

85094

APPENDIX 3A, Attachment 1
Chapter 3, Handbook 3 (TM 3:43)

| | | | | | | | | | |
|---|-------------------------|---|---------|------------------------------|-----------------|--------------------------------|----------|----------------------------|---------|
| AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT DATA SHEET | | 1. TRANSACTION CODE A = Add C = Change D = Delete | | Amendment Number <u>1</u> | | DOCUMENT CODE <u>3</u> | | | |
| COUNTRY/ENTITY <u>SOUTHERN AFRICA REGIONAL</u> | | 3. PROJECT NUMBER <u>690-0251.11</u> | | | | | | | |
| 4. BUREAU/OFFICE <u>USAID/ZAMBIA</u> <input type="checkbox"/> 06 | | 5. PROJECT TITLE (maximum 40 characters) <u>NATURAL RESOURCES MANAGEMENT PROJECT</u> | | | | | | | |
| 6. PROJECT ASSISTANCE COMPLETION DATE (PACD) <u>08</u> <u>31</u> <u>95</u> | | 7. ESTIMATED DATE OF OBLIGATION (Under "B." below, enter 1, 2, 3, or 4) A. Initial FY <u>90</u> B. Quarter <u>2</u> C. Final FY <u>94</u> | | | | | | | |
| 8. COSTS (\$000 OR EQUIVALENT \$1 =) | | | | | | | | | |
| A. FUNDING SOURCE | | FIRST FY | | | LIFE OF PROJECT | | | | |
| | | B. FX | C. L/C | D. Total | E. FX | F. L/C | G. Total | | |
| AID Appropriated Total | | 1,950 | 1,050 | 3,000 | 2,580 | 2,220 | 4,800 | | |
| (Grant) | | (1,950) | (1,050) | (3,000) | (2,580) | (2,220) | (4,800) | | |
| (Loan) | | () | () | () | () | () | () | | |
| Other U.S. | | | | | | | | | |
| 1. Host Country | | 403 | | | 1,693 | | | | |
| 2. Other Donor(s) | | | | | | | | | |
| TOTALS | | 3,403 | | | 2,580 | | | | |
| | | | | | 3,913 | | | | |
| | | | | | 6,493 | | | | |
| 9. SCHEDULE OF AID FUNDING (\$000) | | | | | | | | | |
| A. APPROPRIATION | B. PRIMARY PURPOSE CODE | C. PRIMARY TECH CODE | | D. OBLIGATIONS TO DATE | | E. AMOUNT APPROVED THIS ACTION | | F. LIFE OF PROJECT | |
| | | 1. Grant | 2. Loan | 1. Grant | 2. Loan | 1. Grant | 2. Loan | 1. Grant | 2. Loan |
| (1) DFA | | | | 3,000 | | 1,000 | | 4,800 | |
| (2) | | | | | | | | | |
| (3) | | | | | | | | | |
| (4) | | | | | | | | | |
| TOTALS | | | | 3,000 | | 1,000 | | 4,800 | |
| 10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each) | | | | | | | | 11. SECONDARY PURPOSE CODE | |
| 12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each) | | | | | | | | | |
| A. Code | | | | | | | | | |
| B. Amount | | | | | | | | | |
| 13. PROJECT PURPOSE (maximum 480 characters) | | | | | | | | | |

Zambia Component: To test the viability and replicability of community based natural resources management and use programs, and integrate such programs into existing services.

| | | | | | | | |
|---------------------------|----|----|----|--|-------|----|----|
| 14. SCHEDULED EVALUATIONS | | | | 15. SOURCE/ORIGIN OF GOODS AND SERVICES | | | |
| Interim | MM | YY | MM | YY | Final | MM | YY |
| | | | | | | | |
| | | | | <input checked="" type="checkbox"/> 000 <input checked="" type="checkbox"/> 941 <input checked="" type="checkbox"/> Local <input type="checkbox"/> Other (Specify) _____ | | | |

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of 2 page PP Amendment)
 The original PP which covered four countries under the regional project was signed on August 20, 1989. This PP Supplement is only applicable to the Zambia Component of the original PP. The Zambian Component was obligated through a bi-lateral grant agreement with the GRZ on January 16, 1990 for \$3 million. This PP Supplement Data Sheet incorporates the prior obligation for Zambia. This Data Sheet is for information purposes only.

| | | | |
|-----------------|--|---|--|
| 17. APPROVED BY | Signature | 18. DATE DOCUMENT RECEIVED IN AID/W. OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION | |
| | Title <u>FRED E. WINCH</u> <u>DIRECTOR, USAID/ZAMBIA</u> Date Signed <u>09</u> <u>31</u> <u>93</u> | <u>01</u> <u>11</u> <u>93</u> | |

CLEARANCE: CONTROLLER, USAID/ZAMBIA: NGWESHE 9/2/93

ACTION MEMORANDUM FOR THE DIRECTOR, USAID/ZAMBIA

FROM: Dave Straley, PDO *DS*

SUBJECT: Natural Resources Management Project (690-0251.11);
Request for Approval of the Project Description for
Supplemental Funding of the Natural Resources Project
and the Amended Authorization.

DATE: September 30, 1993

Action:

You are requested to i) approve the subject Project Paper Supplement, ii) amend the Project Authorization to authorize an additional \$1,800,000, and iii) amend the Project Grant Agreement to increase and obligate grant funding by \$1,000,000 pursuant to Section 496 of the Foreign Assistance Act of 1961, as amended, for a new life of project total of \$4,800,000.

The approved Project Paper Supplement and amended Project Grant Agreement pertain only to the Zambia Component of the regional project. The amended authorization, however, will apply to the regional Natural Resource Project which covers four countries. It will increase the authorized funding for the regional project by \$1,800,000 for a new total of \$36,830,000.

The Project Assistance Completion Date of August 31, 1995, for the Zambia Component of the Project will remain the same.

Background and Description:

The prevailing wildlife management strategy throughout the post independence period has focussed on direct protection to wildlife, and generally viewed communities living in the vicinity of the National Parks as a major part of the problem rather than part of the solution. In the early 1980's, Zambia initiated the ADMADE program which changed the prevailing wildlife management strategy. The ADMADE strategy focusses on the communities to promote wildlife conservation based on sustainable utilization (harvesting). It attempts to return some of the proceeds from the utilization of wildlife to the communities living in the vicinity of the National Parks and Game Management Areas.

While there is general agreement on the value of the ADMADE concept, institutionalizing those principles has not been easy. First, from the community perspective, wildlife resource management necessarily includes conservation and management of forestry, grasslands, wetlands, and water resources as well. Second, while the concepts of ADMADE are becoming the guiding principle of much of the NPWS's program and internal structure, it has never been articulated as the Ministry of Tourism's specific policy governing wildlife and other natural resources. Third, since community level institutions are weak in general, they are not particularly strong in carrying out ADMADE-funded community development activities. Finally, the organizations

that are intended to assist communities obtain and utilize financial resources derived from wildlife are not functioning adequately and are far from being sustainable.

The amended project sets forth a two year second phase effort to improve the implementation of ADMADE. While the purpose of the project (i.e. testing the viability and replicability of community-based natural resources management programs) remains the same, project outputs for this phase of assistance are (a) urgently needed improvements to the management and operations of the Wildlife Conservation Revolving Fund; (b) policy statements and legislative changes to provide a legal basis for community based participation in natural resource management and utilization; (c) continued assistance in land use planning and resource management planning at the GMA level; and (d) continued training of participants involved in the protection and utilization of the wildlife. This assistance is intended to increase the involvement of local communities and private interests in sustainably managing the harvesting of those renewable natural resources as well as expanding the ADMADE concept to other additional GMAs.

Analyses and other requirements:

A Project Paper Supplement was prepared and approved by USAID/Zambia. The analyses in the Project Paper demonstrate that:

the project is technically, economically and socially sound, and administratively feasible;

the technical design and cost estimates are reasonable and adequately planned, thereby satisfying the requirements of Section 611(a) of the Foreign Assistance Act, as amended;

the timing and funding of project activities are appropriately scheduled and the implementation plan is realistic and establishes a reasonable time frame for carrying out the project;

adequate provision has been made for evaluation and audit; and

the project is environmentally sound.

Conditions and Covenants:

The amended Project will not contain any new conditions or covenants; the conditions and covenants in the original Grant Agreement remain in full force and effect.

Waivers:

No waivers are required for the Project Supplement. The GRZ will make a 25 percent counterpart contribution to the Project even though counterpart contributions are not required for regional projects.

3'

Responsible AID Officer:

The officer in USAID/Zambia responsible for the project is John Foster in the Agricultural Development Office. The responsible project manager in USAID/Zimbabwe is Charles Cutshall.

Project Review Action:

A Project Review Committee reviewed the Project Paper Supplement on September 27, 1993, and recommended approval subject to modifications which have now been incorporated in the Project Paper Supplement. The reporting memorandum from this meeting is included as part of this authorization package.

Notification to Congress:

USAID/Harare presented the overall regional Natural Resources Management Project to Congress which included this sub-project.

Authority:

In an Action Memorandum dated September 28, 1993, the Acting Assistant Administrator for Africa delegated to you the authority to authorize and implement an amendment to the Natural Resources Management Project in an amount not to exceed \$1.8 million for a new life of project (LOP) total not to exceed \$38,830,000. The ad hoc delegation of authority is to be exercised in accordance with the terms and conditions of Delegation of Authority 551 dated March 19, 1989.

Section 4A(2) of Delegation of Authority 551 authorizes you to amend Project Authorizations executed by any A.I.D. official provided the amendment i) does not result in a total life of project funding of more than \$30 million; ii) does not present significant policy issues; iii) does not require waivers which can only be granted by the Assistant Administrator for Africa or the Administrator; and iv) does not have a project life in excess of 10 years.

With the ad hoc delegation of authority and Delegation of Authority 551, authorization of this project is within your delegated authority.

4

Recommendation:

That you approve the Zambia Natural Resources Management Project by approving this Action Memorandum and signing the Project Paper Data Sheet, and that you authorize the Grant by signing the attached Project Authorization Amendment.

Approved: JZW

Disapproved: _____

Date: 9/30/93

Attachments:

- Project Paper Supplement
- Project Authorization
- Action Memorandum for the Acting AA/AFR
- Reporting Memorandum

Drafted: PDO: DStraley

Clearance: PRM: JWiebler JZW 9/30/93
ADO: JFoster JZW 9/30/93
CONT: MGweshe JZW 9/30/93
RLA: RSarkar (Draft)

5.



AGENCY FOR
INTERNATIONAL
DEVELOPMENT

SEP 28 1993

ACTION MEMORANDUM FOR THE ACTING ASSISTANT ADMINISTRATOR

FROM: Keith E. Brown, AFR/SA *KEB*

SUBJECT: SARP Natural Resources Management Project (690-0251)

Problem: Your approval is requested to delegate authority to the Director, USAID/Zambia, or to the person acting in that capacity, to authorize and implement an amendment to the subject project in the amount not to exceed \$1,800,000 for a new life of project total not to exceed \$38,830,000. This is amendment number 5 for the SARP Natural Resources Management Project (NRMS).

Background: The Southern Africa Regional Natural Resources Management Project (NRMS) was authorized in August 1989 for an amount of \$19.53 million. The PACD was August 31, 1995 but has recently been extended until 1997. At that time, there were project activities in Zimbabwe, Zambia, and Botswana; Namibia was added in September 1992. The initial component for Zambia was \$3 million and was obligated with the Government of Zambia in January 1990. The PACD for the Zambia Component remains at August 31, 1995.

USAID/Zambia proposes to amend the Zambia Natural Resources Management Project to add \$1.8 million in assistance. The additional funding will be used to shift the emphasis of the project from testing community-based programs to increasing the involvement of local communities and private interests in management of wildlife.

Discussion: The Regional Natural Resources Management Project (690-0251) has supported a Zambian subproject which has been testing the viability and replicability of community-based natural resources management programs.

Prior to the development of NRMS, Zambia tested a community-based natural resource program called ADMADE in one Game Management Area (GMA). ADMADE started in the early 1980's as a local research project in the Lower Lupande Game Management Area. It developed into the leading concept in National Parks and Wildlife Service's (NPWS) strategy governing wildlife utilization in GMAs. ADMADE's wildlife conservation strategy is based on sustainable utilization (harvesting) and the return of some of the proceeds of this utilization to the communities living in the vicinity of the GMA, through its Wildlife Conservation Revolving Fund (WCRF).

2

The NRMS Project in Zambia tested the viability of the ADMADE concept in nine additional areas and integrated ADMADE principles into the existing services of the National Parks and Wildlife Service. The World Wildlife Fund (US) received a grant of \$1.1 million under a sub-obligating, cooperative agreement to enhance the capability of existing government district and local institutions to protect, manage and utilize the wildlife resources on a sustainable basis. The remaining \$1.9 million in project funds were used to provide goods and services to the NPWS in support of ADMADE. These goods and services were procured directly by USAID and provided in kind to the NPWS.

While the Project has made significant progress, especially in demonstrating the ability of wildlife to generate significant income, additional assistance is required to deepen community participation in wildlife resource management and utilization, expand the area covered by the project, and reinforce the community based authorities and institutions responsible for natural resources management.

To address these issues, USAID/Zambia is proposing to initiate a second phase of the Project that will add several components: (a) improvements to the management and operations of the Wildlife Conservation Revolving Fund (WCRF); (b) assistance in analyzing and proposing legislative changes to provide a legal basis for community based and private sector participation in natural resource management and utilization; (c) assistance for land use planning, resource management planning, and stakeholder analysis to ensure that the habitat as well as the game is utilized appropriately; and (d) assistance for training and research to support field-level wildlife monitoring and protection, and facilitate community participation and development.

The proposed amendment fully supports A.I.D.'s mission of sustainable development, and does so in the environmental sector which the A.I.D. Administrator has identified as a focus area for the Agency.

Authority: In accordance with DOA 400 and Interim Reorganization DOA no. 9 [dated Oct. 1, 1991], the A-AA/AFR has the authority to delegate to the Mission Director, USAID/Zambia, or the person acting in that capacity, the authority to approve and authorize an amendment to the SARP Natural Resources Management Project (690-0251.11) to increase the authorized life-of-project funding by \$1.8 million to \$4.8 million, which will add \$1.8 million to the NRMS project (690-0251), bringing the total to \$38.83 million. This ad hoc DOA shall be exercised in accordance with all the terms and conditions of DOA 551, except for the dollar amount limits.

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Recommendation: That you approve the request for an ad hoc delegation of authority to the Director, USAID/Zambia to authorize and implement an amendment to the subject project in the amount not to exceed \$1.8 million for a new life of project total not to exceed \$38,830,000.

Approve: [Signature]

Disapproved: _____

Date: 9/28/93

Drafted: PDO:DStraley:MScovill:9/24/93:DOAMEM.EML

Clearances:

| | | | |
|----------------------------|--------------------|------|----------------|
| USAID/ZAMBIA./PRM:JWiebler | <u>draft</u> | date | _____ |
| USAID/ZAMBIA/ADO:JFoster | <u>draft</u> | date | _____ |
| AFR/SA:LTaylor | <u>[Signature]</u> | date | <u>9/23/93</u> |
| GC/AFR:ESpriggs | <u>MAK</u> | date | <u>9/23/93</u> |
| AFR/DP:JGovan | <u>[Signature]</u> | date | <u>9-27</u> |
| A-DAA/AFR:TBork | <u>[Signature]</u> | date | <u>9/28/93</u> |

MEMORANDUM

Date: September 29, 1993

Reply to: *John Foster*
John Foster, ADO

Subject: Project Review Committee Meeting - Natural Resources
Management (NRM) Project Paper Amendment (690-0251.11)

To: Files

A Project Review Committee met on the above date to review and recommend for approval an amendment to the NRM Project. The following were present:

Fred Winch, Director
John Wiebler, PRM
Dave Straley, PDO
Mark Pearson, EC Representative
John Foster, ADO

The Committee discussed the issues set out in the PDO's memorandum dated July 15, 1993, and other issues that were raised during the meeting. Comments and questions concerning the Project Paper Supplement and Project Agreement were also discussed. The issues addressed were:

1. Legislation: It was reported that a draft cabinet memo is being circulated for review based on the Childs/Lee Report. Assuming Government agrees to amend the present Wildlife Act the Project will provide an attorney to assist in drafting new legislation. Land tenure was another issue that was discussed in some detail. Land tenure was considered a major factor in assuring that GMA communities are guaranteed ownership of the land and the accompanying natural resources. It was recommended that USAID provide a consultant to look at all issues of land tenure and natural resource ownership. An in-depth analysis should be carried out to identify all constraints to customary land ownership and implications of managing and controlling the natural resources. This same consultant would assemble all relevant documents concerning the land tenure issue/s.

2. Continuity: The issue was raised concerning the lack of assurances in the PP Supplement that land-use plans, analyses and inventories, etc. once prepared would be implemented. The EC representative was of the opinion that NPWS is serious in their intention to implement the institutional restructuring recommended in the Childs/Lee Report. He said further that there was some danger in not including conditionalities (CPs and/or Covenants) in the Supplement but that any additional funding (phase III) could be tied to implementation of the above mentioned plans and strategies. A concern was raised that the NPWS does not appear to have any institutional mechanism to review and implement recommendations. It was suggested that a statement be included in the Project Agreement that there would

be monthly meetings between the Ministry of Tourism, NPWS and USAID to address implementation workplans, review financial reports, and other related issues. Also recommended was a quarterly meeting schedule be setup for donors and NPWS to review progress and problems confronting the implementation of ADMARE.

3. Capital Requirements: EC will not provide any equipment for GMAs. However, EC will provide vehicles to the land-use planning unit and the Biologists. The GMAs that will be the most affected by not receiving any equipment will be the ones with depleted inventories of wildlife (no hunting or limited hunting). Most of these areas do not have vehicles, staff housing, boats, etc. at present and no opportunity in the immediate future to buy equipment because of very limited or no income. A point was raised concerning funding of vehicles for the PVO/NGO when it was noted that the present PP budget did not include vehicles. It was recommended and agreed that two vehicles would be purchased for the PVO/NGO from the contingency line item.

4. Other Donors: The EC representative stated that he did have any major issues to discuss. A current EC financial proposal will be included in the PP Supplement as an annex.

5. Miscellaneous Issues:

- An issue was raised concerning lack of discussion in the PP supplement on the rationale for the land-use planning activities and objectives to be achieved? An additional question was whether plans, once completed, would be supported by the stakeholders? The response was that Attachment A of the PP Supplement adequately discusses the rationale for the land-use planning component and that it would be summarized in the main text of the PP Supplement.
- A question was raised as to whether the PP Supplement budget included in-county operating cost of the PVO/NGO and were staff identified? The response was that staff are identified in the PP and operating cost for PVO/NGO (central office and field work) have been provided for in the budget. Field work costs were projected using NPWS daily cost estimates per activity and number of days estimated to complete each activity.
- A recommendation was made that land-use plans should follow after the proposed legislation is in place. It is important that land-use plans be acceptable to stakeholders and readily adaptable to specific areas.
- An inquiry was made as to whether the CPs and Covenants have been satisfied. After a review of both it was determined that both CPs have been met. After discussing the Covenants it was decided that only 50% of the covenants have been satisfied. It was decided that no additional CPs or covenants would be included in the PP Supplement and that no changes would be made in the existing ones. It was noted

that the last two covenants concerning NFWS staff positions may not be applicable as NFWS will be reorganized and restructured. The need to amend these covenants will be examined as the restructuring unfolds.

The Director reviewed his comments on the PP Supplement and made his notes available to the PDO.

There being no more issues raised, recommendations or comments made by the committee the Project review was concluded. The Committee recommended that the PP Supplement be forwarded to the Director for approval.

PROJECT AUTHORIZATION AMENDMENT NO. 5

COUNTRY: SOUTHERN AFRICA REGION
PROJECT TITLE: NATURAL RESOURCES MANAGEMENT PROJECT
PROJECT NUMBER: 690-0251
DATE: September 30, 1993

1. Pursuant to the Foreign Assistance Act of 1961, as amended, the Foreign Operations, Export Financing, and Related Programs Appropriations Act of 1988, Africa Bureau Delegation of Authority (DOA) No. 551, as amended, and the ad hoc authority delegated under 88 State 102126, the Natural Resources Management Project for the Southern Africa Region was authorized on August 19, 1989. The authorization was previously amended on December 21, 1989, December 9, 1991, September 2, 1992, and September 23, 1993 and is hereby further amended as follows:

"In section 1, (1) the phrase "thirty seven million thirty thousand United States Dollars (U.S. \$37,030,000) in grant funds over a seven year period" is deleted and replaced by the phrase "thirty eight million eight hundred and thirty thousand United States Dollars (U.S. \$38,830,000) in grant funds over a seven year period."

2. The authorization cited above, as amended, remains in full force and effect except as hereby amended.


Fred E. Winch, Mission Director

Dated: 30 September 1993

DRAFTED:PDO:DStraley

CLEARANCE:PRM:JWiebler JW 9/30/93
ADO:JFoster JF 9/30/93
CONT:MGweshe MG 9/30/93
RLA:RSarkar RS 9/29/93
SARP/PDO:JHarmon phone 9/29/93

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I. SUMMARY AND RECOMMENDATIONS

A. Summary of Revised Project Description

Under the SADC Regional Natural Resources Management Project (690-0251.11), USAID has supported a Zambian subproject which sought to test the viability and replicability of community-based natural resources management programs. The initial phase of this subproject was expected to cost an estimated \$3 million over a four year period and originally scheduled to terminate in mid 1994. Presently an estimated 70 percent of those resources have been expended. While the Project has made significant progress especially in demonstrating the ability of wildlife to generate significant income, additional assistance is required to deepen community participation in wildlife resource management and utilization, expand the area covered by the project and reinforce the community based authorities and institutions responsible for natural resources management.

This Project Paper Supplement sets forth a two year second phase effort. While the purpose of the Project (i.e. testing the viability and replicability of community-based natural resources management programs) remains the same, project outputs for this phase of assistance are (a) urgently needed improvements to the management and operations of the Wildlife Conservation Revolving Fund; (b) policy statements and legislative changes to provide a legal basis for community based participation in natural resource management and utilization; (c) continued assistance in land use planning and resource management planning at the GMA level; and (d) trained project participants and research into necessary policy and institutional matters. This assistance is intended to increase the involvement of local communities and private interests in sustainably managing the harvesting of renewable natural resources as well as expanding the ADMADE concept to additional GMAs.

This phase of assistance also changes subtly the role played by the project funded PVO. Whereas previously, the PVO, WWF(US), provided assistance directly to the NPWS which, in turn, used that assistance to carry out programs in targeted areas, this phase of assistance will have the PVO directly facilitating resource management plans of the concerned communities and private interests. This adjustment to implementing arrangements can be carried out in a phased and non-disruptive manner and in accordance with previous project agreements. These considerations are especially important in respect to hiring competent management for the Wildlife Conservation Revolving Fund.

This PP Supplement was initiated by first reviewing the performance of the Project to date. The review covered progress achieved toward project objectives and implementation arrangements.

B. Recommendations

The proposed Project Supplement fully supports A.I.D.'s mission of sustainable development, and does so in the environmental sector which the A.I.D. Administrator has identified as an area of focus for the Agency. The Project Supplement has been designed so that it is technically, financially, socially, and economically sound. Therefore, it is recommended that the USAID/Zambia Mission Director authorize an Amendment to the Project.

II. PROJECT BACKGROUND

A. In The Beginning

The Zambian component of the Southern Africa Regional Natural Resources Management Project (NRMS) was authorized in August 1989. Three million dollars was subsequently obligated with the Government of Zambia in January 1990. At the time of its approval, the PACD for the Regional and Zambia Component was August 3, 1995. The Regional Project has recently been extended until May 1997.

The project was described in the original project agreement as having three discrete activities in targeted zones. These were:

- Community-based resource use, wildlife management and community development.
- Conservation of the resource base. Elements of which include ecological monitoring, resource management and protection of wildlife.
- Regional communications and information exchanges.

WWF(US) received a grant of \$1.1 million under a cooperative agreement financed by the project to enhance the capability of existing government district and local institutions to protect, manage and utilize the wildlife resources on a sustainable basis. The grant had three components:

- a) field based conservation and community development;
- b) ADMADE institutional support; and
- c) program management support.

WWF (US) has served a facilitation role in the project, providing administrative and technical support to the NPWS' ADMADE concepts.

The remaining project funds were used to provide goods and services to the National Parks and Wildlife Services (NPWS) in support of ADMADE. These goods and services were procured directly by USAID and provided in kind to the NPWS.

ADMADE started in the early 1980's as a research project in the Lower Lupande GMA and has developed from a localized initiative to being the leading principle behind NPWS program strategy governing wildlife utilization in GMA's in Zambia. Simply stated, ADMADE denotes a wildlife conservation strategy based on sustainable utilization (harvesting) and the return of some of the proceeds of this utilization to the communities living in the vicinity of the GMA. The pilot application of the ADMADE concept in Lower Lupande demonstrated positive results in managing wildlife. The NRMS Project was intended to further test the viability of the concept in nine additional areas and to integrate ADMADE principles into the existing services of the NPWS.

ADMADE is a concept or an approach of conserving wildlife through sustainable harvesting with proceeds of that harvest directly going back to the communities residing in or near game areas. It is replacing the strong "preservation through control" approach of the NPWS which typified the both colonial and much of the post independence era.

As a concept, ADMADE does not have a formal organizational structure but it is rather embodied in several institutions with differentiated functions (e.g. wildlife management by the NPWS, income distribution by the WCRF). The ADMADE concept has played an important part in structuring the WCRF which in essence "markets" surplus animals through licensed hunting and distributes revenues gained from the sale of those animals to local communities, state coffers and the NPWS. As noted earlier, the ADMADE approach has radically influenced the program strategy of the NPWS. The "enforced preservation" strategy of the Service has given way to a philosophy of seeking out partnership roles in game management with local communities through the traditional authority structure (i.e. chiefs). Hence, the ADMADE concept is also institutionally manifest in the NPWS service and program delivery structure. The impact of ADMADE on the NPWS's programs are well articulated by Child and Lee (1992).

B. Progress To Date

The Zambia NRMS project was evaluated in mid-1992 by Alpert and de Georges (1992). Their evaluation defined eight major project objectives and looked at each. Their evaluation was generally favorable and highly laudatory of ADMADE's conceptual framework. It was, however, less complimentary of the performance of the institutions' applications of the concept. Part of the difficulty identified by the evaluators was the lack of a monitoring and evaluation plan in the design of the Zambia portion

of the Project.

With the evaluation and other background documents, it was possible to reconstruct and document project outputs and progress as:

OUTPUT 1: Ten NPWS/ADMADE field units operating successfully with logistical and training support from NPWS.

Status: 10 field units operating with varying degrees of success. Training support appears particularly strong. Vehicle support provided but this raises questions of long-term sustainability.

OUTPUT 2: Self-sustaining, well governed wildlife licensing and income generation and distribution mechanism (WCRF) operating.

Status: The WCRF is operating but with management problems which have become critical. The process for collecting and sharing revenues is not well understood and lacks transparency. Corrective measures commenced but these are proceeding slowly while the problems accumulate.

OUTPUT 3: NPWS program and service capabilities expanded in the following areas:

- Land-use planning
- Community development
- Resource and program performance monitoring

Status: While the NPWS has availed itself of these types of expertise and properly used such expertise in wildlife management endeavors, the Service cannot be said to have internalized these technical capabilities. There are plans to do so, but the funding remains problematic. Furthermore, it is not clear what institutional capability is required within the NPWS for land-use planning, community development, and program monitoring.

OUTPUT 4: Community-based wildlife management training capacities established.

Status: Nyamaluma Training Center operating with a throughput of about 12 NPWS GMA Unit Leaders and approximately 70 scouts per annum. Additional training activities are conducted for the benefit of traditional chiefs in the GMA's. Links between training activities are expanding to encompass natural renewable resources rather than maintain the singular focus on wildlife.

This progression is in line with ADMADE concepts.

C. Resource Utilization

Of the \$3 million obligated, MACS records of June 1993 show \$1.8 million (about 60 %) expended to date. In reality, the level of expenditures is considerably higher.

Of WWF (US) \$1.1 million grant, approximately \$705,000 has been expended as of the end of June 1993. The remaining funds are expected to be fully used by the end of the Grant in May 1994. WWF (US) has contributed \$200,000 of its own resources in support of the project.

Of the remaining \$1.5 million, about \$1.4 million has been expended as of early September 1993. A non-official breakdown of the general types of supporting goods and services procured with those funds is:

- a) vehicles and support;
- b) computer related goods and services;
- c) financial management and audit services; and

In addition, approximately K 27.4 million in counterpart revenues generated outside of this project have also been utilized to provide supporting goods and services. These funds have been used for items such as large mammals survey, GMA operating costs, and uniforms and supplies for ADMADE scouts.

D. Implementation Arrangements

USAID's self-defined role in the project has been to procure goods and services on behalf of NPWS and to share in the overall management of the project. In carrying out these responsibilities, USAID performed commendably in the procurement of goods and services. It has also maintained a positive dialogue with the various implementing entities in terms of the overall direction of the project and in resolving implementation problems as they arose.

WWF(US) has carried out its facilitator role in terms of supporting the growth of the ADMADE concepts into the National Parks and Wildlife Service's programs. The NPWS, with support from the WWF(US), is pushing for the acceptance of important ADMADE principles in a difficult public sector environment. NPWS has performed less well in clearly articulating (i.e. sequential linking of tasks) work activities, establishing priorities and maintaining schedules. Recently, project management decisions which involve senior levels of the Ministry of Tourism outside of the Parks and Wildlife Department have been slow and problematic.

III. REVISED PROJECT DESCRIPTION

The previous project documentation did not use logical framework terminology in its presentation. The review and design team for the PP Supplement felt that this was an important weakness in the conceptual framework of the project and redefined the Project using logical framework terms and definitions. This section of the Project Paper Supplement presents the second phase of assistance (covering September 1993 to May 1997).

A. Problem Statement

At the outset of the project, ADMADE was a promising concept which had been tested successfully in the Lupande experiment in the Luangwa valley. Project support was intended to introduce the concept in a phased effort nationwide and integrate the ADMADE concepts into the National Parks and Wildlife Service's program. The prevailing wildlife management strategy throughout the post independence period has been one of providing direct protection to wildlife. It normally viewed communities living in the vicinity of the National Parks as a major part of the problem rather than part of the solution. The ADMADE concept has changed Zambia's national wildlife management strategy to working in partnership with local communities to conserve wildlife. In return it promises a share of the benefits gained through the sustainable harvest of wildlife to its community partners.

While there is general agreement on the value of the ADMADE concept, institutionalizing those principles has not been easy. First, from the community perspective, wildlife resource management necessarily includes conservation and management of forestry, grasslands, wetlands, and water resources as well. If their habitat is destroyed, the animals will move. Much of the habitat is controlled and regulated by other government entities; for instance, the forests are under the control of the Forestry Department. The sustainable management of an integrated set of natural resources currently lies well beyond the purview of the Department of Parks and Wildlife Service.

Second, while the concepts of ADMADE are becoming the guiding principle of much of the NPWS's program and internal structure, it has never been articulated as the Ministry of Tourism's specific policy governing wildlife and other natural resources. Legislation governing rights to utilization of wildlife resources clearly does not vest local communities with the legal foundation to make much of a claim on the accrued benefits obtained from the utilization of wildlife resources.

Third, community level institutions are weak in general. In terms of natural resources management, the concepts are becoming understood better. To date, community participation in management has largely been limited to reducing poaching. Community organizations are not particularly strong in carrying out community development activities that benefit the local area. The

traditional leaders which the ADMADE concept relies upon have had little experience in tackling difficult decisions which they face regarding the planned utilization of wildlife, forestry, water, and land resources.

Finally, the organizations that are intended to assist communities obtain and utilize financial resources derived from wildlife are not functioning adequately and are far from being sustainable. The Wildlife Conservation Revolving Fund, which is intended to channel funds obtained from regulated hunting back to communities for wildlife management purposes and community development activities, has been particularly disappointing performance. Recognizing its internal weaknesses, the NPWS is trying to revamp its program structures to bring them more in line with the shared wildlife management approaches of the ADMADE concept.

B. Project Purpose

The purpose of the Natural Resources Management Project (Zambia Sub-project) is to test the viability and replicability of community based natural resources management and use programs, and integrate such programs into existing services. This phase of project assistance (1994 to mid-1997) shifts the management emphasis of the project from testing community-based programs to integrating ADMADE programs into existing institutions.

Integrating ADMADE programs into existing institutions includes further development of the WCRF to finance activities that support ADMADE concepts such as wildlife management costs or successful investments in community development. Community based natural resource management and use programs must also have a sound institutional base in local communities to be consistent with the ADMADE philosophy. Finally, the proposed wildlife policy statement for the Ministry of Tourism, and the proposed reorganization and restructuring of the NPWS, as recommended under an EC funded study, need to be implemented.

This phase of the Project will be complemented with the initiation of USAID/Zambia's Agricultural Liberalization Project (ALP) in FY 94. One of ALP's outputs will be the modification of Zambia's land tenure system which will support the long-term sustainability of arable land, parks and wildlife, forests, and soil and water quality. The activities of ALP and NRMS will converge and reinforce each other, especially in terms of assigning property rights for habitat as well as wildlife, and the rights of individuals to enter into contracts with necessary legal provisions. The NPA portion of ALP may utilize analyses and recommendations for conditions developed over the next year from the next phase of NRMS.

C. End Of Project Status

Conditions which should exist at the end of phases I and II of Project assistance and which will indicate that community-based natural resources management and sustainable use programs are feasible are as follows:

- financial resources generated from hunting and other forms of ecological tourism going to GMA's and used to promote and manage wildlife resources will have increased;
- sustainable wildlife management will prove to be of greater economical and financial benefits to communities than most other competing uses of communal natural resources;
- communities residing in the GMAs will have a clear legal basis for community participation in wildlife ownership and utilization.

By the end of the Project, a more efficient means of providing assistance will be operational. Achieving long-term sustainability depends on the rapidity with which decisions regarding natural resources management can be responsibly decentralized. A key factor governing the pace of decentralization will be the legal basis established to govern community access to wildlife and other renewable natural resources.

D. Outputs

Outputs in the context of this Project Paper Supplement are intended to be management objectives. The desired project output is followed by summary specifications, and foreseeable benchmark indicators or implementation milestones which are intended to help project management in work planning and resource flows.

1. Wildlife Conservation Revolving Fund

Specifications

- (1) Linkages improved between the Fund and sections of the NPWS which license offtake of wildlife to improve income projections of the fund and to determine how to sustainably maximize income from marketable wildlife.
- (2) Technically competent leadership managing the Fund with a clear mandate to develop an organization with a sound reputation for:
 - financial integrity and
 - efficient cost savings operations.
- (3) Following financial management responsibilities exercised by the Fund:

- Retain ability to receive funds from a number of sources (including donor organizations) and utilize these resources to support programs which implement the ADMADE program.
- Clearly define and agree upon eligible uses of the fund especially in respect to supplementing the resources of the Parks and Wildlife Service allotted to it from the central government budget.

(4) Fund operated on its own financial resources.

(5) Fund operated under a well defined purpose statement and under an active Board which represents the agreed upon or legal beneficiaries of the Fund and emphasizes quality control and long term sustainability.

Major steps in developing outputs:

1. A governing board to supervise and direct operations of the Fund appointed.
2. The WCRF placed under competent management by either hiring qualified senior staff or contracting out financial administration of the Fund to a competent financial institution.
3. Internal development plan prepared including management systems and controls, operational policies and procedures and reporting and audit requirements.
4. Annual Wildlife "Harvest" report and audit produced.

Inputs

The Project will continue assistance to develop sound financial management and accounting systems using host country contracts or financial management IQCs. It will give preference to using resident financial management and accounting firms to develop its reputation for financial integrity. Following the lead of the soon-to-be appointed manager of the Fund, the project will finance additional short-term assistance to prepare organizational development plans by a local accounting and audit firm. The Project will finance quarterly compilations for the Fund and annual audits of the Fund's accounts and operating costs as part of the organization's development costs.

2. Admade Policy and Legislative Development

For ADMADE concepts to become institutionalized, they require important changes in assigning rights and responsibilities related to wildlife management and other natural resources between government and local communities. The policy and

legal basis for managing natural resources was largely derived from statist positions with powers, responsibilities and rights vested in central government. ADMADE concepts have changed the NPWS organizational mission, programs and structure. Legal reforms vesting greater responsibility for management, protection and sustainable utilization of resources to local communities is needed before more progress can be made. Legal reform is seen as the leading constraint to implementation of the ADMADE concept.

Specifications

- (1) Clear policy statement supporting ADMADE concepts and emphasizing the principle that communities living in the vicinity of game parks and other gazetted areas share in the rights to utilize wildlife resources. Equally these same communities share in the responsibility of preserving this rich national heritage and managing it in a sustainable manner. The Policy statement should specify the central role of the WCRF, specifically noting the need for openness and transparency in licensing the harvest of wildlife, and management integrity for the resources obtained through harvested wildlife. The Policy statement should include objectives of legislative changes that will follow and suggest a time frame for their enactment. Finally, the policy statement should note that Government seeks to work with the private sector, local communities and local authorities to more fully develop wildlife resources and equitably share the benefits obtained from those resources.
- (2) Legislation passed that supports ADMADE concepts that communities living in the vicinity of gameparks and other gazetted areas share in the responsibility for management of and share in the rights to utilize wildlife resources. In many cases, the amount accruing to the communities from the utilization of the wildlife is small. Proper implementation of ADMADE will require both capital and time before larger revenue inflows are available. The GMAs have the potential to generate significant income from wildlife utilization, but they will require sizeable investments to make them attractive and managerial expertise to keep them marketable. Neither will be forthcoming from the private sector until communities are given clear and enforceable legal rights and responsibilities for wildlife management and other natural resources. While numerous amendments to the Zambian Wildlife Act of 1991 are being proposed by NPWS, the following seem particularly important to change now:

Ownership or custody of wild animals. Section 3(1) vests absolute ownership of every wild animal in the office of the President. An EC-funded assessment by Child and Lee suggests introducing the term "custody" rights pertaining to wildlife which would be applicable for community rights of natural

resources as well as privately held lands.

Licensing the offtake of wild animals. Several parts of the Act and schedules which form part of the Act and which deal with licensing and fees need to be revised and clarified, particularly in defining the role of the GMA and traditional authorities in the licensing process.

Structures for managing wildlife resources. Several sections of the Act deal with statutory bodies which have been established to oversee wildlife management and utilization. These include the National Parks Board and functions specified in the legislation related to GMAs. These may require some modification as well as adding something new related to specific community level bodies to whom authority and responsibilities are being devolved.

Structures for managing wildlife resources and structures for other natural resources. At present the Act discusses Integrated Resource Development Committees which have evolved under the Luangwa Integrated Rural Development Project sponsored by NORAD. There is a need to modify the Act to allow variety of local organizational structures to exist and seek agreement on their basic functions.

Major implementation milestones:

1. Wildlife policy statement promulgated
2. Wildlife Act amendments drafted and made into law.

Inputs

No additional assistance appears to be required in terms of issuing an appropriate policy statement. The Ministry of Tourism is studying a proposed policy statement. Short-term technical assistance may be required for legislative amendments to the Wildlife Act. Technical assistance should be available within the region as several other countries within the region have made legal changes recognizing local community rights and responsibilities for wildlife (eg. Zimbabwe and Botswana). The PVO grant will include resources to provide consultancies and advisory services in the review of existing legislation and regulatory functions which govern the management and utilization of wildlife and other related natural resources.

3. Community Based Wildlife Management Plans

Specifications

- (1) An estimated nine GMA area plans will be prepared over two years primarily by local communities working in conjunction

with interested private sector firms and institutions and in collaboration with the NPWS and other concerned government services.

- (2) NPWS and GMA authorities will establish a viable wildlife monitoring information system which is used to establish and adjust hunting quotas and other legitimate offtake of wildlife.
- (3) Community-based training plans will be geared toward wildlife management plans and specifically linked to improving the implementation of game management plans.
- (4) Mechanisms and procedures will be established to channel financial resources back to local communities to be used in tangible ways which in so far as possible are for the expressed benefit of the community.

In keeping with the ADMARE philosophy, priority will be given to working with those communities which show initiative and commitment to developing and implementing community wildlife management plans. To enhance the probability of implementation, private tourist facility operators are expected to fully participate in the preparation of the plans governing the use of communally held natural resources. Interested private groups, commercial and otherwise can contribute sound technical recommendations for preserving wildlife and associated ecologies, realistic estimates of development costs and benefits and, most importantly, the management expertise needed to achieve targeted benefits.

Major steps include:

1. Selecting PVO.
2. Conduct stakeholder and resource inventory activities to develop a GMA resource management planning framework. Identify training needs.
3. Facilitate preparation of GMA resources management plan in initial grouping of 4-5 GMAs.
4. Facilitate the preparation of GMA resource management plans in second grouping of 4-5 GMAs.
5. In-house review of planning process.

Inputs

The Project will finance a cooperative agreement with a U.S. private volunteer organization (PVO) to provide technical support to communities undertaking the preparation of GMA management plans. The PVO will work with communities to:

- (a) develop a common understanding of the objectives of such a plan;
- (b) understand the basic requirements of natural resource planning and management;
- (c) help identify data and information requirements;
- (d) broker support services;
- (e) monitor preparation of plans;
- (f) expedite review and approval as required.

Some outside assistance will be required in the actual preparation of such community based GMA plans. Eventually the preparation will be funded through the WCRF.

Considerable amounts of training will be required to enable local communities to fully carry out their management responsibilities for wildlife conservation and management under such plans. The PVO will assist in developing training plans to accompany management plans and facilitate establishing appropriate training programs from new and existing sources in both the public and private sectors. Some funds for community based training are included in the PVO cooperative agreement with the intent that eventually such training costs may be financed in part or in all by the WCRF.

It should be noted that the proposed role of the PVO differs from that exercised by WWF(US) during the first phase of project assistance. In this new role, the PVO will have greater operational flexibility and will work more directly with community level authorities. The NPWS will continue to provide direction and workplan supervision to the PVOs. The need to maintain close working relationships between the PVO facilitating community-based resource management plans and the NPWS is clearly evident and taken into account in the Phase II Management Plan.

4. Recovery Plans for Depleted Areas

Specifications

A survey of depleted GMA's will be carried out. The survey methodology will identify potential stakeholders and assess the market potential for natural resources. The survey will define realistic options for recovery programs. It will also explore: community participation programs; the leasing of areas on a long term basis to private entities for management purposes; and any other reasonable tenure arrangement while wildlife is being restored.

Milestones:

1. Survey to define programmatic options completed.
2. Next steps defined.

Inputs

Technical assistance to conduct assessment of GMA's depleted and discussions with NPWS. Need two person team (wildlife biologist and wildlife economist) for approximately two months to perform the assessment and discuss management options with NPWS and other government officials and then prepare recommendations for depleted GMAs.

5. Training and Research

Specifications

The Nyamaluma training center will continue to train approximately 75 village scouts per year. The scouts will be better trained to conduct resource inventories. The training center will continue to provide outreach training for community leaders. The Geographic Information System (GIS) initiated at the Nyamaluma training center will become functional and provide timely information on resource availability, stakeholder social characteristics, and revenue sources and uses to interested parties, including the public. The training center will initiate the first program to train village bookkeepers to work in the GMAs. Finally, economic research will analyze the potential for legislative and institutional changes to improve the environment for the private sector to improve the sustainable management of wildlife.

Milestones:

1. Trained village scouts, community leaders, and trained bookkeepers.
2. GIS providing natural resource information to interested parties.
3. Economic analysis of reforms involving property rights over wildlife, institutional changes necessary to manage and protect the wildlife, and alternative revenue sharing arrangements to improve the sustainability of the resource.

Inputs

The Project will provide the support costs for the training coordinator, pay the tuition of the village scouts and bookkeepers, provide support costs for professional volunteer trainers and researchers, provide the travel and per diem costs involved in community outreach training, and pay the costs of an economic analysis.

E. Project Management Considerations

Roles and Responsibilities: Project assistance has been structured to build institutional bridges between the NPWS and communities sharing wild life management responsibilities. The EC is committed to providing the necessary support to the NPWS to enable it to better carry out its important function.

The planned division of responsibilities between the EC in terms of providing assistance to the NPWS and USAID in terms of working with community based authorities and organizations involved in wildlife management appears sound and complementary. It will, however, increase the need for periodically coordinating priorities and workplans between the parties involved.

Given the number of organizations involved in implementing project related activities and redefining the tactical role of the supporting PVO, it is important to have a more formalized management system. Quarterly review meetings will be held to coordinate project activities with NPWS, USAID and EC. More frequent meetings will be held between USAID, PVO, and NPWS. The PVO is expected to prepare annual work plans and budgets in consultation with the NPWS and the WCRF.

IV. SUMMARY OF PROJECT ANALYSES

The full text of the Project Analyses appear as Attachments A, B, and C of this Project Paper Supplement. The major conclusions and recommendations of the analyses are summarized below.

The ADMADE Concept and feasibility of community-based natural resources management programs.

All the analyses clearly support the basic ADMADE concept but, equally, each points to the same general set of problems blocking the full realization of the concept. The problem statement for this phase of project assistance notes major challenges facing ADMADE and is drawn from project analyses (appropriate role of NPWS, inappropriate legislation, weak community institutions, and mismanaged WCRF). These conclusions are consistent with those of the mid-term evaluation and other available analyses and reports. There is general agreement that the principles which make up the ADMADE concept is the only realistic, cost effective option available for wildlife and allied natural resources management.

The importance of a sound legal basis for community participation in wildlife management and utilization.

If ADMADE is to be fully implemented and sustained, then the legislative framework must be put in place to ensure community participation in the management and access to the benefits of the utilization of communally held natural resources. A clear policy

statement is an important first step but a clear legal basis is required if the wildlife industry is to develop.

What is less clear is the range of regulatory functions needed to ensure proper wildlife management and an equitable distribution of the benefits of harvesting that resource. The regulatory functions need to be kept out of the text of the law so that they can be adapted or changed as experience dictates to encourage the industry's growth and development without long delays in parliamentary procedures.

