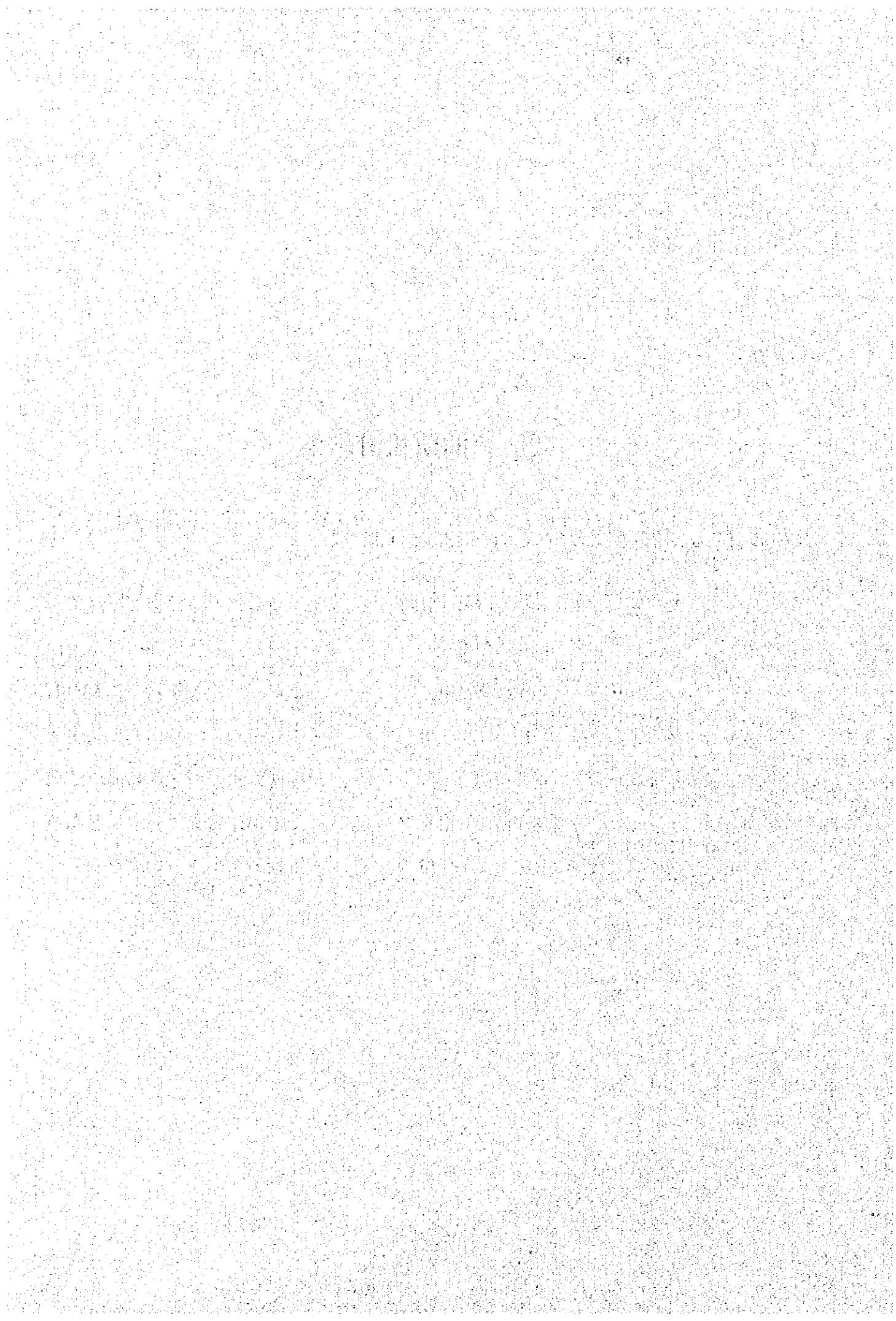


2. 質問票集計結果

質問表は、セミナー内容を決定するために事前にザンビア、マラウイ両国に送付し、回収、集計した。（但し、マラウイの技術窓口用は未回収）

- | | | | |
|----------|----------|-----------|-------------------------|
| 1) ザンビア国 | 相手国技術窓口用 | 質問票集計結果 | : 技術協力窓口機関を対象にした質問票 |
| 2) | 〃 | 〃 関係機関用 | 〃 : 研修員の所属先機関用質問票 |
| 3) | 〃 | 〃 帰国研修員用 | 〃 : 帰国研修員を対象にした質問票 |
| 4) | 〃 | 〃 技術セミナー用 | 〃 : 技術セミナー内容を決定するための質問票 |
| 5) マラウイ国 | 〃 関係機関用 | 〃 | 〃 : 研修員の所属先機関用質問票 |
| 6) | 〃 | 〃 帰国研修員用 | 〃 : 帰国研修員を対象にした質問票 |
| 7) | 〃 | 〃 技術セミナー用 | 〃 : 技術セミナー内容を決定するための質問票 |



2. 質問票集計結果

1) ザンビア国技術窓口用質問票回答結果

*機関（部門）名：環境・天然資源省（MINISTRY OF ENVIRONMENT AND NATURAL RESOURCES）

*貴機関（部門）の職務について簡単に述べて下さい。

本省はザンビアの持続的な自然資源の活用と環境問題に取り組む要請に基づき1991年に設立された。

質問

I. 人材開発計画について

1. 現在、人材開発計画について基本方針がありますか？

はい：○

いいえ：

「はい」の場合簡単に理由を述べて下さい。

（参考資料があれば、添付して下さい。）

省内に人材開発委員会があり、年に4回集まって、内閣の人材開発局長を通して毎年DONOR HOUSEに報告される研修計画を作成、実施する。

2. 自然保護管理で人材開発を推進するためのプロジェクトがありますか？

はい：

いいえ：○

「はい」の場合簡単に理由を述べて下さい。

（参考資料があれば、添付して下さい。）

3. 当該分野（自然保護管理）で人材開発に関する教育システムがありますか？

はい：○

いいえ：

「はい」の場合簡単に理由を述べて下さい。

（参考資料があれば、添付して下さい。）

省内に当該分野の人材を育成するために学位レベルを認証するザンビア森林大学がある。

II. 研修評価について

上記研修は自然保護管理分野の人材開発に効果的だと思いますか？

はい：

いいえ：○

「はい」の場合簡単に理由を述べて下さい。

（参考資料があれば、添付して下さい。）

自然保護ならびに自然公園管理のさらなる技術習得のために長期、短期の上級フォローアップ研修が必要である。

III. 参加者選択について

1. 集団研修コースのG.I.の配布先をどのように選定していますか。
本省はどの国でどのような研修があるかをさがす。

2. 貴部門では、関係機関より推薦された候補者をどのように選びますか？
本省事務次官の協力の下、関係部門によって選ばれる。

2) ザンビア国関係機関用質問票回答結果

* 機関 (部門) 名 : National Parks & Wildlife Service(NPWS)

* 貴機関 (部門) の職務について簡単に述べて下さい。

NPWSは、国立公園や管理猟区の生物学的多様性の保護・管理をする法的機関である。密猟禁止活動や野性動物の持続的な捕獲量制限の設定等もおこなっている。詳しくは添付“Policy for Wildlife in Zambia”を参照のこと。(P. 62~P. 74) 参照

質問

I. 関係分野研修の重要性について

1. 貴機関でどの部門が優先的に扱われますか？
保護と開発のプロジェクト (密猟禁止や調査以外の以外の主なプロジェクト) は、年間予算の94%がつくが、野性動物調査には、6%しかない。
2. その部門には何かプロジェクトがありますか？
 - (1) その部門には現在何かプロジェクトがありますか？
はい： 無回答
いいえ：
それは、何ですか？ (参考資料があれば、添付して下さい)
 - (2) 過去3年以内では何かプロジェクトがありましたか？
はい： 無回答
いいえ：
それは、何ですか？ (参考資料があれば、添付して下さい)
 - (3) これから5年以内では何かプロジェクトがありますか？
はい： 無回答
いいえ：
それは、何ですか？ (参考資料があれば、添付して下さい)

II. 研修の評価

1. 上記研修目的は貴国該当分野の要求に答えるものですか？
はい： ○
いいえ：
「いいえ」の場合は理由を述べて下さい。
2. 貴国の自然保護と国立公園管理運営分野の要求により適切に答えるために上記、研修目的を変える必要があると思いますか？
はい： ○
いいえ：

「はい」の場合、その提案あるいは代わりとなる目的を述べて下さい。
1993年8月に採択された野生生物政策により我々は管理計画に沿って野生生物を管理しなければならなくなった。そのため、もし研修で生体系管理計画やその実施方法などに重点をおいてもらえると助かる。

3. 貴機関は研修員の成果を帰国後評価しますか？

はい：

いいえ： ○

「はい」の場合、どのように評価するか述べて下さい。

III. 研修員の選択

1. JICA研修の参加者をどのように選びますか？

応募者の選択手順を詳細に述べて下さい。

(どのような試験を課すかとか、面接を行うか、等)

個人の職務と研修目的との関連性を考慮する。もし一人以上の適任者がいる場合は、学歴やこの分野における実績をもとに選考する。

2. 参加研修員の選択にあたって、どのくらいの期間を要しますか？

2か月

3. 当研修コースの情報はどこから入手しましたか？(具体的には、どこから当研修のGI(General Information)を入手しましたか)そして、部下にそれをどのように知らせましたか？

幸いなことにJICA専門家がカウンターパートとしているのでJICAの援助に関する情報は、彼等を通して豊富に手に入る。研修員の選考は先に述べたとおり。

V. 適用性

1. 研修員が持ち帰った研修成果の活用性に関する質問

1) 研修員が持ち帰ったものを適用した結果、どのような成果が得られましたか？

無回答

2) 研修員が持ち帰った知識、情報をどのように活用したか詳細に述べてください。

無回答

2. 研修員の得た知識の有効利用を推進する計画がありますか？

はい：

いいえ： 無回答

「はい」の場合簡単に述べて下さい。

V 海外研修について

1. 日本以外で、同様の研修やセミナーに出席したことがありますか？

いいえ :

はい :

参加者名 :

期間 :

コース名 :

開催地 :

開催機関 :

受入機関 :

2. 他国の研修と比較し、本コースの改善に資するコメントがありますか？

帰国研修員向けにさらに上のレベルのコースを用意してもらえれば前回研修した中のどの部分が役立ったかがわかると思う。その研修は帰国研修員の国で行うのもいいのではないか。

VI. 関連研修コースに関して何か要望があれば述べて下さい。

無回答

御協力ありがとうございました。

REPUBLIC OF ZAMBIA

MINISTRY OF TOURISM
DEPARTMENT OF NATIONAL PARKS
AND WILDLIFE SERVICE



POLICY

FOR WILDLIFE IN ZAMBIA

Approved by:
The Cabinet 25th August, 1993

*Published by: National Parks and Wildlife Service,
P/Bag 1, Chilanga, Zambia*

TABLE OF CONTENTS

	Page
Preamble	1
Commitments	1
Policy	
1. Definitions	3
2. General	3
3. Responsibility for wildlife	3
4. Functions of the department	3
5. National parks	8
6. Wildlife outside national parks	
6.1 Game management areas	10
6.2 Wildlife management in open areas	10

POLICY FOR WILDLIFE IN ZAMBIA

Preamble

Wildlife is a renewable resource with unique economic properties that supports a massive growing global industry based on the consumptive and non-consumptive use of the resource. The advantages of a wildlife industry are that it promotes the conservation of the biological diversity essential for continued human adaptation to a world of increasing resource scarcity and changing economic forces. Wildlife management is also often more profitable than alternative uses of the land, given appropriate institutions that permit it to realise its inherent economic advantage.

The Government of Zambia recognises the high economic, cultural and biological value of National Parks and the wildlife resource. It is determined to exploit their marketability for the benefit of the resource and the people of Zambia, especially those people who share the land with the resource.

Accepting that the natural flora and fauna of Africa requires special management technique, government will adopt a management agenda that is ecologically and economically sound for the resource and is equitable under the socio-economic conditions prevailing in Zambia. This agenda will guide all elements in the wildlife sector and is fundamental to a coordinated wildlife industry.

This statement of policy for the management and use of wildlife supersedes all previous policy statements. It does not, however preclude the responsible minister from issuing supplementary policy statements to address any issue that is not adequately addressed in this document.

Commitments

In accordance with its commitment to improve sustainable human welfare and hence to conserve and use the nation's renewable resources wisely, government will implement a policy for wildlife to:

- (i) maintain the ecological and aesthetic integrity of National Parks as prime samples of the nation's biological diversity and wild ecosystems;
- (ii) provide adequate protection to other major ecological types and species and their habitats which are either not presented or are insufficiently represented in National Parks, through adoption of appropriate land management practices;

- (iii) promote the sustainable use of wildlife and its habitats in accordance with the wildlife policy for any category or area of land, through adoption of appropriate legal and economic institutions that encourage people to conserve and use the resource correctly, because it is to their advantage and that of their community and the nation for them to do so.
- (iv) promote the value of wildlife in financial terms so that it is able to realise its economic potential and can compete on favourable terms with other uses of the land. In particular to ensure that wildlife is not undervalued through inappropriate legal or financial institutions;
- (v) ensure the equitable distribution of benefits from wildlife by treating wildlife like other renewable resources on the land from which landholders are entitled to maximise their benefits from the sustainable use of the resources;
- (vi) ensure the closest possible accountability between the benefits reaped from the resource and the welfare of the resource;
- (vii) promote a viable integrated wildlife industry based on free market principles, through appropriate organisation driven by the needs of the industry with particular attention to the conservation of the resource on which the industry is based;
- (viii) promote public awareness of wildlife issues and the close relationship between wildlife conservation and the socio-economic climate in which it is practised;
- (ix) maintain and enhance government's commitment to problem driven research and monitoring of the ecological and socio-economic parameters influencing sustainable wildlife management and the growth of a viable industry based on it;
- (x) participate in those international treaties and conventions that are consistent with Zambia's policy for wildlife conservation and use;
- (xi) develop a cost effective, adaptive legal and administrative institutional framework for managing National Parks and wildlife which recognises the special ecological and economic attributes of the resources and the divergence of policy objectives inside and outside National Parks;
- (xii) draw up plans based on clear policy objectives for the management of the resource and the development of the industry based on it for approval by the minister.

POLICY

1. Definitions

1.1 For the purpose of this policy:

Wildlife is defined as all components of the ecosystems in National Parks (including all archeological and historical sites) and all wild animals and their habitats outside National Parks.

Landholder is defined as any person or persons legally entitled to the primary use of a particular area of land and all or most of the renewable resources on it.

