has a small remnant population of elephants.

Criteria: (ii), (iv)

30. Country: SUDAN*

Name of property: Sudd Swamp

Universal significance: The greatest of all African swamps, Sudd served as a barrier to the penetration of lower Africa from the upper Nile. It regulates the flow of the Nile, with excess water transpired by the vigorous growth of swamp plants, including papyrus, source of writing paper for ancient Egyptians. Supports rich wildlife, including waterbuck, Nile Lechwe, and white-eared kob. It is an isolated wet habitat in the midst of savanna, but the effects of the proposed Jongli Canal are unpredictable.

Name of property: Sanganeb Marine National Park

Universal significance: Sanganeb is the most important coral reef area in the Red Sea, located some 25 km. northeast of Port Sudan. The atoll is characterized by steep slopes on all sides which exhibit in their upper parts terraces, spurs, and pillars; the outer rim encloses three lagoons of different sizes, depths and exposures, so Sanganeb has a number of different marine environments. The area is not only of outstanding beauty, but is also protected by its open-sea location from coastal pollution.

Criteria: (ii), (iii)

Name of property: Boma Game Reserve

Universal significance: The Boma Plateau, with the 135,000 hectare game reserve, is often considered the "last unspoiled big game area of Africa", comparable to Serengeti; however, the migratory species here are white-eared kob and the tiang (a local subspecies of the topi).

Criteria: (iii), (iv)

31. Country: TANZANIA*

Name of property: Oldoinyo-Omoruak

Universal significance: Called by the Masai people the "Elderly Hill" because every age-group name must be pronounced on the hill during the naming ceremony which is held every 15 years and attended by both elders and representatives of the age-group being named. This ceremony is celebrated by Masai people from both Kenya and Tanzania, ignoring the administrative boundary. After the ceremony, the new name of the age-group is carried out and used all over by the Masai of that age-group.

Criteria: (ii), plus cultural criteria (v) and (vi)

Name of property: Lake Natron-Oldoinyo-Lengai Volcano

Universal significance: Lake Natron is an alkline lake with the first known breeding site of lesser flamingoes, as well as feeding grounds for both lesser and greater flamingo. The Oldoinyo-Lengai Volcano is the only active volcano in the eastern part of the rift valley and is worshipped by the Masai people, who believe that it has been made to erupt by the power of God (its name means "The Mountain of God"). Also included in the site is another extraordinary geological phenomena known as "Sykes Grid," parallel ridges of hard, blackish lava separated by a series of small flat valleys overgrown with grass.

Criteria: (i), (ii), (iii)

Name of property: Lake Tanganyika

Universal significance: This site consists of the Gombe Stream Strict Nature Reserve, site of the famous research on chimpanzees, plus the new Mt. Mahale National Park, which extends 2 kilometers into Lake Tanganyika from the top of Mt. Mahale (2500 m). Lake Tanganyika has an extremely high level of fish endemism, including 142 endemics of 145 species of cichlid fish. It is the world's second deepest lake.

Criteria: (ii), (iii), (iv)

Name of property: Mt. Meru-Arusha National Park and Mt. Kilimanjaro

Universal significance: Covering 13,700 hectares, this park has outstanding scenery, including the pristine Ngurdoto Crater -- a smaller version of Ngorongoro but without human occupation or even visitors; the crater has been described as "Africa in miniature." Mt. Meru (4,540 m) gives the park great floral diversity, the montane forests offering a marked contrast to the tropical rainforests surrounding Ngurdoto. The park also includes the Momela Lakes, remnants of one of the most spectacular floods in history formed when the Meru Caldera collapsed. Kilimanjaro is Africa's tallest mountain (5,963 m) as well as its most scenic; it is a natural focal point of East Africa. Meru and Kilimanjaro are not contiguous and should perhaps form two separate sites.

Criteria: (ii), (iii)

Name of property: Usambara Forest

Universal significance: Along with the Ulugurus, this is the last major patch of tropical rainforest left in eastern Tanzania, with remarkably high species diversity of plants and animals in a relatively small area. Endemism is quite high, up to 100 percent in some invertebrate groups. As one of the two last patches of rainforest, Usambara is under considerable threat and

would qualify for the "List of World Heritage in Danger." A field study may be required to clarify which of the two Tanzanian rainforests is the more appropriate for World Heritage status.

Criteria: (ii), (iii), (iv)

Name of property: Selous Game Reserve

Universal significance: Covering over 5 million hectares, Selous has the largest population of wildlife typical of the Miombo Woodland, a habitat type which has twice as many species as the savannas further north. It contains 100,000 elephants, the world's largest concentration, as well as 4,500 black rhinos, the world's largest concentration of this species. It is clearly the most important woodland-savanna reserve, providing an ideal complement to the Serengeti ecosystem.

Criteria: (iii), (iv)

Name of property: Serengeti National Park (nominated WHS 1980)

Universal significance: Serengeti covers nearly 1.5 million hectares and supports the greatest concentration of plains animals left in the world, including 2 million wildebeest, 300,000 zebra, and 900,000 Thomson's gazelles. It also contains 2,700 elephants, 200 black rhino, and five major predators. The migration of the giant herds of wildebeest, zebra and gazelles is one of the most remarkable and inspiring wildlife spectacles in the world.

Criteria: (iii), (iv)

Name of property: Ngorongoro Conservation Area (elected WHS 1979)

Universal significance: This is a combination cultural/natural site comprising some 810,000 hectares. The great Ngorongoro Crater, with its flocks of flamingoes and large population of resident wildlife, is unsurpassed for its beauty; the site also contains several other major craters, including the Empakaai Crater with its deep lake. It also includes Olduvai Gorge, where many of the most important discoveries of man's early ancestors have been made. Masai pastoralists also live in the area.

Criteria: (i), (ii), (iii), (iv)

32. Country: UGANDA

Name of property: Kabalega National Park

Universal significance: Covering 384,000 ha, the Park is famed for one of the wonders of Africa -- the Kabalega Falls, where the entire outflow from Lake Victoria crashes through a narrow gorge, plunging 50 meters to a huge river pool teeming with crocodiles and hippos. 96 km of the Victoria Nile flow through the park, including a vast papyrus swamp where the Nile joins Lake Mobutu (Albert). The wildlife has been greatly affected by recent disturbances, but the habitat is still relatively intact; however, proposed hydroelectric dams could severely damage the site.

Criteria: (iii)

Name of property: Rwenzori National Park

Universal significance: This 220,000 ha reserve lies in the Rift Valley, and includes Lakes George and Edward as well as the connecting 32 km Kazinga Channel. The park extends to the snow-capped Rwenzori mountains, providing some of Africa's most spectacular scenery. Northeast of Lake Edward is an area with 78 explosion craters, part of a violent eruption some 7,000 years ago; the craters vary in depth from 15 to 150 meters and most are covered in forest. Wildlife includes tree-climbing lions and chimpanzees in the Maramagambo Forest, and large herds of buffalo, hippos, and elephant. Some 543 species of birds have been recorded, including 15 herons, 14 storks, and 50 birds of prey.

Criteria: (ii), (iii), (iv)

33. Country: UPPER VOLTA

(see BENIN)

34. Country: ZAIRE*

Name of property: Salonga National Park

Universal significance: This huge park (3,656,000 ha) comprises two halves, with the northern half primarily tropical rainforest and the southern half woodland savanna. Encompassing a large section of the central basin of the Zaire River, it is accessible only by air or water; annual floods keep the area actively changing. Its large size gives it a rich fauna, with many species which are considered endangered. Some small groups of hunting-and-gathering people still inhabit the area.

Criteria: (ii), (iv)

Name of property: Virunga National Park (elected WHS 1979)

Universal significance: This national park of 809,000 hectares has an extraordinary combination of habitats, stretching from marshy deltas through broad savannas, lava plains and volcanic mountains up to the eternal snows of Mt. Rwenzori (5,119 m), the tallest of the park's eight volcanoes (2 of which are still active). The park has what is probably the greatest diversity of wildlife in this part of Africa, with the mountain gorilla being most notable.

Criteria: (ii), (iii), (iv)

Name of property: Garamba National Park (elected WHS 1980)

Universal significance: This vast undulating plateau of nearly 500,000 hectares is adjacent to Sudan and harbours important populations of savanna wildlife. Particularly notable are the northern white rhinos, a seriously threatened species, and what are reported to be the world's largest herds of elephants (up to 600). Roan and sable antelope also occur.

Criteria: (iii), (iv)

Name of property: Kahuzi-Biega National Park (elected WHS 1980)

Universal significance: This 600,000 hectare park supports 200 mountain gorillas, an endangered species, in an area where they are quite approachable.

Criteria: (iv)

Name of property: Upemba National Park

Universal significance: This large park (950,000 ha.) is composed of two high plateaux with a remarkable diversity of habitats, consisting of swamps, lakes, savannas, miombo woodlands, and gallery forests (including the open Katangese forest, called one of the most beautiful in Africa). In addition to the typical African large mammal fauna, the park is noted for its roan and sable antelope.

Criteria: (iii), (iv)

35. Country: ZAMBIA

Name of property: Luangwa Valley National Park

Universal significance: Combining South and North Luangwa, this property covers 1,368,600 ha and contains what is often considered the heaviest balanced concentration of game in the whole of Africa. Centered along the sinuous valley of the Luangwa river, the Park has broad grassy stretches broken up by mopani woodland, with high mountains on both sides. The many oxbow lakes support a rich fauna of waterfowl. It has a unique subspecies of giraffe (Thornicroft's giraffe) and is Zambia's best black rhino habitat; elephants are very common. The Valley Bisa people are subsistence hunters who still rely on the wildlife of Luangwa to play an important role in their culture. The area has been described as "an order of magnitude more important than the Secous".

Criteria: (ii), (iii), (iv)

36. Country: ZAMBIA and ZIMBABWE

Name of property: Victoria Falls and Zambezi Gorge

Universal significance: The world's greatest sheet of falling water, Victoria Falls drops over 100 meters into a fissure in basalt nearly 1.5 km wide. Below the falls, the Zambezi river has cut a narrow gorge 150 km long through four horizontal lava flows which can plainly be seen on the sides of the gorge. A small patch of tropical rainforest has become established near the falls. The gorge is the breeding place of the small, very rare Teita Falcon. The site includes Zambia's Mosi-Oa-Tunya National Park (6,600 ha) and Zimbabwe's Victoria Falls National Park (58,300 ha), as well as the Donnstream Gorge now outside the parks.

Criteria: (iii), (iv)

37. Country: ZIMBABWE

Name of property: Inyanga National Park

Universal significance: An upland area of 32,130 hectares, Inyanga is both scenic and of cultural importance. It comprises a grassy plateau leading up to the lightly forested slopes of Mt. Inyanga, with spectacular gorges and 500 meter falls at Matarazi. An Iron Age culture has left a vast complex of forts, terraces, and water furrows as well as so-called "slave pits" (which were probably cattle kraals).

Criteria: (iii), plus cultural criteria (iii), (iv)

Name of property: Rhodes Matopos National Park

Universal significance: Matopos is an area of 43,200 ha covered in massive hills and fantastic granite formations; it has great religious significance for the Matabele people. Human history goes back to the Middle Stone Age, when people occupied the many caves; somewhat later, Bushmen used the caves to produce some of their finest artwork, including paintings of people, elephants, kudu, giraffe, and white rhino. These paintings pre-date the arrival of the Bantu people. The park has typical wildlife for the region, and has the largest colony of black eagle in southern Africa; with permanent water, it is an oasis for wildlife.

Criteria: (iii), plus cultural criteria (i), (iii)

Name of property: Mana Pools National Park

Universal significance: This 220,000 hectare park is Zimbabwe's best area for large mammals, because the Mana Pools, formed from the annual flooding of the Zambezi, provide a year-around lush habitat which contrasts with the surrounding dry country, concentrating game during the dry season and forming the destination of the annual game migration from as far as 100 km away. Endangered species such as black rhino, elephant, and leopard bound here, as do many species of birds. The scenery is outstanding, with the wide flood plain surrounded by massive escarpments. Consideration might be given to including in this site the Kariba Dam and Lake Kariba under criteria (ii).

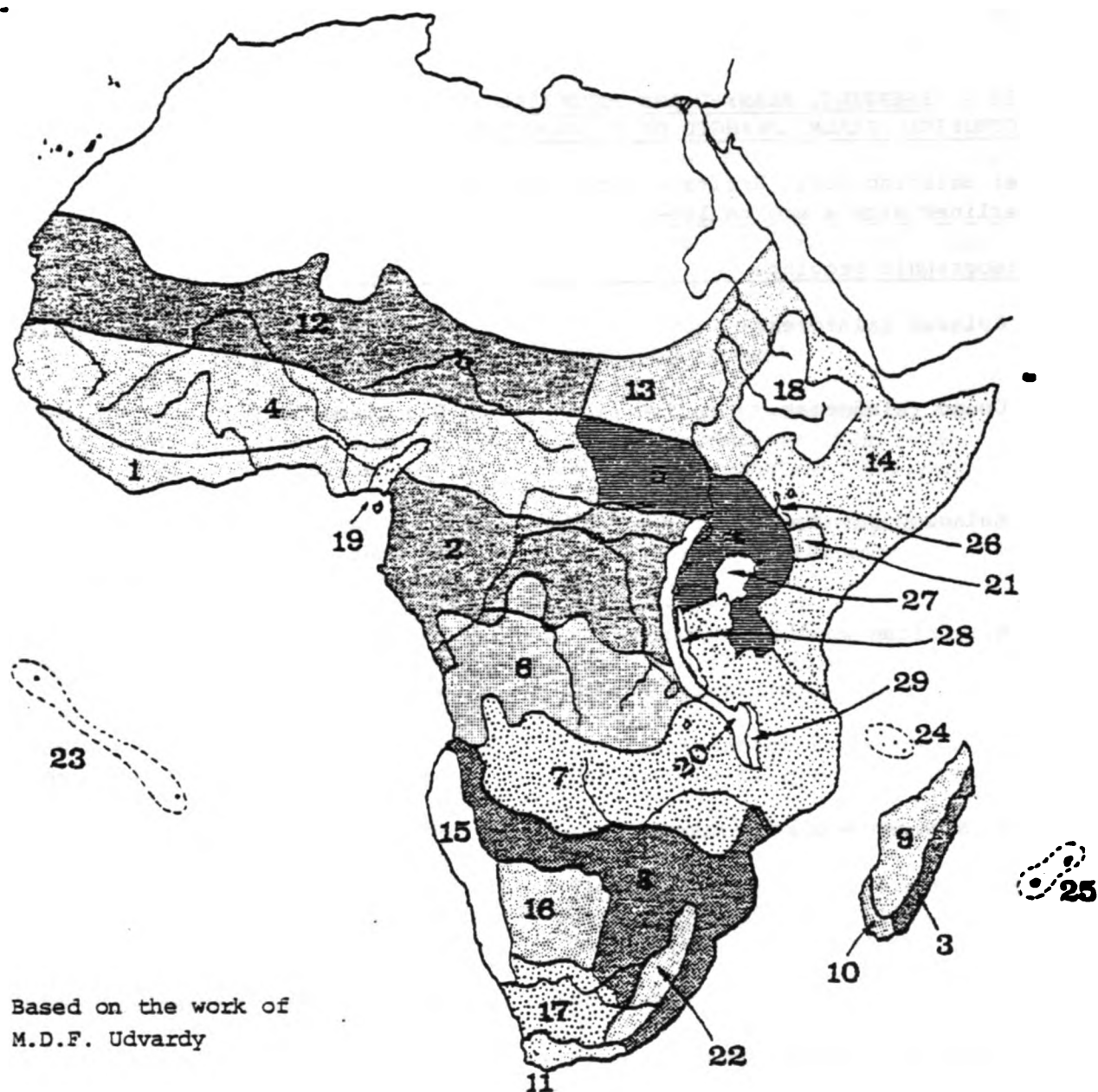
Criteria: (iii), (iv)

III. ANALYSIS AND PRIORITIES

38. This section of the inventory will look at the existing, planned, and proposed World Heritage Sites as a group, attempting to assign priorities when similar sites are being considered (though the final decision always rests with the Committee and will require considerably more information than is provided here) and to suggest the urgent priorities for action.

39. Biogeographic provinces. While far from ideal, a useful framework for comparison is the scheme of biogeographical provinces used by Unesco and IUCN (Figure 1), though this is not to suggest that every province must have a site, nor that a single site is sufficient to protect the diversity of a province. In Table 1, all existing, planned, and proposed World Heritage (Natural) Sites are listed by biogeographical province. In the following paragraphs, the provinces are analyzed in groups of similar biomes (tropical forest, woodland/savanna, mountain systems, etc.); the limitations of this approach are apparent, but it is the best we can do at present.

40. Rainforest. None of the three rainforest provinces is adequately covered, even though these are the richest habitats in terms of species diversity. The highest priority should go to this biome, and of the four mainland sites, Tai is the most urgent, both in terms of biological importance and threats to its integrity. Mt. Nimba has altitudinal gradients which give it many species lacking in Tai. Both Dja and Salonga are important areas but are under considerable less threat as they are still protected by remoteness. The three Madagascar sites may not be the most outstanding examples of Malagasy rainforest, where about 85 percent of the plants are endemic, along with about half the birds and all of the terrestrial mammals, in view of this high

BIOGEOGRAPHICAL PROVINCES OF THE AFROTROPICAL REALM

CHARLES PAPP

- | | | |
|-------------------------------|--------------------------|------------------------------|
| 1. Guinean Rainforest | 10. Malagasy Thornforest | 20. C.African Highlands |
| 2. Congo Rainforest | 11. Cape Sclerophyll | 21. E.African Highlands |
| 3. Malagasy Rainforest | 12. Western Sahel | 22. S.African Highlands |
| 4. W.African Woodland/savanna | 13. Eastern Sahel | 23. Ascension/St. Helena Is. |
| 5. E.African Woodland/savanna | 14. Somalian | 24. Comores/Aldabra Is. |
| 6. Congo Woodland/savanna | 15. Namib | 25. Mascarene Is. |
| 7. Miombo Woodland/savanna | 16. Kalahari | |
| 8. S.African Woodland/savanna | 17. Karoo | |
| 9. Malagasy Woodland/savanna | 18. Ethiopian Highlands | |
| | 19. Guinean Highlands | |
| | | 26. Lake Turkana |
| | | 27. Lake Victoria |
| | | 28. Lake Tanganyika |
| | | 29. Lake Nyasa (Malawi) |

endemism and the threats to all Malagasy rainforests, every effort should be made to encourage Madagascar to accede to the Convention, and the Committee should then immediately provide preparatory assistance to help identify and prepare applications for the most important sites (the same mission should also deal with Malagasy woodland/savanna and thorn forest areas, discussed below).

Table 1. EXISTING, PLANNED AND POTENTIAL WORLD HERITAGE SITES OF THE AFROTROPICAL REALM ARRANGED BY BIOGEOGRAPHIC PROVINCES

Note: Existing World Heritage Sites are underlined; planned sites are underlined with a broken line.

<u>Biogeographic province</u>	<u>World Heritage Site</u>
1. Guinean rainforest	<u>Mt. Nimba</u> (Guinea, Ivory Coast) <u>Tai</u> (Ivory Coast)
2. Congo rainforest	Dja (Cameroon) Salonga (part) (Zaire) Upemba (Zaire)
3. Malagasy rainforest	Nosy Mangabé (Madagascar) Perinet (Madagascar) Andohahela (part) (Madagascar)
4. W. African woodland/savanna	<u>Baouli Loop</u> (Mali) <u>Djoudj</u> (Senegal) <u>Niokolo-Koba</u> (Senegal) <u>"W"</u> (part) (Benin, Niger, Upper Volta) Bamingui-Bangoran (C. African Rep.)
5. E. African woodland/savanna	<u>Ngorongoro</u> (Tanzania) <u>Serengeti</u> (Tanzania) Masai Mara (Kenya) <u>Garamba</u> (Zaire) Kabalega Falls (Uganda) Rwenzori (Uganda) Selous (part) (Tanzania)
6. Congo woodland/savanna	Salonga (part) (Zaire)
7. Miombo woodland/savanna	Selous (part) (Tanzania) Luangwa Valley (Zambia) Victoria Falls (Zambia, Zimbabwe) Inyanga (Zimbabwe) Nyika (Malawi)
8. S. African woodland/savanna	Gorongosa (Mozambique) Kruger (South Africa) Rhodes Matopos (Zimbabwe) Mana Pools (Zimbabwe) Etosha (part) (Namibia) Okavango Delta (part) (Botswana)

Table 1 (continued)

<u>Biogeographic province</u>	<u>World Heritage Site</u>
9. Malagasy woodland/savanna	Ankarakantsika (Madagascar) Toalambiby, Ampasambazimba and Androhomanan (Madagascar)
10. Malagasy thorn forest	Androhahela (part) (Madagascar)
11. Cape sclerophyll	Tsitsikama Forest (South Africa)
12. Western Sahel	<u>Banc d'Arguin</u> (Mauritania) "W" (part) (Benin, Niger, Upper Volta)
13. Eastern Sahel	Sudd Swamp (Sudan) Sanganeo (Sudan)
14. Somalian	Lake Natron (Tanzania) Oldoinyo-Omoruak (Tanzania) Mt. Meru-Arushat/Mt. Kilimanjaro (Tanzania) Usambara Forest (Tanzania) Afar Triangle (Ethiopia) Boma (Sudan) Tsavo (Kenya)
15. Namib	Namib Desert (Namibia) Etosha (part) (Namibia)
16. Kalahari	Central Kalahari (Botswana) Okavango Delta (part) (Botswana)
17. Karoo	Karoo Desert (South Africa)
18. Ethiopian highlands	<u>Simien National Park</u> (Ethiopia) <u>Abiyatta-Shalla Lakes</u> (Ethiopia) <u>Bale Mountains</u> (Ethiopia)
19. Guinean highlands	Mt. Cameroon (Cameroon)
20. C. African highlands	<u>Virunga</u> (Zaire) <u>Kahuzi-Biega</u> (Zaire)
21. E. African highlands	Mt. Kenya (Kenya) Aberdare (Kenya)
22. S. African highlands	Royal Natal (South Africa)
23. Ascension/St. Helena	no areas proposed
24. Comores/Aldabra	Aldabra (Seyschelles)
25. Mascarene Islands	no areas proposed
26. Lake Turkana	Sibiloi (Kenya)

Table 1 (continued)

Biogeographic province	World Heritage Site
27. Lake Victoria	no area proposed
28. Lake Tanganyika	Gombe Stream/Mt. Kungwe (Tanzania)
29. Lake Nyasa/Malawi	Lake Malawi (Malawi)

41. Woodland/savannas. The six woodland/savanna provinces cover what most people consider the quintessence of Africa, the habitat of the spectacular large mammals. Each of the mainland provinces should be protected by at least one large site, with other sites to protect features of particular interest. In East Africa, Ngorongoro, Serengeti, and Masai Mara form a complete ecosystem involving both Kenya and Tanzania; ideally, they should be considered as single unit. In the Miombo woodlands, Selous is probably the best area, though the Luangwa Valley has better scenery and involves hunting cultures. Victoria Falls is suggested because of scenery, and could well be linked with Mana Pools and Kariba Lake. In the South African province, Okavango Delta's importance is as a wetland, Rhodes Matopos is primarily scenic, and Etosha protects relatively low (though important) species diversity. Mana Pools probably has the most spectacular game concentrations. The Malagasy woodland/savanna and thorn forest survive in only small remnants and, as mentioned above, it part of the top priority on the country level.

42. Cape sclerophyll forest. This formation is so unique that phytogeographers often place it in a region of its own. However, it is fairly well protected at the national level and the urgency to include a Cape site in the List is relatively low.

43. The deserts. In the Eastern Sahel, the only site listed is the Sudd Swamp, a spectacular wetland; however, it is known that Sudan has a number of other outstanding sites and preparatory assistance should be granted to Sudan to identify further areas. In the Western Sahel, Banc d'Arguin is on the western edge and is basically a marine/wetland site; another major area, perhaps in Mali of Chad, should be identified. The Somalian province is large and particularly diverse, resulting in a number of rather different proposed Sites. Afar Triangle could be the world's most important geological site, though it would be most valuable as a joint site between Ethiopia and Somalia. Usambara Forest is Tanzania's best remaining rainforest and has so many endemics that it should be considered a first priority; it is at present under serious threat and should be considered for the List of World Heritage in Danger. Lakes Nakuru and Natron form part of a system of alkaline lakes which together represent the major habitat of African flamingoes; they might be considered a joint site, and some of the other smaller lakes might also be added. Mt. Meru and Kilimanjaro together add considerable diversity to the Province, though Kilimanjaro is too young to have developed an endemic flora or fauna. Selous offers the main large concentration of wildlife. The other three desert provinces are covered by one or two Sites each; there is little to choose between them in terms of priority and it is felt that all sites will be required to cover the complete range of values of interest under the Convention.