The analyses also point out that resource management plans need to be constructed to serve the needs of those who have the responsibility to manage those resources. Consistent with the principles of ADMADE, much of those responsibilities rest with local communities having customary land rights to areas surrounding the national parks. Yet the legal basis for exercising those rights and responsibilities are not formally vested with local communities. Land-use planning activities and the preparation of community based management plans need to be linked with ensuring a legal basis exists for carrying out such plans.

The project analyses consistently give priority to the importance of providing a legal basis for community participation in resource management. Until such a legal basis is clearly established, land-use planning and resource management planning exercises will continue producing reports which circulate for approval within Government. Furthermore, land-use planning and resource management planning activities can absorb large amounts of financial resources. The Project management team needs to monitor project investment in such endeavors to ensure those activities link up with changes in legal framework governing natural resources management and utilization.

The need to decentralize wildlife management and utilization decision-making.

All the project analyses note the importance of decentralizing resource management responsibilities out to the community level. It is important that community leaders understand these roles and responsibilities and have the appropriate technical support to carry them out successfully. The Social Soundness Analysis describes the types of information and planning activities which are required to enable community leaders to make informed decisions on resource utilization and management. The analyses note the importance that, from the beginning, communities participate in wildlife management, natural resources management and the investment and use of revenues derived from the sustainable utilization of these resources. NPWS will also need to redelegate some of its wildlife management decision-making. In particular, community authorities and GMA officials should have a say in setting quotas for hunting blocks which fall within their

jurisdiction. Yet, the technical analysis points out that for decentralized decision-making to be successful, it will need better technical information. GMA's will need trained wildlife biologists to provide information for participants in the decision-making process governing resource management responsibilities at the GMA level. Peace Corps involvement in providing wildlife biologist volunteers to work on resource assessment and monitoring will be explored. Until the wildlife biologists are in place, supervision of local scouts work programs will be problematic.

The Role of the Private Voluntary Organization.

The ADMADE concept at the community level looks squarely at natural resources management decisions, wildlife management being one element. NPWS has a more limited mandate and faces other large and entrenched public services and branches of government in dealing with management questions related to other natural resources.

Past project technical assistance was provided directly to the NPWS on the assumption that the Service would eventually pick these people up under its own operating budget. In looking at the workload and the manpower requirements inherent in the present approach, sustainability is questionable. The approach suggested for the PP Supplement still entails a PVO playing a facilitator role and providing similar types of technical expertise as is currently being provided. The difference is that the PVO will work with community leaders and GMA officials to facilitate simple land use planning activities and prepare localized GMA management plans in conjunction with firms and organizations involved in the utilization of wildlife and other natural resources. Notwithstanding, it is clearly understood that the PVO will need to work under the direction of and in close cooperation with the NPWS. In the longer term, the PVO will cease operations and its functions will be assumed by the NPWS, the WCRF, community authorities and other government services (Community Development Service, Agricultural and Forestry Services etc.)

Improving the performance of the Wildlife Conservation Revolving Fund.

All the analyses point to the need for an accountable and transparent WCRF if the ADMADE concept is to succeed. The Fund's closure would have a substantial negative impact on the fledgling wildlife industry in Zambia. The WCRF shows clear signs of unmanaged growth. Technically competent organizational leadership is a precondition to develop a WCRF with financial integrity. The Fund must retain the ability to receive funds from a number of sources and be able to utilize these resources to support the programs which give life to the ADMADE philosophy. The fund also needs to retain the flexibility to channel resources to government organizations - but not as a tool to fill the growing gaps in the Ministry's budget. It can also serve as an important tool in

influencing the growth of the institutional framework for implementing ADMADE. A number of areas of potential growth of the fund are evident but it is critical that its financial and management integrity be re-established now. The fund has the flexibility to pay competitive staff salaries and therefore its operations must be judged on much higher standards than are apparently applied to normal government organizations. Development plans for the fund must emphasize quality control and maintenance of high levels of worker productivity. Sustainability of the Fund is a very important issue. Initial development costs of the Fund should be supported by donors, but it should cover its own operating costs.

Developing Community Wildlife Management Plans

All the project analyses note the need for a plan to govern the sustainable utilization of wildlife resources in Game Management Areas. The private sector is interested in making investments in line with the ADMADE philosophy. The traditional chiefs and local communities understand communal rights and the responsibilities of sharing in the conservation and use of wildlife resources. Indeed, at the local level, the need for including forestry, water resources and land use planning with wildlife management are clearly perceived. All the project analyses point out that local community "ownership" of such plans is critical for their success. The analyses also point out substantial variations within: the capacity of local communities to actively participate in management and sustainable harvest of wildlife resources and the wildlife potential of the individual GMA's.

In keeping with the ADMADE philosophy, priority should be given to working with those communities which show initiative and commitment to developing and implementing wildlife management plans. To enhance the probability of their implementation, private sector tourist facility operators must participate in the preparation of these plans which govern the use of communally held natural resources. Interested private groups, commercial and otherwise, can contribute sound technical recommendations for preserving wildlife and other natural resources. They could also provide realistic estimates of development costs, likely benefits and the management expertise needed to achieve these targeted benefits.

The technical analysis notes specifically that the reliance of ADMADE on safari hunting is disturbing. Its a small market and its expansion is limited relative to other forms of tourism. The formulation of land-use and resource management plans should give consideration of the possibilities and potential of non-consumptive types of tourism, such as game-viewing.

The technical analysis also appropriately notes the importance of wildlife monitoring as part of any GMA management plan. The NPWS's efforts to assign wildlife biologists to GMAs deserves support and

encouragement. USAID will explore with the Peace Corp the potential for volunteers to strengthen wildlife monitoring and management information systems.

The Social and Technical analyses note that GMA management plans need to support and articulate the NPWS's Park Management Plans scheduled to be completed with EC assistance. The recommendation to work more collaboratively on Park and GMA management plans reinforces the necessity to have a project management structure that coordinates work planning and maintains a singular direction for the various aspects of the project.

Dealing with the Depleted Game Management Areas

By giving priority to game areas in which the communities clearly demonstrate relatively strong abilities of internal organization and cohesion, as well as a commitment to sustainable management of natural resources, the Project will probably favor those GMA's with good wildlife resources where tourism has a broader potential. There are, however, approximately 17 GMA's that are considered to be wildlife depleted areas. As depleted areas there is little or no commercial hunting in most of these areas. Yet, these areas are important buffer zones for the wildlife in Zambia's National Parks and many could recover or be restocked given protection and time. Unfortunately, because there is no commercial hunting and it's subsequent revenues, local communities receive no benefit from hunting rights. Without any reason to protect the remaining wildlife, it is rapidly poached. In their present condition most depleted GMA's will not be in a position to generate revenues for at least five years and even then revenues would be small. Given their low productivity, few of the game depleted GMA's have been incorporated into the ADMADE program to date. Obviously something needs to be done to reverse this downward spiral.

The most efficient remedial action is not clearly evident. NPWS has Project funding for the standard packages of personnel and material resources that is assigned to GMA's covered by ADMADE program. This is not a proven recipe for remediation of depleted areas. There is a concern that beginning numerous new ADMADE GMA programs may overload management capacity of NPWS. The costs involved in restoring depleted game may be substantially higher than investments in more favorable GMA's, hence private interest may not be available for investment in the less favorable depleted areas. It is doubtful that the NPWS and/or the WCRF can presently sustain such expenditures. There is very little information available to assess market value of natural resources of these GMA's.

The technical analysis of the project attempts to determine exactly what resources are needed in the depleted GMA's. Some may not need a full complement of people and equipment. Others will need the program to start from the beginning. The argument for supporting

the extension of the program into as many of the new areas as possible is given below:

- Scouts provide a presence in an area. Although they may not always be effective and, in some cases, are perceived to a part of the problem, they can help to reduce levels of uncontrolled poaching. This is the "holding" idea. Unless scouts are seen to be active in an area the chances that it will lose all of its wildlife in the near future are high. Protection and reduced levels of poaching will help to keep the options for that area open.
- The scouts also perform a second task, which unfortunately gets overlooked in the "war" on poaching. It is that of information gathering. If the ADMADE programma works as planned there will be a biologist assigned to each area. His task will be to evaluate all data collected by the scouts (patrol, hunting and transect data). Without the people on the ground to collect this data the NPWS will never know what is going on at almost any level.
- Biologist support is seen as crucial. Each biologist will be covering several areas and, without scouts and transport, their performance will be problematic.

The economic analysis in the original PP that reviewed the economic role of wildlife utilization is still valid. It concluded that wildlife was a valuable resource that could and should be exploited to support sustainable economic development in semi-arid range-lands where conventional livestock systems are often destined to long-term failure. Investments that initiate wildlife utilization earn a high return: they can double incomes, reverse environmental degradation, and launch a process of comprehensive economic improvement. Much of this, however, requires that institutions that allocate resources must be modified so as to not reduce the value of the wildlife to the landholders. The institutions responsible for natural resources need to ensure that market prices are not distorted so that resources are allocated more efficiently - according to intrinsic comparative advantage.

The analysis of the Zambia component concluded that the Zambian Project could survive financially if the flow of benefits from wildlife was adjusted so that a greater share was returned to the resource base. Based on a pro-forma cash flow projection for a typical GMA (see Financial Plan below), the conclusion on financial viability has not changed.

V. IMPLEMENTATION ARRANGEMENTS

A. Financial Plan

1. Financial Plan

The Grant Amendment will have a total budget of \$2.4 million. A.I.D. will contribute \$1.8 million. The GRZ will contribute \$600,000, meeting the minimum 25 percent counterpart requirement for the Program. The standard tables to the financial plan indicate the overall allocation of financial responsibilities and the sources from which each individual project element will be financed. The revenues raised from the GMAs, deposited in the WCRF, and spent in the GMAs will count as the counterpart contribution. The NPWS will use the counterpart funds for field operating costs; that is, items such as salaries of village scouts and biologists, uniforms and equipment for the village scouts and biologists, provisions for the village scouts, capital equipment for the GMAs, construction of housing and offices in the GMAs for GMA personnel, and operating expenses of GMA vehicles.

SUMMARY COST ESTIMATE AND FINANCIAL PLAN - SUPPLEMENTAL FUNDING
(\$000)

| SOURCE | LIFE OF PROJECT | | TOTAL |
|---------------------------|-----------------|--------------|----------------|
| | AID | GRZ | |
| USE | | | |
| TECHNICAL ASSISTANCE | \$1,389 | | \$1,389 |
| TRAINING | 155 | | 155 |
| COMMODITIES | 64 | | 64 |
| OPERATING COSTS | | 600 | 600 |
| CONTINGENCY AND INFLATION | 192 | | 192 |
| TOTAL | \$1,800 | \$600 | \$2,400 |

PROJECTION OF EXPENDITURES BY FISCAL YEAR - SUPPLEMENTAL FUNDING
(\$000)

| FISCAL YEAR | LIFE OF PROJECT | | TOTAL |
|--------------|-----------------|--------------|----------------|
| | AID | GRZ | |
| FY 94 | \$1,107 | \$600 | \$1,707 |
| FY 95 | 693 | | 693 |
| TOTAL | \$1,800 | \$600 | \$2,400 |

COSTING OF PROJECT OUTPUTS/INPUTS - SUPPLEMENTAL FUNDING

PROJECT OUTPUTS

| | Wildlife Conservation Revolving Fund | Policy & Legislation | GMA Plans | Research & Training | Project Management | TOTAL |
|--|---|-------------------------|-----------|------------------------|-----------------------|-------|
|--|---|-------------------------|-----------|------------------------|-----------------------|-------|

PROJECT INPUTS

| | | | | | | |
|-------------------------------|----------------|---------------|----------------|----------------|----------------|------------------|
| AID APPROPRIATED | | | | | | |
| TECHNICAL ASSISTANCE | 109,800 | 70,000 | 458,900 | 57,000 | 693,600 | 1,389,300 |
| TRAINING | | | | 154,500 | | 154,500 |
| COMMODITIES | | | 28,000 | 36,000 | | 64,000 |
| INFLATION & CONTINGENCY | | | | | 192,200 | 192,200 |
| TOTAL AID | 109,800 | 70,000 | 486,900 | 247,500 | 885,800 | 1,800,000 |
| GRZ | | | | | | |
| OPERATING EXPENSES | 600,000 | | | | | 600,000 |
| TOTAL GRZ CONTRIBUTION | 600,000 | 0 | 0 | 0 | 0 | 600,000 |
| TOTAL PROJECT | 709,800 | 70,000 | 486,900 | 247,500 | 885,800 | 2,400,000 |

2

Regional Natural Resources Project
 Project Budget – Supplement
 PROJECT NO: 690-0251.11

| | Qty | Unit Cost | TOTAL | FY94 | FY95 |
|---|----------------|-----------|-----------|-----------|---------|
| <u>Wildlife Conservation Revolving Fund</u> | | | | | |
| Quarterly Compilations & Annual Audit | 5 | 6,000 | 30,000 | 30,000 | |
| Annual Report | 1 | 30,000 | 30,000 | 30,000 | |
| <u>Management Costs</u> | | | | | |
| Financial manager | 2 year | 9,300 | 18,600 | 9,300 | 9,300 |
| Transport manager | 2 year | 6,000 | 12,000 | 6,000 | 6,000 |
| Stores manager | 2 year | 4,800 | 9,600 | 4,800 | 4,800 |
| Warehouse manager | 2 year | 4,800 | 9,600 | 4,800 | 4,800 |
| Sub-total | | | 109,800 | 84,900 | 24,900 |
| <u>Policy and Legislation</u> | | | | | |
| Natural Resource Legal Advisor | 2 months | 35,000 | 70,000 | 70,000 | |
| Sub-total | | | 70,000 | 70,000 | |
| | | | 0 | | |
| <u>GMA Landuse plans for active areas</u> | | | | | |
| Land Use Planner (Local Hire) | 1 years | 5,400 | 5,400 | 5,400 | |
| Preparation of Plans | 9 | 1,500 | 13,500 | 13,500 | |
| Local consultants per GMA | 5 | 30 | | | |
| Days per plan | 10 | | | | |
| Survey costs | 3 surveys | 5,000 | 15,000 | 15,000 | |
| ST TA to review plans | 2 months | 26,000 | 52,000 | 52,000 | |
| Furn/Comp/Survey | 1 | 15,000 | 15,000 | 15,000 | |
| Geographic position system | 3 | 3,500 | 10,500 | 10,500 | |
| Digitizer unit | 1 | 2,500 | 2,500 | 2,500 | |
| Stakeholder Analysis | 9 areas | 6,000 | 54,000 | 27,000 | 27,000 |
| Short term TA for Stakeholder Analysis | 2 month | 35,000 | 70,000 | 35,000 | 35,000 |
| Resource Inventory (based on NPWS budget) | 9 areas | 9,500 | 85,500 | 42,750 | 42,750 |
| Short term TA for Resource Inventory | 2 month | 35,000 | 70,000 | 35,000 | 35,000 |
| Sub-total | | | 393,400 | 253,650 | 139,750 |
| | | | 0 | | |
| <u>GMA Plans for Depleted Areas</u> | | | | | |
| Resource Inventory (based on NPWS budget) | 17 | 3,000 | 51,000 | 38,250 | 12,750 |
| Stakeholder Analysis (local or regional contract) | 17 | 2,500 | 42,500 | 31,875 | 10,625 |
| Sub-total | | | 93,500 | 70,125 | 23,375 |
| | | | 0 | | |
| <u>Research and Training Grants</u> | | | | | |
| <u>Nyamaluma Training Grant (Train Coord)</u> | | | | | |
| Air fare/air freight | 2 years | 6,000 | 12,000 | 6,000 | 6,000 |
| Vehicle repair & maintenance (3 vehicles) | 2 years | 7,000 | 14,000 | 7,000 | 7,000 |
| Computer repairs, updates, accessories | 2 years | 2,000 | 4,000 | 2,000 | 2,000 |
| Vehicle operating costs and local travel | 2 years | 8,000 | 16,000 | 8,000 | 8,000 |
| Communications | 2 years | 1,000 | 2,000 | 1,000 | 1,000 |
| Support staff salaries | 2 years | 5,000 | 10,000 | 5,000 | 5,000 |
| Natural Resource Economic Analysis | 1 month | 35,000 | 35,000 | 35,000 | |
| Training Grants (based on NPWS budget) | 75 individuals | 1,300 | 97,500 | 48,750 | 48,750 |
| On-Site Mgmt Trainer | 6 individuals | 5,000 | 30,000 | 15,000 | 15,000 |
| GIS Research/Training | 2 individuals | 3,000 | 6,000 | 6,000 | |
| ADMAD E Bookkeeper training | 1 program | 6,000 | 6,000 | 6,000 | |
| Outreach training of local leaders | 1 program | 15,000 | 15,000 | 7,500 | 7,500 |
| Sub-total | | | 247,500 | 147,250 | 100,250 |
| | | | 0 | | |
| NGO Project Manager | 2 years | 150,000 | 300,000 | 150,000 | 150,000 |
| NGO Project Accountant | 2 years | 4,800 | 9,600 | 4,800 | 4,800 |
| NGO Overhead | 2 years | 15,000 | 30,000 | 15,000 | 15,000 |
| NGO Admin cost | 25% | | 354,000 | 215,500 | 138,500 |
| Inflation and Contingencies | | | 192,200 | 96,100 | 96,100 |
| TOTAL | | | 1,800,000 | 1,107,325 | 692,675 |
| | | | 0 | | |

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2. Recurring Costs

Recurring costs are a concern for ADMADE. As proposed, each GMA needs to generate revenues from user fees that support its share of the administrative costs, operating costs for the scouts and biologists, and community development. To date, it is impossible to accurately determine the income generated by the GMAs. Poor management of the WCRF has precluded determining exactly how much income is due the WCRF and how much is being returned to the GMAs. Furthermore, the Project has not surveyed village beneficiaries to determine if they have received any benefits from ADMADE, and if so, whether they deem them to be sufficient to warrant sustainable use of the wildlife.

Unlike most development projects, support for the ADMADE program has the potential to create each GMA as a self-sufficient cost center. The pro-forma cash flow projections for four scenarios for an average GMA demonstrate the potential for financial viability if certain management and policy changes are made.

The fixed asset and operating expense needs for an average GMA were compiled from interviews with two leading wildlife biologists currently managing park and wildlife programs in Zambia. The revenue figures were averages taken from the 1993 projections prepared by the NPWS for 26 GMAs. The projections assume a donor grant for initial capital costs of \$154,225. After that, the scenarios do not include any external assistance.

All four projections demonstrate that GMA's revenues should cover its field operating costs. The profit potential from a quality game management area is more than enough to achieve sustainability. In the BEST CASE SCENARIO, revenues of \$104,228 exceed total operating costs of \$46,173. If total revenues of \$104,000 were cut in half, as demonstrated in the ensuing WORST CASE SCENARIO, the average GMA would still have the estimated \$46,000 it needs to keep a vehicle and boat in operation, village scouts in uniforms with guns and ammunition, a biologist conducting game counts, and replacement capital in its budget.

Yet, in the first two scenarios, the GMA is not sustainable. Even though revenues exceed operating costs, revenue sharing of gross income (off the top) leaves insufficient cash for operations. It is difficult under the current ADMADE design for GMAs to be self-supporting. Sustainability of the GMAs is compromised by the arbitrary revenue sharing which has been put in place by the GRZ. The sustainability problem for the average GMA is not that it is not capable of generating enough revenue, but rather that the priorities for revenue sharing are artificial and backwards.

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 urces Project Paper Supplement
 ancial Projections for a model GMA (US\$)
 SCENARIO

| | | year | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|--------|-----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| d Support from Operations | | | | | | | | | | | | |
| Scenario | 100% | | 63,522 | 63,522 | 63,522 | 63,522 | 63,522 | 63,522 | 63,522 | 63,522 | 63,522 | 63,522 |
| | | | 4,006 | 4,006 | 4,006 | 4,006 | 4,006 | 4,006 | 4,006 | 4,006 | 4,006 | 4,006 |
| s | | | 36,759 | 36,759 | 36,759 | 36,759 | 36,759 | 36,759 | 36,759 | 36,759 | 36,759 | 36,759 |
| ts | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ne | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | 104,288 | 104,288 | 104,288 | 104,288 | 104,288 | 104,288 | 104,288 | 104,288 | 104,288 | 104,288 |
| GRZ (License & Basic) x | 50% | | (33,764) | (33,764) | (33,764) | (33,764) | (33,764) | (33,764) | (33,764) | (33,764) | (33,764) | (33,764) |
| nt to NPWS (Subtotl - GRZ pmt) x | 25% | | (17,631) | (17,631) | (17,631) | (17,631) | (17,631) | (17,631) | (17,631) | (17,631) | (17,631) | (17,631) |
| und payment (Subtotl - GRZ pmt) x | 35% | | (24,683) | (24,683) | (24,683) | (24,683) | (24,683) | (24,683) | (24,683) | (24,683) | (24,683) | (24,683) |
| | | | 28,209 | 28,209 | 28,209 | 28,209 | 28,209 | 28,209 | 28,209 | 28,209 | 28,209 | 28,209 |
| | units | unit cost | | | | | | | | | | |
| xpenses | | | | | | | | | | | | |
| - (rounds) | 400 | 1 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |
| ng costs (km/yr) | 30,000 | 0.30 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 |
| (see note 1) | 15,000 | 0.30 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 |
| se | 1 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| al services (legal, acctng, & tech) | 1 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| for field (person days/mo) | 400 | 1 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |
| pairs & maintenance | 1 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Wildlife Biologist | 50% | 3,000 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 |
| Unit Leader | 1 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 |
| Deputy Unit Leaders | 2 | 420 | 840 | 840 | 840 | 840 | 840 | 840 | 840 | 840 | 840 | 840 |
| Village Scouts | 20 | 360 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 |
| Unit Accountant | 1 | 420 | 420 | 420 | 420 | 420 | 420 | 420 | 420 | 420 | 420 | 420 |
| Driver | 2 | 240 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 |
| continuing education | 24 | 150 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 |
| Total Expenses | | | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 |
| Less/deficit from operations | | | (17,964) | (17,964) | (17,964) | (17,964) | (17,964) | (17,964) | (17,964) | (17,964) | (17,964) | (17,964) |
| ted services, materials, and facilities | | | 154,225 | | | | | | | | | |
| ing (costs) | | | | | | | | | | | | |
| ficit | | | 136,261 | (17,964) | (17,964) | (17,964) | (17,964) | (17,964) | (17,964) | (17,964) | (17,964) | (17,964) |
| ditions | | | 154,225 | | | 1,000 | 36,925 | 1,000 | | | | |
| ase in entity capital | | | (17,964) | (17,964) | (17,964) | (18,964) | (17,964) | (54,889) | (18,964) | (17,964) | (17,964) | (17,964) |
| ash balance | | | 156,000 | (2,236) | (6,246) | (10,257) | (15,267) | (19,278) | (23,288) | (27,298) | (31,308) | (35,318) |
| ficit from operations | | | (17,964) | (17,964) | (17,964) | (17,964) | (17,964) | (17,964) | (17,964) | (17,964) | (17,964) | (17,964) |
| ation | | | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 |
| apital additions | | | (154,225) | 0 | 0 | (1,000) | 0 | (36,925) | (1,000) | 0 | 0 | 0 |
| ing cash balance | | | (2,236) | (6,246) | (10,257) | (15,267) | (19,278) | (23,288) | (27,298) | (31,308) | (35,318) | (39,328) |

AID:Zambia
 Natural Resources Project Paper Supplement
 Annual Financial Projections for a model GMA (US\$)
 BEST CASE SCENARIO

| | year | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--|----------|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|
| Revenues and Support from Operations | | | | | | | | | | | |
| License fees | Scenario | 50% | 31,761 | 31,761 | 31,761 | 31,761 | 31,761 | 31,761 | 31,761 | 31,761 | 31,761 |
| Basic fees | | | 2,003 | 2,003 | 2,003 | 2,003 | 2,003 | 2,003 | 2,003 | 2,003 | 2,003 |
| Marketing rights | | | 18,380 | 18,380 | 18,380 | 18,380 | 18,380 | 18,380 | 18,380 | 18,380 | 18,380 |
| Large receipts | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Operating income | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Subtotal | | | 52,144 | 52,144 | 52,144 | 52,144 | 52,144 | 52,144 | 52,144 | 52,144 | 52,144 |
| Costs: | | | | | | | | | | | |
| Payment to GRZ (License & Basic) x | | 50% | (16,882) | (16,882) | (16,882) | (16,882) | (16,882) | (16,882) | (16,882) | (16,882) | (16,882) |
| Payment to NPWS (Subtotal - GRZ pmt) x | | 25% | (8,815) | (8,815) | (8,815) | (8,815) | (8,815) | (8,815) | (8,815) | (8,815) | (8,815) |
| Dom Dev fund payment (Subtotal - GRZ pmt) x | | 35% | (12,342) | (12,342) | (12,342) | (12,342) | (12,342) | (12,342) | (12,342) | (12,342) | (12,342) |
| Total | | | 14,105 | 14,105 | 14,105 | 14,105 | 14,105 | 14,105 | 14,105 | 14,105 | 14,105 |
| | units | unit cost | | | | | | | | | |
| Operating Expenses | | | | | | | | | | | |
| Ammunition (rounds) | 400 | 1 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |
| Fuel (km/yr) | 30,000 | 0.30 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 |
| Boat operating costs (km/yr) | 15,000 | 0.30 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 |
| Depreciation (see note 1) | | | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 |
| Office expense | 1 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Professional services (legal, acctg. & tech) | 1 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Provisions for field (person days/mo) | 400 | 1 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |
| General repairs & maintenance | 1 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Salaries - Wildlife Biologist | 50% | 3,000 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 |
| Salaries - Unit Leader | 1 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 |
| Salaries - Deputy Unit Leaders | 2 | 420 | 840 | 840 | 840 | 840 | 840 | 840 | 840 | 840 | 840 |
| Salaries - Village Scouts | 20 | 360 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 |
| Salaries - Unit Accountant | 1 | 420 | 420 | 420 | 420 | 420 | 420 | 420 | 420 | 420 | 420 |
| Salaries - Driver | 2 | 240 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 |
| Training - continuing education | 24 | 150 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 |
| Total Expenses | | | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 |
| Excess/deficit from operations | | | (32,069) | (32,069) | (32,069) | (32,069) | (32,069) | (32,069) | (32,069) | (32,069) | (32,069) |
| Donated services, materials, and facilities | | | | | | | | | | | |
| Grants | | | 154,225 | | | | | | | | |
| Fund-raising (costs) | | | | | | | | | | | |
| Excess/deficit | | | 122,156 | (32,069) | (32,069) | (32,069) | (32,069) | (32,069) | (32,069) | (32,069) | (32,069) |
| Capital additions | | | 154,225 | | 1,000 | | 36,925 | 1,000 | | | |
| Total increase in entity capital | | | (32,069) | (32,069) | (32,069) | (32,069) | (68,994) | (32,069) | (32,069) | (32,069) | (32,069) |
| Opening cash balance | | | 156,000 | (16,340) | (34,456) | (52,571) | (71,686) | (89,801) | (144,842) | (163,957) | (182,072) |
| Excess/deficit from operations | | | (32,069) | (32,069) | (32,069) | (32,069) | (32,069) | (32,069) | (32,069) | (32,069) | (32,069) |
| Add depreciation | | | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 |
| Subtract capital additions | | | (154,225) | 0 | 0 | (1,000) | 0 | (36,925) | (1,000) | 0 | 0 |
| Ending cash balance | | | (16,340) | (34,456) | (52,571) | (71,686) | (89,801) | (144,842) | (163,957) | (182,072) | (200,187) |

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mbia
 esources Project Paper Supplement
 Financial Projections for a model GMA (USS)
 SE WITH REALLOCATION OF REVENUE SHARING

| | | | year | | | | | | | | | |
|--|----------|-----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| s and Support from Operations | | | | | | | | | | | | |
| ees | Scenario | 100% | 63,522 | 63,522 | 63,522 | 63,522 | 63,522 | 63,522 | 63,522 | 63,522 | 63,522 | 63,522 |
| ghts | | | 4,006 | 4,006 | 4,006 | 4,006 | 4,006 | 4,006 | 4,006 | 4,006 | 4,006 | 4,006 |
| ripts | | | 36,759 | 36,759 | 36,759 | 36,759 | 36,759 | 36,759 | 36,759 | 36,759 | 36,759 | 36,759 |
| ncome | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | 104,288 | 104,288 | 104,288 | 104,288 | 104,288 | 104,288 | 104,288 | 104,288 | 104,288 | 104,288 |
| | | | 104,288 | 104,288 | 104,288 | 104,288 | 104,288 | 104,288 | 104,288 | 104,288 | 104,288 | 104,288 |
| | units | unit cost | | | | | | | | | | |
| g expenses | | | | | | | | | | | | |
| tion (trounds) | 400 | 1 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |
| n/yr) | 30,000 | 0.30 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 |
| erating costs (km/yr) | 15,000 | 0.30 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 |
| ation (see note 1) | | | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 |
| xpense | 1 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| onal services (legal, acctng, & tech) | 1 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| ns for field (person days/mo) | 400 | 1 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |
| repairs & maintenance | 1 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| s - Wildlife Biologist | 50% | 3,000 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 |
| s - Unit Leader | 1 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 |
| s - Deputy Unit Leaders | 2 | 420 | 840 | 840 | 840 | 840 | 840 | 840 | 840 | 840 | 840 | 840 |
| s - Village Scouts | 20 | 360 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 |
| s - Unit Accountant | 1 | 420 | 420 | 420 | 420 | 420 | 420 | 420 | 420 | 420 | 420 | 420 |
| es - Driver | 2 | 240 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 |
| ng - continuing education | 24 | 150 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 |
| xpenses: | | | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 |
| Excess/deficit from operations: | | | 58,115 | 58,115 | 58,115 | 58,115 | 58,115 | 58,115 | 58,115 | 58,115 | 58,115 | 58,115 |
| d services, materials and facilities | | | 0 | | | | | | | | | |
| -Unrestricted | | | | | | | | | | | | |
| nt to GRZ (License & Basic) x | 40% | | (27,011) | (27,011) | (27,011) | (27,011) | (27,011) | (27,011) | (27,011) | (27,011) | (27,011) | (27,011) |
| payment to NPWS (Subtotl - GRZ pmt) x | 15% | | (11,591) | (11,591) | (11,591) | (11,591) | (11,591) | (11,591) | (11,591) | (11,591) | (11,591) | (11,591) |
| Dev fund payment (Subtotl - GRZ pmt) > | 35% | | (27,047) | (27,047) | (27,047) | (27,047) | (27,047) | (27,047) | (27,047) | (27,047) | (27,047) | (27,047) |
| raising (costs) | | | | | | | | | | | | |
| ress/deficit | | | (7,535) | (7,535) | (7,535) | (7,535) | (7,535) | (7,535) | (7,535) | (7,535) | (7,535) | (7,535) |
| ints - Restricted | | | 154,225 | | | | | | | | | |
| ital additions | | | 154,225 | | | 1,000 | | 36,925 | 1,000 | | | |
| increase in entity capital | | | (7,535) | (7,535) | (7,535) | (8,535) | (7,535) | (44,460) | (8,535) | (7,535) | (7,535) | (7,535) |
| ng cash balance | | | 154,225 | 6,418 | 12,837 | 19,255 | 24,673 | 31,091 | 585 | 6,003 | 12,421 | 18,639 |
| s/deficit | | | (7,535) | (7,535) | (7,535) | (7,535) | (7,535) | (7,535) | (7,535) | (7,535) | (7,535) | (7,535) |
| epreciation | | | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 |
| act capital additions | | | (154,225) | 0 | 0 | (1,000) | 0 | (36,925) | (1,000) | 0 | 0 | 0 |
| ng cash balance | | | 6,418 | 12,837 | 19,255 | 24,673 | 31,091 | 585 | 6,003 | 12,421 | 18,639 | 25,258 |

ID/Zambia

Financial Resources Project Paper Supplement
 Annual Financial Projections for a model GMA (JSS)

BEST CASE WITH REALLOCATION OF REVENUE SHARING

| | | | year | | | | | | | | | |
|--|--------|-----------|-----------|---------|---------|---------|---------|----------|---------|---------|---------|---------|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Revenues and Support from Operations | | | | | | | | | | | | |
| Scenario | 50% | | 31,781 | 31,761 | 31,761 | 31,781 | 31,781 | 31,781 | 31,781 | 31,781 | 31,761 | 31,781 |
| License fees | | | 2,003 | 2,003 | 2,003 | 2,003 | 2,003 | 2,003 | 2,003 | 2,003 | 2,003 | 2,003 |
| Game rights receipts | | | 18,380 | 18,380 | 18,380 | 18,380 | 18,380 | 18,380 | 18,380 | 18,380 | 18,380 | 18,380 |
| Game income | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | | | 52,144 | 52,144 | 52,144 | 52,144 | 52,144 | 52,144 | 52,144 | 52,144 | 52,144 | 52,144 |
| Operating Expenses | | | | | | | | | | | | |
| Scenario | 50% | unit cost | 52,144 | 52,144 | 52,144 | 52,144 | 52,144 | 52,144 | 52,144 | 52,144 | 52,144 | 52,144 |
| ammunition (rounds) | 400 | 1 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |
| Transport (km/yr) | 30,000 | 0.30 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 |
| Out of pocket operating costs (km/yr) | 15,000 | 0.30 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 |
| Depreciation (see note 1) | | | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 |
| Office expense | 1 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Professional services (legal, acctg, & tech) | 1 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Revisions for field (person days/mo) | 400 | 1 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |
| General repairs & maintenance | 1 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Salaries - Wildlife Biologist | 50% | 3,000 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 |
| Salaries - Unit Leader | 1 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 |
| Salaries - Deputy Unit Leaders | 2 | 420 | 840 | 840 | 840 | 840 | 840 | 840 | 840 | 840 | 840 | 840 |
| Salaries - Village Scouts | 20 | 360 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 | 7,200 |
| Salaries - Unit Accountant | 1 | 420 | 420 | 420 | 420 | 420 | 420 | 420 | 420 | 420 | 420 | 420 |
| Salaries - Driver | 2 | 240 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 |
| Training - continuing education | 24 | 150 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 |
| Total Expenses | | | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 | 46,173 |
| Surplus/deficit from operations | | | 5,971 | 5,971 | 5,971 | 5,971 | 5,971 | 5,971 | 5,971 | 5,971 | 5,971 | 5,971 |
| Donated services, materials, and facilities | | | | | | | | | | | | |
| Grants - Unrestricted | | | 0 | | | | | | | | | |
| Payment to GRZ (License & Basic) x | 5% | | (1,688) | (1,688) | (1,688) | (1,688) | (1,688) | (1,688) | (1,688) | (1,688) | (1,688) | (1,688) |
| Admin payment to NPWS (Subtotal - GRZ pmt) x | 5% | | (2,523) | (2,523) | (2,523) | (2,523) | (2,523) | (2,523) | (2,523) | (2,523) | (2,523) | (2,523) |
| Comm Dev fund payment (Subtotal - GRZ pmt) x | 18% | | (9,082) | (9,082) | (9,082) | (9,082) | (9,082) | (9,082) | (9,082) | (9,082) | (9,082) | (9,082) |
| Grant-raising (costs) | | | | | | | | | | | | |
| Surplus/deficit | | | (7,322) | (7,322) | (7,322) | (7,322) | (7,322) | (7,322) | (7,322) | (7,322) | (7,322) | (7,322) |
| Grants - Restricted | | | 154,225 | | | | | | | | | |
| Capital additions | | | 154,225 | | | 1,000 | | 36,925 | 1,000 | | | |
| Total increase in equity capital | | | (7,322) | (7,322) | (7,322) | (8,322) | (7,322) | (44,247) | (8,322) | (7,322) | (7,322) | (7,322) |
| Opening cash balance | | | 154,225 | 6,631 | 13,262 | 19,893 | 25,524 | 32,155 | 1,661 | 7,491 | 14,122 | 20,753 |
| Surplus/deficit | | | (7,322) | (7,322) | (7,322) | (7,322) | (7,322) | (7,322) | (7,322) | (7,322) | (7,322) | (7,322) |
| Add depreciation | | | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 | 13,953 |
| Subtract capital additions | | | (154,225) | 0 | 0 | (1,000) | 0 | (36,925) | (1,000) | 0 | 0 | 0 |
| Closing cash balance | | | 6,631 | 13,262 | 19,893 | 25,524 | 32,155 | 1,661 | 7,491 | 14,122 | 20,753 | 27,384 |

USAID/Zambia
 Natural Resources Project Paper Supplement
 Proforma Financial Projections for a model GMA (US\$)

| | Qty | Cost | Depreciation by year | | |
|--|-----|--------|----------------------|------|---------------|
| | | | Total | Life | 1 |
| <u>Year 1 – Initial Capital</u> | | | | | |
| Houses | 20 | 5,000 | 100,000 | 20 | 5,000 |
| Office | 1 | 5,000 | 5,000 | 20 | 250 |
| Radio | 1 | 1,500 | 1,500 | 5 | 300 |
| Vehicle w/ trailer | 1 | 30,000 | 30,000 | 5 | 6,000 |
| Guns | 20 | 125 | 2,500 | 20 | 125 |
| Minor tools | 1 | 500 | 500 | 3 | 167 |
| Solar panels | 2 | 450 | 900 | 5 | 180 |
| Filing cabinets | 3 | 150 | 450 | 10 | 45 |
| Inverter | 1 | 300 | 300 | 3 | 100 |
| Computer | 1 | 2,000 | 2,000 | 5 | 400 |
| Deep discharge batteries | 2 | 100 | 200 | 3 | 67 |
| Strong box | 1 | 400 | 400 | 20 | 20 |
| Mimeograph machine | 1 | 500 | 500 | 5 | 100 |
| Bicycles | 10 | 175 | 1,750 | 10 | 175 |
| Boat | 1 | 6,000 | 6,000 | 10 | 600 |
| Motor for boat | 1 | 750 | 750 | 5 | 150 |
| Typewriter | 1 | 250 | 250 | 5 | 50 |
| Tents & Tarps | 5 | 120 | 600 | 5 | 120 |
| Backpacks | 5 | 85 | 425 | 5 | 85 |
| Steel drums | 2 | 100 | 200 | 10 | 20 |
| Total | | | 154,225 | | 13,953 |
| <u>Year 4 – Replacement Capital</u> | | | | | |
| Minor tools | 1 | 500 | 500 | 3 | |
| Inverter | 1 | 300 | 300 | 3 | |
| Deep discharge batteries | 2 | 100 | 200 | 3 | |
| Total | | | 1,000 | | |
| <u>Year 6 – Replacement Capital</u> | | | | | |
| Radio | 1 | 1,500 | 1,500 | 5 | |
| Vehicle w/ trailer | 1 | 30,000 | 30,000 | 5 | |
| Solar panels | 2 | 450 | 900 | 5 | |
| Computer | 1 | 2,000 | 2,000 | 5 | |
| Mimeograph machine | 1 | 500 | 500 | 5 | |
| Motor for boat | 1 | 750 | 750 | 5 | |
| Typewriter | 1 | 250 | 250 | 5 | |
| Tents & Tarps | 5 | 120 | 600 | 5 | |
| Backpacks | 5 | 85 | 425 | 5 | |
| Total | | | 36,925 | | |
| <u>Year 7 – Replacement Capital</u> | | | | | |
| Minor tools | 1 | 500 | 500 | 3 | |
| Inverter | 1 | 300 | 300 | 3 | |
| Deep discharge batteries | 2 | 100 | 200 | 3 | |
| Total | | | 1,000 | | |

If the ADMADE concept is to be implemented properly, the revenues will have to be first allocated to the field for village scouts and community development programs. Allocations to the NPWS central office and contributions to the national treasury should be determined and made after field priorities have been met. In the BEST CASE WITH REALLOCATION OF REVENUE SHARING, the revenue sharing has been allocated after operating expenses have been met. In this case, the GMA can maintain a positive cash flow if payments to the central treasury are reduced to 40 percent. Even in the WORST CASE WITH REALLOCATION OF REVENUE SHARING, the GMA would be financially viable if the revenue sharing reduced the central treasury and NPWS shares to five percent and the communities accepted 18 percent.

These pro-forma cash flow scenarios do not begin to exhaust the possible cost and revenue sharing options. Even though the scenarios with reallocation of revenue sharing have allocated the revenue after the operating expenses have been paid, the percentages are still based on gross income. One alternative would be to base the revenue sharing as a percentage of the excess from operations. Another alternative would be to pay NPWS as an expense, rather than revenue sharing, on the basis of staff salaries only; perhaps an overhead rate of 30 percent on the salaries of the staff located in the GMA.

As part of the Project, a natural resource economist will examine and recommend appropriate revenue sharing arrangements that are consistent with the need for sustainability. The economist will also examine other factors that can enhance sustainability such as long-term concessions, decentralization of the control over revenue and expenditures, and improved licensing arrangements. The analysis to revise the revenue sharing will be completed over the next 12 months.

3. WCRF Audit

USAID/Zambia arranged for an audit of the WCRF for the period ended December 31, 1992. The auditors were unable to adequately determine sources and uses of the WCRF for 1992 from the available financial records. Even though the Project-funded audit of the WCRF is not complete, the auditors have indicated that they will issue a qualified report. They found the control environment to be poor, documentation to be missing, and losses due to mismanagement to be large.

The report of the auditors will suggest improvements in the control environment by having: the NPWS and WCRF report to an active board which represents the beneficiaries of the WCRF; clearly defined mission statements or objectives; adequately trained and experienced staff managing the WCRF; financial and budgetary procedures; and regular financial and qualitative reports.

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A structural problem in the organization of the WCRF is the conflict of interest at NPWS in managing the Fund. NPWS is a fiduciary of the national wildlife and parks, and of the WCRF. The fiduciary is charged with exercising reasonable prudence in respect to the care and management of the WCRF. NPWS and its parent, the Ministry of Tourism, are also beneficiaries of the WCRF. NPWS is not independent when it comes to determining fund use and disbursements. Evidence from the audit suggests that their interests may have taken precedence over those of the GMAs and communities.

The Project will address the need for clearly defined objectives of the WCRF, trained and experienced staff, proper financial procedures, and regular reports. The need for structural reform is being left for NPWS reorganization with EC support. While there was an argument for a condition under the PP Supplement to require a separate board or custodian bank to oversee the WCRF, it was not included in the PP Supplement as it would complicate the the long-term reorganization of NPWS. Under the EC program, the GRZ will create an overall board with broad representation which establishes a sub-committee responsible for the WCRF. The WCRF sub-committee will be required to have a banker on it.

B. Implementation Plan

The following Project implementation schedule serves as a general guide for initial Project activity and target dates.

| <u>ACTIVITY</u> | <u>DATE</u> |
|--------------------------------------|-------------|
| Grant Agreement Amendment signed | 09/93 |
| PIO/T WWF Coop Agrmt | 10/93 |
| WWF Cooperative Agreement amended | 11/93 |
| WCRF managers hired | 11/93 |
| Scouts & Outreach training initiated | 11/93 |
| WWF Project Manager hired | 11/93 |
| WWF Project Accountant hired | 12/93 |
| WWF Land Use Planner hired | 12/93 |
| SOW for legislative advisor drafted | 12/93 |
| Annual Compilation WCRF | 01/94 |
| Terms of reference for Resource Inv | 02/94 |
| Terms of reference for Stakeholder | 03/94 |
| Nyamaluma Training Grant made | 03/94 |
| Quarterly Compilation WCRF | 04/94 |
| Resource Inventory commences | 05/94 |
| Stakeholder Analysis commences | 05/94 |
| Economic Analysis of Admade | 06/94 |
| Project Review | 07/94 |
| Quarterly Compilation WCRF | 07/94 |
| Quarterly Compilation WCRF | 10/94 |
| Audit of WCRF | 01/95 |

C. Project Management Arrangements

The Grant Agreement assigns responsibility for Project management primarily with USAID/Zimbabwe. The Project Officer at USAID/Zimbabwe and a locally hired administrative assistant were to oversee project implementation, continuous monitoring of all project activities, drafting of Project Implementation Letters, Project Implementation Orders, and quarterly implementation reports. This management arrangement was not implemented. A USAID/Zambia Project Officer was assigned responsibility for the Project management. The amended Grant Agreement will assign Project management responsibility to USAID/Zambia.

The amended Grant will also stipulate that the GRZ will allow USAID/Zambia to amend the Cooperative Agreement with WWF/USA, or if necessary, to complete a Cooperative Agreement with another PVO to assist the NPWS in implementing the Project. Work plans, terms-of-references, scopes of work, sub-agreements, sub-contracts, and all other implementation arrangements will require NPWS and USAID/Zambia approval.

The following table indicates the implementation and financing method for each major type of assistance.

| Type of Assistance ----- | Methods of Implementation ----- | Method of Payment ----- | Amount of Assistance ----- |
|---|------------------------------------|----------------------------|-------------------------------|
| <u>USAID</u> Quarterly Comp & Audit | Dir AID Cont | Dir Payment | \$30,000 |
| Legislation | Dir AID Cont | Dir Payment | 75,000 |
| <u>PVO</u> Annual Report WCRF mgmt costs Land use plans Research & Trng | Cooperative Agrmt | Advance | 1,597,900 |
| Cont/Inflation | | | <u>102,100</u> |
| Total | | | \$1,800,000 |

D. Monitoring and Evaluation

To support project management in monitoring project performance and, in a more general sense, to increase the amount of factual information circulating regarding the performance of institutions implementing the ADMADE concepts, the monitoring and evaluation plan for this phase of assistance will consist of several documents produced annually.

The first monitoring task is an annual review of (a) wildlife offtake, (b) revenues generated from that offtake and (c) how those funds were used. For funds entering the WCRF, the review will summarize wildlife management and community development activities supported from expenditures from the Fund. In addition, this review will cover (d) any important policy and legal changes which further the realization of ADMADE concepts and (e) any tangible results in developing GMA resource management plans.

On the basis of this review, two reports will be prepared. The first report is essentially for informational purposes intended to increase the confidence of government, the wildlife industry, conservation groups and traditional authorities in the operations of the NPWS and the WCRF. The second report is an internal memorandum providing comments, suggestions, and recommendations, as appropriate, to the Director of the NPWS on management or program related aspects of the review.