2. General

2.1 Government accepts responsibility for conserving all wildlife, including those species that may sometimes be in conflict with human interests, and to ensure that these assets are never squandered for any short term human gain or any purpose that does not conform with the principle of environmentally sustainable development. Within this context it is recognised that many lesser species can be conserved only by protecting the ecosystems in which they occur; that certain rare or endangered species may require special measures for their protection including legal protection wherever they occur; and that species that have detrimental effects on legitimate human interests or on the integrity of ecosystems may need to be controlled under particular circumstances.

3. Responsibility for wildlife

3.1 Government recognises the intrinsic strength of the ADMADE philosophy whereby local people and other landholders, including the State and National Parks, are accepted as the best custodians of the wildlife and other renewable resources on their land. This philosophy rests on the principle that wildlife has inherent economic advantages over other uses of the land, particularly in remote or agriculturally marginal regions of the country and that realisation of this potential can be a powerful incentive to conserve and use the resource in a sustainable way.

3.2 Government will therefore manage all National Parks according to internationally accepted norms. However, outside National Parks it will promote institutions to guide the management of wildlife which encourage landholders to conserve and use the resource wisely and maximise the returns from doing so, because it is in their economic interest to do so. This will benefit not only the landholders, but, through them, their communities and the nation.

3.3 Legislation will be reviewed periodically to ensure that it provides for the proper protection, management and use of National Parks; to promote sound ecologically and socio-economically based conservation that incorporates free market principles and ensures the equitable distribution of the benefits earned by wildlife; and to facilitate an ethical and durable wildlife industry.

3.4 A Parks and Wildlife Board will advise the minister on policy and its implementation for the protection, management and use of National Parks, the management of wildlife outside National Parks and the development of the wildlife industry. The minister may also charge the Board with specific supervisory or more executive functions in order to assist the Department of National Parks and Wildlife Service (NPWS) or to augment the skills already available in the department.

3.5 NPWS will be the executive arm of government responsible to the minister for implementing this policy and the legislation flowing from it. The department will be made as financially self supporting as possible, recognising that government cannot abrogate its responsibilities for protecting and managing National Parks and protecting the nation's wildlife resource and will make adequate financial appropriations for this purpose. To this end the department will maintain the Wildlife Revolving Fund. This fund will be used for:

- (i) earning revenue for the department to be used to supplement government allocations for the implementations of NPWS's mandate, and
- (ii) collecting revenue for landholders for disbursement to them, subject to the retention of an appropriate administrative charge.

3.6 The Permanent Secretary of the ministry of which NPWS is part, will in consultation with all heads of ministries concerned with rural administration and development establish a National Wildlife Technical Committee of authoritative spokespersons from all interested ministries and other government agencies, under the chairmanship of the Director of NPWS. This committee will ensure full liaison between all such agencies at national, provincial and district levels in all matters relating to the conservation and management of wildlife and National Parks. In particular, it will ensure that the real value of the wildlife resource is taken fully into account in land use planning and the realisation of rural land use options.

3.7 Without prejudice to the overall authority of the department, the minister may set up Integrated Resource Development Authorities (IRDAs) outside National Parks to manage the wildlife in particular areas. This privilege will be in terms of an agreement with the minister and will be subject to a management plan approved by the Director of NPWS and may be revoked by the minister for failure to adhere to the terms of the agreement or plan.

3.8 An IRDA shall comprise the individual landholder where that person has primary usufruct of the renewable resources in a given area, or it shall comprise the traditional local authority for an area where the rights to use the resources are held communally. In the latter case the individual households represented by the local authority shall have a meaningful voice in how the community's wildlife is managed and the benefits are disbursed.

4. Functions of the department

4.1 NPWS is a scientific professional arm of government. It is mandated to preserve the biological diversity on which continued human adaptability depends; to manage National Parks, and to promote and develop wildlife as a productive, profitable and environmentally friendly land use option of particular significance to rural landholders.

4.2 Because wild animals are such a valuable fugitive resource with special qualities and are prone to illegal abuse, powerful legislation administered by a specialised agency is needed to protect it from illegal activities. NPWS is required to implement this legislation throughout the country and is a paramilitary organisation with powerful statutory powers, special indemnities and the right to bear arms. It will therefore exercise a high degree of discipline and will co-operate fully with other law enforcement agencies of government, from whom it can expect the fullest support in the execution of its duties.

4.3 Government will ensure that officers of NPWS are fully trained, commensurate with their duties, and that those holding key managerial positions in the organisation hold the necessary academic or technical qualifications.

4.4 Within National Parks, NPWS will:

4.4.1 protect wildlife against illegal use;

4.4.2 conserve and manage the ecosystems to preserve biological diversity, their natural qualities and off-set the impacts of modern man. This management will be in terms of a management plan for

each National Park and will be based on sufficient monitoring of the key elements in ecosystems;

- 4.4.3. undertake or commission any necessary biological and socio-economic research needed to achieve these objectives and those outlined below;
- 4.4.4 undertake or commission all physical developments, including roads and fire breaks, water installations, buildings and other such structures. All physical developments will be designed to blend with the natural environment and to cause the minimal ecological or visual impact and will be in terms of the plan for the Park;
- 4.4.5 determine the type and extent of tourism and tourist activities that may be permitted in terms of the plan for National Park. In terms of this plan NPWS may provide a range of tourist facilities or it may lease out the right to provide them to the private sector. So far as possible all significant development for tourism should be located on the edge of the park, preferably just beyond its borders where it will have minimal impact on the Park and can be of maximum benefit to neighbouring communities;
- 4.4.6 where any commercial activity depends on the resources in a Park and is located in or near the Park, NPWS will ensure that an equitable share of the revenue generated is paid to the Park for the management of the area. The department will also assist on all reasonable measures to redress the flow of wealth from the rural to the urban sector and will adopt a pricing policy that does not allow commercial ventures based on Park resources an unfair advantage over similar ventures that could be based on resources outside the Parks. To the extent possible, financial opportunities, such as the offer of employment or the facility to sell local produce and goods or services, should be provided to compensate those people who traditionally had rights in the Park or who now bear the opportunity cost of having it in their region;
- 4.4.7 prevent illegal settlement and grazing by livestock and will restrict the number of domestic animals that may be retained or the extent of cultivation that may be practised within a Park where settlement within the Park is legal. It will also prevent the introduction of exotic plants, including ornamental, and exotic animals, including pets, that may spread or in other ways impact on the ecological integrity or aesthetic qualities of the wild ecosystem.

4.5 Outside National Parks NPWS will:

- 4.5.1 promote the conservation of wildlife and the development of an integrated ethical wildlife industry, while maximising the benefits that can be derived from the resource over the long term;
- 4.5.2 ensure the equitable and efficient allocation of opportunities for Zambian citizens to participate in and benefit from the wildlife industry, with particular attention to the benefits to be gained by landholders with wildlife, without prejudicing desirable foreign investment and the importation of expertise. In implementing this objective measures will be taken to give landholders the highest possible long term vested interest in the welfare and efficient use of the resource;
- 4.5.3 prepare regulations for the minister's consideration, where these are needed to co-ordinate or regulate the industry and to issue all authorities from Central Government required by law;
- 4.5.4 regulate trade in wildlife and wildlife products to curb illegal trade and its prejudicial effects on the conservation of the resource and the legal trade in wildlife;
- 4.5.5 facilitate coordinated marketing of wildlife products, including tourism and hunting, using open free market mechanisms to the maximum extent possible, so as to enable wildlife to realise its comparative economic advantage and inhibit undesirable marketing practices, including the emergence of monopolies. This may include the marketing of certain special wildlife products, such as ivory, and the organisation of marketing opportunities, such as auctions, in which both the State and the private sector can participate;
- 4.5.6 maintain a statistical data base on all wildlife related activities, including tourism and hunting, to guide the development of the industry;
- 4.5.7 undertake ecological, socio-economic and market research and monitoring in support of the wildlife sector and will co-ordinate the research activities of external researchers, to obviate unnecessary duplication and avoid the loss of useful information;
- 4.5.8 provide services to the industry, including public relations, in the setting up of ecologically sustainable and financially profitable wildlife ventures on their land;
- 4.5.9 set standards and issue authorities for wildlife operators, including people capturing and holding live animals, or offering services to the public such as safari outfitters and professional hunters and guides; and

4.5.10 encourage the formation of representative associations in wildlife sector to develop and present the industry, without permitting the emergence of undesirable trading practices such as monopolies.

5. National Parks

5.1 Government has created 19 National Parks, totalling some 64 000 km² or 8 per cent of the country. Management of these areas is delegated to NPWS.

5.2 Objectives

5.2.1 National Parks exist to:

(a) protect wild ecosystems and the biological diversity contained in them, with special emphasis on the conservation of the mega-fauna and its habitats and the protection of both animate and inanimate objects of scientific, prehistoric or historical and aesthetic interest;

(b) conserve water catchments;

(c) provide opportunities for the advancement of scientific knowledge and public education, with particular emphasis on the effects that man has had on the environment;

and without prejudice to any of the above to:

(d) encourage public use related to the enjoyment and appreciation of the natural values contained in the Parks;

(e) provide animals and other seed stocks to repopulate depleted parts of the country; and

(f) generate economic activity, both within the Parks and in surrounding areas, to enhance rural development.

5.2.2 Management of National Parks:

(a) *General.* The management of a National Park is a complex issue. It involves protecting and managing large, ecologically complex areas influenced by an array of ecological and socio-economic forces inside and outside the National Park. For this reason NPWS will adopt a structured adaptive management strategy progressing, as required, from the general to the particular and based on monitoring key biological and socio-economic parameters.

(b) *Park Plans.* Each Park will be managed in terms of a Park Plan which will:

(i) Define the area of the Park and how it is to be protected,

- (ii) define the objectives for managing the biological system, set the limits of permissible change so as to preserve biological diversity, and describe the parameters to be monitored and how this will be done, and
- (iii) divide the park into zones for permissible use and will define the uses to be allowed in each zone and the extent and nature of the physical developments to be permitted to support this use.

Park Plans will adopt the standard format determined by NPWS.

- (c) *Tourism.* Where tourism is to be permitted in a Park or part thereof, this will be strictly regulated by NPWS in terms of a Tourism Development Plan for the Park. Recognising that wildlife and National Parks are the basis of most tourism in Zambia, that tourism is an efficient means of marketing wildlife, but that it depends on the maintenance of natural values, NPWS will seek to encourage domestic tourism and low density up-market foreign tourism without permitting it to erode the resources on which it is based.

The Tourism Plan will determine:

- (i) The nature and extent of the tourism to be permitted in any Park, in particular the activities in which visitors may participate and the numbers of people to be permitted to participate in any given activity at any given time anywhere in the Park.
 - (ii) The extent of any physical developments to be provided for visitor use and the standards and type of construction, and
 - (iii) standards for any services to be offered by either the department or the private sector, including any parastatal or other government agency, and the level of fees to be charged.
- (d) *Prospecting and mining.* The right to prospect or mine in a National Park shall be subject to the agreement of the Minister of Tourism which shall require:
 - (i) Minimal disturbance of the natural environment during prospecting and the restoration of any disturbance that is agreed to by the minister, at the prospector's cost and to the satisfaction of the director of NPWS; and
 - (ii) mining shall be permitted in the National Park by the

minister only when he is satisfied, on the advice of the Parks Board, that such mining is in the national interest and is justified economically, bearing in mind all environmental costs. When an area of a Park is disfigured or modified through mining activities, it will be excised from the Park. An equivalent area of land required for National Park purpose will be made available for the purpose at the cost of the mining enterprise.

6. Wildlife outside National Parks:

6.1 Game Management Areas

6.1.1 Game Management Areas shall comprise any area of land for which the minister has entered into an agreement with the landholder to manage the wildlife and its habitats in accordance with the ADMADE concept and a plan approved by the director of NPWS. In the case of land reserved or in trust for communal occupation the land affected must also be declared a Game Management Area by the President.

6.1.2 The plans for Game Management Areas will include:

- (a) How the wildlife is to be used for game viewing, Zambian resident hunting, local hunting, cropping or the like;**
- (b) how the resource is to be managed and how the use is to be organised, in particular, how abuses of the resource are to be controlled and how quotas for consumptive uses of the wildlife are to be set, subject to the approval of NPWS;**
- (c) how the products, including those associated with the non-consumptive use of the resource, are to be marketed; and**
- (d) in the case of communally held resources, how the decision relating to the apportionment of benefits between the households will be decided. As a general rule the director will favour and encourage those plans that:**
 - (i) without compromising the effectiveness of resource conservation, are cost effective with regard to the expenditure on management in relation to the benefits generated;**
 - (ii) divide large Wildlife Management Areas into smaller units for the sake of apportioning benefits earned from wildlife; and**
 - (iii) provide for the equitable distribution of benefits as determined democratically by the people or have strong**

rights in the units that generate the benefits. This will provide a strong incentive for conserving the resource by linking benefits and accountability as closely as possible.

6.2 Wildlife Management in open areas:

- 6.2.1 Open areas comprise the rest of the country that is not either a National Park or Game Management Area. Wildlife in these areas will be protected in terms of the Parks and Wildlife Act and will be managed by NPWS with all benefits accruing to the state.
- 6.2.2 NPWS encourages the landholders in open areas where conditions are suitable to adopt wildlife as a land use option, to conserve and upgrade the resource and to enter into an agreement with the minister to become a IRDA.
- 6.2.3 Where a landholder shows a genuine intention to upgrade his land to the status of a Wildlife Management Area, NPWS will advise as to how to rehabilitate or develop the resource and may assist by providing stock from National Parks or other sources to accelerate the process.
- 6.2.4 Should a landholder wish to embark on a specialised wildlife venture such as crocodile or ostrich farming, this will be in terms of the ancillary Policy Document for such ventures approved by the minister. Where land is reserved or in trust for communal settlement and is ideally suited to the establishment of an intensive or semi-intensive wildlife venture under the management of a single landholder, NPWS may support the reclassification of the land for this purpose.

3) ザンビア国帰国研修員用 質問票集計結果 (帰国研修員 2 名、うち回答者 2 名)

Ms. Agnes Chitindi (Acting Provincial Natural Resources Officer,
Dept. of Natural Resources) 1994年研修員

Mr. George Kampamba (Wildlife Warden, Southern Command,
National Parks & Wildlife Services) 1993年研修員

I. 1 あなたの職歴を簡単に述べて下さい。(省略)

2 簡単に職務内容を述べてください。(省略)

3 組織図を添付してください。(省略)

II 研修の活用にあたって (以下の質問に答えて下さい)

1. 帰国後本研修 (講義、見学、並びに研修旅行) で得た知識や経験を日常業務に活用しましたか?

