

PARCS

PROTECTED AREA CONSERVATION STRATEGY

ASSESSING THE TRAINING NEEDS OF PROTECTED
AREA MANAGERS IN AFRICA



MALAWI



The WILDLIFE CONSERVATION SOCIETY

**Biodiversity
Support
Program**



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PARCS

Country Report: MALAWI

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EXECUTIVE SUMMARY:

MALAWI

TRAINING NEEDS AND TRAINING OPPORTUNITIES ASSESSMENTS

Introduction

Protected Area Managers (PAMs) play a vital role in the protection and conservation of Africa's rich biological resources. Protected area management in Africa is becoming an increasingly complex task requiring technical skills relating not only to wildlife and tourism, but to management, planning, law, policies, finance and accounting as well.

Traditional training institutions and programs for PAMs in Africa generally have not kept pace with the increasing demands on effective protected area management. The PARCS (Protected Area Conservation Strategy) project seeks ways to facilitate the process of addressing training needs in skills which PAMs themselves recognize a deficiency.

The PARCS training needs and training opportunities assessments address two questions: (i) 'What is needed in respect of PAM training to enhance the conservation of Africa's protected areas?', and (ii) 'What can be done to provide such training for PAMs?'

A questionnaire was designed to gather data on the skills required for protected area management and levels of skill PAMs currently possess. Differences between skills needed for the job and those actually possessed are recognized as a training need. Further information on training needs and training opportunities were obtained through interviews with PAMs and their supervisors.

Training Needs Assessment

In the Department of National Parks & Wildlife (DNPW) there is no specific training program for PAMs. Formal, wildlife institutional training is provided for qualified and experienced intermediate staff at Mweka College, Tanzania. Mweka College graduates assume the rank of Assistant PAM and can become professional Wildlife Officers only after obtaining a university degree. Opportunities for staff to attend university are *ad hoc* and often linked to donor aid programs.

DNPW has no "training plan"¹ which is designed to ensure that all protected area management staff are trained in fields appropriate for their responsibilities. Departmental in-service training is lacking, due mainly to the absence of a departmental training officer.

Eleven PAMs, two Regional PAMs, two Research Officers, and one FOD completed questionnaires. Interviews were also held with directorate staff at departmental headquarters.

Analyses of questionnaire data provided the backbone of the training needs assessment. The levels of skill required for the job (as set by PARCS² in the questionnaire) were first validated to ensure that the questionnaire truly reflected the scope of responsibilities assumed by PAMs in Malawi. Training needs for each skill/ competency were determined by a gap analysis which compared PAMs current skill levels with those that PAMs considered were needed for the job.

Training needs were identified in the following areas:

Technical Skills	Ensuring optimum levels of visitor satisfaction; intervention techniques; and public relations.
Management Skills	Community versus protected area conflict resolution
Planning Skills	Ensuring optimum levels of visitor satisfaction; intervention techniques; and public relations.
Legal Skills	Contract law relating to visitors and concessionaires; collection and export of specimens and materials; public relations and representation; and intervention techniques.
Policies & Procedures Skills	Community conservation & intervention programs.

¹ A Training Plan is defined here as a structured program that operates on a pre-set timetable to ensure all protected area management staff receive adequate and appropriate training to firstly assume their posts; secondly, that professional development and refresher courses are offered regularly; and thirdly, that monitoring and evaluation of training programs is undertaken

² The PARCS' team of consultants set knowledge levels based on their own experiences in protected area management in Africa and on comments & opinions from both government and NGO management professionals

Finance & Accounting Skills	Community finance and disbursement; shared resources and principles of internal control.
Mental & Social Skills	"Problem Analysis." "Creativity." "Evaluation." "Written Skills." and "Working with Others" related to infra-structure development: tactical plans and budgets: ensuring optimum levels of visitor satisfaction; intervention techniques: community relations: research, and public representation.

The main constraint on PAMs meeting their job responsibilities is the lack of in-service training provided by DNPW. All PAMs and Regional PAMs interviewed remarked on the absence of in-service training and agreed that such training is necessary for professional development (Section 2.3.6). A further constraint on PAMs' job skill development is the absence of a departmental "training plan."

PAMs expressed opinions on what subjects should be offered through in-service training, which included:

- Latest developments in management & research techniques;
- Game capture and translocation;
- Finance and accounting;
- The role of research in protected area management;
- Tourism management; and
- Development of community conservation programs: which address issues of community access to, and sustainable use of, resources within protected areas.

Much stands to be gained regionally by capitalizing on the bee-keeping and mopane-worm projects which are presently underway in Malawi. These projects involve the sustainable harvesting of resources within National Parks by peripheral communities, and as such are different from other community-based conservation projects in the region. Malawi's approach could be capitalized on by creating a series of workshops, seminars, and/or short courses which involve the participation of local communities, PAMs, other departmental officers and consultants. These workshops, seminars, and/or course would show how cooperation between government and the public can produce effective conservation management and sustainable resource use within the boundaries of protected areas.

Training Opportunities Assessment

No institutions in Malawi address the specific needs of PAMs. However, Bachelor of Science graduates are recruited from Chancellor College, in Zomba, for professional positions in research and management for DNPW. All wildlife

technical training is undertaken either at Mweka College or at one of the Technikons in the Republic of South Africa. Staff trained at Mweka College normally fill Assistant PAM posts, and later, if they are eligible to do so, may attend one of the listed universities (Annexe 2) to obtain a degree.

For junior ranks in the DNPW, training is conducted mainly at the Natural Resources College (NRC), in Lilongwe. Although DNPW provides a lecturer for NRC, it has very little input into curriculum or syllabus development.

Recently DNPW has looked for other training opportunities for its junior technical staff and is now considering the Forestry school at Dedza, which offers a more field-orientated approach to training.

DNPW has an Environmental Education (EE) center in Mzuzu. However, for special training in EE, staff may be sent to either Jordan Hill College or the International Centre for Conservation Education (ICCE), both in the United Kingdom.

SECTION 1: PROTECTED AREA CONSERVATION STRATEGY (PARCS)

1.1 THE APPROACH

1.1.1 Africa's system of national parks and protected areas constitutes one of the most important safeguards of the continent's rich biological diversity. Protected Area Managers (PAMs), the decision makers in the field, play a critical role in the overall functioning of these areas. In recent years a number of observations on factors constraining effective Protected Area management, drawn from experiences in the field, have been made. They include:

- a The job of a PAM is becoming an increasingly more complex task, requiring technical skills relating not only to wildlife and tourism, but to management, planning, law, policies, finance and accounting as well.
- b Traditional training institutions and programs in Africa generally have not kept pace with the increasing demands of the PAM's job.
- c Courses offered at leading wildlife institutions are often too theoretical, academic, broad-based, host-country specific, and habitat-specific.
- d Few PAMs have access to the formal training opportunities available.
- e Few data exist on the effectiveness, relevance, and value of traditional and non-traditional forms of training for PAMs.
- f The capacity for institutions to train and develop training programs needs to be strengthened.
- g Existing training institutions and programs need to revamp their curricula to address the specific needs of PAMs.
- h Relevant training opportunities outside the traditional conservation sector need to be identified and made available to PAMs.

1.2 THE PROJECT

1.2.1 In light of the above the PARCS project seeks to address two questions: (i) What is needed in respect of PAM training to enhance the conservation of Africa's Protected Areas? and (ii) What can be done to provide this training for PAMs?

PARCS is attempting to address these questions by:

- a undertaking a participatory assessment of training needs, priorities, constraints, and opportunities for PAMs in three regions of sub-Saharan Africa (east, central, and southern).
- b developing and establishing, in a participatory manner, (pilot) training processes to implement recommendations from the project's training needs and opportunities assessments; and
- c developing a broad series of recommendations for training protected area management staff.

1.2.2 The PARCS project is envisioned as a multi-year activity. During the first year (Phase I) an in-depth participatory assessment of training needs, priorities, opportunities and constraints, was completed in each region. Specifically, for PAMs, the assessment was designed to:

- a assess skills needed for effective protected area management;
- b assess present skill levels;
- c determine the types, amount and frequency of training currently received by PAMs;
- d assess training needs of PAMs;
- e identify constraints to adequate and effective training;
- f identify the institutions and programs presently used for training;
- g identify potential opportunities for relevant training; and
- h identify pilot activities to test innovative training methods.

1.3 OVER-ARCHING QUESTIONS

1.3.1 Data generated by the training needs and training opportunities assessments will be used to answer a suite of over-arching questions which address the main points outlined in Section 1.2. The questions used in the assessment are listed below and are divided into broad, general categories of enquiry, each with a sub-set of more specific questions.

1.3.2 The Questions:

1.3.2.1 **What are the responsibilities of a PAM? Are they universally recognized?**

- a What are the descriptions and understandings of the responsibilities of a PAM, currently declared by resource management authorities?
- b What are the responsibilities recognized by PAMs?
- c How do PAMs perceptions compare with PARCS' perceptions?
- d How do trainers' perceptions compare with PARCS' perceptions?
- e Has the job of a PAM changed over the last 20 years?
- f What are others' perceptions? Do they match PAMs' and/or PARCS'?

1.3.2.2 **What are the constraints on PAMs meeting their job responsibilities? Where does training fit in?**

- a Where are the overall constraints?
- b What is the importance of training in overcoming constraints?

1.3.2.3 **Are PAMs skilled to the level necessary to do the job? If not, where are the deficiencies?**

- a Are skills satisfactory compared to PARCS' perceptions of job skills?
- b Are there differences between biomes in the technical knowledge of PAMs?

1.3.2.4 **What training has been received by current PAMs that is perceived by them as useful: how much and what kinds, and relevant to which job requirements?**

- a What existing training has been received by PAMs?
- b Comparisons of types of training received by PAMs (in respect of years of service) that has contributed most to gaining skills.

- c Does training received cover all major requirements?
- d How well does existing training prepare PAMs? Does type of training received reflect the degree of preparation for job requirements?
- e What do training programs aim for?

1.3.2.5 **Assessment of Field Operations Directors (FODs)**

- a What are the responsibilities of senior management positions?
- b What kind of training has been received in these areas?
- c What are FOD training priorities?

1.3.2.6 **What further training is required?**

1.4 **THE PROCESS**

- 1.4.1 The PARCS project is coordinated by the Biodiversity Support Program (BSP), and implemented by a collaborative group of three non-governmental organizations (NGOs): African Wildlife Foundation (AWF), Wildlife Conservation Society (WCS), and World Wildlife Fund (WWF). AWF is the lead organization in eastern Africa; WWF is the lead for PARCS in southern Africa; and WCS has assumed lead responsibility in francophone central Africa.
- 1.4.2 Funding for PARCS comes from the Bureau for Africa of the U.S. Agency for International Development (U.S.A.I.D.). Supplementary funding has been provided by WWF. AWF, WCS and WWF have all contributed staff time to the project as well. Furthermore, each collaborating organization is drawing from its expertise and experience with related on-going activities in the field, to enhance the PARCS assessments.
- 1.4.3 The methodology for the PARCS assessment was developed during a four-day workshop in Nairobi, in August 1992. The workshop participants included the three NGO Regional Managers (RMs), the BSP core-team member, and a facilitator (a training specialist) from Price Waterhouse. [For full details on the methodology, please see Annexe 1: "Protected Area Conservation Strategy (PARCS): The Methodology."]

1.4.4 Following the workshop, the methodology was reviewed by a number of key members of the conservation community in Kenya and Zimbabwe and a sampling of wardens from several African countries. The RM in southern Africa conducted a trial assessment of training needs in Malawi between September 13 through October 2, 1993. The methodology was also reviewed by the core team in September 1993, and was amended in light of those reviews.

1.5 GOAL OF THE METHODOLOGY

1.5.1 The main tool of the training needs assessment was a questionnaire (Annexe 1), which was designed at the methodology workshop in Nairobi. A questionnaire approach was adopted for the following reasons:

- a The questionnaire could be designed as a matrix and serve as an efficient and practical way to present the array of specific skills required for the job of a PAM;
- b It would provide a convenient tool to compare external assessments of the skills required of the PAM, with the PAMs' own perceptions of required skills;
- c It would provide a way by which to gather both qualitative and quantitative data to assess training needs; and
- d It would lend itself well to standardized data extraction, analysis, and comparison across the three regions of Africa.

1.5.2 A strength of the questionnaire is that it is not just a means of gathering information, but it is a training tool in and of itself. The process of leading the PAM through the questionnaire has been designed to stimulate thought and discussion on the important facets of protected area management. In fact, the questionnaire may well influence the way some PAMs look at their jobs and their role in managing protected areas.