It is expected that this task will be completed by a team of qualified locally based individuals hired by a reputable and respected resident firm or international organization dealing substantially in wildlife or natural resources management. If the management improvements are taking place as planned in the WCRF and the NPWS, the review and the preparation of reports will only require several weeks of effort by the combined team. A draft Terms of Reference for this study is included as an annex of this PP supplement.

The second monitoring task is an annual audit of the WCRF. In addition to the usual (a) statement of audited accounts, the audit will include: (b) an assessment of progress made in developing and adhering to operational management and control mechanisms pertaining to the fund, (c) a listing of employees of the Fund and (d) the cost of managing the fund (audit included). A summary of the audit report should be attached as an annex to the Annual ADMADE Harvest Report and substantive findings should be incorporated into both the informational report as well as the side report on management recommendations addressed to the direction of the NPWS. It is expected that the annual audit of WCRF operations will be undertaken by a reputable and respected local accounting and audit firm on the basis of purchase order.

It is expected that the first set of such monitoring reports will be completed at the end of 1994.

| NARRATIVE | VERIFIABLE INDICATORS & MEASURES | MEANS OF VERIFICATION | ASSUMPTIONS |
|---|---|---|---|
| <p>Program Goal:</p> <p>a) Improve social and economic wellbeing of targeted communities.</p> <p>b) Conserve and preserve wildlife resources in Zambia.</p> <p>Purpose:</p> <p>To test the feasibility and replicability of community-based natural resources management and use programs in selected areas</p> | <p>Estimated Impact of Project:</p> <ul style="list-style-type: none"> - Disposable incomes improve - Child survival rates improve <p>- Annual game censuses demonstrates sustainability and maintenance of bio-diversity</p> <p>End of Project Status:</p> <ul style="list-style-type: none"> - Sustainable flow of financial resources generated from hunting and other forms of ecological tourism going to GMA's and used to promote and manage wildlife resources. - Sustainable wildlife management provides greater economical than financial benefits to communities and most other competing uses of communal natural resources. - Clear legal basis for community participation in wildlife ownership and utilization. | <p>CSO quarterly bulletins DHS III</p> <p>NPWS Annual Report</p> <p>Audited F/S for WCFF NPWS Annual Report</p> <p>Audited F/S for WCFF NPWS Annual Report Natural Resource Economic Analysis</p> <p>NPWS Annual Report</p> | <p>Assumptions:</p> <p>EDF provides substantial assistance to NPWS.</p> <p>Assumptions:</p> <p>Traditional chiefs and community authority structure complementary to manage wildlife resources profitably and on a sustainable basis.</p> <p>Assistance from the European Community (EC) will finance the institutional development project for the National Parks and Wildlife Service. Assistance is expected to total approximately 7 million ECU's over a period of five years.</p> |

| NARRATIVE | VERIFIABLE INDICATORS & MEASURES | ASSUMPTIONS |
|---|--|---|
| <p>Phase 1: (90-02)</p> <p>Outputs</p> <ul style="list-style-type: none"> 10 ANIMADE field units operating successfully with logistical and training support from NPWS. Soil-sustaining, well governed wildlife licensing and income generation mechanism (WClf) operating NPWS institutional capabilities expanded in following major areas: <ul style="list-style-type: none"> - Land use planning - Community development - Resources and program performance monitoring - Community-based wildlife management training capacities established | <p>Management Specifications:</p> <p>Field units defined as GMA unit leader, scouts and additional authorities.</p> <p>Amount of revenues generated.</p> <p>Amount of revenues devoted. Game management community development</p> <p>Sifted and funded to prepare and implement land-use plans for GMAs.</p> | <p>Assumptions:</p> <p>Project Evaluation PP Supplement</p> <p>Audit of WClf</p> <p>Audit of WClf PP Supplement</p> <p>Project Evaluation</p> <p>Land use planning and community development services of other parts of the Zambian government is available to assume these responsibilities.</p> |

| NARRATIVE | VERIFIABLE INDICATORS & MEASURES | ASSUMPTIONS |
|--|--|--|
| <p>Phase II (94-97) Outputs</p> <ol style="list-style-type: none"> 1. WCRF: Clear policy and management decisions governing the resource levels and the revenues for the forest lands which improve the management of wildlife resources and improve community economic productivity. 2. Policy and legislation clearly providing legal basis for community participation in managing wildlife resources and their harvest from the harvest of forest resources. 3. GMA wildlife management and utilization plans in areas covered by ACHADE concept (10 locations). 4. GMA plans for depleted areas. 5. Natural Resource Economic analysis. 6. Village Scout's teams. | <p>Management Specifications:</p> <ol style="list-style-type: none"> a) Complete computerization of licensing operations. b) decentralize office decision making. c) ensure adequacy of financial management systems. d) complete annual audit and management report and short-term managerial assistance to the WCRF. Draft Wildlife Policy statement approved by the end of 1993. Draft legislation prepared governing community utilization of wildlife and other natural resources by end of 1994. Legislation enacted by mid 1995. Conduct rapid stakeholder analysis and wildlife resource assessment in order to provide agreed upon framework for plan development. Using framework and rapid stakeholder analysis plans prepared by local communities and private sector firms. Expect 5 plans in 1994 and 5 in 1995. Conduct survey and rapid natural resource inventory in 5 depleted GMAs. Carry out stakeholder analysis in 5 depleted GMAs. Develop game management planning framework and guidelines for depleted GMAs by the end of 1994. Carry out preparation of plans in 1995 depleted GMAs. One analysis of sustainability completed 150 trained | <p>Management Assumptions:</p> <ol style="list-style-type: none"> 1. NPWS, EC and USAID will be able to agree on necessary actions to safeguard existence of WCRF in the short run and be able to agree to a longer term development plan for the fund. 2. EC will participate in the drafting of appropriate legislation governing wildlife and other natural resources management and utilization. 3. GMA wildlife management and utilization plans will essentially be prepared by community leaders and interested private firms. WWF (US) will facilitate and help prepare documentation. Plans written essentially to define rights and responsibilities of community sectors vis-à-vis wildlife management. Plans prepared and implemented with support and harvesting wildlife resources and local representatives of NPWS. |
| | | <p>Audited F/S for WCRF NPWS Annual Report</p> |
| | | <p>Audited F/S for WCRF NPWS Annual Report</p> |
| | | <p>NPWS Annual Report</p> |
| | | <p>NPWS Annual Report NPWS & WWF Records</p> |
| | | <p>NPWS & WWF Records NPWS & WWF Records</p> |

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| NARRATIVE | VERIFIABLE INDICATORS & MEASURES | ASSUMPTIONS |
|---------------------------|----------------------------------|------------------------|
| INPUTS: | | |
| TECHNICAL ASSISTANCE | AID 1,359 | |
| EQUIPMENT | 182 | |
| COMMODITIES | 0 | |
| OPERATING COSTS | 0 | |
| CONTINGENCY AND INFLATION | 192 | |
| TOTAL | 1,800 | |
| | GIZ 0 | |
| | TOTAL 1,359 | |
| | 182 | |
| | 0 | |
| | 0 | |
| | 600 | |
| | 0 | |
| | 152 | |
| | 600 | |
| | 2,400 | |
| | | USAD Financial Reports |

INITIAL ENVIRONMENTAL EXAMINATION
OF
CATEGORICAL EXCLUSION
(SUPPLEMENT FOR PROJECT AMENDMENT)

PROJECT COUNTRY: Zambia
PROJECT TITLE AND NO.: Natural Resources Management Project (#90-0251.11)
FUNDING: Original Authorization: \$3,000,000
Supplement: \$1,800,000
FY 1993 U.S. \$1,000,000
PREPARED BY: Dave Straley, USAID/Zambia/PDX

ENVIRONMENTAL ACTION RECOMMENDED:

Positive Determination _____
Negative Determination _____
Categorical Exclusion _____
Deferral _____

SUMMARY OF FINDINGS:

Summary of Findings: The Natural Resources Management Project has been amended to finance the following additional activities: (a) urgently needed improvements in the management and operations of the Wildlife Conservation Revolving Fund; (b) policy statements and legislative changes to provide a legal basis for community-based participation in natural resources management and utilization; (c) continued assistance in land use planning and resource management planning at the Game Management Areas (GMAs) level to increase local community involvement and participation in managing renewable natural resources in a sustainable manner; and (d) continued assistance for training participants in the ADMARE Program.

The Project, as amended, will fund activities such as information gathering, training, technical assistance, studies and workshops which do not directly affect the environment in the same manner as construction, water supply, or water waste treatment. Because the Natural Resources Management Project will not directly affect the environment, it qualifies for a categorical exclusion under 22 C.F.R. Section 216.2(c)(2)(i), (ii) and (xiv).

CONCURRENCE:

Bureau Environmental Officer:
John J. Gaudet, AFH/ARTS/FARA:

Approved: *[Signature]*
Disapproved: _____

9/29/93

Cleanance:

GCARR: *[Signature]*

Date: 9/30/93

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ANNEX D

A. CRITERIA APPLICABLE TO BOTH DEVELOPMENT ASSISTANCE AND ECONOMIC SUPPORT FUNDS

1. Host Country Development Efforts (FAA Sec. 601(a)): Information and conclusions on whether assistance will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture, and commerce; and (f) strengthen free labor unions.

(a) yes, by increasing the demand for safari hunting clients. (b) Yes, by encouraging the private sector and GMA communities to provide better services and increase quantity and trophy quality game animals. (c) Yes, by increasing the economic base of GMA communities which are the equivalent of cooperatives. (d) N/A
(e) N/A
(f) N/A

2. Private Trade and Investment (FAA Sec. 601(b)): Information and conclusions on how assistance will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

The project will have little effect on increasing U.S. trade to Zambia other than computers, support hardware, and software that will be provided by PP Amendment funding. For US investors there will be an opportunity to participate in the acquisition of GMAs through lease arrangements for hunting and tourist businesses. At present, there are two US investors that have acquired leases in GMAs. One is building a tourist lodge, the second has set up a hunting operation.

3. Congressional Notification

a. General requirement (FY 1993 Appropriations Act Sec. 522; FAA Sec. 634A): If money is to be obligated for an activity not previously justified to Congress, or for an amount in excess of amount previously justified to Congress, has Congress been properly notified (unless the Appropriations Act notification requirement has been waived because of substantial risk to human health or welfare)?

N/A

b. Notice of new account obligation (FY 1993 Appropriations Act Sec. 514): If funds are being obligated under an appropriation account to which they were not appropriated, has the President consulted with and provided a written justification to the House and Senate Appropriations Committees and has such obligation been subject to regular notification procedures?

N/A

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c. Cash transfers and nonproject sector assistance (FY 1993 Appropriations Act Sec. 571(b)(3)): If funds are to be made available in the form of cash transfer or nonproject sector assistance, has the Congressional notice included a detailed description of how the funds will be used, with a discussion of U.S. interests to be served and a description of any economic policy reforms to be promoted?

N/A

4. Engineering and Financial Plans (FAA Sec. 611(a)): Prior to an obligation in excess of \$500,000, will there be: (a) engineering, financial or other plans necessary to carry out the assistance; and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?

(a) N/A

(b) Yes, a financial plan and budget are included in the PP Amendment.

5. Legislative Action (FAA Sec. 611(a)(2)): If legislative action is required within recipient country with respect to an obligation in excess of \$500,000, what is the basis for a reasonable expectation that such action will be completed in time to permit orderly accomplishment of the purpose of the assistance?

N/A

6. Water Resources (FAA Sec. 611(b); FY 1993 Appropriations Act Sec. 501): If project is for water or water-related land resource construction, have benefits and costs been computed to the extent practicable in accordance with the principles, standards, and procedures established pursuant to the Water Resources Planning Act (42 U.S.C. 1962, et seq.)? (See A.I.D. Handbook 3 for guidelines.)

N/A

7. Cash Transfer and Sector Assistance (FY 1993 Appropriations Act Sec. 571(b)): Will cash transfer or nonproject sector assistance be maintained in a separate account and not commingled with other funds (unless such requirements are waived by Congressional notice for nonproject sector assistance)?

N/A

8. Capital Assistance (FAA Sec. 611(e)): If project is capital assistance (e.g., construction), and total U.S. assistance for it will exceed \$1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability to maintain and utilize the project effectively?

N/A

9. Multiple Country Objectives (FAA Sec. 301(a)): Information and conclusions on whether projects will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.

(a) Yes, the project will increase the natural resource management capabilities (hunting and tourism) of the participating communities; (b) Yes, by relying on the private sector to manage the wildlife hunting and tourism; (c) Yes, encourage development and use of community based natural resource management (cooperatives); (d) N/A; (e) N/A and (f) N/A.

10. U.S. Private Trade (FAA Sec. 601(b)): Information and conclusions on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

U.S. investors are competing on a limited basis with local and foreign interest for leasing of GMAs and apparently are very competitive.

11. Local Currencies

a. Recipient Contributions (FAA Secs. 612(b), 636(h)): Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars.

a. Project Grant Agreement budget will include the government's contribution and describe method by which the government will make its contribution (cash and/or in kind).

b. U.S.-Owned Currency (FAA Sec. 612(d)): Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?

N/A

c. Separate Account (FY 1993 Appropriations Act Sec. 571). If assistance is furnished to a foreign government under arrangements which result in the generation of local currencies:

(1) Has A.I.D. (a) required that local currencies be deposited in a separate account established by the recipient government, (b) entered into an agreement with that government providing the amount of local currencies to be generated and the terms and conditions under which the currencies so deposited may be utilized, and (c) established by agreement the responsibilities of A.I.D. and that government to monitor and account for deposits into and disbursements from the separate account?

N/A

(2) Will such local currencies, or an equivalent amount of local currencies, be used only to carry out

N/A

the purposes of the DA or ESF chapters of the FAA depending on which chapter is the source of the assistance) or for the administrative requirements of the United States Government?

(3) Has A.I.D. taken all appropriate steps to ensure that the equivalent of local currencies disbursed from the separate account are used for the agreed purposes?

N/A

(4) If assistance is terminated to a country, will any unencumbered balances of funds remaining in a separate account be disposed of for purposes agreed to by the recipient government and the United States Government?

N/A

12. Trade Restrictions

a. Surplus Commodities (FY 1993 Appropriations Act Sec. 520(a)): If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity?

N/A

b. Textiles (Lautenberg Amendment) (FY 1993 Appropriations Act Sec. 520(c)): Will the assistance (except for programs in Caribbean Basin Initiative countries under U.S. Tariff Schedule "Section 807," which allows reduced tariffs on articles assembled abroad from U.S.-made components) be used directly to procure feasibility studies, prefeasibility studies, or project profiles of potential investment in, or to assist the establishment of facilities specifically designed for, the manufacture for export to the United States or to third country markets in direct competition with U.S. exports, of textiles, apparel, footwear, handbags, flat goods (such as wallets or coin purses worn on the person), work gloves or leather wearing apparel?

N/A

13. Tropical Forests (FY 1991 Appropriations Act Sec. 533(c)(3)(as referenced in section 532(d) of the FY 1993 Appropriations Act): Will funds be used for any program, project or activity which would (a) result in any significant loss of tropical forests, or (b) involve industrial timber extraction in primary tropical forest areas?

(a) No
(b) No

14. PVO Assistance

a. Auditing and registration (FY 1993 Appropriations Act Sec. 536): If assistance is being made available to a PVO, has that organization provided upon timely request any document, file, or record necessary to the auditing requirements of A.I.D., and is the PVO registered with A.I.D.?

Yes

b. Funding sources (FY 1993 Appropriations Act, Title II, under heading "Private and Voluntary Organizations"): If assistance is to be made to a United States PVO (other than a cooperative development organization), does it obtain at least 20 percent of its total annual funding for international activities from sources other than the United States Government?

Yes

15. Project Agreement Documentation (State Authorization Sec. 139 (as interpreted by conference report)): Has confirmation of the date of signing of the project agreement, including the amount involved, been cabled to State L/T and A.I.D. LEG within 60 days of the agreement's entry into force with respect to the United States, and has the full text of the agreement been pouched to those same offices? (See Handbook 3, Appendix 6G for agreements covered by this provision).

N/A

16. Metric System (Omnibus Trade and Competitiveness Act of 1988 Sec. 5164, as interpreted by conference report, amending Metric Conversion Act of 1975 Sec. 2, and as implemented through A.I.D. policy): Does the assistance activity use the metric system of measurement in its procurements, grants, and other business-related activities, except to the extent that such use is impractical or is likely to cause significant inefficiencies or loss of markets to United States firms? Are bulk purchases usually to be made in metric, and are components, subassemblies, and semi-fabricated materials to be specified in metric units when economically available and technically adequate? Will A.I.D. specifications use metric units of measure from the earliest programmatic stages, and from the earliest documentation of the assistance processes (for example, project papers) involving quantifiable measurements (length, area, volume, capacity, mass and weight), through the implementation stage?

Yes

17. Women in Development (FY 1993 Appropriations Act, Title II, under heading "Women in Development"): Will assistance be designed so that the percentage of women participants will be demonstrably increased?

Yes

18. Regional and Multilateral Assistance (FAA Sec. 209): Is assistance more efficiently and effectively provided through regional or multilateral organizations? If so, why is assistance not so provided? Information and conclusions on whether assistance will encourage developing countries to cooperate in regional development programs.

Project is regionally funded.

19. Abortions (FY 1993 Appropriations Act, Title II, under heading "Population, DA," and Sec. 524):

a. Will assistance be made available to any organization or program which, as determined by the President, supports or participates in the management of a program of coercive abortion or involuntary sterilization?

No

b. Will any funds be used to lobby for abortion?

No

20. Cooperatives (FAA Sec. 111): Will assistance help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward a better life?

No

21. U.S.-Owned Foreign Currencies

a. Use of currencies (FAA Secs. 612(b), 636(h); FY 1993 Appropriations Act Secs. 507, 509): Are steps being taken to assure that, to the maximum extent possible, foreign currencies owned by the U.S. are utilized in lieu of dollars to meet the cost of contractual and other services.

The U.S. does not have excess holdings of Zambian currency.

b. Release of currencies (FAA Sec. 612(d)): Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?

The U.S. does not own excess Zambian currency.

22. Procurement

a. Small business (FAA Sec. 602(a)): Are there arrangements to permit U.S. small business to participate equitably in the furnishing of commodities and services financed?

Small businesses are free to supply commodities and technical services on a competitive basis.

b. U.S. procurement (FAA Sec. 604(a) as amended by section 597 of the FY 1993 Appropriations Act): Will all procurement be from the U.S., the recipient country, or developing countries except as otherwise determined in accordance with the criteria of this section?

Yes

c. Marine insurance (FAA Sec. 604(d)): If the cooperating country discriminates against marine insurance companies authorized to do business in the U.S., will commodities be insured in the United States against marine risk with such a company?

N/A

d. Non-U.S. agricultural procurement (FAA Sec. 604(e)): If non-U.S. procurement of agricultural commodity or product thereof is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity? (Exception where commodity financed could not reasonably be procured in U.S.)

N/A

e. Construction or engineering services (FAA Sec. 604(g)): Will construction or engineering services be procured from firms of advanced developing countries which are otherwise eligible under Code 941 and which have attained a competitive capability in international markets in one of these areas? (Exception for those countries which receive direct economic assistance under the FAA and permit United States firms to compete for construction or engineering services financed from assistance programs of these countries.)

N/A

f. Cargo preference shipping (FAA Sec. 603): Is the shipping excluded from compliance with the requirement in section 901(b) of the Merchant Marine Act of 1936, as amended, that at least 50 percent of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S. flag commercial vessels to the extent such vessels are available at fair and reasonable rates?

No

g. Technical assistance (FAA Sec. 621(a)): If technical assistance is financed, will such assistance

Yes

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be furnished by private enterprise on a contract basis to the fullest extent practicable? Will the facilities and resources of other Federal agencies be utilized, when they are particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs?

Yes

h. U.S. air carriers (International Air Transportation Fair Competitive Practices Act, 1974): If air transportation of persons or property is financed on grant basis, will U.S. carriers be used to the extent such service is available?

Yes, standard clauses.

i. Termination for convenience of U.S. Government (FY 1993 Appropriations Act Sec. 504): If the U.S. Government is a party to a contract for procurement, does the contract contain a provision authorizing termination of such contract for the convenience of the United States?

Consulting services will be provided through a cooperative agreement.

j. Consulting services (FY 1993 Appropriations Act Sec. 523): If assistance is for consulting service through procurement pursuant to 5 U.S.C. 3109, are contract expenditures a matter of public record and available for public inspection (unless otherwise provided by law or Executive order)?

Yes

k. Metric conversion (Omnibus Trade and Competitiveness Act of 1988, as interpreted by conference report, amending Metric Conversion Act of 1975 Sec. 2, and as implemented through A.I.D. policy): Does the assistance program use the metric system of measurement in its procurements, grants, and other business-related activities, except to the extent that such use is impractical or is likely to cause significant inefficiencies or loss of markets to United States firms? Are bulk purchases usually to be made in metric, and are components, subassemblies, and semi-fabricated materials to be specified in metric units when economically available and technically adequate? Will A.I.D. specifications use metric units of measure from the earliest programmatic stages, and from the earliest documentation of the assistance processes (for example, project papers) involving quantifiable measurements (length, area, volume, capacity, mass and weight), through the implementation stage?

Yes

l. Competitive Selection Procedures (FAA Sec. 601(e)): Will the assistance utilize competitive

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election procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?

23. Construction

a. Capital project (FAA Sec. 601(d)): If capital (e.g., construction) project, will U.S. engineering and professional services be used? N/A

b. Construction contract (FAA Sec. 611(c)): If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable? N/A

c. Large projects, Congressional approval (FAA Sec. 620(k)): If for construction of productive enterprise, will aggregate value of assistance to be furnished by the U.S. not exceed \$100 million (except for productive enterprises in Egypt that were described in the Congressional Presentation), or does assistance have the express approval of Congress? N/A

24. U.S. Audit Rights (FAA Sec. 301(d)): If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights? Yes

25. Communist Assistance (FAA Sec. 620(h)). Do arrangements exist to insure that United States foreign aid is not used in a manner which, contrary to the best interests of the United States, promotes or assists the foreign aid projects or activities of the Communist-bloc countries? Yes

26. Narcotics

a. Cash reimbursements (FAA Sec. 483): Will arrangements preclude use of financing to make reimbursements, in the form of cash payments, to persons whose illicit drug crops are eradicated? Yes

b. Assistance to narcotics traffickers (FAA Sec. 487): Will arrangements take "all reasonable steps" to preclude use of financing to or through individuals or entities which we know or have reason to believe have either: (1) been convicted of a violation of any law or regulation of the United States or a foreign country relating to narcotics (or other controlled substances); or (2) been an illicit trafficker? Yes

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n, or otherwise involved in the illicit trafficking of, any such controlled substance?

27. Expropriation and Land Reform (FAA Sec. 620(g)): Will assistance preclude use of financing to compensate owners for expropriated or nationalized property, except to compensate foreign nationals in accordance with a land reform program certified by the President? Yes

28. Police and Prisons (FAA Sec. 660): Will assistance preclude use of financing to provide training, advice, or any financial support for police, prisons, or other law enforcement forces, except for narcotics programs? Yes

29. CIA Activities (FAA Sec. 662): Will assistance preclude use of financing for CIA activities? Yes

30. Motor Vehicles (FAA Sec. 636(i)): Will assistance preclude use of financing for purchase, sale, long-term lease, exchange or guaranty of the sale of motor vehicles manufactured outside U.S., unless a waiver is obtained? Yes

31. Military Personnel (FY 1993 Appropriations Act Sec. 503): Will assistance preclude use of financing to pay pensions, annuities, retirement pay, or adjusted service compensation for prior or current military personnel? Yes

32. Payment of U.N. Assessments (FY 1993 Appropriations Act Sec. 505): Will assistance preclude use of financing to pay U.N. assessments, arrearages or dues? Yes

33. Multilateral Organization Lending (FY 1993 Appropriations Act Sec. 506): Will assistance preclude use of financing to carry out provisions of FAA section 209(d) (transfer of FAA funds to multilateral organizations for lending)? Yes

34. Export of Nuclear Resources (FY 1993 Appropriations Act Sec. 510): Will assistance preclude use of financing to finance the export of nuclear equipment, fuel, or technology? Yes

35. Repression of Population (FY 1993 Appropriations Act Sec. 511): Will assistance preclude use of financing for the purpose of aiding the

efforts of the government of such country to repress the legitimate rights of the population of such country contrary to the Universal Declaration of Human Rights?

36. **Publicity or Propaganda (FY 1993 Appropriations Act Sec. 516):** Will assistance be used for publicity or propaganda purposes designed to support or defeat legislation pending before Congress, or influence in any way the outcome of a political election in the United States, or for any publicity or propaganda purposes not authorized by Congress? No

37. **Marine Insurance (FY 1993 Appropriations Act Sec. 560):** Will any A.I.D. contract and solicitation, and subcontract entered into under such contract, include a clause requiring that U.S. marine insurance companies have a fair opportunity to bid for marine insurance when such insurance is necessary or appropriate? Yes

38. **Exchange for Prohibited Act (FY 1993 Appropriations Act Sec. 565):** Will any assistance be provided to any foreign government (including any instrumentality or agency thereof), foreign person, or United States person in exchange for that foreign government or person undertaking any action which is, if carried out by the United States Government, a United States official or employee, expressly prohibited by a provision of United States law? No

39. **Commitment of Funds (FAA Sec. 635(h)):** Does a contract or agreement entail a commitment for the expenditure of funds during a period in excess of 5 years from the date of the contract or agreement? No

40. **Impact on U.S. Jobs (FY 1993 Appropriations Act, Sec. 599):**

(a) Will any financial incentive be provided to a business located in the U.S. for the purpose of inducing that business to relocate outside the U.S. in a manner that would likely reduce the number of U.S. employees of that business? No

(b) Will assistance be provided for the purpose of establishing or developing an export processing zone or designated area in which the country's tax, tariff, labor, environment, and safety laws do not apply? If so, has the President determined and No

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ertified that such assistance is not likely to cause a
loss of jobs within the U.S.?

(c) Will assistance be provided for a project or
activity that contributes to the violation of
internationally recognized workers rights, as defined
in section 502(a)(4) of the Trade Act of 1974, of
workers in the recipient country?

No

**3. CRITERIA APPLICABLE TO DEVELOPMENT
ASSISTANCE ONLY**

1. Agricultural Exports (Bumpers Amendment)
(FY 1993 Appropriations Act Sec. 520(b), as
interpreted by conference report for original
enactment): If assistance is for agricultural
development activities (specifically, any testing or
breeding feasibility study, variety improvement or
introduction, consultancy, publication, conference, or
training), are such activities: (1) specifically and
principally designed to increase agricultural exports by
the host country to a country other than the United
States, where the export would lead to direct
competition in that third country with exports of a
similar commodity grown or produced in the United
States, and can the activities reasonably be expected
to cause substantial injury to U.S. exporters of a
similar agricultural commodity; or (2) in support of
research that is intended primarily to benefit U.S.
producers?

N/A

**2. Tied Aid Credits (FY 1993 Appropriations
Act, Title II, under heading "Economic Support
Fund"):** Will DA funds be used for tied aid
credits?

N/A

3. Appropriate Technology (FAA Sec. 107):
Is special emphasis placed on use of appropriate
technology (defined as relatively smaller, cost-saving,
labor-using technologies that are generally most
appropriate for the small farms, small businesses, and
small incomes of the poor)?

N/A

**4. Indigenous Needs and Resources (FAA Sec.
281(b)):** Describe extent to which the activity
recognizes the particular needs, desires, and
capacities of the people of the country; utilizes the
country's intellectual resources to encourage
institutional development; and supports civic
education and training in skills required for effective

The Project was designed in collaboration
with the GRZ. The social analysis examined
the particular needs, and capacities of the
people.

participation in governmental and political processes essential to self-government.

5. Economic Development (FAA Sec. 101(a)): Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth?

Yes

6. Special Development Emphases (FAA Secs. 102(b), 113, 281(a)): Describe extent to which activity will: (a) effectively involve the poor in development by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, dispersing investment from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using appropriate U.S. institutions; (b) encourage democratic private and local governmental institutions; (c) support the self-help efforts of developing countries; (d) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (e) utilize and encourage regional cooperation by developing countries.

N/A

7. Recipient Country Contribution (FAA Secs. 110, 124(d)): Will the recipient country provide at least 25 percent of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or is the latter cost-sharing requirement being waived for a "relatively least developed" country)?

Yes

8. Benefit to Poor Majority (FAA Sec. 128(b)): If the activity attempts to increase the institutional capabilities of private organizations or the government of the country, or if it attempts to stimulate scientific and technological research, has it been designed and will it be monitored to ensure that the ultimate beneficiaries are the poor majority?

Program includes a monitoring activity to assure that the Project has a beneficial impact on the poor.

9. Abortions (FAA Sec. 104(f); FY 1993 Appropriations Act, Title II, under heading "Population, DA," and Sec. 534):

a. Are any of the funds to be used for the performance of abortions as a method of family

N/A

mericans, and private and voluntary organizations which are controlled by individuals who are black americans, Hispanic Americans, or Native Americans, or who are economically or socially disadvantaged including women)?

12. Biological Diversity (FAA Sec. 119(g): Will the assistance: (a) support training and education efforts which improve the capacity of recipient countries to prevent loss of biological diversity; (b) be provided under a long-term agreement in which the recipient country agrees to protect ecosystems or other wildlife habitats; (c) support efforts to identify and survey ecosystems in recipient countries worthy of protection; or (d) by any direct or indirect means significantly degrade national parks or similar protected areas or introduce exotic plants or animals into such areas?

- (a) Yes
- (b) No
- (c) Yes
- (d) No

13. Tropical Forests (FAA Sec. 118; FY 1991 Appropriations Act Sec. 533(c) as referenced in section 532(d) of the FY 1993 Appropriations Act):

a. A.I.D. Regulation 16: Does the assistance comply with the environmental procedures set forth in A.I.D. Regulation 16?

Yes

b. Conservation: Does the assistance place a high priority on conservation and sustainable management of tropical forests? Specifically, does the assistance, to the fullest extent feasible: (1) stress the importance of conserving and sustainably managing forest resources; (2) support activities which offer employment and income alternatives to those who otherwise would cause destruction and loss of forests, and help countries identify and implement alternatives to colonizing forested areas; (3) support training programs, educational efforts, and the establishment or strengthening of institutions to improve forest management; (4) help end destructive slash-and-burn agriculture by supporting stable and productive farming practices; (5) help conserve forests which have not yet been degraded by helping to increase production on lands already cleared or degraded; (6) conserve forested watersheds and rehabilitate those which have been deforested; (7) support training, research, and other actions which lead to sustainable and more environmentally sound practices for timber harvesting, removal, and processing; (8) support research to expand

- (1) Yes
- (2) Yes
- (3) Yes
- (4) No
- (5) No
- (6) Yes
- (7) Yes
- (8) Yes
- (9) Yes
- (10) Yes
- (11) N/A
- (12) Yes
- (13) Yes

knowledge of tropical forests and identify alternatives which will prevent forest destruction, loss, or degradation; (9) conserve biological diversity in forest areas by supporting efforts to identify, establish, and maintain a representative network of protected tropical forest ecosystems on a worldwide basis, by making the establishment of protected areas a condition of support for activities involving forest clearance or degradation, and by helping to identify tropical forest ecosystems and species in need of protection and establish and maintain appropriate protected areas; (10) seek to increase the awareness of U.S. Government agencies and other donors of the immediate and long-term value of tropical forests; (11) utilize the resources and abilities of all relevant U.S. government agencies; (12) be based upon careful analysis of the alternatives available to achieve the best sustainable use of the land; and (13) take full account of the environmental impacts of the proposed activities on biological diversity?

c. Forest degradation: Will assistance be used for: (1) the procurement or use of logging equipment, unless an environmental assessment indicates that all timber harvesting operations involved will be conducted in an environmentally sound manner and that the proposed activity will produce positive economic benefits and sustainable forest management systems; (2) actions which will significantly degrade national parks or similar protected areas which contain tropical forests, or introduce exotic plants or animals into such areas; (3) activities which would result in the conversion of forest lands to the rearing of livestock; (4) the construction, upgrading, or maintenance of roads (including temporary haul roads for logging or other extractive industries) which pass through relatively undergraded forest lands; (5) the colonization of forest lands; or (6) the construction of dams or other water control structures which flood relatively undergraded forest lands, unless with respect to each such activity an environmental assessment indicates that the activity will contribute significantly and directly to improving the livelihood of the rural poor and will be conducted in an environmentally sound manner which supports sustainable development?

- (1) No
- (2) No
- (3) No
- (4) No
- (5) No
- (6) No

d. Sustainable forestry: If assistance relates to tropical forests, will project assist countries in developing a systematic analysis of the appropriate

N/A

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se of their total tropical forest resources, with the goal of developing a national program for sustainable forestry?

e. Environmental impact statements: N/A

Will funds be made available in accordance with provisions of FAA Section 117(c) and applicable A.I.D. regulations requiring an environmental impact statement for activities significantly affecting the environment?

14. Energy (FY 1991 Appropriations Act Sec. 533(c) as referenced in section 532(d) of the FY 1993 Appropriations Act): If assistance relates to energy, will such assistance focus on: (a) end-use energy efficiency, least-cost energy planning, and renewable energy resources, and (b) the key countries where assistance would have the greatest impact on reducing emissions from greenhouse gases? N/A

15. Debt-for-Nature Exchange (FAA Sec. 463): If project will finance a debt-for-nature exchange, describe how the exchange will support protection of: (a) the world's oceans and atmosphere, (b) animal and plant species, and (c) parks and reserves; or describe how the exchange will promote: (d) natural resource management, (e) local conservation programs, (f) conservation training programs, (g) public commitment to conservation, (h) land and ecosystem management, and (i) regenerative approaches in farming, forestry, fishing, and watershed management. N/A

16. Deobligation/Reobligation (FY 1993 Appropriations Act Sec. 515): If deob/reob authority is sought to be exercised in the provision of DA assistance, are the funds being obligated for the same general purpose, and for countries within the same region as originally obligated, and have the House and Senate Appropriations Committees been properly notified? N/A

17: Loans

a. Repayment capacity (FAA Sec. 122(b)): Information and conclusion on capacity of the country to repay the loan at a reasonable rate of interest. N/A

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b. Long-range plans (FAA Sec. 122(b)): Does the activity give reasonable promise of assisting long-range plans and programs designed to develop economic resources and increase productive capacities? N/A

c. Interest rate (FAA Sec. 122(b)): If development loan is repayable in dollars, is interest rate at least 2 percent per annum during a grace period which is not to exceed ten years, and at least 3 percent per annum thereafter? N/A

d. Exports to United States (FAA Sec. 620(d)): If assistance is for any productive enterprise which will compete with U.S. enterprises, is there an agreement by the recipient country to prevent export to the U.S. of more than 20 percent of the enterprise's annual production during the life of the loan, or has the requirement to enter into such an agreement been waived by the President because of a national security interest? N/A

18. Development Objectives (FAA Secs. 102(a), 111, 113, 281(a)): Extent to which activity will: (1) effectively involve the poor in development, by expanding access to economy at local level, increasing labor-intensive production and the use of appropriate technology, spreading investment out from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using the appropriate U.S. institutions; (2) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions; (3) support the self-help efforts of developing countries; (4) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (5) utilize and encourage regional cooperation by developing countries? (1) N/A
(2) N/A
(3) N/A
(4) Stakeholder analysis will include participation of women in local economy and benefits derived from controlled harvesting of GMAs natural resources.
(5) Yes

19. Agriculture, Rural Development and Nutrition, and Agricultural Research (FAA Secs. 103 and 103A):
a. Rural poor and small farmers: If assistance is being made available for agriculture, rural development or nutrition, describe extent to which N/A

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activity is specifically designed to increase productivity and income of rural poor; or if assistance is being made available for agricultural research, has account been taken of the needs of small farmers, and extensive use of field testing to adapt basic research to local conditions shall be made.

b. **Nutrition:** Describe extent to which assistance is used in coordination with efforts carried out under FAA Section 104 (Population and Health) to help improve nutrition of the people of developing countries through encouragement of increased production of crops with greater nutritional value; improvement of planning, research, and education with respect to nutrition, particularly with reference to improvement and expanded use of indigenously produced foodstuffs; and the undertaking of pilot or demonstration programs explicitly addressing the problem of malnutrition of poor and vulnerable people.

N/A

c. **Food security:** Describe extent to which activity increases national food security by improving food policies and management and by strengthening national food reserves, with particular concern for the needs of the poor, through measures encouraging domestic production, building national food reserves, expanding available storage facilities, reducing post harvest food losses, and improving food distribution.

N/A

20. **Population and Health (FAA Secs. 104(b) and (c)):** If assistance is being made available for population or health activities, describe extent to which activity emphasizes low-cost, integrated delivery systems for health, nutrition and family planning for the poorest people, with particular attention to the needs of mothers and young children, using paramedical and auxiliary medical personnel, clinics and health posts, commercial distribution systems, and other modes of community outreach.

N/A

21. **Education and Human Resources Development (FAA Sec. 105):** If assistance is being made available for education, public administration, or human resource development, describe (a) extent to which activity strengthens nonformal education, makes formal education more relevant, especially for rural families and urban poor, and strengthens management capability of institutions enabling the poor to participate in development; and (b) extent to

N/A

which assistance provides advanced education and training of people of developing countries in such disciplines as are required for planning and implementation of public and private development activities.

22. Energy, Private Voluntary Organizations, and Selected Development Activities (FAA Sec. 106): If assistance is being made available for energy, private voluntary organizations, and selected development problems, describe extent to which activity is:

a. concerned with data collection and analysis, the training of skilled personnel, research on and development of suitable energy sources, and pilot projects to test new methods of energy production; and facilitative of research on and development and use of small-scale, decentralized, renewable energy sources for rural areas, emphasizing development of energy resources which are environmentally acceptable and require minimum capital investment;

N/A

b. concerned with technical cooperation and development, especially with U.S. private and voluntary, or regional and international development, organizations;

PVO or NGO through a cooperative agreement will carry out land planning activities, stakeholder analysis, and natural resource assessments in selected GMAs.

c. research into, and evaluation of, economic development processes and techniques;

N/A

d. reconstruction after natural or manmade disaster and programs of disaster preparedness;

N/A

e. for special development problems, and to enable proper utilization of infrastructure and related projects funded with earlier U.S. assistance;

N/A

f. for urban development, especially small, labor-intensive enterprises, marketing systems for small producers, and financial or other institutions to help urban poor participate in economic and social development.

N/A

23. Capital Projects (Jobs Through Export Act of 1992, Secs. 303 and 306(d)): If assistance is being provided for a capital project, is the project developmentally sound and will the project measurably alleviate the worst manifestations of poverty or

N/A

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directly promote environmental safety and sustainability at the community level?

ZAMBIA

NATURAL RESOURCES MANAGEMENT PROJECT

PAPER SUPPLEMENT

TECHNICAL ANALYSIS

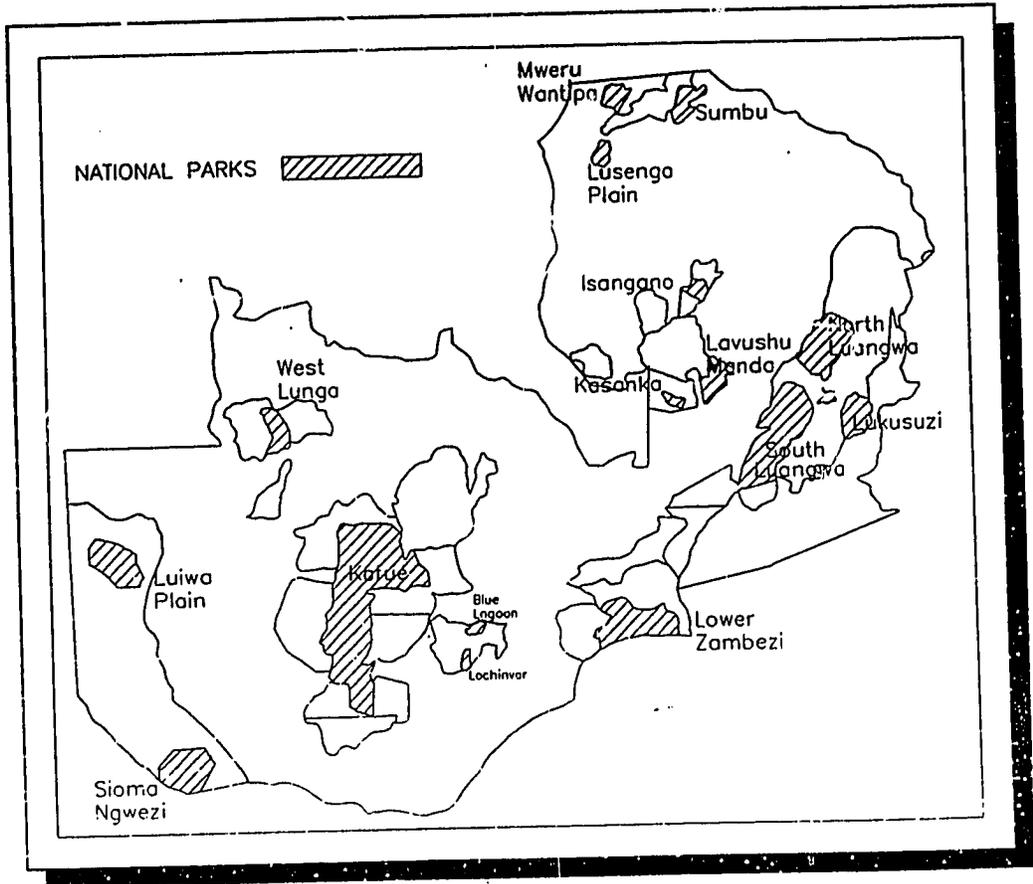


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LIST OF ABBREVIATIONS

| | |
|----------------|---|
| ADMADE | Administrative Design Management |
| EC | European Community |
| EOPS | End Of Project Status |
| GIS | Geographical Information System |
| GMA | Game Management Area |
| IQC | Indefinite Quantity Contract |
| IRDC | Integrated Resource Development Committee |
| LUP | Land Use Plan |
| MACS | Mission Accounting Control System |
| NPWS | National Parks and Wildlife Service |
| NRMS | Natural Resources Management Project |
| PACD | Project Assistance Completion Date |
| PH | Professional Hunter |
| PP | Project Proposal |
| PVO | Private Volunteer Organisation |
| USAID | United States Agency For International Development |
| WMA | Wildlife Management Authority |
| WCRF | Wildlife Conservation Revolving Fund |
| WMSA | Wildlife Management Sub-Authority |
| WMU | Wildlife Management Unit |
| WWF(US) | World Wide Fund for Nature (United States) |

TECHNICAL ANALYSIS

This Technical Analysis is presented as a stand alone document and it is summarised in the Project Proposal. In the analysis of this project there has been a degree of overlap between the technical analysis, the social analysis and the institutional analysis. The reader is asked to bear with the repetition that has resulted from this.

INTRODUCTION AND BACKGROUND

Introduction

The ADMADE programme is based on the realisation that the future of wildlife and many other resources in Africa rests with the integration of the communities living with those resources.

Wildlife, often regarded as the purest form of common property, has always been subject to controls of some sort (within the boundaries of recorded and oral history at any rate). The restrictions can have been esoteric, such as a belief in angering spirits or gods, or practical, such as the Chief of an area exercising control through organized hunting.

In Southern African countries the wildlife or game departments have usually evolved from a precursor unit which was often created for the control of wildlife rather than for its protection. The end result was that the control and allocation of the natural resources became more centralised under the Government and was taken away from the local communities.

The concept of National Parks and Game Reserves originated in the United States of America with the formation of Yellowstone National Park. Since that time the idea has been applied in many parts of the world and numerous Americans consider the idea to be their best export. Unfortunately this idea, which appears to be adequate for the developed world, has some serious shortcomings if applied rigorously in developing countries.

National Parks and Game Reserves in Africa were initiated and created mostly by the colonial administrators and this further alienated the people from the resources, who already were under a set of restrictive legislation regarding resource access. This "protectionist legislation" and "top down" management managed to achieve two things.

Firstly, and most importantly, it effectively made the resources valueless to the local people. Wildlife is often perceived as little more than a pest or scourge by them and any benefits to be gained from it, such as hunting, are severely limited. Tourism, which is fast becoming the largest industry in the world, can generate relatively large amounts of money from these protected areas but, with centralised control goes centralised Governmental coffers and budgets. Money from the wildlife areas disappears into the budget and is distributed though the entire Government structure. There are few, if any, benefits accruing to local people who have to live with the wildlife and its attendant problems.

Secondly it makes the people antagonistic towards the Government and the wildlife department and, to a certain extent, disdainful of the regulations. In short why not "poach" the wildlife if you feel that you can get away with it?

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The last 10 - 15 years has seen the evolution of a new concept of wildlife conservation. This concept believes that the survival of the wildlife depends on changing the perceptions of the people who have to live with it. It also believes that rural development is unavoidable, as people want to improve their quality of life, but that this development should be ecologically sustainable. This can be achieved by the identification of a range of potential financial and other benefits that rural communities can derive from careful management of wildlife populations. Most importantly the distribution of these benefits is biased towards the area and the people in which the wildlife occur.

This concept is seen in Zambia as the ADMADE programme. The primary aim of this concept is to restore the perception of wildlife as a valuable resource to the communities. It provides incentives for people to adopt wildlife management as an alternative to the more conventional forms of rural land use (e.g. agriculture, livestock and goats). It also should encourage them to conserve the natural ecosystems and wildlife habitats as the tangible benefits of this form of land use accrue to them.

A very important adjunct to any programme of this type is the integration of the communities in the decision making framework. Without their involvement on a meaningful level many of these projects will be doomed to failure as we are back to the enforcement of "top down" management decisions.

Essentially then, these rural development schemes must dispense the benefits of resource use to those who pay the financial and social costs of tolerating and co-habiting with wildlife.