いいえ : 0

「いいえ」の場合、理由を述べて下さい。

はい : 2

「はい」の場合、以下の質問に答えて下さい。

(1) 研修プログラムの中でどのような内容、知識、経験をあなたの業務に活用しましたか?

(a) 環境影響アセスメント (ビクトリア滝周辺)

(b) 生息予測 (Mosi-oa-Tunya 国立公園の野性動物)

(c) 国立公園開発計画

(d) 国立公園クリーニング作戦 (Kampamba)

環境影響評価と森林保護。 (Chitindi)

(2) どのように活用したかを詳細に述べて下さい。

(a) Mosi-oa-Tunya 国立公園内で許可された動力舟の数に関する環境影響評価の研究に役立てる。

(b) 水牛、キリン、象、縞馬など Mosi-oa-Tunya 国立公園内の野性動物の生息数の調査

(c) 地域調査

(d) 他機関の公園クリーニング作戦への参加 (Kampamba)

環境影響評価報告書(EIS)案の準備。プロジェクト実施前のEIS第一案について公示、住民への説明、意見収集。 (Chitindi)

(3) 帰国後ただちに研修で得た知識、技術を業務に活用しましたか?

いいえ : 0

「いいえ」の場合理由を述べて下さい。

はい : 2

2. 研修のうちで業務に役立たなかったものがありますか?

いいえ : 1

はい : 1

「はい」の場合理由を述べて下さい。

海洋公園 - ザンビアは海のない内陸国だから。(Chitindi)

3.研修成果を業務に活用するにあたっての問題点に関して以下の質問に答えて下さい。

(1)研修成果を活用するにあたって、あなたの上司は協力的ですか、あるいは、協力的でしたか？

はい : 1

いいえ : 1

(2)研修成果を活用するにあたって、十分な用具、材料を与えられましたか？

はい : 0

いいえ : 2

(3)研修成果を活用するにあたって、十分な人材を与えられましたか？

はい : 2

いいえ : 0

(4)研修成果を活用するにあたって、他に何か問題点があれば述べて下さい。

・資金は大変乏しく予算がとても厳しくなっている。(Kampamba)

・限られた機器使用 ー交通が不便な一番の原因である。(Chitindi)

III 研修の評価

1.研修プログラムはあなたの期待あるいは目標に沿うものでしたか？

(1) 講習については、 はい : 1

いいえ : (無回答1)

「いいえ」の場合は理由を述べて下さい。

(2) 見学については、 はい : 1

いいえ : (無回答1)

「いいえ」の場合は理由を述べて下さい。

(3) 実習については、 はい : 0

いいえ : 2

「いいえ」の場合は理由を述べて下さい。

・自然環境研究センターでは、科学的データの分析実習に時間をかけなかった。

(Kampamba)

・コンピューターでデータ処理になると時間が足りなかった。(Chitindi)

2.今後の研修で力を入れたい、あるいは新たに導入したい知識や技術がありますか？あれば、その理由は？

・ 野性生物調査 (データ収集の方法と分析)

・ 様々な訪問者に対する公園の説明技術

・ 公園基盤の保持と開発、また基盤開発計画技術

(Kampamba)

・ 自然環境のデータ処理。(Chitindi)

3.研修プログラムを改善するために何かコメントがあれば、述べて下さい。

・ 研修期間の延長。研修は実習に重点を置くべきであり、コース終了時に理論と実習の試験をすべきである。

・ JICAは研修員にフォローアップをすべきである。そうすれば帰国研修員がJICAの現プロジェクトに自然保護や狩猟公園管理のため、いかに働いているかが

わかる。いまのように、日本から来ても繋がりが無い。(Chitindi)

IV 帰国研修員に対するフォローアップ

1. JICAはアフターケアの一環として研修員や帰国研修員同窓会支援団体に雑誌を配布してきましたが、他に何か要望がありますか？

帰国研修員が日本で体験し得たものを適用できるようにJICAは器材や資料を支援すべきである。各帰国研修員が定期的に環境報告書に自分たちが必要としているものを報告したり、JICA職員が適宜訪問したりしてはどうか。

(Kampamba)

V 海外研修について

1. 日本以外で、同様の研修やセミナーに出席したことがありますか？

いいえ : 1

はい : 1

参加者名 :

参加者名 : Agnes CHITINDI

期間 :

期間 : 1992年 3ヶ月

コース名 :

コース名 : 環境教育

開催地 :

開催地 : スコットランド

開催機関 :

開催機関 : WORLD WIDE FUND FOR NATURE

受入機関 :

受入機関 : WWF

ご協力ありがとうございました。

4) ザンビア国技術セミナー用質問票集計結果

回答者：Henry MWIMA (Chief Wildlife Research Officer, National Parks & Wildlife Service)
 George KAMPAMBA (Wildlife Warden, National Parks & Wildlife Service)
 Agnes CHITINDI (Natural Resources Officer, Dept of Natural Resources)
 Zook MULEYA (Provincial Natural Resources Officer, Natural Resources Dept,
 Lusaka Province)
 Cramford P. MOYO (Senior Human Resources Development Officer,
 Ministry of Environment & Natural Resources)

貴国におけるこの分野の現状と貴方の職務内容を簡単に述べてください。

- ・保護区は国土の30%を占めているが生物学的分布調査が十分行われているのは一部に過ぎない。わたしの仕事は資源モニタリングだけでなく、保護区の管理計画調整(国立公園、狩猟管理区)を含んでいる。(Mwima)
- ・わが国はこの分野を重視しており、その政策は野生生物資源保護を中心に、野生生物区の開発計画、野生生物調査、調査報告の実行が行われている。各国立公園の管理計画に重点が置かれている。(Kampamba)
- ・ザンビア政府は天然資源を保護し、自然保護政策を定める必要を認めている。(Chitindi)
- ・優性草木のタイプは豊富な野性生物を有するミオンボサバンナである。ザンビアには国土の84%、640万Haに及ぶ19の国立公園がある。又、国土の22%、1606万Haの24の狩猟管理地域がある。私は県の部長として部の計画とプログラムの実行に責任を持っている。(Muleya)
- ・人材開発に関わる分野に重点を置いている。私の仕事は省内での人材開発強化に相当な影響を持つ。(Moyo)

貴国において自然保護管理を行うのにどのような問題がありますか？

財政 一全体の配分

マクロ経済アンバランス
要件に対して不十分な予算

minor threat	signf. threat	poten. threat	solved threat
	4	1	

一歳入分配システム

公園の収入は直接国庫に入る
入場料は地域に益しない

2	3		
---	---	--	--

人材 一人数

スタッフ不足
自然保護に関わる人数不足

2	1	2	
---	---	---	--

一質

技術スタッフ不足
限られた研修
スタッフへの機会

2	2	1	
---	---	---	--

—研修

散発的な研修

現職教育プログラム開発の必要

	1	4	
--	---	---	--

行政／組織 —行政／組織

中央と地方政府の対立

複雑な調整

2	2		
---	---	--	--

—立法

法で規定されない保護区監督

保護区での採掘権の優先を決める階級組織

1	2	1	
---	---	---	--

技術

専門知識の不足

資源生産力を高める技術不足

2	1	1	
---	---	---	--

保護区の範囲

環境保全ユニットによるエコシステムの不十分な説明

保護用地の獲得

1		2	1
---	--	---	---

地域制—帯状分布

限定された緩衝地帯の導入

領域の環境、経済区分の必要

1	1	2	
---	---	---	--

—境界

無意識／意識的侵入により物理的境界線が不足している

2	1	1	
---	---	---	--

管理案／政策

管理案不足

包括的保護戦略の開発の必要

2	2		
---	---	--	--

政治的

国境線沿いの保安問題

政治的意思の欠乏

3			
---	--	--	--

国民の意識／教育

地域社会の意見は否定的

教育プログラムの不足

2	2	1	
---	---	---	--

密猟 - 野生生物 (陸上の)
商業密猟
生計のための密猟

	3	2	
--	---	---	--

- 植物 (陸上の)
薪の必要性の高さ

	2	2	
--	---	---	--

木材不法伐採
- 海洋/水生の

2		1	
---	--	---	--

不正の/乱獲

保護区への侵入

- 居住
定住

1	1	2	
---	---	---	--

季節移住

- 耕作

2		1	
---	--	---	--

農業拡大

- 放牧

2	1	2	
---	---	---	--

家畜の自由な侵入

他の社会経済上の土地利用紛争

- 開発

保護に順位をつける経済上の目標

1	3	1	
---	---	---	--

EIA案の欠如

- 文化的/伝統的
伝統的資源開発

1	2	2	
---	---	---	--

伝統的土地利用法

過剰開発

- 野生生物 (陸上の)
蛋白質の需要増加

2	3		
---	---	--	--

国際市場の需要増加

- 植物 (陸上の)

1	3		
---	---	--	--

商業的需要

- 海洋/水生の
蛋白質の需要増加

乱獲

2		1	
---	--	---	--

公害

都市公害

農業の広汎な使用

		4	
--	--	---	--

自然条件一種導入

非固有種による生態的不均衡

非固有種の異種交配

3			
---	--	--	--

II.この分野の情報は主にどのように得ていますか

学会 () 名前

資料 (5) UNEP,IUCN発行物 (2)
大学の教科書
本 (1)
その他 (1)

マスメディア (1)

その他 ()

どのような情報を必要としていますか

- ・国立公園管理の近代的技術の情報。(Mwima)
- ・データ収集、分析、結果のための方法論を含む野生生物、植物相、動物相についての科学調査発行論文 (教科書) (Kampamba)
- ・環境管理と保護に関する情報。(Muleya)

III.質問に関してセミナーで取りたい科目を5つまで選んでください

- ・ 1) 管理計画/政策
- 2) 地域制
- 3) 国民の意識/教育
- 4) 社会経済学上の土地利用
- 5) 過剰開発 (Mwima)

- ・ 1) 地域制
- 2) 管理計画/政策
- 3) 密漁
- 4) 侵入
- 5) 文化的/伝統的開発 過剰開発 (Kampamba)

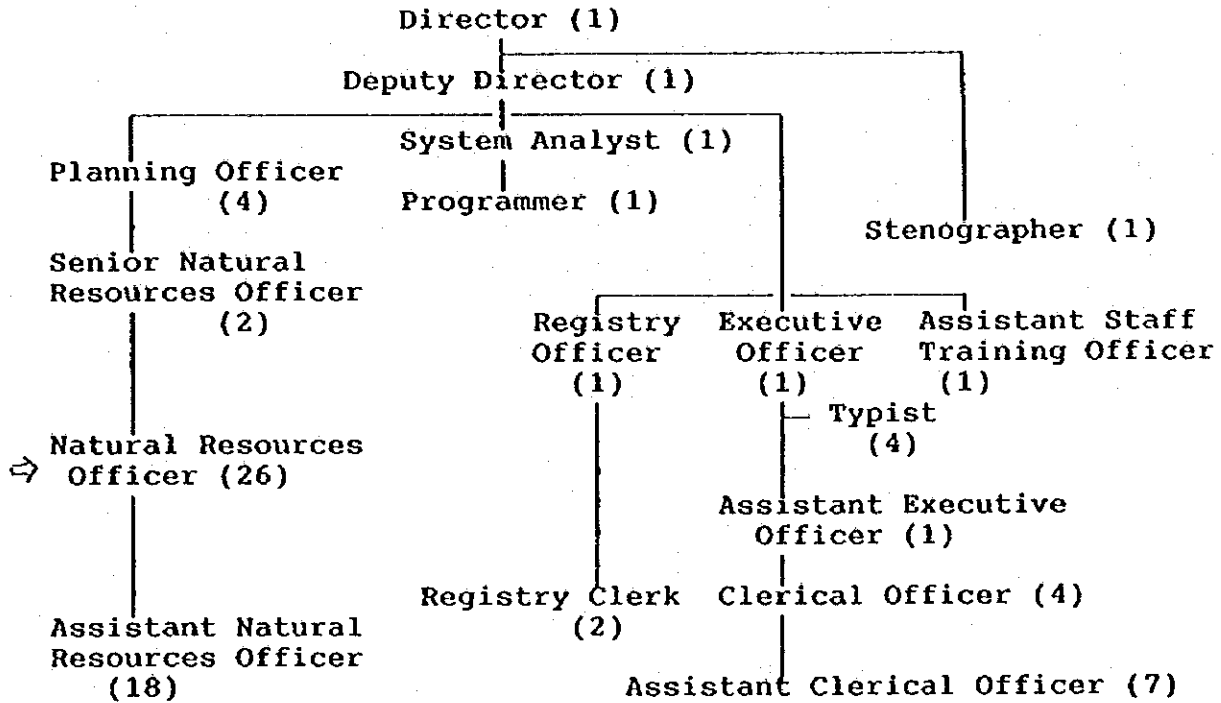
- ・ 1) 行政的／組織的
- 2) 保護区範囲
- 3) 管理案／政策
- 4) 国民の意識／教育
- 5) その他社会経済学上の土地利用紛争 (Muleya)

IV.このセミナーに要望があれば書いてください

- ・ 協力して働けるように地方の共同体をいかに天然資源管理に組み込むか。
(Mwima)

Ministry of Environment and Natural Resource

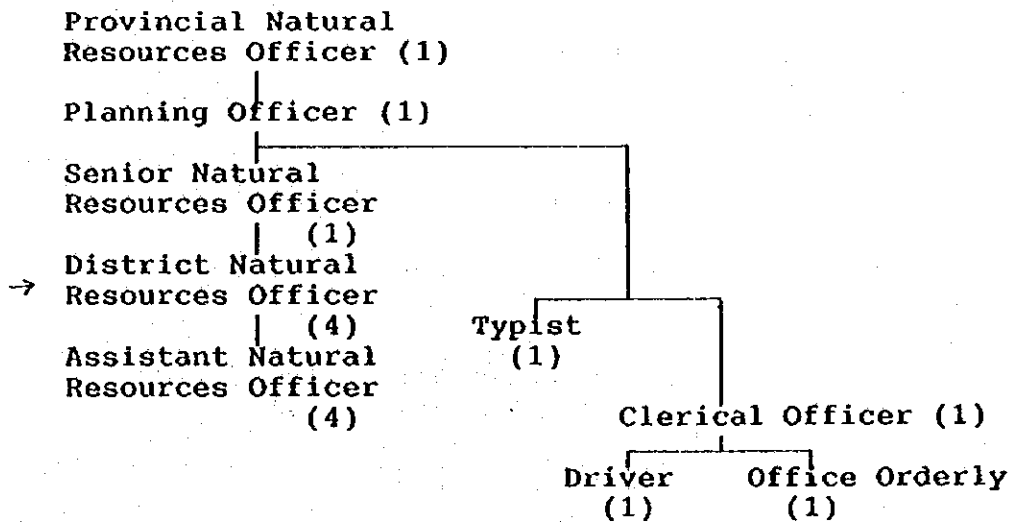
Department of Natural Resources (Current system)



Department of Natural Resources

Lusaka Province

(Proposed system)



5) マラウイ国関係機関用質問票集計結果

* 機関 (部門) 名: National Parks & Wildlife

* 貴機関 (部門) の職務について簡単に述べて下さい。

- 一 国立公園と野性植物の群生やある種の動物が保護されている野生生物保護地区の管理
- 一 ある種の野性動物を保護するために法律を強化し密猟やそのような動物で作った製品の取り引きを禁止する。
- 一 公園並びに野生生物の調査を推進する。
- 一 公園や野生生物管理並びに環境一般に関する学校教育の推進
- 一 脊椎動物に寄生する害虫の管理
- 一 サイテス (絶滅の恐れのある野生動植物の種の国際取り引きに関する条約) や他の条約に関して政府の科学的な管理機関となる。

質問

I. 関係分野研修の重要性について

1. 貴機関でどの部門が優先的に扱われますか?