1.6 TARGET GROUPS

1.6.1 The primary target group for the PARCS assessment was the Protected Area Manager (PAM), the highest ranking manager on-site in a protected area. Across the many countries in the PARCS assessment, a wide variety of individuals with a multiplicity of titles may act as PAM (e.g. Regional Officer, Warden, Senior Warden, etc.). In order to identify the appropriate individuals for the assessment in each country, it is necessary to carefully examine organizational structures and job

descriptions.

1.6.2 In some countries problems in protected area management may result from the placement of higher level staff who have little, if any, experience in such fields as management and planning. Hence, in countries where the PARCS RM and his/her core team representative deemed it possible and desirable, the assessment was broadened to include the level of management above the PAM (i.e. Field Operations Director (FOD), at the government's conservation authority's (CA) headquarters).

1.6.3 It was also recognized that in many cases the job of PAM will eventually be filled by individuals immediately below this level (depending on organizational structures and the procedures of the organization). The RM and his/her core team representative may therefore decide to include in the assessment, individuals directly below the PAM. In Tanzania, for example, there are senior wardens, wardens, and assistant wardens, so assistant wardens may be included in the assessment.

1.6.4 The categories of people who may be asked to participate in the assessment are listed below:

- a Subordinates to the PAM (e.g. Assistant Warden) and other individuals who are likely to work as PAMs in the future;
- b Protected Area Manager (PAM);
- c Officers senior to PAMs, and other individuals who have recently worked as PAMs;
- d Field Operations Director (FOD);
- e Trainers/lecturers at wildlife institutions where PAMs receive training; and
- f Research Officers.

1.7 TARGET COUNTRIES

1.7.1 The PARCS assessment was intended to cover as many countries in eastern, central and southern Africa as possible. In this way, the end product should provide a comprehensive assessment of the training needs and opportunities over a sizeable part the continent.

1.7.2 Practical realities, however, inevitably dictated that in-depth assessments can only be done in some countries, limited assessments in others, and no assessments in yet other countries. In-depth assessments involve in-country site visits, and follow the

methodology described in this document. Limited assessments involve more cursory assessments, often conducted from outside the country using means available (limited use of the questionnaire through selective interviews and mailings, collection of baseline data through telephone interviews, literature searches, etc.).

1.7.3 The practical realities that dictate where assessments are conducted include, but are not limited to:

- a government cooperation:
- b USAID cooperation:
- c civil war/unrest:
- d relative importance placed on a country's biodiversity and protected areas *vis a vis* other countries in the region: and
- e potential for follow-on activities.

1.7.4 Decisions regarding priorities for the use of time and funds among these countries are the joint responsibility of regional managers and their respective core team members.

1.7.4.1 Categorization of countries is as follows:

East Africa

In-Depth Assessments: Tanzania (including Zanzibar), Kenya, Uganda, Ethiopia.
Limited Assessments: Somalia.

Central Africa

In-Depth Assessments: Cameroon, Congo, Rwanda, Zaire.
Limited Assessments: Burundi, Central African Republic, Gabon.

Southern Africa

In-Depth Assessments: Botswana, Malawi, Zambia, Zimbabwe.
Limited Assessment: Mozambique.
Special Assessment: Republic of South Africa (training opportunities only).

1.8 PRELIMINARY GROUNDWORK

1.8.1 Regional Managers arranged an initial meeting with a senior official of the appropriate government CA in each country to describe the PARCS project. In a

subsequent meeting, which may have been attended by the authority's training officer as well, the following information was sought:

- a Organizational structure for the whole Department and, if available, for individual protected areas;
 - b Minimum requirements for, and descriptions of, the job of PAM, FOD, and other positions as appropriate;
 - c Training records;
 - d In-service training programs (i.e. How often provided? Who plans programs? Number of staff attending courses? Financing?);
 - e Formal wildlife training institutions used (i.e. Who attends institutions? How many people?, etc.);
 - f Other training opportunities (i.e. workshops/ seminars: who attends? how many people? financing?, etc.);
 - g Number of Departmental training officers (i.e. job descriptions?); and
 - h training programs (annual budget, evaluations, constraints).
- 1.8.2 Since PARCS is intended to be conducted in an adaptive way, reflecting the needs and wishes of government programs and interests in training, the government CAs were invited to plan how the PARCS project should be conducted.
- 1.8.3 It was explained to the CAs that the preferred (PARCS) strategy for conducting the questionnaire is for the RMs to hold interviews and discussions with PAMs and make site visits to directly observe protected area management. The RMs would, however, tailor their approach to individual country circumstances. Options for conducting the questionnaire were:
- a to explain the questionnaire and have the PAM complete it with the RM nearby to assist;
 - b to explain the questionnaire and leave it for the PAM to complete on his/her own time;
 - c to explain the questionnaire in a workshop and have PAMs fill it out individually;
 - d to mail out the questionnaire; or

- e to use a consultant or colleague to do one or more of options a-c.
- 1.8.4 The CA Director was then invited to decide which method was best for the PARCS assessment, and requested to help set up meetings and/or workshops with PAMs. The Director was also asked to recommend people to talk to about training opportunities.
- 1.8.5 RMs then arranged meetings with FODs during which they were asked to complete the needs assessment questionnaire as an independent validation of PAMs' own responses.
- 1.8.6 Where appropriate, the RM discussed the FOD's position and training needs, including such topics as:
- a Strategic planning;
 - b Development and compliance of policies, procedures, and standards;
 - c Representation of organization and public relations;
 - d Planning optimal deployment of well-motivated competent staff;
 - e Development and achievement of operational plans and budgets;
 - f Planning for availability and optimal deployment of technical specialist services from headquarters to protected areas;
 - g Ensuring availability of hardware and software necessary to achieve organization's objectives, within budget; and
 - h Managing concessions in protected areas.
- 1.8.7 The FOD was asked to: verify that these are the key aspects of the job and to comment on the list; indicate what kind of training is needed to accomplish these tasks, and what the constraints are to obtaining this training.

SECTION 2: TRAINING NEEDS ASSESSMENT

2.1 INTRODUCTION

2.1.1 Protected Area System

- 2.1.1.1 Malawi lies entirely within the Zambebian Regional Centre of Endemism (ZRCE), dominated by *Brachystegia-Julbernardia* woodland. ZRCE is the largest biome in the afrotropical realm, and probably has the richest and most diverse flora of all Africa's phytochoria, with the widest range of vegetation types. Local, highland areas in the north and south fall within the Afrimontane Regional Centre of Endemism (ARCE), characterized by various kinds of forest and high altitude grassland cover. The northern plateaux support plant and animal communities which reach the southern limits of their distribution in Africa. Thus, Malawi "bridges" floral and faunal elements of eastern and southern Africa. Lake Malawi, the southern-most of the Rift Valley lakes is biologically the richest freshwater lake in the world, with very high levels of endemism amongst the cichlid fish fauna.
- 2.1.1.2 Three categories of protected area are recognized in Malawi: National Parks, Game Reserves, and Forest Reserves. Table 1 lists the NPs and GRs, whose combined areas cover 11% of the country. Forest Reserves occupy a another 10%, and mainly function to protect watersheds.
- 2.1.1.3 Outside protected areas little wildlife exists, except in specialized areas such as the Elephant Marsh and along the shore of Lake Malawi.
- 2.1.1.4 Of particular importance to Malawi's protected areas is the general lack of an effective buffer zone system. With Malawi's burgeoning population pressuring the government to make more land available for agriculture, it has become inevitable that conflicts have arisen.

Table 1 National Parks and Game Reserves of Malawi

Name	Status	Area (km ²)
Nyika	National Park	3,134
Kasungu	National Park	2,136
Lake Malawi	National Park	94
Li. onde	National Park	348
Lengwe	National Park	887
Vwaza Marsh	Game Reserve	986
Nkhotakota	Game Reserve	1,802
Majete	Game Reserve	690
Mwabvi	Game Reserve	340

2.1.1.5 Attempts to resolve conflicts around protected areas have included allowing controlled (i.e. licensed), sustainable harvests of resources within protected areas (e.g. bee-keeping in Nyika National Park and Mopane Worm collection in Kasungu National Park).

2.1.2 Protected Area Authority

2.1.2.1 National Parks and Game Reserves are administered by the Department of National Parks and Wildlife (DNPW) within the Ministry of Forestry and Natural Resources. The Forestry and Fisheries Departments fall within the same Ministry.

2.1.2.2 The National Park Act of 1964 was amended in 1973 with the establishment of DNPW (formerly the Game Division of the Department of Forestry and Game). The Act provides for control of all activities within DNPW's protected areas. No protected area may include private land, and no area may be reduced in size without a specific resolution by the Parliament.

2.1.2.3 The organizational line of authority within DNPW is given below.

CHIEF PARKS & WILDLIFE OFFICER

DEPUTY CHIEF PARKS & WILDLIFE OFFICER

Principal Parks & Wildlife Officer (FOD)

Senior Parks & Wildlife Officer (Management) Senior Parks & Wildlife Officer (Research)

Parks & Wildlife Officer (PAM) Parks & Wildlife Officer(PAM)
Assistant Parks & Wildlife Officer (Asst. PAM)

Technical Assistants and Scouts

2.1.3 National Conservation Policy

2.1.3.1 Master-plans, produced in 1983 for Malawi's National Parks and Game Reserves, outline a policy for the derivation of utilitarian benefits from natural resources. Wildlife is seen to be a legitimate form of land use in situations which do not conflict with food security and other forms of resource conservation.

2.1.3.2 The broad aims of the conservation policy are to:

- a Maintain the country's fauna and flora in the interests of science;
- b Protect Malawi's natural heritage; and
- c Provide recreational and educational facilities for citizens and visitors.

2.1.3.3 Three classes of resource management are recognized: conservation, utilization, and control.

Within the category 'utilization,' for example, there are seven approaches identified from which the people of Malawi may benefit from wildlife, which include:

- licensed hunting;
- culling;
- game ranching;
- vertebrate pest control;

- trade in game trophies; and
- tourism.

2.1.3.4 Five principles underlie Malawi's policy towards wildlife management and utilization:

- management by a professional agency;
- adequate funding to support the above agency;
- an adaptive management research program;
- public education and participation; and
- international cooperation.

2.1.3.5 The wildlife policy gives relatively low priority to tourism, although wildlife-related tourism will be encouraged in areas under the jurisdiction of the Department of National Parks and Wildlife, provided it does not conflict with conservation, research, or other management objectives.

2.1.4 Status of Current Training Programs for PAMs

2.1.4.1 There is no specific training program for PAMs in the DNPW. Formal, wildlife institutional training is provided for qualified and experienced intermediate staff at Mweka College, Tanzania. Mweka graduates assume the rank of Assistant PAM. They can become professional Wildlife Officers only after obtaining a university degree.

Opportunities for staff to attend university are *ad hoc*, and often linked to donor aid programs. DNPW has no "training plan" which is designed to ensure that staff are trained in fields appropriate and specific to their present responsibilities. Departmental in-service training is lacking.

2.1.4.2 Staff training records are kept, but little follow-up evaluation is conducted.

2.1.4.3 DNPW currently has three staff enrolled at Rhodes University and two at Canterbury. These students include a FOD, a Regional PAM, and 3 PAMs pursuing respectively a Ph.D, a Masters of Science, and Bachelors of Science. There are also four technical staff enrolled in the diploma course at Mweka College. On average, over the last five years, DNPW has sent two technical staff per year to Mweka College.

2.1.5 Recruitment to the Post of PAM

2.1.5.1 There are two main routes by which DNPW staff become PAMs. One is by immediate hire after university, and followed by six-months induction training. The other avenue by which staff become PAMs is by progression

through the various junior and intermediate Departmental ranks, culminating in enrolment at Mweka College.

At present, it is mainly Research Officers (ROs) who are recruited directly from university to the Department's professional ranks. PAMs (trained at Mweka College) secure their professional qualification by serving a number of years in senior technical positions (Assistant PAM), and then obtain a science degree from university. Occasionally, due of staff shortages in the management branch, experienced ROs temporarily fill vacant PAM positions.

- 2.1.5.2 The majority of PAMs interviewed in Malawi were trained at Mweka College. Although they are technically PAMs, by PARCS' definition, these individuals were not considered professional Parks and Wildlife Officers by the DNPW. Senior Technical Officers (Assistant PAMs) are temporarily serving as PAMs while their colleagues are receiving training at Mweka College or overseas universities.