The ADMADE Programme

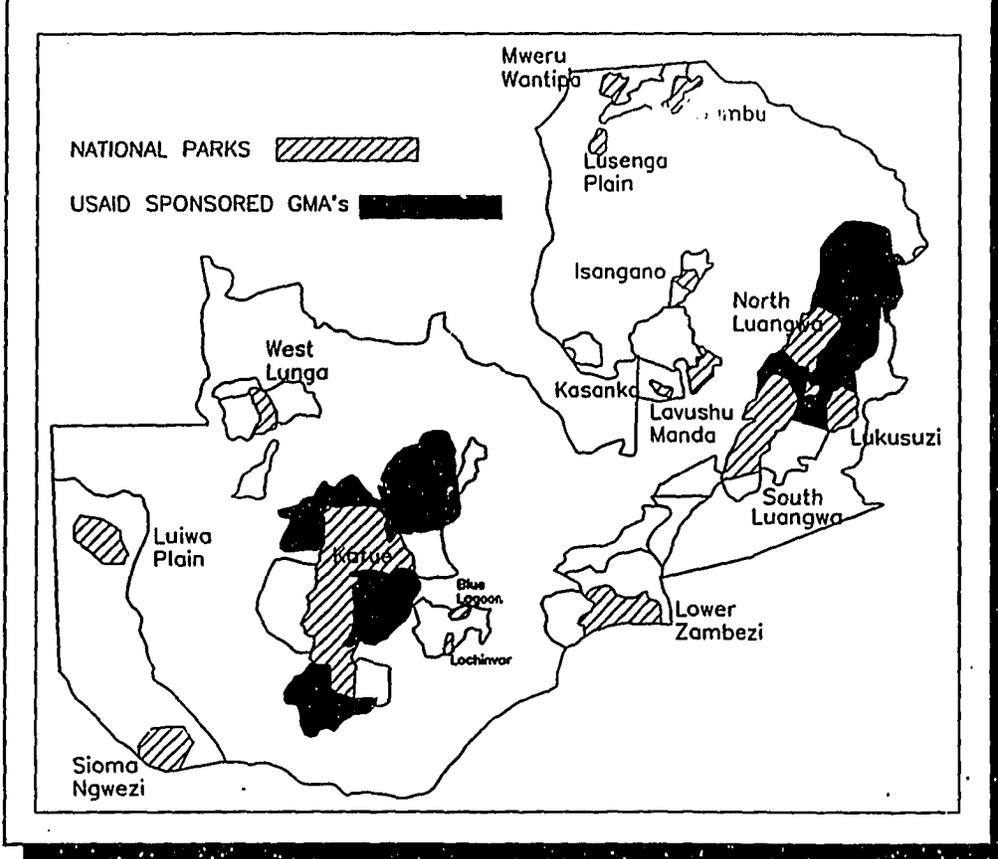
The Administrative Management Design programme (ADMADE) developed out of the Lupande Research Project which was initiated in 1979. This project was aimed at determining the relationship between human disturbances and elephant behavioural ecology. Results of the study led to the Lupande Workshop and subsequently to the Lupande Development Project where the guiding principles of ADMADE were developed. The establishment of the Wildlife Conservation Revolving Fund in 1983 created the necessary institutional climate that allowed the ADMADE concept to be tested in practice.

ADMADE was instituted by the Department of National Parks and Wildlife Service (NPWS) in 1987 and was signed into Government Policy by the Minister of Tourism in that year. In 1988 it was officially introduced into 10 Game Management Areas (GMA's; Figure 1). The programme was aided financially by World Wide Fund for Nature (WWF) and the United States Agency for International Development (USAID).

Under the ADMADE programme all GMA's are divided into hunting blocks which are controlled by an administrative wildlife management unit (WMU). In most cases the WMU will correspond to an existing GMA, but they may also be sub-units of a GMA. There are two types of WMU - self supporting or subsidised.

The recent history of catastrophic poaching in many parts of Zambia has left numerous GMA's with depleted wildlife stocks. Under the ADMADE programme these areas are subsidised (i.e. scouts and recurrent costs are met from income generated in other GMA's and donor funds) and protected until their wildlife populations recover and they are able

Figure 1: GMA's currently sponsored by USAID



to generate their own funds.

For each WMU there is a Wildlife Management Authority (WMA) which is a local policy making body. Its members are local chiefs, local political representatives, NPWS representatives and other stakeholders from the private sector. The District Governor is the chairman and the Unit leader is a NPWS employee. The WMU has a specific set of terms of reference. These are:

- to monitor both legal and illegal off-takes of wildlife resources,
- to initiate projects for improved wildlife management, ,
- to approve allocation of sustained yield quotas of wildlife as recommended by the NPWS for various forms of use (e.g. safari hunting, export and restocking, culling, resident hunting, etc.),
- to liaise with the Director of NPWS on the issuance of hunting licenses,
- to ensure that 40% of the revenue generated from the exploitation of wildlife resources is committed to the management costs of the wildlife resources within the unit,

Attachment A

- to ensure that 35% of the revenue generated is used by local village communities from whose areas such revenues were generated,
- to prepare a work plan for the unit's wildlife management programme and local community improvement on an annual basis,
- to enforce the National Parks and Wildlife Act and other relevant acts through the office of that unit's unit leader,
- furnish the Director of NPWS with records of its meetings
- to encourage applied management research and solicit outside expertise when needed,
- to act as a planning body for formulating new wildlife policies and appropriate management activities,
- to implement policy governing wildlife management for its unit.
- to manage self help schemes by appointed committees

Falling under the WMU is the Wildlife Management Sub-authority (WMSA). This is established for each chiefdom within the unit and currently the chief is the chairman. The Unit leader (NPWS) is the secretary. Other members include village headmen, ward chairmen, head teachers and a representative from the District Council. The terms of reference for the WMSA are as follows:

- monitor and solve wildlife management problems on the level of the chiefdom, such as illegal offtakes of animals, unnecessary destruction of wildlife habitat, disciplinary problems of wildlife management personnel, etc.
- identify projects to be funded out of the 35% of ADMADE revenues allocated for local community improvement
- facilitate the implementation of any programs, plans, projects, etc approved by the authority
- initiate plans or recommendations for approval by the authority for the overall improvement of the unit.

The importance of the Unit Leader to the program cannot be overstated. A bad unit leader will inevitably lead to problems within that GMA. The ADMADE project considers that it is in the process of testing and evaluating the unit leaders and discarding those who are not capable of handling the job.

The revised Parks and Wildlife Act (1991) allows for the legal creation of Integrated Resource Development Committees (IRDC's) which will eventually replace the WMA's. This stems from the realisation that the ADMADE programme should eventually be an integrated resource use programme.

The ADMADE Directorate, a parent body made up of senior members of the NPWS, based at the headquarters in Chilanga and their duties are to:

- monitor the ADMADE programme
- plan for the training of local residents and civil servants assigned to work under the ADMADE program
- Plan, organize and direct aerial and ground censuses as well as other studies and surveys
- Facilitate the implementation of technical programmes
- Manage and control property, including vehicles

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- identify, initiate, develop and secure funding for the implementation of projects
- Provide technical advisory services to the WMA's

The institutional and financial details of ADMADE are dealt with in the following project analysis.

The Zambian Protected Areas

In Terms of the Zambian Parks and Wildlife Act (Cap 10) there are two types of protected areas. These are the National Parks and the Game Management Areas.

The regulations regarding National Parks are contained in Part IV of the Act. Sections 27-53 of this part detail the control of activities that the NPWS has on National Parks. It also covers the formation and duties of the National Parks Board as well as allowing for the legal establishment of Integrated Resource Development Committees. To date there are 19 National Parks covering an area of 63 100 km² (Table 1).

Table 1: Zambian National Parks (Areas in km²)

| NATIONAL PARK | AREA | NATIONAL PARK | AREA |
|---------------|--------|---------------|-------|
| Blue Lagoon | | Lusenga Plain | 880 |
| Isangano | 840 | Mosi-Oa-Tunya | 66 |
| Kafue | 22 400 | Mweru-Wantipa | 3 134 |
| Kasanka | 390 | North Luangwa | 4 636 |
| Lavushi Manda | 1 500 | Sumbu | 2 020 |
| Liuwa Plain | 3 660 | Nyika | 80 |
| Lochinvar | 410 | Sioma Ngwezi | 5 276 |
| Lower Zambezi | 4 092 | South Luangwa | 9 050 |
| Luambe | 254 | West Lunga | 1 684 |
| Lukusuzi | 2 720 | | |

The regulations covering game management areas are contained in Part V of the act. The GMA's are usually chosen because they have or have had sufficient wildlife stocks to allow hunting. Essentially their declaration allows the NPWS to control hunting in these areas. The present advantages to being declared a GMA appear to be minimal. Their importance, however, will come apparent when (if) new legislation on wildlife ownership are promulgated. These laws will effectively make the GMA's owners of the wildlife within their areas and they can then control its use and gain maximum benefits from that use. There are currently 34 gazetted GMA's covering 164 248 km² and this number is likely to increase (Table 2).

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Table 2: Game Management Areas in Zambia (areas in km²)

| GMA | AREA | GMA | AREA |
|------------------|--------|------------------|--------|
| Bilili Springs | 3 080 | Luwingu | 1 090 |
| Bangweulu | 6 470 | Mumbwa | 3 370 |
| Chambesi | 620 | Machiya-Fungulwe | 1 530 |
| Chibwika-Ntambu | 1 550 | Mansa | 2 070 |
| Chisomo | 3 390 | Mazabuka | 254 |
| Chizera | 2 280 | Mulobezi | 3 420 |
| Kafinda | 3 860 | Munyamadzi | 3 300 |
| Kafue Flats | 5 175 | Masalangu | 17 350 |
| Kaloso Mukoso | 675 | Musele-Matebo | 3 700 |
| Kansonso-Busanga | 7 780 | Namwala | 3 600 |
| Kafinda | 3 860 | Nkala | 194 |
| Kaputa | 3 600 | Sandwe | 1 530 |
| Luano | 8 930 | Sichifulo | 3 600 |
| Lukwakwa | 2 540 | Tondwa | 540 |
| Lumimba | 4 500 | West Petauke | 4 140 |
| Lunga-Luswishi | 13 340 | West Zambezi | 38 070 |
| Lupande | 4 840 | | |

PROJECT GOALS

The super-ordinate goal of the ADMADE project was perceived to be:

- To conserve wildlife and to increase human welfare using revenues generated from sustainable wildlife utilization to pay for wildlife management and community development projects.

In addition two sub-goals were identified by the team during the log frame analysis. These were:

- to establish ADMADE units as sustainable self supporting profit centres and
- to test the viability and replicability of community based Natural Resources Management and utilisation programmes.

The objectives that were needed to achieve these goals were identified as being:

- To demonstrate profitability/preference of wildlife utilisation as a land use method.
- To strengthen organisations and systems for natural resource management and distribution of benefits accruing from them.
- To establish self sustaining wildlife management programs
- To demonstrate that local communities can manage wildlife
- To increase participation of women
- To influence Government to give proprietorship of wildlife to local communities
- To return benefits from local wildlife use directly to local communities
- To increase local welfare (i.e. to provide more income and access to protein).

The present constraints to these goals were said to be Government Policy and Government Management Regulations.

The initial goal of having the ADMADE units as self supporting profit centres was perceived to be a long term goal. In the short term the NPWS put forward the concept of getting the depleted areas into the process as soon as possible. This would help to curb poaching and provide a source of information on the areas. Essentially it would bring their wildlife resources back under the protection of the Department in a type of holding action that would leave future land and resource use options open.

In Phase II of this project the means to achieve these goals were identified as being:

- The ownership of wildlife resources devolved from the President to the land holders or occupiers and the revenues generated from them retained in these areas.

Attachment A

- A clear and transparent licensing system which detailed the revenue generation and distribution.
- The relationship between ADMADE and NPWS should be institutionalised
- The extension of USAID support funding into new ADMADE areas (the depleted areas).

For the ADMADE project to be successful there are certain assumptions that need to be made. These were identified as being:

- That the wildlife resources are adequate, or will become adequate, to sustain significant commercial exploitation. This also implies that the underlying resources of soil, water and vegetation can sustain wildlife populations adequate to meet the needs of the target communities.
- That wildlife utilization is a sustainable and appropriate form of land use which will successfully compete with other extensive forms of land use
- That the communities deriving wealth from wildlife resources will both wish to, and be able to, protect those resources
- That the communities will not only be willing to manage these resources but will also be capable of doing so. That is the technology required is both available and appropriate.
- That the demand for the product (or goods or services) is such that it will be able to support the widespread development of this form of land use.
- That the NPWS (at all levels) is fully committed to the success of the programme and has the necessary drive and desire to see the programme work.

Child and Lee (1992) identified four major threats to ADMADE at this point in its development. These are summarised below.

- ADMADE is currently legally applicable only to wildlife but the concept is being extended to other resources. This extension could cause conflicts with other government agencies.
- Devolution of responsibility. Each level tries to retain as much control as possible and release as little as possible to the level below. Result is treatment of game as common property and discriminatory taxation (i.e. wildlife projects should fund community projects but fish and cattle should not).
- Top heavy bureaucracies at district or local level are being created.
- Insufficient revenues are being generated. The true market value of the resource should be through tenders or auctions.

ACHIEVEMENTS TO DATE

In the log frame analysis followed by this team several outputs were recognised as being achievements from the first phase of the funding. Some of these achievements are best described as being rather shaky at this point in time. They are detailed in Table 3.

Fuller details are to be found in the other analyses and in the log frame analysis.

Table 3: ADMADE Achievements during Phase I of the Project

| ACHIEVEMENT | COMMENTS |
|--|--|
| 10 ADMADE Field Units with logistical support and team leader in existence | Some areas are far better than others. Appears to be largely dependant on the Unit Leaders |
| Land Use Planning Capability | Section just started |
| Community Development Capability | Should the NPWS be developing this capability? |
| Resource and Programme Performance Monitoring Capability | Quality of data is questioned by many |
| Computerised Licensing System | Becoming operational but still a few small problems |
| Wildlife Conservation Revolving Fund | Some serious problems are evident |
| Nyamaluma Training Centre | |

One anecdotal achievement, which is quite substantial, is the fact that the Kaputa area Chief has asked for his area to be declared a GMA and included within the ADMADE programme. Another area (Chizera) has proposed that its area be extended.

WILDLIFE CONSERVATION REVOLVING FUND (WCRF)**Introduction**

The Wildlife Conservation Revolving Fund was legislated in 1988. This special fund allowed the NPWS the flexibility to institute the ADMADE concept into 10 trial areas. Essentially money generated by the GMA's from wildlife utilization is placed into the fund rather than going to the Central Treasury. The money is then easier to track and apportion.

Incoming Funds

The fund receives revenues from the sale of various types of licenses which allow both resident and non-resident hunters to shoot animals. The money generated by each GMA is tracked through the fund and, in theory, a share is apportioned back to those GMA's from where it came.

Attachment A

There appears to a great deal of confusion surrounding the exact nature of fund apportionment. This confusion often persists even with the NPWS.

There are three types of animal licenses available in Zambia. In the GMA's licences are sold from both the **Safari Quota** and the **National Quota**. The national quota is sold to residents while the safari quota is sold to non-residents. Details of these are given for each GMA in Appendix 2. All open areas (i.e. land that is not National Park or GMA) do not have a quota but animals are sold to individuals wishing to hunt them. These are recorded by the NPWS.

The fees paid by the different types of hunters are broken down below:

- **Safari Company License**

There are several types of permit sold before a non-resident may hunt in Zambia. On some of them the fees are split between the Government and ADMADE on a 50/50 basis while others accrue 100% to ADMADE (Table 4). All these fees are payable in US\$.

Table 4: Breakdown of permits sold to non-resident (safari) hunters and the distribution of funds

| 50% to ADMADE; 50% to GOVERNMENT 50% of these funds are to be used for capital replacement | |
|--|--|
| SAFARI GAME LICENCE | Fixed fee of \$100 per client |
| GMA PERMIT | Differs according to the type of safari |
| ANIMAL FEES | Fees determined in Statutory Instrument and are multiplied by the Quota |
| VALUATION FEE | Not very much Money |
| EXPORT FEE | Fixed fee of \$80 per client. |
| 100% to ADMADE | |
| CONCESSION FEES | Tendered Bids and paid on Classical/ Deluxe Safaris |
| HUNTING RIGHTS | Only paid on specialised or mini safaris. It is a fee for the right to hunt and is paid on top of the animal fee |

Notes: Classical or Deluxe Safari (Cat safari - Minimum of 14 days)
Specialised Safari (Wetlands Safari i.e. lechwe, sitatunga)
Mini Safari (7 animals not including sable, roan or any cats)

The types of hunts and prescribed fees are described in SI 90 of 1992

- **National Game Licence**

This is the licence sold to residents of Zambia. There are two charges for this type of licence. There is the **Basic Licence Fee** payable at Chilanga and other offices (e.g. Ndola

BY

Attachment A

etc.). The second Fee is the Animal Fee. These can be bought with the basic license or as supplementary licences available at District level??

All fees collected from non-residents are split - 50% to ADMADE and 50% to GOVERNMENT. These are made payable in Kwacha.

There are two types of resident hunters. The first category are those who reside outside the GMA's (e.g. Lusaka) and wish to apply to hunt in a specific GMA. The second type are those who reside inside the GMA and who wish to hunt in that GMA.

All prospective hunters need to come into Chilanga and register with the NPWS. They must indicate their desired area. In the case of the first type of hunter (e.g. Lusaka based) the lists of applicants are sent to the warden of the area who, in consultation with the community, selects those people who will be allowed to hunt. The numbers are not very large and the maximum permitted varies between 6 and 20 hunters per annum. The successful applicants names are returned to Chilanga and are posted outside the licensing office. These people may then apply for animal licenses.

The second category of hunter can apply to the District Councils for their animal licenses after registering at Chilanga. The Council is sent a book and the quota for the areas. In theory once the quota is filled the book is sent back to Chilanga for inclusion into the computerised database (see next section).

Outgoing Funds

In theory funds from the WCRF (the 35% community development share) are banked into an account for each unit. The income from each unit (after central government and the capital replacement section has taken its share - see Table 4) is distributed in the following manner:

- 40% for wildlife management costs (village scout salaries, fuel etc.)
- 35% for local community welfare (spent according to decisions made by the Wildlife Management Sub-Authority)
- 25% to National Parks and Wildlife Service for ADMADE administration costs.

Problems

The WCRF has a number of problems which are also dealt with in detail in the institutional analysis. The problems can be broken down to:

- *Poor Leadership*
Organizational mission and leadership are not obvious. Details of this can be found in the institutional analysis
- *Delays in Payment and supplies of equipment*
In most of the areas visited by this team the scouts complained of a shortage of uniforms. There were also reports of salaries being delayed for unspecified reasons.
- *No Transparency*
Many of the people were spoke to complained of the secrecy that the fund appears to operate under. Although this may not be an active secrecy, poor organization

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means that information is not available. Some Chiefs complained that they were not sure what their 35% was calculated from.

- *Missing Funds*
Given the lack of information, the rumours of missing funds are rife. Because internal control of the WCRF is poor, the potential for funds to be missing is highly possible.
- *Inappropriate use of Funds*
As with the previous section there were rumours of inappropriate use of funds.

COMPUTERISED LICENSING SYSTEM

The licensing office at Chilanga has employed a computer programmer to institute a computerised licensing system. This is closely linked to the WCRF as it will automatically compute the revenue earned from hunting by each GMA. It will also automatically compute the apportionment of those funds.

At present licences are sold from a book and then the copies of this book are entered into the computer. It is hoped that the licenses will be directly entered into the computer in 1994. The major delay at this stage is that any new forms used for the sale of licences need to be approved and passed with a Statutory Instrument from Government.

The major problem with the system before computerisation was that licenses were oversold. The people selling the licences did not have access to information on what had been sold previously and hence happily carried on issuing licences after the quota had been exhausted. This is still a problem and will be until the computer operators are catch up with the data input (i.e. licences for September are being sold but the computer only has entries up to the end of July). Overselling is already showing up on the computer even though the data is several months behind! This problem should be solved in the near future. (It may be of interest to speculate that, as the quotas are not based on any hard data, overselling is an academic exercise. i.e. the quotas may not be realistic anyway). As this is the first year that it is possible to easily track overselling of the quotas, the previous years quotas may have been oversold but not recorded. Another way in which licenses are oversold is that they are also sold in other centres and at the District level. The level of seriousness of this problem will only be possible to gauge once the full 1993 returns are in.

The solution to this problem - other than asking everyone to buy their licences at Chilanga (it is very difficult for people to get there in some cases) - may be to detail the numbers to be sold in other centres and only issue those other centres with the required amount of license forms.

WILDLIFE MONITORING

Monitoring and assessment of the wildlife population within Zambia is the responsibility of the Research Section of the NPWS. Planning and organization of surveys also falls under the guidance of the ADMADE Directorate.

Wildlife management requires knowledge of animal numbers and trends and surveys are the way in which these are estimated. Surveys can provide information in three basic categories:

- total numbers
- size and structure of populations
- distribution and movements

In theory no form of wildlife management (quota setting, cropping etc) is possible without some information on the animals. Animal censuses can either be total or sample counts. Total counts are often impractical owing to the expense. Sample counts can be carried from light aircraft, vehicles or on foot. Aerial survey is often the cheapest and quickest method of censusing large areas reliably. Ground counts are effective but their usefulness in estimating absolute numbers is limited. They are most effective in small areas.

Recently the NPWS carried out a large mammal survey over a large part of the Parks and Wildlife Estate. This was the first survey in what is planned to be a regular exercise. Funding of these surveys is problematic and the NPWS is relying on ground foot patrols to provide most of the information it needs for population assessments and monitoring. Both of these methods are discussed below.

In general it appears that quota setting is a function of adaptive management and is not based on empirical evidence. Quotas are massaged according to the results of the year before. It is possible that variation in the previous years results could be attributable, in part, to variables not related to numbers (population size).

Aerial Surveys

In 1991 a large mammal aerial survey of many of the National Parks and Game Management Areas in Zambia was carried out (Tables 5 and 6). This was funded by USAID and cost a little under 7.5 million kwacha. A total of 22 000 elephants was estimated for the country. During the survey all mammals seen were recorded and subsequently two reports on National Parks meant for publication have resulted from this data (Tembo, 1993; Tembo and Siawana, 1993). The research department has this data for all other areas surveyed but other commitments have delayed its processing. This seems to be a function of poor prioritization.

Table 5: National Parks Surveyed in 1991/1992

| NATIONAL PARK | ELEPHANT ESTIMATE |
|---------------|-------------------|
| Isangano | 0 |
| Kafue | 5 927 |
| Liuwa Plain | 0 |
| Lower Zambezi | 328 |
| Luambe | 200 |
| Lukusuzi | 376 |
| Lusenga Plain | 0 |
| Mweru-Wantipa | 0 |
| North Luangwa | 1 191 |
| Sumbu | 68 |
| Sioma Ngwezi | 1 185 |

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| | |
|---------------|-------|
| South Luangwa | 8 628 |
| West Lunga | 322 |

Of the 17 new areas being considered for inclusion in external funding programmes 9 were surveyed (Chiawa, Chisomo, Chizera, Lukwaka, Musele Matebo, Rufunsa, Sandwe, Tondwa and West Zambezi; Table 6). It is important that this data is worked up and made available before embarking on any new surveys. The data provides estimates of many of the large mammals in the listed areas and may be the only quantitative information available. "Saving" data for later manipulation and publication means that it is out of date and may end up being a documentation of population decline after the event! Also given the dearth of any information on these it area it should be priority to work the data up as soon as the elephant data has been completed.

Table 6: Game management Areas surveyed in 1991/1992

| GAME MANAGEMENT AREAS | ELEPHANT ESTIMATE |
|-----------------------|-------------------|
| Chiawa | 31 |
| Chisomo | 0 |
| Chizera | 0 |
| Lukwakwa | 0 |
| Lunga-Luswishi | 125 |
| Lupande | 498 |
| Sichifulo/Mulobezi | 1 673 |
| Mumbwa | 2 538 |
| Masalangu | 624 |
| Musele-Matebo | 0 |
| Rufunsa | 0 |
| Sandwe | 400 |
| Tondwa | 0 |
| West Petauke | 187 |
| West Zambezi | 0 |

Transects and Scout Patrol Data

Ground counts are a cheap way of assessing trends of wildlife populations (if the infrastructure is already in place). Several methods are used by the scouts in the GMA's. The two most important ones are fixed permanent transects and scout patrol data (both on regular patrols and by accompanying hunters). In addition hunting effort (days to kill a particular species) and trophy quality are used to assess hunting difficulty and ultimately client satisfaction. The theory is that if there are increases in the number of days needed to find a particular animal then its abundance or quality as a trophy may be declining.

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Transects are usually used in small areas if the object is to estimate the total numbers of animals within the area. Given the size of the GMA's in Zambia this would be a very time consuming, costly and probably impossible task. The current technique is to use the transect data to assess the trends within small areas within the GMA's. The transects usually cover a small area (25 km²; 5 transects each 5 km long and 1 km apart) and are designed to answer specific questions (e.g. does culling affect sightings, does regular burning affect sightings etc.) The transects, once set up, should be done at least once a month. There should also be some assessment of visibility to account for seasonal changes. The objectives of these transects needs to be clearly defined and the data presented with the progress towards these objectives borne in mind.

Scouts, while on patrol, also collect information on wildlife, fires, poaching, encroachment amongst other resource related data.

All of this information is forwarded to the unit leader at present. Once the biologists are in place it will presumably be their responsibility to collate and present it in the form of reports to the research branch of the department. Only one such report was found during this investigation (Mumbwa East - the project has been running for 5 years!).

One of the problems appears to be availability of dataforms. Forward planning and organization is needed to ensure that forms, clipboards and pencils are always in supply and new ones are not requested only when the stock has run out.

If the fixed transects are going to be used for population estimates then research into its effectiveness needs to be carried out. This usually takes the form of total counting an area from the air and then using sample ground counts to assess their effectiveness.

The use of ground transects to monitor wildlife populations and answer specific questions is acceptable if the work is done correctly. The biologists will need to spend a lot of time to ensure that the scouts are properly equipped (data forms, pencils etc) and that they do the job correctly. The importance of the biologists to the programme cannot be underestimated. Without them there will be no information and the human sensors (see next section) will not be achieving anything. It should also be borne in mind that the biologists that the NPWS intends to employ are recent first degree graduates and some of them may not be suitable candidates to spend enforced periods of isolation in the bush. The idea of finding post doctoral graduates to spend a year with them is sound and the biologists could gain a lot of experience and information from these people. The Peace Corps may return to Zambia and should be approached to see if they can source people from the USA. There may also be regional expertise available.

VILLAGE SCOUTS

The village scouts are discussed briefly here but more information is to be found in the social soundness analysis.

Village scouts perform two functions in the ADMADE programme. The first, and the one that appears to be emphasised at the moment, is that of anti-poaching and policing. Zambia, in recent times, has seen unprecedented levels of poaching and the first task of ADMADE when it moves into a new area is seen to be the control of this poaching. The training course at Nyamaluma reflects this.

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The second, and possibly more important, function in the long term is their role as human sensors in the GMA's. They are supposed to collect information through a series of data forms that they learn how to use at the training school. In addition they need to be map literate. They also monitor the safari and resident hunting where their function is not so much to catch the hunters overstepping the rules but to record data that can be used to assess the wildlife populations and hunting effort.

Problems

There appear to be a few problems with the village scout programme. Again (as mentioned in the introduction) the importance of the Unit Leader must be remembered. The quality of the man filling this post will affect the performance and commitment of the scouts.

The issuance of uniforms, provision of rations and the sending of pay to the scouts appears to be problematic in some areas. Often it seems that the only uniform that they are issued is the one at graduation. Another problem is that there is a different pay scale for the village scouts and the NPWS scouts - who perform the same job and live in the same village.

In some areas the scouts are perceived to be a part of the problem. They start using the resources that they are supposed to be protecting! There are reports of poaching, farming and tree cutting from some areas.

Information on the numbers of transects set up is not readily available and even if the information is being collected, it is not being collated owing to the shortage of the biologists. Hopefully this problem will be sorted out in the near future.

The head office also needs to be fully aware of the equipment and its condition in each station. There have been instances of ammunition for anti-poaching being sent to stations for calibres of weapons that do not exist there.

WILDLIFE MANAGEMENT

Wildlife management can be defined as being the adaptive utilisation of the wildlife resources of a given area within the framework of a goal set by the management. This goal may not be to preserve the ecosystem in an entirely natural form but to manipulate it in response to defined ecological or economic parameters.

Quotas

The current quotas do not appear to be based on any hard data. They seem to be based on an adaptive management system which, given the technical, financial and infrastructural problems within the Government, is the next best option. Data being collected by the village scouts, if done correctly, will help to refine these quotas in the future.

Hunting

Two types of hunting occur in the game management areas. The first is safari hunting and this is the current financial base for ADMAD. The second is citizen hunting.

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Safari hunting is the mainstay of the ADMADE income generating programme and the reliance of the whole programme on this is disturbing. The best estimates for 1993 mean that the entire ADMADE programme is supported financially by less than 200 people. It is argued that non-consumptive tourism will come on line once the Zambian economy begins to turn around.

The safari hunting industry is discussed in more detail in a separate section.

Resident hunting has a set of complications surrounding it. Resident hunters take two forms. The first could be seen to be a more commercial form and is usually an urban resident who wishes to hunt in a particular GMA. His claims on that area may be very tenuous and often he will remove the meat from the area and sell it back in the urban areas. It could be argued why should the wildlife resource be devalued and sold at relatively low prices when other resources, such as minerals, are not distributed in this way. Furthermore there are often conflicts between safari hunters and resident hunters. The safari hunters claim that resident hunting in an area lowers the quality of the hunt for the high paying foreigner and helps to tarnish Zambia's image abroad as being a problematic country to hunt in. The amount of money generated from "urban" resident hunters for ADMADE is minimal.

Culling

Culling or cropping animals is an effective way of managing wildlife. (the term cropping which is the controlled removal of animals is a preferred term as culling has connotations of an emergency response to a management problem such as overpopulation). It is usually carried out after wildlife managers consider that a population is approaching the carrying capacity (which can either be economic or ecological) of an area. The belief is that a controlled reduction of their numbers will help to preserve the habitat and allow efficient use of the products (rather than let them die naturally and waste the meat and skins). In manipulated systems wildlife management is often controlled by the objectives of the managers. In the ADMADE project cropping is seen as a way to enhance the local communities participation in their resource rather than to manipulate animal populations around an economic or ecological carrying capacity. The importance of this aspect of the project cannot be underestimated. It is also a way for the INDIVIDUAL rather than the COMMUNITY to see a direct benefit from ADMADE.

There are currently four cropping projects which were initiated by ADMADE. These are:

- Masalangu GMA (Chikwa Chifunda)
- Lumimba GMA (Chitingula)
- Munyamadzi GMA
- Lupande GMA (Nyamaluma)

The cull at Nyamaluma is experimental and is based on an annual count. Current animals culled in these areas include hippopotamus, wildebeest and impala.

Each area that is considered for culling has a culling zone in order to reduce disturbance and conflicts with the safari and tour operators. Most of the shooting is done at night as it is easier and it also reduces disturbances. There are some reports of conflicts with the safari companies and between culling operations but considering the numbers of animals

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involved it may not be serious. There may also be some problems between individual culling schemes as some of their areas are adjoining and there has been some encroachment.

The two products of culling are the meat and the skins. The meat is sold to the people at a subsidised rate in the GMA. Surpluses are sold outside the GMA for much higher prices. Lack of transport has led to some problems with the equitable distribution of meat but these appear to be unavoidable at this stage. All culling operations are meant to be self-sufficient and the fuel, ammunition and other recurrent costs are met from the sales of meat and skins. In 1992 the Nyamaluma impala cull generated approximately US\$ 1 500 from meat alone. The profit was estimated to be nearly US\$ 300. The revenues from culling are split 50/50 between ADMADE and the Government

The community makes all the decisions on the culling programme (except for the quota it seems?). The Lumimba scheme appears to be totally administered by the community.

Nyamaluma is the only area where there is a tannery. The skins are tanned using a vegetable tanning process and the skins are either sold or made into leather items on site. The latter way greatly enhances the value as well as keeping revenues within the area. The items are sold to the nearby lodges and there are plans to try and sell them in Lusaka in the future. Bag makers are sent to Kitwe for training. It is hoped that all other areas culling animals will develop their own tanneries in the future.

LAND USE PLANNING (LUP)

The NPWS is fully aware of the importance of land use planning to the ADMADE programme. During the current funding period it has created a Land Use Planning Unit in the NPWS. An officer experienced in land use planning has been seconded from the Ministry of Agriculture. While this may be perceived to be a duplication of services the team feels that it is important to have a planning officer who will represent the NPWS interests. The initiative should be supported.

The major importance of land use planning is that it is a means to identify and resolve resource use conflicts (usually by zoning). If it is truly participatory and all stakeholders are represented then it is also a forum for different points of view to be expressed and discussed. For example, the benefits of non-consumptive tourism may be pointed out to a community who were previously not aware of them. The benefits and shortcomings of different forms of land use will be highlighted and discussed.

It is also a way of ensuring that a resource inventory of an area is done. For most of the GMA's in Zambia information is sadly lacking. The preliminary work done in a GMA for a LUP will provide a basic informational base that can be built on as more data is gathered.

The NPWS believes that it is responsible for preparing the LUP. If it had the resources, the strategy for preparing the LUP would entail the NPWS planning officer requesting the secondment of short term consultants, usually from within other government departments, to assist in the information gathering process. The team would then travel to the area and assess it from the point of view of their various disciplines. Consultations and discussions would be held with local community leaders. This information would then be worked up into a draft LUP at the head office. The plan would include detailed maps. The third stage

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is that the plan and the maps would be taken back to the area for presentation and discussions with the community. After their input has been assessed and noted a final plan would be drawn up. These final plans, once all stakeholders are in agreement would be given legal status through the District Council Bye Laws.

It should be emphasised that these plans must be viewed as adaptive. In other words they should be responsive to changing circumstances.

Geographical Information System

Geographical Information Systems (GIS) is currently becoming an invaluable tool in land use planning and wildlife monitoring programmes worldwide.

The NPWS, mainly through the technical expertise in place at Nyamaluma Training Centre, is presently developing an impressive GIS system. The centre currently has the ability to input and output map data via digitiser, plotters and printers. New, user friendly software, is being bought that will allow planners and other head office staff to access the information without having to spend inordinate amounts of time learning software commands. The GIS has been a success at the seminars for Chiefs and even people who are largely illiterate are able to interpret maps. All of the computer equipment at Nyamaluma is run off solar panels and inverters, no mean feat in itself.

The GIS initiative should be supported as it represents an important store of information on these areas. One of the main advantages is that it can continually be updated as circumstances change. The information can also be sent and used at other centres that have access to computers.

TRAINING

The community based wildlife management training centre at Nyamaluma was created to train village scouts in many aspects of poaching control and information gathering. It also runs more intensive courses for Unit Leaders as well as seminars for Chiefs. The 1993 syllabus for village is summarised below:

| | |
|------------------------------------|-------------|
| • ADMADE concepts | (1 week) |
| • Wildlife Estate | (1 Week) |
| • Wildlife Act | (1 Week) |
| • Wildlife Identification | (1 Week) |
| • Censusing, Monitoring, Licensing | (2 Weeks) |
| • Mapping | (1 Week) |
| • Safari Hunting Topics | (1 Week) |
| • Firearms | (1 Week) |
| • Patrols and counts | (3 Weeks) |
| • Court case procedure | (0.5 Week) |
| • Social issues, aids etc | (1.5 Weeks) |
| • Wildlife Economics | (1 Week) |
| • Terms of Service | (0.5 Week) |
| • Land Use Planning | (1.5 Weeks) |

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Also included are talks and information on fisheries management, forestry management, tree identification and habitat monitoring. Once the scouts are posted then again the Unit Leader becomes very important as he must ensure that the scouts can in fact do all the tasks that they were trained to do in conditions that are often not as comfortable as at Nyamaluma.

The centre processes approximately 80 to 100 village scouts a year and courses are usually four months long.

The unit leader courses focus on leadership skills, office administration, accounting, wildlife management techniques, public relations and community development.

The NPWS service has its own training centres for the regular scouts. These courses are usually initially for a year. The service also has specialised training camps for hunting.

GAME RANCHING

Game ranching is becoming a growth industry in Zambia. Their importance is recognised by the Government who subsidises and allows capture of animals from the National Parks to stock these areas. Game ranches in other parts of Southern Africa have been successful and they may eventually become competition for the GMA's. Successful ranchers may be able to offer cheaper hunts than those available in the GMA's.

USAID INVOLVEMENT

USAID involvement in the project has been to supply goods and services to the project. These have included vehicles and computer equipment. The details of these services are to found in the institutional analysis.

A comment that is sometimes made is that aid funding can lessen the urgency for the areas to generate money and become self sufficient. The counter argument to this is that without aid funding then absolutely nothing would happen. Aid will allow the options to be kept open.

WWF(US) INVOLVEMENT

The Phase I agreement provided US\$ 1.1 million to WWF(US) which was to provide operational running costs to nine targeted GMA's over four years. The money was used in the following manner:

- 28 ADMADDE salaries funded including Nyamaluma Technical Advisor
- Travel/Transportation/Short term Education
- Consultants reports/GIS
- Journal subscriptions/Newsletter/Stationery
- Long term education
- Community Development/Staff housing/Biological and land use planning equipment

Further details on this are to be found in the other analyses.

LEGISLATION

The current wildlife legislation in Zambia is inadequate for ADMADE to realise its full potential. It should be noted that several steps have already occurred in changing this situation, the most important of which is the submission of a draft Wildlife Policy to Parliament.

Wildlife Custodianship

Central to the ADMADE philosophy is the return of the resource to the people who have to live with it.

At present the ownership of all wildlife in Zambia (save that on game ranches) is vested in the President. This means that before it can be used by anybody permission must be granted by the President or a delegated authority. The President's authority in Zambia is the Ministry of Tourism and after him the Department of National Parks and Wildlife Services.

In Zimbabwe, since the Parks and Wildlife Act was promulgated in 1975, the custodianship (not ownership) of wildlife was vested in the Department of National Parks and Wildlife Management. This responsibility can be designated to an "appropriate authority" at the Minister's discretion. In the case of private land this appropriate authority was automatic at the time the act was passed. In the case of communal land the Minister will grant appropriate authority to a District Council on the advice of the Department. In effect Central Authority has relinquished control.

The new Policy for wildlife in Zambia has been submitted to Parliament. Once this has been passed (and there does not seem to be any reason for problems) then work on the details of the legislation and amendments to the Act can begin. Essentially the policy devolves "ownership" of the wildlife to the landholders.

This is perceived as being vitally important to the future of wildlife in Zambia. Without it the protectionist legislation will continue to "disinherit" the local people. The wildlife will be valueless to them and its disappearance through continued poaching and habitat destruction will continue.

It is important at this point to note that habitat destruction is probably more serious than poaching in the overall scheme of things. Areas with good habitat remaining can be restocked but habitat destruction brings with it a whole new and more complicated set of problems that will take a long time to solve.

Ministerial Powers

This law appears to be written into most legislation in Southern African countries. It allows the Minister to issue permits to shoot or capture any animal (whether protected or not) in any National Park or Game Management Area. Its original intention may have been to facilitate research on protected animals in protected areas or to allow filming within National Parks but it appears to have been abused. An example is the recent issuance of controversial game capture permits in the Kafue National Park. In making these decisions the Minister need not consult with the Department of National Parks and Wildlife Service.

The question of special licences issued by the Minister is very sensitive. These appear to have been issued to resident hunters over and above those issued by the NPWS. This is causing some friction with the safari companies who complain that too many resident hunters at one time in an area will lower the quality of a hunt (again this can only lead to negative feedback to the people the industry is trying to attract - the foreign clients).

A recent controversial case regarding special licences is the trade of a number of animals including Roan antelope for some white Rhinoceros with South Africa. It is claimed that the value of the Rhino is nowhere close the value of the animals being exported. Another, more important, issue is that by selling off rare and valuable animals to a country with a reputation for efficiency and cheap hunts these people will be in a position to undercut Zambian operators in the future. The places where one can hunt Roan is limited at present.

Resource Integration

The ADMADE programme focuses on revenue returns from wildlife alone. There is a growing awareness both by the governmental institutions and the local communities of the importance of an integrated approach to ADMADE. Essentially the wildlife stocks cannot be viewed in isolation from their habitat. Sustainable use of other resources should also be considered to enhance the local communities returns from their areas. The most obvious of these include the wise use of timber and fish. Unfortunately responsibility for these resources falls under different departments within the government.

THE REVENUE BASE - THE HUNTING INDUSTRY

History

The safari industry in Zambia started slowly in the late 1950' and early 1960's. There were a few companies to begin with but as the industry grew so the number of hunting companies grew. In the late 1980's there were probably 20 odd companies operating within the country. In 1989 the Government withdrew all the hunting block allocations and redistributed them between a few (5) companies. This move, while perhaps making sense in the long term (few companies could offer more areas and better quality hunts in theory), was badly handled. The decision was made when the season was about to begin and this meant that many hunts were cancelled. The effect of this move on the hunting fraternity (i.e. clients) cannot be underestimated. Zambia's reputation for being a poor and unreliable hunting destination had started.

The new policy of giving one hunting block to one company has now reversed the earlier decision and there are again many hunting companies. It appears that the policy was not stated at the time that tenders were called for and companies were allowed to bid for several areas.

Current Situation

Under the new policy hunting blocks are being allocated for a period of three years. While this is a move in the right direction it is felt that three years is not long enough for the safari companies to make any long term plans and investments. Ten or fifteen years may be a better period.

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In order to apply for a hunting block the safari company must submit the following information to the tender board.

- Bank statement
- Assets
- Agents and addresses
- Managers and Professional hunters (PH) experience
- Proof of experience in running safaris in Zambia or other countries
- Training plan
- Plan for contribution to local communities

This presumably is to select only those companies that have a proven track record in the business and to stop the allocation of areas to companies who act as middlemen and employ professional hunters. Middlemen are just one more complication and source of mistrust and confusion. This qualified application process appears to have been derailed in some cases as there appear to be a number of inexperienced companies who were allocated hunting blocks.

In addition each successful company must put up a 10% performance security to be deposited with WCRF, based on estimated earnings, which can be lost if the company fails to:

- generate the \$10 000 gross for classical safaris,
- generate the \$3 500 gross for mini safaris or
- take 75% of the prescribed quota.

A quick perusal of the quotas in Appendix 2 shows that each company has 100 baboons and 100 bushpig on quota. Do 75 of each of these species need to be shot otherwise the company could lose its deposit?

Problems

One of the problems with Zambia as a hunting and tourist destination is that it has a relatively short season - generally April to October. This largely due to the areas becoming inaccessible during the rains.

Although the policy of allocating one area to one company opens up the industry to more "qualified" Zambian companies, there are some problems inherent with it. The first problem is that the costs associated with marketing and supplying a single area are high. These costs are eventually passed on to the client which helps to make Zambia one of the more expensive hunting destinations. The same infrastructure can be used for two or more areas and help to lessen the cost. Secondly, and more importantly, Zambia offers a cross section of animal species that can be hunted. Essentially these are divided into those from the Kafue area, those from the Luangwa area and those from the wetland areas. Most foreign clients are collectors and they try to take a representative sample of species available in an area. Having a single area means that the safari company can only offer a limited "bag." This makes it far more difficult to sell a safari to a client. It is possible to enter into deals with other companies in other areas but these are fraught with difficulties and often turn out to be unreliable. Promises made to clients sometimes have to be broken and word of this usually gets around, contributing to fewer safari sales. It is rumoured that some

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companies are having difficulty finding clients and some are even considering pulling out of their hunting blocks as they view the operation as being uneconomic.

The middleman company is another problem. In order for another part to be fitted into the financial equation the hunt has to become more expensive which helps to push Zambia out of the competitive market. He is also an employer of professional hunters (PH). This means that the PH is a salaried employee with a limited interest in the area - next year he may be working in another area and for someone else. There is also friction between "owners" and "hunters" as the owner is sometimes perceived to be doing very little for his share of the profits. When new and inexperienced companies are involved these companies may be reliant on the PH bringing his clients with him.

If the ADMADE programme realises its full potential, the WMU may be able to select a PH and deal directly with him. This would cut out the middleman. Thought should be given to the "joint venture" type of approach which has been used in Zimbabwe's CAMPFIRE programme.

The general dissatisfaction with the safari industry by the PH is evident as a number of PH's have left to hunt in Tanzania this year. Often their carefully cultured clientele goes with them.

Another problem is that the bids were called for at the end of October. The results were only released in November. In a business that is often selling itself a year in advance this uncertainty may have contributed to the reduced sales.

The figures for client numbers are disturbing. It is estimated that in the late 1980's the country was getting 300 clients per annum. In 1992 this had dropped to around 200 and some observers estimate that, in 1993, the figure may be as low as 100. In short whatever the GMA's received last year (and those who we spoke to complained that it was inadequate) it promises to be a lot less this year. The importance of this is that faith in ADMADE may be lost by the local communities.

In summary the hunting is in a mess and Zambia's reputation as a hunting destination has never been poorer (it was announced over the PA system at the hunting convention in Reno, USA, that hunters should avoid Zambia!). It is felt that an independent analysis of the industry is needed to make this part of the ADMADE equation more transparent. This may help to clear up misunderstandings. The allocation of hunting blocks also needs to be more transparent.

ADMADE personnel are in the process of putting together an informational book on hunting in Zambia and this should be encouraged. Publication is expected in late 1993.

STAKEHOLDER ANALYSIS

In any land use planning exercise it is important that all the stakeholders are recognised and their importance to the ADMADE concept as a whole be recognised. The major stakeholders have been identified as:

- Chiefs
- Villagers

- Private Sector
- Scouts
- Unit Leaders
- Wildlife management sub-committees

They are discussed separately below.

Chiefs¹

The role of the chief is important in ADMADE and has recently come in for some criticism. Their role and functions are discussed below.

The chiefs are the spokesmen for the communities. They are the intermediaries between ADMADE and the communities and the programme has acknowledged the importance of these people. From the outset ADMADE has identified the position of the Chief as one of authority and the link with his or her community. As a consequence ADMADE has deliberately set about restoring power and investing greater authority in his or her position. This strategy can be explained in two ways: practical reasons and historical circumstances.