- 一 公園管理
- 一 調査
- 一 環境

* その理由は?

- 一 公園や野生生物は科学的にまた専門的に管理すべきであるというのが政府の方針である。
- 一 現在の政策は野生生物管理に適しており調査が必要とされるところだ。
- 一 地域住民の意識を高めるには環境教育が大事である。

2. その部門には何かプロジェクトがありますか?

(1) その部門には現在何かプロジェクトがありますか?

はい:

いいえ:

それは、何ですか? (参考資料があれば、添付して下さい)
ドイツ政府の資金で設立されたニカとヅワザ開発プロジェクト

(2) 過去3年以内では何かプロジェクトがありましたか?

はい:

いいえ:

それは、何ですか? (参考資料があれば、添付して下さい)
WWF (USA) によるマラウイ湖国立公園の開発

(3) これから5年以内では何かプロジェクトがありますか?

はい:

いいえ:

それは、何ですか? (参考資料があれば、添付して下さい)

ドイツTARDUGHG. T. 2の資金によるマラウイとドイツ共同の養蜂プロジェクト

II. 研修の評価

1. 上記研修目的は貴国該当分野の要求に答えるものですか？

はい：

いいえ：○

「いいえ」の場合は理由を述べて下さい。

- 期間が短すぎて十分資料をカバーしきれなかった。
- 実習にもっと重点を置くべきだ。

2. 貴国の自然保護と国立公園管理運営分野の要求により適切に答えるために上記、研修目的を変える必要があると思いますか？

はい：

いいえ：○

「はい」の場合、その提案あるいは代わりとなる目的を述べて下さい。

3. 貴機関は研修員の成果を帰国後評価しますか？

はい：○

いいえ：

「はい」の場合、どのように評価するか述べて下さい。

- 習得知識の適用
- 新しい知識の適用に対する積極的な態度
- 責任
- 意欲

III. 研修員の選択

1. JICA研修の参加者をどのように選びますか？

応募者の選択手順を詳細に述べて下さい。

(どのような試験を課すかとか、面接を行うか、等)

- 委員会が候補者について協議する
- 委員会がもっとも研修から利益を得られると思われる候補者を考慮する
- 委員会は候補者の学歴とその候補者が当該分野の問題をよく理解し共有できる経験を有するかどうかを考慮する

2. 参加研修員の選択にあたって、どのくらいの期間を要しますか？

— 週間

3. 当研修コースの情報はどこから入手しましたか？ (具体的には、どこから当研修のGI(General Information)を入手しましたか) そして、部下にそれをどのように知らせましたか？

- マラウイのJICA事務所より入手する
- 部下はJICA専門家のカウンターパートとして従事しているあいだに知らされる

V. 適用性

1. 研修員が持ち帰った研修成果の活用性に関する質問

1) 研修員が持ち帰ったものを適用した結果、どのような成果が得られましたか？

- より意欲的になる
- 技術が向上する
- 責任感が強くなる
- 作業が改善される

2) 研修員が持ち帰った知識、情報をどのように活用したか詳細に述べて

ください。

- 帰国研修員に得てきた技術を他のカウンターパートや部下に伝えるように言ってきた
- 新たな技術を実行できるよう物心両面で支援する

2. 研修員の得た知識の有効利用を推進する計画がありますか？

はい：○

いいえ：

「はい」の場合簡単に述べて下さい。

- 日本でどのような研修がなされたかを書いて回覧させたい
- 習得した技術を他の関係職員に新たな知識として伝えるためにワークショップやセミナーの開催が必要である

V 海外研修について

1. 日本以外で、同様の研修やセミナーに出席したことがありますか？

いいえ：

はい：○

開催地：U K

開催年度：1993

コース名：foundation Course in Environmental Education

期間：6週間

開催機関：I C L E

受入機関：英国領事館

開催地：U S A

開催年度：1995

コース名：Internship in Environmental Education

期間：2ヵ月

開催機関：Aspen Center for Environmental studies

受入機関：Abwenzi African Studies

2. 他国の研修と比較し、本コースの改善に資するコメントがありますか？

U KやU S Aによる研修は専門的すぎるのでそれに比べて日本の研修は広い範囲を
あつかうので良い。ただ期間をもう少し長く、実習をもう少し取り入れて欲しいと
思う。

VI. 関連研修コースに関して何か要望があれば述べて下さい。

- ディレクターレベルの上級職員を対象としたプロジェクト計画、その遂行や評価
といった企画研修まで広げた研修を考えてはどうか。
- 野生生物の調査、計画まで研修を広げてはどうか。
- 野生生物と環境意識の研修の設置ならびに学校での環境教育に視聴覚教材の
使用を考えてはどうか。

6) マラウイ国帰国研修員用質問票集計結果 (帰国研修員 4 名、うち回答 3 名)

Mr. Tommy Tomeka Mhango (Senior Assistant Parks & Wildlife Officer,
Nyika National Park) 1995年研修員

Mr. Patricio Ndadzera (Assistant Parks & Wildlife Officer, Lilongwe National Park)
1994年研修員

Mr. Aggey Pima Dzimbiri (Assistant Parks & Wildlife Officer) 1993年研修員

Mr. Clement Mbotla (Parks & Wildlife Officer(PARCS)) 1992年研修員

- I. 1あなたの職歴を簡単に述べて下さい。(省略)
2簡単に職務内容を述べてください。(省略)
3組織図を添付してください。(省略)

II 研修の活用にあたって (以下の質問に答えて下さい)

1. 帰国後本研修 (講義、見学、並びに研修旅行) で得た知識や経験を日常業務に活用
しましたか?

いいえ : 1

「いいえ」の場合、理由を述べて下さい。

出来た部分と出来ない部分とがある。

出来た部分としては、研修に参加し、他の国々や日本が自然保護とどのように関わっているかを知る機会を得て自分たちの取組が正しかったことを確認することが、出来た。業務には、周辺地域の人々の野生生物保護の認識を高め、満喫してもらう機会を提供する必要があると感じた。日本では、地域社会の人々による野生生物資源保護ならびに、生息地である国立公園を、狩猟目的ではない観光地として利用することを強力に支援している。その実例を北は長野県から南は沖縄の海洋公園に至るまでを見学する機会を得た。幸いにも、マラウイでは、周辺住民の野生生物に優しい意識の啓蒙を始めたところである。そのことで、自然公園の職員と周辺の人々とが共に、自然保護に取組み、自然の恵を享受できることを目指している。

一方、出来なかった部分があるのは以下の理由による。

1. 公園職員の権限

政治的に過去より引きつがれているものとして公園管理者が研修で得た専門技術を利用する権限があまりないということがある。本部としては常に最高責任者に決定権があることが望ましい。この管理方法では公園管理者が研修から得た知識を活用することは出来ない。

2. 経済状態

経済状態もひとつの障害となっている。政府は野生生物保護には興味がないように見受けられる。本部署に対する年間を通じての財政割り当ては、実際に過去においても現在でもない。給料、賃金に関しては時としてでるが、製品類、サービスに関するお金はないか、あったとしても不十分である。

3. 設備

車そのほかについても供給不足である。これも又政府が長いこと本部署を管理、法施行、一般業務、スタッフの福利厚生等のための諸設備を必要とするほど重要と考えていないことのあらわれである。

4. 日本での研修期間 (特に "自然保護および国立公園管理") は技術を習得するうえで短かすぎる。

私たちは東京の自然環境研究センターを訪問し、日本における野生生物調査技術を受講した。これは公園管理者にとってマスターすべき大切な技術であるが、残念ながらあまり重点をおかれていなかった。

公園管理者は普通の研修によってこの調査技術を習得できると誤解されているがこの誤解が公園管理者による技術的向上を妨げほとんどの途上国における野生生物管理に支障をきたしている。途上国ではこのギャップをうめる現職者研修のための資金はないのが現状である。

(Mbota)

はい : 2

「はい」の場合、以下の質問に答えて下さい。

(1) 研修プログラムの中でどのような内容、知識、経験をあなたの業務に活用しましたか？

- ・公園計画、カントリーレポート発表、旅行中の公園施設(Dzimbiri)
- ・自然公園管理(日本)(Ndadzela)

(2) どのように活用したかを詳細に述べて下さい。

- ・知識や経験は地元の人々を野生生物保護に参加させることに活用した。地元の人々は小規模野生生物利用プロジェクトに携わっている。保護の倫理をもって共同体の中での公園施設の計画・設計 例えば、小道開発。(Dzimbiri)
- ・案内板やごみ捨てを用意して環境をきれいにする。(Ndadzela)

(3) 帰国後ただちに研修で得た知識、技術を業務に活用しましたか？

いいえ : 2

「いいえ」の場合理由を述べて下さい。

- ・資金不足。(Dzimbiri)
- ・財政上の人材援助が必要であり、政府に要請しなくてはならない。(Ndadzela)

はい : 1

2. 研修のうちで業務に役立たなかったものがありますか？

いいえ : 2

はい : 1

「はい」の場合理由を述べて下さい。

- ・国立公園管理と自然保護は短いセミナーや研修のプログラムの一つで、すでに期間は減らされているにだから冒頭の部分は短くすべきだ。講義や実習経験や野生生物調査見学はその国の歴史やその他見当はずれのものよりずっと役に立った。

(Mbota)

3. 研修成果を業務に活用するにあたっての問題点に関して以下の質問に答えて下さい。

(1) 研修成果を活用するにあたって、あなたの上司は協力的ですか、あるいは、協力的でしたか？

はい : 3

- ・前述のように中央集権型ではそこここで物事を変えさせるのは容易ではない。(Mbota)

いいえ : 0

(2)研修成果を活用するにあたって、十分な用具、材料を与えられましたか？

はい : 0

いいえ : 3

・そのような機会はなかった。資材不足のため多くの仕事がなされていない。(Mbota)

(3)研修成果を活用するにあたって、十分な人材を与えられましたか？

はい : 1

いいえ : 2

・機器やコストより十分な人数がある。(Mbota)

(4)研修成果を活用するにあたって、他に何か問題点があれば述べて下さい。

- ・研修中、進んだ機器が使用されたが国にはそのような施設はない。(観察点、Visitor Centre等) (Dzimbiri)。
- ・これは主に資金と機器の不足から来ている。法の実施は交通、十分なユニフォームの支給、無線通信等が改善される所である。(Mbota)
- ・機器と良い設備の不足。 経済的束縛。(Ndadzela)

III 研修の評価

1.研修プログラムはあなたの期待あるいは目標に沿うものでしたか？

(1) 講習については、 はい : 3

・しかしながら、公園管理者への伝統的研修に次のものが欠けていた。—人材管理
—普及と通信
—コンピューターの知識

これらのコースは過去と現在の管理に大きな違いを持たせる。以前の管理者は公衆に野性生物保護の考えを売りつける程攻撃的でなければならなかった。(Mbota)

いいえ : 0

「いいえ」の場合は理由を述べて下さい。

(2) 見学については、 はい : 3

いいえ : 0

「いいえ」の場合は理由を述べて下さい。

(3) 実習については、 はい : 2

・これは最も役だったもので、特に大事なものは日本の人が公園でいかに、すすんで管理の助けとなるような事をしてきたかだった。私がマラウイ湖国立公園にいた時、近隣の村は公害防止の助けをしてくれた。人々はより良い関係を育てるため喜んでやってくれた。この関係は今も育ちつつある。(Mbota)

いいえ : 1

「いいえ」の場合は理由を述べて下さい。

・実習や演習はやらなかった。(Dzimbiri)

2.今後の研修で力を入れたい、あるいは新たに導入したい知識や技術がありますか？
あれば、その理由は？

— 1. データ処理 研修員にデータ・コンピューター化の実習をさせるため。

2. 環境影響アセスメント 国立公園で公園管理者に各種開発の影響を
評価させるため。 (Dzimhiri)

ーアフリカの野性生物保護に大切なのは次に述べる分野での公園管理者の技術向上
である。ー人材管理と人材

- ー普及技術
- ー野性生物調査技術
- ーEIA手続
- ーコンピューター技術
- ープロジェクトの開発、実施、モニター、評価。
- ー財務管理
- ー観光他関連業務。(Mbota)

ー調査分野でのコンピューター研修。これはきわめて重要なのに表面的にしか
扱われなかった。

公園管理(計画、組織、管理)。どこに管理者の職務があるかを強調して
ほしい。(Ndadzela)

3. 研修プログラムを改善するために何かコメントがあれば、述べて下さい。

- ・実習をプログラムに加える。実習は見学旅行に組み入れる。自習は研修員に
良い経験となる。(Dzimhiri)
- ・PARCSプロジェクトは研修を通し野性生物管理を改善し集中するため働いてい
る。公園管理者も機器の管理、保守のコースに参加し、その知識で与えられた
機器を管理できる。この研修プロジェクトはまもなく順次廃止され、財政援助が
続く限りこのプロジェクトから公園管理者は大きな利益を得る事になる。
(Mbota)
- ・コースはとても良かったが、期間を延ばせば見たものを同化する時間が十分
取れるし、帰国御基本的研修機器を用意することができる。(Ndadzela)

IV 帰国研修員に対するフォローアップ

1. JICAはアフターケアの一環として研修員や帰国研修員同窓会支援団体に雑誌を配布し
てきましたが、他に何か要望がありますか？

・研修を編成する研修プログラムを考えてほしい。わが部は研修課を造り、現職
研修が短期間に多くの管理者に定期的実施される。又、この分野の印刷物を
援助してもらえればうれしい。(Mbota)