2.2 METHODS

2.2.1 Introduction

- 2.2.1.1 Malawi was the first country to be visited in order to test the efficacy of the newly-developed questionnaire. A number of points were raised following the completion of the questionnaires which resulted in significant amendments to the methodology.
- 2.2.1.2 The questionnaire was modified to include a new 'Main Division of the Job' (Row K), which covered the need to balance resource conservation with use of protected areas. This modification resulted in thirteen additional questions being asked.
- 2.2.1.3 Questions relating to how long PAMs had been employed in their respective departments, and how long they had been responsible for managing a protected area were also added at a later date.
- And finally, an extra page was included in the questionnaire to cover past training received which was not indicated in Row L.
- 2.2.1.4 The amendments to the questionnaire which followed its field-testing in Malawi potentially could have affected the depth of data analysis. However, it was subsequently felt that the shortfall in data would not significantly alter the overall training needs and opportunities assessment.

2.2.2 Data Collection

- 2.2.2.1 Three visits were made to Malawi to hand out questionnaires and conduct interviews: one in September 1992, one in November 1992, and one in June 1993. Interviews were conducted with the DNPW Headquarters staff (including FODs) in Lilongwe and at Regional headquarters in Mzuzu.
- 2.2.2.2 All PAMs were visited at their field-operations bases in the protected areas where they worked, and all were interviewed on a one-to-one basis.
- 2.2.2.3 As Malawi was chosen to be the first country in which the questionnaire was tested it was felt important that any difficulties PAMs had with the questionnaire-- understanding the instructions, phraseology, meaning of questions, etc.-- should be addressed on the spot. Thus, all questionnaires completed by PAMs were filled out in the presence of the RM, and queries tackled as they arose. The Regional PAMs and FOD who had a better understanding of the questionnaire's wording and objectives, merely had the instructions explained to them and were left to complete the questionnaire on their own. When the questionnaires were returned to the RM, points needing clarification were discussed, and where necessary any gaps in the questionnaires were completed.
- 2.2.2.4 Before PAMs started to complete the questionnaire, a presentation on the PARCS Project, its goals and objectives, was given. The RM introduced the questionnaire as PARCS' perception of the tasks, skills, and competencies required to be an effective PAM. It was then explained that the questionnaire is a tool to help PAMs identify their own training needs. During a discussion with PAMs following completion of the questionnaire, general views on its usefulness were sought.
- 2.2.2.5 Three IUCN categories of protected area fall under the jurisdiction of DNPW:
- a Management Category II - National Parks (n = 5);
 - b Management Category IV - Game Reserve (n = 4); and
 - c Management Category X - World Heritage Site (Lake Malawi National Park).

Each of these categories was included in the questionnaire sample taken in Malawi.

2.2.3 FODs Training Needs

- 2.2.3.1 The training needs of FODs in Malawi were not determined through questionnaire analysis. These needs were discussed during interviews and were based on the questions set out in paragraph 1.8.6 in Section 1 above.

2.2.4 Data Analysis

- 2.2.4.1 Results from the analyses of questionnaire data were expected to provide the backbone of the training needs assessment. In order to analyze the data, it was necessary to determine whether or not the levels of knowledge ('some', 'working', 'in-depth') considered appropriate by PARCS for skills in the various competencies within each "Main Division of the Job" were in agreement with those considered appropriate by the different categories of respondents (Assistant PAMs, PAMs, FODs, Research Officers, Trainers, etc). A validation analysis was, therefore, designed which compared PARCS score with respondents' scores for each question. An average percentage agreement between PARCS and respondents' scores was calculated and, if above 70%, the questionnaire was considered 'validated,' with the levels of knowledge set by PARCS being considered on average to be correct.
- 2.2.4.2 To determine where a gap in knowledge occurred between what was required for a given skill (as set by PARCS and validated by respondents) and the actual level of knowledge possessed by each respondent, (i.e. a training need), a 'gap' analysis was carried out. This analysis involved comparing PARCS' and respondents' scores and looking for positive differences (i.e. gaps of +1, +2 and +3). Positive scores arise when the level of knowledge set by PARCS for a given skill is higher than the level possessed by the respondent. The bigger the gap, the greater the training need. Negative scores and scores of zero indicate that a respondent has higher knowledge (or at least the same as set by PARCS) than that required for the skill in question.
- 2.2.4.3 Although PAMs were the principal target group for the training needs assessment, other groups (e.g. FODs, Research Officers, etc.) were also asked to complete questionnaires, not to assess their own training needs but, rather, to indicate what they thought the levels of skill knowledge were for PAMs they had worked with and/or supervised. This process was deemed important from the point of view of obtaining perspectives on PAMs skills, and training needs, from sources other than PAMs.

2.2.4.4 Analysis of Questionnaire

2.2.4.4.1 To facilitate analysis of all data generated by the questionnaire, a set of Data Sheets was designed to store and sort data and to facilitate computer analysis. The following seven Data Sheets comprised the set:

- DATA SHEET A: Used for recording 'Accountabilities & Responsibilities' additional to those associated with each Main Division of the Job.
- DATA SHEET B: Used for recording scores of 'Knowledge' skills (both the score which respondents considered to reflect the skill level required to do the job of a PAM, and the score which respondents considered reflected PAMs skill levels).
- DATA SHEET C: Used for recording responses to statements on 'Mental & Social' skills.
- DATA SHEET D: Used for recording responses to the three 'Attitudes' questions.
- DATA SHEET E: Used for recording responses to knowledge of local languages and use of computers.
- DATA SHEET F: Used for listing the three training priorities identified by respondents linking them to the sixteen Competencies, and the eleven Main Divisions of the Job in the questionnaire.
- Sheet F is also used to list the form of training considered best to address each training priority.
- DATA SHEET G: Used for summarizing training already received as described in Row L (K for Malawi) of the questionnaire.

2.2.5 Gender Ratio

2.2.5.1 The gender of each respondent completing a questionnaire was recorded to determine the relative proportions of men and women involved in protected area management in Malawi.

2.3 RESULTS AND DISCUSSION

Introduction

Throughout this Section of the report reference will be made to figures and tables which present results drawn from various analyses of questionnaire data. Each figure and table is defined by a PARCS number which refers to the paragraph in the Results Section where the figure/table is presented. These PARCS numbers are to be used in all country reports to allow direct comparisons of training needs within and between countries in the three regions in which PARCS Phase I was conducted. However, because of individual country differences in data collection and presentation it may be necessary to include new figures and tables and/or delete others. Each figure and table when presented in its chronological order will, where appropriate, be accompanied by its PARCS number in parenthesis.

2.3.1 Data Collection

2.3.1.1 A summary of the number of questionnaires given out and completed, and the number of people interviewed during the three visits to Malawi is given in Table 2.

2.3.1.2 Only one of the 17 questionnaires handed out was not completed and returned. Therefore, the overall return rate was 94%.

Included in the PAM sample was a departmental officer assigned to teach at the Natural Resources College, Lilongwe. This officer was not designated as a Trainer, one of the PARCS categories of respondents, because the level to which students at NRC are taught is much below that needed to be a PAM.

2.3.2 Background Information Sheets

2.3.2.1 Where possible, and appropriate, information on each of the country's protected areas was gathered (details of the kinds of information sought are given in the PARCS Methodology document, Annexe 1). A Malawian consultant was hired to collect this information which was to give an indication of the levels of support, both financial and staffing, to each protected area. Much of the information required was not, or could not be made, available. However, the information sheets, completed as best they could are included in Annexe 2.

Table 2 Summary of questionnaire completion & distribution, and interviews conducted in Malawi, September and November 1992, and June 1993

QUESTIONNAIRES: GIVEN OUT - 17 COMPLETED - 16				
Position	Interview only	Method *		Total
		1	2	
PAM + Asst PAM		11		11
Regional PAM			2	2
FOD (for PAMs)			1	1
Researcher		1	1	2
TOTALS		12	4	16

*

1 = Questionnaire completed in presence of RM.

2 = Questionnaire instructions were explained, and then the respondents completed questionnaire on their own.

2.3.3 Respondents' Years of Service and Years as a PAM

2.3.3.1 The PARCS Reference Number, unique to each questionnaire, contained coded information on how long the respondent had been in the service of his/her department and how long he/she had held the post of PAM. The years of service, and years as a PAM, for the eleven respondents in Malawi are shown in Figures 1 and 2 (PARCS 2.3.3a and 2.3.3b).

2.3.3.2 Figure 1 shows that the majority (n = 9) of PAMs had served in the DNPW for at least six years, with four having served for more than ten. Only two PAMs had less than five years of employment with the Department.

2.3.3.3 The data for 'Number of Years as a PAM' are unfortunately incomplete, due to not having considered this information important at the time the questionnaire was developed and first tested in Malawi.

Of the six PAMs who responded only two had held responsibility for managing a protected area for more than five years.

2.3.4 What are the responsibilities of a PAM? Are they universally recognized?

2.3.4.1 PAM: Job Description and Responsibilities

2.3.4.1.1 Among staff of the DNPW, including the various categories of PAMs, FODs and other senior departmental officers, a high level of consensus was reached on the nature of responsibilities of PAMs. None of the respondents made any deletions to Column 1, Rows A-K, under 'Accountability & Responsibilities' on the questionnaire, and three additions were recorded. These were:

(i) preparing "expenditure planning estimates," under Main Division of the Job C;

(ii) responsibility for "disseminating information" on intervention programs to all interested parties, under Main Division of the Job G; and

(iii) responsibility for "ensuring that negative visitor activities are kept to minimum levels", under Main Division of the Job F.

2.3.4.1.2 Only one respondent (who graduated from Mweka College in 1992, and had therefore been a PAM for less than six months) gave a "not applicable" reply to one of the questions: 'knowledge of intervention needs, techniques and implications.'

2.3.4.1.3 Since detailed job descriptions for PAMs were either non-existent or non-available, there was no possibility of matching PARCS' perceptions of responsibilities with official, departmental ones.

2.3.4.2 Validation Analysis for Knowledge Skills

2.3.4.2.1 In terms of validation between PAMs' and PARCS' scores for 'Knowledge' skills (Columns 2-7, Rows A-K), an analysis was conducted which compared the scores given by PAMs in the left-hand box of questions 1-56 under 'Knowledge', with those of PARCS.

The results of the validation are given in Figure 3 (PARCS 2.3.4b). The six sets of histograms show where positive differences (values 0,1,2,3) and negative differences (-1, -2, -3) between PAM and PARCS scores for the six 'Knowledge' competencies occurred. Positive values (over-scored) indicate that PAMs consider the level of knowledge required to perform a given skill is lower than the level considered appropriate by PARCS, and negative values (underscored) indicate that higher levels of knowledge are required.

2.3.4.2.2 [In the analyses of responses by PAMs to the various sections of the questionnaire described below, it should be remembered that the number of questions being considered in the analysis is lower than for other countries in the region. Once again, this difference is due to the fact that Malawi was chosen as the 'test-case' country for implementing the questionnaire. Amendments to the questionnaire meant more questions were included for later assessments. For more information, please see 'Data Collection' above.]

2.3.4.3 Technical (Wildlife & Tourism) Knowledge

2.3.4.3.1 PARCS underscored six of the 13 questions in this competency. Areas where PAMs thought the level of skill required to do the job was higher than the level indicated by PARCS were:

- knowledge of infrastructure, sitings, materials, etc;
- extension methodology, and the cultural/historical context for the location of protected areas;
- research methodologies and the role of research; and
- knowledge of activities in the protected area, for public relations reasons.

2.3.4.3.2 Nearly 60% of respondents felt that PARCS had considerably underscored knowledge needed on the cultural/historical context for the protected area's location; which could be an indication of the importance PAMs feel about the heritage value of the country's protected area system.

A minority of PAMs (generally less than 20% responses) thought PARCS had overscored the skills levels for Technical Knowledge in seven areas:

- safe practices with respect to wildlife;
- visitors' expectations;
- interaction between tourist and local areas;
- intervention techniques, needs and implications; and
- research, and the geographical context of the protected area's location.

2.3.4.4 Management Knowledge

2.3.4.4.1 PAMs generally believed that the levels of knowledge required of 'Management' skills needed to be higher than the levels set by PARCS.

In five of the ten questions in this competency more than 80% of the responses indicated that one higher category of knowledge was needed, and for two questions-- 'Knowledge of human resource techniques and their appropriate application' and 'Knowledge of the obligatory attendance at public relations meetings'-- the level of knowledge considered needed was two categories higher.

In one area, a few respondents thought that PARCS had overscored levels of knowledge for management skills, the principal areas being management of casual labor, management of catering facilities for visitors, and protected area versus people conflict management.