In order to achieve the NPWS's new objectives ADMADE first needed to reverse the image and relationship which had developed between communities and NPWS. The old relationship was at best cynical and often hostile. Furthermore, NPWS as essentially a law enforcement organisation had little understanding and experience of what community participation was or meant. In a practical way therefore, targeting Chiefs was a relatively quick way of disseminating information about ADMADE and developing confidence and trust in the sincerity of the department in the changes it was attempting to make with regard to conservation.

Secondly, from an historical perspective the analysis and contention of ADMADE has always been that under the past British colonial administration Chiefs had powers taken away from them. This was particularly the case with regard to the traditional authority of Chiefs to decide upon and manage the utilisation of wildlife in their areas. ADMADE has attempted to re-invest these powers back to Chiefs as well as adding to them. It has done this in a variety of ways.

One way has been by insisting upon the Chief as the Chairman of WMSA's. Unfortunately many of the infrastructure improvements in some ADMADE areas have over favoured the Chief in that the projects completed to date have often been placed next to or close to the Chief's palace, or alternatively ADMADE staff quarters. This has been a particular problem with the location of grinding mills. In extreme circumstances and in some communities this has developed resentment. It has also led to the perception that mills and some other infrastructure improvements are the property of Chiefs or belong to ADMADE and not community resources to be utilised accordingly.

Power to Chiefs has also been increased by investing the authority in him/her to select for training and employment village scouts. This authority is not to be underestimated for a

¹ This is excerpted from a discussion document on continued support to ADMADE from WWF-US after May 1994 by Peter Tilley.

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variety of reasons. One main reason is that ADMADE operates in remote rural areas of Zambia where formal waged employment opportunities are scarce. The employment of over 450 village scouts since the start of ADMADE, with plans to increase this number to over 2,000, represents a significant contribution to many local economies and is a positive aspect of the programme. A Chief's authority to select village scouts has meant that he or she has the power to bestow on a community member a scarce formal waged job, paid for from community wildlife revenue. Regardless of the sincerity and objectivity of Chiefs in making their selection such authority has inevitably led to accusations of favouritism.

Villagers

The villagers, loosely identified as the community, are the dispossessed. They are the people that the ADMADE project identifies as its major human beneficiaries. They are the people who need to see the benefits of ADMADE and who need to have faith in the programme. They also need to have some part in the decision making process, even if it just choosing somebody to represent them on the WMSA committee. If ADMADE realises its full potential then they will participate more and more in the decision making process. They need to see the benefits so that they will stop poaching and habitat destruction themselves and stop other people from doing it.

Private Sector

The private sector is the revenue base for ADMADE. Their importance appears to be sometimes overlooked in ADMADE and occasionally it seems that their priorities come last. They need to have a voice and be nurtured as a poor and unmotivated operator usually means a degraded income base. They need to be viewed as an integral part of the partnership that already exists between ADMADE and the communities. Without them there would be no ADMADE.

Unit Leaders

As stated elsewhere the importance of the unit leader cannot be underestimated. The ADMADE directorate is fully aware of this fact and it seems that they monitor the progress of unit leaders and replace those who are unsuitable. They are attempting to relate this to variables as housing, wives, vehicles and acceptance by the community. A unit leader posted to his home area has been recognised as being a non-starter.

Scouts²

Requirements for sustainable wildlife management include: one, the prevention of commercial poaching; two, restricting access to game to controlled licensed hunting including where numbers permit occasional local culling or harvesting projects. The third and very important requirement is knowledge of wildlife populations (discussed elsewhere). The village scout programme has been successful in some ADMADE areas at achieving the first two policing requirements. Ironically this success has also led to the development of resentment from some community members. One reason for this is that although the

² This is excerpted from a discussion document on continued support to ADMADE from WWF-US after May 1994 by Peter Tilley.

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security of the wildlife estate is benefiting in the long term, in the short term direct community benefit from wildlife has in some respects decreased rather than increased. These benefits included food in the form of meat, income from the sale of surplus meat, wildlife skins, employment by being used as the perpetrators of commercial poaching and processors of wildlife, and occasionally direct cash as sops from poachers.

In summary, the conservation and community development strategy of ADMADE has produced significant results though not necessarily all positive. NPWS has been a substantial beneficiary in that poaching has declined and conservation improved. New ADMADE staff such as village scouts and unit leaders have benefited from waged employment as well as some access to wildlife. Chiefs have benefited in a number of ways: some authority has been restored to them with regard to wildlife utilisation; their powers have been enhanced by both being Chairman of WMAs and being able to select for community members for ADMADE employment. On the negative side it could be argued that some community members have been obliged to trade direct access to and benefit from wildlife for limited access to improvements in local infrastructure, and minimal participation in the decision making mechanisms of ADMADE. One outcome of this is that anecdotal reports suggests that in some areas ADMADE is perceived not as a participatory community based resource management programme, but as primarily a government employment programme benefiting some community members at the expense of others.

Wildlife Management Sub-Authorities

This is the main forum - the pivotal point where communities can voice their opinions via their representatives. It will be a very important part of participatory land use planning.

Local Government - The District Councils

District Councils appear to have been largely bypassed in the ADMADE programme except for representation on the WMU and the WMSA. In the CAMPFIRE programme in Zimbabwe, the District Council is the major player in the game. The role and legal responsibility of District Councils needs to be examined as they are theoretically responsible for development within their areas.

ASSESSMENT OF THE 17 GAME MANAGEMENT AREAS

Given the levels of information available for the depleted GMA's it was impossible to draw up a priority list. The NPWS claim to have their own priority list. All information appeared to be anecdotal on wildlife numbers and the data on those areas that were surveyed from the air in 1991 was not worked up. Appendix 2 summarises information on the GMA's but it is certainly far from complete. Some areas have substantial amounts of data on the computer but this information is often valueless unless it is presented in a logical form to the decision makers and wildlife managers.

What is needed is a field assessment of all these GMA's, including those already supported by USAID. Success and/or failure of some ADMADE units is not documented and if it is, it is extremely difficult to find this information. Some reports from the Community Development Officer exist and certainly make interesting reading (see Social Soundness Analysis). The assessment could be funded by USAID and should be an information

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gathering exercise with the person or team spending a few days/week in each GMA. All existing file data should be collated by the NPWS and made available.

CONCLUSIONS AND RECOMMENDATIONS

This section briefly summarises the technical analysis. The reader is directed to the Institutional, Social Soundness and Economic analyses for further details on other aspects of the project.

A comment that could be made here is that the transparency that is being called for the Wildlife Conservation Revolving Fund could be applied to the whole NPWS. Traditionally Wildlife Departments in many countries have tended to shut themselves away from public scrutiny and criticism. The NPWS should make more effort to publicise its successes and note any failures with ADMADE so that the programme can be stronger and healthier as a result. A well planned and thorough analysis of the WCRF and proper dissemination of the document will help this objective (see Appendix 1).

WILDLIFE CONSERVATION REVOLVING FUND

A clean and transparent WCRF is seen as being essential to the success of the ADMADE programme. Without transparency the fund will be questioned to such an extent that it may be shut down. If this happens any progress made in the wildlife industry will be reversed and the eventual result may be the loss of most of Zambia's remaining wildlife.

Top priority

LEGISLATION

If ADMADE is to work at all then the legislative framework must be put in place. The NPWS has already begun the process and the Draft Policy is in the pipeline. Once this has been passed, and it should be remembered that this may take some time, then work can begin on the drafting of the legislation for inclusion and/or amendment of the Act. This process may take several years.

Also top priority

Another fact that should be remembered is that Zambia does not have a cohesive Tourism Policy. This problem should be addressed in the near future.

WILDLIFE MANAGEMENT

The reliance of the ADMADE project on safari hunting is disturbing. In the formulation of land use plans the possibilities and potential of non-consumptive tourism should be remembered. Unfortunately Zambia's infrastructure is seriously degraded and this makes it difficult to attract tourists in sufficient numbers. The non-consumptive tourist is not attracted to countries with a reputation of being unreliable and uncomfortable.

A suggestion is given here for discussion. The NPWS may consider privatisation of two areas as an experiment. The private sector would need assurances that it could offer a range of species (hence the need for more than one area) and be allowed to have a say in the activities taking place in the areas. A long term lease is considered to be very important (in Botswana the new lease agreements under discussion are in the order of 15 years). The initiative taken by Tudor investments is a step in this direction. Areas in which

companies have defaulted on the terms of their lease could be considered for this type of experiment. Tight clauses could be inserted into the lease agreement which would allow for termination.

WILDLIFE MONITORING

Without support to the biologists, the situation on resource inventory will not change: there will continue to be little to no information. At present, any information that is available appears to be anecdotal. Even though the low budget sensors are the village scouts, without vehicle support (the biologists may have to cover 3 or 4 areas) the programme will exist only on paper.

LAND USE PLANNING

The land use planning office will probably not be able to cope with demands placed on it. It will be overwhelmed with production of 19 Park Plans for the National Parks under the EC program, without having to add another 34 GMA's. Park Plans generally are a "top down" planning process and should be easier to complete than community based land use plans for the GMA's. It is interesting to note that the Lower Zambezi Park Plan draft (the only Park Plan at this stage) was completed in November, 1992, but the final version is still not completed (nearly a year later). Participatory land use plans promise to take a lot longer to complete if full consultation with all stakeholders is a prerequisite in their formulation.

Funding the community based plans is very important.

TRAINING

The training courses at Nyamaluma appear to be biased towards anti-poaching activities rather than concentrating on the data collection aspects. If ADMADE works, their function in the future should be more towards the latter rather than anti-poaching. Village scouts could also become guides later on in the programme, especially for non-consumptive tourism.

The training center is an integral part of ADMADE and should be funded. It is important for more than training and is heavily involved in the GIS process and hence will be important in the participatory land use planning exercise.

HUNTING INDUSTRY

Although the regulations regarding companies being eligible to tender for hunting blocks were strict it appears that some of the blocks are run by inexperienced middlemen-companies who hire professional hunters. How this came about is unclear. This has the effect of raising safari prices and pricing Zambia out of the market. If costs are kept low then the quality of service suffers (e.g. sub-standard hunters, shoddy camps etc.).

Once there has been a shake-out of the hunting companies, and the communities are included in the decision making process consideration should be given to longer term leases. These should be in the order of 15 years (with clauses for termination). This would

give the Safari company a far greater stake in the wildlife of the area and will help to ensure that they take a long term view of the natural resources of the area.

It is recommended that an independent analysis be carried out of the hunting industry. This should include both the internal management structure and international marketing.

There should also be a serious assessment of the tourism industry in general and the options for non-consumptive tourism should be fully explored and marketed.

DEPLETED AREAS

In view of the fact the NPWS is in the process of asking for approximately US\$ 10 million from USAID and the EC it seems strange that they do not have complete control of the facts surrounding the ADMADE projects. Much of the information regarding the perceived successes of some areas are anecdotal. The documentary proof and analysis is lacking. While there is no doubt that successes in some areas are remarkable, the NPWS should have made some attempt to provide this information to potential donors, rather than allowing them to run around trying to sift the information out of numerous files and papers and, in many cases, from individual memories.

It is felt that the whole Park/GMA structure needs to be reassessed. The National Parks are the core areas which are protected by the buffer zones of the GMA's. There needs to be an assessment of the individual National Parks which covers all aspects of these areas. It is hoped that this will be part of the National Park Plans that are scheduled for completion in the next five years. The economic structure of these areas needs to be carefully assessed (how much do they earn, how much do they get from central government, how much does it cost to run them, are they economically viable - if not then should they be de-gazetted to GMA status etc). The objectives and strategies of each area need to be carefully defined and then related to the GMA buffer zone system. These may differ in different areas. Much the same type of exercise is needed for the individual GMA's and the strategy for these areas should always be taking cognisance of the parent National Park strategy.

The same applies to the new areas that the NPWS is trying to bring on line to the ADMADE programme. There is a dearth of information about these areas. At the very least one would expect a breakdown of the infrastructure already in place and some information on the wildlife in these areas. Appendix 2 is the first attempt at collating available information on these areas but it is far from complete and sections of it may be inaccurate. It does however, provide the base line and it can be built on if this information is regarded as being important by the donor agencies.

In conclusion it may be a worthwhile exercise for the donor agencies to fund an in depth analysis of the depleted areas in particular before committing funds to the project. The NPWS should also be asked to produce status reports on the 9 areas currently being supported.

However, continued funding of the depleted GMA's as a holding action is important. If ADMADE works as it is intended to, it may make the difference between total depletion of these areas and their recovery. Slowing the poaching will allow future land use options (i.e. wildlife management) to be kept open.

BRIEF COMPARISON BETWEEN ADMADE AND CAMPFIRE

The ADMADE program in Zambia and the CAMPFIRE program in Zimbabwe have many features in common. They share common problems and are evolving towards common solutions. The most fundamental difference at the moment is the legislative framework which enables decentralisation of control and management of resources for the local communities.

An important deficiency in both programmes has been the tendency to focus institutional development on the mid or higher levels of Governmental structure rather than developing the capacity of producer communities to manage resources.

Although the wording may differ essentially ADMADE and CAMPFIRE have very similar overall objectives which can be summarised as:

- Sustainable utilisation of natural resources for the benefit of people living in rural areas
- Decentralised control of access to natural resources and the benefits that can be derived from their use.

Administrative Structures

The major difference appears to be that the district councils are more closely involved in Zimbabwe. ADMADE seems to be a total NPWS service initiative almost bypassing the councils except for a token representation on the WMA. In Zimbabwe projects are instituted by and coordinated through District Councils.

CAMPFIRE appears to have a more flexible approach as it started with a minimal bureaucratic structure which expanded as the need for the involvement of other agencies became apparent. ADMADE has a defined bureaucratic structure which the NPWS is trying to put in place in each GMA.

All the NGO's involved with CAMPFIRE are local institutions and are mostly staffed with people from Zimbabwe. ADMADE should try to involve local NGO's as much as possible.

The CAMPFIRE administrative structure is much less formal than that of ADMADE. In CAMPFIRE liaison at Ministry level is *ad hoc* and is primarily conducted at assistant secretary level between the Ministry of Environment and Tourism and the Ministry of Local Government, Rural and Urban Development.

The highest formal level of CAMPFIRE committee is the Collaborative Group. This includes representatives from

- Department of National Parks and Wildlife Management (Resource responsibility and technical advice).
- Ministry of Local Government, Rural and Urban Development (Provincial and District Councils).

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- Centre for Applied Social Studies - University of Zimbabwe (Monitoring and evaluation and conceptual framework input)
- WWF (Multi-species project research and technical advice)
- Zimbabwe Trust (NGO specialising in institutional development)
- Campfire Association (represents districts implementing CAMPFIRE)

The next level down is at the provincial level (Provincial Council with the Governor and chairmen of the district councils) and the Provincial development Committee. representation at this level ensures that CAMPFIRE programmes are included in the planning process for the districts and provinces.

District level administration comprises the District Council, the District development Committee, the ward level administration (Ward Development Committee - WADCO) and village level administration (Village development Committee - VIDCO). Essentially the councils, WADCOs and VIDCOs are the implementing agencies of CAMPFIRE. They provide technical support from all the members of the CAMPFIRE collaborative group.

Legislative Framework

This is one of the major differences between CAMPFIRE and ADMADE at present. The Parks and Wildlife Act was promulgated in Zimbabwe in 1975. Since that date the custodianship (not ownership) of wildlife was vested in the Department of National Parks and Wildlife Management. This responsibility can be designated to an "appropriate authority" at the Minister's discretion. In the case of private land this appropriate authority was automatic at the time the act was passed. In the case of communal land the Minister will grant appropriate authority to a District Council on the advice of the Department. In effect Central Authority has relinquished control.

Overall I feel that CAMPFIRE has a more flexible approach. ADMADE seems to have set design that it wants to put in place in all the GMA's. The new legislation will go a long way to making ADMADE more flexible.

Revenues

In CAMPFIRE the Councils usually enter into joint ventures with a commercial operator rather than try to manage their own hunting company.

Revenues generated by CAMPFIRE are paid directly to the District Councils. Usually only 15% is to be retained by the Council for administrative costs, 35% is to be used for wildlife Management related activities and not less than 50% should be returned to the producer wards. Wards are free to decide how the money should be spent.

ENVIRONMENTAL IMPACT AND MONITORING

The original Project Paper issued a Positive Determination for components that affect endangered, threatened and/or critical habitat of wildlife.

The following nine categories of development or management were considered to be important:

- Cropping
- Translocation
- Fences
- Fires
- Water holes
- Poaching
- Tourism
- Processing
- Resettlement

To date there have been no large scale Project-funded developments that have warranted a full scale environmental impact statement.

Monitoring of a programme as large and diffuse as ADMAD is difficult. The production of baseline status reports on each of the GMA's which can then be used for comparison with future progress reports will be very important. Information on offtakes and cash flow will be detailed in the annual WCRF report and this could be combined with population assessment data and the community development reports to produce a concise summary of progress in each GMA every year. A report will also highlight problems.

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...ning or to motivate or coerce any person to
...tice abortions?

b. Are any of the funds to be used to pay for
performance of involuntary sterilization as a
method of family planning or to coerce or provide any
financial incentive to any person to undergo
sterilizations? N/A

c. Are any of the funds to be made available
to any organization or program which, as determined
by the President, supports or participates in the
management of a program of coercive abortion or
involuntary sterilization? N/A

d. Will funds be made available only to
voluntary family planning projects which offer, either
directly or through referral to, or information about
access to, a broad range of family planning methods
and services? N/A

e. In awarding grants for natural family
planning, will any applicant be discriminated against
on the basis of such applicant's religious or conscientious
commitment to offer only natural family planning? N/A

f. Are any of the funds to be used to pay for
any biomedical research which relates, in whole or in
part, to methods of, or the performance of, abortions
or involuntary sterilization as a means of family
planning? N/A

g. Are any of the funds to be made available
to any organization if the President certifies that the
use of these funds by such organization would violate
any of the above provisions related to abortions and
involuntary sterilization? N/A

10. Contract Awards (FAA Sec. 601(e)): Will
the project utilize competitive selection procedures for
the awarding of contracts, except where applicable
procurement rules allow otherwise? None. The Project will work through a PVO
or NGO under a cooperative agreement.

11. Disadvantaged Enterprises (FY 1993
Appropriations Act Sec. 563): What portion of the
funds will be available only for activities of
economically and socially disadvantaged enterprises,
historically black colleges and universities, colleges
and universities having a student body in which more
than 40 percent of the students are Hispanic? N/A

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TERMS OF REFERENCE FOR WILDLIFE CONSERVATION FUND

INTRODUCTION

For the function of the Wildlife Conservation Revolving Fund to be transparent, two documents should be produced by the auditors.

The first document should be a professional presentation intended for the general public. Its main aim would be to open up the workings of the fund and provide updates on the status of the wildlife resources to the public. The report should inspire public confidence in the fund. If the computerised licensing system is in operation then the data should be readily available and the compilation and analysis of the data should occur relatively rapidly.

The second report would be a more detailed internal document for the WCRF and the NPWS. It would also contain suggestions for better management of the fund.

The following terms of reference would help auditors. At present it is seen that there would be four sections to the report and they are outlined below:

OFFTAKE

Hunting - Resident and Non Resident

It is the responsibility of the Research section of the NPWS to allocate quotas to the GMA's. By 1994 all problems with the current computer system should be sorted out and it would be a relatively simple matter to create tables of individual hunting block quotas by species (see Appendix 2 for an example). These are broken down into licences for resident and non-resident hunters. The tables should also reflect the numbers actually taken and the funds generated from their sales. It should also detail the funds generated from sales of concessions etc. (see next section for a breakdown of the fee generating capabilities of the fund). A further section should detail numbers of animals taken from open areas.

Culling

Culling or cropping currently takes place in four areas (see main text). It is hoped that more areas will come on line in time. The numbers of animals involved and funds generated from these exercises should be noted in these reports. If full culling quotas are not obtained, the report should include a qualitative analysis why they were not met.

Capture

Capture in Zambia is by special permit which is issued by the Minister. Almost all capture takes place in National Parks. The amount of money generated and its fate should be detailed. If it goes into the Central Treasury then this fact should be noted. If capture takes place in GMA's then funds would obviously enter the WCRF. The destinations of the captured animals should be noted. The rationale behind the capture and details on the local stocking and export should be examined.

Illegal

Any information on illegal offtake should be detailed in this section. It is appreciated that not much may be known about this aspect of hunting, but general trends from reliable sources should be noted. To the extent possible, the report should estimate the loss of income from illegal offtakes.

Other

Other forms of offtake such as problem animal control should be detailed by species in this section.

REVENUES GENERATED

This section should a clear and concise statement of revenues generated by the fund. It should include donations and grants.

Statement of fee structure

As there often confusion surrounding the fee structure the first step would be a clear statement of the fee structure and the type of hunts offered and how much they would cost. The details need to be included and explained in the report rather than just as passing references to the statutory instrument.

Examine licensing issuing procedure.

The licensing issuing procedure needs to be fully broken down and explained. The current procedure could be changed if the computerised forms become legal. There would also need to be breakdown of which licences were sold where (e.g. xx licences sold to urban residents in Kitwe and xx licences sold to GMA residents by the District Council offices etc).

Breakdown of resident and non resident money

There needs to be full breakdown of what money was generated by each GMA and how this money was generated. An important fact may be the breakdown of money generated by resident animals and how many animals were killed for this purpose. It may be better to use that part of the quota for culling programmes.

Source of revenues to each GMA

This could be covered in the preceding section but it would also need to show how much a particular GMA earned from non consumptive tourism and, in the future, from sale and use of other resources such as timber.

REVENUES EXPENDED

This needs a detailed breakdown of how the revenues are expended in each GMA. There should also be a section on shortfalls and how this shortfall was made up (e.g. from donor funds). Particular attention should be given to discretionary expenditures.

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Expenditures for community development

This needs to be detailed and the WMU should be required to present a report on how the funds that they were allocated were used.

Expenditures for wildlife management

Wildlife management costs need to be detailed. Expenditures need to be reviewed both in terms of types of programs supported (i.e., resource assessment and monitoring, training, etc) and by type of expense incurred (vehicle support, personnel, etc.). There should be a vehicle report for the year (mileage, breakdowns, major repairs, service dates etc). The expenditure of fuel on a particular vehicle should be included. Details of salaries paid, numbers of village scouts employed, uniforms issued etc. should also be a part of this.

MEASURE OF OPERATIONAL EFFICIENCY

Management costs

This section will be a detailed breakdown of the costs associated with managing the fund. This will also include the costs of the independent audit and the printing of the two reports.

Operational efficiency

There needs to be a discussion on the operational efficiency of the fund with suggestions for improvement.

Disbursement

The fund will require the issuing of two purchase orders by USAID.

- 1 for audit
- 1 for report

With the right team in place it is felt that this audit and report production should not be a long task (e.g. two weeks). In theory, if the NPWS has fulfilled their obligations with respect to producing reports the information should be readily available.

GMA DESCRIPTIONS

This is a preliminary assessment of the Game Management Areas in Zambia. Currently 9 areas are being supported by USAID and are on the way to the goal of self sustainability (Table 1).

Table 1: Areas currently assisted by USAID funding.

| CURRENT ADMADE/USAID PROJECT TARGET AREA | | |
|--|------------|--------------------|
| GMA | AREA (km2) | INCOME 1990 (US\$) |
| Sichifulo | 3 600 | 219 077 |
| Mulobezi | 3 420 | |
| Mumbwa | 3 370 | 143 081 |
| Namwala | 3 600 | 70 477 |
| Munyamadzi | 3 300 | 130 048 |
| Masalangu | 17 350? | |
| Lumimba | 4 500 | 204 024 |
| Lunga-Luswishi | 13 340 | 50 674 |
| Kasonso-Busanga | 7 780 | 111 946 |

There are another 17 GMA's that the National Parks and Wildlife Service would like to bring on line. All of these areas are considered to be depleted, some more than others. This brief assessment is a quick and dirty appraisal to prioritize areas for assistance.

Seven of these areas have some form of income from hunting safaris.

The information contained in the following pages is not complete and may often be wrong. It was very difficult to check in the time available. What it does do, however, is to lay the framework for checking the details, either on the ground or with knowledgeable people (e.g. Drs Siawana or Lewis as well as the Director).

Documentation on what is happening in these areas is lacking. Surely if these represent all the information on the area there should be an annual summary of the areas quotas and performance?

Table 2: Depleted Game Management Areas

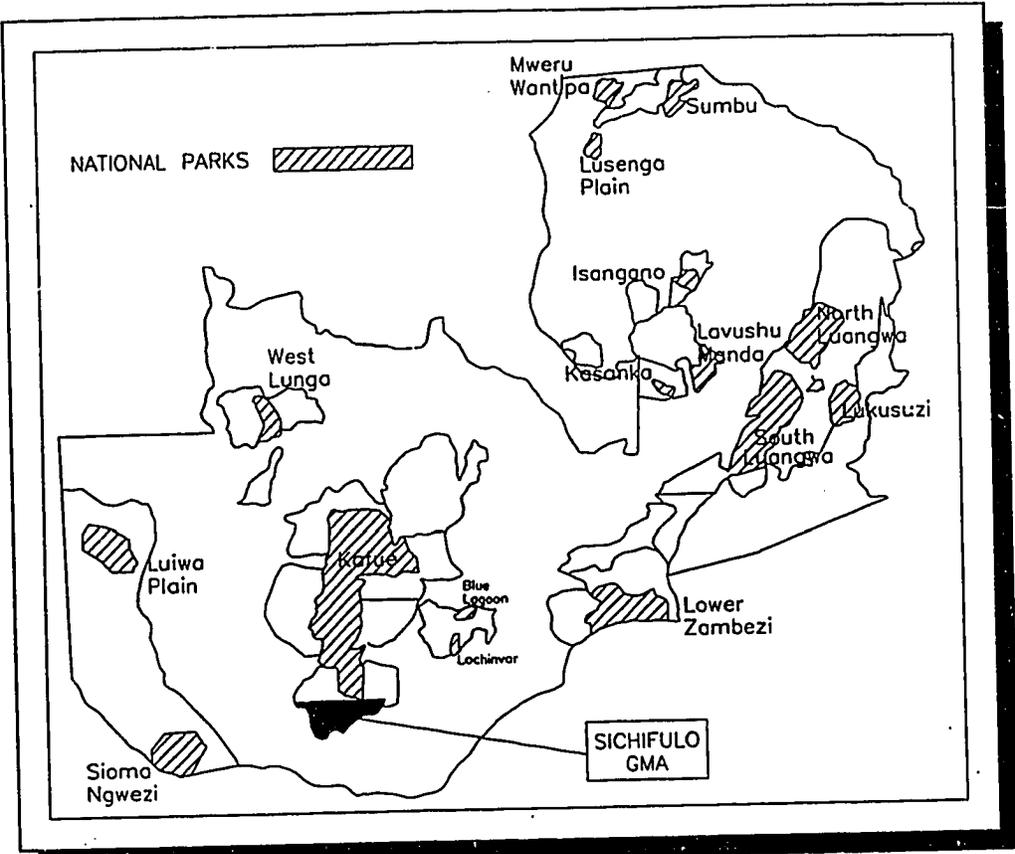
| DEPLETED GAME MANAGEMENT AREAS | | |
|--------------------------------|--------------|--------------------|
| WITH SAFARI INCOME | | |
| GMA | AREA | INCOME 1992 (US\$) |
| West Petauke | 4 140 | ? |
| Luano (Lower) | 2 225 | 61 770 |
| Chisomo | 3 390 | 59 750 |
| Rufunsa | 4 140 | 45 905 |
| Sandwe | 1 530 | 37 810 |
| Tondwa/Kaputa | 4 140 | 35 635 |
| Chizera | 2 280 | 33 430 |
| West Zambezi (Upper) | 3 700 | 50 360 |
| WITHOUT INCOME | | |
| Mansa | 2 070 | |
| Mafunsa | Not Gazetted | |
| Luano (Upper) | 2 250 | |
| Kafinda | 3 860 | |
| Lukwakwa | 2 540 | |
| Musele Matebo | 3 700 | |
| Chambesi | 620 | |
| West Zambezi (Lower) | 3 700 | |
| Luwingu | 1 090 | |
| Chiawa | 2 344 | |

It should be stressed that this is a very preliminary listing of these GMA's but I hope that it goes some way to dispelling the confusion surrounding some of these areas. I hope that corrections and additions will be made in the future.

APPENDIX 2

SICHIFULA (8)

| | |
|---------------------------|--|
| Location: | Kafue |
| Area: | 3 600km ² |
| Date Gazetted: | 1972 |
| Affiliated National Park: | Kafue National Park |
| Number Hunting Blocks: | 1 |
| Accessibility: | |
| Water Resources: | |
| Vegetation: | |
| Wildlife: | |
| GIS Status: | 80% |
| Chiefs: | |
| Population Size: | |
| ADMADE Projects: | |
| Culling: | |
| Unit Leader: | Yes |
| NPWS Scouts: | 21 |
| ADMADE Scouts: | 21 |
| Vehicle: | 1 Land cruiser, 1 Patrol, 1 Tractor and Trailer |
| Camps: | 5 Camps (Mulanga, Buwe, Muduli, Katanda, Dundumwezi) |
| Housing: | 5 Brick, 43 Huts in 5 camps |
| Radio: | Yes (Mulanga Camp) |
| Transects Set: | ? |
| Safari Company: | Mulobezi Safaris |
| Classical Fee: | US\$ 5 500 |
| Income: | |
| Comments: | |



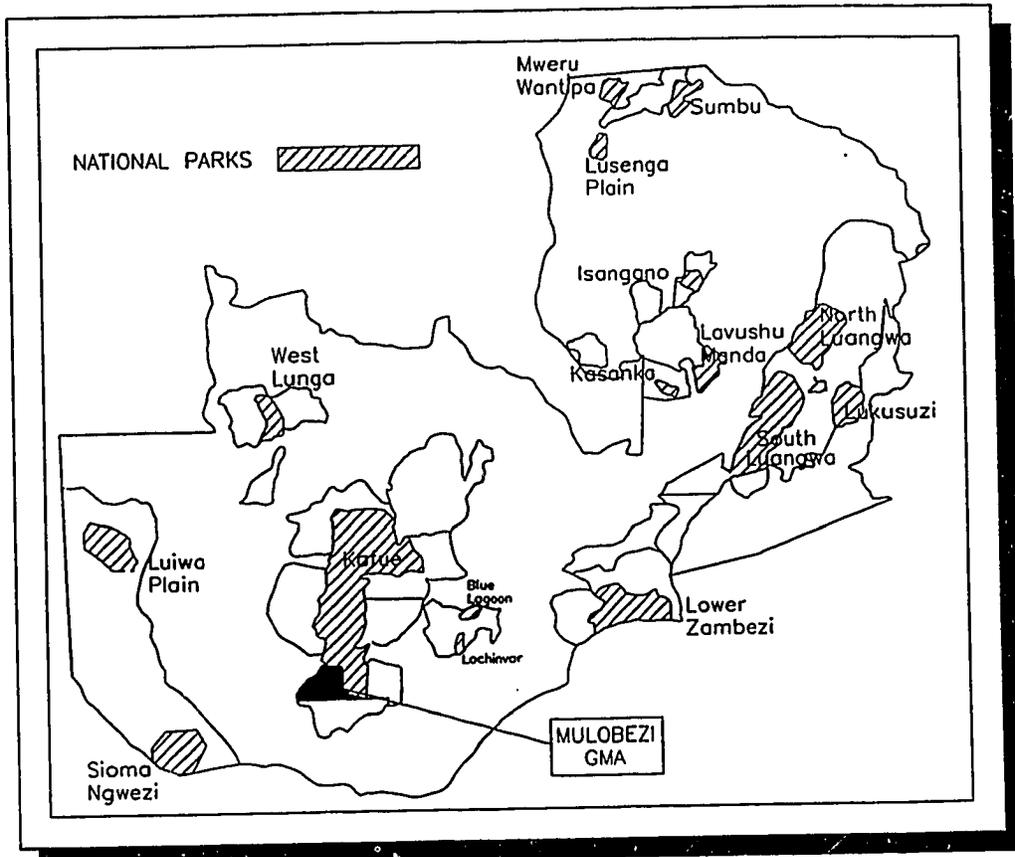
SICHIFULO - QUOTA

| SPECIES | SAFARI QUOTA | OTHER QUOTA |
|------------|--------------|-------------|
| Baboon | 100 | 10 |
| Buffalo | 15 | 13 |
| Bushbuck | 5 | 3 |
| Bushpig | 10 | 15 |
| Duiker | 8 | 12 |
| Eland | 8 | 5 |
| Grysbok | 6 | |
| Hartebeest | 12 | 10 |
| Hyena | 5 | |
| Impala | 12 | 13 |
| Kudu | 10 | 2 |
| Leopard | 8 | |
| Lion | 4 | |
| Oribi | 8 | |
| Reedbuck | 5 | |
| Roan | 6 | |
| Sable | 10 | |
| Warthog | 10 | 15 |
| Wildebeest | 10 | 8 |
| Zebra | 12 | |

MULOBEZI (9)

| | |
|---------------------------|-----------------------|
| Location: | Kafue |
| Area: | 3 420 km ² |
| Date Gazetted: | 1972 |
| Affiliated National Park: | Kafue National Park |
| Number Hunting Blocks: | 1 |
| Accessibility: | |
| Water Resources: | |
| Vegetation: | |
| Wildlife: | |
| GIS Status: | 30% |
| Chiefs: | |
| Population Size: | |
| ADMADE Projects: | |
| Culling: | |
| Unit Leader: | |
| NPWS Scouts: | |
| ADMADE Scouts: | 15 |
| Vehicle: | |
| Camps: | |
| Housing: | |
| Radio: | |
| Transects Set: | ? |
| Safari Company: | African Game Safari |
| Classical Fee: | US\$ 6 000 |
| Income: | |
| Comments: | |

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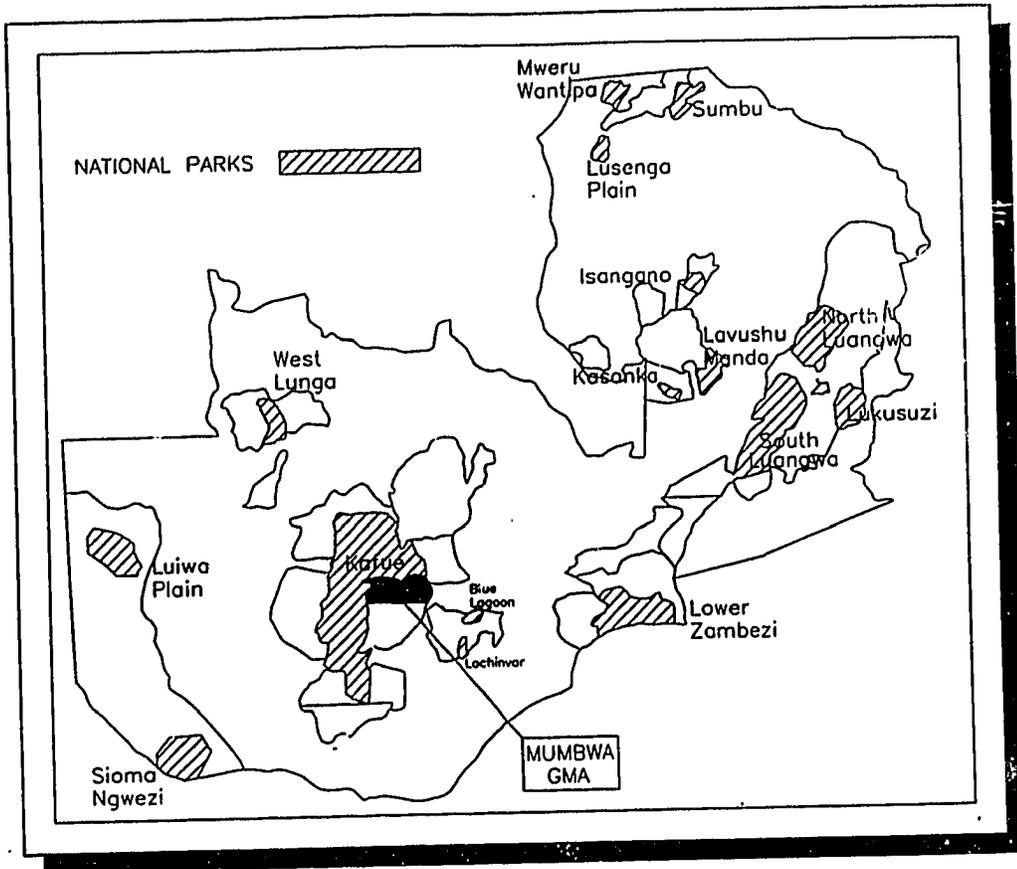
MOLOBEZI - QUOTA

| SPECIES | SAFARI QUOTA | OTHER QUOTA |
|------------|--------------|-------------|
| Baboon | 100 | 20 |
| Buffalo | 15 | 10 |
| Bushbuck | 5 | 11 |
| Bushpig | 100 | 15 |
| Duiker | 8 | 13 |
| Eland | 8 | 3 |
| Grysbok | 6 | |
| Hartebeest | 12 | 10 |
| Hyena | 5 | |
| Impala | 12 | 13 |
| Kudu | 10 | 1 |
| Leopard | 8 | |
| Lion | 4 | |
| Oribi | 8 | |
| Reedbuck | 5 | 4 |
| Roan | 6 | |
| Sable | 10 | |
| Warthog | 10 | 10 |
| Wildebeest | 10 | 3 |
| Zebra | 12 | 4 |

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MUMBWA (14)

| | |
|---------------------------|--|
| Location: | Kafue |
| Area: | 3 370 km ² |
| Date Gazetted: | 1972 |
| Affiliated National Park: | Kafue |
| Number Hunting Blocks: | 2 (Mumbwa East and Mumbwa West) |
| Accessibility: | Surfaced road from Lusaka |
| Water Resources: | |
| Vegetation: | |
| Wildlife: | |
| GIS Status: | 90% |
| Chiefs: | |
| Population Size: | |
| ADMADE Projects: | |
| Culling: | |
| Unit Leader: | Yes |
| NPWS Scouts: | Yes? |
| ADMADE Scouts: | 21-25 |
| Vehicle: | Landcruiser, Tractor and Trailer |
| Camps: | 3? |
| Housing: | ? |
| Radio: | Yes |
| Transects Set: | Yes |
| Safari Company: | Mumbwa East - Msikisi Safari; Mumbwa West - Eastern Safaris |
| Classical Fee: | Mumbwa East - US\$ 4 210; Mumbwa West - US\$ 4 500 |
| Income: | |
| Comments: | <ul style="list-style-type: none"> • Biologists report in 1993 covering analysis of animal sighting frequency and hunting effort. Mostly for Mumbwa East. Most species shot in 3-9 days. Leopard, Kudu and Roan were usually shot in 9-12 days. No transect data analysis. Good sightings of Elephants, Sable, Buffalo, Hartebeest, Waterbuck, Zebra, Leopard and Lion. Poor sightings of Roan, Eland and Kudu. • A settler encroachment problem was sorted out by moving the people out. • Several lodge applications to set up in the GMA and to use the park for tourism • No Residents quota |



MUMBWA WEST - QUOTA

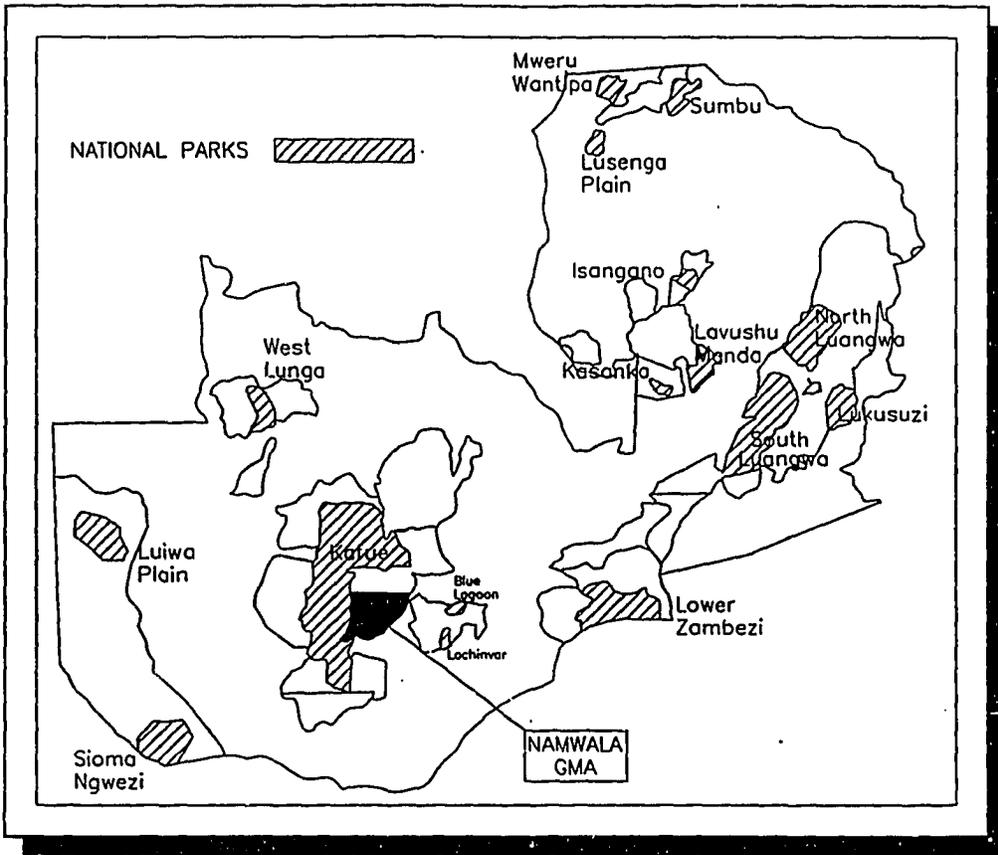
| SPECIES | SAFARI QUOTA | OTHER QUOTA |
|--------------|--------------|-------------------|
| Baboon | 20 | NO RESIDENT QUOTA |
| Buffalo | 10 | |
| Bushbuck | 10 | |
| Bushpig | 10 | |
| Duiker | 10 | |
| Eland | 3 | |
| Grysbok | 10 | |
| Hartebeest | 16 | |
| Hippopotamus | 6 | |
| Hyena | 5 | |
| Impala | 16 | |
| Kudu | 5 | |
| Leopard | 6 | |
| Lion | 4 | |
| Oribi | 4 | |
| Puku | 10 | |
| Reedbuck | 10 | |
| Roan | 2 | |
| Sable | 10 | |
| Warthog | 10 | |
| Waterbuck | 10 | |
| Zebra | 10 | |

MUMBWA EAST - QUOTA

| SPECIES | SAFARI QUOTA | OTHER QUOTA |
|------------|--------------|-------------|
| Baboon | 100 | |
| Buffalo | 10 | |
| Bushbuck | 5 | |
| Bushpig | 100 | |
| Duiker | 10 | |
| Eland | 4 | |
| Hartebeest | 16 | |
| Hyena | 5 | |
| Impala | 5 | |
| Leopard | 6 | |
| Lion | 2 | |
| Oribi | 8 | |
| Reedbuck | 10 | |
| Sable | 12 | |
| Warthog | 10 | |
| Waterbuck | 6 | |
| Zebra | 8 | |

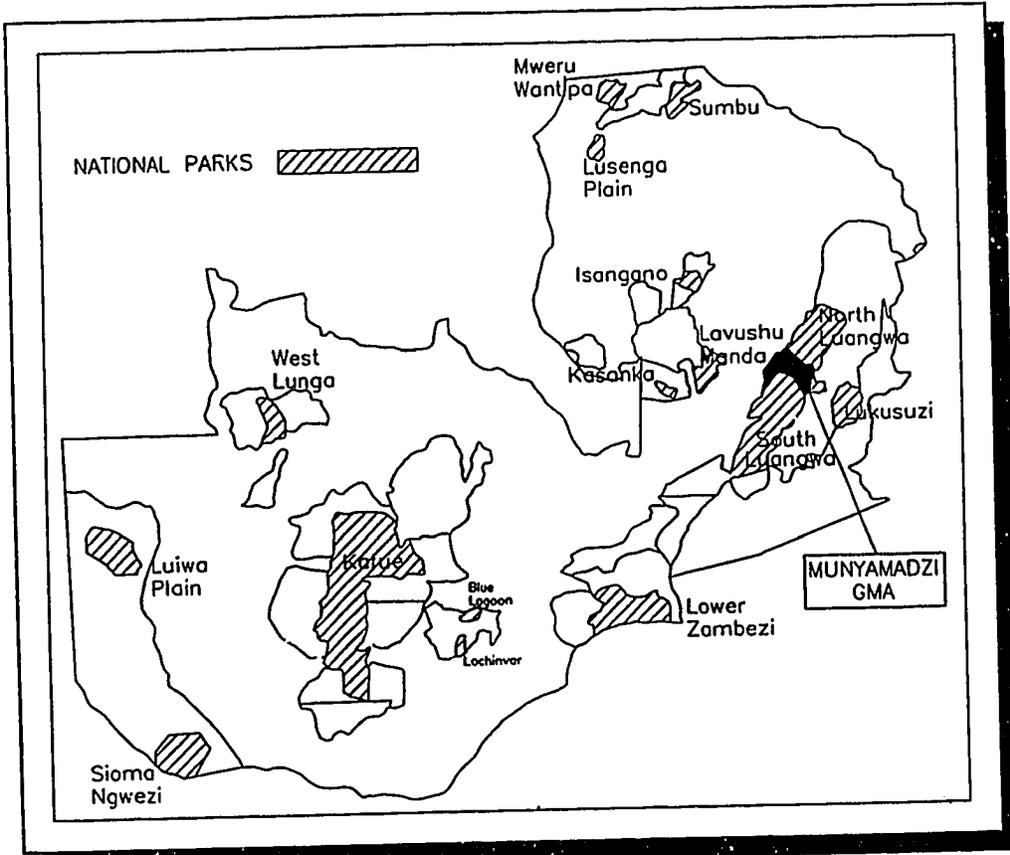
NAMWALA (13)

| | |
|---------------------------|---|
| Location: | Kafue |
| Area: | 3 600 km ² |
| Date Gazetted: | 1972 |
| Affiliated National Park: | Kafue National Park |
| Number Hunting Blocks: | 1 |
| Accessibility: | Surfaced road from Lusaka |
| Water Resources: | |
| Vegetation: | |
| Wildlife: | |
| GIS Status: | 30% |
| Chiefs: | |
| Population Size: | |
| ADMADE Projects: | |
| Culling: | |
| Unit Leader: | Yes |
| NPWS Scouts: | 6 |
| ADMADE Scouts: | 7 |
| Vehicle: | |
| Camps: | 3 (Mwengwe, Lukomezi, Kayawe) |
| Housing: | No? |
| Radio: | Yes (Mwengwe) |
| Transects Set: | |
| Safari Company: | Busanga Trails |
| Classical Fee: | US\$ 3 100 |
| Income: | |
| Comments: | <ul style="list-style-type: none"> • Short Land use plan written • 16 000 people in the GMA • Prospecting in 1992 • Area almost degazetted • No Resident quota |