・JICA帰国研修員を他の国の帰国研修員と連絡するインターネットワークをつく
ってほしい。又、雑誌は受け取ったことがないので、ぜひ送ってほしい。

(Ndadzela)

V 海外研修について

1. 日本以外で、同様の研修やセミナーに出席したことがありますか？

いいえ : 3

はい : 0

参加者名 :	参加者名 :
期間 :	期間 :
コース名 :	コース名 :
開催地 :	開催地 :
開催機関 :	開催機関 :
受入機関 :	受入機関 :

7) マラウイ国技術セミナー用質問票集計結果

回答者：Aggrey Pima DZIMBIRI (Assistant Parks & Wildlife Officer, National Parks & Wildlife)
 P.C.MBOTA (Parks & Wildlife Officer, National Parks & Wildlife Department.)
 John N.B.MPHANDE (Deputy Director, Dept of National Parks & Wildlife)
 Roy BHIMA (Parks & Wildlife Officer-Research, Dept of National Parks & Wildlife)
 Francis X.MKANDA (Senior Parks & Wildlife Research Officer, Dept of National Parks & Wildlife)
 Patricio NDADZELA (Parks and Wildlife Officer, National Parks and Wildlife)

貴国におけるこの分野の現状と貴方の職務内容を簡単に述べてください

- ・人間のために専門的・科学的方法で天然資源を管理する。脊椎動物害虫駆除や天然資源利用を行う。私の仕事は野生生物保護管理である。(Dzimiri)
- ・マラウイは野生生物管理を良くするように努力している。成すべきことは多くあるが野生生物管理状況は近隣諸国に比べて良い。私はこの研修プロジェクトの重要な役割を担っている。(Mkota)
- ・マラウイは国土の21%が国立公園、野生生物保護区、森林保護区として保護されているが、人口と農業基盤経済のためたいへんな圧力を受けている。(Mphande)
- ・国土の10%を占める5つの国立公園と4つの野生生物保護区がある。調査官として国立公園の調査プロジェクトを計画、実行している。これらプロジェクトは公園資源、公園近隣関係、公園管理戦略の効果等の生態的局面となりうる。その目的は管理決定情報を用意することである。(Bhima)
- ・マラウイには5つの国立公園と野生生物保護区がある。私の仕事は調査プロジェクトの計画、実施、監督である。CITESの科学専門官とSADC野生生物技術コーディネーターも兼ねている。(Mkanda)
- ・野生生物法と生態モニターの実施。
 ビジターのための基本施設の管理。
 財政・備品管理。
 ビジター・スタッフ管理。(Ndadzela)

貴国において自然保護管理を行うのにどのような問題がありますか？

財政 - 全体の配分

マクロ経済アンバランス
要件に対して不十分な予算

minor threat	signf. threat	poten. threat	solved threat
	5	2	

- 歳入分配システム

公園の収入は直接国庫に入る

1	2	2	1
---	---	---	---

入場料は地域に益しない

人材 - 人数

スタッフ不足

1	5		1
---	---	--	---

自然保護に関わる人数不足

一質

技術スタッフ不足
限られた研修

スタッフへの機会

1	4	2	1
---	---	---	---

一研修

散発的な研修

現職教育プログラム開発の必要

	3	3	1
--	---	---	---

行政/組織 一行政/組織

中央と地方政府の対立

複雑な調整

4	2		1
---	---	--	---

一立法

法で規定されない保護区監督

保護区での採掘権の優先を決める階級組織

4		1	1
---	--	---	---

技術

専門知識の不足

資源生産力を高める技術不足

1	4	1	
---	---	---	--

保護区の範囲

環境保全ユニットによるエコシステムの不十分な説明

保護用地の獲得

5			2
---	--	--	---

地域制一帯状分布

限定された緩衝地帯の導入

領域の環境、経済区分の必要

1	1	2	2
---	---	---	---

一境界

無意識/意識的侵入により物理的境界線が不足している

2	1	2	2
---	---	---	---

管理案/政策

管理案不足

包括的保護戦略の開発の必要

2	1	2	1
---	---	---	---

政治的

国境線沿いの保安問題

政治的意識の欠乏

	5	1	1
--	---	---	---

国民の意識/教育

地域社会の意見は否定的

教育プログラムの不足

	3	3	1
--	---	---	---

密猟

-野生生物(陸上の)

商業密猟

生計のための密猟

3	2	2	
---	---	---	--

-植物(陸上の)

薪の必要性の高さ

木材不法伐採

1	4	2	1
---	---	---	---

-海洋/水生の

不正の/乱獲

1	3	3	
---	---	---	--

保護区への侵入

-居住

定住

季節移住

1	2	1	2
---	---	---	---

-耕作

農業拡大

1	2	3	
---	---	---	--

-放牧

家畜の自由な侵入

5		1	
---	--	---	--

他の社会経済上の土地利用紛争

-開発

保護に順位をつける経済上の目標

EIA案の欠如

1	4	2	
---	---	---	--

-文化的/伝統的

伝統的資源開発

伝統的土地利用法

5		1	
---	--	---	--

過剰開発

ー野生生物（陸上の）

蛋白質の需要増加

国際市場の需要増加

2	3	2	
---	---	---	--

ー植物（陸上の）

商業的需要

3	1	2	
---	---	---	--

ー海洋／水生の

蛋白質の需要増加

乱獲

2	3	1	
---	---	---	--

公害

都市公害

農薬の広汎な使用

4	1	1	
---	---	---	--

自然条件ー種導入

非固有種による生態的不均衡

非固有種の異種交配

4		1	1
---	--	---	---

II. この分野の情報は主にどのように得ていますか

学会 (1) 名前: World Conservation Union

資料 (5) UNEP, IUCN 発行物 (5)
大学の教科書 (2)
本 (3)
その他 (1) Dept. Report

マスメディア (4)

その他 (3) Workshop, Seminar, etc.

どのような情報を必要としていますか

- ・野生生物管理と紛争／問題の可能な解決法についての最新発行物(Dzimbiri)
- ・研修する側の研修についての情報。初期研修のバックアップとしての適切な研修をする研修担当官が必要とされている。(Mbota)
- ・保護のための資金の仕組についての情報。(Mphande)
- ・モデル化のような最新管理技術についての情報。(Bhima)
- ・Geographic Information Systems(GIS)
- Global Positioning Systems(GPS)
- Freshwater (Aquatic) Ecological Methods Conflict Resolution (Mkanda)

・環境について、特に環境危機についての情報。又、指導的工業国である日本に焦点を置いた地球環境問題。(Ndadzela)

III. 質問に関してセミナーで取りたい科目を5つまで選んでください

- ・ 1) 管理計画/政策
- 2) 国民の意識/教育
- 3) 環境影響アセスメント
- 4) 地域制
- 5) 人材 (Dzimhiri)

- ・ 1) 人材管理
- 2) 財政計画と管理
- 3) 人事管理とグループ間相互影響
- 4) 一般統計とコンピューターコース
- 5) 野生生物調査等 (Mboti)

- ・ 1) 国民の意識/教育
- 2) 地域制
- 3) 歳入分配システム
- 4) 密猟
- 5) 侵入 (Mphande)

- ・ 1) 資金
- 2) 管理案/政策
- 3) 社会経済学的土地利用紛争
- 4) 天然資源の過剰開発
- 5) 自然条件 (Bhima)

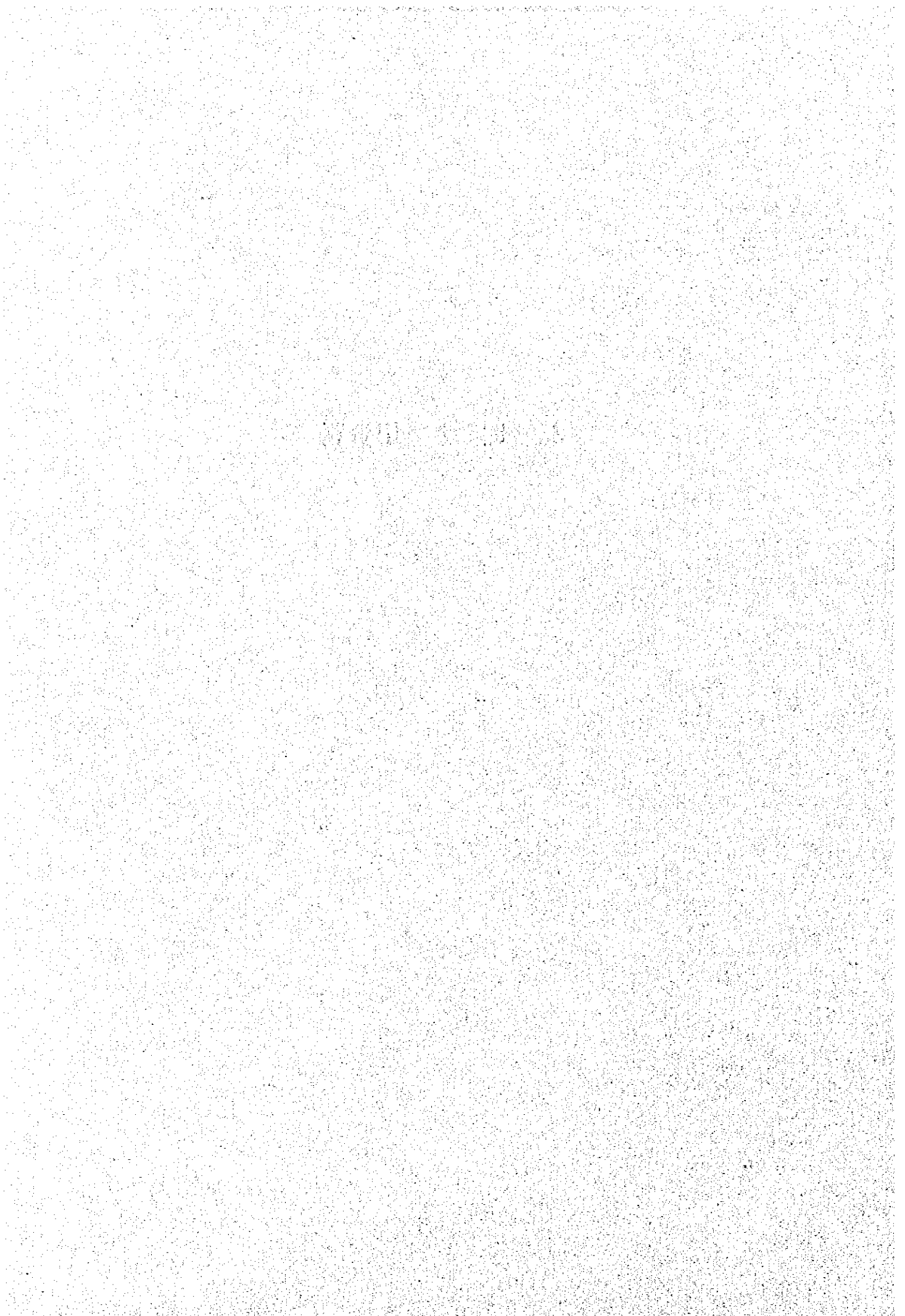
- ・ Geographical Information Systems (GIS)
- Global Positioning Systems(GPS)
- Aquatic Ecological Methods Conflict Resolution (Mkanda)

- ・ 1) 国民の意識/教育
- 2) 地域制
- 3) 公害
- 4) 密猟
- 5) 侵入 (Ndadzela)

IV. このセミナーに要望があれば書いてください

- ・ 実際の現場経験として国立公園の見学
研修器具としてオーディオ・ビジュアル機器の使用 (Mboti)
- ・ 保護のためのプロジェクト準備と財源 (Mphande)
- ・ 調査活動のための詳細なコンピューター研修 (Ndadzela)

3. セミナー用資料



DEPARTMENT OF NATURAL RESOURCES.

SEMINAR REPORT

ON

NATURE CONSERVATION AND GAME PARK

MANAGEMENT - JICA

A. CHITINDI MS
PAMODZI HOTEL
13TH NOVEMBER, 1995

FORESTRY SECTOR IN ZAMBIA

Zambia's Forests represents a unique natural forest ecosystems with various extensive vegetation formations which are complex and highly diverse and with different ecological attributes. Although, no comprehensive forestry inventory has ever been carried out since 1967, forests are estimated to cover approximately 55-60% the total land surface area of Zambia or approximately 413km² and 425 000km². For management and practical purposes forest arrangement could be recognised as follows:- State forest, Trust forest and Reserve Forests.

The Forestry estates in Zambia are, potentially, very important to national development and human welfare. For example woodfuel (charcoal and firewood) is the main cooking energy source for over 90% of the households, in the country. It is estimated that charcoal production provides full-time employment for about 41,000 people in rural areas while 45,000 are employed in charcoal transportation respectively.

Forests are sources of construction wood. In 1991 there were about 40 sawmills with an annual capacity of 300,000m³/year.

Forest food resources such as fruits, vegetables, mushrooms and roots and tubers provide essential macronutrients. Other forest products are harvested from indigenous forests for subsistence needs and sale.

While Forests also help regulate the flow of water especially for use in industry agriculture and households they also protect catchments from soil erosion and regulate global climate.

IMPACT ON FORESTRY RESERVES

1. Wood Fuel Energy Demand

Deforestation in the forest reserves has been a major set back in our nature conservation. For example woodfuel (charcoal and firewood) is the main cooking energy source for over 90% of the households in the country. As the population increases there will be demand for energy and this means depletion of the forestry resource base and destruction of habitats for various lifeforms.

2. Opening new Fields For Agriculture

Zambia has a total land area of 756,000km² with 410,000km² being suitable for Agriculture. However, 140,000km² are annually cropped while over 100,000km² is available for grazing. Agriculture being the major employer of labour in the rural areas through subsistence agriculture, is responsible for massive deforestation by way of shifting cultivation. As the population continues to grow the pressure on forestry reserves increases.

3. Unplanned Human Settlements

The increase in urban populations has led to more demand for land for human settlement. As a result forest reserves have been encroached, illegal settlements have mushroomed in all major urban centres leading to land degradation, deforestation and consequently the loss of biodiversity. Currently, 43% of Zambia's population is found in the urban areas of the country making it one of the most urbanized countries in Africa.

CURRENT STRATEGIES FOR NATURE CONSERVATION

- a) In the 1980s Zambia prepared the National Conservation Strategy (NCS) which was adopted by Government in 1985. The strategy was meant to review and define policies, plans, organisational and sustainable utilization of natural resources.

The implementation of the strategy led to the enactment of the EPPC act and the creation of the Environmental Council of Zambia.

However, the strategy was just a policy document which did not have investment programmes to address environmental issues. As a result of this short coming it was found necessary to update the strategy and put in place environmental support programmes through the NEAP process.