44. The highlands. Afrotropical highlands tend to be "islands" of great diversity and endemism, and it is important to conserve outstanding examples

of each of the five provinces. Both the Ethiopian and Central African provinces are well covered by existing or planned sites. In the East African Highlands, Mt. Kenya should have priority over Aberdare in view of its great scenic attractions, but it may be possible to combine the two into a single Site. For the Guinean highlands, Mt. Cameroon is the only site suggested and is a top priority in terms of endemics; the site is endangered, and once Cameroon becomes a Member of the Convention it should receive emergency assistance and the province should be surveyed for other possible sites.

45. The Indian and Atlantic Ocean island systems. The only Site recommended in the three island biogeographic provinces is Aldabra, which should be of first priority on any list. However, the other islands also have many endemic species and should be surveyed for potential World Heritage Sites in due course.

46. The lake systems. Lakes Turkana, Victoria, Tanganyika, and Nyasa are each so different that they are considered separate biogeographic provinces. Three of the four have potential World Heritage Sites, but Lake Victoria, shared by Uganda, Tanzania, and Kenya, is still unprotected and should be a high priority for surveys to identify sites.

47. The major gap: Marine sites. While lakes, rivers, swamps, and coastal wetlands are well represented by the inventory, the only truly marine site is Aldabra. It is recommended that a biogeographic basis for selecting marine sites be devised, and that future effort be directed towards the sea.

48. Summary: Priorities. The preceding discussion has led to a number of different sorts of priorities. These are summarized below.

a. Priorities for promoting membership in the Convention

1. Madagascar (by far the most important)
2. Kenya
3. Ivory Coast
4. Cameroon
5. Uganda
6. Zimbabwe
7. Zambia

b. Priority sites for nomination to the World Heritage List

(member countries)

Ethiopia:	Afar Triangle
Seychelles:	Aldabar Atoll
Sudan:	Sudd Swamp
Tanzania:	Usambara Forest
	Selous
	Mt. Meru-Arusha/Kilimanjaro
Zaire:	Salonga

c. Priority sites for nomination to the World Heritage List

(non-member countries)

Ivory Coast:	Tai
Madagascar:	several sites
Kenya:	Sibiloi
	Mt. Kenya
	Masai Mara (as part of Serengeti ecosystem)
Cameroon:	Mt. Cameroon
Uganda:	Rwenzori
Malawi:	Lake Malawi

d. Sites for consideration for the List of World Heritage in Danger (sites of member countries marked by an asterisk *)

Tai (Ivory Coast)
 Perinet, Andohahela, Ankarafantsika (Madagascar)
 Kabalega Falls (Uganda)
 Mana Pools (Zimbabwe)
 Usambara* (Tanzania)
 Mt. Cameroon (Cameroon)

e. Priorities for technical assistance to member countries

Sudan: Survey of potential sites and preparatory assistance.
 Tanzania: Protection for Usambara Forest
 Survey of Lake Victoria (best done in cooperation with Uganda
 and Kenya)

f. Priorities for technical assistance to countries not yet members

Madagascar: Survey of potential sites and preparatory assistance
 Ivory Coast: Protection for Tai Forest
 Cameroon: Survey of potential sites, especially in the Guinean Highlands
 province, preparatory assistance, and protection for
 Mt. Cameroon

g. General priority for technical assistance: It is widely felt that the most important form of assistance is support for training, both at the university level (generally abroad) and at the middle level, at Mweka for anglophone Africa and at Garoua, Cameroon for francophone Africa.

Acknowledgements

This paper is a joint effort of a number of people both within CNPPA and from outside. The list was first proposed in 1979 by Harold Eidsvik, then Executive Officer of CNPPA; the basis of the list was contributed at Garoua by Tekan Ole Konchellah, Fred Pertet, Mamadou Diom, Jim Thorsell, P.H.C. Lucas and the other participants at the working session. The student body of the Ecole de Faune deserves special mention for their contributions from West African countries. The first draft was sent to the entire CNPPA network in Africa, and comments were received for this draft by John Blower, Kai Curry-Lindahl, Iain Douglas-Hamilton, André Dupuy, Ian Grimwood, John Kundaeli, Robert Malpas, Kenton Miller, Norman Myers, Mike Norton-Griffiths, Felix Nyahoza, Adrian Phillips, Duncan Poore, Pierre Portas, Jeff Sayer, and Frank White. It is expected that more comments will come in from African colleagues before the final draft is submitted to the World Heritage Committee. Papers by Curry-Lindahl, Williams, Harroy, Ross-McDonald, Brown, and others were very helpful in compiling the list. The paper is being edited by Jeffrey A. McNeely, Executive officer of CNPPA.

4.2 IUCN's Protected Areas Programme in Africa

4.2.1 Introduction

A summary of IUCN's Protected Areas Programme in Africa, including the activities which are carried out by headquarters or by consultants at the international level, was presented at the meeting, along with the pertinent recommendations from the "Technical Meeting on the Conservation of Biotic Communities in West and Central Africa", held in Ouagadougou, Upper Volta, on 4 to 10 February 1980 (see following pages for documentation). All IUCN/WWF projects which contributed to the achievement of CNPPA's objectives were summarized in a brief narrative form. The meeting broke into anglophone and francophone working groups to review the programme and the Ouagadougou recommendations and to make new recommendations on how the IUCN Programme can be made more relevant for achieving CNPPA objectives.

Output: The meeting produced the following recommendations, based on reports submitted by the two working groups:

A problem is seen in considering the IUCN Protected Area Programme in Africa in isolation from the programmes of other international agencies. The meeting saw a need for IUCN to work more closely with other international organizations to identify the most appropriate fields of responsibility for funding (e.g. equipment, training, research, etc.). The Ecosystem Conservation Group was seen to have a key role in this field, and efforts should be made to improve the effectiveness of the Group.

It was felt that other agencies could well provide more of the necessary support in the equipment field, leaving IUCN to concentrate on its areas of greatest strength: management and science.

There was felt to be too much dispersion of the projects in the 1981-1983 programme for Africa; it is necessary to revise and concentrate the projects through a better system of priorities. In general, IUCN should take greater initiative, region by region, to identify priorities and marshal national support for those priorities. For example, it is apparent that anglophone Africa is receiving an unjustified priority in relation with francophone Africa in the Programme. The meeting urged IUCN to redress this situation, with the first step being to make IUCN better known among the countries of francophone Africa, especially in Togo, Gabon, the Guineas, Central African Republic, and the Congo.

IUCN should influence the fund-raising activities of WWF to reflect the needs identified which come within IUCN's priorities, strengths and capacity. A basic need was also seen for a clear understanding to exist for every IUCN/WWF project between the donor and the recipient nation/organization from the outset of each project on the question of future funding and responsibility; only such understanding would ensure continuity of the activity. It was realized that this has always been a policy of IUCN/WWF, but it was felt that policy and reality were still too far apart.

There was general agreement that resources should be directed to situations of greatest need:

- rainforests, savannas, and marine areas (those areas under greatest threat should have higher priority than, say, deserts)

4.2.1 Le programme de l'UICN sur les aires protégées en Afrique

Un résumé du programme de l'UICN sur les aires protégées en Afrique, incluant les activités réalisées depuis notre siège, ou par des consultants au niveau international, a été présenté à la réunion, avec les recommandations y relatives émanant de la "Réunion technique sur la conservation des communautés biotiques d'Afrique centrale et de l'ouest", tenue à Ouagadougou (Haute-Volta) du 4 au 10 février 1980 (voit la documentation aux pages suivantes). Tous les projets UICN/WWF qui ont contribué à la réalisation des objectifs de la CPNAP ont été résumés brièvement. La réunion s'est divisée en groupes de travail anglophone et francophone pour examiner le programme et les recommandations de Ouagadougou et pour faire de nouvelles recommandations sur la manière de rapprocher davantage encore le programme de l'UICN des objectifs de la CPNAP.

Résultats

La réunion a adopté les recommandations suivantes sur la base des rapports soumis par les deux groupes de travail.

1. L'on a estimé qu'il y a un problème dans le fait que le programme de l'UICN sur les aires protégées en Afrique est isolé des programmes des autres organismes internationaux. La réunion a estimé nécessaire que l'UICN de travaille en collaboration plus étroite avec d'autres organisations internationales pour se répartir aux mieux la responsabilité du financement (par exemple, équipements, formation, recherche, etc.). Le groupe de la conservation des écosystèmes est considéré comme ayant un rôle clé dans ce domaine, aussi des efforts devraient-ils être faits pour en améliorer l'efficacité.
2. L'on a estimé que d'autres organismes pourraient apporter davantage de soutien en équipements de terrain, laissant l'UICN se concentrer sur les points forts: la gestion et la science.
3. L'on a ressenti une trop grande dispersion des projets du programme de 1981-83 pour l'Afrique. Il faudrait réviser et concerter les projets grâce à un meilleur système de priorités. De manière générale, l'UICN devrait prendre davantage l'initiative, région par région, pour identifier les priorités et classer le soutien national pour ces priorités. Il apparait, par exemple, que l'Afrique anglophone reçoit une priorité injustifiée dans le programme par rapport à l'Afrique francophone. La réunion a demandé instamment à l'UICN de remédier à cette situation, en s'attachant, comme première mesure en ce sens, à se faire mieux connaître de pays francophones tels que le Togo, le Gabon, la Guinée, la République Centrafricaine et le Congo.
4. L'UICN devrait influencer les activités de collecte de fonds du WWF pour refléter les besoins qui entrent dans le cadre des priorités, points forts ou capacités de l'UICN. L'on a également jugée fondamentale la nécessité d'une bonne compréhension au départ de chaque projet UICN/WWF, entre le donneur et la nation/organisation qui en bénéficie, quant à la question du financement et de la responsabilité futurs. Seule cette compréhension garantit la continuité de l'activité en question. L'on s'est rendu compte que cela a toujours été la politique de l'UICN/WWF, mais qu'il y a toujours une marge trop grande entre politique et réalité.
5. L'on s'est généralement accordé à dire que les ressources doivent être affectées aux situations qui on ont le plus besoin:
 - les forêts humides, savannes, et régions marines, (les régions sur lesquelles s'exercent les menaces les plus grandes devraient avoir la priorité sur les déserts, par exemple).

- countries with great natural resources under threat should warrant emergency assistance; e.g. it was recommended that, at the first opportunity, the Director General of IUCN should take an initiative with the Government of Uganda, offering urgent assistance in training and in re-establishment of an effective protected area system.

Priorities for support identified by the meeting were:

a) Management-oriented research, especially research related to threatened species and to species about which little is already known. Wildlife management for socio-economic development should also receive attention.

b) There is a great need for training at many levels (see also Chapter 3.1):

- The professional level seems to have been almost ignored, and must receive a greater interest from IUCN and other agencies than in the past. This could be accomplished through strengthening of selected local universities which could serve an entire region.
- There should be strong support for technical level training at such institutions as Mweka and Garoua; for Garoua, it is urgent to improve the training through better qualified instructors (including expatriates), new equipment, a more complete and more accessible library, more fellowships, more practical fieldwork, and field trips to other nearby countries.
- Field training of a practical nature is needed for specific topics, perhaps through regional workshops/seminars, including anti-poaching techniques, mountain rescue, and marine area management (to mention but a few).

c) CNPPA should request that the CITES Secretariat convene a regional meeting of East African countries to strengthen the powers of the Convention in these countries, and to develop a consistent approach for the disposal of seized wildlife products of such value that their storage creates problems. IUCN should also renew follow-up action contained in the recommendations of the rhino and ivory trade reports recently completed.

d) Some countries were seen as in desperate need of a special concentration of efforts to reach a sufficient level of expertise in conservation, possibly through horizontal cooperation. The countries most in need of such action are, in priority order: Guinea-Bissau; Equatorial Guinea; Mauritania and Congo; and Gabon and Burundi.

e) IUCN was seen to have a special role in the development of parks covering two or more countries ("International Parks"), including: Virunga/Ruwenzori (Zaire/Uganda); Delta du Saloum/Delta River (Senegal/Gambia); "W" National Park (Upper Volta/Niger/Benin); and Mt. Nimba (Ivory Coast/Guinea).

f) A number of countries in West Africa expressed concern that high priority be given to the conservation of sample ecosystems, including the following species per country: Gabon (primates in Makoukou); Madagascar

- les pays aux grandes ressources naturelles menacées devraient commander une assistance d'urgence. L'on a recommandé, par exemple, qu'à la première occasion, le directeur général de l'UICN prenne l'initiative d'offrir au gouvernement ougandais son assistance dans la formation de personnels et la remise en place d'un système efficace de aires protégées.
6. Les priorités identifiées par la réunion en vue de leur soutien sont:
- a) La recherche orientée vers la gestion, en particulier la recherche relative aux espèces menacées et aux espèces insuffisamment connues. Il faut s'attacher à la gestion de la faune en vue du développement socio-économique.
- 1) Il y a un grand besoin de formation à tous les niveaux (voir la section 3.1):
- Le niveau professionnel semble être presque ignoré; l'UICN et d'autres organismes devraient s'y intéresser plus que par le passé. Cela pourrait se faire par le renforcement d'universités locales sélectionnées qui pourraient déservir toute la région.
 - La formation technique dans des institutions telles que Mweka et Garoua devrait recevoir un soutien important. En ce qui concerne Garoua, il est urgent d'améliorer la formation par des instructeurs mieux qualifiés (y compris des expatriés), de nouveaux équipements, une bibliothèque plus complète et plus accessible, davantage de bourses, plus de travaux pratiques sur le terrain, et des visites sur le terrain dans les pays voisins.
 - La formation pratique sur le terrain est nécessaire pour des sujets spécifiques, peut-être par le biais de groupes de travail/séminaires, sur, notamment, les techniques de lutte contre le braconnage, le sauvetage en montagne, la gestion des zones marines (pour n'en mentionner que quelques uns).
- c) La CPNAP devrait demander au secrétariat de la CITES de convoquer une réunion régionale des pays de l'Afrique de l'est pour renforcer l'impact de la convention dans ces pays et pour adopter une solution cohérente en ce qui concerne l'utilisation des produits de la faune saisis dont le stockage pose des problèmes. L'UICN devrait également recommencer à donner suite aux recommandations contenues dans les rapports qui viennent d'être achevés sur le commerce de l'ivoire et de produits tiré du rhinoceros.
 - d) L'on a constaté que certains pays ont désespérément besoin que l'on se consacre plus particulièrement à eux pour qu'ils atteignent un niveau suffisant d'expertise en conservation, peut-être par une coopération "horizontale". Les pays les plus concernés, par ordre de priorité, sont: la Guinée-Bissau, la Guinée Equatoriale, la Mauritanie et le Congo, le Gabon et le Burundi.
 - e) L'on a considéré que l'UICN a un rôle particulier à jouer dans le développement des parcs à situés sur deux ou plusieurs pays (les "parcs internationaux"), notamment les Virunga/Ruwenzori (Zaïre/Ouganda), le delta du Saloum/delta du fleuve Gambie (Sénégal/Gambie), le parc national du "W" (Haute-Volta/Niger/Bénin) et le Mont Nimba (Côte d'Ivoire/Guinée).
 - f) Plusieurs pays d'Afrique de l'ouest souhaitent que la priorité soit accordée à des échantillons d'écosystèmes comportant les espèces

(numerous endemic species); Ivory Coast (chimpanzee, white colobus); Cameroon (gorilla, elephant, bongo, black rhino); Mali (Derby's eland, oryx, addax, elephant, buffalo); Senegal (elephant, ostrich); Zaire (white rhino); Central African Republic (elephant, rhino); Togo (elephant, bongo, sitatunga); Congo (elephant, bongo).

g) Field manuals are needed for guiding control operations, censusing wildlife, constructing minor works, guiding and reception of visitors, and so on.

h) First country priority should go to Madagascar, since it is under-represented on the UN List, has expressed a renewed interest in conservation, and has such high endemism that it can almost be considered a sub-continent. CNPPA should send a representative to Madagascar as soon as possible in order to help design a protected areas development programme which will integrate protected areas with economic development. He should also promote the World Heritage Convention and help prepare a national inventory of potential World Heritage Sites.

Follow-up action: The Director General of IUCN, the Director General of WWF, the Director of the Programme Division, and the Project Screening Coordinator are requested to give these recommendations their full consideration. CNPPA's Executive Officer will follow-up and report on these recommendations to the next CNPPA meeting, in Peru in June 1981.

Recommendation (h) was acted upon in sufficient time to be reported upon here. The IUCN/WWF programme was revised as follows:

IUCN POSITION PAPER ON MADAGASCAR

by the IUCN Secretariat

1. Introduction. The International Conference on the Conservation of Nature and Natural Resources held in Tananarive, Madagascar, from 7 to 11 October 1970, resulted in a series of recommendations on the priority steps for conservation in the country. However, it was not until 14 June 1979 that a Decree was signed by the Government establishing a World Wildlife Fund Representation in Madagascar; on 1 September 1979, Mr. Barthélémi Vaohita was appointed WWF Representative, and in March-April 1980, a series of five projects was submitted to IUCN/WWF, signed by the Ministers of Rural Development, Scientific Research, and Finance and Planning as well as the Chief of the Water and Forest Department and the Chief of the Division for Protection of Flora and Fauna. Negotiations for the funding of these projects are continuing, but in the interim, WWF International has pledged US\$ 100,000 to get the programme started. Madagascar has been given the highest priority by the IUCN Council and by the National Parks Commission meeting in Garoua on 17-23 November 1980.
2. The Secretariat has reviewed the five projects together and proposes that funds are sufficient for only four of the projects at present, and that Project 1912 "Study of the vegetation and flora of the Ambohitantely Forest" will need to be temporarily delayed. In principle, the four funded projects should begin as early in 1981 as possible.
3. Work plans for the approved projects. It is proposed that a team visit Madagascar in late January to develop, in cooperation with M. Vaohita and relevant Government officials, specific work plans for the four projects,

suyvantes, par pays: Gabon (primates à Makoukou), Madagascar (nombreuses espèces endémiques), Côte d'Ivoire (chimpanzé, colobe blanc et noir), Cameroun (gorille, éléphant, bongo, rhinocéros noir), Mali (éland de Derby, oryx, addax, éléphant, buffle), Sénégal (éléphant, autruche), Zaïre (rhinocéros blanc), République centrafricaine (éléphant, rhinocéros), Togo (éléphant, bongo, sitatunga), Congo (éléphant, bongo).

- a) Des manuels pour le terrain sont nécessaires pour guider les opérations de contrôle, le recensement de la faune, pour faire de petits travaux, recevoir et guider les visiteurs, etc.

Suites à donner

Le directeur général de l'UICN, le directeur général du WWF, le directeur de la division du programme, et le coordinateur des projets sont invités à considérer pleinement les présentes recommandations. Le secrétaire exécutif de la CPNAP y donnera suite et fera rapport sur ces recommandations lors de la prochaine réunion de la CPNAP qui aura lieu en juin 1981 au Pérou.

la recommandation (h) fut conclue assez tôt pour qu'elle puisse être comprise dans ce rapport. Le programme UICN/WWF fut révisé comme suit:

PROJET DE DOCUMENT DE L'UICN SUR LA SITUATION A MADAGASCAR

Par le Secrétariat de l'UICN

1. Introduction. La Conférence internationale sur la conservation de la nature et de ses ressources, tenue à Antananarivo, Madagascar, du 7 au 11 octobre 1970, a présenté une série de recommandations sur les mesures prioritaires en vue de la conservation dans le pays. Cependant, ce ne fut que le 14 juin 1979 qu'un décret a été signé par le Gouvernement créant une Représentation du Fonds Mondial pour la protection de la nature à Madagascar; le 1er septembre 1979, M. Vaohita Barthélémi a été nommé Représentant de la WWF, et en mars-avril 1980 une série de cinq projets ont été soumis à l'UICN/WWF, signés par les Ministres du Développement Rural, de la Recherche Scientifique, des Finances et du plan, ainsi que par le Directeur de la Direction des Eaux et Forêt, et le Directeur de la Division de la Protection de la Faune et de la Flore; les négociations pour l'attribution de fonds à ces projets se poursuivent, mais en attendant, la WWF Internationale a promis une somme de US\$ 100,000 pour le démarrage du programme. Le Conseil de l'UICN et la Commission des Parcs Nationaux, lors de la réunion de Garoua du 17 au 23 novembre 1980, ont accordé la plus haute priorité à Madagascar.
2. Le Secrétariat a étudié l'ensemble des cinq projets et proposé qu'à présent les fonds ne sont suffisants que pour quatre des projets, et que le Projet 1912 "Etude de la végétation et de la Forêt d'Ambohitantely" devra être temporairement ajourné. En principe, les quatre projets pour lesquels les fonds ont été attribués devraient commencer le plus tôt possible en 1981.
3. Plans de travail pour les projets approuvés. On a proposé qu'une équipe visite Madagascar vers la fin du mois de janvier afin de développer des plans de travail spécifique pour les quatre projets, en coopération avec M. Vaohita et les responsables gouvernementaux compétents, et que ces plans servent de mécanisme destiné à améliorer la conception et la réalisation des projets. La finalisation des projets devrait se baser sur les grandes lignes suivantes, sans oublier que la situation locale pourrait nécessiter des changements:

using these plans as a mechanism for improving the design and implementation of the projects. Finalizing the projects should be based on the following broad outlines, realizing that the local situation may require changes:

a) Project 1911. "Amenagement de la Station Forestière d'Ampijoroa (Ankarafantsika)". Habitat of 7 prosimians, this is Madagascar's single most important protected area. The first priority must be a management plan, which should be prepared by a Malagasy team comprised of officials from Eaux et Forêts and appropriate university personnel as an active training exercise; a highly-qualified expatriate parks planner should serve as consultant to the training exercise and contribute to Project 1952 as well. On the basis of the management plan, WWF/IUCN would provide buildings, equipment, and an education centre; Government would be requested to provide staff and maintenance for the buildings and the reserve. Initial allocation: US\$ 35,000.

b) Project 1951. Conservation and Education. Should provide the basic educational materials for M. Vaohita in Tananarive, including slide projector, slides, camera, costs of printing, etc. The project should initially cover the development of teaching materials, including the development of basic concepts that should be included in the programme. Teacher training colleges should be seen as an immediate target group. M. Vaohita should identify a viable on-going development project with which an environmental education project could be linked. Initial allocation: US\$ 20,000.

c) Project 1952. Selection, Promotion, and Equipment for Protected Areas. In the first phase, two or three protected areas should be selected for priority attention, based on criteria of favourable local conditions and importance for conservation; ideally, these would be located near major development projects so there can be an explicit link with development. For the first priority area, a management plan will be prepared by the same planning team as in Angkarafantsika (see point a); for the second and all following areas, the park planning expert would withdraw and provide advice only if called upon to do so. Based on the management plans, which need not be very grandiose, equipment will be provided to the protected areas as needed. Initial allocation: US\$ 25,000.

d) Project 1953. Study and Protection of the Aye-Aye at Nosy-Mangabe. Generally acceptable as it is, subject to advice from Dr. Petter. It is, however, suggested that no more buildings be constructed on the island itself, and that any manipulation of the habitat be strictly minimized. Housing for staff should be on the adjacent mainland. Initial allocation: US\$ 25,000.