2.3.4.5 Planning Knowledge

2.3.4.5.1 PAMs' responses to this competency were almost entirely of the view that PARCS had underscored planning knowledge skills in Malawi. All PAMs, for example, felt that 'In-depth' knowledge was needed for job planning. 90% of respondents felt that 'In-depth' knowledge was a prerequisite for budgeting and control, and the development of community conservation plans. Furthermore, 70% of responses to knowledge of the development of research plans were for 'In-depth' skill level rather than the 'Working' knowledge level indicated by PARCS.

2.3.4.6 Legal Knowledge

2.3.4.6.1 There was general agreement on PARCS' scores for Legal knowledge.

However, a small percentage of PAMs thought that PARCS had significantly underscored on employment laws, contract law, legal matters relating to community development, and laws of slander and libel.

2.3.4.6.2 Two areas were identified by 25% of the responding PAMs as being somewhat overscored by PARCS (i.e. two levels of knowledge above what was considered by PAMs to be appropriate), viz laws and regulations relating to intervention programs and legal aspects of collecting/exporting specimens and materials.

2.3.4.7 Policies & Procedures Knowledge

2.3.4.7.1 PAMs considered that eight of the ten skills in this competency were overscored by PARCS, and the overall validation of PAMs scores with PARCS was the lowest of all six competencies under 'Knowledge.' Clearly, Malawi PAMs consider Policies & Procedures skills less relevant to their protected area responsibilities than the other five competencies under 'Knowledge.'

2.3.4.8 Financial & Accounting Knowledge

2.3.4.8.1 There was generally a high degree of consensus between PAMs and PARCS on the level of skill required for the various job components under this competency. However, there were a couple of notable exceptions, both where PARCS overscored skill levels. These exceptions were in the areas of the keeping of, (a) financial records of disbursements to communities, and (c) records of resource use, or resources shared, within communities.

2.3.4.9 A measure of agreement for the validation scores (PAMs versus PARCS) was determined by considering all questions for which the validation scores were either +1, 0, or -1, i.e. relatively accurate. The percentage of responses in these three categories for all six competencies under 'Knowledge' are shown in Table 3 (PARCS 2.3.4c).

For Malawi, competency averages ranged between 57.5% (Legal) to 98.2% (Financial & Accounting). The overall accuracy score of the assessment was 88.8% (Table 3 [PARCS 2.3.4c]).

2.3.4.10 One FOD, two Regional PAMS and two Research Officers (ROs) were requested to complete the questionnaire in order to validate both the PARCS' and average country scores for each question (Table 4 [PARCS 2.3.4d]). In general, there was close agreement between the target validators' scores and those of PARCS and PAMS. However, the FOD underscored technical knowledge of infrastructure, construction, sitings, materials, etc. The ROs underscored management of casual labor, employment law, and community development legislation. Not surprisingly, ROs overscored on the knowledge required of PAMs for research activities.

2.3.4.11 Changing Views on the Role of a PAM

2.3.4.11.1 Among the sample of PAMs who completed questionnaires, two had been in the employment of the DNPW for only up to five years, five people had been employed for between and ten years, and four people had been employed for

more than ten years (Figures 1 [PARCS 2.3.3a]).

In discussion with these officers it was apparent that the role of a PAM in protected area conservation and management was not fully understood or appreciated.

The questionnaire itself vastly improved the PAMs' perception of the skills required of the job, and confirmed PARCS' view that their present views on the role of a PAM were not up-to-date.

PAMs who had held their posts for more than five years felt that considerable changes had occurred in the scope of protected area management in Malawi. Most notable of the changes were the new responsibilities relating to community-based resource utilization, tourism management, and understanding the role of research.

2.3.4.12 Discussion

2.3.4.12.1 It is a gratifying result that protected area management staff (PAMs, FODs, etc.) in Malawi agreed very closely with PARCS' perceptions of the scope of responsibilities and the levels of knowledge required of PAMs. All respondents felt that the questionnaire itself was an excellent and accurate tool to conduct a training needs assessment.

2.3.4.12.2 During post-questionnaire discussions with PAMs two important points were consistently raised:

(i) the style and structure of the questionnaire greatly increased awareness of the scope of responsibilities and skills needed of PAMs in Africa, and

(ii) for the first time ever, PAMs were given the opportunity to evaluate themselves in terms of job skills; while concurrently contributing significantly to a needs assessment designed to address their own skills enhancement.

2.3.4.12.3 The questionnaire was further considered by the DNPW staff to be useful in setting down future guidelines for training needs, and stimulating the development of an effective In-Service training program for PAMs.

2.3.5 Are PAMs skilled to the level judged by this training needs assessment to satisfactorily do their job? Where are the deficiencies?

2.3.5.1 'Gap' Analysis for Knowledge Skills

2.3.5.1.1 A 'Gap Analysis' was used to compare PAMs' 'Knowledge' scores against PARCS' scores. This analysis is designed to give an indication of the difference between PAMs' perceived skill levels, and skill levels deemed necessary by PARCS. The results are shown in Figure 4 (PARCS 2.3.5a). Each of the six histograms, representing the six competencies under 'Knowledge,' show the differences in scores between PAMs and PARCS. Negative values indicate the PAMs' skill is higher than that required for the job; positive values indicate a training need; and zero values indicate exact agreement between PAMs and PARCS as to required knowledge. The greater the difference between PAMs' and PARCS' positive scores, the greater the training need in that competency.

2.3.5.2 Technical (Wildlife & Tourism) Knowledge

2.3.5.2.1 Training needs (i.e., scores > 0) were identified for 12 of the 13 skills (Column 2, Rows A-K) under Technical Knowledge.

The highest training needs (scores of 2; there were no 3 scores) were recognized for:

- knowledge of safe practices with respect to wildlife;
- all knowledge related to ensuring optimum levels of visitor satisfaction; and
- intervention needs, techniques and implications, and research methodologies.

2.3.5.2.1 These results suggest that, in general, there is a need for further skills development in all technical areas of protected area management.

Tourism is becoming an increasingly important aspect of a PAM's responsibilities in Malawi and this is highlighted by the results. Problem animal control (intervention techniques) is another key area identified as having a high knowledge gap. PAMs in Malawi are constantly faced with situations where crop damage is being caused by animals (including birds) which venture across protected area boundaries onto community farm-land. This situation is exacerbated by the lack of effective buffer-zones around

Malawi's parks and reserves, which results in cultivation edging right up to park and reserve boundaries.

2.3.5.3 Management Knowledge

2.3.5.3.1 There were fewer 'gaps' in the needs for training in the various skills in this competency than in Technical Knowledge. Only two areas-- management of accommodation and catering facilities, and protected area versus people conflict management-- were identified as needing training at much higher levels (scores of 2) than set by PARCS.

2.3.5.3.2 The Management Skills identified as priority training needs are closely linked to the technical ones described above under Technical Knowledge.

The main management interventions that PAMs are concerned with are culling and problem animal control. These are two activities which often have a direct bearing on local community welfare.

As DNPW moves towards greater involvement in community conservation programs, the need for its protected area management staff, especially PAMs, to be able to understand and resolve conflicts between the Government's conservation mandate and the needs and desires of communities adjacent to protected areas will assume paramount importance.

2.3.5.4 Planning Knowledge

2.3.5.4.1 Planning as whole (Rows A-K) was a key training need, with scores of 2 and 3 for five of the nine skills in the competency. Areas with highest training needs (scores of 2 and 3) were for:

- planning staff development and timetables;
- long and short-term visitor plans; and
- job planning, and developing community conservation plans.

2.3.5.4.2 As PAMs assume greater responsibility for protected area management (see 2.3.4.11), they are being called upon more frequently to contribute to planning processes at all levels, including regarding issues of staffing, resource management, and community conservation. Good planning skills develop with time and experience, but often situations arise which require PAMs to become involved with planning when their skill levels do not match the task at hand.

The results here support the contention of PAMs (through interviews), that the speed with which planning skills are being developed is lagging behind the levels required.

2.3.5.5 Legal Knowledge

2.3.5.5.1 Training needs were identified for eight of the nine legal skills listed. Four skills in particular were considered key areas (scores of 2) for higher levels of training by PAMs:

- contract law applicable to visitors and concessionaires:
- laws and regulations relating to intervention programs:
- legal aspects of collecting and exporting materials and specimens; and
- legislation relating to the representation of protected area interests in public meetings.

2.3.4.5.2 The legal aspects of protected area management are no longer restricted to patrolling, and apprehension and prosecution of poachers. Today, PAMs need to be equipped with a much wider range of legal knowledge covering human rights, trade and commerce, and public relations.

PAMs have indicated that they are deficient in most areas of legislation pertaining to protected area management, except perhaps anti-poaching. They have identified, especially, the need for greater depth of knowledge of the legal aspects of scientific collection and trade in wildlife products. These issues are both sensitive, which if improperly handled could result in embarrassment to DNPW.

2.3.5.6 Policies & Procedures Knowledge

2.3.5.6.1 This competency ranked high in training needs for all ten skills evaluated (8 skills with scores of 2; 3 with scores of 3).

The skills with scores of 3 were:

- visitor policies and procedures;
- intervention programs; and
- policies and procedures concerning community conservation.

2.3.4.6.2 Policies and Procedures is a competency with which PAMs have had little experience. It is a group of skills which is normally required of staff in more senior, decision-making positions. However, as the scope of PAMs' responsibilities broadens they will be drawn into situations where knowledge of these skills is required, as indicated in particular, for dealing with community conservation programs.

2.3.5.7 Financial & Accounting Knowledge

2.3.5.7.1 Training needs were identified for five of the six skills under this competency with greatest gaps (scores of 2 or 3) occurring in the following areas:

- community finance and fund disbursement;
- records of resource use and shared resources in communities; and
- general accounting principles and internal control.

2.3.5.7.2 PAMs are not normally involved in major budgeting and financial allocation processes, but they often have local (i.e. specific to their own protected area) budgeting responsibilities.

Decentralization of financial control has always been a sensitive issue, but the sooner PAMs become familiar with accounting procedures the more competent they will become in dealing with the important financial issues they have targeted as needing improved knowledge. This issue is particularly relevant to community conservation programs. Basic skills in finance and accounting can be learned through specialized in-service training, or by attendance at courses run by business institutions in the private sector.

2.3.5.8 Discussion

2.3.5.8.1 Since target validators' (FODs) validation scores and those of PAMs themselves were similar to PARCS' scores (all > 70% agreement). No further gap analysis was needed.

2.3.5.8.2 To determine where the training needs existed in the six competencies under 'Knowledge,' the average (country) value of the difference in skill level (positive scores of 1, 2 and 3) between what PARCS considered necessary and what PAMs actually possessed, was calculated for each of the 56 questions under 'Knowledge' (Table 5 [PARCS 2.3.5d]).

2.3.5.8.3 From Table 5 (PARCS 2.3.5d) the highest difference between the average country score and PARCS' score (i.e. the greatest training need identified) for a given skill was 2.09. This high value related to knowledge of policies and procedures related to community conservation programs. Other high scores indicating training needs were recorded for all technical skills in ensuring optimum levels of visitor satisfaction; techniques in developing long and short term visitor plans; job planning; policies and procedures on staff management; protected area and public relations; and legal aspects of collecting/exporting specimens and materials.

2.3.5.8.4 Data from Table 5 (PARCS 2.3.5d) can be used to derive average scores for training needs in the ten Main Divisions of the Job A-J.

In Malawi, greatest training needs are found in:

- . F (Ensuring optimum levels of visitor satisfaction);
- . G (Ensuring agreed intervention programs are completed to budget & timetable);
- . H (Ensuring harmonious relationships with neighboring communities); and
- . E (Ensuring all activities within the protected area comply with laws and regulations).

2.3.5.9 Validation Analysis for Mental & Social Skills

2.3.5.9.1 Validation analyses were also carried out on 'Mental' and 'Social' skills (columns 8-14 of the questionnaire) using the "Yes" responses to questions under each of the seven competencies. "Yes" responses meant that respondents agreed with PARCS that the skill under question was required for his/her job as a PAM. If the percentage agreement between PARCS and PAMs for "Yes" responses was greater than 70%, then the 'Mental' and 'Social' Skills component of PARCS' job description for PAMs was considered validated.

Figure 5 (PARCS 2.3.6a) shows that a high level of agreement between PARCS and PAMs was reached, with an overall accuracy score of 93.3%. The seven competencies all had accuracy scores of between 85% and 98%.

2.3.5.9.2 To find out where PAMs considered skills identified by PARCS as unnecessary or inappropriate for their job, an analysis of "No" responses was conducted (Table 6 [PARCS 2.3.6b]).