LUWAWATA - QUOTA

| SPECIES | SAFARI QUOTA | OTHER QUOTA |
|--------------|--------------|-------------|
| Buffalo | 15 | 10 |
| Bushbuck | 10 | 6 |
| Bushpig | 100 | 10 |
| Duiker | 6 | 4 |
| Eland | 4 | |
| Grysbok | 6 | |
| Hartebeest | 4 | |
| Hippopotamus | 14 | 4 |
| Impala | 15 | 16 |
| Kudu | 8 | |
| Leopard | 6 | |
| Lion | 4 | |
| Oribi | 4 | |
| Puku | 12 | 6 |
| Roan | 4 | |
| Warthog | 12 | 10 |
| Waterbuck | 12 | 4 |
| Wildebeest | 14 | 8 |
| Zebra | 12 | 4 |



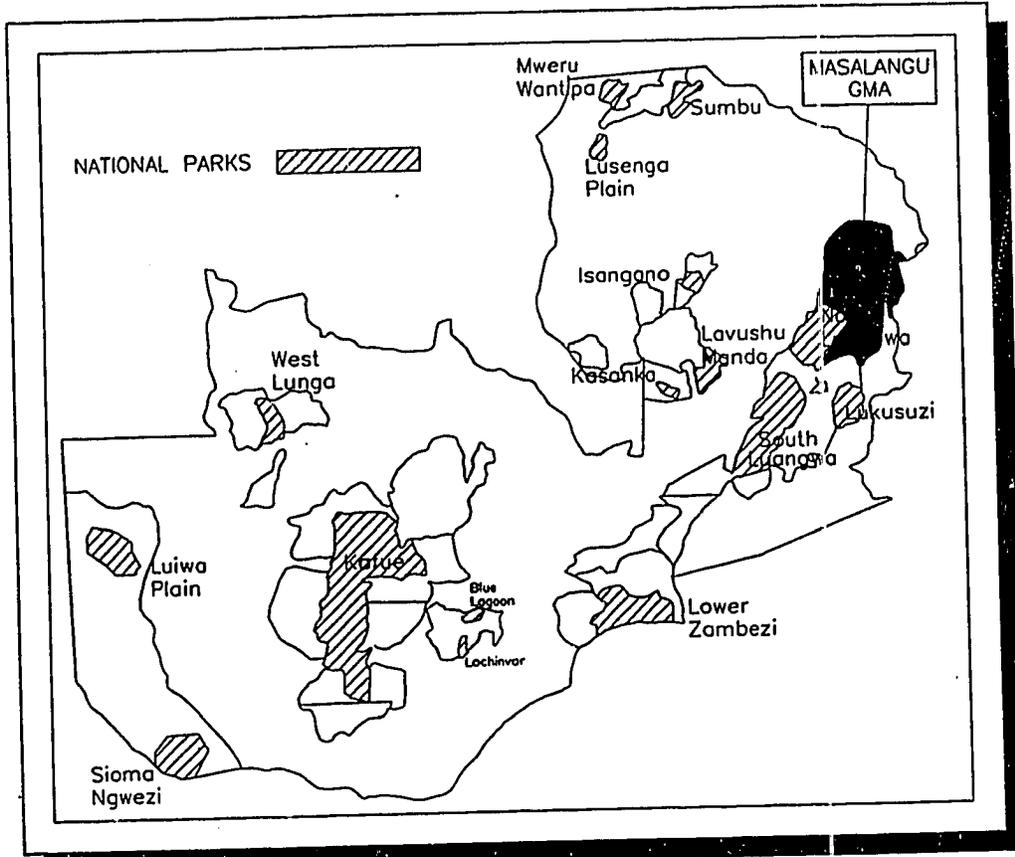
NYAMPALA - QUOTA

| SPECIES | SAFARI QUOTA | OTHER QUOTA |
|--------------|--------------|-------------|
| Baboon | | 10 |
| Buffalo | 12 | 10 |
| Bushbuck | 10 | 5 |
| Bushpig | 100 | 5 |
| Duiker | 4 | |
| Eland | 4 | |
| Hartebeest | 4 | |
| Hippopotamus | 10 | 6 |
| Hyena | 5 | |
| Impala | 14 | 10 |
| Kudu | 6 | |
| Leopard | 6 | |
| Lion | 4 | |
| Puku | 12 | 4 |
| Roan | 2 | |
| Warthog | 10 | 5 |
| Waterbuck | 10 | 2 |
| Wildebeest | 10 | 5 |
| Zebra | 10 | 4 |

MASALANGU (22)

| | |
|---------------------------|--|
| Location: | Lundazi and Chama Districts |
| Area: | 17 350 km ² |
| Date Gazetted: | 1972 |
| Affiliated National Park: | North Luangwa national park |
| Number Hunting Blocks: | 3 (Chifunda, Chikwa, Fulaza) |
| Accessibility: | |
| Water Resources: | |
| Vegetation: | |
| Wildlife: | |
| GIS Status: | 80% |
| Chiefs: | |
| Population Size: | |
| ADMADE Projects: | |
| Culling: | |
| Unit Leader: | Fulaza |
| NPWS Scouts: | Fulaza 33 |
| ADMADE Scouts: | 30 |
| Vehicle: | |
| Camps: | |
| Housing: | |
| Radio: | |
| Transects Set: | |
| Safari Company: | Chikwa - United Safari; Chifunda Luangwa Crocodile and Safaris; Fulaza - Essani Safaris |
| Classical Fee: | Chikwa US\$ 2 700; Chifunda US\$ 3 500; Fulaza US\$ 5 000 |
| Income: | |
| Comments: | <ul style="list-style-type: none"> • Poaching report in Aug 1993 • Some Land Use Planning has been done • Traditional Leaders Seminar held • Culling carried out • Tourist Lodge interest in 1993 |

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FULAZA - QUOTA

| SPECIES | SAFARI QUOTA | OTHER QUOTA |
|--------------|--------------|-------------|
| Buffalo | 10 | 10 |
| Bushbuck | 6 | 2 |
| Bushpig | 100 | 6 |
| Duiker | 6 | 2 |
| Eland | 4 | |
| Grysbok | 5 | 5 |
| Hartebeest | 8 | 4 |
| Hippopotamus | 10 | 4 |
| Hyena | 4 | |
| Impala | 15 | 14 |
| Kudu | 6 | |
| Leopard | 6 | |
| Lion | 2 | |
| Puku | 10 | 6 |
| Reedbuck | 4 | |
| Roan | 4 | |
| Warthog | 10 | 8 |
| Waterbuck | 8 | |
| Wildebeest | 10 | 4 |
| Zebra | 10 | 6 |

CHIKWA - QUOTA

| SPECIES | SAFARI QUOTA | OTHER QUOTA |
|--------------|--------------|-------------|
| Baboon | 100 | |
| Buffalo | 8 | 5 |
| Bushbuck | 5 | 4 |
| Bushpig | 100 | 8 |
| Crocodile | 8 | |
| Duiker | 5 | 4 |
| Eland | 4 | |
| Grysbok | 4 | 4 |
| Hartebeest | 4 | 4 |
| Hippopotamus | 8 | 6 |
| Hyena | 4 | 4 |
| Impala | 10 | 10 |
| Kudu | 6 | |
| Leopard | 4 | |
| Lion | 3 | |
| Oribi | | 4 |
| Puku | 10 | 4 |
| Roan | 2 | |
| Warthog | 8 | 6 |
| Waterbuck | 6 | 6 |
| Wiidebeest | 12 | 4 |
| Zebra | 6 | 10 |

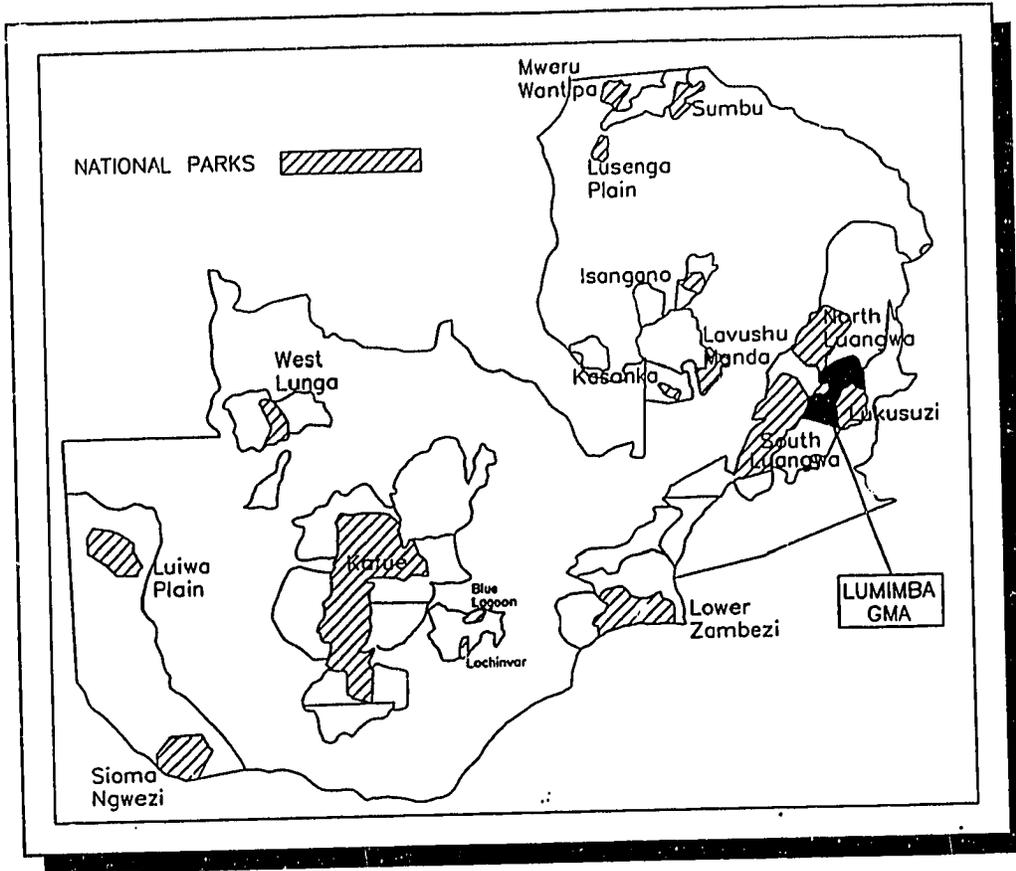
CHIFUNDA/EAST MASALANGU - QUOTA

| SPECIES | SAFARI QUOTA | OTHER QUOTA |
|--------------|--------------|-------------|
| Baboon | 100 | |
| Buffalo | 8 | 8 |
| Bushbuck | 6 | 7 |
| Bushpig | 10 | 10 |
| Duiker | 5 | 6 |
| Eland | 4 | |
| Grysbok | 4 | 4 |
| Hartebeest | 4 | |
| Hippopotamus | 10 | 5 |
| Impala | 12 | 12 |
| Klipspringer | 2 | |
| Kudu | 4 | |
| Leopard | 6 | |
| Lion | 2 | |
| Puku | 10 | 8 |
| Roan | 2 | |
| Warthog | 6 | 10 |
| Waterbuck | 6 | 4 |
| Wildebeest | 6 | 8 |
| Zebra | 8 | 4 |

LUMIMBA (21)

| | |
|---------------------------|---|
| Location: | Lundazi District |
| Area: | 4 500 km ² |
| Date Gazetted: | 1972 |
| Affiliated National Park: | Luambe and North Luangwa National Parks |
| Number Hunting Blocks: | 2 (Chanjuzi and Mwanya) |
| Accessibility: | |
| Water Resources: | |
| Vegetation: | |
| Wildlife: | |
| GIS Status: | 80% |
| Chiefs: | |
| Population Size: | |
| ADMADE Projects: | |
| Culling: | |
| Unit Leader: | Yes (Chanjuzi and Mwanya) |
| NPWS Scouts: | 30 |
| ADMADE Scouts: | 36 |
| Vehicle: | 1 land cruiser and tractor for each block |
| Camps: | 8 (Chanjuzi, Chipuka, Mbuzi, Lusangazi, Kazembe, Chakolwa, Changema, Changa Changa) |
| Housing: | Yes |
| Radio: | |
| Transects Set: | |
| Safari Company: | Chanjuzi - Game Tracker Safari; Mwanya - Nyumbu Safari |
| Classical Fee: | Chanjuzi - US\$ 3 000; Mwanya - US\$ 5 050 |
| Income: | |
| Comments: | <ul style="list-style-type: none"> • Prospecting in late 1980's • Some patrol effort summaries but on a stanmd alone basis they do not make too much sense • Good hunting report in 1990 • Land use guidelines in 1993 • WMU has chosen tourist camp sites |

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APPENDIX 2

CHANJUZI - QUOTA

| SPECIES | SAFARI QUOTA | OTHER QUOTA |
|--------------------------|--------------|-------------|
| Baboon | 100 | |
| Buffalo | 15 | 8 |
| Bushbuck | 10 | 6 |
| Bushpig | 100 | 10 |
| Crocodile | 10 | |
| Duiker | 6 | |
| Eland | 5 | |
| Hartebeest | 5 | 4 |
| Hippopotamus | 12 | 6 |
| Hyena | 4 | |
| Impala | 20 | 14 |
| Kudu | 6 | |
| Leopard | 6 | |
| Lion | 4 | |
| Oribi | 4 | |
| Puku | | 6 |
| Roan | 4 | |
| Warthog | 12 | 5 |
| Waterbuck | 10 | |
| Wildebeest (Cooksons) | 12 | 10 |
| Zebra | 12 | |

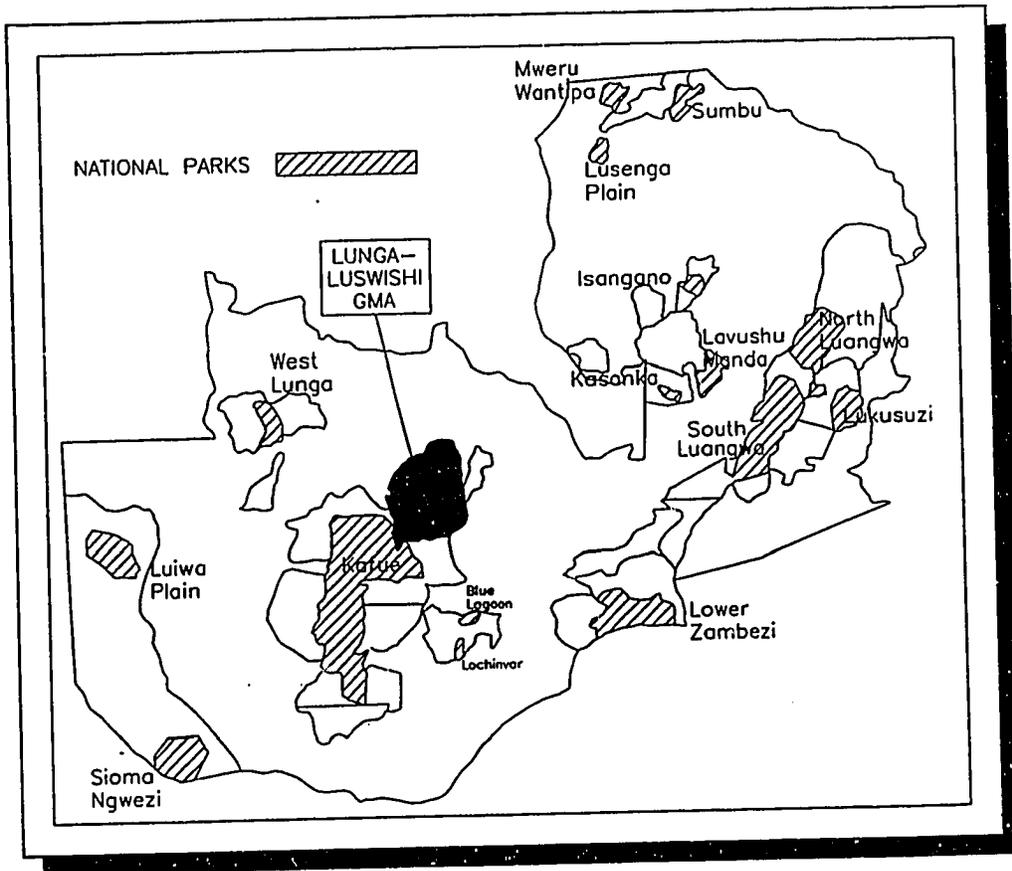
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MWANYA - QUOTA

| SPECIES | SAFARI QUOTA | OTHER QUOTA |
|--------------|--------------|-------------|
| Baboon | 100 | |
| Buffalo. | 15 | 10 |
| Bushbuck | 8 | 6 |
| Bushpig | 100 | 10 |
| Duiker | 6 | |
| Eland | 6 | |
| Grysbok | 6 | |
| Hartebeest | 6 | 4 |
| Hippopotamus | | 6 |
| Hyena | 6 | |
| Impala | 15 | 12 |
| Kudu | 6 | |
| Leopard | 6 | |
| Lion | 4 | |
| Oribi | | |
| Puku | 12 | 6 |
| Reedbuck | 6 | |
| Roan | 5 | |
| Sable | | |
| Warthog | 12 | 8 |
| Wildebeest | | 8 |
| Waterbuck | 6 | |
| Zebra | 10 | |

LUNGA-LUSWISHI (7)

| | |
|---------------------------|---|
| Location: | Kasempa, Ndola and Kabwe Districts |
| Area: | 13 340 km ² |
| Date Gazetted: | 1972 |
| Affiliated National Park: | Kafue |
| Number Hunting Blocks: | 1 |
| Accessibility: | |
| Water Resources: | |
| Vegetation: | |
| Wildlife: | |
| GIS Status: | 30% |
| Chiefs: | |
| Population Size: | |
| ADMADE Projects: | |
| Culling: | |
| Unit Leader: | Yes |
| NPWS Scouts: | |
| ADMADE Scouts: | 21-25 |
| Vehicle: | |
| Camps: | |
| Housing: | |
| Radio: | |
| Transects Set: | |
| Safari Company: | Zambezi Hunters (May not be able to meet their quota) |
| Classical Fee: | US\$ 3 500 |
| Income: | |
| Comments: | <ul style="list-style-type: none"> • Farming application in 1993 (No game or cattle) • Camp application in 1993 • Zambezi hunters carried out an air survey in Jan 1993! • Conflicts between hunters and photographic lodges • Game ranch on Kaungashi River? • No resident quota |



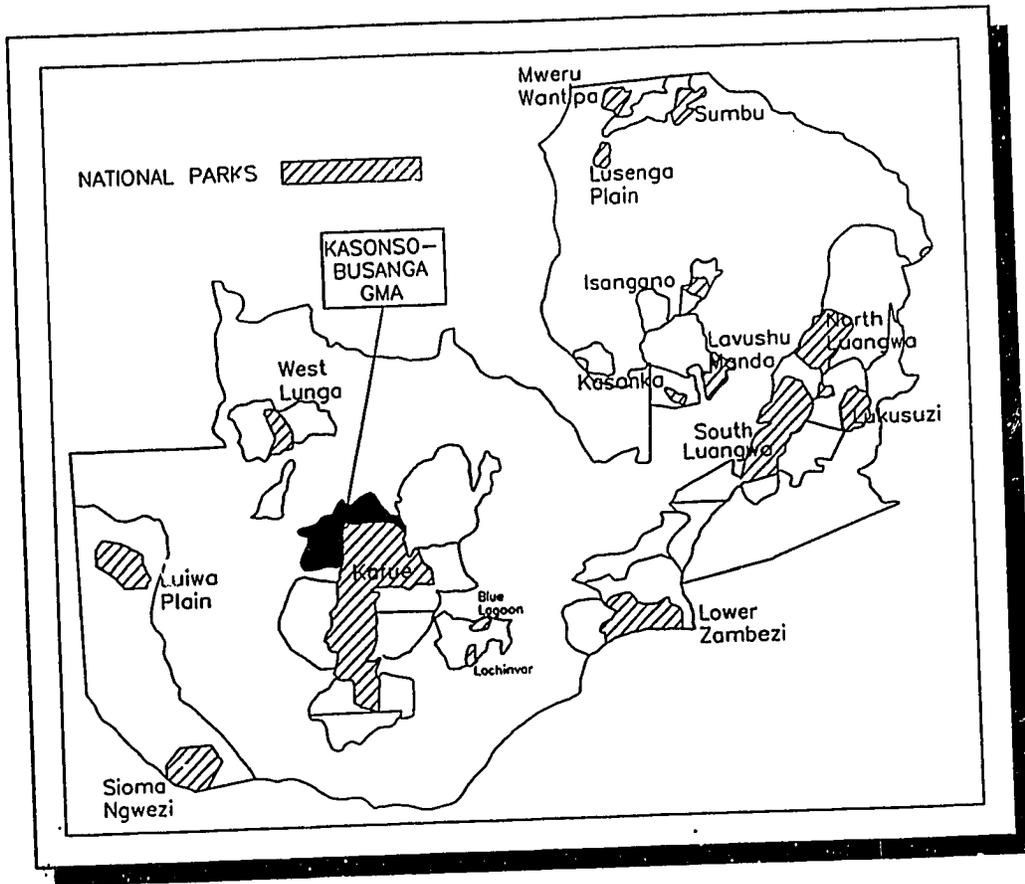
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LUNGA-LUSWISHI- QUOTA

| SPECIES | SAFARI QUOTA | OTHER QUOTA |
|--------------|--------------|-------------------|
| Buffalo | 4 | NO RESIDENT QUOTA |
| Bushbuck | 8 | |
| Bushpig | 100 | |
| Duiker | 8 | |
| Eland | 5 | |
| Grysbok | 4 | |
| Hartebeest | 12 | |
| Hippopotamus | 2 | |
| Hyena | 5 | |
| Impala | 18 | |
| Kudu | 5 | |
| Leopard | 6 | |
| Lion | 4 | |
| Oribi | 6 | |
| Puku | 12 | |
| Reedbuck | 8 | |
| Roan | 6 | |
| Sable | 10 | |
| Warthog | 12 | |
| Waterbuck | 8 | |
| Wildebeest | 6 | |
| Zebra | 6 | |

KASONSO-BUSANGA (2)

| | |
|---------------------------|---|
| Location: | Kasempa District |
| Area: | 7 780 km ² |
| Date Gazetted: | 1972 |
| Affiliated National Park: | Kafue National Park |
| Number Hunting Blocks: | 2 (Kasonso and Lunga-Busanga) |
| Accessibility: | |
| Water Resources: | |
| Vegetation: | |
| Wildlife: | |
| GIS Status: | 30% |
| Chiefs: | |
| Population Size: | |
| ADMADE Projects: | |
| Culling: | |
| Unit Leader: | Yes |
| NPWS Scouts: | 24 |
| ADMADE Scouts: | 20 |
| Vehicle: | Yes |
| Camps: | 7 (Shongwa, Lumba, Lalafuta, Lushimba, Kasompe, Masozhi, Kabanga) |
| Housing: | Yes (Shongwa) |
| Radio: | No |
| Transects Set: | |
| Safari Company: | Buffalo Hunting Safaris |
| Classical Fee: | US\$ 5 000 |
| Income: | |
| Comments: | <ul style="list-style-type: none"> • Game Lodge Request on Lunga river in 1993 • Impressive transect data • No residents quota |



KASONSO-BUSANGA - QUOTA

| SPECIES | SAFARI QUOTA | OTHER QUOTA |
|--------------------------|--------------|--------------------|
| Baboon | 20 | NO RESIDENTS QUOTA |
| Buffalo | 10 | |
| Bushbuck | 5 | |
| Bushpig | 20 | |
| Duiker (Common and Blue) | 12 | |
| Eland | 4 | |
| Grysbok | 7 | |
| Hartebeest | 10 | |
| Hippopotamus | 3 | |
| Hyena | 3 | |
| Impala | 12 | |
| Kudu | 6 | |
| Leopard | 6 | |
| Lion | 4 | |
| Oribi | 8 | |
| Puku | 6 | |
| Reedbuck | 8 | |
| Roan | 6 | |
| Sable | 8 | |
| Sitatunga | 3 | |
| Warthog | 10 | |
| Waterbuck | 5 | |
| Wildebeest | 8 | |
| Zebra | 8 | |

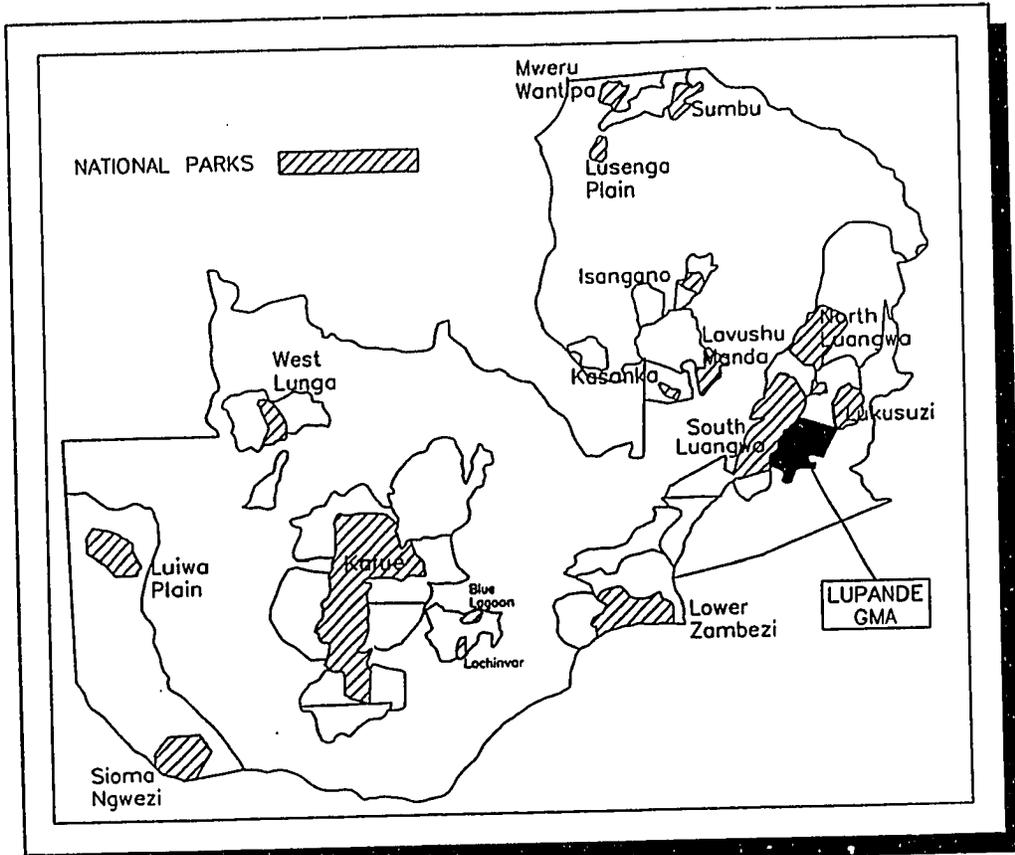
APPENDIX 2

LUNGA-BUSANGA - QUOTA

| SPECIES | SAFARI QUOTA | OTHER QUOTA |
|--------------|--------------|-------------|
| Buffalo | 8 | 5 |
| Bushbuck | 6 | 5 |
| Bushpig | 100 | |
| Duiker | 10+5 | 5 |
| Eland | 4 | |
| Grysbok | 7 | |
| Hartebeest | 10 | 4 |
| Hippopotamus | 3 | |
| Hyena | 3 | |
| Impala | 12 | 8 |
| Kudu | 4 | |
| Leopard | 4 | |
| Lion | 2 | |
| Oribi | 8 | |
| Puku | 6 | 4 |
| Reedbuck | 10 | 2 |
| Roan | 4 | |
| Sable | 8 | |
| Warthog | 10 | 4 |
| Waterbuck | 5 | 4 |
| Wildebeest | 8 | |
| Zebra | 6 | |

LUPANDE (20)

| | |
|---------------------------|--|
| Location: | Chipata |
| Area: | 4 840 km ² |
| Date Gazetted: | 1972 |
| Affiliated National Park: | South Luangwa National Park |
| Number Hunting Blocks: | 2 (Upper Lupande and Lower Lupande) |
| Accessibility: | |
| Water Resources: | |
| Vegetation: | |
| Wildlife: | |
| GIS Status: | 90% |
| Chiefs: | |
| Population Size: | |
| ADMADE Projects: | |
| Culling: | |
| Unit Leader: | |
| NPWS Scouts: | |
| ADMADE Scouts: | 16-20 |
| Vehicle: | |
| Camps: | |
| Housing: | |
| Radio: | |
| Transects Set: | |
| Safari Company: | Upper Lupande - Baobab Safaris; Lower Lupande - Safari expeditions |
| Classical Fee: | Upper Lupande - US\$ 4 500; Lower Lupande - US\$ 5 151 |
| Income: | |
| Comments: | Part of the LIRD programme |



UPPER LUPANDE - QUOTA

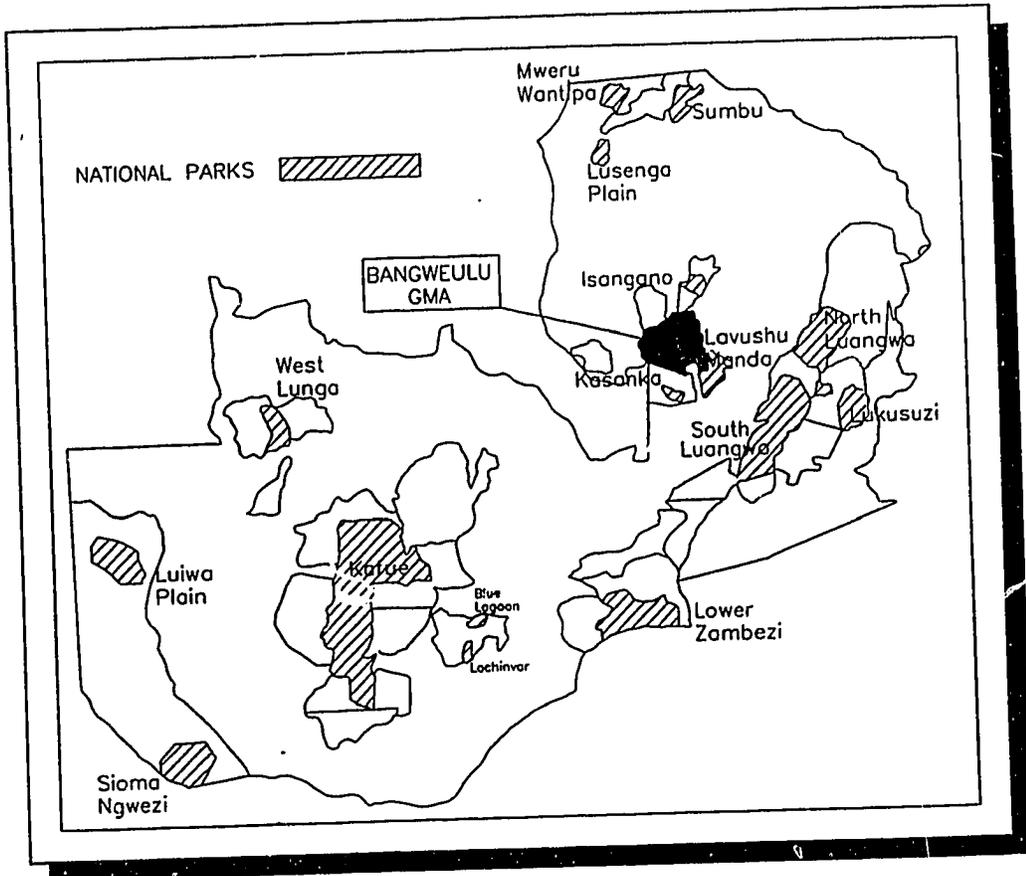
| SPECIES | SAFARI QUOTA | OTHER QUOTA |
|--------------|--------------|--------------------------|
| Baboon | 100 | RESIDENTS QUOTA AT MFUWE |
| Buffalo | 13 | |
| Bushbuck | 5 | |
| Bushpig | 100 | |
| Crocodile | 20 | |
| Duiker | 5 | |
| Eland | 5 | |
| Grysbok | 2 | |
| Hartebeest | 3 | |
| Hippopotamus | 15 | |
| Impala | 15 | |
| Klipspringer | 2 | |
| Kudu | 6 | |
| Leopard | 6 | |
| Lion | 4 | |
| Puku | 6 | |
| Roan | 4 | |
| Warthog | 10 | |
| Waterbuck | 2 | |
| Wildebeest | 10 | |
| Zebra | 12 | |

LOWER LUPANDE - QUOTA

| SPECIES | SAFARI QUOTA | OTHER QUOTA |
|--------------|--------------|--------------------------|
| Baboon | 100 | RESIDENTS QUOTA AT MFUWE |
| Buffalo | 15 | |
| Bushbuck | 8 | |
| Bushpig | 100 | |
| Crocodile | 20 | |
| Duiker | 5 | |
| Eland | 5 | |
| Grysbok | 2 | |
| Hartebeest | 5 | |
| Hippopotamus | 15 | |
| Hyena | 5 | |
| Impala | 15 | |
| Klipspringer | 6 | |
| Kudu | 5 | |
| Leopard | 6 | |
| Lion | 4 | |
| Puku | 10 | |
| Roan | 3 | |
| Warthog | 12 | |
| Waterbuck | 8 | |
| Zebra | 12 | |

BANGWEULU (26)

| | |
|---------------------------|---|
| Location: | Mpika, Samfya and Luwingu Districts |
| Area: | 6 470 km ² |
| Date Gazetted: | 1972 |
| Affiliated National Park: | Lavushi Manda National park |
| Number Hunting Blocks: | |
| Accessibility: | |
| Water Resources: | |
| Vegetation: | |
| Wildlife: | |
| GIS Status: | |
| Chiefs: | |
| Population Size: | |
| ADMADE Projects: | |
| Culling: | |
| Unit Leader: | |
| NPWS Scouts: | |
| ADMADE Scouts: | 16-20 |
| Vehicle: | |
| Camps: | |
| Housing: | |
| Radio: | |
| Transects Set: | |
| Safari Company: | |
| Classical Fee: | |
| Income: | |
| Comments: | <ul style="list-style-type: none"> • Part of WWF Wetlands Project • Odd in that it has a resident safari company and also is an open area for specialised species such as black lechwe. |



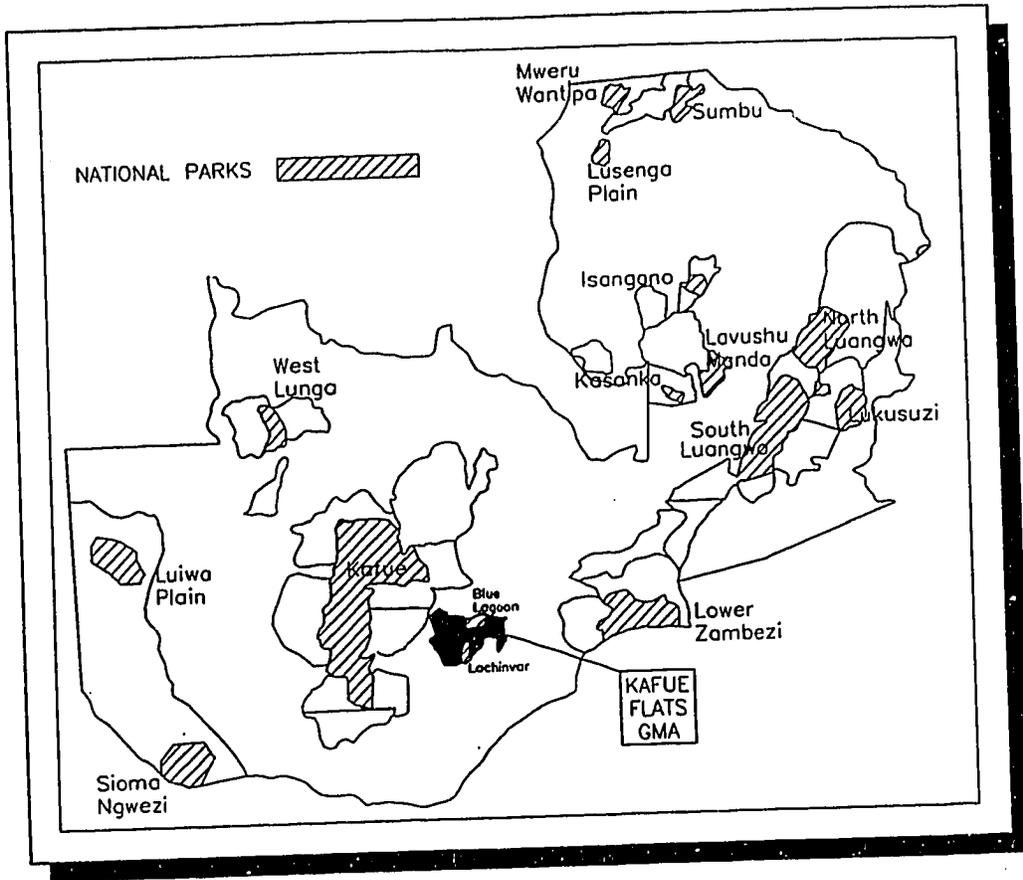
BANGWEULU - QUOTA

| SPECIES | SAFARI QUOTA | OPEN AREA QUOTA |
|----------------|--------------|-----------------|
| Buffalo | 5 | |
| Bushpig | 100 | |
| Lechwe (Black) | 35 | 200 |
| Oribi | 8 | |
| Reedbuck | 8 | |
| Sitatunga | 24 | |
| Tsessebe | 15 | |

Note: The safari quota is for the hunting company only (i.e. Alpha Safaris). All other companies use the "open area" quota in the same manner that the Kufue Flats is used.

KAFUE FLATS (11)

| | |
|---------------------------|---|
| Location: | Namwala, Mazabuka, Mumbwa and Monze Districts |
| Area: | 5 175 km ² |
| Date Gazetted: | 1972 |
| Affiliated National Park: | Blue Lagoon and Lochinvar National parks |
| Number Hunting Blocks: | 2 (Blue Lagoon and Lochinvar) |
| Accessibility: | |
| Water Resources: | |
| Vegetation: | |
| Wildlife: | |
| GIS Status: | |
| Chiefs: | |
| Population Size: | |
| ADMADE Projects: | |
| Culling: | |
| Unit Leader: | |
| NPWS Scouts: | |
| ADMADE Scouts: | 11-15 |
| Vehicle: | |
| Camps: | |
| Housing: | |
| Radio: | |
| Transects Set: | |
| Safari Company: | "Open Area" |
| Classical Fee: | |
| Income: | |
| Comments: | • Part of WWF Wetlands Project |



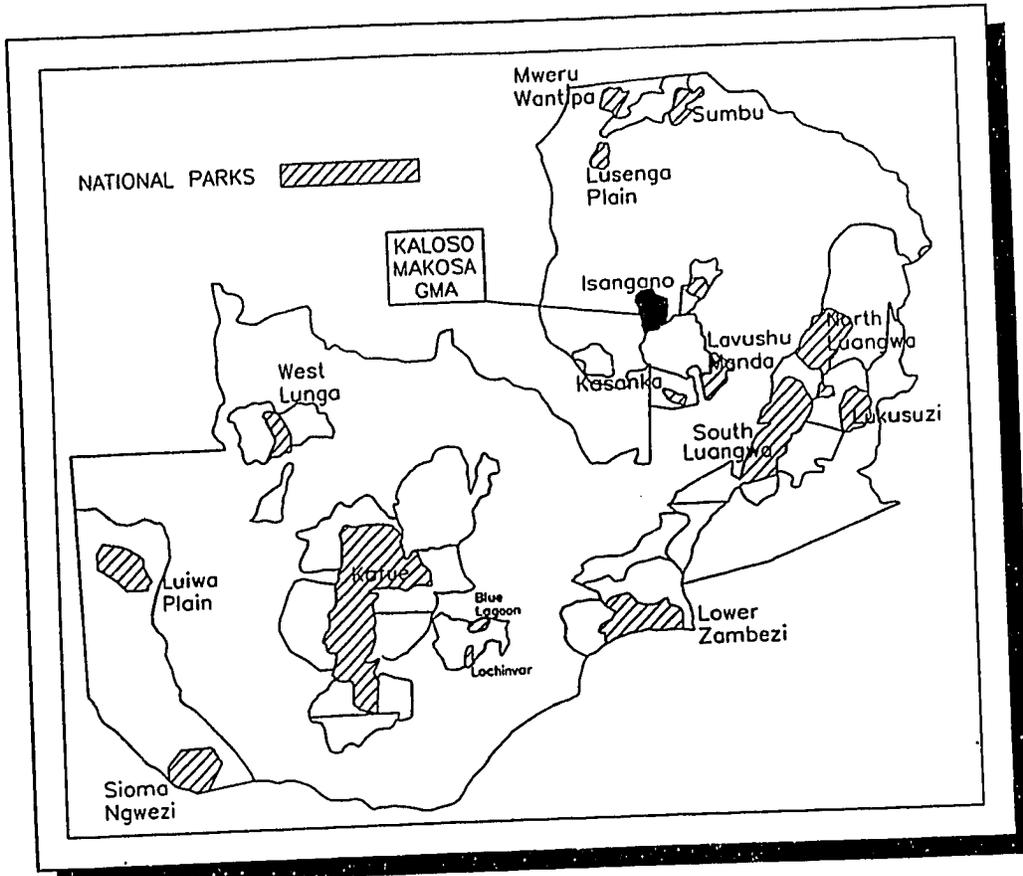
KAFUE FLATS - QUOTA

| SPECIES | SAFARI QUOTA | RESIDENTS QUOTA |
|----------------|--------------|-----------------|
| Lechwe (Kafue) | 228 | 300 |
| Lechwe (Red) | | |
| Zebra | 5 | 5 |

Note: Totals for the two hunting blocks have been combined

KALOSO MAKOSO (33?)

| | |
|---------------------------|---|
| Location: | |
| Area: | 675 km ² |
| Date Gazetted: | 1991 |
| Affiliated National Park: | Lavishi Manda National Park |
| Number Hunting Blocks: | |
| Accessibility: | |
| Water Resources: | |
| Vegetation: | |
| Wildlife: | |
| GIS Status: | |
| Chiefs: | |
| Population Size: | |
| ADMADE Projects: | |
| Culling: | |
| Unit Leader: | |
| NPWS Scouts: | |
| ADMADE Scouts: | |
| Vehicle: | |
| Camps: | |
| Housing: | |
| Radio: | |
| Transects Set: | |
| Safari Company: | |
| Classical Fee: | |
| Income: | |
| Comments: | <ul style="list-style-type: none"> • Was part of WWF Wetlands Project but now funded by Norad? |



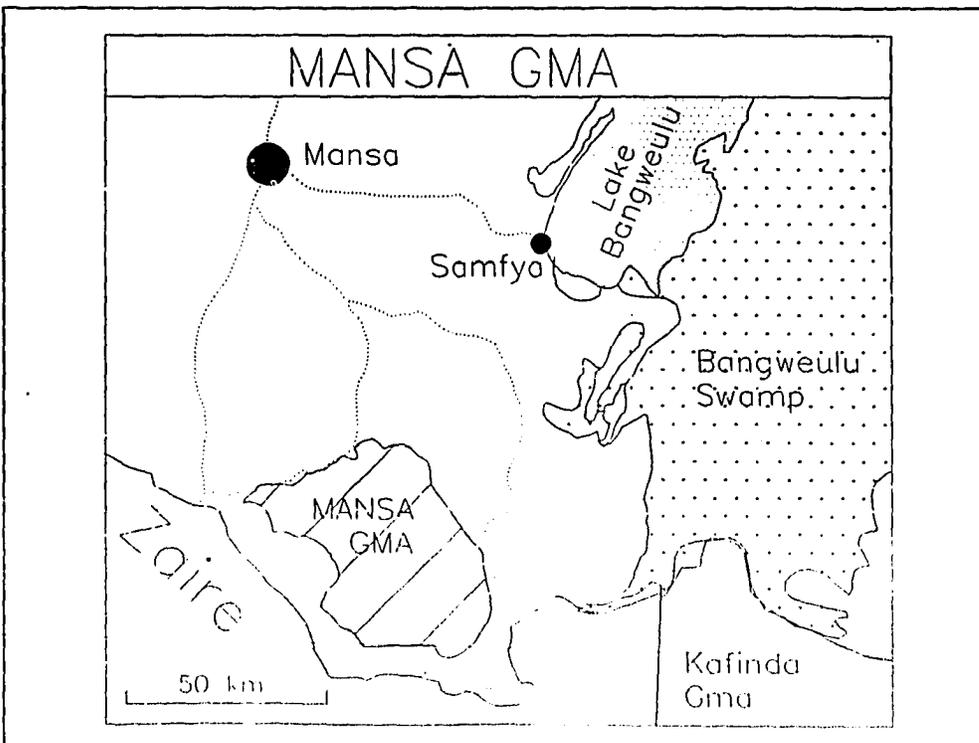
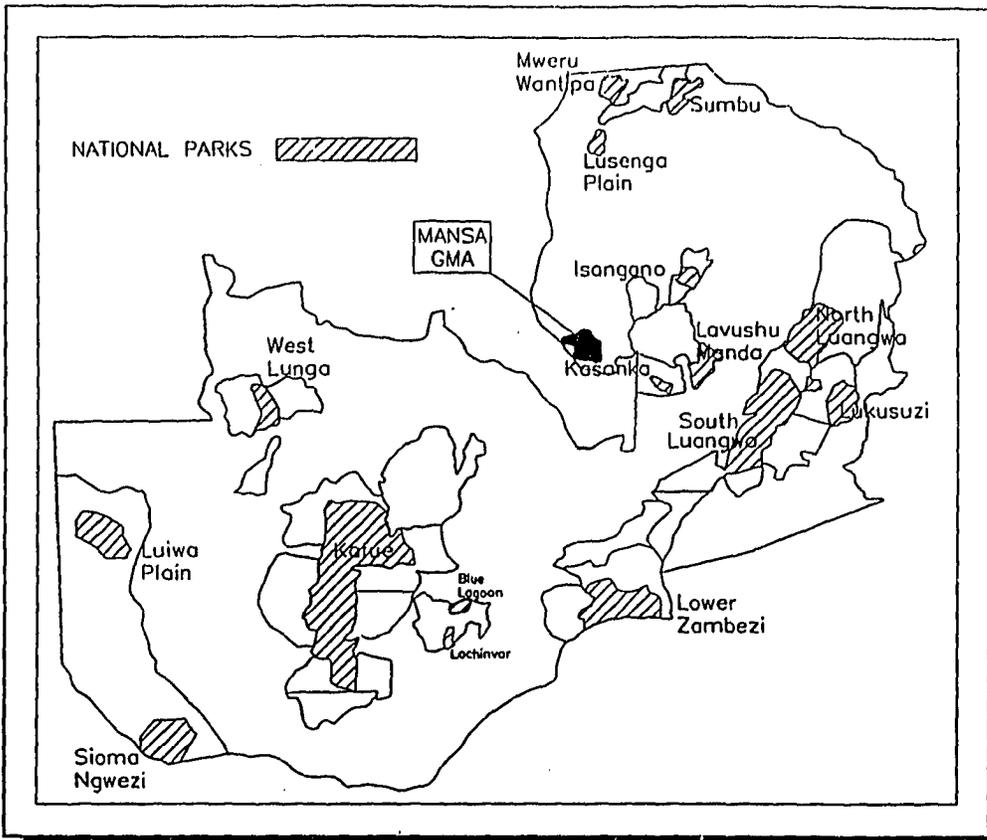
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KALOSO MUKOSA - QUOTA

| SPECIES | SAFARI QUOTA | RESIDENTS QUOTA |
|----------------|--------------|-----------------|
| Lechwe (Kafue) | | |
| Lechwe (Red) | | |
| Zebra | | |