4. There should be a follow-up visit in the middle of 1981 to solve any problems that might have cropped up with the project designs, aspects of project management and administration. During 1981, M. Vaohita should also visit Gland and a number of the European NOs for fund-raising purposes and familiarization with the WWF/IUCN organization.
5. Restructuring the Madagascar Programme. It is felt that the current programme gives a bit too much stress to species, when the most productive approach would seem to be "WCS Conservation". In order to avoid the danger of giving the Government of Madagascar, as well as the WWF Representative and international funding agencies, a mistaken idea about conservation, it is suggested that the programme be re-organized and given a slightly different focus, as follows:

a) Projet 1911. "Aménagement de la Station Forestière d'Ampijoroa (Ankarafantsika)". Habitat de 7 prosimiens, c'est la zone protégée la plus importante de Madagascar. La première priorité devrait être l'établissement d'un plan de gestion qui serait préparé par une équipe Malagasy composée de responsables des Eaux et Forêts, et de personnel universitaire approprié; il s'agit là d'un exercice de formation active. Un étranger hautement qualifié, spécialisé dans la planification des parcs, devrait servir de consultant pour l'exercice de formation et contribuer également au Projet 1952. Sur la base du plan de gestion, la WWF/UICN fournirait les bâtiments, le matériel et un centre d'éducation; le gouvernement aurait pour tâche de fournir le personnel et d'assurer l'entretien des bâtiments et de la réserve. Allocation initiale: US\$ 35,000.

b) Projet 1951. Conservation et Education. Devrait fournir à M. Vaohita le matériel pédagogique de base à Antananarivo, notamment un projecteur de diapositives, des diapositives, appareil photo, coûts d'imprimerie, etc. Initialement, le projet devrait couvrir l'augmentation du matériel d'enseignement, notamment le développement de concepts de base qui devraient être inclus dans le programme. Des collèges de formation de professeurs devraient être considérés comme un objectif immédiat. M. Vaohita devrait déterminer un projet viable de développement faisant suite à ce projet et avec qui on pourrait lier un projet d'éducation sur l'environnement. Allocation initiale: US\$ 20,000.

c) Projet 1952. Sélection, promotion et équipement des zones protégées. Dans une première étape, il faudrait choisir deux ou trois zones protégées qui recevront une attention prioritaire, dont les critères de base seront des conditions locales favorables et l'importance de la conservation; idéalement, elles devraient être situées près des grands projets de développement afin qu'elles puissent avoir des liens explicites avec le développement. Pour la première zone de priorité, un plan de gestion sera préparé par la même équipe de planification comme pour Ankarafantsika (voir a); pour la deuxième et les autres zones, l'expert en planification des parcs ne recueillera et fournira des avis que si on le lui demande. Se basant sur les plans de gestion, qui ne doivent pas être nécessairement grandioses, des équipements seront fournis aux zones protégées suivant que de besoin. Allocation initiale: US\$ 25,000.

d) Projet 1953. Etude et protection de l'Aye-Aye à Nosy Mangabe. Dans l'ensemble, acceptable tel quel, sous réserve de l'avis du Dr Petter. Cependant il a été suggéré de ne plus construire de bâtiments sur l'île elle-même, et que toute manipulation de l'habitat soit strictement réduite au minimum. Les maisons du personnel devraient être construites sur la terre ferme adjacente. Allocation initiale: US\$ 25,000.

4. Une visite d'inspection devrait avoir lieu vers le milieu de 1981 pour résoudre tous les problèmes qui auraient pu se poser dans les conceptions des projets, les aspects de la gestion et de l'administration des projets. Dans le courant de 1981, M. Vaohita devrait également visiter Gland et un certain nombre de NO Européens afin de procéder à des collectes de fonds et de se familiariser avec l'organisation de la WWF/UICN.

5. Restructuration du programme Madagascar. On a estimé que le programme actuel insiste trop sur les espèces, alors que l'approche la plus productive semblerait être la "Conservation des WCS". Afin d'éviter le danger de donner au gouvernement de Madagascar, ainsi qu'au Représentant

Name of Programme "CONSERVATION FOR DEVELOPMENT IN MADAGASCAR"

Broad programme components would include support for the office of the WWF Representative, the proposed National Conservation Strategy (which should be postponed until at least 1982), and a new "Conservation for Development Project", which would develop a local capacity to review development projects and link them with conservation needs of the country. M. Vaohita should be charged with forging ties with the development agencies and enlisting their cooperation and support. Project 1951, Conservation Education, would be included here. The Programme would have three sub-programmes, as follows:

a) "Preserving genetic diversity in Madagascar". This sub-programme would seek to identify the most important genetic resources in the country, then promote programmes to conserve them. A new project would concentrate on plant genetic resources, emphasizing relatives of cultivated plants and medicinal plants. Existing funded projects would include Project 1911, Management of the Ampijoroa Forest Station, and Project 1953, Aye-Aye at Nosy-Mangabe, plus Project 1912, Study of the Vegetation of Ambohitantely Forest. New projects listed in the Green Book would include support for Tsimbazaza Zoo. Various future efforts to conserve endemic wildlife would fit here.

b) "Maintaining essential ecological processes in Madagascar". This sub-programme would cover watershed protection, pest control, reforestation, and management of protected areas. Existing Project 1952 would be included here. New Green Book projects would include conservation of birds of prey (stressing their role as controllers of agricultural pests and as scavengers), part of the plant conservation project (stressing watershed protection), and the lepidoptera project (stressing pollination). However, these highly specialized projects should not begin until there are other inputs from development agencies to give the sub-programme more balance.

c) "Sustaining utilization of ecosystems in Madagascar". This sub-programme would include part of the plant conservation project, with emphasis on buffer zones around protected areas and on developing policies for sustainable forestry practices. Sustainable utilization of fauna, including the Green Book tortoise project, might be considered at a later stage. Marine conservation projects would fit here, stressing the role of marine protected areas in sustaining fisheries.

It is suggested that by linking conservation explicitly with the WCS (which has been accepted by the major development agencies) and by calling the programme "Conservation for Development", the Government will find the idea of conservation considerably more palatable; it may be the only way to generate Government counterpart contributions to the WWF/IUCN projects. Further, we can take such an approach to the Government as a framework by which they can request further assistance from the major development agencies, with our role reduced to that of catalyst (a rather more appropriate role given our limited funds).

6. Terms of Reference. Given all of the above considerations, it is suggested that the terms of reference for the proposed January mission be as follows:

- To provide visible evidence of IUCN/WWF concern for conservation in Madagascar and support for M. Vaohita (the mission should take with them a cheque for at least US\$ 20,000 for presentation to M. Vaohita).

de la WWF et aux agences internationales fournisseuses de fonds une fausse idée sur la conservation, on a suggéré que le programme soit réorganisé et qu'on lui donne un centre d'intérêt légèrement différent, comme suit:

Titre du Programme: "CONSERVATION POUR LE DEVELOPPEMENT A MADAGASCAR"

Les éléments du programme devraient inclure, en gros, le soutien pour le bureau du Représentant de la WWF, le projet de Stratégie Nationale pour la Conservation, (qui devrait être retardé au moins jusqu'en 1982), et un nouveau "Projet de Conservation pour le Développement" qui devrait développer les capacités locales d'étude des projets de développement et les lier aux besoins de conservation du pays. M. Vaohita devrait être chargé de forger des liens avec les agences de développement et recueillir leur coopération et soutien. Le Projet 1951, Education pour la conservation, serait inclus ici. Le programme aurait trois sous-paragraphe comme suit:

- a) **"Préservation de la diversité génétique à Madagascar"**. Ce sous-programme aurait pour but la recherche et l'identification des plus importantes ressources génétiques du pays, ensuite la promotion de programmes en vue de leur conservation. Un nouveau projet serait concentré sur les ressources génétiques végétales en mettant l'accent sur les plantes apparentées aux plantes cultivées et aux plantes médicinales. Les projets existants et ayant déjà recueillis des fonds comprendraient notamment le projet 1911. Gestion de la Station Forestière d'Ampijoroa, et le projet 1953, Aye-Aye à Nosy Mangabe, plus le projet 1912, Etude de la Végétation de la Forêt d'Ambohitantely. Les nouveaux projets inscrits dans le Livre Vert comprendraient le soutien au Zoo de Tsimbazaza. Les différents efforts en vue de la conservation de la nature endémique entrerait dans ce sous-programme.
- b) **"Le maintien à Madagascar des processus écologiques essentiels"**. Ce sous-programme couvrirait la protection des lignes de partage des eaux, le contrôle des insectes nuisibles, la reforestation, et la gestion des zones protégées. Le Projet 1952 actuel serait compris dans ce sous-programme. Les nouveaux projets du Livre Vert comprendraient la conservation des oiseaux de proie (en mettant l'accent sur leur rôle en tant qu'agent de contrôle des insectes nuisibles et des destructeurs des produits agricoles) une partie du projet de conservation végétale (en mettant l'accent sur la protection des lignes de partage des eaux), et le projet lépidoptère (en mettant l'accent sur la pollinisation). Cependant, ces projets hautement spécialisés ne devraient pas être commencés tant qu'il n'y aura pas d'autres apports des agences de développement pour donner au sous-programme un meilleur équilibre.
- c) **"Soutien de l'utilisation des écosystèmes à Madagascar"**. Ce sous-programme comprendrait une partie du projet sur la conservation végétale, en mettant l'accent sur les zones tampons autour des régions protégées et sur le développement de la politique de pratiques forestières acceptables. L'utilisation acceptable de la faune, notamment le projet tortue du Livre Vert, pourrait être envisagé plus tard. Les projets de conservation marine entreraient dans ce sous-programme, en mettant l'accent sur le rôle des zones maritimes protégées pour le soutien de la pêche maritime.

Il a été suggéré qu'en explicitement la conservation avec la WCS (ce qui a été accepté par les grandes agences de développement), et en appelant le programme "Conservation pour le développement", le Gouvernement trouvera l'idée de conservation considérablement plus attrayante; c'est peut-être le seul moyen pour obtenir des contributions gouvernementaux aux projets

- To promote the IUCN/WWF approach to conservation as exemplified in the WCS, acknowledging the role of the Government in the launch of the WCS in March and reinforcing the Government commitment to the Strategy (this can be approached through the Programme framework outline in point 5).
- To work with M. Vaohita and the relevant Government officials to develop work plans for the first year for each of the four funded projects, along the lines suggested in point 3 (including efforts to enlist more Government involvement).
- To promote the signing of the World Heritage Convention, make an initial inquiry into possible World Heritage Sites, and discuss the possibility of activating the Madagascar MAB Committee (possibly developing into an Environmental Monitoring Unit).

19 December 1980

WWF/UICN. De plus, on peut dire qu'une telle manière de solliciter le Gouvernement peut constituer pour lui un cadre lui permettant de demander davantage d'aides des grandes agences de développement, réduisant notre rôle à celui de catalyseur (un rôle plus approprié compte tenu de nos fonds limités).

6. Termes de référence. A la lumière de toutes les considérations ci-dessus, il a été suggéré que les termes de référence pour la mission proposée, de janvier soient les suivants:

- Fournir des preuves visibles du soucis de la UICN/WWF pour la conservation à Madagascar, et soutenir M. Vaohita (la mission devrait emporter avec elle un chèque d'un montant minimum de US\$ 20,000 qui sera présenté à M. Vaohita).
- Promouvoir l'approche de l'UICN/WWF en matière de conservation suivant les exemples de la WCS en reconnaissant le rôle du Gouvernement dans le démarrage de la WCS au mois de mars, et en renforçant l'engagement du Gouvernement vis à vis de cette stratégie (on pourrait aborder ceci par l'intermédiaire du cadre du Programme souligné dans 5.).
- Travailler avec M. Vaohita et les responsables gouvernement compétents pour développer des plans de travail pour la première année de chacun des quatre projets ayant déjà reçu des fonds, conformément aux directives suggérées dans 3. (notamment les efforts en vu de recueillir un plus grand engagement du Gouvernement).
- Promouvoir la signature de la Convention sur l'Héritage Mondial, faire une enquête initiale sur d'éventuels sites d'héritage mondial, et discuter sur la possibilité d'activer le Comité MAB de Madagascar (éventuellement le transformer en groupe de surveillance de l'environnement).

19 décembre 1980

4.2.2. THE IUCN/CNPPA PROTECTED AREAS PROGRAMME IN AFRICA

Introduction

CNPPA's objectives have been specified in IUCN's programme document, "A conservation programme for sustainable development", as follows:

OBJECTIVE 5

TO PROMOTE THE ESTABLISHMENT OF A NETWORK OF EFFECTIVELY MANAGED TERRESTRIAL, FRESHWATER COASTAL AND MARINE PROTECTED AREAS

Sub-objective 5.1

To develop the conceptual basis for selection, establishment and management of protected areas.

Activity 5.1.1: Development of principles, criteria and guidelines for the selection, establishment and management of terrestrial and freshwater protected areas, with special attention given to ecosystems which have been insufficiently covered, such as lakes and rivers.

Activity 5.1.2: Development of principles, criteria and guidelines for the selection, establishment and management of coastal and marine protected areas.

Activity 5.1.3: Development of policies and guidelines on the role which protected areas can play in the in situ conservation of genetic resources, including the wild relatives of cultivated plants and domestic animals as well as wild plants and animals utilized by humans.

Activity 5.1.4: Preparation of policy papers on various important socio-economic issues related to protected areas, such as buffer zone planning and development and the role of local peoples.

Sub-objective 5.2

To develop further an inventory and evaluation system for protected areas.

Activity 5.2.1: The further development of the biogeographical basis for establishing a representative network of terrestrial and freshwater protected areas, involving revision of IUCN Occasional Paper 18 (Biogeographical classification).

Activity 5.2.2: Development of a biogeographical basis for assessing the coverage of marine and coastal protected areas.

Activity 5.2.3: Establishment of a computer-based inventory of protected areas integrated with the species data banks at Cambridge and Kew.

Objectif 5

PROMOUVOIR LA MISE EN PLACE D'UN RESEAU DE REGIONS PROTEGEES TERRESTRES, D'EAU DOUCE, COTIERES ET MARINES EFFICACEMENT GEREES

Sous-objectif 5.1

Définir la base conceptuelle de sélection, établissement et gestion des régions protégées.

Activité 5.1.1: Définition de principes, critères et directives pour la sélection, l'établissement et la gestion des régions protégées terrestres et d'eau douce, en s'attachant plus particulièrement aux écosystèmes insuffisamment couverts tels que les lacs et les rivières.

Activité 5.1.2: Définition des principes, critères et directives pour la sélection, l'établissement et la gestion des régions protégées côtières et marines.

Activité 5.1.3: Définition de politiques et directives sur le rôle à jouer par les régions protégées dans la conservation in situ des ressources génétiques, notamment les espèces sauvages apparentées aux plantes cultivées et aux animaux domestiques, ainsi que les plantes et animaux sauvages utilisés par l'homme.

Activité 5.1.4: Préparation de prises de position écrites sur diverses questions socio-économiques importantes relatives aux régions protégées, comme, par exemple, la planification des zones-tampons et le développement, ou le rôle des populations locales.

Sous-objectif 5.2

Poursuivre l'inventaire des régions protégées et développer un système pour leur évaluation.

Activité 5.2.1: Développement de la base biogéographique sur laquelle fonder un réseau représentatif de régions protégées terrestres et d'eau douce; ceci implique la révision du document occasionnel 18 (classification biogéographique) de l'UICN.

Activité 5.2.2: Définition de la base biogéographique permettant l'évaluation, de la couverture de régions protégées marines et côtières.

Activité 5.2.3: Inventaire des régions protégées sur ordinateur, combiné avec les banques de données de Cambridge et Kew sur les espèces.

Activité 5.2.4: Poursuite de l'élaboration et la mise en oeuvre d'un système pour surveiller en permanence l'efficacité de la couverture et de la gestion des régions protégées afin de faire progresser la conservation des écosystèmes terrestres, d'eau douce, côtiers et marins partout dans le monde.

Activité 5.2.5: Préparation de répertoires fondés sur les données recueillies il s'agit notamment du Répertoire mondial des régions protégées, de trois répertoires

Activity 5.2.4: The further development and implementation of a system to monitor the effectiveness of protected area coverage and management in order to advance the conservation of the world's terrestrial, freshwater, coastal and marine ecosystems.

Activity 5.2.5: Preparation of directories based on the data collected, including the World Directory of Protected Areas, three regional directories and the UN List of National Parks and Equivalent Reserves; and, based on these data, provision of advice on improving the coverage and management of a worldwide system of protected areas.

Sub-objective 5.3

To promote the establishment and/or better management of protected areas, principally through collaboration with international organizations, programmes, conventions and other instruments.

Activity 5.3.1: Provision of technical advice on the implementation and improvement of international instruments which have the conservation of protected areas as a principal purpose, giving priority to World Heritage, Ramsar, and Migratory Species Conventions and to considering a convention related to a global network of protected areas.

Activity 5.3.2: Provision of technical advice on protected areas to Unesco, UNEP, FAO, WWF, and other international, national, and regional organizations.

Activity 5.3.3: Convening international meetings on protected areas, particularly the 1982 World Conference on National Parks.

Activity 5.3.4: Assistance in raising standards of management through training and publications, including national parks managers training, PARKS Magazine, technical papers on effective management of protected areas, a monograph on marine protected areas and, in preparation for the 1982 Parks Conference, case studies of the problems associated with protected areas planning and management and a draft national parks management manual.

Sub-objective 5.4

Action to extend the coverage of protected areas and to promote high standards for their management.

Activity 5.4.1: Assistance in the development of projects which will stimulate the establishment, extension or improved management of protected areas, giving priority to those ecosystems and species identified in Programme Areas 4 and 6, and to the areas selected for special attention in Programme Area 7; special attention is to be given to correcting the inadequacies revealed through the inventory and monitoring programme.

régionaux, de la Liste des NU des parcs nationaux et réserves analogues; et sur la base de ces données, avis sur l'amélioration de la couverture et de la gestion d'un réseau mondial de régions protégées.

Sous-objectif 5.3

Promouvoir l'établissement ou l'amélioration de la gestion des régions protégées, principalement en collaborant avec des organisations, programmes, conventions et autres instruments internationaux.

Activité 5.3.1: Avis techniques sur la mise en oeuvre et l'améliorations instruments internationaux qui ont pour principal objet la conservation des régions protégées, en accordant la priorité aux conventions sur le patrimoine mondial, les zones humides, et les espèces migratrices, et en envisageant une convention relative à un réseau mondial de régions protégées.

Activité 5.3.2: Avis techniques sur les régions protégées, à l'intention de l'Unesco, du PNUE, de la FAO, du WWF et d'autres organisations internationales, nationales et régionales.

Activité 5.3.3: Convocation de réunions internationales sur les régions protégées, en particulier la Conférence mondiale de 1982 sur les parcs nationaux.

Activité 5.3.4: Assistance dans l'élévation du niveau des normes de gestion par la formation et des publications, y compris la formation de gestionnaires de parcs nationaux, la revue PARCS, des rapports techniques sur la gestion efficace des régions protégées, une monographie sur les régions protégées marines, et, en vue de la conférence mondiale de 1982 sur les parcs, des études de cas sur les problèmes liés à la planification et à la gestion des régions protégées, et un projet de manuel de gestion des parcs nationaux.

Sous-objectif 5.4

Agir pour étendre la couverture des régions protégées et promouvoir des normes de gestion élevées.

Activité 5.4.1: Assistance dans l'élaboration de projets qui stimuleront d'établissement, l'extension ou l'amélioration de la gestion des régions protégées, en accordant la priorité aux écosystèmes et espèces énoncés dans les domaines 4 et 6 du programme, et aux régions du domaine 7 du programme sélectionnées pour recevoir une attention particulière; l'on s'attachera à remédier aux faiblesses décelées grâce au programme d'inventaires et de surveillance continue.

Bien que la Commission des parcs nationaux et des aires protégées n'ait pas de projets en tant que tels en Afrique, un certain nombre de projets UICN/WWF contribuent à la réalisation des objectifs de cette Commission et sont inclus dans le domaine de programme No. 5 du Programme de Conservation (en fait le domaine de responsabilité de la CNPPA). Afin de vous permettre d'évaluer la relation qui existe entre ces projets et les objectifs de la Commission des parcs nationaux et des aires protégées, nous vous soumettons ci-après quelques pages du projet de Programme 1981-83, ainsi que des résumés de chaque projet (dans la mesure où une information suffisante est disponible). Nous prions chacun de nos membres de bien vouloir étudier ce Programme attentivement et d'émettre des suggestions sur la manière

While CNPPA has no projects as such in Africa, a number of IUCN/WWF projects contribute to the achievement of CNPPA's objectives and are included in Programme Area 5 of the conservation programme (basically the CNPPA area of responsibility). In order to assess the relevance of these projects for attaining CNPPA objectives in Africa, we provide here the relevant pages from the 1981-83 draft programme as well as short summaries of each project (where sufficient information is available). We ask each of our members to study this programme carefully and to make suggestions on how it can be made more relevant to attaining our joint objectives. Should we concentrate on just a few key countries, or spread projects evenly, or a combination of both? Should we put more effort into training? Provision of equipment? Meetings? Concept papers? Publications? In short, what can CNPPA do to make WWF/IUCN projects more helpful to the people in the field? All suggestions will be carefully considered for the next edition of the programme, and efforts will be made to implement urgent projects as soon as possible.

NOTES: The projects are arranged geographically, beginning with Egypt and moving counter-clockwise. Costs are only estimated, with funds available for some projects but still being sought for others. Project number is indicated under the column on "Principal sources of funding". The complete list of CNPPA functions and projects relevant to Africa, with time span, estimated costs, sources of funding and other information, is presented on pages 12-13. The following summarizes the activities of the African projects.

EGYPT

1785 The establishment of a wildlife area as a model for the management of wildlife in arid ecosystems. This project aims at the establishment of a model area to manage dryland habitats and wildlife, including training, research, environmental education, and reintroduction of native species. This is the first IUCN project for the newly-formed Egyptian National Park Service.

TUNISIA

1258 Provision of equipment for the protection and management of internationally important wetlands. In order to ensure full protection of the outstanding wintering, migrating, and nesting colonies of waterfowl in seven wetlands of international importance, and to monitor the management of those wetlands, this project assists the Forestry Department in their supervising task by providing logistical support. The wetland areas concerned: Sebket El Djem, Sidi El Hani, Kneiss Islands, Chott El Fedjadi, Lac Sehoumi, and Sebka Kelbia. As yet, none of these areas are fully protected.

1507 Support for the establishment of Ichkeul National Park. In order to assist in the establishment, protection, and management of the Ichkeul National Park, this project has provided a considerable amount of equipment to the Forestry Department, including vehicles, boats, and equipment for guards. Subsequent to the preparation of a management plan and the official declaration of the area as a national park, further support will be provided for provision of infrastructure such as buildings, roads, etc. The area is considered worthy of recognition as a World Heritage Site.

dont il pourrait être conçu pour permettre une meilleure réalisation de nos objectifs communs. Devrions-nous concentrer notre attention uniquement sur quelques pays d'importance prioritaire, ou au contraire répartir nos projets sur l'ensemble des pays d'Afrique, ou encore éventuellement envisager une combinaison des deux? Devrions-nous investir davantage dans la formation du personnel? la fourniture de matériel? les réunions? les publications? En résumé, que peut faire la Commission des parcs nationaux et aires protégées pour que les projets UICN/WWF soient plus utiles aux personnes travaillant sur le terrain? Toutes les suggestions seront sérieusement prises en considération lors de la préparation de la prochaine édition du programme, et des efforts tout particuliers seront entrepris pour que les projets les plus urgents soient exécutés dans les plus brefs délais.

Note: Les projets ci-après sont donnés dans un ordre géographique, à commencer par l'Égypte et en allant dans le sens contraire des aiguilles de la montre. Les coûts ne sont que des estimations. Il y a des fonds disponibles pour certains projets, par contre, il faut en chercher pour d'autres. Le numéro de projet est indiqué sous la colonne intitulée "Principal sources of funding". La liste complète des activités et projets de la Commission des parcs nationaux et des aires protégées relatifs à l'Afrique, avec calendrier, estimations des coûts, sources de fonds et autres informations se trouvent aux pages 12-19. Ce qui suit donne un résumé des activités couvertes par les projets africains.

MOROCCO

- 1631 Waldrapp Ibis Reserve. This project will survey the wintering grounds and breeding sites of the Waldrapp Ibis, with the aim of establishing a protected area as part of a comprehensive Ibis conservation programme.

MAURITANIA

- 1333 Establishment and support of Banc d'Arguin National Park. This project covers, in the early stages, the provision of a vehicle and two boats for the protection of the park; in the later stages, further equipment will be provided. This coastal area is a unique meeting place of the Sahara desert and the Atlantic coast, where hundreds of thousands of birds from both the Palearctic and Ethiopian regions occur, with great seasonal variety. It is a potential World Heritage Site.

SENEGAL

- 1232 Provision of equipment for Iles de la Madeleine National Park. This project covers the provision of two landrovers and two boats to the national park, which will allow greatly improved management by the National Parks Service.
- 1233 Provision of equipment to Parc National du Delta du Saloum. In order to help in the initial development of this park, the project provides vehicles and boats for management purposes. This area is of outstanding importance as a wetlands habitat, including mangroves, islands, and coastal forest. After the initial provision of equipment, a low-level follow-up is planned.