NATIONAL ENVIRONMENTAL ACTION PLAN

The NEAP document provides an overview of Zambia's environmental problems, existing legislation and institutions dealing with environmental issues in Zambia. It provides an umbrella policy, framework for dealing with all environmental issues in the country. However, the identified areas of environmental concern are expected to be addressed through the development of specific Environmental Support Programmes.

Issues in the forestry sector are already being addressed the Zambia Forestry Action Plan (ZFAP) which will require local and International support in its implementation.

- i) Zambia Forest Action Plan (ZFAP) is under the umbrella of National Action Plan (NEAP). ZFAP process is process is expected to only develop a framework which not only is broad-based and participatory in approach but flexible to cope with diverse situations. ZFAP aims at enhancing the role of the forestry sector in meeting people's needs and supporting sustainable development. ZFAP is expected to mobilise national as well as international resources for development of the forest sector.
- ii) The National Water Resources Master Plan, this study was undertaken in the Ministry of Energy and Water development sponsored by the Japanese International Cooperation Agency. The objective of the study is to formulate a master plan for water resources development which covers the whole Zambia. The main purpose of this initiative is to address current and future water supply needs for domestic industrial and Agricultural sectors.

SHORT COMINGS IN NATURE CONSERVATION

1. In adequate funding - the government budget on issues of nature conservation is very minimal it does not sustain the activities of both departments thus Natural Resources and Forestry. For example the annual budget for Ministry of Environment and Natural Resources and for Ministry of National Parks and Tourism its very low as compared to health and Education Ministries. Hence programmes are not implemented effectively as no transport to move and initiate programmes.

2. Sectoral Approaches

There are no coordinated nature conservation programmes within the line departments. For example the departments of Natural Resources, Forestry, Water, National Parks and Wildlife, Agriculture operate within their own framework without any collaborating programmes. Therefore, Multi-Sectoral approaches

in natural resources conservation efforts. can fully utilise the services of other disciplines found in line departments thus the need for intergrated approaches in natural resources conservation efforts.

3. Institutional Problems

With the implementation of Civil Service reform programme, certain department like Natural Resources may be scrapped due to their service nature. This will greatly affect activities in Nature Conservation if the new structures are not well thought out.

RECOMMENDATIONS

There has been appreciable good will from the International Community in assisting the Country to develop policy frameworks and strategies in the environmental sector but what is frustrating is that there is nothing by way of supporting actual implementation of programmes and arising out of the strategies and policy documents.

The step taken by the Japanese government in financing and technically supporting the development of water master plan for Zambia, is a commendable one which should be extended to supporting a country study of biological resources of Zambia including a forestry inventory to guide investment and the development of the forestry sector in Zambia.

ANNEX I

NATURE CONSERVATION ACTION AFTER STUDY FROM JAPAN AUGUST-SEPTEMBER, 1994

1. Since my arrival from Japan, I have followed up the area which was degazetted for resettlement in the Lusaka South East Reserve No.27. The reserve was in the catchment area of Chalimbana. The settlement has disturbed ecosystem of the catchment which resulted in the drying of the Chalimbana and Chongwe rivers where water is supposed to be taken.

We have formed the Chalimbana Catchment Conservation Committee Sub-Committee which will look at the activities of the entire catchment.

A preliminary project proposal has been drafted, the proposal is intended to formulate a conservation Plan for the area, to this effect funding is being sought to implement.

2. Have intensified on the Activities for the Lusaka Rural Agro-forestry pilot project which is based in Chitentabunga Chongwe. Previously the project was funded by Africare and the department of Natural Resources. What I'am trying to do is to work with the local people establishing their own communal tree planting. The local have to raise their own seedlings to plant and ording to their need. The Project is an ongoing project and GRZ funding, monitoring is a big problem as there is no reliable transport for me, but people are interested to under take it.

RELATIONSHIP BETWEEN NATIONAL
PARK STAFF AND NEIGHBOURING
COMMUNITIES

A PAPER PRESENTED AT A FOLLOW-UP
SEMINAR ON NATURE CONSERVATION
NATIONAL PARKS MANAGEMENT
FROM : 22-23/11/95
AT LILONGWE HOTEL

PREPARED BY:

AGGREY PIMA DZIMBIRI
ASSISTANT PARKS & WILDLIFE OFFICER
P.O. BOX 47
NKHOTAKOTA

RELATIONSHIP BETWEEN NATIONAL PARK STAFF AND NEIGHBOURING COMMUNITIES

1.0 BACK GROUND

Malawi is a small land locked country lying approximately latitudes 9°22' and 17°07'S and longitudes 32°40' and 35°55'E between 30 and 3000m above sea level in South-East Africa. Its north-south length is about 900 km and width varies between 80 to 160 km. (Clarke, 1983). The total area is 118,483 km² in land and 244,208 km² in water. The population is over 9 million with a growth rate of 3.2%. The resultant density of about 85/km² makes Malawi one of the most densely populated countries in Sub-Saharan Africa.

About 90% of Malawi's population is rural dependent on agriculture (Malawi Government, 1990). Agriculture employs almost 85% of the labour force and accounts for about 43% of the GDP and nearly 90% of the export earnings (Mkanda and Hunthali, 1992).

Generally, the climate is influenced by the lake and elevation. There are three seasons; from May to August, cool and dry; September to November warm and dry; and from December to April, warm and wet. Annual rainfall ranges from about 600 to 3,000 mm. Temperatures approach and may surpass 40° in the Rift Valley during October and November (Clarke 1983).

2.0 PARKS AND WILDLIFE POLICY IN MALAWI

The government of Malawi's Parks and Wildlife policy is an integral component of its overall land use policy. The government recognises that wildlife is a complex of renewable natural resources that has positive and negative value in relation to human needs.

In the Malawi context, wildlife means all species of wild indigenous plants and animals including desirable and undesirable species; and even those which may be considered insignificant.

The government of Malawi, therefore recognises three broad classes of wildlife management i.e. CONSERVATION, UTILIZATION and CONTROL. One purpose of conservation is to ensure the survival of wildlife that is beneficial to mankind-particularly Malawians. One aim of conservation is the setting aside of protected areas (National Parks, Wildlife Reserves, and Forest Reserves). Utilization ensures that utilitarian benefits are derived from wildlife where it does not conflict with other forms of land use e.g. agriculture. However, the purpose of control is to reduce the detrimental effects of wildlife on human life and property (Clarke 1983).

3.0 PARKS AND WILDLIFE LEGISLATION

Wildlife management in Malawi is subject to one Act, National Parks and Wildlife Act of 1992 and subsidiary legislation made thereunder.

The Department of National Parks and Wildlife is responsible for the enforcement of this Act.

4.0 DEPARTMENT OF NATIONAL PARKS AND WILDLIFE

The Department of National Parks and Wildlife comes within the Ministry of Natural Resources. It is a government agency responsible for the management of Natural Resources in a professional and scientific manner for the benefit of man. The organisation's address is; Department of National Parks and Wildlife, P.O. Box 30131, Capital City, Lilongwe 3, Malawi.

Telephone number 723 566 or 723 676

Fax number 723 089

Fig. 1 organisation chart.

4.1 MAJOR FUNCTIONS OF DEPARTMENT OF NATIONAL PARKS AND WILDLIFE

1. To manage National Parks and Wildlife Reserves in which certain species and communities of wild plants and animals are conserved.
2. To conduct and encourage public education and information programs relating to parks and wildlife management, and to environmental education in general (Public Relations).
3. To conduct, encourage, and promote research in the field of park and wildlife management.
4. To control certain vertebrate pests.

This paper focuses on Public relations in relation to function number 2 of the Department of National Parks and Wildlife. Sources of Negative attitudes by local communities towards wildlife, misconceptions by local people, problems faced by the Department and possible suggested solutions to the problems will be discussed.

Farmers in Malawi sometimes lose considerable proportions of their crops due to wild animals. Some people even face periods of starvation, as they produce just enough to bridge the period to the next harvest. For them wild animals are a vermin. The resulting negative attitude towards wildlife leads to decreased cooperation between the farmers and the Department (staff). Other negative repercussions are increasing detrimental activities such as poaching and encroachment into the protected areas, which are set aside for conservation purposes. There are three misconceptions by the local communities towards wildlife.

6.1 MISCONCEPTIONS

There is very little understanding on wildlife conservation by the local public residing near protected areas. There are a few misconceptions:

- 6.1.1 The direct beneficiaries of protected areas are tourists and/or park staff.
- 6.1.2 Conservation deprives the people of land for agriculture.
- 6.1.3 Conservation is there only to deprive them of the traditional hunting system and natural resources utilization, that has been handed over to them by their grand-parents.

However, the government is educating the public on wildlife management. It is trying to involve the public into wildlife management. The current policy allows local participation in managing protected areas. Therefore local communities utilize sustainably some resources from the protected areas. Hence local communities feel that protected areas belong to them.

7.0 RESOURCE UTILIZATION

The Department of National Parks and Wildlife recognizes two forms of utilization: Consumptive and Non-consumptive use (Munthali 1990). The commonest form of Non-consumptive use is by Tourism. Tourism was emphasized in the past but now the emphasis is changing towards incorporating the local people residing close to the conservation areas into wildlife management. The Government through the Department of National Parks and Wildlife has allowed controlled and wise consumptive utilization of the park/reserve resources. The rural community derive financial and utilitarian benefits from protected areas in various forms.

7.1 CONSUMPTIVE UTILIZATION

7.1.1 Beekeeping

Beekeeping projects have been established in protected areas such as Nyika National Park, Kasungu National Park, and Nkhotakota Wildlife Reserve. People residing around these conservation areas benefit by joining this income generating activity.

7.1.2 MUSHROOM COLLECTION

Mushrooms are a delicacy and local people enrich their diet. People are allowed to collect mushrooms e.g. around Nkhotakota Wildlife Reserve. The general public has the privilege. In 1993, 617 kg. of mushrooms were collected.

7.1.3 CATERPILLAR HARVEST

In Kasungu National Park local people collect and use caterpillars as food. The most popular caterpillars are Gynanasa maia "Hphalabungu" and Gonimbresia belina. A caterpillar collector could realize MK 418.47/ha.

7.2.0 NON CONSUMPTIVE UTILIZATION

This form of wildlife utilization is dominated by tourism. The revenue collected from tourists goes into central government where it is used for various projects. The local people benefit from the revenue realized from protected areas indirectly. However, the government now is trying to give part of the revenue collected from protected areas directly to local communities which live near the National Parks and Wildlife reserves.

8.0 MAJOR CONSTRAINTS AND FUTURE PROSPECTS

Major constraints in managing wildlife in Malawi are:

- 8.1. Lack of adequate funding by government in order to operate effectively in Parks and Wildlife reserves. Government funds are not enough to buy equipment and other facilities e.g. vehicles T.V. and other necessary items for extension work. To improve our Public relations we need to educate people and this can only be done if we have the necessary facilities.
- 8.2. Lack of knowledge by the general public on General Wildlife Conservation and Objectives, hence low priority is given to conservation by influential and decision makers.

8.3 Future Prospects of Parks and Wildlife Reserve Management

- 8.3.1 Stressing and publicising the enduring value of protected areas, and play down their revenue earning potential.
- 8.3.2 Planning parks and wildlife programs for greater direct benefit to local people.
- 8.3.3 Increase the department's man power strength of established posts.

9.0 CONCLUSION

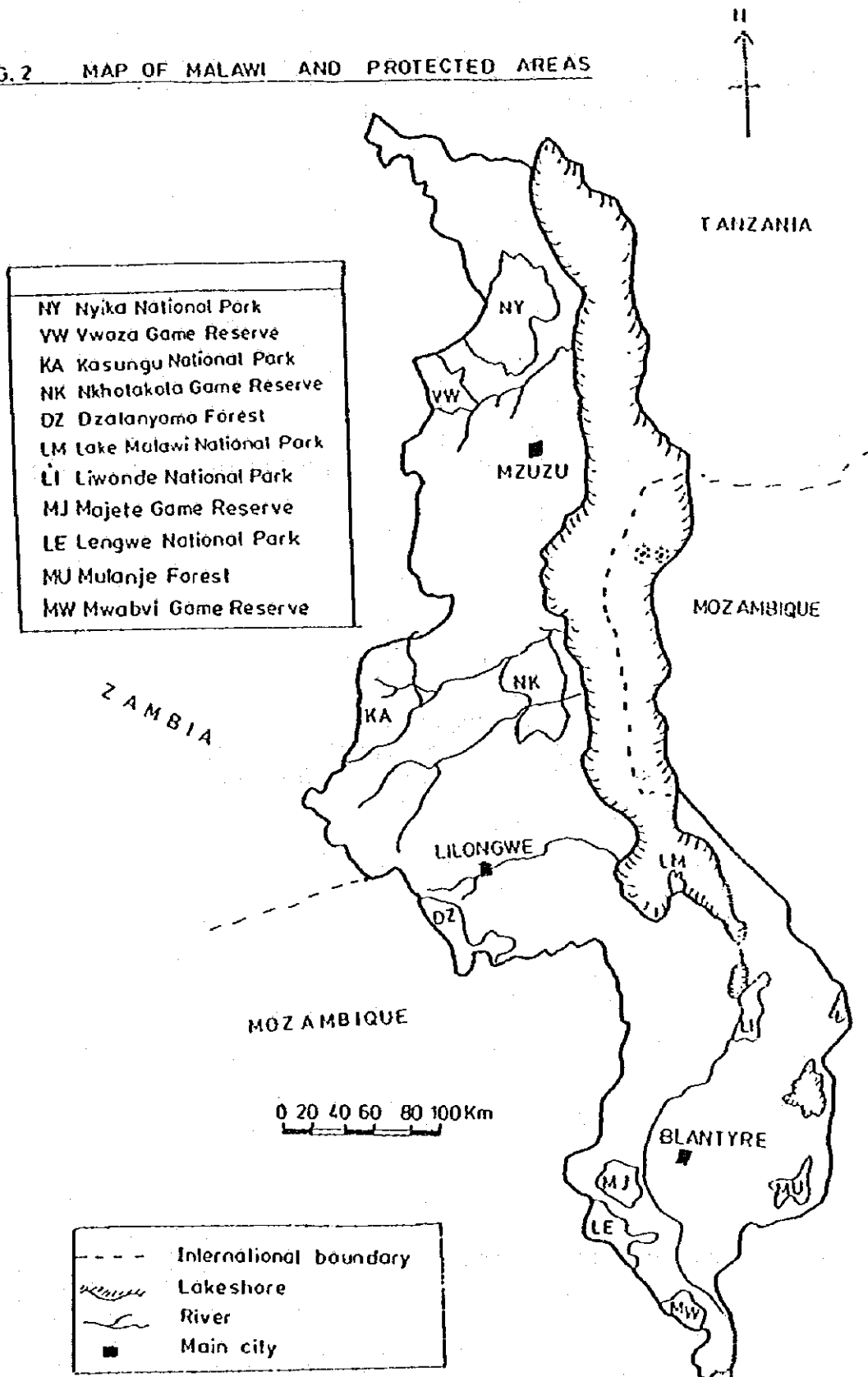
Solutions to problems in managing wildlife in Malawi require a multisectoral approach. Wildlife resources should be utilised sustainably. Rural communities residing around the Wildlife Reserve should be educated about wildlife conservation and take part in the overall management. Organizations and co-operations should supplement efforts in the protection of protected areas and special species such as elephants.