The principal areas (Main Divisions of the Job and Competency:Skill) where PAMs regarded skills unnecessary or inappropriate were:

(i) B: Ensuring Appropriate Infrastructure within Budget. working with the cooperation of suppliers & subcontractors:

(ii) G: Ensuring Intervention Programs are Completed to Budget and Timetable: including Problem Analysis: Creativity: Giving instructions on technical intervention procedures: Writing reports on intervention successes and failures: Gaining cooperation of local communities where appropriate:

(iii) I: Awareness of Research Activities and Progress against Plan - Identifying opportunities for the application of research. Evaluating the results of research and their application. Ensuring research reports are comprehensible to the public sector: (iv) Representing the Protected Area and its Interests in Public Meetings - Preparing press releases.

2.3.5.9.3 Low scores for 'Mental' and 'Social' Skills are shown in Table 7 (PARCS 2.3.7a1). Low scores are those of value 1 or 2 (poor skills or none).

Competencies identified as having significant training needs, (i.e. high cumulative scores of 1 and/or 2), were 'Problem Analysis', 'Creativity,' 'Evaluation,' 'Written Skills,' and 'Working with Others.'

For Main Divisions of the Job, highest cumulative scores were recorded for:

(i) Ensuring the Development and Achievement of Tactical Plans and Budgets:

(ii) Ensuring Agreed Intervention Programs are Completed according to Budget and Timetable:

(iii) Awareness of Research Activities and Progress: and

(iv) Representing the Protected Area and its Interests in Public Meetings.

2.3.5.9.4 Throughout the world's conservation arenas there has been a traditional rivalry between "management" and "research" camps. Both managers and researchers can argue convincingly that one is more important than the other. These arguments have often led to serious rifts in conservation agencies, where management and research function separately; albeit, supposedly, towards common conservation objectives.

It is now common-place in most government protected area authorities that research staff have little understanding of, or interest in, management techniques and objectives, and *vice versa*. However, there is a move these days towards what is known as "adaptive management" which closely links research and monitoring with trial-and-error conservation management. PAMs therefore need to more fully understand and appreciate the role of research and be able to grasp the significance of research findings.

Under 'Mental & Social' Skills training needs, there appears to be a common theme related to understanding what research is all about. The DNPW should therefore take appropriate steps to ensure that PAMs who are weak in comprehension and evaluation of research procedures receive training that improves their ability to incorporate "research thinking" into management techniques and objectives.

2.3.5.10 Attitudes

2.3.5.10.1 Aside from possessing technical skills and knowledge, PAMs must develop leadership qualities which encourage subordinates to seriously consider their own roles in protected area management. Team-building is an important component of a PAM's responsibility.

In order to discover how PAMs tackled the issue of instilling appropriate attitudes towards conservation in their staff, they were asked to indicate what methods they used, or would use, to instill work ethics, commitment to conservation, and positive attitudes towards local communities (Competencies 15, 16 & 17 in the Questionnaire). The PAMs' responses (please see Methodology, Annexe 1) were analyzed on the basis of their years of experience in protected area management.

2.3.5.10.2 Nine basic approaches to instilling work ethics in staff were identified (Fig 6 [PARCS 2.3.8a]): three for PAMs with less than five years experience; six for between six and ten years; and four for more than ten years. PAMs with longer service used different methods than those who were less experienced. Among the less experienced PAMs, there was a tendency for them to rely more on established departmental procedures (e.g. reference to administrative orders, developing performance appraisal schemes and cultivating good working relationships with staff).

The three methods used by PAMs with five or less years experience were: ensuring departmental objectives were explained to staff; showing understanding when taking disciplinary measures; and encouraging

subordinate staff to participate in program formulation.

- 2.3.5.10.3 PAMs used eight methods to instil commitment to conservation in staff (Fig. 7 [PARCS 2.3.8b]). Again, there was a tendency for more experienced PAMs to use different techniques than their less experienced colleagues. Long-serving PAMs adopted a participatory approach, citing such techniques as becoming involved in extension conservation activities (schools/wildlife clubs), participating in the design, implementation and analysis of effective law enforcement programs, and explaining to staff the value of conservation through regular group meetings.

The single response given by a PAM with less than five years of management experience showed the importance of incentives in influencing attitudes to the job: he suggested that low-paid staff (including PAMs!) should be motivated by rewarding them for outstanding job performances.

- 2.3.5.10.4 Methods used by PAMs to instil positive attitudes to local communities are shown in Fig. 8 (PARCS 2.3.8c). PAMs of various levels of experience employed similar methods, reflecting perhaps the recent thinking on approaches to community involvement in sustainable use of resources within protected areas. Typical of the six methods described are: maintaining dialogue with local communities and encouraging staff to become involved with community conservation programs; seeking ways in which tangible benefits can accrue to communities (through resource use) without jeopardizing the area's conservation objectives; and accepting the validity of community participation in protected area management.

2.3.5.11 Language Skills

- 2.3.5.11.1 Since protected area and adjacent community-based conservation objectives frequently need to be linked to strengthen and support national/regional strategies for the rational, sustainable use of natural resources, PAMs are having to become increasingly involved with local community issues. Often, this involvement centers on resolving conflicts between protected area and community interests.

The ability of PAMs to communicate effectively with community leaders, in the language spoken by local communities, over matters of mutual concern is seen by PARCS as an important asset for PAMs to have. To find out to what extent PAMs possessed this basic ability, they were asked to indicate "Yes" or "No" to the question "Do you speak a language understood by local communities living around your protected area?"

2.3.5.11.2 The results are shown in Fig. 9 (PARCS 2.3.9) and clearly indicate that for the most part, PAMs in Malawi can communicate with local leaders in the language of the adjacent communities. The small percentage (less than 10%) of PAMs who responded "No" were somewhat embarrassed to admit as much, but PARCS was quick to point out that the reason for asking the question in the first place was not evaluate a PAM's skill in languages, but rather, to gauge the sensitivity of headquarter staff in positioning PAMs where lack of effective communication could hamper dialogue over 'protected area versus community' conflict resolution.

2.3.5.11.3 In discussing language skills of PAMs with FODs, the latter stressed the difficulties that arose when staff shortages interfered with assigning the right person to the right place. At other times, the DNPW considered it expedient not to send a PAM to a given protected area, even though familiar with the local language, because of the potential influence community leaders could exert on PAMs who came from that, or a nearby, community.

2.3.5.11.4 Those PAMs who were not able to speak directly (i.e. without an interpreter) to community leaders, felt that some form of language training would be useful before being posted to an area where relationships between the protected area authority and local communities were strained.

2.3.5.12 Computer Skills

2.3.5.12.1 More than 90% of PAMs questioned had no computer skills, and few considered computer-literacy as important to their job (Fig 10 [PARCS 2.3.10a]). The minority of PAMs with some computer knowledge were university graduates with experience in research. Uses to which computer skills were put included data storage and analysis and word-processing (Fig. 11 [PARCS 2.3.10b]).

2.3.5.12.2 Regional PAMs and FODs felt there was a growing need for PAMs to become familiar with computing, not only in data storage, analysis and word-processing, but also in budgeting and accounting as well.

2.3.6 What training has been received by current PAMs that is perceived by them as useful? How much? What kinds? Relevant to which job requirements?

2.3.6.1 At the bottom of each competency column in the questionnaire (i.e. Row K) respondents were asked to indicate which type of training had contributed most to their current level of knowledge of skills in that competency.

Four kinds of training are recognized: Formal Wildlife (Institutional): Formal (Other) (i.e. includes short courses at non-wildlife institutions, seminars, workshops, etc): In-Service: and On-the-Job. Further information on training received during employment with DNPW was recorded during post-questionnaire discussions with each PAM.

2.3.6.2 Table 8 (PARCS 2.3.12) shows which kinds of training have been received by PAMs in each of the sixteen competencies under Knowledge, Mental & Social Skills, and Attitudes.

On-the-Job training was indicated for all competencies, reflecting the importance of this type of training to PAM skill development. In only two competencies-- Creativity & Work Ethics-- was Formal Wildlife training not indicated.

In-Service training was the least-received, being recorded for just three competencies, all under Knowledge, viz Planning, Legal and Finance & Accounting.

A modicum of Formal (Other) training was indicated for nine competencies, two of which were those not covered by Formal Wildlife Training.

2.3.6.3 In order to find out how perceptions on training changed with the number of years of departmental service, PAMs were grouped into 5 year categories of experience (1-5 years, 6-10 years, and greater than 10 years), and asked which kinds of training were considered to have contributed most to protected area management skills.

The results of this enquiry showed that for PAMs with five years or less of protected area management experience, Formal Wildlife training (i.e. Mweka College) was considered to have been the most important in skill development.

PAMs with more years experience, especially those in the greater than 10 years experience category, believed that although Formal Wildlife training was initially important, with time its place was taken by On-the-Job training. [Formal (Other) and In-Service training were not considered to have been significant contributors to skill development].

On-the-Job training was valuable however, only up to a point, and experienced PAMs felt that further, specialized formal training was needed to take advantage of, and build upon, skills acquired through years of service. Some PAMs felt that this need could be fulfilled through enrolment at

university, others, through short-courses at say, business, finance, law or management institutes.

- 2.3.6.4 Three professional officers recruited directly from university (two of whom became research officers, the other a PAM) felt that they were initially disadvantaged by their lack of technical wildlife training. Upon assuming their posts, they relied heavily on the advice and support of their Mweka-trained colleagues.

PAMs trained at Mweka College considered their degree-holding counterparts to be poorly prepared for the post. The suggestion that PAMs (new to the post) with degrees should be sent to Mweka College for wildlife technical training was considered unacceptable on the basis that they would be over-qualified for enrollment.

Within the group of university-trained staff those in research felt they learned their jobs faster than their management colleagues. Management staff countered that research officers had fewer responsibilities.

- 2.3.6.5 Table 8 (PARCS 2.3.12) shows that in all sixteen Competencies in Knowledge, Mental & Social Skills and Attitudes, at least two kinds of training, principally Formal Wildlife and On-the-Job, have contributed to skill development.

In four competencies in Knowledge (Technical, Planning, Legal, Finance) and five in Mental & Social Skills (Comprehension, Problem Analysis, Evaluation, Oral, and Working with Others) skills have been developed through three kinds of training - Formal Wildlife, On-the-Job and either In-Service or Formal (Other).

2.3.7 What are the constraints on PAMs meeting their job responsibilities? Where does training fit in?

- 2.3.7.1 DNPW staff sent to Mweka College have had an excellent record of academic achievement. Many Mweka College graduates on returning to the Department and completing two years further service are given an opportunity to attend university.

Despite the importance DNPW attaches to formal training, an obvious constraint on PAMs meeting their job responsibilities is the lack of in-Service training provided (see 2.3.6.2). All PAMs and Regional PAMs interviewed remarked on the absence of in-Service training, and agreed that such training is necessary for professional development.

2.3.7.2 A further constraint to PAMs' job skill development is the absence of a departmental "training plan."

There is a post within DNPW headquarters (equivalent to a FOD) entitled 'Head of Training.' However, this position has never been filled. Although, there is a possibility that it may be funded externally in the near future. One of the key functions of the Head of Training will need to be the establishment of linkages between management plans for protected areas and job descriptions germane to the implementation of such plans. Protected area management cannot be conducted effectively without area-specific management strategies. If these are in place then appropriate training programs could be instituted, based on PAM job descriptions and responsibilities tailored to each protected area's management objectives.

2.3.8 Assessment of Field Operations Directors (FODs)

2.3.8.1 One FOD was interviewed specifically for comments on the skills and training needs of protected area management staff (including FODs) above the rank of PAM. Topics outlined in 1.8.6 were used as a guideline for discussion. The main outcomes of the interview are highlighted in the following paragraphs.

2.3.8.1.1 FODs must play a key role in the link between higher levels of all phases of planning and program implementation.

Training needs: seminars/workshops to review approaches to strategic planning; courses in business management, financial and human resource planning.

2.3.8.1.2 Among the various public relations (PR) activities FODS are involved in, policy representation is probably the most sensitive one.

Training needs: courses on basic PR principles.

2.3.8.1.3 Senior Departmental officers are being required to assume increasing responsibility for decision-making in the field of 'conflict resolution,' both in governmental and non-governmental sectors (e.g. research versus management, and people versus the State).

Training needs: The same need as in public relations above; plus, perhaps, special training in personnel management and personality conflicts.

2.3.8.1.4 Although not a priority issue at the moment, concession management (safari hunting and tourism operations) is expected to loom in importance in the near future.