THE GAMBIA

- 1078 Establishment of protected areas. This project aims to preserve samples of original Gambian landscapes, habitats, flora, and fauna, through the establishment of three new national parks (Kiangs West, Gambia River, and Gambia Saloum Delta) and the enlargement of the existing Abuko Reserve. It is hoped to contribute to the creation of a National Park service and to conduct a national conservation education campaign. For the functioning of a modest National Park Service, a staff of 28 is considered to be an effective minimum, including a Director, an Assistant Director, an Education Warden, four Park Wardens, 18 Park Rangers, and administrative support.

MALI

- 1625 Protected areas for addax and oryx. This project provides support to surveys for identifying new protected dryland habitats aimed particularly at protecting populations of addax and oryx (both endangered species whose Chad populations have been all but exterminated). Follow-up will include support for establishing the areas identified.

SIERRA LEONE

- 1155 Training of wildlife personnel. This project has provided fellowships to enable students to attend the one-year course at the College of African Wildlife Management at Mweka. It is currently being assessed for continuation.

UPPER VOLTA

- 1752 Publication of proceedings of Ouagadougou meeting. The project will cover publication and distribution of the final draft of the proceedings of the Ouagadougou meeting, which is nearing completion and will be presented at the CNPPA meeting in Garoua.
- 1913 Protection of Pô National Park. This project provides equipment for improving the management of the park, including landrovers, motorcycles, and radios. It also provides a mobile education unit and an interpretive centre for the park.

NIGER

- 1624 Protected areas for addax and oryx. Complementary to 1625 in Mali, this project aims at establishing protected areas for dryland habitats and accompanying species. It includes equipment, camels, vehicles, establishment of headquarters, uniforms, boundary demarcation, educational materials, and various operational costs.

LIBERIA

- 1567 Establishment of rainforest protected areas. This project began with a six-month survey of the tropical rainforest biome with a view to locating potential sites for a national park, determine its boundaries, and provide the Ministry of Agriculture with the information needed for management. A vehicle was provided along with other equipment. Subsequent support will include efforts to manage the new protected area.

IVORY COAST

- 1629 Boundary demarcation of the Tai National Park. This park has the largest intact area of tropical rainforest north of the Dahomey gap, so is worthy of all possible steps to ensure protection. This project, which is complementary to on-going research under the MAB Programme and management support from the German Government, covers the cost of establishing boundaries for the park.

GHANA

- 1251 Conservation programme for Bia/Angkasa National Park. This project initially provided an expert to help in organizing the protection of the park, to prepare a management plan, and to train local park rangers. A vehicle and other equipment was provided. In view of its importance for tropical rainforest conservation, further support has also been proposed (though details remain to be worked out).

BENIN

- 1326 Establishment of protected areas at Mont Kouffé. This project aims to establish three protected areas in the tropical semi-deciduous forests in the north-central part of the country, through provision of equipment to support the on-going management efforts of the Service des Eaux et Forêts. This area is important as being a drier zone between two major blocks of moist forest; it is of outstanding botanical interest.

CAMEROON

- 1089 Establishing, surveying, and protecting two rainforest national parks in Cameroon. This project covers the establishment of Korup and Douala-Edea National Parks, provision of equipment for the headquarters and guard-posts, boundary demarcation control of poaching, identification of particular problems and areas requiring attention, and advice to the Government on the administration and development of forest national parks. It is hoped to aid the Government in drawing up and applying a programme of action for the effective protection and conservation of the resources of the forest zone.

ZAIRE

- 1941 Protected areas for gorilla/chimpanzee in the Masisi/Walikale areas. The project covers censuses of great apes to establish ranges and conservation requirements, leading to advice on the most suitable boundaries for reserves to protect these endangered primates. The project will also provide management plans to include recommendations for access, infrastructure and controlled tourist development.

SOUTH AFRICA

- 1277 The establishment of nature reserves in the Great Karoo, South Africa. The Karoo is an area comprising about a third of South Africa, yet it is only poorly represented in the system of parks and reserves. This project, launched during 1974, aims at raising funds to purchase land to establish nature reserves and other protected areas in the Great Karoo. The project is funded by the South African Nature Foundation.
- 1744 Establishment of the Pilanesberg National Park. This project, also funded by the South African Nature Foundation, aims at establishing the Pilanesberg National Park on a mountainous volcanic complex of about 50,000 ha. This includes enclosing the area in a lion- and elephant-proof fence and reintroducing all wildlife species that were endemic to the area before human settlement began (due to impurities in the ground water and associated health problems, all habitation has been removed from the region).

MOZAMBIQUE

- 1568 Establishment and management of protected areas in Mozambique. In its initial phase, this project provided for a six-month ecological survey of northern Mozambique to identify potential sites for national parks and reserves, as well as inspection of existing national parks and reserves to ascertain their ecological representativeness. Follow-up will include implementation of recommendations made by the survey.

ZAMBIA

- 1757 Control of poaching in Zambia. This is part of a \$3 million effort under the Rhino Programme to bring poaching under control. It includes major efforts in the Luangwa and Kafue National Parks, including provision of vehicles, radio networks, equipment for rangers, motorcycles, bicycles, buildings, and support for administration. The project will also lay foundations for sustainable utilization of wildlife.

TANZANIA

- 1713 Improved management of the Ngorongoro Conservation Area. This project provides support to the Ngorongoro Conservation Area Authority to improve law enforcement, improve cooperation with local politicians, and provide education and technical assistance for the local residents (for growing trees for building material and firewood). It provides a vehicle and a field station.
- 1928 Rhino and elephant survey in the Selous Game Reserve. This project aims at establishing reliable census figures for rhinos and elephants in the area, leading to the compilation of a handbook that can serve as a guideline for census of other rhino and elephant areas. This will in turn provide a valuable management tool for protected areas throughout Africa.
- 1930 Equipment for the Selous and Rungwa Game Reserves. This project, aimed at improving management of the reserves (particularly control of poaching), will cover rehabilitation of tracks to currently inaccessible parts of the reserves, establishment of anti-poaching stations and associated equipment, and reconnaissance flights to identify areas of active poaching. It is expected that poaching will be brought under control within two years, after which the stations will assume normal patrolling and game counting activities.
- 1931 Equipment for Serengeti and Ruaha National Parks. This project is complementary to 1930, extending management and anti-poaching measures to two important national parks. It covers provision of four landrovers and associated radio equipment. This will allow both anti-poaching and other management measures to be more effectively extended throughout the parks.

- 1932 Establishment of ranger post in Rubondo Island National Park. This project will cover the construction of a new ranger post, thus extending management measures to a neglected part of the park.
- 1934 Improved management of Ngorongoro Conservation Area. This project covers the provision of a landrover and a radio to facilitate management, including anti-poaching patrols, in the Lake Eyasi/Olpiro corridor.
- 1935 Development of Lake Manyara National Park. This project covers the opening up of the southern part of Lake Manyara National Park in order to ensure proper protection and control of illegal activities. It will include construction of a ranger post, construction of roads and minor bridges, and boundary demarcation.

RWANDA

- 1166 Rwanda National Parks - Education and Training. This project provides the means for basic training of national park staff, including the training of ten rangers at Garoua for one year, the training of four mechanics on vehicle maintenance, and a one-month study tour for the Director of National Parks to Kenya. Four visitors' information centres are also being constructed.
- 1207 Support for the establishment of the proposed Rugege National Park. This project will prepare a management plan for the new national park (established to conserve mountain cloud forest important for watershed protection), provide equipment, and support the building up of national park administration and the system of game wardens.
- 1578 Provision of equipment and support for the Volcanoes National Park. This project is designed to improve the protection and management of the Volcanoes National Park by strengthening the guard system, including the provision of a vehicle, construction of lodgings, and, in the later stages, additional provision of equipment and training.

UGANDA

- 1765 Protection of forest reserves. This project combines two earlier projects to conserve the Bwindi and Kibale Forest Reserves. It includes provision of vehicles for patrols, support for boundary demarcation, and botanical surveys.
- 1915 National Parks Law Enforcement. In order to quickly provide support to Uganda to prevent the collapse of the once-outstanding system of protected areas, this project will provide for the repair of existing equipment and provision of new equipment as well as rehabilitation of ranger posts. It is hoped that further support will be provided to bring the protected areas back to their previous effectiveness.

- 1942 Conservation of wildlife and wildlife habitats in Uganda. This project has two main goals: to work towards the rehabilitation of Uganda's conservation areas by establishing what action is needed and by advising the Ugandan Authorities and international authorities accordingly; and to carry out a programme of conservation-oriented research on the effects of the destruction of wildlife and wildlife habitats. It includes provision of a vehicle and is expected to lead to further action by IUCN/WWF.

KENYA

- 1262 Establishment of the Hell's Gate National Park. The Njorowa Gorge is important both as wildlife habitat (particularly birds of prey) and for spectacular scenery; establishment of the park will help relieve tourist pressure from the over-used Nairobi National Park. The project provides for the purchase of 8,500 acres of non-agricultural land, to be donated to the Kenya National Parks, which will undertake responsibility for its proper management and administration.
- 1778 Ecology of large mammals in the Shimba Hills Reserve. This project, following an earlier land-use feasibility study, will determine the ecological requirements of large mammals (particularly elephants) and will find ways and means of containing the species within the Reserve.

MADAGASCAR

No specific project has yet been identified, but a number of data sheets have been submitted to this meeting and IUCN is extremely interested in providing whatever support is required and possible to help establish and manage reserves and parks in Madagascar. It can be seen from the paper on distribution of protected areas in relation to biogeographic provinces that of the three "Malagasy" Provinces, only one was represented in the 1980 UN List before the new sheets were submitted.

SEYCHELLES

- 1714 Management of Cousin Island Nature Reserve. This project supports the management of Cousin Island, including protection of its bird fauna and regeneration of the natural vegetation (following a management plan prepared earlier). It covers boat running expenses, renovation of staff housing, equipment, and administrative expenses (income from the reserve earns about 75% of the annual budget).
- 1784 Management of Aldabra Island. This project covers support of a warden for the Aldabra Atoll. He is responsible for implementation of the management plan, including monitoring of the tortoise population, vegetation, and green turtles, supervision of staff, and control of tourists and visiting scientists.

- 1811 Follow-up to conference on the Indian Ocean Whale Sanctuary. This project convinced a number of Indian Ocean coastal states to join the IWC. The establishment of an Indian Ocean Whale Sanctuary has been proposed, and it is expected that a follow-up will be required, although precise budget items have not yet been identified.

ETHIOPIA

- 1179 Omo Valley wildlife conservation and development. This project supports the construction of accommodation for rangers, access roads, and an airstrip. This will improve access to the area and therefore improve management. It is hoped that the Omo region will be declared a national park in the near future.
- 1241 Simen Mountains National Park. This project supported the provision of a qualified game warden to ensure proper management and development of the national park, including technical development, surveys, and preparation of a management plan. This area is now a World Heritage Site, so continued support for its proper management is fully justified.

SUDAN

- 1163 Conservation of coral reefs of the Sudanese Red Sea. The project covers the development of a conservation programme for the coral reefs of the Sudanese Red Sea. It aims to provide more effective conservation of the coral reefs by securing effective conservation legislation for the whole area, establishing marine parks and reserves, creating public awareness among local people and tourists, and creating a nucleus of local expertise to ensure the continuation of effective conservation action. An Advisory Committee on Marine Conservation has been convened by the Institute of Oceanography of the Sudanese National Council for Research.
- 1259 Development of Şanganeb Marine National Park. This project covers the preparation of a management plan for Sudan's first marine national park, followed by support for implementation of the plan. It includes provision of diving equipment, boat charters, and radio sets.
- 1314 Provision of equipment and support for national parks and reserves in the southern region. This project aims to establish game parks and reserves and to provide vehicles for patrolling the existing Nimule and Southern National Parks. It includes landrovers, trucks, an aircraft, and provision of expertise. In view of the importance of the areas involved, continuing support is envisioned for the coming three years, including infrastructure and equipment.
- 1634 Training of wildlife conservation personnel. This project covers the fees for four students to attend the College of African Wildlife Management at Mweka. All students will be from Southern Sudan, which created a semi-autonomous Ministry of Wildlife Conservation and Tourism in 1978 and has a critical shortage of trained personnel.

- 1743 Equipment for Fanyikang Game Reserve and Nimule National Park. In order to increase the effectiveness of anti-poaching patrols in the Sudanese protected areas where boats are the only practical means of movement, this project will provide five boats with outboard motors.
- 1949 White Rhino National Park (Shambe). The project covers support for the development of Shambe National Park, including radios, vehicles, aircraft, ranger equipment, tools, improved water supply, and vehicle running costs. This is the best remaining habitat of the northern white rhino in Sudan, so it is receiving considerable support under the Rhino Programme.

20 October 1980

Programme area 5: Protected Areas

Sub-objective (+ para ref.) Activity Function or project	estimated cost in US \$000s			Principal sources of funding	Significant involvement	Special IUCN/WWF Progs.	X-ref. other programme areas	Remarks
	1981	1982	1983					
<u>Sub-Objective 5.1 (para. 45)</u>								
<u>Activity 5.1.1</u>								
5.1.1.1 Development of criteria for effective management of protected areas				INT 2005 (1) UNEP 5(a)	CNPPA mems			Publication as a part of World Park Conference 1982
5.1.1.2 The role of protected areas in the conservation of freshwaters (lakes and rivers)				WWF/UNEP 5(a)	CNPPA con-tract			Publication 1984 (as per WCS)
5.1.1.3 Criteria and objectives for the management of protected areas in relation to cave systems				WWF/UNEP	CNPPA con-tract			Publication in 1984 (as per WCS)
5.1.1.4 Integrating protected areas into land-use planning				INT 2001 (1)	CEP/CNPPA		1.	
5.1.1.5 Document on minimum critical size of reserves and optimum distribution of protected areas				INT 2004 (1)	COE		4.	
<u>Activity 5.1.2</u>								
5.1.2.1 Objectives and criteria for marine parks				INT 2005 (1) UNEP 5(b)	CNPPA Chairman	Marine		Paper to be prepared for 1982 World National Park Conference
5.1.2.2 Management guidelines for marine parks				WWF/UNEP 5(b)	CNPPA con-tract	Marine		Paper to be prepared for 1982 World National Park Conference

Sub-objective (+ para ref.) Activity Function or project	estimated cost in US \$000s			Principal sources of funding	Significant involvement	Special IUCN/WWF Progs.	X-ref. other programme areas	Remarks
	1981	1982	1983					
<u>Activity 5.1.3</u>								
5.1.3.1 Paper on <u>in situ</u> conservation of genetic resources in protected areas				INT.2005 (1) UNEP 5(2), 5(b)	CNPPA Chairman	Marine (part)		Paper to be prepared for 1982 World National Park Conference P
5.1.3.2 Provision of technical advice on the protection of genetic resources <u>in situ</u>				WWF/UNEP 5(a)	CNPPA Chairman			Recommendation of WCS
<u>Activity 5.1.4</u>								
5.1.4.1 The relationship of indigenous peoples to protected areas				WWF/UNEP 5(a)	CNPPA task force, other Commissions			Paper to be prepared for 1982 World National Park Conference P
5.1.4.2 Policies for protected areas and ecodevelopment				WWF/UNEP 5(a)	CNPPA/Ecol Commissions	TMF		Paper to be prepared for 1982 World National Park Conference P
5.1.4.3 Preparation of document on relation of cultural beliefs, social structures, and conservation				INT 2001 (1)	EPC COB		1.	P
5.1.4.4 Economic values of protected areas - preparation of paper	(10)	(10)		New project see remarks	CNPPA/CEP			To be funded by a development agency P
<u>Activity 5.2.1</u>								
5.2.1.1 Review and major revision of IUCN Occ. pap. No. 18 Biogeographical Provinces of the World				UNEP5(a)/ Unesco	Contract			Dr. Udvardy to prepare for 1981 General Assembly P

Sub-objective (+ para ref.) Activity Function or project	estimated cost in US \$000s			Principal sources of funding	Significant involvement	Special IUCN/WWF Progs.	X-ref. other programme areas	Remarks
	1981	1982	1983					
5.2.1.2 Cartography and map production resulting from 5.2.1.1				WWF/UNEP 5 (a) / Unesco	Contract			To prepare for 1982 UNEP Governing Council distribution of protected areas by bio-geographic classification
<u>Activity 5.2.2</u>								
5.2.2.1 Development of biogeographical basis for assessing the coverage of marine and coastal areas				WWF/UNEP 5 (b)	Contract/ CNPPA	Marine		Draft to be prepared for 1981 G.A. and final paper for 1982 National Park Conference. System to be compatible with 5.2.1.2
<u>Activity 5.2.3</u>								
5.2.3.1 Inventory and evalu- ation of protected fresh- water and terrestrial areas				WWF/UNEP 5 (a)	CMU and CNPPA mems	TMP (part)		This activity involves Cambridge Unit as well as CNPPA mems. and realm based meetings of CNPPA
5.2.3.2 Inventory and evalua- tion of protected coastal and marine areas				WWF/UNEP 5 (b)	CMU and CNPPA mems	Marine		
<u>Activity 5.2.4</u>								
5.2.4.1 Implementing a system to monitor effectiveness of protected areas				WWF/UNEP 5 (a)	CMU and CNPPA mems			Involves Cambrdige Unit and realm based meetings of CNPPA
5.2.4.2 Interventions in favour of protected areas values				INT 2005 (1)	CNPPA Secretariat			

Sub-objective (+ para ref.) Activity Function or project	estimated cost in US \$000s			Principal sources of funding	Significant involvement	Special IUCN/WWF Progs.	X-ref. other programme areas	Remarks
	1981	1982	1983					
<u>Activity 5.2.5</u>								
5.2.5.1 To prepare directories and analyse their contents based on data collected in 5.2.3				WWF/UNEP 5(a,b) /Unesco	OMU and CNPAA mems	Marine (part)		Directories include: 1982 UN List of NP and Equivalent Reserves and the regional Areas Directory of NP and Protected (1982)
5.2.5.2 Improving coverage and management of protected areas in Africa	10	40	50	WWF New Proj.				Projects to be identified at CNPAA regional meeting at Garoua, Nov. 1980
5.2.5.3 Improving coverage and management of protected areas in South America		50	70	WWF New Proj.				Projects to be identified at CNPAA regional meeting in Peru, June 1981
5.2.5.4 Improving coverage and management of protected areas in Asia and the Pacific			50	WWF New Proj.				Projects to be identified at CNPAA regional meeting in Bali, October 1982
<u>Activity 5.3.1</u>								
5.3.1.1 The provision of technical advice to the World Heritage Committee				World Heritage Fund (Unesco)	CNPAA Ex.Off & Steering Committee, CEPLA, IWRB		2	Review of World Heritage nominations and attendance at Bureau & Committee Meetings
5.3.1.2 Implementation of action required as a result of the Wetlands meeting Cagliari, Nov. 1980	(10)	(20)	(30)	New and parties to the agreement	CEPLA SSC, COS IWRB		2, 4	
5.3.1.3 Policy paper related to possible convention on protected areas				WWF/UNEP 5(a)	CEPLA Chairman			Follow up to World Park Conference P

Sub-objective (+ para ref.) Activity Function or project	Estimated cost in US \$000s			Principal sources of funding	Significant involvement	Special IUCN/WWF Progs.	X-ref. other programme areas	Remarks
	1981	1982	1983					
5.3.1.4 Ensuring the inclusion of marine and coastal protected areas in the Law of the Sea				INT 2002 (1)	CEPLA	Marine	2.	
<u>Activity 5.3.2</u>								
5.3.2.1 Technical advice on protected area issues to Unesco, UNEP, FAO, IBRD, and other international organizations				Unesco UNEP5 (a) & (b) WWF	Chairman of CNPPA			
5.3.2.2 Securing the inclusion of protected areas within development assistance programmes				INT 2001 (1)	CEP CNPPA		1.	Conservation for Development Programme
5.3.2.3 Promoting protected areas values to Government Planning Agencies				INT 2001 (1)	CEP CNPPA		1.	
<u>Activity 5.3.3</u>								
5.3.3.1 Meetings of Steering Committee 1982 NP Conf.				WWF/UNEP 5 (a)				The 1982 Conference facilities will be provided by Indonesia/ funding for delegates and conference staff must be found. Preliminary favourable replies have come from USA, Netherlands, Canada, FAO, UNEP, Unesco.
5.3.3.2 Preparations for marine component 1982 Conf.				WWF/UNEP 5 (b)		Marine		

Sub-objective (+ para ref.) Activity Function or project	estimated cost in US \$000s			Principal sources of funding	Significant involvement	Special IUCN/WFP Progs.	X-ref. other programme areas	Remarks
	1981	1982	1983					
5.3.3.3 World Conf. on NP 1982		25		New proj.		Marine (part)		Project to be prepared
5.3.3.4 Regional Conf. on N. African protected areas (1983)				UNEP7 (b)		Drylands		
Activity 5.3.4				see remarks INT 1661(1)				Funding received by IUCN from USA, Canada, New Zealand, Australia, UNEP, Unesco, IUCN are included-other funds are provided by USAID, USNPS directly to PARKS
5.3.4.1 Publication of Parks Magazine	(46) 10	(46) 10	(46) 10					Possibly funded by USNPS
5.3.4.2 Editor to prepare proceedings 1982 NP Conf.		10	10	see remarks				
5.3.4.3 Paper presenting case studies related to social and economic bene- fits of protected areas				WFP/UNEP 5 (a)	CNPPA task force			Involves other Commissions as well as CNPPA to be prepared for 1982 National Park Conference P
5.3.4.4 Sierra Leone Training for wildlife personnel	(10)	(10)	(10)	New Proj.	EduC		3.2.3.1	Follow up to AFR 1155
5.3.4.5 Rwanda National Parks education & training programme	(10)	(10)	(10)	New Proj.	EduC		3.	Follow up to AFR 1166
5.3.4.6 Sudan Training of wildlife personnel	(10)	(15)		AFR 1634 (2)	EduC		3.	
5.3.4.7 Somalia training of wildlife personnel	(6)	(6)		AFR 1156 (2)	EduC		3.	

Sub-objective (+ para ref.) Activity Function or project	estimated cost in US \$000s			Principal sources of funding	Significant involvement	Special IUCN/WWF Progs.	X-ref. Other programme areas	Remarks
	1981	1982	1983					
5.3.4.8 Lesotho, training	(6)	(10)	(10)	New Proj.	EduC		3.	
5.3.4.9 Seychelles, training	(6)	(10)	(10)	New Proj.	EduC	Marine	3.	
5.3.4.10 Bhutan, Training and equipment for cons. officers	(10)	(5)	(5)	ASI 1532 (1)	EduC		3.	
5.3.4.11 Americas; Inter- American training centre - facilities for training national park personnel	(50)	(20)	(10)	AMS 1592 (2)	EduC		3.	
5.3.4.12 NP scholar- ships for Int. Seminar	(10)	(10)	(10)	INT 1767 (2)	EduC		3.	
5.3.4.13 Support for institutions training nat- ional parks officers	(10)	(20)	(30)	New Proj.	EduC		3.	Projects to be developed
<u>Activity 5.4.1</u> <u>(a) General</u>								
5.4.1.1 To stimulate the implementation of the WCS by assisting in the develop- ment of protected area pro- jects related to CNPPA identi- fied priorities				INT 2005 (1)	CNPPA Secretariat	25% marine component		Support Executive Office
5.4.1.2 Stimulate establish- ment of cooperation with marine protected areas				WWF/UNEP 5(b)	Chairman CNPPA Secretariat	Marine		

Sub-objective (+ para ref.) Activity Function or project	estimated cost in US \$000s			Principal sources of funding	Significant involvement	Special IUCN/WWF Progs.	X-ref. other programme areas	Remarks
	1981	1982	1983					
5.4.1.3 Support of the CNPPA related to the implementation and review of WWF projects through participation in PPAG, Project Screening, and meetings with project officers and cons.				INT 2005 (1)	Secretariat	25% marine component		Support Executive Office
5.4.1.4 Support for the Comm's operations at IUCN Headquarters				USNPS PARKS Canada				Support for the office of the Ex.Off comes primarily from the USNPS and Parks Canada
(b) Africa								
5.4.1.5 Egypt; Establishment of wildlife area in an arid ecosystem	(10)	(5)	(5)	AFR 1785 (2)	COE	Drylands	4.	
5.4.1.6 Tunisia; Wetlands protection	(15)	(15)		AFR 1258 (1)	COE		4.	
5.4.1.7 Tunisia; Ichkeul NP provision of equipment	10	15	20	AFR 1507 (1)				Possible funding from World Heritage Fund
5.4.1.8 Morocco; Bald Ibis reserve	(35)			AFR 1631 (1)	SSC		6.	
5.4.1.9 Mauritania; Banc d'Arguin-provision of equipment	15	15	5	AFR 1333 (1)		Marine		
5.4.1.10 Senegal; Iles de la Madelaine NP - protection and research	7			AFR 1232 (2)		Marine		
5.4.1.11 Senegal; Delta du Saloum NP - improve protection	(5)			AFR 1233 (1)	COE	Marine	4.	