Plans for developments should be well tailored to avoid conflict on land use and environmental degradation. Therefore, the call for sustainable development in wildlife sector is the task for us all.

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FIG. 2 MAP OF MALAWI AND PROTECTED AREAS



**ADAPTIVE MANAGEMENT APPROACH FOR MALAWI'S NATIONAL PARKS
AND WILDLIFE MANAGEMENT PROGRAMMES**

**PAPER PRESENTED TO JICA FOLLOW UP MISSION IN NATURE
CONSERVATION AND NATIONAL PARKS MANAGEMENT TRAINING COURSES**

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DATE: 22ND NOVEMBER, 1995

INTRODUCTION

1.0 This paper will dwell on the management approach, which Malawi is adopting in its endeavour to manage its national parks and game reserves.

The main areas of examination will be in the following:-

- (i) Defining adaptive Management in Malawi's Parks and Wildlife Management Programmes;
- (ii) Its implications,
- (iii) The likely consequences;
- (iv) What the Japanese Government can do to assist.

1.1 The government of Malawi recognises three broad classes of Wildlife Management, namely conservation, utilisation and control. These are not necessarily mutually exclusive. More than one type of Management can be applied to any one species or situation.

2.0 ADAPTIVE MANAGEMENT APPROACH

Management addresses the daily operations needed to satisfy the objectives of the management plan, and adaptive management will denote a type of management that will easily change its course of action with more time and experience, with the intention to suit a new condition or demand.

Wildlife Management is a new science which tries to examine and interpret very complex and dynamic ecosystems. IUCN, as quoted by Rodney V. Salm in his Marine and Coastal Protected Areas Guide for Planners and Managers (1984) said that "the management plan should not be considered final. Experience and new knowledge will reveal many matters for further resolutions, as well as the planning mistakes that will have inevitably occurred. Feedback on such matters as boundary delineation, and even on the basic objectives for the area, should be allowed for in the plan. It is exceedingly important, therefore, that "Adaptive Mechanisms exist to allow management flexibility and that management plans contain feedback mechanisms."

The Park Managers, the decision makers of the protected areas, with this approach ensures that very carefully calculated management decisions are made and a mechanism to evaluate the results of those decisions put in place, that is why Malawi has research officers in some parks to reexamine management plans, and make the necessary recommendations to management for better management results.

3.0 IMPLICATIONS

From our definition of adaptive management, I have seen the following implications.

- (i) Park Management is still a new science and most of the management plans are effected on trial basis.
- (ii) Park Management need very well trained personnel at decision making level, in order that ecologically sound trial plans are made to reduce wild and dangerous guesses.
- (iii) Ecosystems are sensitive and dynamic and need to be handled with equal sensitivity.
- (iv) To properly manage ecosystems, substantial financial back up should be available to management.
- (v) The sensitivity and dynamic nature of the ecosystems, calls for appropriate equipment to be available to the managers to assist with the proper understanding of these areas.

PROBLEMS:

Malawi being both among the poorest and populous countries in Africa, adaptive management if not done by appropriately professionally qualified personnel, with good funding could lose more wildlife in the near future than it has been in the past.

The population of Malawi is growing very fast and almost half of its population is below the age of 15. This population increase is intensifying pressure on the borders of our conservation areas Kasungu National Park and Liwonde have encroachment problems as I am speaking and Liwonde has already lost part of it's area to the people.

In most cases, the problem is being compounded by the lack of funds to properly manage these areas. The question of adequate funding for parks and wildlife reserves need not be over emphasised. The situation in Malawi is disastrous.

In 1992/93 fiscal year, this department was allocated K2.6 million for salaries and goods as well as services. This by then was the equivalent of \$ 1 million US dollars.

The projected operating budget which has been allocated to the department in the 1995/96 fiscal year is K9.6 million for salaries, goods and services.

This money is equivalent to \$0.64 million US dollars. If therefore the department had financial difficulties in 1992/93 fiscal year when goods and services were much cheaper, imagine what the department is going to do with just above half a million dollars, and yet the department is responsible for wildlife protection in the country within an area bigger than what the forestry department is responsible for.

LAW ENFORCEMENT

Although scout numbers in certain conservation areas is regarded as unsatisfactory, this could not be the only reason for the reduced efficiency in law enforcement work in Malawi.

Hajete game reserve in the Southern region, has lost it's elephant population completely, hence pushing the southern limit of elephant distribution in Malawi further north to Liwonde National Park.

Law enforcement could be much better, if training opportunities and appropriate equipment were available. Proper training could probably be the most important element to up-lift morale, reinforce knowledge and confidence.

PARCS Project has emphasis on the need for informal training sessions to be available to members of staff in some of their important tasks at least once every year. As a pilot project, PARCS has started the ball rolling and this is the only opportune time for other donors like JAPAN to assist Malawi in protecting wildlife from its likely disappearing scenario.

FIRE MANAGEMENT

For a long time now, no active fire management programmes have been followed in our parks and reserves because of the lack of funds, equipment and other related support functions.

Writing a Programme is one thing and to execute it is another. Some of the parks which had inherited fire management equipment from the colonial management are no longer keeping them, since most of these are obsolete and were boarded off. The equipment I am talking about are as follows:-

Water bowsers, which are towed by either a tractor or other field vehicles.

Back packs, for fire fighting

Fire torches, for burning activities

Tractors for towing and fire break preparations

With proper equipment, fire seasons could no longer be threatening conservation areas and their fire sensitive habitats.

I remember when I was working in Lengue National Park in the early 80s, where the camp occupants got used to wild fire fighting in the park, irrespective of the time of the day. This was possible because the park had means to mobilise the people and reach the fire timely with the appropriate equipment.

The availability of transport, funds and equipment made it possible for management to keep the conservation areas in agreement with the dictates of fire management plans.

Fires are now more common in and around the conservation areas and the fire sensitive habitats are being subjected to increased fire damage, much to the contravention of the ecological requirements of these areas.

The Japanese government could do alot of good to the department if appropriate equipment was available to us so that we are able to protect these only remaining wildlife sanctuaries in the country.

CROP PROTECTION

This is another very important function of management, and is also very sensitive which in most cases is handled with care.

While shooting the problem animals is the most common and cheapest method, the problem is on the increase and people do not seem to appreciate our effort.

I have a view that donor countries like Japan could assist us with the nation wide public education through a variety of ways such as public meetings with the community, use of mass media, schools programmes etc. so that these animals should not be seen as quds and not theirs as well.

The public could be re-educated in how to protect their crops from animals like hippos etc. There has been bad selection of new village settlements as well as garden sites in such a way that some settlements have blocked wildlife dry season routes to water points and hippos in certain areas along the lake have been robbed of their habitats and sheltering places for the days.

public education is obviously needed here and just like what has been said earlier, these programmes can work if they are properly financially backed with proper equipment.

TRAINING OPPORTUNITIES

One of the most important principles that underlies Malawi's wildlife management is the reliability of management by a professional agency. The government is committed to ensuring that all officers appointed to this department have adequate, relevant professional training and experience.

Ecology is still a new concept in relation with other sciences. It is, therefore obvious that good professional wildlife management can be done only with proper training. It is however painful to see that except for Lake Malawi National Park, all parks are managed by non-professional officers.

This does not only undermine the recommended need to leave park management in the hands of properly qualified personnel in order to make ecologically sound decisions, but it also makes these managers feel that they are being over worked with little monetary rewards, and this could cause a reduction in morale.

Training in this case is the only better answer and this must be radically done, since we seem to have capable candidates for further training in among the non-professional Park Managers.

Japan is familiar with the management of both terrestrial and aquatic marine parks and this makes Japan not only a potential donor but as a trainer as well. I have also mentioned the importance of non-traditional training which PARCS Project is currently doing for Park Managers. This kind of training is very important and we would like Japan to consider assisting this department towards this aspect, which could benefit not only the senior staff, but all members of staff working for conservation.

CONCLUSION

Looking back to the complexity of the ecosystems, the sensitivity of adaptive management approach, one is likely conclude with the following recommendations:

- (i) Professional, training opportunities must be available for the park and Research Officers, for them to make Management decisions which most likely will agree with the management objectives of their conservation areas.
- (ii) Other non-traditional training opportunities should also be available to all those involved in wildlife management, to reinforce knowledge, confidence and morale.
- (iii) Donor communities i.e Japanese government, should also assist in the provision of appropriate of equipment to ensure that various management tasks are facilitated.

- (iv) There should also be vigorous public education to make people conservation aware, so that they should start looking at the wildlife as their valuable natural asset.
- (v) The department should be assisted in building its capacity to have a training institution, to enable itself perform training needs and organise appropriate training programmes for its members of staff.
- (vi) Adaptive Management approach is the only way to go forward in wildlife Management, but it's presequisities must be fulfilled if the desired results are to be expected.

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**ENVIRONMENTAL EDUCATION
FOR RURAL COMMUNITIES**

**A PAPER PRESENTED AT A SEMINAR ON NATURAL PARKS
MANAGEMENT CONDUCTED
BY JAPANESE MISSION TO MALAWI AND DEPARTMENT OF
NATIONAL PARKS AND WILDLIFE FOR 22 - 23 NOVEMBER, 1995
LILONGWE HOTEL**

BY

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SUMMARY

The paper aims at highlighting experiences on environmental education for rural communities and problems faced in managing protected areas in Malawi.

INTRODUCTION/BACKGROUND INFORMATION

Environment conservation in Malawi is relatively a new concept. The National environmental Action Plan was launched only a year ago against a background of political change, increasing human population and increased demand on the extractive use of Natural Resources.

The Department of National Parks and Wildlife has been involved in Wildlife conservation education programme for time immemorial as supplementary activity to law enforcement insider and outside Parks and Wildlife Reserve. The educational activity was aimed at achieving long term goals and was therefore geared towards educating school groups under pretext that they would be future leaders who should be brought up to be responsible citizens in protecting Wildlife in Malawi.

Irrespective of these combined efforts i.e. education for School groups and enforcement of Wildlife laws where Department's Mission statement for setting aside parks and wildlife Reserves was clearly spelled out, there has been less publicity about National Parks and Reserves. Protected areas are therefore not widely appreciated in Malawi. There is often a distinct and articulated understanding in the public sector be at senior levels that protected areas are merely adjuncts of tourism industry. More regrettable is the under current of though amongst Government Departments especially those that dispense Government finances, that management has to justify itself in terms of revenue earned from tourism, sale of trophies, permits and license. The present environmental education programs which target people of various social status i.e. rural communities, judiciary police, politician etc. are aimed at changing that old line of thinking amongst the Malawi populace.

We would like to direct our arguments towards more enduring values of protected areas e.g.

1. Their beneficial effects on land husbandry and fisheries management
2. The potential for advancing of Science
3. Their role as reservoirs of genetic diversity
4. Their potential for furthering education and
5. Their recreate values etc.

The above values will not diminish with rising rural population dissities and can thus be used for nutgating the existence protected areas in Malawi.

OBJECTIVES OF RURAL COMMUNITY ENVIRONMENTAL EDUCATION PROGRAMME

- A. **PROVIDE ENVIRONMENTAL EDUCATION TO THE RURAL COMMUNITIES TO ENABLE PUBLIC I**
 - (i) Appreciate and enjoy the environment
 - (ii) Bring great awareness of the sensitivity of their surrounding

- (iii) Bring greater awareness of the physical, Biological and human components of the environment.
 - (iv) Provide better understanding of how humans depend on the environment and the importance of using resources wisely.
 - (v) Enable rural communities have greater willingness to become personally involved in improving the environment.
- B. Improve relationship between parks staff and surrounding communities**

Reduce poaching pressures and encroachment by such villages.

To have the objective the following preparations are made prior to program commencement.

1. Random selection of target villages. This selection is based on the villages proximity to the Park or Wildlife Reserve and prevalence of poaching activities and illegal cases of a particular village.
2. Selection of messages to be communicated
3. Selection media (who will do the communication) and channels of communication)
4. Communication on the date, time and venue of the meeting normally the executing team makes a programme reflecting date and time of meeting. Venue is suggested by villagers and village heads communicate with their subject. Letters are hand delivered by the executing team.
5. Visit the venues in accordance with agreed date and time.

PROGRAMME IMPLEMENTATION

- (i) Normal introductory remarks from both parties village side and Government side and explanation the purpose of visit.
- (ii) Presentation on the need conserve the environment and the effects of environmental destruction's (20 min.)
- (iii) Environmental conservation songs by a selected band (15 minutes)
- (iv) web of life and musical chairs - A Game aimed at demonstrating the interrelationships between living organism (man included) 5 min.
- (v) Video/slide show on environmental conservation
- (vii) question time both parties.

PROGRAMME PARTICIPATION AND DISCUSSION

<u>YEAR</u>	<u>AREA VISITED</u>	<u>NO. OF PARTICIPANTS</u>	<u>REMARKS</u>
1994	Lengwe Primary	660	Good audience but full of school pupils
	Tomali	55	
	Ndakwera	150	Audience nervous. Admarc distributing free maize. Some refused to visit the Park.
	Suweni	-	Canceled (Funeral)
	Biliati	220	Good audience and organized
	Nyamphota	30	Poor audience with less interest
	St. Matthew's School	1,000	Good audience but too large to address without PAS full of pupils
	Manguleje	15	These were just picked from school - No out reach done.
	TOTAL	= 2,130	

NB: For purposed of discussion, Lengwe National Park rural community conservation education programme has been used as a sample. These rural community conservation education programs are being implemented through out the country especially here National Parks and Wildlife Reserves have been established

PROGRAMME PARTICIPATION

<u>DATE</u>	<u>VILLAGE</u>	<u>ESTIMATED NO. OF PARTICIPANTS</u>	<u>REMARKS</u>
28.8.95	Ndakwera	250	Headman communicated programme to his subjects the same day the programme was carried out. Repeat programme audience good.