Training needs: Tourism management, especially in "economic versus ecological" management objectives, and 'cost-benefit' analyses of concession operations.

2.3.8.1.5 'In-house' skills must be passed on (by FODs to other FOD and PAMs) through structured training programs (i.e. in-service training). However, at present in DNPW, time constraints on FODs make it impossible to achieve this objective. The role of senior staff in training should be as facilitatory rather than participatory.

2.3.8.1.6 On-the-job skills training is highly underrated at senior staff levels: the need to acquire on-the-job training in the management of finance and human resources is considered very important.

2.3.8.1.7 FODs (and to a lesser extent, PAMs) must be involved in any training curriculum development at national/regional/international wildlife training institutes.

2.3.9 What further training is required?

2.3.9.1 Protected area management in Malawi has become an increasingly complex job. PAMs and FODs interviewed in the field and at Departmental and Regional headquarters recognize a number of constraints on PAMs meeting the responsibilities associated with effective management of the country's parks and reserves. The first constraint is that the scope of training received at Mweka College-- where most PAMs receive their basic training in protected area management-- is not comprehensive enough to deal with all the issues PAMs are likely to face in Malawi. There is the need therefore to provide supplemental training in areas not satisfactorily covered by the curriculum at Mweka College. However, due to staffing limitations (and to some extent financial ones as well) comprehensive, supplemental training cannot always be provided by DNPW.

2.3.9.2 DNPW provides a lecturer (i.e. university-trained PAM) to the Natural Resources College, in Lilongwe, in order to teach wildlife and related courses to Departmental recruits to the ranks of Senior Scout and Ranger. Graduates from NRC are on-line to attend Mweka College after at least two years further service in the Department. Each lecturer is assigned for two years;

consequently, DNPW is building up a core of experienced "trainers."

2.3.9.3

In-service training for PAMs is not a feature of the DNPW's training scheme. The Head of the Department feels strongly that this kind of training needs to be provided, and would like to see inputs of ideas for courses/workshops/seminars from interested PAMs and other senior officers as well as from external sources (donors, NGOs).

Some of the PAMs who were interviewed during Phase I expressed opinions on what subjects should be offered in an In-service training program. They included:

- . latest developments in management & research techniques;
- . game capture & translocation;
- . finance & accounting;
- . the role of research in protected area management;
- . tourism management; and
- . development of community conservation programs; community access to, and sustainable use of, resources within protected areas.

2.3.9.4

Some skills cannot be taught; they develop cumulatively and opportunistically through performing the various tasks associated with the job. Such on-the-job training has often been underrated even though it may be the most important kind of training for some skills (e.g. problem-solving, personnel management). The main constraint on such training lies with the PAM him/herself: lack of interest, motivation, or curiosity about the tasks at hand.

2.3.9.5

PAMs must take account of what they themselves see as deficiencies in their protected area management skills, and what their supervisors regard as deficiencies.

The PARCS project has highlighted key areas of skill improvement needed by PAMs in Malawi to enhance their job performance (see Gap Analysis above), and these are summarized in Table 9 (PARCS 2.3.12h). The key areas are as follows:

TECHNICAL	Ensuring optimum levels of visitor satisfaction; intervention techniques; public relations.
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MANAGEMENT	Community versus protected area conflict resolution.
PLANNING	Ensuring optimum levels of visitor satisfaction; intervention techniques; and public relations.
LEGAL	Contract law relating to visitors and concessionaires; collection and export of specimens and materials; public relations and representation; and intervention techniques.
POLICIES & PROCEDURES	All Main Divisions of the Job (recognized as a key training need), but with particular emphasis on community conservation & intervention programs.
FINANCE & ACCOUNTING	Community finance & disbursement; shared resources principles of internal control.
MENTAL & SOCIAL	'Problem Analysis', 'Creativity', 'Evaluation', & 'Working with Others' related to infrastructure development, tactical plans & budgets; ensuring optimum levels of visitor satisfaction; intervention techniques; community relations; research, and public representation

2.3.9.6 From the DNPW's viewpoint, PAMs trained at Mweka are deficient in the following skills: Community-based conservation; Personnel management; Budgeting and Accounting; and Planning.

2.3.9.7 It is clear that there is agreement between PAMs and DNPW on some areas of deficiency. These areas should therefore become the focus of any training initiatives undertaken by the DNPW, with the option to include the other identified training needs wherever and whenever possible.

SECTION 3: TRAINING OPPORTUNITIES ASSESSMENT

3.1 Through discussions with the DNPW headquarters staff (including FODs) and taking information from the questionnaires, it was possible to draw up a list of the various institutions used by DNPW to train staff (Annexe 2).

3.2 No institutions in Malawi address the specific needs of PAMs, although Bachelor of Science graduates are recruited from Chancellor College, in Zomba, for professional positions in research and management.

All wildlife technical training is undertaken either at Mweka College or one of the Technikons in South Africa. Staff trained at Mweka College normally fill Assistant PAM posts, and later, if they are eligible to do so, may attend one of the listed universities (Annexe 2) to obtain a degree.

3.3 For junior ranks in the DNPW training is conducted mainly at the Natural Resources College, in Lilongwe. Although the DNPW provides a lecturer for NRC, it has very little input into curriculum or syllabus development.

Recently DNPW has looked for other training opportunities for its junior technical staff, and is now considering the Forestry school at Dedza, which offers a more field-orientated approach to training.

3.4 A university-trained DNPW staff member was contracted to carry out a survey of three training institutions in Malawi: NRC, the Forestry Training School and Bunda Agricultural College (Univ. of Malawi). These assessments are also included in Annexe 2.

3.5 For special training in Environmental Education (DNPW has an environmental education center in Mzuzu) staff may be sent to either Jordan Hill College or the International Centre for Conservation Education (ICCE), both in UK.

SECTION 4: RECOMMENDATIONS

4.1 What present programs could be enlarged/restructured to include training opportunities for PAMs? What other training opportunities exist?

4.1.1 There are a number of possibilities for addressing the needs of PAMs in areas identified by the PARCS project and DNPW by modifying or expanding existing training opportunities. These possibilities fall into three of the four basic types of training opportunity described in the questionnaire: (i) Formal Institutional; (ii) In-Service training, and (iii) On-the-Job training.

4.1.1.1 Formal Institutional In this case, formal training refers to 'non-wildlife' institutional training. Two of the training needs of PAMs (identified by both PAMs themselves and DNPW HQ staff)-- personnel management and budgeting & accounting-- could be addressed by sending staff to one of the institutes of business administration in Blantyre (e.g. Mpemba College).

4.1.1.2 In-Service Training Greater attention should be paid to the role of in-service training as a means of addressing the training needs of PAMs identified in this report. If there was one consistent shortfall in training referred to by all PAMS it was the lack of in-service training provided by the Department.

The constraints on in-service training should be critically evaluated and steps taken to initiate some courses based on key training needs identified by the 'Gap Analysis,' and additional needs deemed important by DNPW.

Potential PARCS, or other donor, involvement in such a training program could consist of providing expertise in preparing a syllabus and materials for each course, developing a course schedule that would fit into DNPW's general training program, and identifying potential course venues and instructors. (Possible venues for instruction include on-site field locations and the Natural Resources College, Lilongwe. The Principal of NRC has already agreed to the use of NRC facilities for specialized training for PAMs.)

4.1.1.3 On-the-Job Training This form of training is very much based on a PAM's individual initiative to recognize opportunities for enhancing job skills. On-the-job training was identified as the most important in contributing to Mental & Social Skills and opportunities need to be provided for PAMs to exercise. One such opportunity would be to get PAMs to seek advice from, and/or work with, more experienced, senior colleagues. DNPW may be able to encourage such "quality" contacts for PAMs by identifying senior staff members who have good communication skills and assign PAMs to them for

short periods.

Potential PARCS, or other donor, contribution to On-the-Job training may simply be to provide suggestions and materials for follow-up activities after PAMs have spent time with a mentor.

4.2 Other recommended training initiatives and programs

- 4.2.1 One objective of the PARCS project is to assist participating, and more specifically, target countries to develop appropriate and sustainable training programs for PAMs. Another objective is to promote inter- and intra-regional approaches to training by providing opportunities for contact between PAMs from different countries and for them to participate in regional training programs.
- 4.2.2 The combination of high morale and professional training of PAMs puts Malawi in a good position for innovative approaches to training. In particular, there could be much to be gained regionally by capitalizing on the bee-keeping and mopane-worm projects which are presently underway. These projects involve the sustainable harvesting of resources within National Parks by peripheral communities, and as such are different from other community-based conservation projects in the region.
- 4.2.3 Other countries are operating projects in buffer zones adjacent to protected areas, and they, almost without exception, involve the consumptive and non-consumptive utilization of wildlife populations.

Malawi's approach could therefore be capitalized on by setting up a series of workshops, seminars and/or short courses which involve the participation of local communities, PAMs, other departmental officers and consultants to show how co-operation between government and the public can produce effective conservation management and acceptable, sustainable resource use within the boundaries of protected areas.

SECTION 5: ACKNOWLEDGEMENTS

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PARCS Phase I has involved four NGOs - AWF, BSP, WCS and WWF -whose staff have contributed in many ways to the success of the project. Thanks to you all.

**SECTION 6:
ANNEXES**

ANNEXE 1:

PROTECTED AREA CONSERVATION STRATEGY (PARCS)
THE METHODOLOGY

Protected Area Conservation Strategy (PARCS)

The Methodology

June 1993

Biodiversity Support Program

*The Biodiversity Support Program is a USAID-funded consortium
of World Wildlife Fund, The Nature Conservancy, and World
Resources Institute*

List of Acronyms

ARTS/FARA:	Office of Analysis, Research and Technical Support/Division of Food, Agriculture, and Resources Analysis
AWF:	African Wildlife Foundation
BSP:	Biodiversity Support Program
FAO:	United Nations Food and Agriculture Organization
FOD:	Field Operations Director
IUCN:	International Union for Conservation of Nature and Natural Resources
NGO:	Nongovernmental Organization
PAM:	Protected Area Manager
PARCS:	Protected Area Conservation Strategy
PARTS:	Policy, Analysis, Research and Technical Support
SADCC:	Southern African Development Coordination Conference
USAID:	United States Agency for International Development
WCI:	Wildlife Conservation International
WWF:	World Wildlife Fund

Glossary of Terms

Core Team: U.S.-based representatives of the NGOs collaborating on the PARCS project.

Field Operations Director (FOD): Manager in the headquarters office (central or regional) who is responsible for managing field operations in protected areas across the country.

Formal Training: Training received through enrollment at an institute or university.

In-Depth Assessments: Assessments conducted under the PARCS project that involve in-country site visits and follow the methodology of PARCS Phase I.

In-service Training: Short-term training (less than 6 months) organized by an individual's employer (e.g., parks department) that is undertaken during an individual's term of service. In-service training may be external or internal. External in-service training is provided by an entity other than the employer. Internal in-service training is provided by the employer. In-service training that is provided to new employees before they assume their responsibilities may also be called induction training.

Limited Assessments: Assessments conducted under the PARCS project that do not involve completion of in-country questionnaires.

On-the-Job Training: Training received through informal means during the normal course of work, such as being given or seeking guidance from other colleagues and supervisors, learning by doing, overlap with individuals formerly holding positions, and handover notes left by predecessors.

Other Training: Training received through means other than formal institutions, in-service training, or on-the-job training. Other types of training may include workshops, seminars and conferences.

Protected Area: An area of land and/or water that has been set aside, by law, to conserve natural resources and be managed by the public sector.

Protected Area Manager (PAM): Highest-ranking manager on-site in a protected area.

Regional Managers: Persons designated by the NGOs collaborating on the PARCS project to conduct the field assessments in southern, central, and eastern Africa.

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I. The Approach

1. Africa's system of national parks and protected areas constitutes one of the most important safeguards of the continent's rich biological diversity. Protected Area Managers (PAMs), the decision makers in the field, play a critical role in the overall functioning of these areas. In recent years, a number of observations related to training for effective protected area management, drawn from experiences in the field, have been made. They include:

- o The job of a PAM is becoming an increasingly complex task, requiring technical skills relating not only to wildlife and tourism, but to management, planning, law, policies, finance and accounting as well.
- o Traditional training institutions and programs in Africa generally have not kept pace with the increasing demands of the PAM's job.
- o Courses offered at leading wildlife institutions are often too theoretical, academic, broad-based, host-country specific, and/or habitat-specific.
- o Few PAMs have access to the formal training opportunities available.
- o Few data exist on the effectiveness, relevance, and value of traditional and non-traditional forms of training for PAMs.
- o The capacity for institutions to train and develop training programs needs to be strengthened.
- o Existing training institutions and programs need to revamp their curricula to address the specific needs of PAMs.
- o Relevant training opportunities outside the traditional conservation sector need to be identified and made available to PAMs.