Remarks

X-ref.
other
programme
areasSpecial
IUCN/WFP
Progs.Significant
involvementPrincipal
sources of
fundingestimated cost
in US \$000s

1981 1982 1983

Sub-objective (+ para ref.)
Activity
Function or project

5.4.1.12 Gambia; Establish- ment of system of protected areas	5	5	5	AFR 1078 (1)	SSC	Drylands 6. 7.		
5.4.1.13 Mali; Protected areas for addax/oryx	(20)	(20)		AFR 1625 (1)				
5.4.1.14 Upper Volta; Ouagadougou meeting - publication of proceed- ings	5			AFR 1752 (1)				
5.4.1.15 Upper Volta; P6 NP - Conservation	20	20	40	AFR 1913 (2)				
5.4.1.16 Niger; Protected areas for addax/oryx	(100)	(50)		AFR 1624 (2)	SSC	Drylands 6. 7.		
5.4.1.17 Sierra Leone; creation of new national park at Outamba-Kilimi	20	20		New Proj.		Primates 6.		
5.4.1.18 Liberia; Establish Rainforest Protected Areas	(20)	(20)	(10)	AFR 1567 (2)	COE	TMP 4.	Follow-up Verschuren's report and Ouagadougou meeting. Possible contribution Fed.Rep.Germany	
5.4.1.19 Ivory Coast; Tai NP - Boundary demarcation	7	3		AFR 1629 (1)		TMP		
5.4.1.20 Ghana; Bia/Ankasa NP - management support	15	15	20	AFR 1251 (2)		TMP		
5.4.1.21 Benin; Mont Kouffé- establishment of protected area	5	5		AFR 1326 (2)		TMP		
5.4.1.22 Cameroon; Tropical Rainforest Protected Areas	(15)	(10)		AFR 1089 (2)	COE	TMP 4.		

Sub-objective (+ para ref.) Activity Function or project	estimated cost in US \$000s			Principal sources of funding	Significant involvement	Special IUCN/WFP Progs.	X-ref. other programme areas	Remarks
	1981	1982	1983					
5.4.1.23 Zaire;Masisi/ Walikale - protected area for gorilla/chimpanzee	(10)			AFR 1941 (2)	SSC	Primates	6.	
5.4.1.24 South Africa;Great Karoo - establishment of nature reserves	20	50	50	AFR 1277 (2)				Funded from local sources
5.4.1.25 South Africa; Pilanesberg Game Park - development	10	10	10	AFR 1744 (2)				Funded from local sources
5.4.1.26 Lesotho;Lesotho NP - implementation of recommendations	10	20	20	New Proj				Follow-up McVean's Report. Funds being sought from bilateral/ multilateral sources
5.4.1.27 Mozambique;Pro- tected areas in Mozambique - establishment and management	10	20	50	AFR 1568 (2)				To follow recommendations of WFP/ IUCN advisory mission
5.4.1.28 Zambia;Control of poaching	(85)	(57)	(20)	AFR 1757 (1)	SSC	Rhino	6.	
5.4.1.29 Tanzania;Ngorongoro -improved management	15	15		AFR 1713 (1)		Ele- phant		Possible funding from WH Fund
5.4.1.30 Tanzania;Selous Game Reserve-Rhino and elephant survey	(7)			AFR 1928 (1)	SSC	Rhino	6.	
5.4.1.31 Tanzania;Selous and Rungwa Game Reserves - equip- ment	(30)			AFR 1930 (1)	SSC	Rhino Elephant	6.	
5.4.1.32 Tanzania;Serengeti and Ruaha NP - equipment	(15)			AFR 1931 (1)	SSC	Rhino	6.	

Sub-objective (+ para ref.) Activity Function or project	estimated cost in US \$000s			Principal sources of funding	Significant involvement	Special IUCN/WFP Progs.	X-ref. other Programme areas	Remarks
	1981	1982	1983					
5.4.1.33 Tanzania, Ngorongoro Provision of equipment	(10)			AFR 1934 (1)	SSC	Rhino	6.	
	(15)			AFR 1935 (1)	SSC	Elephant	6.	
5.4.1.34 Tanzania, Lake Maryara NP - development	10	10	5	AFR 1207 (2)				
	(25)	(25)	(10)	AFR 1578 (1)	SSC		6.	
5.4.1.35 Rwanda, Rugege NP establishment	(20)	(20)		AFR 1765 (1)	COE	TMP	4.	
	(25)	(25)		AFR 1915 (1)	SSC	Elephant	6.	
5.4.1.37 Uganda, Protection of Forest Reserves	(15)			AFR 1942 (1)	NYZS		4.	Elsa Fund
	(25)	(20)	(16)	AFR 1262 (1)			7.3.3	
5.4.1.40 Kenya, Hell's Gate NP - establishment	(25)	(40)	(40)	AFR 1952 (2)				
	(5)	(2)		AFR 1714 (2)	ICBP		7.3.5	
5.4.1.41 Madagascar, National Parks esta- blishment and manage- ment	(15)	(15)	(15)	AFR 1784 (1)		Marine	7.3.5	
	(20)	(20)	(20)	AFR 1811 (1)	SSC	Marine	6.	
5.4.1.42 Seychelles, Cousin Island Reserve-management								
5.4.1.43 Seychelles, Aldabra Island-management								
5.4.1.44 Indian Ocean Whale Sanctuary - Con- ference follow-up								

Sub-objective (+ para ref.) Activity Function or project	estimated cost in US \$000s			Principal sources of funding	Significant involvement	Special IUCN/WWF Progs.	X-ref. other programme areas	Remarks
	1981	1982	1983					
5.4.1.45 Ethiopia:Omo Valley	10			AFR 1179 (1)				Earmarked donation
5.4.1.46 Ethiopia:Simen Mts. NP - management	(5)			AFR 1241 (1)				Possible support through WWF Fund
5.4.1.47 Sudan:Coral Reef Protected Area	(15)	(10)	(10)	AFR 1163 (1)	COE	Marine	4.	
5.4.1.48 Sudan:Sanganeb Marine NP - establishment	(18)	(15)		AFR 1259 (1)	COE	Marine	4.	
5.4.1.49 Sudan:Southern Region Parks & Reserves - consolidate protection	10	20	30	AFR 1314 (2)				
5.4.1.50 Sudan:Fanyikang Game Reserve & Nimule NP - equipment	15	8		AFR 1743 (1)				
5.4.1.51 Sudan:Shambe NP - development	(150)	(150)	(135)	AFR 1949 (1)	SBC	Rhino	6.	

**4.2.3 REPORT FROM THE
SPECIAL WORKING SESSION ON THE CONSERVATION OF BIOTIC
COMMUNITIES IN WEST AND CENTRAL AFRICA
OUAGADOUGOU, UPPER VOLTA
4-10 FEBRUARY 1980**

INTRODUCTION

The special working session on the conservation of biotic communities in West and Central Africa was held from 4 to 10 February 1980 in Ouagadougou, Republic of Upper Volta. The meeting of this session, financed by the International Union for Conservation of Nature and Natural Resources (IUCN) and the United Nations Environmental Programme (UNEP) assisted by Unesco and UNDP and the Government of Upper Volta, brought together 16 national delegations: Benin, Congo, Ivory Coast, Gabon, Ghana, Guinea-Bissau, Upper Volta, Liberia, Mali, Niger, Nigeria, Senegal, Tchad, Togo and Zaire. Representatives of the OAU, FAO, Unesco, CILSS, UNSO, as well as a representative of non-governmental organizations, participated in the activities of the session.

The objectives of the meeting were:

- the review of the state of the conservation of biotic communities in West and Central Africa;
- the identification of further needs of protection and of a consequent programme;
- the establishment of a system of surveillance and the evaluation of the set-up of the programme.

RECOMMENDATIONS

1.1. W NATIONAL PARKS SYSTEM

- Considering that the 3 countries, Upper Volta, Benin and Niger, have the W National parks system, covering about 1.026.000 hectares, in common;
- Considering the wealth of this entity which could facilitate the protection of a large part of the Sudan forest as well as the large mammals of the zone (elephants, buffaloes, savanna and sudan forest antelopes, hippopotamii and crocodiles);
- Considering that despite isolated concerted efforts by each or all of the countries in the W Park, the system's protection statute is unequal and inadequate;
- Informed of the mining and consequent transport infrastructure development perspectives;

The session recommends:

- that the governments concerned should reinforce the co-ordination effort by protecting the W Park system within the framework of the sub-committee of the W National Park Directors; to reinforce and stabilise the statute of protection of the different national parks systems and especially to safeguard this park from all encroachment and degradation due to mining and connected activities.

- that IUCN and other assisting and financing organizations give the States concerned substantial aid first by evaluating further protection needs and the appropriate remedial measures, and then by making material and financial means available for the correct and rapid realisation of the conservation objectives.

1.2. PROTECTION OF MOUNT NIMBA

- Considering the importance of mountains and West Africa plateaux in the conservation of fauna and flora on the one hand, and in the general surface water reserve cycle on the other;
- Considering Mount Nimba's particular importance in these different areas and that Mount Nimba has been found to be rich in various mineral deposits;
- Impressed by the information received that existing biotic communities have not been destroyed for the sake of minerals, though disturbed by possible developments and impending threats;

The session recommends:

- that the government of Ivory Coast, the Republic of Guinea and Liberia deploy all forces for the protection of the whole Mount Nimba system;
- that if need be, the international community in charge of ecosystems conservation co-operate with the governments concerned to determine the most important zones and establish scientific priorities with the least economic implications possible;
- request IUCN in particular to co-ordinate and promote these efforts to their earliest realisation.

1.3. FOUTA DJALLON

- Considering that the Fouta Djallon range gives rise to a number of important waterways irrigating West Africa and particularly to the great sahelian rivers;
- Considering that this watershed role for the sub-region could not be perpetually played by the range unless the source and basin zones were protected;
- Considering that there is not as yet a declared protected area in the range;

The session recommends:

- that the states of Senegal, Guinea-Bissau and Guinea co-operate for the better protection of the Fouta Djallon high plateau vegetation, and work on the formulation of restoration projects as the case may be; and

The session requests:

- that the relevant inter-state organizations of the sub-region and international organizations support the effort of the member states of this operation bearing in mind the nature of all projects for the protection and restoration of the Fouta Djallon range.

1.4. GOLA FOREST

- Taking note of the information about the Gola forest shared by Liberia and Sierra Leone and whose unique status is recognised as the oldest virgin forests of the region; and
- Considering that the two States belong to the Mano River Union;

The session recommends:

- That the complete impact of the dam which the two states plan to construct, be studied before the construction begins; and
- That following the studies, ways should be found for avoiding environmental damages especially to the Gola forest, which runs the risk of being submerged by the artificial lake which will be created.

5. THE WORLD CULTURAL AND NATURAL HERITAGE

- Realising the major interest in diversifying protection units according to conditions prevailing in each special situation and according to the precise degree of protection required;
- Impressed by the work by IUCN on the one hand and Unesco on the other, to define better the categories, criteria and objectives of protected areas and the relationship between the different types of protected areas;
- Noting the new aspects of the cultural dimension and the reinforcement of scientific research in protected areas, introduced respectively by the World Cultural and Natural Heritage Convention and MAB's project 8 (especially as concerns biosphere reserves);
- Considering that significant potential exists in these two programmes for a fruitful contribution in West and Central Africa;

The session recommends:

- that the states should identify and propose new areas for biosphere reserves, within the framework of protection and research promotion activities;
- the states which have not yet done so, should consider adherence to the World Cultural and Natural Heritage Convention and propose suitable sites to be classified in the World Cultural and Natural Heritage List;
- requests that IUCN and Unesco assist member states in the identification of areas and sites and in the drawing up of the accompanying research proposals and projects.

6. THE PROTECTION OF THE "BOUCLE DE BOULE" NATIONAL PARK AND ADJACENT RESERVES IN MALI

- Considering Mali's peculiar position as regards a consistent policy in the protection of threatened ecosystems in the region on the one hand,
- And taking note that the protection of the "Boucle de Baoulé" national park and adjacent reserves in Mali is the country's only and still uncertain experience, on the other;

The session recommends:

- support in the form of aid from the international community, for efforts already undertaken.

7. THE AFRICAN CONVENTION FOR THE CONSERVATION OF NATURE AND NATURAL RESOURCES

- Recalling that the African Convention for the Conservation of Nature and Natural Resources was adopted by Heads of States and Governments of OAU in Algeria in 1968, and that this document constitutes the base on which the policy for organizing the conservation of nature and its resources in member states should be founded;
- Noting that since its adoption, only twenty or so of the 50 member states have ratified the Convention;
- Also noting that unlike all other conventions, this one has no provision for follow-up, call to order or inducement to compliance or to ratification.

CONSEQUENTLY,

- Considering that the conservation of nature and its resources has to be inspired by the cultural traditions of the local populations and upheld by a determined political will;
- Considering that OAU should continue the effort sanctioned by the Algiers convention and support and co-ordinate conservation efforts of member countries;
- Considering the enormous and still unsatisfied need for the conservation and protection of biotic communities in Africa;
- Convinced of the necessity to undertake and struggle to the utmost for important transnational conservation programmes;

The session recommends:

- that member states which have not done so should ratify the convention and apply its legal provisions within their respective legislations;
- that they request the OAU to call a conference of parties to the convention for its review and eventual amendment;
- that a secretariat be formed to carry out the duties mentioned above, to assure the further administration of the convention and ensure the follow-up.

8. TRAINING AND EDUCATION

- After reviewing the state of conservation of biotic communities in West and Central Africa and how this protection is ensured;
- After discussing different reports presented and treating problems dealing with the training of specialists and scientists in the conservation of biotic communities and the education of the public;

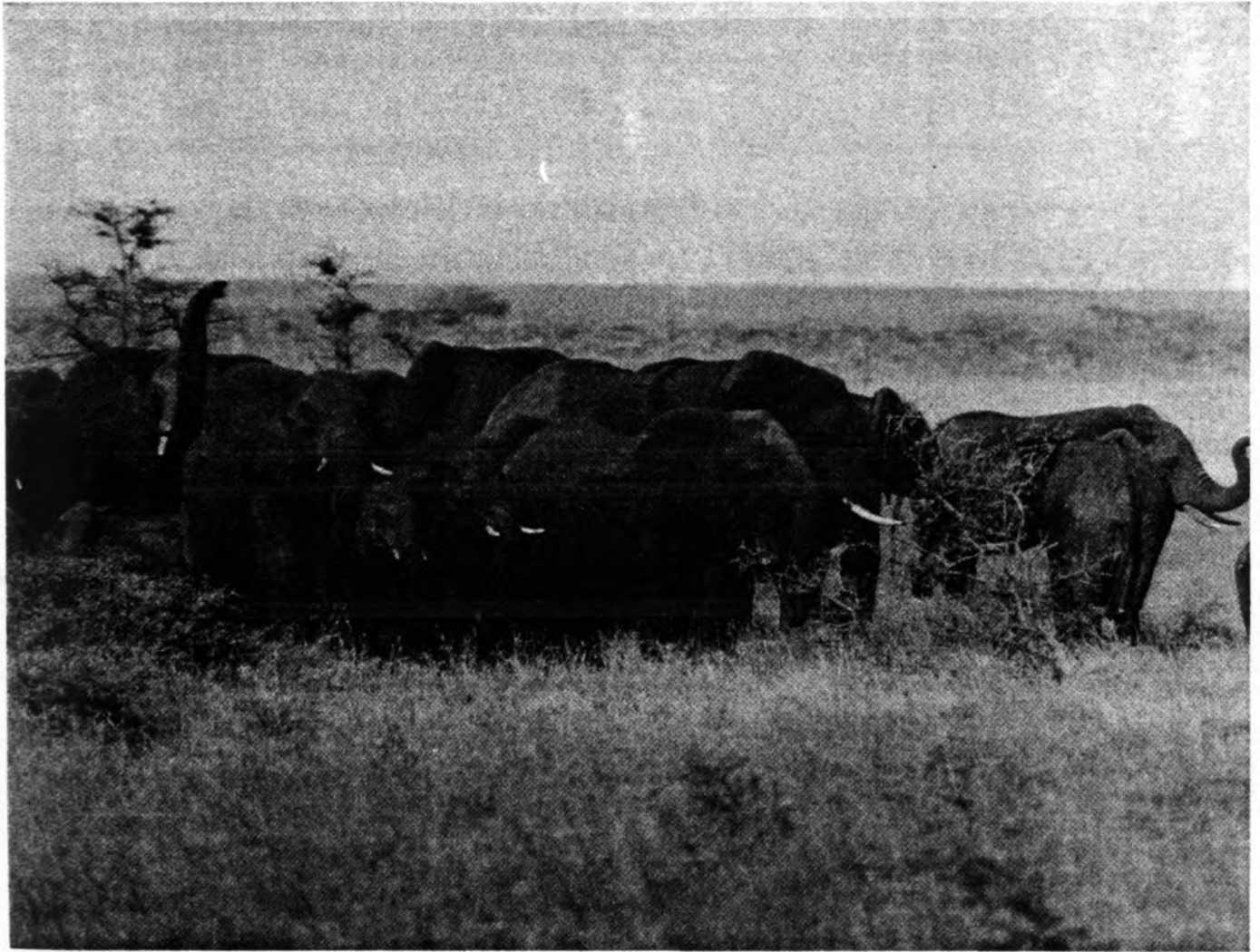
The session notes that much is still needed in this area in the subregion, as shown by the following:

- the lack of well trained and competent high level personnel for resources management;
- the lack of low level and supervisory personnel;
- the inadequacy of public interest and education as far as problems of conservation of nature are concerned;

The session recommends:

Since the national means are insufficient to enable each state meet its needs,

- that already existing regional training institutions (MWEKA and GAROUA) be reinforced so as to improve their training programmes, increase boarding facilities and logistic means;
- that additional effort be made to support these units in the process of creation (interdisciplinary centre of applied tropical ecology in central Africa, in Zaire, a course organized by the Sahel Institute, etc.);
- that Unesco, as recommended by the session, gives special attention alongside with FAO, UNEP and IUCN, to these problems and that in particular, support be given to the States by organizing practical seminars for training supervisors and reserve park guards.



Tanzania's Serengeti National Park celebrates its 60th Anniversary in 1981, a history that has seen considerable fluctuations in wildlife populations and human pressures on the park. The future is likely to see even greater demands placed on management capacity of the park personnel. (Photo: F. Vollmar, WWF)

CHAPTER V OTHER BUSINESS**5.1 Introduction**

A number of other items of interest were discussed at the session and some of the more important are presented here to become part of the record of the meeting. These include:

- a short statement about the membership of CNPPA, which we hope to expand to include members and consultants from all Afrotropical countries;
- the draft agenda of the World National Parks Conference 1982, developed at the meeting and subsequently expanded at IUCN Headquarters. All members and consultants are encouraged to react to this draft and to recommend any changes, names for case studies, etc.;
- the Terms of Reference for the CNPPA Working Group on Traditional Lifestyles. This was a topic of considerable discussion and is highly controversial among governments; a need was seen for the Commission to proceed with great caution;
- the Serengeti and Ngorongoro Diamond Jubilee, which celebrates the creation of two of Africa's most outstanding protected areas;
- the creation of Lake Malawi National Park, the first in a biogeographic province which had previously been ignored.
- a short visit to Waza National Park in northern Cameroon.

Finally, the General Recommendations of the meeting are presented.

5.2 CNPPA Membership in the Afrotropical Realm

As the basic data-gathering phase of the CNPPA programme evolves into a two-way flow of information dealing with all aspects of protected areas management, CNPPA has felt a need to greatly expand its membership to include representation in every country which has protected areas. It is our aim to enlist the cooperation of the Director of National Parks or his equivalent, or his top technical assistant, from each country. In addition, we will seek the cooperation of selected individuals who have shown that they can make particular contributions to the Commission's activities.

Some individuals work with CNPPA in a very specific way, coordinating the collection of basic protected area information in particular regions of the world. Many others contribute according to special interests, or link CNPPA to the manager in the field. Those who have made major contributions to the Commission become Members (with a capital "M"), an appointment which requires the formal approval of the IUCN Council. Those who are just joining the Commission, or who maintain a less active relationship, are named directly by the Chairman as Consultants. In addition, the Commission has ex-officio members from various international organizations, plus the Director General of IUCN and the Chairmen of the other five IUCN Commissions. All together, they form a CNPPA membership (with a small "m") of about 150.

As a major interest of each of our regional meetings, we will be seeking to fill out our membership for that realm, seeking always to enlist the persons who will be most deeply involved in attaining the objectives of the Commission. The Afrotropical Realm was the first area where the new strategy was attempted. Before the meeting, we had just 18 members from Africa, representing 11 of the 42 countries in the realm. As a result of the meeting, we were able to identify 35 potential new members from 32 countries; if all potential members join the Commission, this would bring the total membership for the realm to 52, from 35 countries. We are still lacking representation from Equatorial Guinea, Guinea, Guinea-Bissau, Lesotho, Namibia, and Togo; but we are actively seeking the appropriate contacts in these countries as well.

5.3. WORLD NATIONAL PARKS CONFERENCE 1982:

Information sheet and draft agenda

Introduction: As human populations continue to expand and nature is required to produce more goods and services to support humanity, the role of national parks and protected areas will need to evolve to help support the expanding needs. The First World Conference on National Parks, held in Seattle, Washington, U.S.A. in 1962, was instrumental in awakening the world to the importance of national parks; the Second World Conference on National Parks, held in Yellowstone in 1972, began to expand the role of protected areas and to increase the stress on international cooperation. Continuing this ten-year cycle, it was decided to hold the third conference in a developing country with a major protected area programme. Bali, Indonesia, was suggested as a suitable venue and the acceptance of the Indonesian Government's invitation by IUCN was announced in July 1980.

Host: The Indonesian Government (Directorate-General of Forestry).

Sponsor: International Union for Conservation of Nature and Natural Resources, Av. du Mont Blanc, CH-1196 Gland, Switzerland.

Co-Sponsors: Being discussed with FAO, UNEP, Unesco, Parks Canada, US National Park Service, World Wildlife Fund, and many other international, regional and bilateral development organizations and non-governmental organizations concerned with conservation.

Co-Chairmen: Soedjarwo, Director-General of Forestry and Lee M. Talbot, Director General of IUCN.

Secretary-General: Lukito Daryadi, Director of Nature Conservation, Jl. Juanda 9, Bogor, Indonesia.

Theme: National Parks in a Changing World.

Dates: 11 October - 22 October 1982.

Venue: Bali Beach Hotel, Bali, Indonesia.

Attendance: Maximum 400, to comprise directors of national parks and protected areas systems and their top technical management personnel from around the world, plus selected individuals who have made significant contributions to the development of protected areas; to provide balance, representatives of development agencies, resource economics, tourism, forestry, and land-use planning will also be invited. Invitations will be issued jointly by the Indonesian Government and IUCN.

Registration fee: US \$150.

Travel grants: Being sought for those in extreme need (particularly from developing countries).

Programme: See pages 2-10.

Pre- and Post-Conference Tours: See page 10.

Accommodation: Wide range available, from US \$5 per night upwards.

IUCN Contact: Executive Officer, Commission on National Parks and Protected Areas, IUCN, Av. du Mont Blanc, CH-1196 Gland, Switzerland.

Date of draft: 21 January 1981.