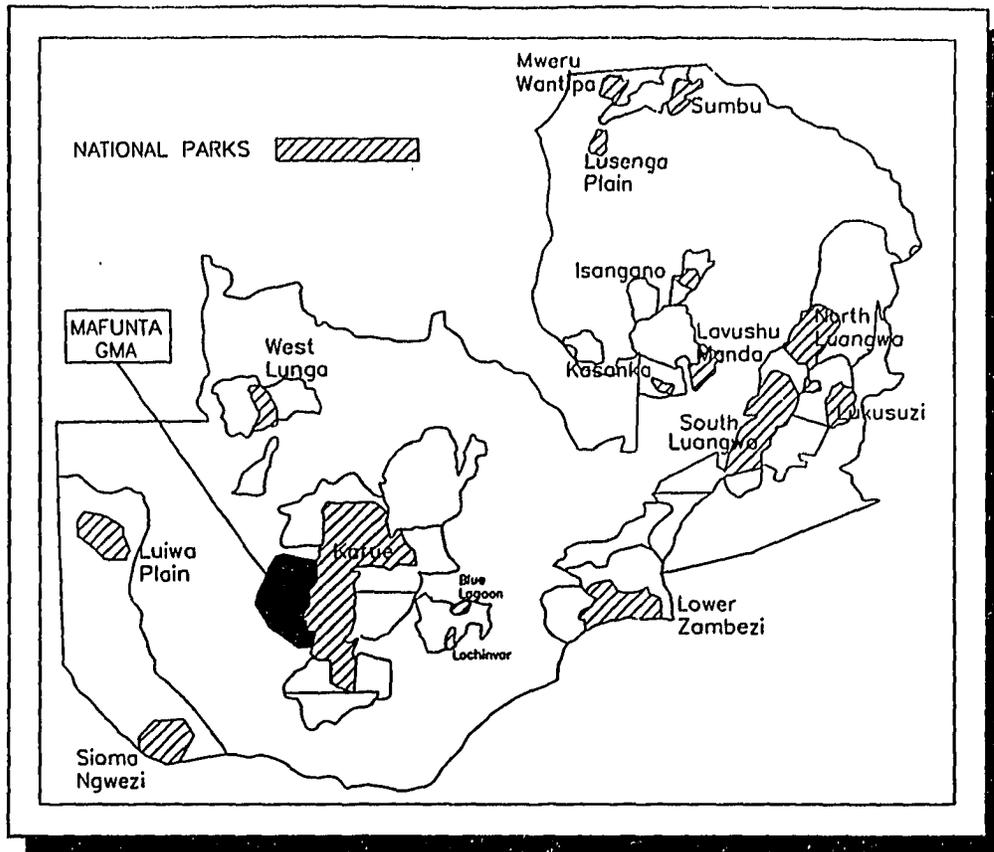
MANSA (31)

| | |
|---------------------------|--|
| Location: | Mansa District |
| Area: | 2 070 km ² |
| Date Gazetted: | 1972 |
| Affiliated National Park: | None |
| Number Hunting Blocks: | 1 |
| Accessibility: | New Chinese Road. Across Zaire from copperbelt |
| Water Resources: | Luapula and Malungushi rivers |
| Vegetation: | Miombo woodland |
| Wildlife: | |
| GIS Status: | None |
| Unit Leader: | |
| NPWS Scouts: | |
| ADMADE Scouts: | |
| Vehicle: | No |
| Camps: | No |
| Housing: | No |
| Radio: | No |
| Transects Set: | No |
| Safari Company: | None |
| Classical Fee: | None |
| Income: | None |
| Comments: | • No Quotas |



MAFUNTA (No Number)

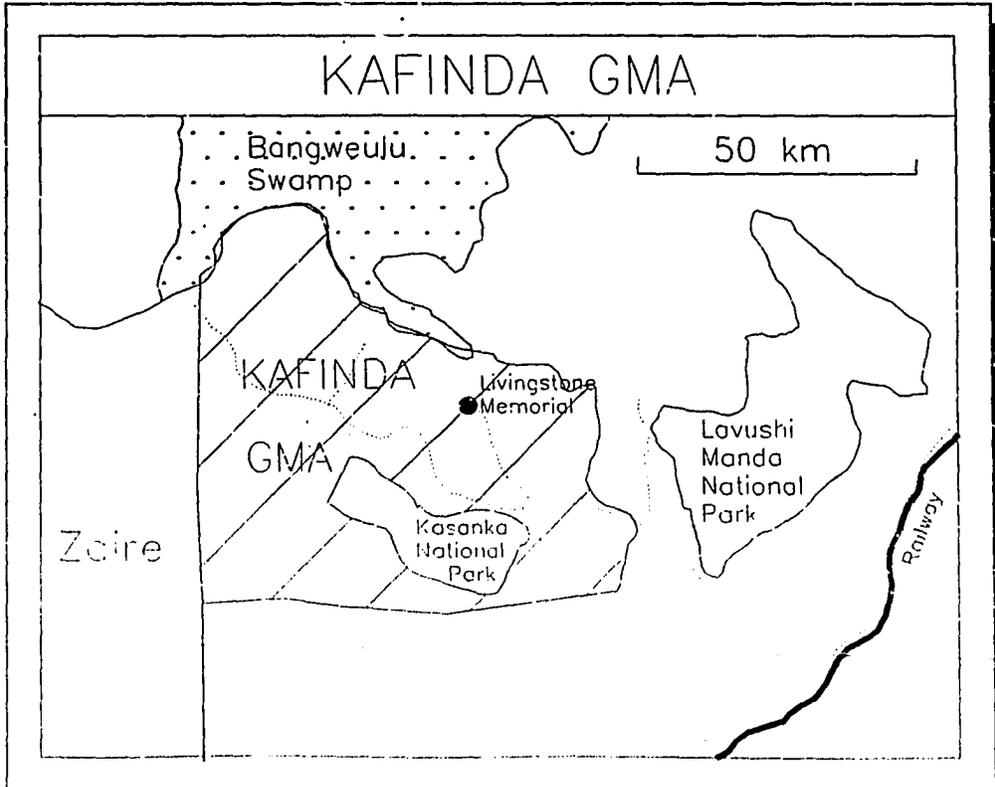
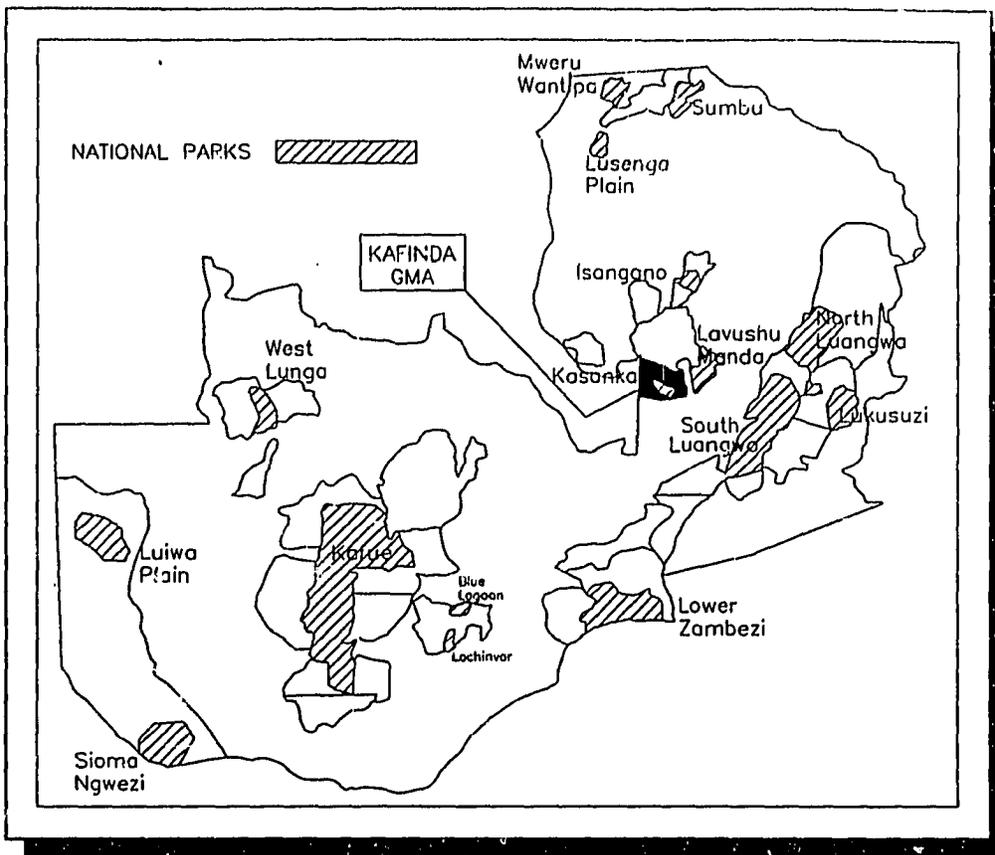
| | |
|---------------------------|---------------------|
| Location: | Kaoma District |
| Area: | Unknown |
| Date Gazetted: | Not Gazetted |
| Affiliated National Park: | Kafuo National Park |
| Number Hunting Blocks: | ? |
| Accessibility: | |
| Water Resources: | |
| Vegetation: | |
| Wildlife: | |
| GIS Status: | None |
| Unit Leader: | |
| NPWS Scouts: | |
| ADMADE Scouts: | |
| Vehicle: | |
| Camps: | |
| Housing: | |
| Radio: | |
| Transects Set: | |
| Safari Company: | None |
| Classical Fee: | None |
| Income: | |
| Comments: | • No Quotas |



KAFINDA (25)

| | |
|----------------------------------|--|
| Location: | Serenje District |
| Area: | 3 860 km ² |
| Date Gazetted: | 1972 |
| Affiliated National Park: | Kasanka National Park |
| Number Hunting Blocks: | 1 |
| Accessibility: | Serenje/ Kasama Road. New Chinese Road |
| Water Resources: | Bangwoulu Swamp and Mulangashi river |
| Vegetation: | |
| Wildlife: | |
| GIS Status: | None |
| Unit Leader: | No |
| NPWS Scouts: | No |
| ADMADE Scouts: | NO |
| Vehicle: | No |
| Camps: | NO |
| Housing: | NO |
| Radio: | NO |
| Transects Set: | NO |
| Safari Company: | None |
| Classical Fee: | None |
| Income: | None |
| Comments: | • Resident hunting only |

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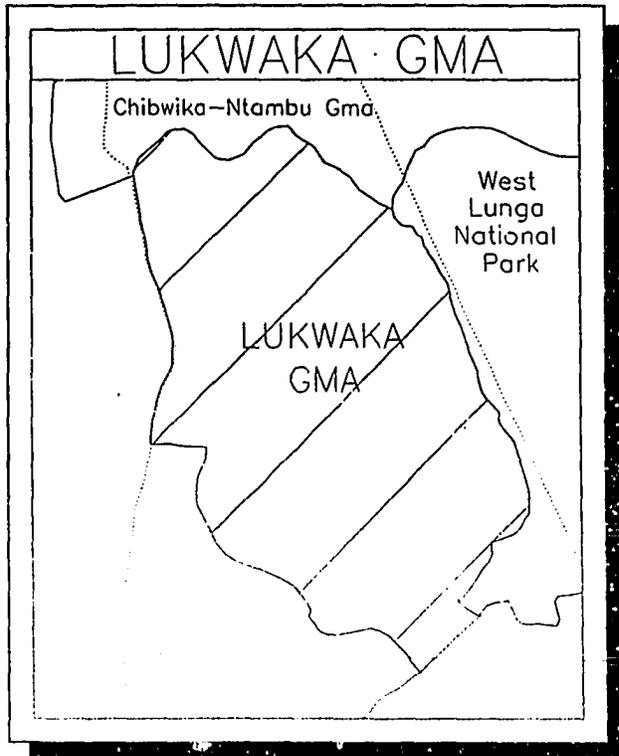
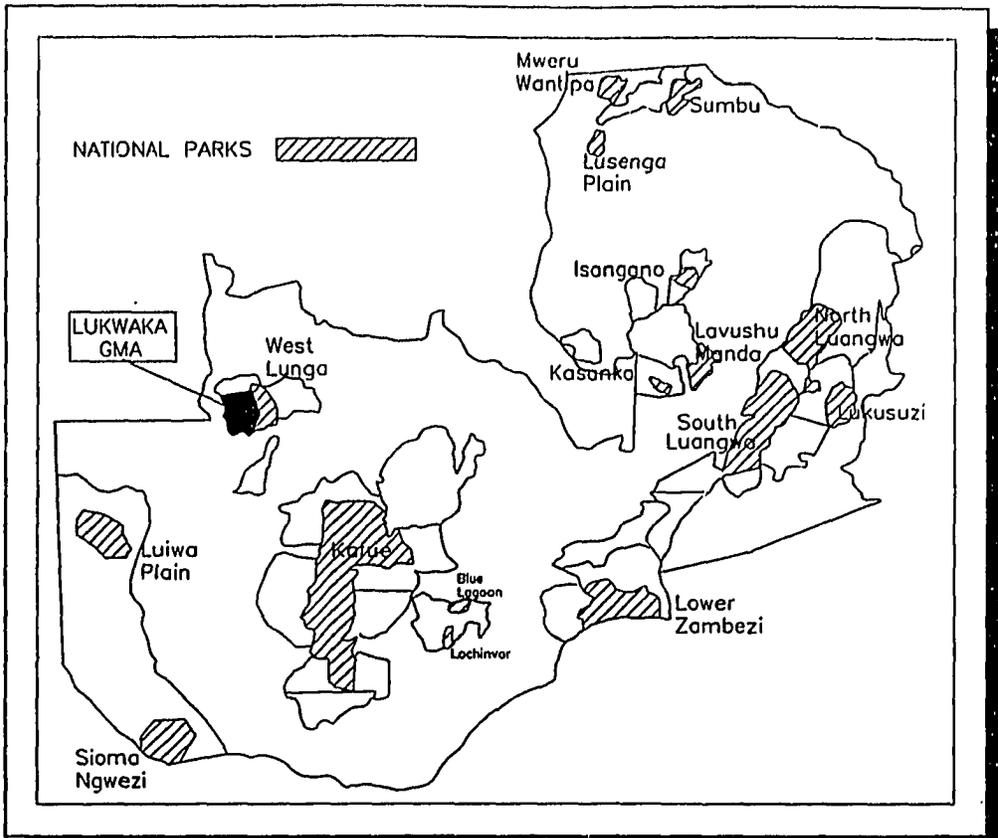
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KAFINDA - QUOTA

| SPECIES | SAFARI QUOTA | OTHER QUOTA |
|----------------|-----------------|-------------|
| Lechwe (Black) | NO SAFARI QUOTA | 10 |
| Oribi | | 5 |
| Reedbuck | | 5 |
| Sitatunga | | 10 |
| Tsessebe | | 5 |

LUKWAKA (5)

| | |
|---------------------------|-----------------------------------|
| Location: | Kabompo District |
| Area: | 2 540 km ² |
| Date Gazetted: | 1972 |
| Affiliated National Park: | West Lunga National Park |
| Number Hunting Blocks: | 1 |
| Accessibility: | |
| Water Resources: | West Lunga and Kabompo rivers |
| Vegetation: | Chrysopatelum and Miombo woodland |
| Wildlife: | |
| GIS Status: | |
| Unit Leader: | |
| NPWS Scouts: | |
| ADMADE Scouts: | No |
| Vehicle: | |
| Camps: | |
| Housing: | |
| Radio: | |
| Transects Set: | |
| Safari Company: | None |
| Classical Fee: | None |
| Income: | None |
| Comments: | Resident Hunting Only |

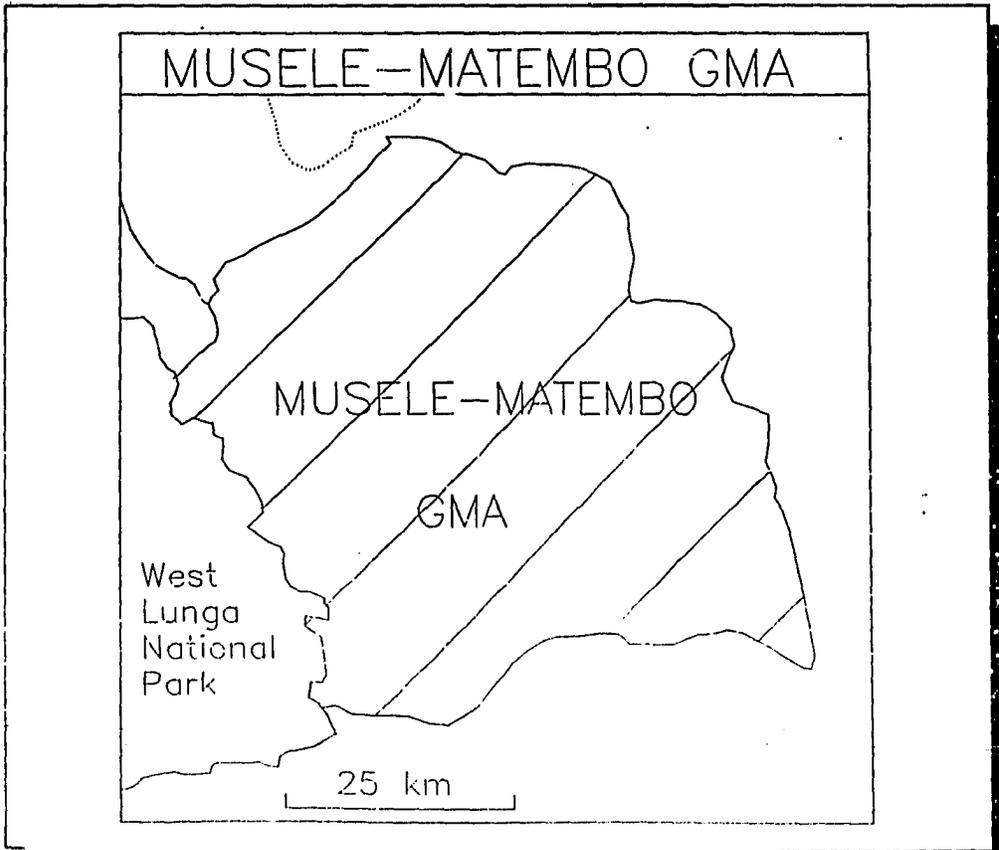
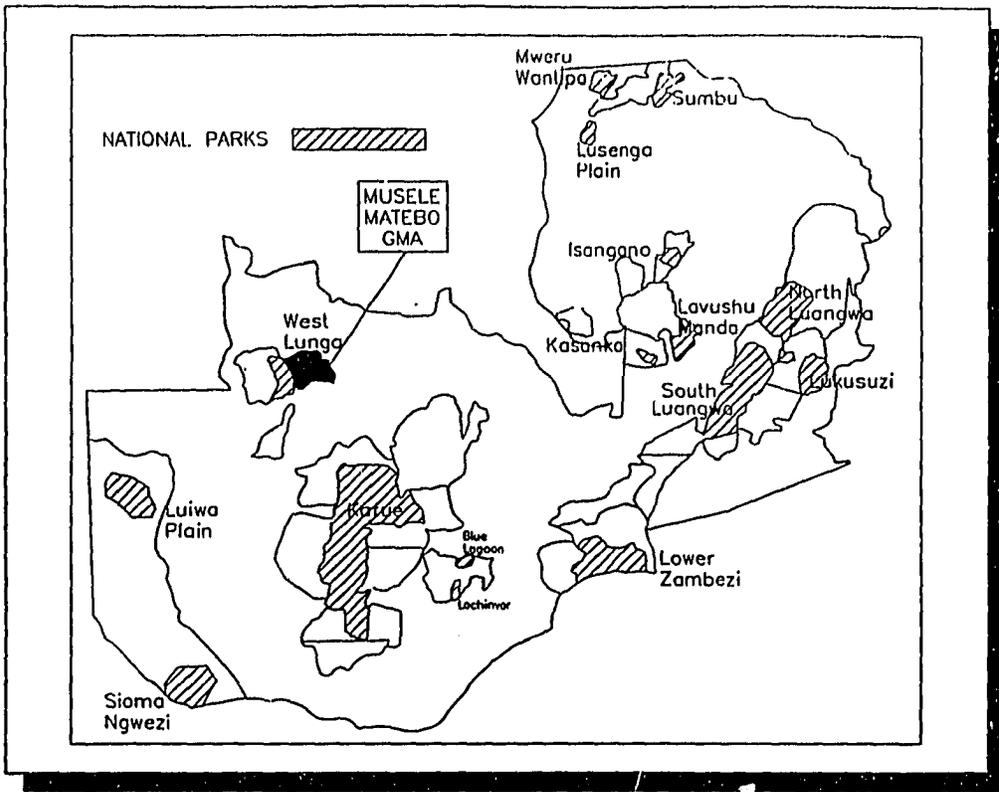


LUKWAKA - QUOTA

| SPECIES | SAFARI QUOTA | OTHER QUOTA |
|----------------|---------------------|--------------------|
| Buffalo | NO SAFARI QUOTA | 6 |
| Bushbuck | | 4 |
| Bushpig | | 8 |
| Duiker | | 6 |
| Grysbok | | 3 |
| Hartebeest | | 4 |
| Impala | | 6 |
| Reedbuck | | 2 |
| Warthog | | 6 |
| Waterbuck | | 2 |
| Zebra | | 2 |

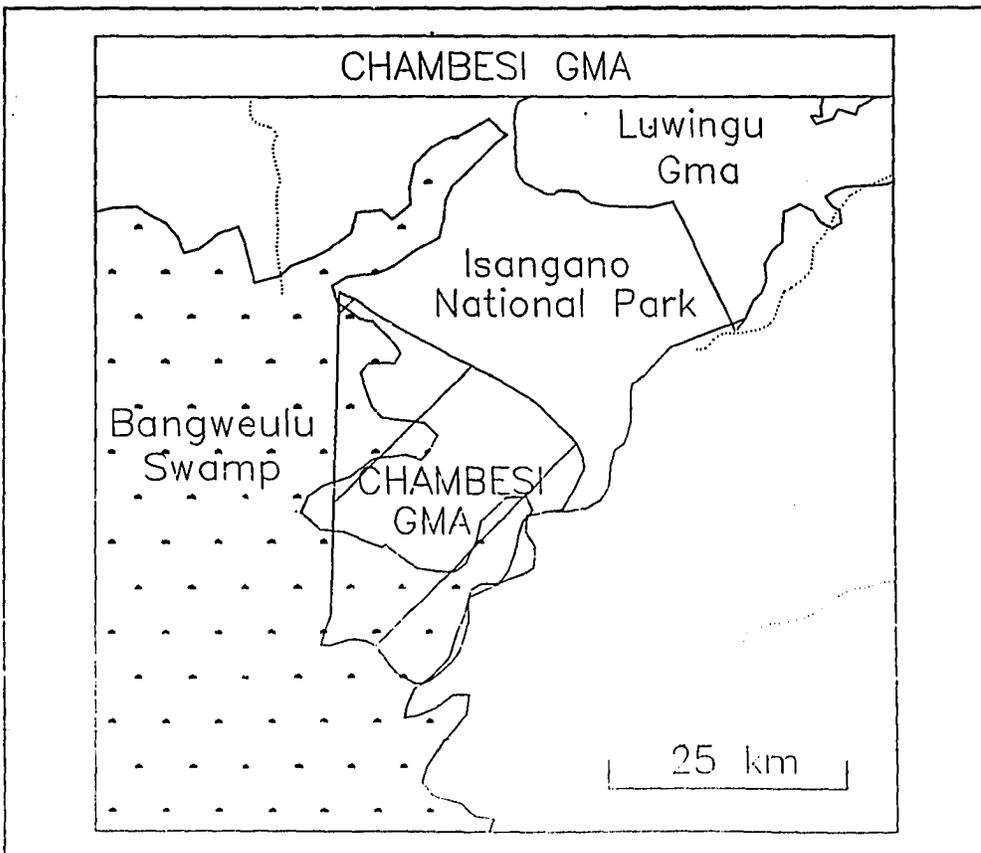
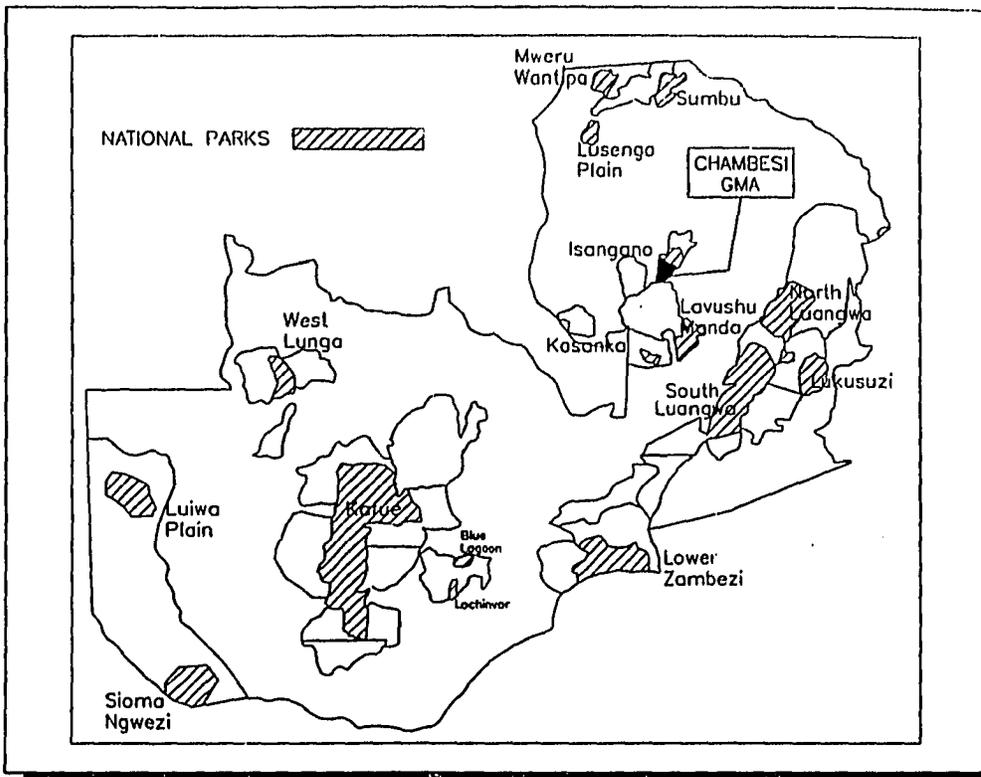
MUSELE MATEMBO (4)

| | |
|----------------------------------|------------------------------|
| Location: | Solwezi District |
| Area: | 3 700 km ² |
| Date Gazetted: | 1972 |
| Affiliated National Park: | West Lunga National Park |
| Number Hunting Blocks: | 1 |
| Accessibility: | |
| Water Resources: | Lwalaba and Kabompo rivers |
| Vegetation: | Miombo woodland |
| Wildlife: | |
| GIS Status: | None |
| Unit Leader: | |
| NPWS Scouts: | |
| ADMADE Scouts: | |
| Vehicle: | |
| Camps: | |
| Housing: | |
| Radio: | |
| Transects Set: | |
| Safari Company: | None |
| Classical Fee: | None |
| Income: | |
| Comments: | No Quotas - Totally Depleted |



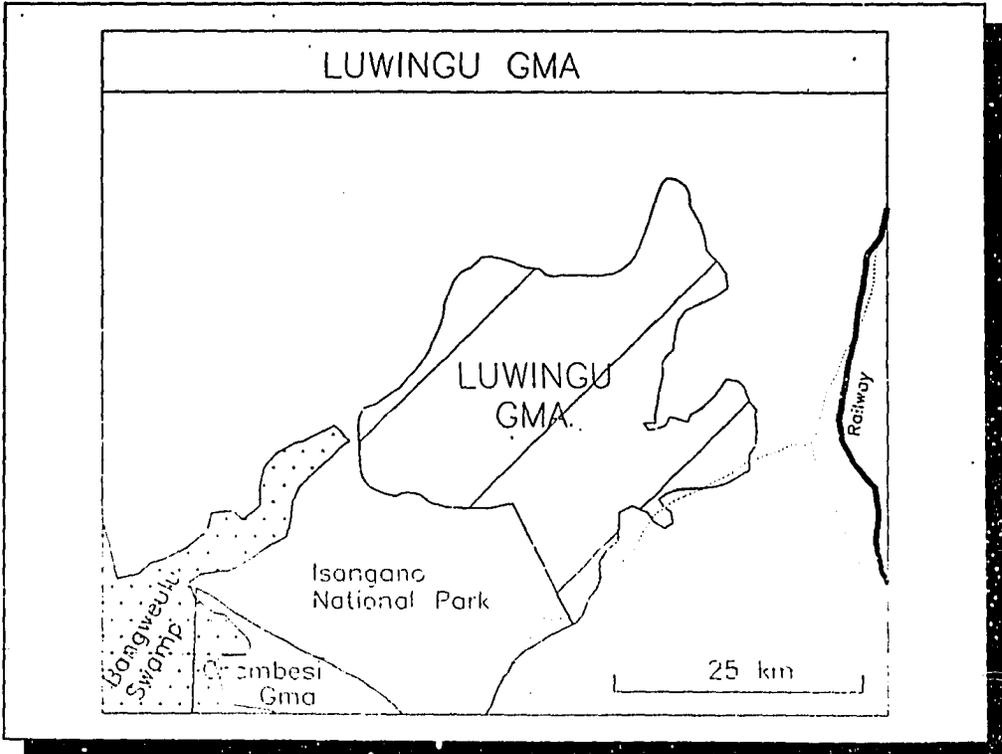
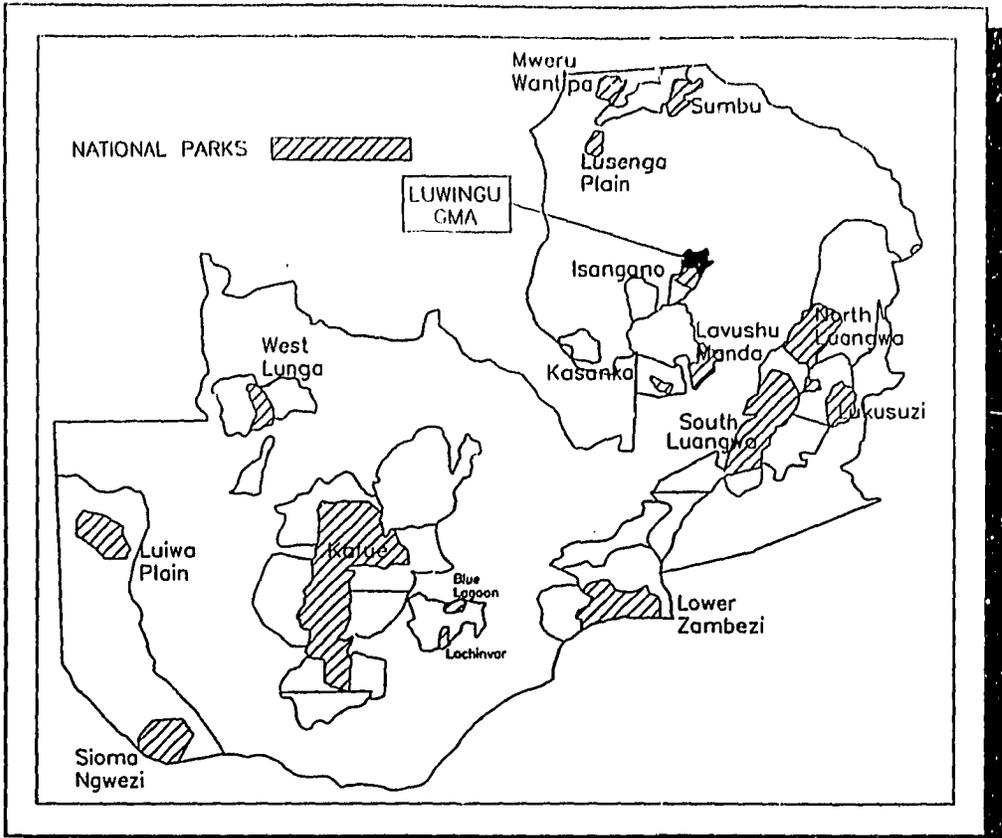
CHAMBESI (27)

| | |
|----------------------------------|--|
| Location: | Luwingu District |
| Area: | 620 km ² |
| Date Gazetted: | 1972 |
| Affiliated National Park: | Isangano National Park |
| Number Hunting Blocks: | 1 |
| Accessibility: | Serenje Kasama Road |
| Water Resources: | Bangweulu Swamp. Chambesi and Lubaseshi rivers |
| Vegetation: | Swamp with termitaria and Lake Basin Chipya |
| Wildlife: | |
| GIS Status: | None |
| Unit Leader: | NO |
| NPWS Scouts: | NO |
| ADMADE Scouts: | NO |
| Vehicle: | NO |
| Camps: | NO |
| Housing: | NO |
| Radio: | NO |
| Transects Set: | NO |
| Safari Company: | None |
| Classical Fee: | None |
| Income: | None |
| Comments: | No Quotas |



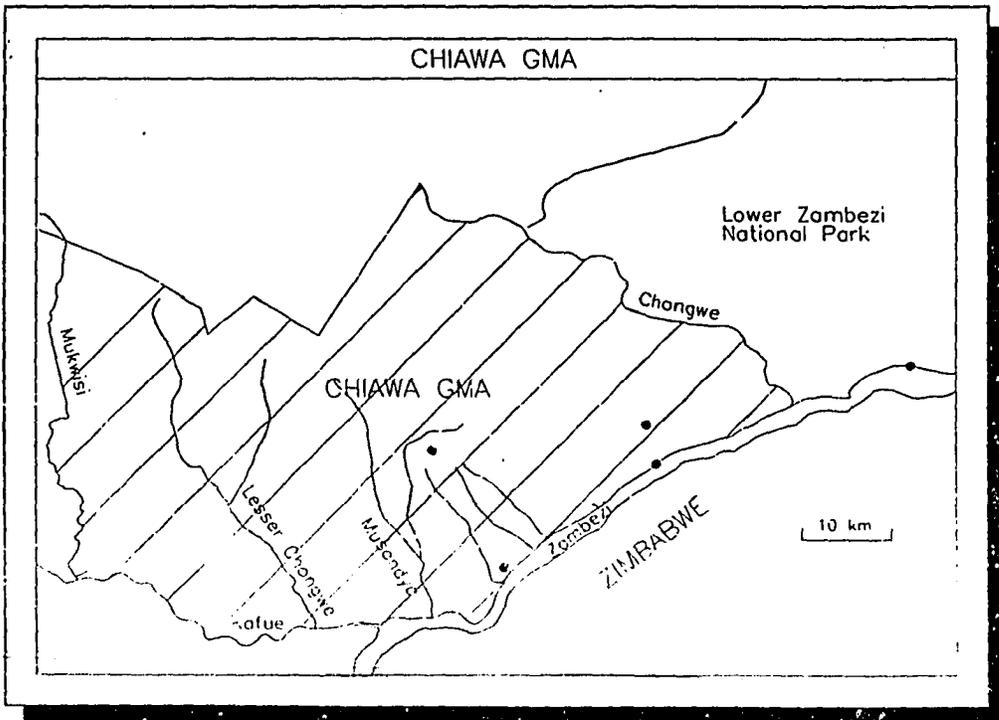
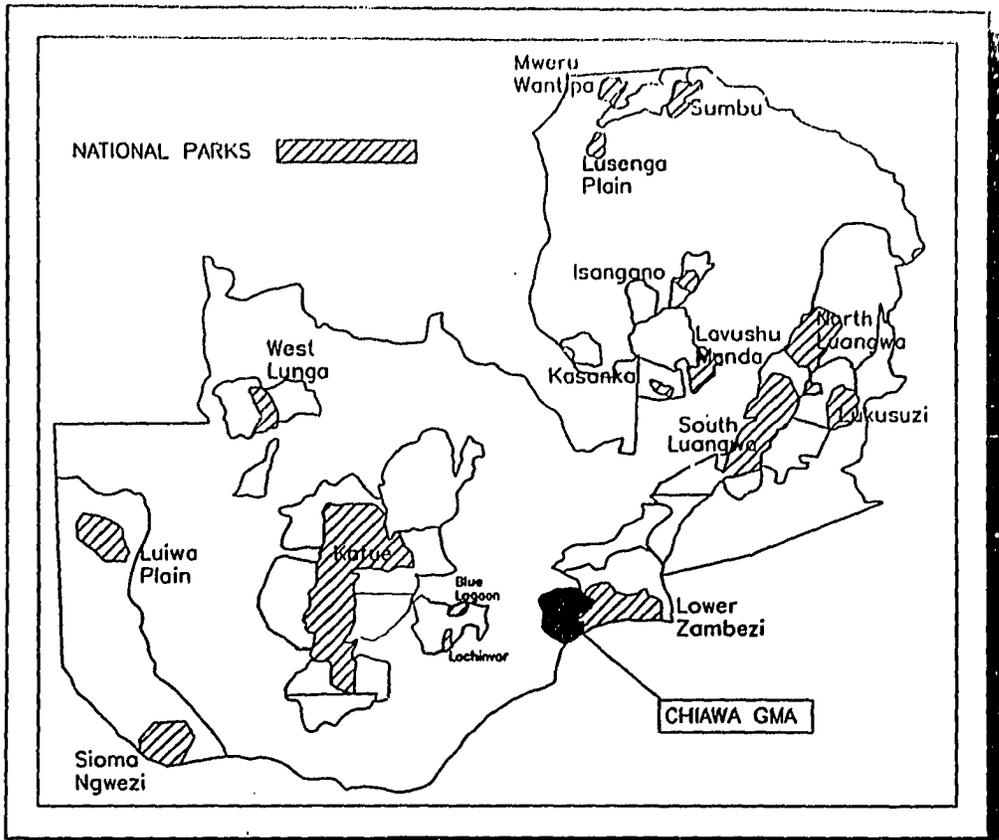
LUWINGU (28)

| | |
|----------------------------------|--|
| Location: | Luwingu and Kasama Districts |
| Area: | 1 090 km ² |
| Date Gazetted: | 1972 |
| Affiliated National Park: | Isangano National Park |
| Number Hunting Blocks: | 1 |
| Accessibility: | Main Kasama road. Railway nearby |
| Water Resources: | Lubasheshi and Chambesi rivers |
| Vegetation: | Swamp. Miombo, Marquesia woodlands and Lake Basin Chipya |
| Wildlife: | |
| GIS Status: | None |
| Unit Leader: | NO |
| NPWS Scouts: | NO |
| ADMADE Scouts: | NO |
| Vehicle: | NO |
| Camps: | NO |
| Housing: | NO |
| Radio: | NO |
| Transects Set: | NO |
| Safari Company: | None |
| Classical Fee: | None |
| Income: | None |
| Comments: | No Quotas |



CHIAWA (347)

| | |
|---------------------------|---|
| Location: | Lusaka District |
| Area: | ? |
| Date Gazotted: | 1991? |
| Affiliated National Park: | Lower Zambozi National Park |
| Number Hunting Blocks: | 1 |
| Accessability: | Via Chirundu |
| Water Resources: | Permanent water in Lesser Chongwe and Chipongwe pools and Chongwe and Zambezi |
| Vegetation: | Miombo, Mungu, Mopane and Riverine woodlands |
| Wildlife: | |
| GIS Status: | 30% |
| Unit Leader: | Yes |
| NPWS Scouts: | |
| ADMADE Scouts: | |
| Vehicle: | 1 landrover from David Shepherd Fund |
| Camps: | |
| Housing: | |
| Radio: | |
| Transects Set: | |
| Safari Company: | Hunting Closed for 1993 |
| Classical Fee: | None |
| Income: | From non-consumptive tourism |
| Comments: | <ul style="list-style-type: none"> • Poaching still occurs (3 elephants in August, 1993). • The Lower Zambezi national Park and the GMA need to be planned in conjunction. • Only one Chief. • No WMU but there is a sub-authority. • 10% of the GMA has wildlife and this is expected to support the rest? • Population of 14 000 people in 1991. • The whole Zambezi Valley area needs an integrated plan. • No Quotas - Hunting Stopped - but there were hunters in there in 1993 - was this a special licence |

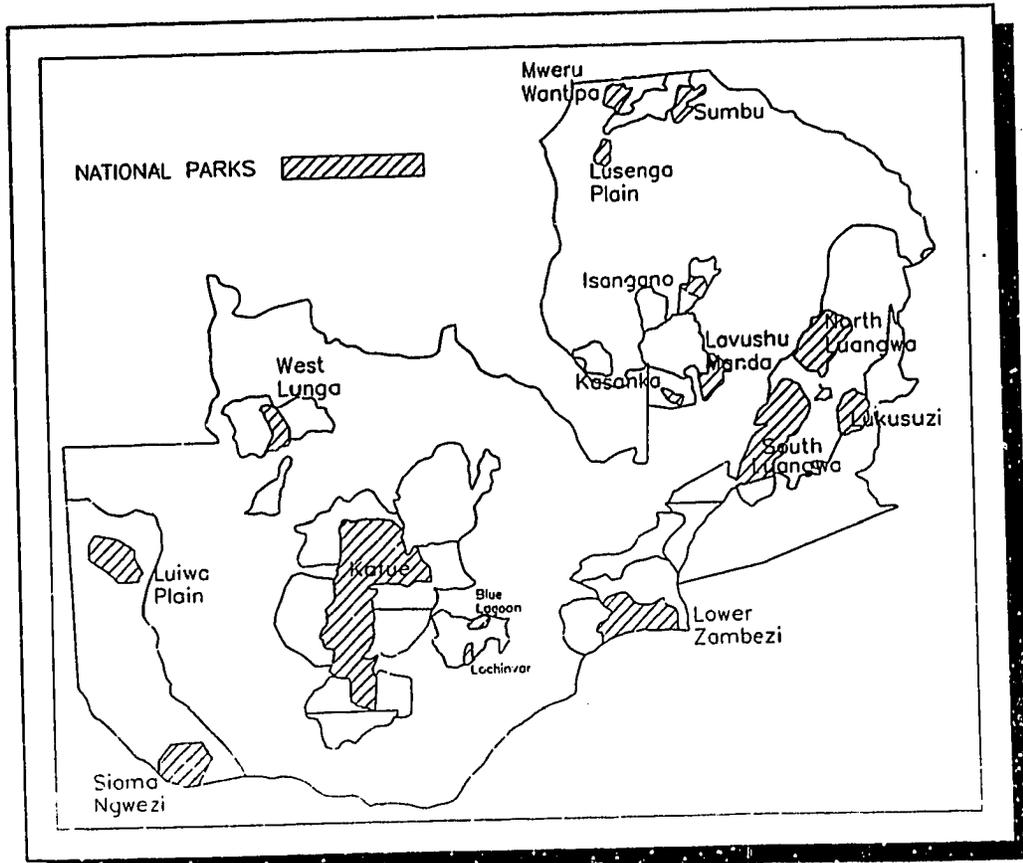


ZAMBIA

NATURAL RESOURCES MANAGEMENT PROJECT

PAPER SUPPLEMENT

SOCIAL ANALYSIS



**SOCIAL SOUNDNESS ANALYSIS
WILDLIFE MANAGEMENT PROJECT**

I. COMMUNITY DEVELOPMENT AT THE GAME MANAGEMENT AREA (GMA) LEVEL

The Administrative Management Design (ADMADE) program which is the administrative framework for the provision of project assistance was construed on the principle that local communities living in Zambia's 34 game management areas must participate fully in the management and development of the wildlife resources, if the conservation and management of wildlife is to succeed and be sustained.

Thus far, the community development activities under the ADMADE program can be described as having three main thrusts:

1. involve the community directly in wildlife conservation through recruiting and providing employment to village scouts whose job is to essentially stop commercial poaching and subsistence hunting. Through their presence within the community, they are expected to pass on the concern to others for wildlife management and conservation.
2. establish local institutions and decision making structures (WMA and WMS) which vests authority in traditional leaders as a mechanism for the community to plan for the distribution of benefits from wildlife management, and
3. demonstrate wildlife utilization as a profitable and beneficial land use practice through increased income and access to protein.