2. In the early 1990s, a few members of the conservation community began to search for data to support or refute these observations regarding training and protected area managers. It was found that most recent assessments of training in Africa have concentrated on non-managerial staff in protected areas (particularly rangers). Those that concentrate on managerial staff have tended to focus on numbers of people requiring training to meet staffing projections. In 1986, for example, the United Nations Food and Agriculture Organization (FAO) provided a quantitative assessment of human resource needs for protected area management in Africa (Jingu, 1986). There was no attempt in this assessment, however, to examine the content of the

training being offered or to evaluate the merit of the training offered with respect to current needs in protected area management.

3. Dr. Graham Child and Leonard D. Sefu (1987) assessed the needs and priorities for training in wildlife management and utilization in the Southern African Development Coordination Conference (SADCC) region. The assessment involved structured questions that included a series of functions commonly undertaken by wildlife agencies. Top management was requested to rank these as having high, medium, or low significance within their overall operations. These functions were divided into skills needed to execute them. One of the main conclusions of the Child and Sefu report was that outside assistance should focus on middle or upper (or professional) level training. Particular emphasis was placed on equipping the warden grade to undertake its wide-ranging responsibilities, including command, control and development of lower levels of field staff. The findings of the Child and Sefu report provided some relevant and useful data for the SADCC region. On the whole, however, the report does not provide sufficient breadth of data to support or refute the observations listed above.

4. The Protected Area Conservation Strategy (PARCS) assessment was developed, in part, to fill the data gap on training needs, priorities, constraints, and opportunities among protected area managers. The PARCS needs assessment builds on the breakdown of functions adopted in the Child and Sefu assessment, but expands the scope to include a broader range of skills. The PARCS assessment departs from earlier assessments, however, in a number of ways. First, it embraces a participatory approach in that the assessment allows protected area managers themselves to: (i) determine the skills required for the job of protected area manager, (ii) assess their own skill levels, and (iii) help identify where training is presently being obtained in the required skills. Second, the assessment identifies specific, targeted training needs and then examines a wide range of opportunities to match these needs. Finally, the assessment covers the bulk of southern, eastern and central Africa, thus enabling findings across countries and regions to be compared and facilitating the cross-fertilization of ideas and initiatives.

II. The Project

5. The PARCS project seeks to address two questions:
 - (i) What skills do Protected Area Managers need to enhance the conservation of Africa's protected areas?
 - (ii) What can be done to provide Protected Area Managers with training for these skills?

6. The PARCS project will address these questions by:
 - (i) undertaking an assessment of training needs, priorities, constraints, and opportunities for PAMs in three regions of sub-Saharan Africa (east, central, and southern);
 - (ii) establishing a pilot program in each of the three regions to implement recommendations from this assessment; and
 - (iii) developing a broad series of recommendations for training protected area management staff.

7. The PARCS project is envisioned as a multi-year activity. During the first year (Phase I) the assessment of training needs, priorities, constraints, and opportunities for PAMs will be completed. Specifically for PAMs, the assessment is designed to:
 - (i) assess skills needed for effective protected area management;
 - (ii) assess present skill levels;
 - (iii) determine the types, amount and frequency of training currently received;
 - (iv) assess training needs;
 - (v) identify constraints to adequate and effective training;
 - (vi) identify the institutions and programs presently used for training;
 - (vii) identify potential opportunities for relevant training; and
 - (viii) identify pilot activities to test innovative training methods.

8. The information collected in Phase I will be used to guide the development of appropriate pilot programs for training in each of the three regions in Africa to test models of effective approaches, program structures, and teaching methodologies for training (years 2 - 5). At the conclusion of the project, specific training approaches will have been tested and a broad series of recommendations for training protected area management staff will have been developed.

III. The Process

9. The PARCS project is managed by the Biodiversity Support Program (BSP) and implemented by a collaborative group of three nongovernmental organizations: The African Wildlife Foundation (AWF), Wildlife Conservation International (WCI), and World Wildlife Fund (WWF). AWF is the lead organization in east Africa, WWF leads PARCS in southern Africa, and WCI has assumed lead responsibility in francophone central Africa.

10. Funding for PARCS comes from the Bureau for Africa of the United States Agency for International Development (USAID) through the Office of Analysis, Research and Technical Support/Division of Food, Agriculture, and Resources Analysis (ARTS/FARA) project for Policy, Analysis, Research and Technical Support (PARTS). Supplementary funding has been provided by WWF, with AWF, WCI, and WWF contributing staff time to the project as well. Each of the collaborating organizations draws from its expertise and experience with related ongoing activities in the field to enhance the PARCS assessments.

11. The PARCS project is led by a U.S.-based core team consisting of Kate Newman of BSP, Cynthia Jensen of WWF, and Amy Vedder of WCI. Regional Managers representing AWF (Deborah Snelson), WWF (Michael Dyer), and WCI (Annette Lanjouw) are conducting the PARCS assessments in the field. Barbara Pitkin of BSP coordinates the overall activities of the collaborative group, while Deborah Snelson provides field coordination of PARCS activities from the AWF office in Nairobi. Tim Resch is the USAID technical manager for the activity. Data analysis with Panacea software is being carried out by Vitalis Wafula of AWF.

12. The methodology for the PARCS assessment was developed during a four-day workshop in Nairobi in August 1992. The workshop was facilitated by Peter Woolf of Price Waterhouse, and attended by Barbara Pitkin, Michael Dyer, Annette Lanjouw and Deborah Snelson. Following the workshop, the methodology was reviewed by a number of key members of the conservation community in Kenya and Zimbabwe and a sampling of wardens from several African countries. The Regional Manager in southern Africa conducted a trial assessment of training needs in Malawi between 13 September and 2 October. The methodology was also reviewed by the core team in September and amended in light of those reviews. Further revisions were made following the mid-term review meeting for the project held in Harare, Zimbabwe, December 8 - 12, 1992. The Regional Managers conducted a data analysis workshop in Nairobi March 15 - 19, 1993. A second data workshop in Nairobi is scheduled for May 24 - 28.

IV. Target Groups and Geographical Focus

13. The primary target group for the PARCS assessment is the Protected Area Manager, the highest ranking manager on-site in a protected area. Across the many countries in the PARCS assessment, a wide variety of individuals with a multiplicity of titles may act as PAM (e.g., regional officers, warden, senior warden). In order to identify the appropriate individuals for the assessment in each country, it is necessary to carefully examine organizational structures and job descriptions.

14. In some countries, problems in protected area management may be a result of individuals at the directorate level who have little, if any, experience in such fields as management and planning. Hence, in countries where the PARCS Regional Manager and the relevant core team representative deem it possible and desirable, the assessment will be broadened to include the level of management above the PAM (i.e., Field Operations Director (FOD) at departmental headquarters).

15. It is also recognized that in many cases, the job of PAM will eventually be filled by individuals immediately below the level of PAM (depending on organizational structures and the procedures of the organization). The Regional Manager and the core team representative may therefore decide to include in the assessment individuals directly below the PAM level. In Tanzania, for example, there are senior wardens, wardens, and assistant wardens, so assistant wardens may be included in the assessment. In countries such as Zaire, where there are rarely managerial positions below the PAM, lower levels will not be included. There is no intention to extend the assessment to non-managerial protected area staff (e.g., rangers, scouts and technicians).

16. The categories of people who may be asked to participate in the assessment are listed below (i - iv are listed in hierarchical order):

- (i) Subordinates to PAM (e.g., assistant warden) and other individuals who are likely to work as PAMs in the future;
- (ii) Protected Area Manager (PAM);
- (iii) Officers senior to PAMs and other individuals who have recently worked as PAMs;
- (iv) Field Operations Director (FOD);
- (v) Trainers/lecturers at wildlife institutions where PAMs receive training; and
- (vi) Research Officers

17. The PARCS assessment is intended to cover as many countries in eastern, central and southern Africa as possible. In this way, the end product should provide a comprehensive assessment of the training needs and opportunities over a sizeable portion of the continent.

18. Practical realities, however, will inevitably dictate that in-depth assessments can only be done in some countries, limited assessments in others, and no assessments in yet others. In-depth assessments involve in-country site visits and follow the methodology described in this document. Limited assessments involve more cursory assessments, often conducted from outside the country using means available (e.g., limited use of the questionnaire through selective interviews and mailings, collection of baseline data through telephone interviews, and literature searches).

19. The practical realities that dictate where assessments are conducted include, but are not limited to:

(i) government cooperation

(ii) USAID concurrence/cooperation (for those countries being assessed with USAID funds)

(iii) civil war/unrest

(iv) relative importance placed on a country's biodiversity and protected areas vis a vis other countries in the region

(v) potential for follow-on activities.

20. A preliminary categorization of countries has been made. These categorizations may change as the assessments progress. Decisions regarding priorities for the use of time and funds among these countries are the joint responsibility of Regional Managers and their respective core team members.

21. The preliminary categorization of countries is as follows:

East Africa

In-Depth Assessments: Tanzania (including Zanzibar), Kenya, Uganda, Ethiopia

Limited Assessments: Somalia

Central Africa

In-Depth Assessments: Burundi, Cameroon, Congo, Rwanda, Zaire

Southern Africa

In-Depth Assessments: Botswana, Malawi, Zambia, Zimbabwe

Limited Assessments: Lesotho, Mozambique, Republic of South Africa (training opportunities assessment only), Swaziland

22. All countries given in-depth assessments will be considered potential pilot countries for Phase II. It is recognized that only USAID-assisted countries whose USAID missions have indicated that natural resource activities are a priority will be eligible for USAID follow-on activities. At the same time, it is expected that the Phase I assessment will provide the rationale for potential pilot programs in other countries to be funded by non-USAID sources.

V. Preliminary Groundwork

23. For the countries in which an in-depth assessment is to be conducted, the Regional Managers generally initiate the process by sending a letter to heads of government departments that employ and train employees responsible for the management of protected areas to formally invite participation in the assessment exercise. Simultaneously, the BSP coordinator works with USAID to obtain formal clearances from the USAID missions to conduct the assessment.

The Initial Meeting

24. Regional Managers arrange an initial meeting with a senior official, usually the Director, at Departmental headquarters. If there is a person responsible for training stationed at headquarters, that person is also contacted. The initial meeting may be an informal one where the Regional Manager describes the PARCS project and requests information to be collected and/or appointments made in preparation for a more formal meeting. At the formal meeting at headquarters, a standard set of information is requested (see General Information on Training sheets), as well as the organizational structure for the whole Department and, if available, for individual protected areas.

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General Information on Training

For the PAM and FOD, the following information is requested:

--Minimum requirements for jobs

For subordinates to the PAM, the PAM, and FOD, the following information is requested:

--Job descriptions for each type of job (if available, collect)

--Training records? _____yes _____no Kept for which levels? _____

For subordinates to the PAM, the PAM, seniors to the PAM, the FOD, and the FOD's seniors, the following information is requested:

In-service training programs:

Listing of titles/description

How are they planned?

How are decisions made on who will be trained? _____ part of system _____personal initiative

_____credentials _____funding _____other

What is the basis for these decisions?

--General numbers of people trained per year

Formal wildlife training institutions:

Listing of institutions

How are decisions made on who will be trained? _____ part of system _____personal initiative _____credentials _____funding _____other

What is the basis for these decisions?

--General numbers of people trained per year

Other training opportunities (e.g., workshops, seminars):

Listing of titles/description

How are they planned?

How are decisions made on who will be trained? _____ part of system _____personal initiative _____credentials _____funding _____other

What is the basis for these decisions?

--General numbers of people trained per year

--Existence of training coordinator(s) within department? _____yes _____no

If yes, what is the job description?

--Number of trainers

--Percentage of annual recurrent budget spent on training

--List, by donor, the amount of donated funds devoted to training, per annum and over last five years

--Training material provided to staff?
What kinds?

--Any form of bonded service after training? How is it done? Regulations?
Incentives/disincentives?

--Has there been any evaluation of the training program?

--General assessment of training?

--What are the constraints to training?