INTERNATIONAL UNION FOR CONSERVATION OF NATURE AND NATURAL RESOURCES

WORLD NATIONAL PARKS CONFERENCE 1982

Draft agenda/schedule. While the World National Parks Conference is still a year and a half in the future, we feel that it is not too early to begin thinking about what we want the meeting to accomplish. Therefore, the 17th meeting of IUCN's Commission on National Parks and Protected Areas (CNPPA), meeting at Garoua, Cameroon from 17 to 23 November 1980, developed the following outline of the Conference. This entire outline is a suggestion only. Though some names have been suggested, no speakers have been chosen and no commitments have been made to any agenda item; likewise, the case studies are suggestions only and presented in hopes of stimulating other ideas. We are actively seeking the involvement of CNPPA members throughout the world, as well as of colleagues in related disciplines, in order to make the conference as useful as possible. Please send your comments and suggestions to Jeffrey A. McNeely, CNPPA Executive Officer, IUCN, Ave. du Mont Blanc, CH-1196 Gland, Switzerland.

Day/Date
(Quarter)

Activity

Monday
11 Oct.

- (I) Opening Ceremony
- Welcoming address by Soedjarwo, Director-General of Forestry (Host Institution) and Co-Chairman of the Conference
 - Welcoming address by Governor of Bali
 - Opening address by Prof. Sudarsono (Minister of Agriculture)
 - "The Role of Protected Areas in Implementing the World Conservation Strategy" -- Lee M. Talbot, Director-General of IUCN and Co-Chairman of the Conference
- (II)
- Keynote address: "National Parks to Meet Modern Needs" - Emil Salim, Minister of Development Supervision and Environment
 - "The Road to Bali" -- elder statesman to provide a historical perspective
 - "Protected areas and sustainable development" -- UNEP spokesman
- (III) The World Coverage of Protected Areas: A multi-media presentation from CNPPA. Session Chairman: Kenton Miller
- The curtain rises to reveal a large (1:4,000,000) map of the biogeographic provinces on both land and sea of the world, with all protected areas demarcated. Chairman briefly explains the map and the data base which supports the map.
 - Screen is lowered as lights dim. A multiple-projector slide programme, with sound, explains the CNPPA system for monitoring the protected areas of the world, stressing diversity of nature and diversity of values of protected areas for human welfare (professionally produced) (30 minutes)

- Wang Computer is rolled out, with traditionally-dressed Indonesian operator. Chairman gives 2-minute explanation of CNPPA data base, then asks Wang operator: "Which biogeographic provinces are least well-covered by protected areas?" The operator punches in the question, and hands the answer to the Chairman, who reads it to the audience. The Chairman asks for other questions, some of which may be as follows: Unesco asks: "Which protected areas throughout the world have special facilities for scientific research?" The World Bank asks: "We are interested in providing support to land development in West Africa. What are the protected areas of Senegal, Cameroon, and Ghana, and what local and international expertise is available to show us how these protected areas can be linked to land development projects?" The Director of National Parks in Peru asks: "Manu National Park holds many plant species of interest to mankind, but we are concerned about how to control use of plant genetic resources. Which other protected areas in the tropics have experience with this problem, and to whom do I write for further information?" A World Wildlife Fund Representative asks: "Which protected area contains most endangered species of mammals?" A student asks: "I am studying primates in an isolated forest of 10,000 ha in Brazil, and would like to locate similar areas in West Africa and SE Asia in order to carry out comparative studies. Which protected areas would be most suitable?" The Wang computer answers all of these questions, and the Chairman reads the appropriate responses. More questions are solicited from the audience. The meeting breaks for tea, but the computer is available for inspection, and available for answering questions throughout the conference.

(IV) Protected Areas and Other Conservation Concerns

- "Species and protected areas" -- SSC
- "The ecological importance of protected areas" -- CEcol
- "Law and protected areas" -- CEPLA
- "Planning the countryside" -- CEP
- "Communicating the environment to people" -- CEduc
- "The evolving role of protected areas" -- Bing Lucas (The broad conceptual framework for the following sessions).

The following four days comprise symposia dealing with each of the eight biogeographic realms. Each realm is introduced by a Keynote Address which briefly outlines the current status of living resources and makes a projection of future developments; against this background are placed the current protected areas and their broad role, emphasizing social and economic roles in relation to the World Conservation Strategy. This Keynote will introduce Case Studies, which are prepared in advance to follow the same broad format, with guidelines prepared for authors (who are typically protected area managers). The entire set of case studies is chosen to form a cohesive group of illustrations of the basic principles involved in protected areas management, encapsulating problems of the realm and stressing applications for new directions elsewhere. Each case study will be presented at the conference as a 5-10 minute summary (often with slides) by each member of a 3 or 4-person panel, followed by discussion and questions from the floor. Case studies should not be successes only, but should cover both high points and low points; they should aim to be relevant to the broad audience of protected area

managers. The case studies of each realm lead to a Synthesis, which will combine the keynote address with the case studies, discussions from the floor, and other information to evolve a summary statement and a framework for developing country policies and recommending objectives for the coming decade.

Tuesday
12 Oct.

The Evolving Role of Protected Areas

(I) The Indomalayan Realm. Chairman:

Keynote:

Case Studies: (3 to be chosen)

1. Siberut and Bali: two important islands with some differences for conservation
2. Komodo dragons and tourism
3. Too many rhinos? What to do when Ujung Kulon's rhinos exceed carrying capacity.
4. Designing a total protected areas system in Irian Jaya.
5. Cibodas helps 20 million people: Multiple benefits in a densely populated area.
6. Conservation for rice: National parks and irrigation in Dumoga, North Sulawesi

(II) Indomalayan Realm (continued)

Case studies: (3 to be chosen)

1. Can science make a difference? The case of Mt. Mulu
2. Conserving the multiple values of coral reefs in the Philippines
3. Man and mangroves in Malaysia
4. War, culture, and wildlife: Angkor Wat National Park
5. Better than a tractor: Protecting elephants for the timber industry in Burma
6. Sustaining a utilised resource of turtle eggs in Trengganu, Malaysia
7. A palm tree bending with the wind: Conflicting development pressures on Khao Yai National Park, Thailand

(III) Indomalayan Realm (continued)

Case studies: (3 to be chosen)

1. What to do when you've succeeded: Project Tiger 10 years later
2. Dams and developing a reserve: The case of Periyar Sanctuary
3. Managing a fluctuating habitat in Assam's Kazaranga National Park
4. Dams and Dolphins on the Indus River
5. A delicate balance: Tigers and Tourists at Chitawan National Park
6. The Sherpas of Sagarmatha: The effects of a national park on the local people
7. No room for elephants: Sri Lanka

Synthesis:

(IV) The Oceanian Realm: Chairman:**Keynote:****Case Studies: (4 to be chosen)**

1. The National Trust programme for protecting Fiji
2. People, Trees, Protection: Gogol, Papua New Guinea
3. Farming crocodiles in Papua New Guinea
4. The park that was: The Solomon Islands
5. Developing a coral reef: The Atoll of Taiaro
6. People pressure: Pacific islands and conservation of a limited land resource.

Synthesis:

Wednesday
13 Oct.

The Evolving Role of Protected Areas (continued)**(I) The Australian Realm. Chairman:****Keynote:****Case studies: (4 to be chosen)**

1. The battle for the reef: Great Barrier Reef Marine Park
2. Native peoples demand a park: Kakadu National Park
3. Farmers, entrepreneurs, and their impact on Kosciusko National Park
4. Conserving a desert: Simpson Desert Conservation Park
5. Parks and Politics on Cape York
6. More power in the park: Cradle Mountain National Park
7. How to ruin a rock: Ayers Rock
8. States' Rights: A federal system's perils and promises
9. Supporters or obstructors? The role of NGOs in Australia

Synthesis:**(II) The Palearctic Realm. Chairman:****Keynote:****Case studies: (3 to be chosen)**

1. 12 million visitors: Mt. Fuji National Park
2. Destiny and the dolphins: Conserving marine mammals in Japan
3. Culture and conservation in Korea
4. Yaks and nomads: Protected areas in Tibet
5. The symbolic panda: A means to an end
6. Protecting birds in China

(III) Case studies: (3 to be chosen)

1. Bringing back the saiga: a management success
2. The deep blue lake: Threats to Baikal
3. Internationalism at work: Finland's Lemmenjoki National Park and Norway's Ovre Anarjakka National Park.

5. Limited choices: Protected Areas in UK
6. Bison and Bialowiecza: Conserving Europe's last primeval forest
7. A separate existence: Lapps and their reindeer in Finland's Protected Areas.

(IV) Case studies: (3 to be chosen)

1. Abruzzo's bears: Managing dangerous mammals in a crowded country.
2. Culture and conservation in Egypt
3. Oman and the Oryx: Integrating conservation and pastoralism in Jiddat Al Harasis
4. Meeting of the Minds in the Mediterranean: the international experience in conserving the coastal zone.
5. Cota Donana: A wetland and its birds
6. Camargue
7. Culture and nature: d'Cevenne

Synthesis:

Thursday
14 Oct.

The Evolving Role of Protected Areas (continued)

(I) The Afrotropical Realm. Chairman: _____

Keynote: _____

Case studies: (3 to be selected)

1. All things to all people: The Ngorongoro/Serengeti Conservation Unit
2. How long can this go on? Tourism in Kenya's national parks
3. To catch a thief: Making anti-poaching work
4. How about a zebra steak? Management strategies for producing meat for local people.
5. Conserving Madagascar's unmatched endemism.
6. No people atoll: Protecting Aldabra
7. Africa's Rift Valley Lakes: Alternative conservation strategies

(II) Case studies: (3 to be selected)

1. Gorilla habitats -- Man's fate? Zaire
2. We all want the trees: Tai National Park, Ivory Coast
3. An international park: "W" National Park in Benin, Upper Volta, and Niger.
4. Waza's Water: Problems with water resources development in Cameroon's semi-arid zone. (Alternative: Senegal)
5. From the desert to the sea: Mauritania's Banc d'Arguin
6. The hunters: Bushmen in the Kalahari, Botswana
7. Wildlife management in South Africa's national parks

Synthesis: _____

(III) The Nearctic Realm Chairman: _____

Keynote: _____

Case studies: (3 to be chosen)

1. Parks for people: Urban national parks
2. The Everglades under threat
3. Is one enough?: Saving the redwoods
4. Rehabilitating an ecosystem: Great Smoky Mountains
5. Beaver Creek: A biosphere reserve that works
6. Private conservation enterprise: The Nature Conservancy

(IV) Case studies: (3 to be chosen)

1. Finding a place for the Inuit
2. Open options and a chance to choose in Alaska
3. Learning to live with exploitation in the arctic
4. The lone prairie: Protecting grasslands
5. Managing marine mammals in the Arctic
6. Saving Arctic Wetlands

Synthesis:

Friday
15 Oct.

The Evolving Role of Protected Areas (continued)**(I)** The Neotropical Realm. Chairman:Keynote:Case studies: (3 to be chosen)

1. Coping with a natural disaster at Lake Atitlan
2. Where biosphere people live: Les Michilia, Mexico
3. The Ancients save the present: Tikal, Guatemala
4. Designing a total system: Costa Rica
5. Ecodevelopment in action: Half Moon Caye, Belize
6. Starting from the ground up: Developing a conservation ethic on the island of Dominica
7. Tourism under water: Bonaire, Lesser Antilles (or St. Croix or Buer Island Reef)

(II) Case studies: (3 to be chosen)

1. Inca technology and ecodevelopment: Vicunas in Pampas Galeras
2. Waterfalls and hydropower: Canaima National Park
3. Islands for people and evolution: The Galapagos
4. Lion marmosets and human health: Tijuca National Park
5. Genetic resources in the Amazonian rainforest
6. A rainforest total ecosystem: Manu National Park

(III) Case studies: (3 to be chosen)

1. Can national parks protect and produce primates?: The Pan-American Health Organization
2. The ends of the earth: Argentina's and Chile's protected areas in Patagonia and Tierra del Fuego
3. A binational park: Iguazu (Argentina)/Iguaçu (Brazil)

4. Local management of protected areas: The Valdés peninsula, Argentina

Synthesis:

(IV) The Antarctic Realm. Chairman:

Keynote:

Case studies: (4 to be chosen)

1. The problems of introduced species
2. Small reserves for specific purpose
3. The Campbell Island Story
4. Antarctica is no place for tourists
5. Who's in charge here? Finding ways and means to conserve Antarctica
6. Antarctica: A World Heritage Site without a caretaker.

Synthesis:

Saturday
16 Oct.

The Evolving Role of Protected Areas (concluded)

Chairman:

(I) "The evolving Role of Protected Areas: Policies and Directions"

(II) Introduction to Indonesia's protected areas

- Indonesia's network (with slides)
- Establishing marine protected areas
- Struggles with alternative land uses
- Efforts to involve local people
- Convincing the politicians

(III) Free (group leaves for overnight to Meru Betiri)
(group leaves for overnight to Bromo Tengger)

(IV) Free

Sunday
17 Oct.

Field trips

- Bali Barat -- Primarily marine (scuba available)
- Komodo -- by plane; expensive and limited
- Baluran -- Savanna
- Bali Rural Landscape -- Man and land in harmony

Monday
18 Oct.

Tools for the Man on the Ground. Two simultaneous all-day workshops based on materials prepared earlier, each aimed at producing a practical manual for protected area managers; tables of contents will be worked out in the coming 6 months. Titles:

"MANAGING PROTECTED AREAS IN THE TROPICS"

"MANAGING COASTAL AND MARINE PROTECTED AREAS"

Tuesday
19 Oct.

- (I) (II) Developing human resources. A half-day session, convened in cooperation with the Education Commission, aimed at producing a state-of-the-art report on the status and needs of training all levels of personnel for managing the new kinds of protected areas.

Chairman:

- (III) (IV) The role of international organizations in promoting effective management of protected areas: What have they done in the past and what can they do in the future?

Chairman:

- CIDA
- FAO
- German Aid
- UNEP
- Unesco
- USAID
- WWF
- World Bank
- Others

Wednesday
20 Oct.

New initiatives for international cooperation. Two sessions to be organized by Unesco, in consultation with IUCN and CNPPA.

- (I) (II) The World Heritage Convention: What it is, what it's doing, where it's going - Chairman: Russell Train
- (III) (IV) Biosphere reserves: A category whose potential has not yet been met - Chairman:

Thursday
21 Oct.

New Directions Chairman:

- (I)
- "Getting caught with our genes down" (in situ conservation of genetic resources) -- Robert Allen
 - "Institutions for managing protected areas in the twenty-first century" -- Norman Myers
 - "People's protected areas" -- Wang Huen-Pu
 - (Suitable paper from South America) -- Maria Tereza Jorge Padua
- (II)
- "Protected areas and development projects" -- Robert Goodland
 - "Environmental Policies for a crowded world" -- William H. Matthews
 -
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- (III)
- Introduction of draft of "The Bali Declaration" -- A declaration from the protected areas managers of the world to the upper level policy-makers, stating in succinct form precisely the new role we see protected areas playing in the future; in essence, a rededication to the role of protected areas in economic

development in a properly stated form; with photos or drawings around the margins illustrating the main points and reproduced as a poster, the declaration can also be spread around the world as our message to the general public.

(IV) Continue discussion

Friday
22 Oct.

Closing

(I) Adoption of "The Bali Declaration"

(II) Resolutions/Recommendations

(III) Closing address: "Policies and principles for the Future" --
Kenton Miller

Closing ceremonies (including awards)

Throughout the meeting:

- evening films, demonstrations, slide programmes, audio-visual displays from each country
- exhibition of books, magazines, leaflets, etc. from each country or showing range of materials being produced.

Possible pre- and post-meeting tours (arranged for Indonesia only, though tourist agencies can arrange tours in other countries)

- Gunung Leuser and North Sumatra (scenery, tropical rain-forest, orangutans, logging pressure)
- Siberut (integrating socio-economic development of indigenous people with conservation of 4 endemic primates on an island the size of Bali; difficult access and limited facilities)
- Ujung Kulon (land and sea, Javan rhinos, tourism)
- Java tour: Man and the land (various parks plus cultural sites on a small island with 90 million people)
- Tanjung Puting (Research on orangutans and proboscis monkeys)
- Sulawesi tour: Dumoga (role of parks in watershed protection), Tangkoko-Batuangus (outstanding wildlife), Lore Lindu (spectacular scenery plus people pressure), Toradja cultural sites
- Komodo (dragons, developing tourism)
- Irian Jaya (tropical glaciers, crocodile swamps, birds of paradise)

5.4 Report of CNPPA's Task Force on Traditional Lifestyles

1. IUCN has long recognized the special value of traditional ways of life which are in balance with the dynamic functioning of natural ecosystems. As early as the 1975 General Assembly in Kinshasa, IUCN policy was clearly stated in a resolution:

Protection of Traditional Ways of Life

"RECOGNIZING the value and importance of traditional ways of life and the skills of the people which enable them to live in harmony with their environment;

"RECOGNIZING ALSO the vulnerability of indigenous people and the great significance they attach to land ownership;

"THE 12TH GENERAL ASSEMBLY OF IUCN meeting in Kinshasa, Zaire, in September 1975:

"RECOMMENDS

- (1) That governments maintain and encourage traditional methods of living and customs which enable communities, both rural and urban, to live in harmony with their environment;
 - (2) That educational systems be oriented to emphasize environmental and ecological principles and conservation objectives derived from local cultures and traditions, and that these principles and objectives be given wide publicity;
 - (3) That governments devise means by which indigenous people may bring their lands into conservation areas without relinquishing their ownership, use, or tenure rights;
 - (4) That the governments of countries still inhabited by people belonging to separate indigenous cultures recognize the rights of these people to live on the lands they have traditionally occupied, and take account of their view-points;
 - (5) That in the creation of national parks or reserves indigenous peoples should not normally be displaced from their traditional lands, nor should such reserves anywhere be proclaimed without adequate consultation with the indigenous peoples most likely to be directly affected by such proclamation; and
 - (6) That existing natural values be respected and integrated in the early planning stage of every urban or industrial development scheme, this requiring that ecological principles be taken as the basis for all planning."
2. It is sometimes argued that traditional lifestyles need to be brought into the mainstream culture where they can contribute to the national economy and earn some of its benefits. For the protected area manager, the rights, interests, and activities of indigenous societies with traditional lifestyles may be in conflict with the expressed objectives of the protected area.

3. But on the other hand, traditional lifestyles are often shown to have real values for the mainstream national society (leaving aside the moral question of their intrinsic right to exist). The people involved have considerable knowledge about living in harmony with their environment, they utilize a broad spectrum of plants and animals which may also be of use to the national culture, they have rich oral traditions, they have unique arts and crafts, they have alternative systems of land tenure, justice, and social structure -- anthropologists can add dozens of other values as well.
4. Therein lies the controversy. Do these values give indigenous societies with traditional lifestyles the right to live in protected areas? Is it fair to give special treatment to any society in the country? Do national societies have any obligation to recognize the rights of traditional lifestyles in protected areas, or to force their culture on these smaller societies? Can CNPPA develop principles, guidelines, and policies which would be useful to protected area managers or national-level administrators? And are such questions within CNPPA's area of competence to ask?
5. To answer these and other related questions, the 14th meeting of CNPPA, meeting in Costa Rica in 1979, recommended the organization of a Commission Task Force on traditional lifestyles. Much discussion has been generated and this is clearly an area which will remain controversial. The 17th meeting of CNPPA approved the concept of the Task Force as an agent of the Commission to investigate the parameters of the problem, collecting, in the first instance, sufficient information on the subject to report to a future meeting before any decision is made on the development of principles, guidelines, or policies. It was accepted that any findings of the Task Force would remain unpublished until approved by the Commission as a whole, though individual members would continue to publish their own findings and ideas under their own signatures.
6. It was recognized that there is great variability from country to country in problems of indigenous peoples and their traditional lifestyles, and that this variability had to be considered in any general policy paper. It was suggested that a wide range of case studies needed to be considered before any general conclusions are drawn, and that basic information needed to be collected on ethics, ecology, and the anthropological dimensions of the problem.
7. In view of the interest of other Commissions on closely related topics, it is suggested that efforts be made to coordinate the indigenous people activities of the interested Commissions, particularly the Commission on Ecology and the Commission on Environmental Planning, aiming at a joint discussion at the New Zealand General Assembly in 1981.
8. For the purposes of the Task Force, "Traditional Lifestyles" were defined as: "The ways of life (cultures) of indigenous people which have evolved locally and are based on sustainable use of local ecosystems; such lifestyles are often at subsistence levels of production and are seldom a part of the mainstream culture of their country, though they do contribute to its cultural wealth". It was felt that this Task Force should concentrate on people who are living partially or entirely within a protected area which is a part of their ancestral homeland. Other types of people living in or around protected areas might be better dealt with by the Ecodevelopment Task Force.

9. The Terms of Reference of the Task Force were proposed as follows:
- a) To collect information on which protected areas contain significant numbers of indigenous people with traditional lifestyles, and on which such indigenous people are protected by national parks or reserves.
 - b) To review the relationships of the uses and rights of traditional lifestyles with protected areas in relation to:
 - the management of protected areas in harmony with traditional ways of life of indigenous people, including possible modification of concepts to accommodate legitimate interests; and
 - the problems which face protected area managers where rights, interests, and activities of indigenous people (particularly as they assume some aspects of modern culture) may be in conflict with nature conservation.
 - c) To record ways and means used by indigenous people using traditional lifestyles to live in balance with their environment (if they do), paying particular attention to the broad spectrum of uses to which they put the plants and animals within their environment; in essence, to document the values of traditional lifestyles for conservation.
 - d) To maintain liaison with relevant specialized organizations such as Survival International, the World Council of Indigenous People, and the Committee for Indigenous Peoples.
10. Activities. The Executive Officer will initiate the data collection phase and will report back to the Commission at the 18th meeting, in Peru in June 1981.

5.5 Serengeti and Ngorongoro Diamond Jubilee

We have received the following communication from our Tanzanian colleague, Hon. A.S. Mkwawa, Chairman of the Board of Trustees of Tanzania National Parks:

"Serengeti which is the pride of Tanzania's National Parks, was first set aside as a reserve to conserve the animals there in 1921. That means next year, 1981, we shall be celebrating the 60th anniversary (Diamond Jubilee). In order that we should celebrate properly in a manner suitable to the world reputation of the Serengeti, we are proposing to set aside a special three day period next year 1981, and to invite conservationists, scientists and wildlife lovers to join us in the celebration. The time proposed is January 25-29 1981, and I am attaching to this letter a programme which has been worked out by the Committee set up by the Board of Trustees for the purpose. You will notice that Ngorongoro has been included because, of course, the crater and surrounding highlands, plus that area now known as the Ngorongoro Conservation Area was part of Serengeti until it was later separated. The two areas form one important ecosystem.

"We, of the Tanzania National Parks, very much hope that you will come and celebrate with us the securing for the future the wonder of the Serengeti".

The meeting agreed to send congratulations to Chief Mkwawa and the Tanzania National Parks Board of Trustees on the occasion of the 60th anniversary of this important protected ecosystem. Since the publication of this volume was slightly delayed, we are able to report here that the Diamond Jubilee was well attended by conservationists from all over the world, led by President Julius Nyerere, H.R.H. Prince Bernhard of the Netherlands, Lee M. Talbot, Director General of IUCN, Charles de Haes, Director General of WWF, and many others. Several CNPPA members attended, including most of our colleagues from Tanzania, Kenya, and Uganda. The CNPPA Secretariat was represented by its Executive Officer.

One of the high points of the meeting was a speech presented by Chief Mkwawa which summarized very well the history, present, and future of the Serengeti ecosystem. Highlights of his talk:

Conservation of wildlife and natural resources in Tanzania dates back to the British Colonial Government. The first game laws, Ordinance No. 41 of 1921, was passed by the Legislative Council and received the Governor's assent in that year. It is on that foundation that successive governments have built up a body of legislation for the Conservation and protection of our wildlife and natural resources equal to any in the world.

At the same time Legislation controlling the exploitation of forestry, water and mineral was enacted. Although the catchwords environment, conservation, energy were not then on everyone's tongues as they are today, it is apparent that the fledgling government of Tanganyika was conservation conscious sixty years ago, and fortunately for the good of our country has consistently remained so through all the constitutional changes which have occurred since 1921.

In the course of these sixty years mankind has achieved much greater appreciation of the environment and the necessity for its prudent use rather than its ruthless exploitation. In any such situation there naturally arise conflicts of competing interests. The industrialist wants to build his factories and his towns, the conservationist wants to maintain an unsullied countryside.

Here in the Serengeti and Ngorongoro we had a typical case of such competing interest, namely the interests of the National Parks and those of the agriculturists and pastoralists who inhabited it.

Some of you will recall the controversy which flared up in the late 1950s concerning human rights in this area and the subsequent appointment of the Serengeti Enquiry Committee in 1957.