29.8.95	Suwani	500	Headman organized. good audience
30.8.95	Nchenga	550	Organized leaders. Programme run smoothly. People attentive. Home for notorious poachers however got unexpected cooperation on.
2.9.95	Mankhokwe	450	Village headman ready for the programme. Very good audience.
3.9.95	Kauzimbi	660	Good audience. Programme conducted at school but not dominated by school children. Controversial question at this end of programme by individual who wanted to shame their leaders
4.9.95	Zalera	300	Small villages very close to boundary. There was a funeral in the village, however leaders were organized and audience very attentive.
5.9.95	Nyamphota	200	Village close to Nchalo. Had difficulties to find a shaded area to do the programme. All trees in the village cut. Programme done at school. It was a repeat programme. Good audience
6.9.95	Ntayamanja	250	Windy and cold. Good turn up for a small village. Headman and leaders organized good audience.
7.9.95	Therece	300	Meeting at School. Good leaders meeting smoothly done lots of questions. Teachers, Policemen and Health Officials attended the meeting.
1.9.95	Utembe	100	Small remote village. Very easy to handle. Good audience did not see the whole of Mtengo wa moyo" Video because screen was not working well.

SOME QUESTION FOR THE AUDIENCE

1. Why should the Park staff arrest people in the village without telling the village headman?
2. Why do you areas people for only being ground walking in the Park?
3. Can you allow us to cut grass, firewood in the Park?
4. Why do scouts beat people when they are making arrests?
5. Why have you started education programme now?
6. Is it possible for you to come up with education programmes every year?
7. Can Government give us part of the protected are for cultivation?
8. What is the difference between National Parks and Wildlife Reserve?
9. Can villagers be allowed to see animals in the Parks?
10. Can you assist us to start be keeping?

FROM THE TABLES AND QUESTIONS ONE IS ABLE TO DEDUCE THE FOLLOWING

1. Increased audience in 1995 out reach programme if compared with 1994 especially Ndakwere, Nyamphota and Wuweni.
2. There were fewer organizational problems in the sense that our target audience was properly identified (Villagers) than the case was in 1994 where the audience was dominated by school groups.
3. Audience in most villager were more at ease that they were in 1994 as seen from n Ndakwera. In 1995 it is assumed that the 1994 message to some village might have had multiplier effect to the other villages so that this year the majority of villagers looked at us as more of friends that inanimate.

The questions asked were clear manifestation o ignorance conservation laws and need to learn more about Wildlife conservation areas. Where repeat programme were done in fewer question were asked e.g. question 6 and 10 while questions 1, 2, 3, 5 and 7 came from areas where the conservation programmes were being done for the first time.

In most villages people asked question 6. This is indication that people have been lacking conservation education information and would thus like it annually or more often have it. While question 5 is a manifestation a surprised community. There was great demand for consultations where Wildlife issues are involved form all the villages that the programme was conducted.

PROBLEMS IN ENVIRONMENTAL EDUCATION FOR RURAL COMMUNITIES

1. Lack of access roads to villages which are close to protected areas
2. Lack of public address system to address big audiences
3. Illiteracy, the majority of the public cannot read and write. It makes it difficult to supplement oral presentations with other usual aids on conservation.
4. In consistency in conservation education programme often fail due to lack of financial input from government.
5. Poverty the majority are living below poverty line. Some cannot even afford to buy food to eat. Such people rely on natural resources for their daily bread e.g. burning charcoal for sale and firewood etc.

PROBLEMS IN MANAGING PROTECTED AREAS.

With new political dispensation and birth of multiparty democracy compounded by increased human population and drought, protected areas have been the centre of attraction in as far as acquisition of land is concern. During transition period to multiparty democracy political campaigners made promised to their electorate some of them environmentally hardzadous e.g. excision of Parks and Reserves for farmland etc. These promised bought in high expectations when new politics ushered in. There has been massive deforestation, encroachment and poaching to the extent that some conservation areas have had their key species extinct e.g. Majete Wildlife Reserve elephants, Mwabvi reserve black Rhino etc. Some areas in the country are completely bare. These activities have resulted in drying out of rives that supply water to protected areas and other agriculture sectors.

The problems face din managing protected areas are both financially and humanly related e.g.

1. Lack of finances to periodically conduct environmental education programmes to surrounding communities thus public support is lacking
2. Lack of trained and adequate manpower to manage protected areas
3. Lack of equipment to enable lower enforcement and other related conservation programmes be carried effectively
4. Drying out of river that supply water to wildlife e.g. in Lengwe National Park where water has to be artificially supplied

AREAS REQUIRING ASSISTANCE FROM JAPAN

See attachment of project proposal submitted to the Japanese Mission on Natural Parks Management.

CONCLUSION

If community environmental education programmes are to be a success in the country, the programmes are to be directed towards the grass root levels where environmental destruction is occurring. The grass root public must appreciate the role of their environment so that they can actively participate in protecting it.

The government of Malawi NGO's and other support countries must endeavor to provide adequate financial, human resource etc. for the proper administration of the environment especially all protected areas in Malawi

The Government through it funding agencies should learn to value protected areas and its environment not on generation of revenue basis but long term values such areas offer as already reflected in the paper.

Lastly every citizen though civic education should have a role to play in conserving the environment.

PROJECT TITLE : THE PARKS AND THE PEOPLE

APPLICANT NAME : PARKS AND WILDLIFE OFFICER
DEPARTMENT OF NATIONAL PARKS
AND WILDLIFE,
LEWIS NATIONAL PARK
P.O. Box 18
MOHALO.

PHONE : (265)423208

FAX : NOT AVAILABLE

FUNDING AGENCY : JICA

PROPOSED DATE OF COMMENCEMENT :

AS SOON AS FUNDS ARE AVAILABLE

ESTIMATED COMPLETION DATE : 2000AD

DURATION : 5 YEARS

TOTAL AMOUNT REQUESTED €29,014

BACK GROUND INFORMATION

Environmental conservation in Malawi is a new concept. The National environmental Action Plan was launched only a year ago. The plan comes against a background of political change in Malawi. During transition period to Multiparty democracy, political campaigners made promises to the electorate some of them environmentally hazardous promises like excision of National Parks and Wildlife Reserves for farmland, provision of National resources from protected areas eg wildlife and forestry Reserves, just to site a few. These promises brought in high expectations when new politics ushered in. There is massive deforestation of the Reverine forests. Cutting of timber and other Valuable resources in parks and wildlife Reserves have been order of the day. These visciows activities have resulted in the drying out of rivers that supply water to Lengwe National Park declining of water tables in and around the park and other catastrophic consequences that are threatening the existencø of Lengwe National Park.

It is against this backgraound that this proposal is submitted for
consideration.

PROJECT OBJECTIVES

- (1) To provide environmental education to the Public that surround Lengwe National Park.

RESULTS

- (1) Enable Public appreciate and enjoy the environment.
 - (ii) Bring great awareness of the sensitivity of the sorroundings.
 - (iii) Bring greater awareness of the physical, biological and human Components of the environment and how they Interact to produce the environment.
 - (iv) Provide better understanding of how humans depend on the environment and the importance of using resources wisely.
 - (v) Enable participants have greater willingness to become personally involved in improving the envornment and resolving problems.
- (2) Provide a relief mechanism for wildlife in the park currently facing environmental abuse effects.

RESULTS

- (I) Prevention of further deterioration of the environment through illegal grazing deforestation, soil mining and poaching, in order to improve or restore biological diversity of the Park.

ACTIVITIES

OBJECTIVE (I)

- (a) - Conducting education out reach programmes to Schools, Villagers local leaders, politicians, judiciary, Religious leader etc.
- (b) - Develop environment educational materials as visual Aids.
- (c) Organize Seminar for Government and Non Governmental organization on environmental issues
- (d) Provide public environmental educational visits to Lengwe National Park to compliment what has been learnt.

ACTIVITIES

OBJECTIVE (2)

- (a) Supply water to wildlife
- (b) Intensifying antipoaching activities to deter further encroachment poaching and deforestation which degrade the environment
- (c) Sign posting on the environment to enable the Park become litter free with possible incentives.

PROJECT JUSTIFICATION

The project when completed will bring greater public awareness on the need to conserve the environment. The increased protection of Wildlife will increase the Biological diversity of the Park since deforestation illegal grazing, dehydration poaching will have been controlled

PROJECT SUSTAINABILITY

The project when completed will be sustainable as the environmental education component will have laid a firm foundation in bringing public environmental conservation awareness. The need to live harmoniously with the environment will have been achieved, hence highly sustainable.

PROJECT BENEFICIARIES

The Government and the people that surround the Park will benefit from a healthy environment that affords good life and sustains it. The increased biodiversity will contribute to an ecological balance that will afford sustainable utilization by the Public. The Project is thus a Multibenefit.

PROJECT BUDGET

Materials Production

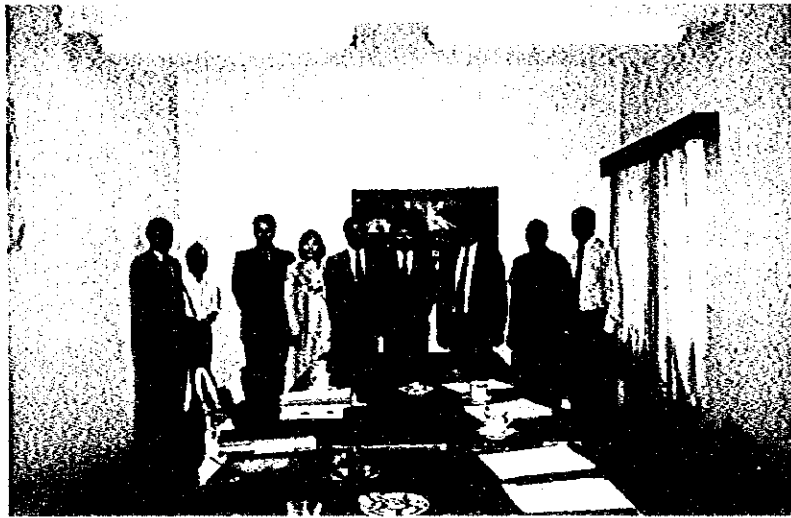
Production, Printing and Publication of education Materials. £3,500

Fuel Costs

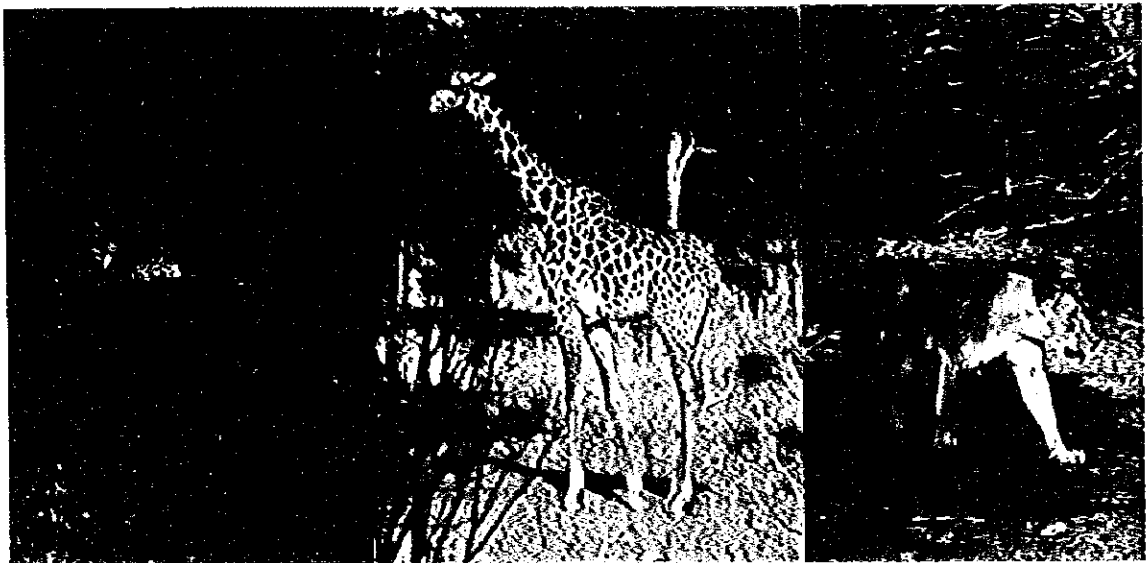
- Transportation of Materials	£400.00
- Transportation of Public from villages to the park during environmental education programmes	£10,000.00
- Mobilizing Communities for Rallies and Wildlife Walks	£5,000.00
- Supply of water to wild animals	£1114.00
- Antipoaching works to offset environmental threats	£7,000.00
- Other expenses	£2,000.00
	<hr/>
Total	£29,014.00
MK Equivalent	K667,322.00
	=====

4. 写 真

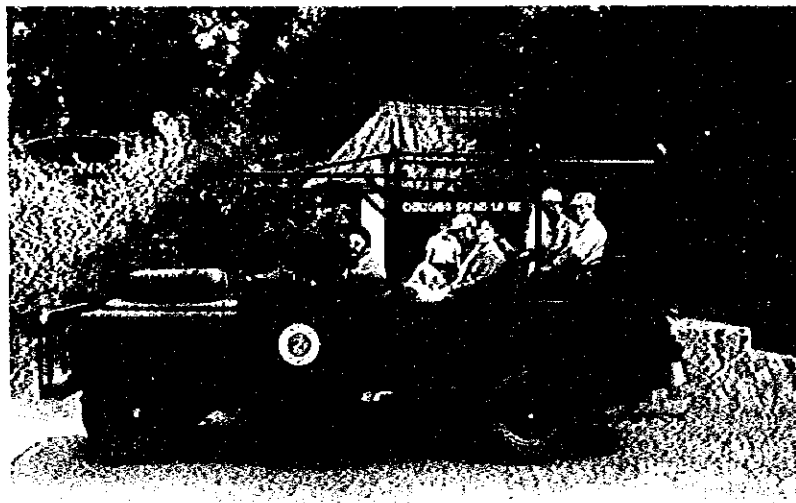
4. 写 真



1. Human Resource Development Cabinet Officeにて(ザンビア)



2. サウスルアンガ国立公園で遭遇したヒョウ、キリン、ライオン/
動物種も多く、サファリ慣れしている面も(ザンビア)



3. サファリ用のジープ(ザンビア)



4. カフェ国立公園／乾期のためか緑も少なく、動物たちも警戒心が強い(ザンビア)



5. リオンデ国立公園 ムヅウキャンプ／水が豊富でカバや鱔も多い(マラウイ)



6. モザンビークとマラウイとの国境／土がむき出しの大地が広がる(マラウイ)



7. レイクマラウイ国立公園／美しい湖だが住血吸虫が存在している(マラウイ)



8. 一般的な村落／畑とはげやまに囲まれている(マラウイ)



JICA