The activities undertaken to date are identified and briefly described below in sections A and B. Section A on wildlife conservation is focused on how effective measures to stop poaching in the GMAs and national parks have been; section B covers benefits and beneficiaries at the GMA level intended under the ADMADE program and assesses them in terms of their magnitude and distributional effects. Section C takes a broader view of participation and equity, identifying issues which have emerged in implementation. These issues form the basis for recommendations on how to provide and structure assistance for ensuring local community commitment to wildlife management.

A. Wildlife Conservation

The institutional structure for implementing wildlife conservation is described briefly here. The **wildlife management unit (WMU)** is the decision making body responsible for enforcement of hunting regulations but is supposed to also assist with wildlife monitoring and community development. Each **game management area (GMA)** and some hunting blocks are equipped with a **unit leader** and **deputy leader**, **village and regular scouts**, and a **district wildlife warden**. The village scouts are recruited locally by the chiefs and hired under WCRF while the regular scouts are recruited nationally by the NPWS and civil servant employees. Each unit also has a **wildlife management authority (WMA)** at the district level which, in theory, has representation from the traditional chiefs, the unit leader, the district wildlife warden, the district government, the district office of NPWS,

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and safari operators. Besides approving use of revenues from ADMADE's 35% share, the management unit is charged with approving wildlife management measures recommended by NPWS.

Unit leaders essentially manage the wildlife management unit made up of a GMA and/or hunting block. The unit leader is also the secretary for the wildlife management subauthority (WMS), the decision making body charged with determining the use of the 35% funds for community development projects as well as monitoring and solving wildlife management problems at the level of the chiefdom. Unit leaders implement the decisions of the WMU but the reality is that they must also at times contend with limited staff, limited fuel allocations, inadequate logistical equipment, attire, food and interference in use of the vehicle by his superiors (CDO's progress reports). They are reportedly overstretched and have not always demonstrated good leadership and management skills relating to community development work. In some cases, their relationships with subauthorities have been the reason community projects and activities have stalled.

The village scouts rely on the unit leader for supervision and transportation to patrol areas of the GMAs for poachers. Not unlike the unit leaders, scouts were observed to be ill-equipped and beset by lack of enough food and water which was compounded by the severe drought last year (CDO progress reports). The supply of uniforms is sporadic. The communities themselves have expressed the opinion that village scouts are "neglected and isolated," and, in fact, it had happened that the village scouts had been delayed payment of their salaries by five months (CDO reports). Village scouts are paid less than the NPWS scouts.

Unit staff are supposed to collect data on wildlife populations but according to the Mid-Term Evaluation, they are not adequately trained to collect the data which are essential for setting quotas for safari hunting and other wildlife uses (see also Technical Analysis). The quotas given to professional hunters are based on inadequate information. Wildlife biologists have since been hired and posted at the command headquarters to assist in monitoring and research of the wildlife population. Two wildlife biologists who will be operating from Chanjuzi and Kasempa have started establishing transect lines and animal counts, inter alia, for the Mfuwe and Ngoma commands and at Lunga-Luswishi and Kosono-Busanga GMAs. Thus, the ADMADE program has recognized the need for technical assistance to conduct routine monitoring of not only animal population size, but structure, habitat quality, migration between parks, GMAs, and open areas, as well as research to improve their understanding of these systems (Mid-Term Evaluation, p. 17).

Despite anecdotal reports that poaching and local offtake of game animals has diminished as a result of the ADMADE program, it has also been alleged, albeit not documented, that scouts have been known to revert to poaching when placed in remote, isolated areas with few resources and little support. The problem of a lack of support was clearly visible in the Chiawa GMA in the Lower Zambezi National Park as compared to the scouts in the Kafue Flats GMA (Lochinvar National Park) who receive support from the WWF Wetlands Project. At issue here is the potential of scouts becoming a counterproductive presence. Without an actual assessment of where this is occurring and the factors to which this is attributable, logic would suggest that (a) the training in the principles and philosophy of wildlife management and conservation does not guarantee that commitment, (b) the commitment wanes without support, and scouts can be swayed if the offer (a financial reward for poaching or permitting offtake to hunters over the quota) is attractive enough,

and (c) scouts are recruited by the chief from his village, hence, their allegiance to the chief and the community may actually come into conflict with their allegiance to NPWS, ADMADE, and wildlife conservation, especially if salaries are not being paid in a timely manner. Interviews with village scouts in the Lower Zambezi National Park also revealed that their responsibility to educate and sensitize the community about the importance of wildlife management is impeded by their isolation and distance from the village with limited access to transportation. Some communities lamented that scouts cannot be relied upon to kill animals found destroying farmers' crops and that field owners should be given the authority to do so (Sichufulo-Mulobezi GMA.) These sorts of problems point to the critical importance of incentives to support the work of the law enforcement capability.

Another major problem to be addressed has to do with the fact that, in essence, the scouts are expected to protect "their" wildlife in their respective GMAs. However, it is not the communities which legally have proprietorship over the wildlife but present legislation vests absolute ownership of every wild animal in the President of Zambia. Also, the Minister of Tourism can legally grant hunting rights in national parks and GMAs. To give one example, people in the West Zambezi GMA have, in their history, been witness to incidents, whereby relatives of a top government official came into the area with a helicopter, killed some animals and took them away. While the case of this region of Zambia called Barotseland is more complicated because of the people's wish to become autonomous from the Republic of Zambia, severe conflicts have arisen between the community and professional hunters and tour operators. According to various sources, the uncontrolled sanctioning of hunting game animals by the Minister has gone unabated and does not get factored into the quota system or NPWS tracking system for licenses issued. These experiences of individual GMAs and communities are part and parcel of the landscape upon which the law enforcement capability is superimposed and ultimately condition the attitudes and expectations of those communities.

B. Benefits to the Community at the GMA Level

The institutional structure for involving resident communities in decision making is the **wildlife management subauthority (WMS)**. It is the decision making body for implementing community development projects funded by the 35% allocation of revenues for that purpose from wildlife management. The WMS operates at the chiefdom level within each unit, is chaired by the traditional chief and consists of the unit leader as secretary, village headmen, teachers, health officers, and agricultural officers. The chief's role is pivotal to the ADMADE philosophy on community participation. ADMADE's strategy has been to support and reinforce the authority and power of the chief as the direct link to the community.

The WMS has recently been supplemented by the placement of **community development assistants (CDAs)**, one in each of the 15 subauthorities in the top eight GMAs (excluding Lunga-Luswishi). Recruited in October 1992, the CDAs were also needed to alleviate the burden of the unit leaders. Their responsibilities include: assisting communities in needs assessment, planning, executing, monitoring and evaluation community development projects and activities (CDO progress report for 1992).

The direct benefits to the community fall into four categories: (1) employment opportunities either directly from the 40% allocation to the wildlife management unit or generated by non-consumptive tourism in the GMAs; (2) community development projects

(from the 35% allocation administered by the subauthorities); (3) training; and (4) access to meat at affordable prices from culling programs. Each one of these benefits is discussed generally in terms of its magnitude and equitable distribution to the community.

1: Employment Opportunities

As previously mentioned, village scouts are one group that has benefitted from employment. The size of this beneficiary group was 450 at the start of the ADMAD program with a potential increase to over 2,000. Village scouts are currently serving 24 of the 34 GMAs. This is felt to be a significant contribution to local economies in view of the scarcity of formal waged employment in remote, rural areas¹. As previously mentioned, the chief selects who (s)he wants from among the community to recruit village scouts.

Employment of carpenters and builders has also been generated by the construction of schools and clinics. While skilled and unskilled labor employed by safari operators are supposed to be recruited from the local community, it has been noted that skilled workers, e.g. cooks and waiters, are often brought from Lusaka (P. Simasiku, pers. comm.).

2. Community Development Projects

The community development projects initiated in the nine GMAs which have generated income from hunting licences have focused on basic social infrastructure, i.e. schools, houses for teachers and clinic officers, rural health centers, and hammer mills. The community projects executed in the subauthorities since 1989 are:

TABLE 1
COMMUNITY PROJECTS EXECUTED SINCE 1989

| GMA | SUB-AUTHORITY | H/MILL SHEL-TER | SCHOOL | T/ HOUSE | RHC |
|--------------------|---------------|--------------------|--------|-------------|-----|
| Sichufulo-Mulobezi | Chikanta | - | - | - | - |
| | Nyawa | - | 1 | - | - |
| | Moomba | 1 | 2 | 2 | - |
| | Siachitema | - | - | 2 | 1 |
| Mumbwa | Mulendema | - | 2 | - | - |
| | Kabulwebulwe | 1 | 1 | 3 | - |
| | Chibuluma | - | 3 | 3 | - |
| Namwala | Keingu | - | - | 1 | - |
| | Musungwa | - | - | 1 | - |
| | Shezongo | 1 | - | 1 | - |
| | Shimbizhi | - | - | 1 | - |
| Kasonso-Busanga | Chiliabufu | - | - | 1 | - |
| | Mushima | 1 | - | - | 1 |

See Tilley discussion paper.

Attachment B

| GMA | SUB-AUTHORITY | H/MILL SHEL-TER | SCHOOL | T/ HOUSE | RHC |
|-----------------|---------------|--------------------|----------|-------------|-----------|
| Lunga-Luswishi | Kasonso | 1 | 1 | - | 1 |
| Fulaza | Lundu | 1 | - | - | 1 |
| Munyamadzi | Nobwalya | 1 | 1 | - | - |
| Chikwa-Chifunda | Chikwa | 1 | 1 | - | 1 |
| | Chifunda | - | 1 | 2 | 1 |
| Lumimba | Chitungulu | - | - | 3 | - |
| | Kazembe | - | 1 | 1 | - |
| | Mwanya | 1 | - | 2 | 1 |
| TOTALS | 9 | 21 | 9 | 14 | 23 |
| | 9 | 21 | 9 | 14 | 23 |

H/MILL = hammermill; T/house = teacher's house; RHC = rural health centre

Additionally, two houses for clinical officers, two extensions to rural health centres and one dip tank were also funded.

Subauthorities are not given information on the total revenues from safari hunting concession fees for their GMAs collected by the WCRF which precludes transparency on the 35 percentage share of total revenues.

While the CDO's progress reports offer accounts of the community's appreciation of these benefits, the distributional aspects and the decision making process with regard to both employment opportunities and development projects are subject to question. As the mid-term evaluation reports, the traditional authority in the GMAs on which the ADMADE concept of participation hinges is not necessarily democratic and varies among chiefdoms. Hammer mills, schools and clinics are often clustered around the chief's residence or in the villages of the chiefs that chair the subauthorities. Chiefs are accused of favoritism in the selection of scouts and anecdotal reports suggest, according to Tilley, that ADMADE is perceived in some areas as primarily a government employment programme benefiting some community members at the expense of others².

Generally, the CDO's annual progress report for 1992 credits the subauthorities for their attempts to empower local people around and within the GMA to have a say in the expression of their development needs and to participate in the distribution of resources and wealth of the GMAs, partly derived from the 35% share. Yet, despite reported information of the subauthorities' good leadership, organization, and commitment, numerous problems with the use and distribution of funds have also been reported in several GMAs. Improper accounting systems and abuse of power and authority have been associated with the operation of the hammer mills. Problems have also arisen from the inadequacy of funds allocated to community development from the 35% share. Schools and clinics are only partially completed and by the time the funds reach the subauthority from the WCRF, they would still be inadequate owing to the devaluation of the kwacha

² See discussion paper, p. 9.

and the increasing prices for building materials. In some cases the 35% share never reaches the subauthorities based on allegations that they were diverted to other uses by the WCRF. On one occasion, the WCRF accountant was said to use the 35% revenue share to pay the salaries of the village scouts for the five-month period due to the liquidity problem in the 40% account from which they are normally paid (CDO's July 1993 progress report). In one GMA disagreement prevails over the signatories for the community development account.

Budgetary problems exist between the WCRF (or headquarters of the NPWS) and the wildlife management authorities, between the WMAs and the subauthorities, or between the members of the subauthorities and the community. These types of problems related to accountability of funds and the fair distribution of benefits are not endemic to all GMAs but attest to the potential for their occurrence. Furthermore, they indicate the kinds of problems which future assistance to the project should be prepared to address and raise the question of whether additional investigation is needed at the GMA level to more clearly pinpoint why and how they occur.

The decision making structures for community development activities have failed to include women, with few exceptions. The CDO's reports have emphasized this fact and asserted that there are no sociocultural norms or beliefs in the various cultures which would prevent women from participating. Having identified this problem, the CDO has sought a solution in the creation of women's clubs whose leaders could represent them on the subauthorities.

It is clear that the mismanagement of the Wildlife Conservation Revolving Fund at NPWS Headquarters and the WMA accounts severely hinders the equitable distribution and delivery of earnings to the respective communities. Even if these were to function properly, consideration must be given to the Zambian market for hunting relative to other countries and how realistic, anticipated trends in safari hunting will affect total remittances to the WMAs (see Technical Analysis). Further, the more community development activities become associated with the NPWS and ADMADE, the more the latter will have to compensate for any disappointments and unfulfilled obligations to the community, to preserve both its own image and the confidence it helped build in the benefits of wildlife management and conservation. Moreover, the expectations of the community for ADMADE to help them meet its basic needs which would further include water wells and boreholes, for example, are only increasing. This seems to explain the inclusion in the NPWS five-year strategy plan of additional income-generating activities and revolving credit facilities which do not rely solely on the 35% allocation. The ADMADE program duly recognizes the need for assistance in financing, marketing, and management to the community, where a hammer mill or an association is formed for the purpose of generating income. Yet, the danger of expanding development activities lies in perpetuating the community's expectations for ADMADE to "take the next step," as the impetus for those activities, such as the women's clubs, is external to the community. Whether the WMA funds should be applied to infrastructural projects or other types of activities is not the issue; more important is that the community is fully charged with the decision making responsibility for the use of the WMA funds. For this to occur, community development assistance will need to relinquish its directive, provider role and, at a minimum, acquire a facilitating role that enables the community to, in effect, lobby for itself.

3. Training

Various types of training programs or short courses have been offered under the ADMADE program. Village scouts undergo a 17-week training at Nyamaluma which covers wildlife management, safari hunting, firearm use, field exercises, social issues, wildlife economics, terms of service, and land use planning.

Community development assistants (CDAs) were given a three-week training in leadership and management skills related to community development specifically. These facilitators are not, however, recruited directly from the community. They also receive additional training on topical issues through the regional SADCC NRMS project. The CDAs are accountable to the community but they have only been in operation for a few months.

Short courses at Nyamaluma have been given to about 60 traditional leaders (chiefs and headmen) in North and South Luangwa to introduce them to the ADMADE policy and expose them to land use planning and community development concepts. Unit leaders have also undergone a professional training course and are eligible for additional training on a merit basis.

In conjunction with the Department of Community Development for Chama, Mpika and Lundazi districts, a training program is being designed for leaders of women's clubs but not funded by ADMADE.

4. Access to Affordable Meat

Culling programs (only four are operating at present) have not been widely initiated but they are intended to provide small but significant amounts of meat to local residents at low prices. Experimental culling programs were started in two GMAs (Munyamadzi and Upper Lumimba). The shooting is mostly done by the local scouts and the culling is centralized around the Unit Headquarters where the skinning sheds and butcheries are located. There were problems with the experimental culling program, among which was the unsuccessful attempt to get the meat to the rural areas away from Unit Headquarters.

There is an experimental tannery at Nyamaluma. Bags and other supplies are made locally and skins are sold.

As of June 1992 (Mid-Term Evaluation report) there were still no culling quotas. Traditional hunters were not adequately involved in the culling experiment. If village scouts continue to cut back on poaching, culling becomes a more critical compensation for ensuring access to animal protein.

Under the ADMADE program, safari hunters are instructed to make game meat obtained from their clients available to local residents, however, empirical information was not obtainable at the time of this report. Also, local residents can now purchase hunting licenses within the GMA instead of having to go to the district councils.

C. Participation and Equity Issues in Wildlife Management

As demonstrated in the previous section, ADMADE's "community-based wildlife management" approach has been focused in forging a relationship between the creation

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of direct benefits to the community and wildlife management. Notwithstanding the operational, distributional, and accountability problems of the community development component, this approach reflects the attempt of the NPWS through assistance from the ADMADE program to gain the commitment to wildlife management on the part of the local communities residing in the GMAs or areas surrounding the national parks. To do that, however, the NPWS must first prove to the community that the benefits of wildlife management are substantial compared to other land use practices or uses of wildlife (traditional hunting). To wit, it can not be assumed that the GMA residents whose livelihoods encompass farming, fishing and other productive activities tied to their natural resource base, attach the same priority to wildlife management as the NPWS. Secondly, the NPWS must be able to demonstrate its commitment to community-based wildlife management by facilitating the control to the community over decisions on the exploitation of and rights to the resource base.

Hence, there remain participation and equity issues surrounding wildlife management that do not fall within the community development component of the ADMADE program. Many of the concerns are addressed in the NPWS' five-year strategy plan and most of them have been raised by the evaluation report or individuals affiliated with the project. Land use planning is a major component which the NPWS has begun to spearhead and is discussed separately below under section D. Land use planning as a management tool is a potential point of departure to introduce a participatory approach to wildlife conservation in broader terms. Other issues cited below are indicative of the need to decentralize operations and responsibilities to the local level.

To date, some of the limitations on the community's participation in or knowledge of decisions affecting their resource base are the following:

1. As mentioned previously in section I.B above, subauthorities and WMUs are not privy to the revenue side of the WCRF as it pertains to the income generated by purchase of hunting licenses in their respective GMAs. Although some issuing of licenses can be done in the GMA, most licenses are issued and all are sold at NPWS Headquarters in Chilanga. The returns go directly into the WCRF which, owing to poor management, fraud and a non-existent system for reconciling revenues with licenses issued, are not necessarily recovered by the GMA in part or in full. The inaccessibility of that information on revenues leaves the subauthorities powerless to hold the WCRF accountable. Most of all, licenses issued directly by the Minister of Tourism are not counted or tracked, although the NPWS is currently proposing policy changes for the Ministry's endorsement to eliminate this problem.
2. Assuming that a community development account will remain a centerpiece of community-based wildlife management, there are other alternative uses to infrastructural projects which community members should be encouraged or "empowered" to initiate and request, such as small loans or grants to start a business, particularly in GMAs generating significant revenues. Benefits do not necessarily have to come in the form of communal projects; the possibility of obtaining a small loan might create more incentives and interest on the part of local residents. Community development staff could act in a facilitating role rather than prescribing projects deemed most beneficial to the community.

3. GMAs currently are not involved in the negotiations and approval of concession leases, the issuance of game license fees, policy issues, project selection, or leases to tour operators for non-consumptive tourism. The WMA is supposed to "act as a planning body for formulating new wildlife policies and appropriate management activities" (Mid-Term Evaluation) but deals are negotiated between the private sector and the Ministry or NPWS. The WMA could identify sites for tour operators or hunting concessions and then call for tenders. They also lack the technical information and an understanding of the economics of wildlife management to participate in choosing who will be awarded safari hunting leases or what the terms of the leases should be. Moreover, the communities do not have the management or business skills to enter into joint ventures with safari operators or outside investors, to, for example, market and sell wildlife.
4. The relationship between the private sector and the local residents varies from one GMA to another. Safari operators do not always hire people from the local community necessarily. Traditional hunters, for example, could be recruited as park guides based on their indigenous knowledge of the flora and fauna. A mechanism is needed to ensure better dialogue between the two stakeholder groups. That forum is likely to be the agreement over a land use management plan (see Section D).
5. There does not seem to be a clear or formal mechanism for resolving land use conflicts that may arise between the local community and outside investors.
6. To date, the ADMADE approach has not treated local communities as primary resource users within the GMA. Traditional hunting, fishing, honey harvesting, use of trees for firewood, building materials, and timber are some of the resource uses that could be accommodated through some type of management plan for the GMA and community development assistance for the formation of resource user groups (Mid-Term Evaluation).
7. While efforts are being made to make resident hunting licenses easier to obtain, some hunters still claim they cannot afford the licenses. Traditional hunters live in areas too remote to go and register their muzzle loaders. Village and regular scouts attested to the fact that putting traditional hunters or poachers in jail did not prevent them from returning to hunting game as soon as they are released (Mid-Term Evaluation).
8. Community has no say in or prior knowledge about changes in hunting regulations, offtake allocations, or game license fee policies, such as last year's pre-payment requirement, and yet these are precisely the measures which directly affect the market for safari hunting in Zambia on which the community's revenues for wildlife management depend.

D. Land Use Planning in the GMAs

The national parks and the GMAs which are a buffer zone to the parks are there to preserve the habitat of the game animals as well as to provide a means to manage the wildlife resource. The GMAs, nonetheless, are also areas which provide business to the tourist industry (which takes tours into the national parks) and the hunting industry and

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livelihood systems to resident communities. For wildlife management to succeed, all of these uses need to be supportive of the wildlife resource and compatible with one another. Community-based resource management derives its significance from the fact that the community is the sustaining force for the conservation of its area's wildlife. Yet, unless the community has access to resources it needs for subsistence and the capacity to manage those resources, inclusive of wildlife, then the wildlife population itself will be at risk. The hunting and tourist activities contribute to the sustainability of the wildlife management system chiefly through the revenues they generate and plough back into the GMAs via the WCRF. This denotes an interdependency between the private sector and the communities; both stakeholders must benefit from the former's business as an income-generating source, and, secondly, the viability of private sector business has to be assured the judicious and sustainable use of the resources by the community.

Conflicts have been known to arise over the use of natural resources and land uses for productive activities. As previously mentioned, local inhabitants engage in fishing, farming, harvesting of forest products for consumptive use, and to some degree, the raising of livestock and small ruminants. The problem is two-fold in that these resource uses at times compete with wildlife management and that communities compete with other stakeholders for land and how that land is to be used. The interest of safari operators, for example, who locate in the GMA as opposed to the national park, might be to improve the accessibility to and size of the wildlife population for their business, whereas local residents with limited access to transportation wish to use the same land as sources of fuelwood, water, and land for agricultural purposes. The issue of boundary setting to check "human encroachment," in some cases, the creation of wildlife sanctuaries, often ensues from competing interests, such as these.

The most notable and recent conflict was a land dispute in the Mumbwa GMA which came under pressure from settlers from the Southern province. The marginalization of rural populations who traditionally herded cattle is said to have resulted from the building of the Kariba dam, the Sugar Estates, and the intrusion of White commercial farmers. These settlers were then granted land by a chief in the Mumbwa GMA, and the dispute arose partially from disagreement among the chiefs over their claims to the land and partially because of the way in which the settlers staked claim to the land, ringbarking the trees in their 80-hectare blocks. The settlers are growing maize and cotton as well as keeping cattle in an area where the perennial pools of the Chungu river supported the wildlife which are a source of income for the indigenous Ila people and has become inaccessible to them. The chief who granted land to the settlers had complained of not receiving his share of last year's revenues from ADMADE which suggests one outcome of the distributional problems of funds to the GMA.

The severe conflicts which have developed between the GMA inhabitants surrounding the West Zambezi National Park and safari hunters are one example of stakeholder competition. The field visit to the Chiawa GMA in the Lower Zambezi National Park also brought to light the intense dissatisfaction on the part of safari operators (non-consumptive tourism) with the "encroachment" of local inhabitants on wildlife habitats for agricultural or settlement purposes.

The urgent need for land use planning in the GMAs has been recognized by stakeholders, including safari operators, the NPWS, and Ministries concerned with other natural resources. ADMADE's community development staff is concerned with enabling

communities to improve the viability of managing while productively using their natural resources. One safari operator interviewed argued for a management plan as the necessary starting point to demonstrate to the community the economic benefit of supporting wildlife conservation/tourism compared to other land uses and to move the negotiation process forward.

The NPWS now has a land use planning unit currently staffed with one officer based at Headquarters in Chilanga. The NPWS 5-year plan calls for 12 additional staff positions for the unit. The first land use plan being developed is for the Mumbwa GMA.³

The land use planning officer described the process for developing a plan. The first step is to develop resource inventories or technical assessments for the GMA which would also document the status of the resource base and conflicts over resources among the stakeholders in the GMA. This report is then presented to the "community" in a broad sense - the subauthorities, women's groups, safari operators, professional hunters, NGOs, government departments. Serving in its role as technical advisor, the NPWS then collaborates with the community on the demarcation of zones for wildlife conservation; harvesting timber; collecting honey or other forest products; reforestation for domestic uses, etc. A policy is established for setting regulations, penalties, and controls on the use of the resource base. This report is then presented a second time to the community for their approval and then to the district for endorsement to give it legal status.

Workshops at Nyamaluma are also held for traditional leaders, representative from other ministries (fisheries, forestry, etc.), community members selected from the subauthorities, and safari operators who offer advice and information on the development of a land use plan. ADMADE is using geographic information systems (GIS) to input the technical and physical data corresponding to a GMA for the purpose of illustrating, testing and finalizing ideas for the plan. The information from the spatial representation is taken back to the community for discussion with unit leaders and others.

According to the five-year plan, the NPWS aims to develop land use plans for GMAs to: (a) ensure sustainable use of all natural resources in a GMA, and (b) ensure harmonious existence of various land uses. Projects arising from land use plans are intended to: (a) improve conservation, protection or reduction of threat to the natural resources in a GMA, and (b) improve the socio-economic welfare of the local people. These efforts would be complemented by education in appropriate land use practices. The NPWS expects to facilitate the coordination of land use plans and their implementation with other government departments and NGOs "in terms of consultations and awareness of what ADMADE is trying to do in game management areas" (p. 20).

Notwithstanding the goals and intentions of the NPWS, some verification is needed on how these are being translated into reality. One example is the management plans for the North Zambezi National Park. They were supposed to have covered the park and the GMAs but no agreement was reached on the structure, substance, process or format.

³As of January 1994 the EEC will be supporting three park planners operating at the NPWS. They will establish park planning teams for all national parks in Zambia and begin working with the major national parks first.

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Hence, the plans were never finalized. The Game Park Plan has been under review by the government for over a year and has still not been approved by the responsible authorities.

The land use plan is, nonetheless, probably the best available tool for resolving resource/land use conflicts and seeking consensus among stakeholders on their rights in the GMA and scale of activities. Without it, the community itself does not have recourse to negotiate proposed land uses in their GMA. Two salient issues emerge from the assumption that the land use plan is the best tool available:

(a) The degree to which the community's interests are represented is embedded in the process of formulating a land use plan, the point at which the various stakeholders are brought together. It is important that this process is mediated in an unbiased fashion, which suggests a potential role for a NGO in addition to the technical advisory role of the NPWS Land Use Planning Unit.

(b) Inasmuch as tour operators wish to use the plan to convince the community of the benefits of wildlife conservation, it is difficult to know what that takes - how much subsidizing to support community development activities is necessary, as in the support rendered by WWF's Wetlands Project; and the requisite scale of benefits (dollars and projects). It is also not known what the cultural barriers are to inviting the tourist business, to expanding non-resident hunting concessions in any particular GMA, or even to seeking a profit from these sources in the face of a significant demand.

If the NPWS were to take the lead on developing the land use plans, the process must be closely monitored to ensure an interactive dialogue between the planning advisors and the local community. Continual feedback and direct involvement of the latter in the development of the plan are vital to building in the community's sense of ownership towards the plan and its utilization for decisions to be made on allocation of resources, investments in the GMA, etc. Participatory methods of gathering the physical and resource data for the plan and assessing the needs and perceptions of the communities need to be explored.

II. TECHNICAL REQUIREMENTS.

Based on the above analysis, it can be concluded that the *concept* of community-based wildlife management should not be abandoned. Involving the local community represents an advancement over the formerly centralized regulation of resource exploitation and a protectionist, prescriptive approach before the ADMADE program was introduced. At issue are the definition and limitations of community development necessary to demonstrate and sustain the benefits from wildlife management. (Support to reinforce wildlife protection measures per se are not included, as it is assumed such responsibilities are being undertaken by the NPWS.) The current structure established under the ADMADE program of vesting authority in traditional leaders of the community is not likely to change. Greater accountability to the community could be built into the structure so that different interest groups are better represented. Hence, assuming the same structure, the following types of activities and functions will need to be undertaken to address the problems and issues that have emerged in the past and to improve upon the manner in which communities are currently being served, motivated, educated, and empowered. Most of these activities and functions are also accounted for in the NPWS five-year plan.

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A. **ESSENTIAL ACTIVITIES AND FUNCTIONS**

1. **Data Collection and Monitoring of Wildlife Population.** The offtake quotas for hunting and culling to date have very little empirical basis, notwithstanding that the system for issuing licenses is not consistently coordinated with a quota system. In fact, the database for the quota system at NPWS Headquarters has not yet been completed. Hence, it is critical that village scouts be utilized and properly trained, not only for poaching control, but to regularly collect data and monitor animal populations, migration patterns, habitat quality, illegal offtakes, etc. Adequate resources and technical support to the village scouts needs to be ensured, i.e. uniforms, food rations, supervision and guidance from the unit leaders and wildlife biologists. Providing incentives at this level of the information chain cannot be underestimated.
2. **Wildlife Biologists.** Wildlife biologists are needed at the command level to instruct the unit leaders and village scouts in the GMAs, monitor the data collection activities, and be responsible for the synthesis and reporting of the information to the NPWS. As currently planned, wildlife biologists will each cover three GMAs.
3. **Decentralized Decision Making on Quota Setting and Sale of Hunting Licenses.** While the NPWS should be responsible for setting quotas, they should be based on some prior discussion with stakeholders. The decision making on issuing hunting licenses (resident, non-resident, traditional) and concessions; distributing quotas; and approving leases for tour operators needs to be decentralized to the GMA level, with information flowing back up to the NPWS Department. The WMA and WMS should be given the authority to make these decisions.
4. **Decentralized Negotiation of Terms for Safari Hunters and Tour Operators.** The GMA through the subauthorities should be more directly involved in the choice of and negotiating terms with safari operators, professional hunters, and tour operators than they already are.
5. **Land Use Planning at the GMA Level.** This function is pivotal to community participation and decision making with regard to the use and management of the GMA's natural resources. The plan could be the basis for a forum among stakeholders in the GMA. The community could also use the plan as a vehicle for setting out a clear understanding and an equitable statement of the rights and benefits of natural resources management and how benefits will accrue to the communities.
6. **A More Decentralized Budgeting System for GMA Funds.** Currently, GMAs are doled out their 35% and 40% shares from the WCRF without any knowledge of the actual revenues generated from hunting fees, hunting rights, and trophy sales in their respective GMAs. Unless the WCRF functions as supposed, it may be more efficient to allow tour operators and safari companies to deposit the shares directly in a district level bank account for the GMAs.
7. **Brokering of Support Services to the Community.** Clearly, the demands for community development initiatives linked to natural resource management will increase, particularly once the management plans get approved. Based on the

experience to date, development projects are meeting some basic needs of the community, but even discrete projects like a school or clinic are vulnerable to poor financial management, inadequate resources or funds to complete the project, or the benefit of a few rather than the whole community. There needs to be an intermediary between the community and the subauthority to facilitate an equitable distribution of the benefits. There also needs to be technical assistance in implementation as well as in community organizing so that various constituencies are represented and supported. This will also call for links with local NGOs and businesses.

8. **Training for Implementation Phase of GMA Management Plans.** The implementation of management or land use plans will require substantial input and initiative from the community. The kind of assistance needed is mostly a function of the implicit need to make natural resource management economically beneficial. Some of this training would necessarily entail how to start small-scale enterprises and market renewable resource products.

B. THE IMPACT OF POLICY AND LEGISLATIVE CONSTRAINTS

Until legislation can be put in place that will vest proprietorship of the wildlife with the leaseholder rather than the Government of Zambia, a lot of the community development assistance will need to focus on instilling a sense of ownership in the community over the process of generating revenues from wildlife management in their GMA. Communities have to be convinced that tour operators will contribute to their welfare and that sacrificing land to tour operators will have something to offer them over and above what the community would otherwise choose to do with the land (opportunity costs). Communities also need to be assured participation in the decision making over the policies that will determine their rights and benefits to be derived from resources in their GMA.

C. CRITERIA FOR ASSISTANCE NEEDED

The aforementioned technical requirements for addressing the community development aspects of wildlife management correspond to a general set of criteria which an organization or combination of NGOs would need to fulfill. These criteria and possibly others could be used as the basis for a terms of reference for the assistance needed outside of the roles and responsibilities assumed by the NPWS.

1. Familiarity with the local, cultural context in Zambia and with the existing institutional network (NGOs, PVOs, public sector, private sector) in order to coordinate activities and mobilize support, as necessary.
2. Knowledge and experience in natural resource management in terms of planning the use of the natural resource base and operating at a grassroots level to develop the capacity for those uses.
3. Experience in the application of participatory methodologies to assist the community in assessing their needs and initiating projects.

4. Experience in community organizing for the purpose of ensuring their involvement in decision making, as it pertains to development projects and the use and conservation of resources.
5. Training capability in natural resource management specific to the resource uses; financial management; enterprise development; business plan development; and environmental education. Other training activities may also be required, as activities expand.

III. OPTIONS FOR IMPLEMENTATION OF ACTIVITIES AND FUNCTIONS

A number of these activities have already been initiated under the ADMADE program, however, that experience has demonstrated the demand potential for community-based projects, the amount of oversight and attention required to ensure an equitable distribution of benefits, and the necessity to assume a broader approach encompassing all resources, not just wildlife, in a GMA management plan. The above-mentioned set of criteria should provide some guidance in determining the most appropriate division of labor among the NPWS, the ADMADE program, international PVOs, and local NGOs as candidates for funding under this project extension (see section III.B below).

There are ten GMAs where ADMADE community development activities have been started and there are 17 additional GMAs with some ADMADE wildlife conservation presence. Different GMAs are likely to require different kinds of assistance and have varying priorities. Some may be more concerned with the completion or installation of project activities for which funds have been allocated, others with improving the decision making institution (the WMS), and others with developing land use plans. The status of GMAs could probably be described in terms of a continuum from the presence of village scouts to the preparedness to develop a land use plan. In between are GMAs which have implemented projects from the 35% fund. Some assessment is needed to ascertain the immediate concerns and the direction in which the community is presently prepared to move. The sooner GMAs can begin developing land use plans, the more organized community development activities and initiatives will become.

To determine which GMAs would qualify for what type of assistance, it is useful to outline some of the factors to be considered when defining the precise nature of assistance (see A below).

A. FACTORS INFLUENCING THE TYPE OF COMMUNITY DEVELOPMENT ASSISTANCE NEEDED BY GMAS

1. **Size, distribution, and homogeneity of population.** Both factors of size and distribution will affect the scale of activities and how broadly the benefits from the 35% fund would have to be distributed. All three factors would help determine the most practical unit for planning projects or initiatives to take advantage of varying ecologies within the GMA (reforestation schemes, beekeeping, fish farming, etc.); to minimize land use conflicts (by taking into account resident community cohesiveness between ethnic groups, indigenous vs. new settlers, etc.); or to establish the infrastructure for income-generating activities or meeting basic needs (culling schemes, schools, clinics, etc.).

Attachment B

2. **Development of land use plan.** The NPWS planning division has a sequence for the order in which GMAs will be given assistance in developing their land use plans. Unless communities begin developing their own plans prior to the initiative of the NPWS, then the facilitator role of a natural resources management/community development NGO or the equivalent would need to come into play as those GMAs are being assisted by the NPWS.
3. **Potential for earning revenues.** Depending on how well stocked and outfitted each GMA is in terms of game animals and infrastructure, revenues from hunting concession fees will vary accordingly. At issue is how much to invest in GMAs with fewer prospects of generating significant earnings for community development activities. This potential could probably be based on past experience.
4. **Track record of the WMA and subauthorities.** GMAs reflect a range of experience in the leadership, management, organization, commitment, integrity, in sum, the capability of the decision making institutions to perform optimally in serving their communities. Barring the impact which the WCRF's poor management has had on the job of the WMA and WMSs, those authorities which show promise of achieving results should probably be given priority.
5. **Relationship with stakeholders.** The resident communities in the GMAs also differ in the nature of their relationship with stakeholders, e.g. professional hunters, tour operators. It would not be purposeful, for instance, to introduce community development assistance in a GMA characterized by hostile relations between the community and other stakeholders. In other cases, the relationship might be positive enough to permit communities to negotiate leases directly with tour operators and safari companies. Where land use conflicts are predominant, the situation might call for more immediate assistance in developing a mechanism for conflict resolution, as the NPWS land use planning office has done in the past.
6. **Track record on reducing poaching.** Certainly, GMAs which have demonstrably reduced poaching should be "rewarded" or further motivated through assistance in realizing benefits from wildlife conservation. For those which have not accomplished much in this area, there is scope for further investigation into why that is the case, but also, these areas would stand to benefit more by greater support to the law enforcement capability.
7. **Links with NGOs.** Appendix 1 to this social analysis lists indigenous and non-indigenous NGOs active in Zambia which have relevance to the assistance which communities would need. It would be more efficient to involve and support NGOs on site to implement activities which fall within their capacity and field of expertise. To wit, a whole new structure for delivering community development assistance does not have to be created for every GMA.

B. ROLES AND RESPONSIBILITIES

1. The NPWS.

It seems evident that support to the local scouts and wildlife management staff who are gathering data, monitoring the wildlife population, or protecting the wildlife

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is a responsibility well within the purview of the NPWS. A more precise definition of how much support to be given to which GMAs for law enforcement and wildlife conservation can be obtained from the Technical Analysis. Training for such purposes also belongs in this category. It is also the responsibility of the NPWS to devolve certain functions to the community level, as pointed out in the section on activities and functions. The continued role of the NPWS as technical advisor in the use and management of the wildlife resource and protection of national parks is equally in order.

What is less certain is the extent to which the NPWS should be involved in the design and implementation of the community development side of wildlife conservation/management. It may be valuable to reinforce the role of the community development assistants to raise the community's awareness of wildlife conservation and its benefits where there is a village scout presence. It should also not be assumed that the NPWS or some other organization should dictate or influence communities on how to spend their revenues. More important is ensuring the WMAs and WMSs as decision making bodies are performing as intended.

The NPWS would prefer to have, in-house, a community development expert who could liaise directly with NGOs active in Zambia. It is concerned with institutionalizing the technical capacity for community-based wildlife management in the NPWS. This staff person would be accountable to the NPWS and offer guidance and training to the subauthorities and seek ways to maximize the use of GMA funding without becoming directly involved in project implementation. The NPWS sees this as a means to build a partnership with the communities.

If the NPWS were to relinquish its responsibility for community development, it is likely to have the following effects:

- a. The NPWS could concentrate on supporting wildlife conservation personnel and on the technical input into land use planning.
- b. The NPWS could also concentrate on strengthening GMAs which have just come on line with wildlife conservation and law enforcement personnel at a level sufficient to enable proper data collection, monitoring, and follow up without spreading its services too thin.
- c. The NPWS would minimize the risk of raising communities' expectations beyond its capacity to meet their needs, while improving its responsiveness to the community in the areas of wildlife conservation; setting quotas and regulating offtake; ensuring provision of meat from culling operations; controlling problem animals; and improving the accessibility of hunting licenses for residents.
- d. Because communities would not be dependent on the NPWS for the delivery of benefits, on the one hand, they would not have the NPWS to blame for uncompleted or unsuccessful projects; on the other, the communities are apt to place greater demands on the NPWS to see that scouts are doing their job; that the WCRF is functioning properly; or that enough tourist and hunting business is being encouraged to generate returns to the local residents. In this way, the NPWS becomes more accountable to the communities, rather than the

communities remaining accountable to the NPWS for how funds are being utilized and managed.

- e. The perspective of the ADMADE staff is that transferring those responsibilities to an intermediary PVO will imply that the NPWS is no longer supportive of a community-based approach and that it wishes to restrict its services to law enforcement.

2. An International PVO.

An international PVO which meets the technical criteria outlined in II.C above could either be contracted through the NPWS or given a separate grant agreement. In the former case, the NPWS would have much greater control over the approach being taken by the PVO. Additionally, the two organizations would probably collaborate more closely; the PVO would be perceived by the community as a partner of the NPWS; and the NPWS would be more in control of where the PVO invests its time and efforts.

Were the PVO to be given a separate grant agreement, it would have a greater degree of autonomy from the NPWS. Its responsibility would be towards the communities and less towards the NPWS. It would, in either situation, complement the work of the NPWS by facilitating the realization of benefits to the communities and devising means to accomplish this more broadly and more equitably. Its autonomy from the NPWS would probably also serve to more easily build the community's confidence in the PVO to represent its interests and communicate its concerns to the NPWS.

3. Local NGOs.

There is an array of NGOs (see Appendix 1) operating in dispersed sites in Zambia which have technical expertise in community development, natural resources management, enterprise development, finance, training, and other areas of relevance. It would be possible for the PVO to offer subgrants to local NGOs for discrete activities, as deemed necessary.

Alternately, a community development expert placed in the NPWS would act as the liaison between the NPWS and the local communities in the GMAs.

APPENDIX 1

| NGO OR PVO | ACTIVITIES/ PROGRAMMES | INDI- GEN- OUS | LOCATION |
|---|--|----------------------|--|
| Africare | water well, borehole and small dam construction; small business development/training; primary health care (clinic construction, nutrition education) | N | |
| Care International | dam project; wells project; drought relief; peri-urban community health | N | Gwembe, Sichili, Lusaka, Southern province, peri-urban areas |
| Center for Global Action - Africa | community-based sustainable natural resource management for promotion of household food security; empowerment programs; human capacity building | Y | Southern province |
| Christian Children's Fund, Inc. | school projects; provision of water and pit-latrines, clothing and food | N | extensive |
| Credit Union and Savings Association of Zambia (CUSA) | agricultural loans to small-scale farmer members; auditing; finance workshops; women's projects | Y | all provinces |
| Development Aid from People to People in Zambia | tree planting and reforestation | Y | Rufunsa, Memena, Chitwi, Fimpulu, Musakumba, Namilongwe, Mangango, Luambwa |
| Energy of Good Will | information and education on reforestation and natural resources | Y | Kasama |
| Family Farms Ltd | agroforestry; agricultural land settlement schemes; boreholes, wells, dams; fishing | Y | Kafue, Magoye, Kayuni, Monze |
| Habitat for Humanity | houses, schools, clinics | N | extensive |
| Human Settlements of Zambia (HUZA) | upgrading and achieving community participation; technical assistance; training | Y | Bauleni, Chawama Kanyama, Chipata, Lusaka |

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| NGO OR PVO | ACTIVITIES/ PROGRAMMES | INDI- GEN- OUS | LOCATION |
|---|---|----------------------|--|
| Institute of Cultural Affairs Zambia (ICAZ) | planning and leadership skills and generating local motivation for self-help initiatives | Y | Lusaka |
| International Culture and Tourism Organisation | tourism, culture and environment research projects and familiarization tours; awareness and education activities | Y | Lusaka |
| International Union for the Conservation of Nature (IUCN) | support to the National Environmental Council and projects in forest, wetlands, assessments, environmental planning and NGO support | N | extensive |
| Kamalamba Development Trust | lobby for development support and encourage local initiative (Solwezi) | Y | Chafukuna, Kamalamba, Mulenga, Mushitala |
| Luena Self Help Association for Development (LUENA SHADE) | schools; health centers; hammermill-nutrition project; food relief; self-help projects (Western province) | Y | Western province |
| Micro Enterprises Development Programme | identify micro entrepreneurs; appraise projects facilitating access to bank loans; training (Northern province) | Y | Isoka, Kaputa, Kasama |
| Mindolo Ecumenical Foundation | leadership training for women, youth, community workers; appropriate technology; community development | N | Kitwe |
| National Centre for Environmental Education (NCEE) | leadership training courses; research | Y | Livingstone |
| NGO Coordinating Committee | income-generating activities for women | Y | Lusaka |
| Oxfam | agriculture; health; social organization; emergencies; water supply; among others | N | |
| Pan-African Institute for Development | women in management; training in environmental management | N | Kabwe |

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| NGO OR PVO | ACTIVITIES/ PROGRAMMES | INDI- GEN- OUS | LOCATION |
|---|--|----------------------|---|
| Salvation Army | community development; women's and youth programmes | Y | Southern, Northern, Western provinces |
| Self Help Development (SHD) | community agro-forestry activities; community and public education (Lusaka, Luangwa, Kasempa, Siavonga) | Y | Mazabuka, Lusaka urban, Luangwa, Kasempa, Siavonga |
| Small Scale Industries Association of Zambia (SSIAZ) | training entrepreneurs in business management; assist in securing financing and technology | Y | Kitwe, Monze, Ndola |
| Village Development Foundation | community animation seminars; training groups for rural transformation | Y | Chipata, Kabwe, Kasama, Livingstone, Mansa, Masait, Mongu |
| Village Grouping Agricultural Multipurpose Co-operative Society Ltd | community initiatives to protect the environment; strengthen indigenous grassroots groups | Y | Lusaka rural |
| Village Industry Service (VIS) | promote small scale enterprise; marketing and credit assistance | Y | Kabwe, Masaiti, Chipata, Mansa, Kasama, Solwezi, Livingstone, Mongu |
| Wildlife Conservation Society of Zambia | environmental education and awareness | Y | Chipata, Choma, Kitwe, Kabwe, Livingston, Luanshya, Lusaka, Ndola |
| Women for Change | establish women's groups; facilitate gender awareness | Y | Southern and Western provinces |
| Women's Finance Trust Company of Zambia Ltd | women's access to credit for small-scale enterprise in rural and urban areas; training | Y | |
| World Wildlife Fund (WWF) | conservation and management of wetland areas; environmental education; antipoaching activities; community- based resource management | N | |

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| NGO OR PVO | ACTIVITIES/ PROGRAMMES | INDI- GEN- OUS | LOCATION |
|--|---|----------------------|-----------|
| Young Women's Christian Association (YWCA) | skills training; income generating; primary health care; appropriate technology | Y | extensive |
| Zambia Council for Social Development (ZCSD) | coordinate social development activities in Zambia; promote alleviation of diseases, ignorance and hunger | Y | |

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