This was resolved by the inhabitants of these areas by giving up their rights in the Western Serengeti, whilst in the Eastern Serengeti and Ngorongoro a conservation unit was set up with the objective of conserving and utilizing the natural resources in all spheres, reconciling the conservation of water and forests, the encouragement of tourism, the utilization of the rangelands and the waters by the pastoralists; in general a scheme of multiple land use to make available the unique resources of Ngorongoro to the local inhabitants, to the nation and indeed to the whole world.

The importance of Ngorongoro has been recognized in its acceptance as an item for inclusion in the World Heritage List, and currently the Serengeti is under consideration for similar status. This acceptance has brought the management plan of the area under review. With any new experiment we must expect failures as well as successes. And one of the failures we must admit is the decimation of the rhino population of Ngorongoro. But this tragedy is, most sadly, not confined to Ngorongoro, it has occurred through the whole of East Africa. The Governments and Park Authorities throughout the region are increasing their efforts to control this ruthless slaughter and one can only wish them well in their efforts.

But when you visit the Crater the day after tomorrow you will find the same picture which excited your awe and admiration in the past, the magnificent scenery as a back drop to the idyllic setting of the crater floor with its miles of brilliant green turf, its sweet waters, its salt lake, its swamps and its forests all supporting a plethora of wildlife. All these are there as in the past. Ngorongoro has been saved from alienation to settlers, from intrusion by indigenous cultivation, from the decimation of its wildlife by poachers. This is the measure of our success in the unique experiment in multiple land use, which we are determined to continue to the benefit of the local population, of the whole nation and of the whole world.

The Serengeti National Park has also undergone considerable organizational and ecological change in these last 20 years. The Northern Extension added an area to the Park approximately equal to the area handed over to the

Conservation Area, bringing in fresh environmental types, and more or less (but not completely) rounding off the Serengeti and Ngorongoro as one complete ecosystem.

Remarkable things have been happening to this ecosystem during these 20 years. Elephants, previously absent from the area for many years have made their reappearance. The wildebeest, whose migratory habits are world famous have increased from about a half of a million to over 1½ million, though curiously the zebra have remained constant at about 200,000. What caused these changes, and what is their impact on the habitat? What form of management can be introduced to prevent the situation from getting out of control? This is where research must help and where indeed much work has been done. Starting as the Michael Grzimek Memorial Laboratory, the Serengeti Research Institute has developed over the years. It has now achieved a new national status, being the basis on which the Serengeti Wildlife Research Institute was established in August last year.

Another remarkable change in the administration of the National Park and the Conservation Area is found in the changed structure of the staff. Twenty years ago all the senior posts were held by expatriates aided by loyal, hard-working but insufficiently trained Tanzanians. Now the picture has completely changed. The first Tanzanian took over as Conservator of Ngorongoro in 1965. The College of African Wildlife Management at Mweka has played a great part in training Tanzanians, and indeed others from many English speaking countries throughout Africa, to undertake these senior responsibilities in the areas of park management and research.

There are at least 15 Mweka graduates on the Ngorongoro staff, and 4 here at Seronera, as well as many scattered throughout the Tanzania National Park system.

The basis of the teaching at Mweka is essentially the same as formulated in the World Conservation Strategy, namely Living Resource Conservation for Sustainable Development. But we did not have to wait for the IUCN (International Union for the Conservation of Nature and Natural Resources) to turn out an elaborate kit to tell us what to do - we had to act quickly and so we worked out our own teaching schedules suiting our local conditions.

All these developments, the establishment of Mweka, the development of administration and research here at Seronera, the establishment of the Conservation Authority at Ngorongoro could not have been undertaken without heavy expenditure of funds. Much has been received from external donors, but it should not be forgotten that the Government, - that is, basically, the people of Tanzania, are apportioning a very considerable proportion of their meagre resources to the preservation of the country's wildlife and the conservation of its environment.

If I attempted to enumerate all the donors you would find it very tedious, and I might well cause offence by omitting some. But amongst the Non-governmental Organizations (the NGOs), some of the most outstanding are the African Wildlife Leadership Foundation, Frankfurt Zoological Society,

World Wildlife Fund, International Union for Conservation of Nature and Natural Resources, the United States National Park Service, Parks Canada, the National Geographic Society, the New York Zoological Society, and Texas A & AM University. Bilateral aid from governments includes £182,000 from the British CD and W Fund for the establishment of the Ngorongoro Conservation Unit and contributions from Canadian International Development Agency and United States Agency for International Development. I take this opportunity to thank these organizations and those countries. I hope that what their representatives will see will convince them that their money has been well spent.

I hope it will not be taken as ingratitude for past assistance if I point to certain areas where more support, both moral and financial, would help us in our task.

Two serious factors threaten our parks and conservation areas. One, more immediate, is poaching, the other perhaps more distant but very real, is the risk of our park boundaries being invaded by cultivation.

This has indeed happened to several forest reserves throughout the country, bringing about a situation which it has proved politically inexpedient to adjust. The safeguard against this threat is to get public opinion on our side. Over the years much has been achieved in the field of conservation education, with the help of external aid.

But even more is required in the future, including trained demonstrators, more equipment, more youth hostels, more funds to subsidize school excursions to parks and conservation areas. More help is also required in the broader sphere of general rural development so that the present areas of habitation, and adjacent underdeveloped areas can be adjusted to carry our rapidly increasing population. Only in this way the threat of overspill into our parks and reserves can be avoided.

I have already mentioned our concern over our inability to control the rhino poaching menace. This threat is not confined to Ngorongoro and the Serengeti, it is not confined to Tanzania. It is occurring wherever rhino are found, in Asia and in Africa. On an international basis a solution to the problem is being sought through CITES (Convention on International Trade in Endangered Species of Wild Fauna and Fauna) of which Tanzania is already a signatory. It is hoped that those other nations who have already signed, will enforce the provisions of CITES, and that those who have not joined in will do so.

I have mentioned some of the shortcomings in our efforts to conserve our wildlife and our areas of natural beauty. We lack sufficient staff to control poaching, to control illegal burning, to control agricultural encroachment. If we get the money to employ staff, we have to equip them, and this requires more money. We have to train them, and this requires still more time and money. The training required cannot be met by crash courses. We do not want technically skilled young men who think they know all the answers. We require mature men who are not only well trained, but who are inspired by a sense of dedication to conservation and this takes time to acquire. So we appeal to you who are here representing donor agencies to continue the good work on which you have already embarked. We thank you for all you have done in the past, and we look forward to your continued support.

5.6 Lake Malawi National Park

The session was informed by T.A. Croft, a park planner from Malawi, that a new national park in the southern part of Lake Malawi would soon be gazetted (which occurred on 24 December 1980). Although Mr. Croft was unable to attend, highlights of his report and management plan were presented to the meeting. This was considered particularly important because Lake Malawi (called Lake Nyasa by Tanzania, which borders the lake on the northeast) is so rich and diverse that it is considered a biogeographic province of its own; prior to the declaration of the national park, it had been totally unprotected. Highlights from a report from the Malawi Department of National Parks:

Lake Malawi is a lake of unusual beauty and interest. In surface area it is the ninth largest lake in the world, and the third largest in Africa; in depth it is the third deepest in the world, and the second deepest in Africa.

Its character is determined by its geological structure, which occupies a deep elongated crack in the ancient continental plateau, opened by the activity of the African Rift Valley System. This gives the lake its long, narrow shape, surrounded for the most part by steep escarpments. Where the escarpments fall directly into the lake, the shoreline is rocky and plunges immediately to considerable depth. But such areas are interspersed by sections of lakeshore plain of varying width which shelve more gently into the lake, and provide a variety of sand dune, beach and reedmarsh shorelines.

The lakeshore plain is densely settled and most of the sandy beaches are occupied by large fishing villages, or, in the south, by holiday cottages. However, the rocky escarpments are unsuitable for settlement, and still to a large extent retain their original cover of dense woodland, with a mixed forest including figs, sterculia and baobabs near the water line, merging into fine stands of *Brachystegia* woodland on the higher slopes.

The water of Lake Malawi is unusually clear, and this clear water provides the setting for the Lake's really outstanding feature: its fish. Lake Malawi contains the largest number of species of fish of any lake in the world by a considerable margin. It is impossible to say exactly how many species it holds, both because new species are continually being discovered, and because the classification of the known species is under review. But an estimate of 400 species gives an idea of the amount of variety involved.

This great diversity of fish species is of interest for three reasons:

- first it provides the basis for an important fishing industry;
- second it provides an unusual and beautiful spectacle for underwater recreation;
- and third it provides biological problems of great interest in understanding the evolution and ecological interactions of an exceptionally complex community.

To expand the last point, some more statistics are of interest.

Of the 400 odd fish species in Lake Malawi, only about 20 of these are found in any other lake or river system: that is to say that over 90% of its species are endemic to Lake Malawi. Further, of the 400 species, about 350 belong to the family Cichlidae, the Cichlids, a large family of perchlike fishes that occur in tropical and sub-tropical fresh waters. Of these 350 species of Cichlid, all but 4 are endemic to Lake Malawi, which means that about 30% of all known species of the Cichlid family are found only in Lake Malawi. (Figures from Ribbink, 1978).

Commercially, the Cichlids are important, including as they do the Chambo (Sarotherodon), Utaka, (Haplochromis), Chisawasawa (Haplochromis and Lethrinops), and Ncheni, (Ramphochromis) groups of fishes. These groups contribute about 60% of the total catch of the lake.

In terms of the underwater spectacle and of scientific interest, the Cichlids are quite outstanding, making Lake Malawi even more important than the famous Galapagos Islands for the study of evolution. This is because Lake Malawi has evolved a very large number of small, brightly coloured Cichlid species that occur in mixed concentrations on the rocky shorelines and the adjacent sand beds. Some of these species are widespread around the shores and reefs of the lake, but the majority are extremely localised being restricted to small sections of shoreline. Many species are in fact confined to a single rocky outcrop at a particular depth, and the whole species may contain only a single population of a few hundred individuals. It is this group of species that forms the basis of the remarkable underwater spectacle, of the export trade in aquarium fish, as well as some classic studies in evolutionary biology.

A national park for Lake Malawi was first proposed in 1973 by the then Chief Fisheries Officer, in conjunction with the Department of Tourism. This was supported by the Department of National Parks and Wildlife and a basic draft management plan was prepared in 1976. Since then, extensive consultations, discussions and background research have been carried out by government departments and others with an interest in the area.

Based on this body of work, a management plan has been produced that considers the lake and its fish, as well as the management of land areas which will be outside the park proper, but the utilization of which will be affected by the setting up of the park. It is essential that the plan is thus seen as contributing to the development of the whole area, and not first to the area of land within the proposed park boundary. Only by looking comprehensively at all the land interests in the area can a workable plan be presented for conserving the fish populations of Lake Malawi.

5.7 Waza National Park, northern Cameroon

As a mid-meeting field trip aimed at showing the group some of the attractions and problems of Cameroon's national parks, we all headed up to Waza National Park, near Lake Chad in Cameroon's northern corridor between Nigeria and Chad. We were very well looked after for the entire period, and we were all much impressed by the hospitality of our hosts. The staff of Waza were clearly well motivated and were working hard in the face of serious problems, including poachers from all sides and a changing water regime due to a new up-stream dam.

Mr. Piet Wit, an instructor in Habitat Management at Garoua, explained that the most important habitat in Waza is the floodplain called "Yaéré". Although trees are absent, the floodplain supports a rich variety of perennial grasses which have in turn supported large herds of grazing animals. The yaéré has a key function in the park's ecosystem. As elsewhere, the carrying capacity of Waza depends on the amount of food available at the most critical time of the year, the end of the dry season. Waza's remarkably high carrying capacity was due largely to the perennial grasses of the yaéré, which lasted long after the rest of the park had dried out and were replenished by annual inundations.

Although years of drought are known from the past, the park is now drying out by a more permanent development. A 56-km-long barrage has been built along the Logone River to the southeast of the park, blocking the Tsanaga, the Guirleo, and the Logoneatia rivers; this has effectively prevented the life-giving inundation of the yaéré. Although the digging of new water-holes and the maintenance of the existing ones may solve the drinking water problems for the animals, these management procedures will never provide enough water for the plants, since they cannot replace the inundation. The carrying capacity for the park as a whole has been greatly reduced, though giraffe may actually be increasing as Acacia shrubs replace grass. According to Wit, given the heavy poaching inside the park -- facilitated by the presence of two international borders -- a reduced animal population may have difficulties to survive at all.

For those used to seeing the wealth of large mammals in East African countries, Waza has something of a disappointment. Although giraffes were outstanding and there were great numbers of guinea fowl, elephants were clearly rare, and even the antelope which are common in many parts of Africa and were once common at Waza (gazelles, hartebeest, kob and impalas) are now few and far between at Waza. Several of the group voiced the concern that this may be the future of many African game parks unless improved management activities, including integration with regional development plans and real efforts to provide benefits to local people, are promoted immediately.

The group departed Waza with a very good impression of the difficulties facing West African protected areas, and considerable admiration for the hard working staff of Waza.

5.8 General Recommendations

The Garoua session ended with a number of general recommendations, adding to the specific programme recommendations made in section 4.2.1. These include:

- a) The 17th meeting of CNPPA, meeting at Garoua, Cameroon, from 17 to 23 November 1980, unanimously resolved to place on record its warm appreciation of the outstanding services rendered to the Commission and to protected areas by Harold K. Eidsvik during his term as the Commission's Executive Officer from 1977 to 1980. The meeting noted that this period coincided with very significant initiatives by the Commission, including the monitoring of protected areas around the world, and recognized the part played by Hal Eidsvik in these initiatives. Commission members wish him well as he returns to work with Parks Canada.
- b) The session suggested that CNPPA should investigate the possibility of an IUCN consultant to evaluate the effectiveness of anti-poaching measures in African parks, with full consideration given to a wide range of alternative approaches. This would involve coordination with WWF as well as with other Commissions (including CEPLA, SSC, Ecology, and Education).
- c) The meeting notes that the First All Africa Wildlife Conference, held in Nairobi from 13 to 19 July 1980, concentrated on wildlife conservation and socio-economic development within the framework of the World Conservation Strategy. In this regard, a serious need was seen for IUCN to cooperate in calling a meeting in 1981 for the several newly emerging nations of the realm, including Angola, Mozambique, and Zimbabwe, aimed at focussing on concepts of wildlife management, training in wildlife and ecological research for planning purposes.
- d) The meeting welcomed the proposal of the Government of Western Samoa to host a workshop for South Pacific countries on Environmental Education and protected Areas in October 1981 (just prior to the IUCN General Assembly). In particular, CNPPA would support IUCN/WWF assistance for the organization of the workshop should this prove necessary, and expressed the hope that it may be possible for the Commission to be represented at the workshop.
- e) The 17th meeting of CNPPA also unanimously expressed its gratitude and appreciation to M. Oumarou Aminou, Délégué général au Tourisme of the Unbited Republic of Cameroon, for his generous offer to host the meeting, for his attendance at the opening ceremony, and for the gracious social evening he provided to the group. His efforts allowed the meeting to get off to a fine start. A special vote of thanks was also expressed to Dr. Andrew Allo, Principal of the Ecole de Faune, for his role in organizing and sponsoring the meeting. His staff, notably Jean Ngog Nje, Joseph Wandji, Georges Achimbi, and Z.E. Akum, were also extremely supportive and were essential to the daily running of the session. The meeting hall was generously provided by Mr. Ruben Mbon. Attendance at the meeting was funded by WWF, UNEP, the US National Park Service, the Nature Conservancy, CIDA, and Unesco; the role of each of these organizations in making the meeting a success is hereby acknowledged.

CHAPTER VI. ANNEXES

The 1980s will see increasing pressure on Africa's national parks from the increasing populations of rural people, such as these Karamajong in Kenya. The survival of most protected areas will depend increasingly on the contribution they can make to the socio-economic welfare of local people. (Photo: Unesco)

6.1 OPENING SPEECHES

Opening speeches were presented on the morning of 17 November, with some in French, some in English, and one in both languages. They are presented here in their original languages:

- a) Allocution d'Ouverture prononcée par M. Oumarou Aminou, Délégué Général au Tourisme
- b) Allocution d'Ouverture, par J. Ngog Nje, Ecole de la Faune
- c) Speech by the Chairman of CNPPA at the opening of the 17th Meeting / Allocution d'Ouverture par le Président de la CPNAP
- d) UNEP address at the Opening Ceremony, made by Ms. Mona Bjorklund, Chairman, Conservation Task Force, on behalf of UNEP.

a) Allocution d'Ouverture Prononcée par M. Oumarou Aminou
Délégué général au Tourisme

Monsieur le Représentant du Gouverneur
 Monsieur le Président de la Commission
 Monsieur le Représentant de l'Unesco
 Monsieur le Représentant de l'UNEP
 Mesdames, Messieurs et Chers Participants

La République Unie du Cameroun s'honore d'abriter les assises de la 17ème réunion de la Commission de l'Union Internationale pour la Conservation de la Nature et de ses ressources. A cette occasion, permettez-moi de souhaiter à tous les distingués délégués une chaleureuse bienvenue dans cette terre hospitalière du Cameroun.

La tenue à Garoua, siège de l'Ecole Inter-Etats pour les spécialistes de la faune sauvage, de la 17ème réunion de la Commission de l'UICN sur les parcs nationaux et les aires protégées, est un témoignage éloquent de l'intérêt que porte l'UICN sur la protection des ressources naturelles dans le monde entier en général et en Afrique Tropicale en particulier. C'est avec un vif plaisir que nous accueillons, sur le territoire camerounais, d'éminents experts soucieux d'améliorer la qualité de la vie et préoccupés par les problèmes de conservation de la nature, et partant, de l'homme.

L'homme, en effet, doit être protégé contre lui-même. Dans la recherche effrénée de son bien-être, l'homme est devenu un véritable destructeur de la nature. Depuis un certain nombre d'années, la nécessité de conserver la nature est reconnue par tous.

Cependant on enregistre peu d'actions concrètes en faveur de la conservation des ressources naturelles à travers le monde entier. En conséquence, la pratique incontrôlée des feux de brousse continue à faire des ravages notamment dans les écosystèmes de savane tropicale; la forêt tropicale continue de faire l'objet d'un déboisement accéléré et anarchique.

Les dangers de pollution, loin d'être écartés, se concrétisent chaque jour davantage et le nombre de victimes ne cesse de croître.

Dans le même ordre d'idées, l'intensification du braconnage, fléau qui fait peser une grave menace sur l'ensemble des animaux sauvages, mérite d'être combattu avec force, car il risque d'entraîner la disparition systématique de certaines espèces animales.

Conscient du danger que représente ce phénomène pour les générations futures, le Cameroun ne ménage aucun effort pour juguler les effets néfastes de ce fléau. C'est ainsi que certaines mesures d'ordre réglementaire viennent d'être promulguées.

Dans le domaine de la réglementation, il convient de signaler plus particulièrement l'existence de la loi n° 78/23 du 29 décembre 1978 relative à la protection des parcs nationaux, et du Decret n° 78/076 du 11 mars 1978 portant réglementation des dits Parcs nationaux.

Ces textes à caractère repressif doivent, pour atteindre des résultats durables en matière de la protection de nos richesses fauniques, avantageusement complétés par une action soutenue de sensibilisation et d'éducation.

C'est pourquoi, en rapport avec les Ministères de l'Agriculture, de l'Elevage, de l'Education Nationale et de l'Information, une action de sensibilisation sera entreprise par la Délégation Générale au Tourisme au niveau des familles et des écoles visant à donner à la Jeunesse le goût de la nature. Cette action sera progressivement étendue au sein des différents rouages de notre Grand Parti National, l'Union Nationale Camerounaise qui est un instrument privilégié d'encadrement de nos masses.

Un tel effort de sensibilisation devrait être également mené au niveau régional et international si l'on veut atteindre des résultats positifs en vue de sauvegarder le patrimoine culturel de l'humanité.

L'UICN est justement l'un des organismes susceptibles d'assurer avec dynamisme et efficacité cette mission de sensibilisation.

En effet, sur les encouragements de l'UICN, les Gouvernements de certains pays d'Afrique Tropicale manifestent de plus en plus un intérêt accru pour les problèmes de conservation de la nature et de ses ressources au moment où celles-ci diminuent rapidement sous la pression du développement accéléré et extensif de l'agriculture et de l'industrialisation. On peut en juger par un renforcement des mesures de protection des parcs nationaux existants et par des projets de création de nouveaux parcs et de nouvelles réserves.

Le Cameroun; pour sa part, conscient du danger que constitue la disparition progressive des ressources naturelles, souscrit sans réserve aux objectifs visés par l'UICN. C'est ainsi que nous nous sommes fixés pour objectifs de créer des aires protégées jusqu'à concurrence de 20% du territoire national.

Les différentes catégories d'aires protégées existant actuellement dans notre pays sont les suivantes:

- les parcs nationaux
- les réserves forestières
- les réserves de faune
- les périmètres de reboisement
- les jardins botaniques

Les parcs nationaux au nombre de 6 couvrent une superficie de 905.900 soit 2% du territoire camerounais.

Les autres aires protégées (périmètres de reboisement, réserves forestières, jardins botaniques, etc...) couvrent une superficie de 1.441.900 ha environ.

La superficie totale des parcs, réserves et autres aires protégées est de 2.347.800 ha. ce qui représente à peu près 6% du territoire national. Ce taux reste inférieur au taux de 20% qui est notre objectif. Néanmoins nous avons à l'étude de nombreux projets de création des parcs nationaux et réserves. Nous comptons beaucoup sur l'assistance de l'UICN pour la réalisation de ces projets qui comprennent notamment la création et l'aménagement des parcs nationaux en zone de forêt dense et humide ainsi que dans la zone cotière.

Les responsables camerounais, face à l'empiètement croissant, désordonné et néfaste de l'homme sur le milieu naturel, s'efforcent d'appliquer le principe d'écodéveloppement en conciliant les projets de développement et les objectifs de préservation des équilibres écologiques.

Dans cet ordre d'idées, nous mettons en oeuvre une politique de développement du tourisme qui soit compatible avec les objectifs de conservation car pour nous, une bonne conservation de la nature présente dans l'immédiat non seulement un intérêt scientifique, culturel, éducatif et récréatif, mais également un intérêt touristique certain.

Aussi nos sites naturels et nos parcs nationaux sont ils visités chaque année par des dizaines de milliers de touristes nationaux et étrangers. Ces visites sont strictement réglementées.

En effet, si nous avons opté pour un tourisme de qualité, c'est justement afin d'éviter toute altération de notre patrimoine culturel et dans le souci de maintenir cette harmonie nécessaire entre le tourisme et la conservation de notre patrimoine naturel.

Par ailleurs le Cameroun est signataire de diverses conventions internationales relatives à la conservation de la nature. Je citerai notamment:

La Convention africaine pour la conservation de la nature et de ses ressources

La Convention sur le Commerce international des espèces de faune et de flore menacées d'extinction.

Je saisis cette occasion pour exprimer à l'UICN et au Fonds Mondial pour la protection de la Nature la gratitude du Gouvernement Camerounais pour l'appui qu'ils apportent à notre effort de conservation de la nature.

Mon voeu est qu'au cours de cette réunion vous recherchiez les voies et moyens pour promouvoir la conservation d'échantillons représentatifs des écosystèmes tropicaux, pour faciliter la coopération et un échange d'informations entre les gestionnaires des parcs nationaux et autres aires protégées, et enfin pour faciliter une véritable prise de conscience par les populations rurales et urbaines et la jeunesse de la valeur de l'héritage naturel que constituent la faune et la flore.

Remerciements aux organisateurs et à nos hôtes notamment les autorités administratives et politiques, l'Ecole de Faune et l'Office Céréalière.

Je vous souhaite un agréable séjour à Garoua et exprime l'espoir que les travaux de la 17ème réunion de la Commission de l'UICN sur les parcs nationaux connaissent un grand succès.

b) Allocution d'Ouverture, par le représentant de l'Ecole de Faune

Monsieur le Délégué général au Tourisme

Monsieur le Président de la Commission des parcs nationaux et des aires protégées

Mesdames, Messieurs

Au nom du Directeur de l'Ecole de Faune de Garoua, j'ai l'honneur et le plaisir d'adresser mes vifs souhaits de bienvenue à tous les invités et participants à cette 17ème réunion de la Commission des parcs nationaux et des aires protégées de l'Union internationale pour la conservation de la nature et de ses ressources.

Cette Union, en abrégé UICN, a été créée le 5 octobre 1948 à Fontainebleau par les gouvernements et organismes intéressés par la protection et conservation de la nature.

L'objet principal de cette organisation est la sauvegarde et la gestion du monde vivant, milieu naturel de l'homme et des ressources renouvelables de la terre.

Pour atteindre cet objectif, et tout en travaillant en étroite collaboration avec d'autres organismes et institutions, l'UICN dispose de six organes spécialisés appelés Commissions à savoir:

- la Commission de l'Ecologie
- la Commission de l'Education
- la Commission de la planification environnementale
- la Commission des politiques, du droit et de l'administration
- la Commission de sauvegarde des espèces
- la Commission des parcs nationaux et des aires protégées.

La Commission des parcs nationaux et des aires protégées est l'organe de l'UICN qui lui fournit les données scientifiques et techniques sur lesquelles elle s'appuie pour planifier, établir et gérer un réseau mondial des régions protégées importantes pour la conservation. Elle recommande et encourage la prise de mesures destinées à étendre, entretenir et surveiller en permanence ce réseau.

Actuellement, cette Commission compte 44 membres, 52 consultants et 17 correspondants venant de 61 pays.

Pourquoi le Cameroun et l'Ecole de Faune de Garoua ont été respectivement choisis comme pays et établissement hôtes de cette 17ème réunion de la Commission?

Le Cameroun jouit des caractéristiques naturelles qui font de lui un échantillon représentatif des écosystèmes africains. Par ailleurs, il fournit d'immenses efforts dans le domaine de la conservation de la nature et ceci est rendu évident entre autre par le nombre toujours croissant des parcs nationaux et du personnel chargé de leur aménagement.

Quant à l'Ecole de Faune, c'est la seule institution à vocation régionale chargée de la formation des cadres moyens en aménagement de la faune pour les Etats d'Afrique Francophone. En mai, 1981, cet établissement aura formé 356 cadres venant de 19 pays. La promotion actuelle compte 49 étudiants originaires de 12 Etats. Le corps enseignant est aussi multinational.

Monsieur le Délégué général au Tourisme, Monsieur le Président de la Commission, Mesdames et Messieurs, tout ce qui précède porte à croire et même à affirmer que le choix du lieu de cette réunion a été minutieux et judicieux. Les participants auront ainsi l'occasion d'analyser d'une façon concrète certains problèmes de la conservation en Afrique et particulièrement au Cameroun.

Cette réunion de Garoua se propose de faire un inventaire, une évaluation du travail effectué en Afrique dans le domaine des aires protégées. Des problèmes seront identifiés et quelques solutions seront proposées dans la mesure du possible.

A cet effet, les thèmes suivants ont été retenus.

1. Distinction pour services rendus aux parcs

Dans la lutte contre le braconnage, les directeurs et les gardes de parcs nationaux et aires protégées sont les personnes les plus engagées. En reconnaissance du courage dont ces hommes doivent parfois faire preuve, l'UICN a instauré la "Distinction pour services rendus aux parcs" cette distinction comprend une médaille, une somme d'argent et un certificate. Deux gardes sénégalais en ont déjà bénéficié.

Cette réunion proposera une liste des futurs récipiendaires avec tous les éléments afférents.

2. Liste des aires protégées

La Commission va examiner, vérifier la liste des aires protégées en Afrique tropicale et éventuellement apporter des changements jugés nécessaires. Un système standard de collecte de données permettant de juger du degré d'aménagement de chaque zone sera étudié.

3. Formation du personnel

Les besoins en personnel s'occupant des aires protégées se font sentir dans tous les pays africains. A cet effet, les Directeurs de l'Ecole de Faune de Mweka (Tanzanie) et de celle de Garoua (Cameroun) feront des exposés sur leurs établissements respectifs. La Commission visitera l'Ecole de Garoua et envisagera les possibilités d'amélioration de la formation dans les différents centres.

4. Programmes de l'Unesco

La Commission examinera également les programmes de l'Unesco en ce qui concerne les sites du Patrimoine Mondial et les Réserves de la Biosphère.

5. Programme de l'UICN sur les zones protégées

La Commission examinera les différents projets de l'UICN sur les aires protégées en Afrique et fera des recommandations appropriées à cette organisation.

6. Conservation au Cameroun

Des participants effectueront une visite dans le parc national de Waza. Cette excursion sera suivie d'une discussion sur l'état de la conservation au Cameroun.

7. Communiqués

Il sera ici question d'informer les participants sur les possibilités des futures réunions, conférences et cérémonies dans le domaine de la conservation de la nature.

Monsieur le Délégué général au Tourisme, Monsieur le Président de la Commission, Mesdames et Messieurs, le programme, comme vous pouvez le constater, est très chargé. Cependant, je suis convaincu que l'ardeur qui anime les participants ici présents permettra son exécution complète et que les recommandations seront rédigées à l'intention des états et organismes intéressés.

Je vous souhaite plein succès dans vos délibérations et vous remercie.

Jean Ngog Nje
Ecole de Faune

17 novembre 1980

c) Opening Speech by the Chairman of CNPPA

Mr. Delegeue general au tourisme

Ladies and gentlemen

It is a pleasure and an honour to be invited to Cameroon to hold the 17th meeting of the Commission on National Parks and Protected Areas. This Commission is one of six specialized bodies of the International Union for the Conservation of Nature and Natural Resources (IUCN). We are responsible, as part of the overall IUCN Programme, to promote the establishment of a worldwide network of effectively managed terrestrial, freshwater, coastal and marine protected areas. The Commission comprises the chief scientific and technical international body concerned with the selection, establishment, planning, management and development of national parks and other protected areas of conservation significance.

We have come to Garoua to join with colleagues from Africa in a review and examination of the national parks and related reserves on this great continent. The goal is to revise the list of protected areas in Africa (a mandate given to the Commission by the United Nations Social and Economic Council), and to develop a specific plan of action to support conservation work in this region.

Garoua is a particularly appropriate site for this meeting. The Ecole pour la formation des specialistes de la faune, has made Garoua known worldwide. I am confident that the people of Cameroon are proud to host this school which serves the french-speaking countries of Africa.

Ladies and gentlemen, we are grateful for your very kind offer of facilities and of friendship. Please feel welcome to join in our deliberations. We are all at your disposition to explain and discuss our activities. You can be assured of our dedication to serve the cause of conservation and sustainable development in Africa and especially Cameroon on this occasion.

Thank you ladies and gentlemen.

Kenton Miller

17 November 1980

c) Allocution d'Ouverture par le Président de la CPNAP

Monsieur le Délégué général au Tourisme
Mesdames et Messieurs

Ce fut un grand plaisir et un honneur pour nous tous d'avoir été invités et accueillis par le Cameroun pour réaliser la 17ème Réunion de la Commission des parcs nationaux et des aires protégées. Cette Commission est l'une des six organes spécialisés de l'Union internationale pour la conservation de la nature et des ses ressources. Nous sommes responsables de promouvoir l'établissement d'un réseau mondial d'aires protégées efficacement aménagées, soient-elles terrestres, d'eau douce, côtières ou marines. La Commission est donc le principal organisme scientifique international responsable pour la sélection, l'établissement, la planification, l'aménagement et le développement des parcs nationaux et des autres catégories d'aires protégées.

Nous sommes venus à Garoua pour nous réunir avec nos collègues d'Afrique, afin d'examiner la situation des parcs nationaux et réserves équivalentes de ce grand continent. Les objectifs principaux sont d'effectuer une révision de la liste des aires protégées de l'Afrique par un mandat du Conseil social et économique des Nations Unies et de développer un plan d'action spécifique pour soutenir le travail de conservation de cette région.

La ville de Garoua est un lieu particulièrement approprié pour cette réunion, l'Ecole pour la formation des spécialistes de la faune ayant fait de Garoua un lieu connu du monde entier. Je suis sûr que le peuple du Cameroun est fier d'héberger cette Ecole qui sert tellement bien les pays francophones d'Afrique.

Mesdames et Messieurs, nous vous sommes infiniment reconnaissants de votre très aimable accueil, des facilités que vous nous avez accordées et de votre amitié. Nous vous convions cordialement à vous joindre à nos délibérations. Nous sommes à votre entière disposition pour vous expliquer nos activités. Soyez assurés de notre volonté de servir la cause de la conservation en Afrique et tout spécialement au Cameroun.

Kenton Miller
17 novembre 1980

d) UNEP address at the Opening Ceremony, made by Ms. Mona Bjorklund,
Chairman, Conservation Task Force, on behalf of UNEP

Mr. Chairman, Mr. Director General of Tourism, Distinguished Delegates,

It gives me a great pleasure to have the opportunity to say a few words on behalf of the United Nations Environment Programme (UNEP) to this CNPPA meeting.

I should like first of all, Mr. Chairman, to join the participants in congratulating you on your designation as Chairman of this important meeting, and Mr. McNeely on his designation as the new Executive Officer of the IUCN National Parks Commission.

May I also take this occasion to pay tribute to the Director General of Tourism and express UNEP's deep appreciation to the Government of Cameroun for hosting this meeting and for having so generously devoted their time and facilities to its organization.

UNEP is happy to participate in this important meeting. As you all know, UNEP was established eight years ago by the United Nations General Assembly, by Resolution 2997 (XXVII) of 15 December 1972, to implement the Plan of Action on the Human Environment adopted at the Stockholm Conference. This Plan of Action has been subsequently sharpened by UNEP Governing Council decisions, as well as, from time to time by those of the General Assembly. The important issues for which UNEP is responsible include promoting the conservation of natural terrestrial and marine ecosystems as an integral part of sustainable and social development. Unlike other organizations in the United Nations system, ours does not have an operational role; rather it is to identify environmental problems, promote appropriate policy responses and coordinate and catalyse action on the part of the United Nations system, Governments and non-governmental organizations. UNEP activities in the coming years will continue to be directed towards achieving proper management of human activities affecting the environment, especially those having international implications, with a view to providing maximum sustainable benefit to present generations while maintaining the potential of the biosphere to meet the needs and aspirations of future generations. One of the main obstacles to living resources conservation for sustainable development is the lack of political will - the will to re-arrange priorities and bring about a change in the damagingly wasteful styles of living off the affluent in today's world.

At this juncture, it may be appropriate for me to outline some of UNEP's major contributions, within its overall involvement in conservation activities, to ensure better conservation of living resources.

At its 34th session in 1979, the General Assembly and later the UNEP Governing Council in 1980 formally endorsed the World Conservation Strategy, which marked the culmination of a five-year joint undertaking by UNEP, and two of the leading non-governmental international organizations: IUCN and WWF. This effort drew heavily upon the international scientific community

and two other UN Agencies, FAO and Unesco, were fully associated in it. Its official launching earlier this year marked another step forward in the search for alternative lifestyles and sustainable patterns of development. The Strategy is aimed at maintaining essential ecological processes and life-support systems, protecting earth's genetic diversity and ensuring the sustainable utilization of species and ecosystems.

The implementation of the Strategy is a high priority item in the programme of UNEP. It is therefore hoped that with the pooling of international resources involving Governments, the UN system and the NGO community, the Strategy will provide a practical and useful tool for living resource conservation for sustained development.

Other activities undertaken within the framework of UNEP/IUCN cooperation include the preparation and publication of the United Nations List of National Parks and Equivalent Reserves and the World Directory of National Parks and Other Protected Areas, both of which UNEP has supported since 1975.

Mr. Chairman,

UNEP has also actively supported the development of international conservation legislation. At its first session, in 1973, the UNEP Governing Council authorized the Executive Director to provide secretariat services for the Convention on International Trade in Endangered Species of Wild Fauna and Flora. This has been done with the assistance of IUCN. As you may know, UNEP carried the entire financial burden of the Convention Secretariat until January 1980 when the Parties started contributing to the Trust Fund for the Convention, which is administered by UNEP.

UNEP's total contribution to the Secretariat for the implementation of the Endangered Species Convention will amount to more than US \$1,400,000. UNEP still finances the major cost of funding the Secretariat, despite the Governing Council's request in May 1978 to the Parties to absorb an increasing share of the costs of the Secretariat to allow UNEP to gradually decrease its contribution.

As you know, UNEP offered in June 1979, at the time of the Bonn Conference which adopted the Migratory Species Convention, to provide a Secretariat for that Convention, as well, and to make an initial contribution, as appropriate, to meet the expenses of the Secretariat during the first four years after the entry into force of the Convention. The Conference accepted this offer, and requested the Government of the Federal Republic of Germany, as the depositary, to fulfil interim secretariat functions until the entry into force of the Convention, whereupon, as specified in the agreed text, secretariat functions will be entrusted to UNEP.

Mr. Chairman,

These are some of the global issues. Numerous other activities are being undertaken or planned by UNEP in cooperation with FAO, Unesco, and IUCN.

Mr. Chairman, Mr. Director General of Tourism, Distinguished Delegates, I would like to conclude these brief remarks with a sincere hope that this meeting will help strengthen our mutual understanding and cooperation in promoting the objectives of the World Conservation Strategy.

I wish our meeting here in Cameroun a successful outcome.

Thank you very much for your attention.

Felix Nyahoza
Principal
College of African Wildlife
Management
Mweka
Tanzania

J. Gary Taylor
IUCN/Sierra Club
800 2nd Avenue
New York, N.Y. 10017
USA

Miklos Udvardy
California State University
Sacramento, Ca. 95819
USA

Bernd von Droste
Unesco
Division of Ecological Sciences
Place Fontenoy 7
75700 Paris, France

School for the Formation of Wildlife Specialists
P.O. Box 271, Garoua, Cameroon

Director: Andrew Allo

Professors: Georges Achimbi
Z.E. Akum
Catherine Argant
Jean Ngog Nje

Administrator: Joseph Wandji

Assistant-
Taxidermist: Rigobert Azombo

F. Pertet
Co-Head, Wildlife Planning Unit
Ministry of Environment and
Natural Resources
P.O. Box 40241
Nairobi, Kenya

James Thorsell
Resource Planner
Wildlife Planning Unit
Ministry of Environment and
Natural Resources
P.O. Box 42076
Nairobi, Kenya

B. Vaohita
Director, WWF Representative
Government of Madagascar
B.P. 4373
Tananarive, Madagascar

- Observers:**
- | | |
|--|---|
| <p>Victor S. Balinga
Chief of Service for Wildlife
and Forest Environment
Ministry of Agriculture
Forestry Department
Yaoundé, Cameroun</p> <p>John Kundaeli
IUCN, Programme Officer
for Africa
Avenue du Mont Blanc
1196 Gland, Switzerland</p> <p>David Momo
Sous-Directeur des parcs
nationaux
Délégation générale au Tourisme
B.P. 50, Yaoundé, Cameroun</p> | <p>D. Diamonika
2ème Conseiller
Ambassade de la République
du Zaïre
B.P. 632
Yaoundé, Cameroun</p> <p>Mana Mamoudou
Technicien des Eaux et Forêts
Délégation générale au
Tourisme
Service provincial du Tourisme
pour le Nord
B.P. 50, Garoua, Cameroun</p> <p>Guy G. Ngansop
Coordinateur national de
l'association des Clubs des
Amis de la Nature du Cameroun
B.P. 271, Garoua, Cameroun</p> |
|--|---|
- Students:**
- Benin
- Arouna Seke
- Cameroon
- | | |
|---|--|
| <p>Ndongo Abou'ou
Benjamin Akeh
Joshua M. Batcha
Essoloani Bawoum
A. Bomandji
Etienne Hatungimana
Ayite Hillah
Lonzo B. Koffi</p> | <p>John Lyombe
Manas Madda
Paul Mayono
Mathias B. Mbila
J.-Marie Mbongo
Nkangue Ntsoune
Waga
Mathéas Waindah</p> |
|---|--|
- Congo
- | | |
|--------------------------|-----------------------|
| <p>Etienne Mingouolo</p> | <p>Marcel Nguimbi</p> |
|--------------------------|-----------------------|
- Gabon
- | | |
|---|--|
| <p>David Allogo-Obague
Henri-Max Boudiala
Emmanuel Endoumou</p> | <p>Pascal Massande
Marc Mpami
Nkoume Jean Obiang</p> |
|---|--|
- Ivory Coast
- Lazare Guei

Mali

Sofana Bauba
Sidiki Bayoka

Diakite Mamadou
Mamadou Samake

Central African Republic

Urbain Ngatoua
Laurent-Nestor Oumar
Henri-Bosco Sackazoya

Senegal

Sane Ansoumana
Souleymane Ba
Sara Diouf
Diap Ibrahima

Sane Karfa
Moussa Koite
Balde Mamadou
Toure Oumar

Togo

K. Attiogbe Akamah
Moumouni

Mésétom Simliwa
Napo Tanghanwaye

Upper Volta

Adama Guinko

Pousga Zida

Zaire

Tshikala Kabala
Mozo Kabunda
Mara Manunga

6.3 COMMISSION ON NATIONAL PARKS AND PROTECTED AREAS

REPORT TO THE EIGHTH MEETING OF THE IUCN COUNCIL (10-12 NOVEMBER, 1980)

A. Introduction

During the period November 1979-October 1980, the membership of CNPPA reached 113 (44 members, 52 consultants and 17 correspondents), from 61 countries.

The activities of the Commission correspond to the IUCN programme for 1980-1982, under Objective 5: to promote the establishment of a network of effectively managed terrestrial, freshwater, coastal and marine protected areas.

B. Activities during the period November 1979-October 1980

(Ref. pp 20
IUCN Pro-
gramme)

1. Activity 5.1.1 Develop standards for the effective management of protected areas

The CNPPA publication: Objectives, Criteria and Categories for Protected Areas is being employed throughout the world as a guideline for the preparation of policy and the selection and management of various categories of protected areas.

The CNPPA publication: The Relationship of Biosphere Reserves to Other Protected Areas is serving countries and Unesco missions on biosphere reserve planning.

2. Activity 5.1.2 Develop policies for important socio-economic issues

A draft paper has been prepared on "ecodevelopment and protected areas"; it will be revised and developed further for early publication.

3. Activity 5.2.1 Develop biogeographic system for network of protected areas

IUCN publication No. 18 (1975) on "biogeographic classification" is being revised by Professor Udvardy in collaboration with CNPPA members, to be presented at the 1981 General Assembly.

4. Activity 5.2.2 Develop system for monitoring the world coverage of protected areas

The Commission held meetings by biogeographic realms, to review the status of protected areas:

- 15th meeting at Canberra and Kosciusko, Australia; reviewed protected areas of Antarctica, Australia, China, Indomalaya, New Zealand, and Western Oceania.
 - 16th meeting in Scotland and the Netherlands; reviewed Palaearctic.
5. Activity 5.2.3 Prepare directories and data on world's protected areas

Published "1980 UN List of National Parks and Equivalent Reserves", which for the first time also includes four categories: World Heritage Sites, National Parks and Equivalent Reserves, Nature Reserves, and Biosphere Reserves.

The data base on protected areas was expanded as a result of the members collaboration. A project to develop a computerized data management system has been signed between IUCN and the Nature Conservancy/US. This unit will be compatible with the IUCN Conservation Monitoring Unit being established at Cambridge and Kew, U.K., and will be moved to the CMU by late 1981.

6. Activity 5.3.1 Provide technical advice on international instruments

IUCN is named by the World Heritage Convention as technical advisor on natural areas. CNPPA provides to Unesco the service of reviewing technically all nominations for World Heritage status. Twenty-eight new areas were added to the World Heritage List, bringing the total to 85 areas.

Wetlands Convention (Ramsar) is receiving technical support, particularly for the upcoming meeting to take place at Cagliari, Sardinia.

7. Activity 5.3.2 Provide technical advice on protected areas to Unesco, FAO and other international organizations

CNPPA advises Unesco in relationship to the Man and Biosphere Project 8: Biosphere Reserves. Particular work focusses upon ensuring adequate coverage of the world's biogeographic provinces, and in ensuring appropriate coordination between biosphere reserves and other types of protected areas.

Members of CNPPA carried out Unesco missions to plan biosphere reserves in Guyana and Peru.

8. Activity 5.4.1 Promote and support action to extend coverage of protected areas

CNPPA assisted in the review of WWF project requests which relate to proposed or existing protected areas.

Field surveys and project guidelines were prepared for Burma.

9. Activity 5.4.2 Raise the standards for management through publications, training, etc.

IUCN publishes PARKS Magazine which is sent to some 7,500 individuals in English, French and Spanish, around the world. CNPPA provides technical advice. Mr. Robert Standish, Editor of PARKS, is a consultant to CNPPA.

CNPPA and the Education Commission established a joint project to inventory worldwide middle-level training facilities in the fields of parks and wildlife. The results will be published in 1981.

The Valor Award was established to acknowledge personnel of protected areas who have performed an outstanding act of valor in the management and protection of parks and wildlife. The first two awards will be presented to two Senegalese officers by CNPPA Vice-Chairman, Dr. Marc Dourojeanni in November 1980 in Dakar.

C. Activities beginning November 1980

The activities to be addressed by CNPPA following the November 1980 Meeting of Council will be oriented by the 1981-1983 IUCN Programme.

Sub-objective 5.1 To develop the conceptual bases for selection, establishment and management of protected areas

Under this sub-objective, particular work will be given to ecosystems which have received little attention in the past: lakes, rivers, coastal areas and marine resources. Also, the role of protected areas for in situ maintenance of genetic resources will be examined. Policy papers will be prepared on important socio-economic issues related to protected areas including the use of lands and waters surrounding protected areas (buffer zones) and the relationship of neighbouring peoples.

Sub-objective 5.2 To develop further an inventory and evaluation system for protected areas

The biogeographic classification system will be improved and published, and a parallel marine and coastal zone classification will be prepared. A computer-based data management system will be developed as a part of the IUCN Conservation Monitoring Unit. By having a list of protected areas with basic data on each, the effectiveness of management will be examined to ensure both adequate biological coverage and appropriate management of habitats within the areas. By integrating these steps, directories will be produced at the global and regional level. At that

moment, the Commission will be prepared to respond effectively to the needs of IUCN members, international organizations and other interested parties, for example, priorities for action to establish new protected areas in particular biological regions; areas which warrant adjustments in management; and regions where development projects should exercise special care in planning for natural resource use.

Sub-objective 5.3 To promote the establishment and/or better management of protected areas, principally through collaboration with international organizations, programmes, conventions and other instruments

Priority will be given to continuing development of the World Heritage Convention, the Ramsar Convention and Migratory Species Convention. Concepts will be considered for a possible convention on a global network of protected areas. Technical advice to international bodies will be expanded. A highlight of the period will be the 1982 World Conference on National Parks, Bali, Indonesia.

PARKS Magazine will continue and a series of publications is anticipated on topics including: effective management, marine protected areas, case studies on planning and management and a draft management manual.

Sub-objective 5.4 Action to extend the coverage of protected areas and to promote high standards for their management

The Commission will initiate an active programme to identify and orient field projects which address the priorities called forth by the inventory and evaluation mechanisms in 5.2. The regional meetings of CNPPA will be focussed on developing the programme framework for the projects within each region.

November 1980

6.4 ROLE AND TERMS OF REFERENCE OF CNPPA

ROLE

The Commission on National Parks and Protected Areas is the organ of the IUCN that serves as a source of the scientific and technical information required for the planning, establishment, and management of a network of protected areas of conservation significance throughout the world. It recommends and promotes measures to extend, maintain and monitor the network.

TERMS OF REFERENCE

To gather, review and disseminate in a systematic fashion information on the state of protected areas throughout the world, noting their location, extent, legal status, management, fauna, flora and other natural and cultural features and their continuing value for conservation purposes. Attention should also be paid to new areas worthy of protection.

To identify and advise on priorities for areas which should be reserved for conservation purposes to ensure a global coverage of areas of ecological significance and to advise on the means for their establishment, planning and management.

To identify inadequacies in the planning, establishment and management of areas reserved for conservation purposes and to propose courses of action for overcoming these inadequacies.

To develop a classification of protected areas and to provide criteria, standards and definitions for the categories recognized.

To advise on the desirability and practicality of specific proposals for the establishment of protected areas.

To advise on controversial issues regarding the planning, establishment or management of protected areas.

To identify situations where international cooperation is needed in defining, establishing and managing areas which should be protected for conservation purposes.

To participate in the development of the World Conservation Strategy, the programme of IUCN and, as necessary, in the development and screening of projects; to maintain a roster of experts from which individuals or groups can be selected to assist in those and other specific tasks.

To facilitate communication within the professional community concerned with the role of the Commission.