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25. At the formal meeting at headquarters, a briefing is given on how the PARCS questionnaire may be administered. The preferred strategy for conducting the questionnaire is for the Regional Managers to hold interviews and discussions with PAMs and make site visits to directly observe protected area management. The Regional Managers must, however, tailor their approach to individual country circumstances. Options for conducting the questionnaire are:

- Explain the questionnaire and have the PAM fill it out with the Regional Manager nearby to assist;
- Explain the questionnaire and leave it for the PAM to fill out on his/her own time;
- Explain the questionnaire in a workshop and have PAMs fill it out individually;
- Mail out the questionnaire; or
- Use a surrogate (e.g., consultant, colleague) to do one or more of the first three options.

26. PARCS is intended to be conducted in an adaptive way, reflecting the needs and wishes of government programs and interests in training. The senior official is invited to decide the best method for the PARCS assessment, and to help set up meetings and/or workshops with PAMs. The official is also asked to recommend people to talk to about training opportunities.

Meeting the FOD

27. The Regional Manager may then arrange meetings with FODs during which they are asked to complete the needs assessment questionnaire as an independent validation of PAMs' responses. It is explained that by rating the general skill levels of PAMs in the FODs' organization, training needs will be identified.

28. The Regional Manager may decide to discuss the FODs' position and training needs. This is intended to be an informal discussion. The Regional Manager presents the following as the main aspects of the FOD's job that may carry training needs:

1. Strategic planning
2. Development and compliance of policies, procedures, and standards
3. Representation of organization and public relations
4. Planning optimal deployment of well-motivated competent staff
5. Development and achievement of operational plans and budgets
6. Planning for availability and optimal deployment of technical specialist services from headquarters to protected areas

7. Ensuring availability of hardware and software necessary to achieve organization's objectives, within budget
8. Managing concessions in protected areas

29. The FOD is asked to verify that these are the key aspects of the job and to comment on the list. The FOD is then asked what kind of training is needed to accomplish these tasks, what are his/her three priority training needs and the constraints to obtaining this training.

30. After the initial meetings have been concluded and the strategy for conducting the needs assessment has been set, the needs assessments are conducted as outlined in the following section.

VI. The Needs Assessment

31. A questionnaire approach was adopted for the needs assessment for the following reasons:

- (i) The questionnaire could be designed as a matrix and serve as an efficient and practical way to present the array of specific skills required for the job of a PAM;
- (ii) The questionnaire provides a convenient tool to compare outside assessments of the skills required of the PAM with the PAMs' perceptions of required skills;
- (iii) The questionnaire provides a qualitative and quantitative means of assessing training needs; and
- (iv) The questionnaire lends itself well to standardized data extraction, manipulation, comparison and analyses across and within the three regions of Africa.

32. A strength of the questionnaire is that it is not just a means of gathering information, but it is a training tool in and of itself. The process of leading the PAM through the questionnaire has been designed to stimulate thought and discussion on the important facets of protected area management. In and of itself, the questionnaire may well influence the way some PAMs look at their jobs and their role in managing protected areas.

33. All participants are allowed to keep a copy of the questionnaire upon completion. It is anticipated that the interviewee will refer back to the questionnaire and continue to think about the points raised and perhaps even use it to guide future work. In many African countries, educational material is scarce and, therefore, highly appreciated. It is our intention that the questionnaire will be a useful educational tool.

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Pre-Questionnaire Discussion

34. Before the questionnaire is filled out, the Regional Manager¹ conducts a pre-questionnaire discussion. In that discussion, the PARCS project and its goals and objectives are described. The questionnaire is introduced as the PARCS team's perception of the tasks, skills and competencies required of an effective PAM. It is explained that the questionnaire is a tool to help PAMs identify their own training needs. In their explanation of the PARCS process, the Regional Managers strive to dampen any unrealistic expectations for follow-on activities.
35. The Regional Managers then explain how to fill out the questionnaire. They explain that the main divisions of the job are shown in rows A-K and that the first column shows accountabilities and responsibilities associated with these main divisions of the job. The respondent's first task is to read these responsibilities and accountabilities and add or delete according to their own view of the job.
36. The instructions for completing the boxes in columns 2-7 are then given. Respondents are asked to read each competency and in the left-hand box indicate their own view of the level of knowledge needed to do the job of a PAM within their organization successfully. Then, in the right-hand box, they are asked to assess their own level of knowledge in this area. In the discussion of columns 2-7, it should be made clear that the questions do contain prompts reflecting the views of the team that developed the questionnaire as to the level of knowledge appropriate for the job; respondents should be encouraged to differ with these views where they see fit. It is useful at this juncture to show how the data will be extracted from the left- and right-hand boxes to indicate whether there is a training need (see para 65).
37. The instructions for completing columns 8-14 are then given. Respondents are asked to read each competency and first indicate whether they think it is required to do the job of a PAM successfully. Respondents are then asked to indicate their own level of ability in this area.
38. Instructions are then given for the questions immediately following the questionnaire. It is explained that columns 15-17 should be read to help spark ideas in answering the questions on work ethics, commitment to conservation, and attitudes towards adjacent communities. Respondents are told that these are difficult questions that require some thought and there are no wrong or right answers to these questions. The language and computer questions are then explained; the importance of language is explained with respect to working with local communities.
39. Respondents are told that when they come to the bottom of each column they should complete compartment L by indicating which form of training (e.g., formal wildlife training institutions, in-service training, on-the-job training, or other) has contributed most to their

¹ While Regional Managers may utilize surrogates to conduct certain portions of the PARCS assessment, the term Regional Manager will be used throughout.

knowledge of the subject in that column. They are also asked to list any additional training received past primary school not recorded in row L on the blank final page of the questionnaire. Finally, they are asked to list their three training priorities on the last page of the questionnaire.

40. Direct examples from the questionnaire are used liberally in the pre-questionnaire discussion to help respondents understand how the questionnaire should be completed. Respondents are reminded to read the instructions carefully and to seek clarification on any words/phrases or instructions not clearly understood. Respondents are also reminded to continuously refer back to the main divisions of the job as they go down the skills/competencies columns.

41. Finally, respondents are reminded that accuracy and honesty are required in order to meet the objectives of the project and, therefore, the questionnaire is designed to be confidential and anonymous. Moreover, Regional Managers emphasize to participants that the assessment will not be used to assess individual training needs, but overall training needs throughout the protected areas in a country or region. Hence, it should be understood that people have nothing to lose/win by being anything but honest. Hence, there should be little reason for participants to deliberately provide inaccurate data.

42. Respondents are also informed that the approximate time it will take to complete the questionnaire is 2.5 hours. The questionnaire was created in the word processing program Word Perfect and has been produced in English and in French (see following Questionnaire).

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PROTECTED AREAS CONSERVATION STRATEGY (PARCS): TRAINING NEEDS ASSESSMENT

Four organisations, the African Wildlife Foundation, Wildlife Conservation International, World Wildlife Fund and the Biodiversity Support Program are working together on a project called PARCS. One of the main aims of the project is to identify the skills required for the job of protected area manager and to assess the training needs.

To achieve this we have developed a chart of the typical skills (competencies) required to do the job of protected area manager. We would like you to assist us by doing two things:

- to check the appropriateness of the chart to your job
- to assess your current skill level for each component of the chart

Before filling in the questionnaire please read everything through very carefully. This information will be confidential and will be used to build up an analysis of the training requirements for each country in Africa participating in the study.

The attached chart has 17 columns and 12 rows.

- Rows A-K show main divisions of the job.
- Row L will be used to identify the types of training you have already received.
- The first column shows 'accountabilities and responsibilities' associated with each division A-K. Please add any further accountabilities and responsibilities specific to your job by writing in the relevant compartment.
- Columns 2-17 show the competencies associated with your job in terms of knowledge (2-7), mental skills (8-11), social skills (12-14) and attitudes (15-17).

You will notice that some compartments are blank. These do not need to be filled in.

KNOWLEDGE (columns 2-7)

Knowledge has been grouped into four levels:

1. None has no knowledge of subject matter indicated
2. Some awareness of the subject and general applicability
3. Working sufficient knowledge to complete routine tasks
4. In-depth a breadth and depth of knowledge which enables initiative to be taken in non-routine situations

n/a = not applicable in present job. Please indicate your knowledge level.

We would like you to go down each column 2-7 and fill in the boxes.

In the left hand box put the number which corresponds to your view of the level of knowledge needed to do the job successfully.

In the right hand box (shaded) put the number which corresponds to your assessment of your current knowledge.

eg. in E5:

In-depth knowledge of relevant laws and regulations eg. firearms, arrest, charging and human rights

4 3

Such an answer shows us that the person completing the questionnaire agrees that in-depth knowledge is needed (4 in the left hand box) By putting 3 in the right hand box the respondent has identified a training need.

When you come to the bottom of each column please complete the compartment (L) by showing which form of training has contributed most to your knowledge of the subject in the column. These categories could include: Formal wildlife training institutions (please specify with dates), Other training opportunities (eg. workshops, seminars), In-service formal training (organised by your department), On-the-job training (skills learnt whilst doing your job).

MENTAL AND SOCIAL SKILLS (columns 8-14)

Mental and social skills have been grouped into four levels:

1. None
2. Poor
3. Satisfactory
4. Good

We would like you to go down each column 8-14 and fill in the boxes.

First of all indicate whether each skill is appropriate to your job by circling either Yes (Y) or No (N).

Then indicate in the right hand box (shaded) your level of ability for each particular skill regardless of whether it is applicable to your present job.

eg. in F9:

determining true causes of visitor
dissatisfaction & behaviour

Y N 3

Such an answer shows that this skill is required and the respondent has the required level of skill to successfully complete this aspect of the job. Therefore in this particular case there is no identified training need.

When you come to the bottom of each column please complete the compartment by showing which forms of training have contributed most to your skills in the subject of the column. Use the categories described before. Please list the most important one first.

ATTITUDES (columns 15-17)

The chart indicates the principal attitudes of the job. All we require you to do is to answer three questions.

If you do not understand any of the questions in this questionnaire please leave the boxes empty and move onto the next question.

In order for you to keep a record of your completed questionnaires we are providing two copies of each section and a sheet of carbon paper. The WHITE sheets (numbers 1, 2, 3 & 4) are to be returned after completion. You may keep all of the COLOURED sheets. Once you have completed the questionnaire please carefully tear off the four white sheets and return them in the enclosed addressed envelope.

Thank you for helping us undertake this training needs assessment. We appreciate your time and input.



**Biodiversity
Support
Program**

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Main Divisions of the Job	1. Accountability and Responsibilities	KNOWLEDGE	
		2. Technical (Wildlife/Tourism)	
A. Ensure availability of a competent and well-motivated staff	<ul style="list-style-type: none"> Maximizing potential of allocated staff Responsible for identifying training needs Responsible for recommendations and application of disciplinary measures 		
B. Ensure appropriate infrastructure within budget	<ul style="list-style-type: none"> Responsible and accountable for maintenance, repair, rehabilitation and construction Recommending additional facilities 	Working knowledge of infrastructure, construction, sitings, materials, etc.	<input type="checkbox"/> <input type="checkbox"/>
C. Ensure financial and accounting integrity of the protected area	<ul style="list-style-type: none"> Accountable and responsible for all revenue generated and disbursement (received from headquarters and receipts) Responsible for accurate accounting 		
D. Ensure development and achievement of tactical plans and budgets and contribute to protected area strategic planning	<ul style="list-style-type: none"> Accountable for development of annual plan and budget of protected area Responsible for working within the agreed plan and budget Identify strategic options in the protected area and contribute to strategic planning 		
E. Ensure that all activities within the protected area comply with laws and regulations	<ul style="list-style-type: none"> Accountable for enforcement of law and regulation and ensuring safe practices throughout the protected area 	In-depth knowledge of safe practices with respect to wildlife In-depth knowledge of techniques of anti-poaching	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
F. Ensure optimum levels of visitor satisfaction	<ul style="list-style-type: none"> Responsible for ensuring that the highest levels of visitors' services and practices under his/her jurisdiction are maintained 	In-depth knowledge of visitors' expectations In-depth knowledge of protected area infrastructure techniques, site design and analysis In-depth knowledge of interaction between tourist and local areas	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
G. Ensure agreed intervention (eg. early hunting, problem animal control) programmes are completed to budget and timetables	<ul style="list-style-type: none"> Responsible for design, implementation, and evaluation of intervention programmes to meet conservation objectives in the protected area 	In-depth knowledge of intervention needs, techniques and implications	<input type="checkbox"/> <input type="checkbox"/>
H. Ensure harmonious relationships with neighbouring communities	<ul style="list-style-type: none"> Responsible and accountable for design and implementation of a programme to achieve harmonious relations Responsible for instilling acceptance by staff of the role of local communities in protected area management 	Working knowledge of extension methodology Some knowledge of cultural and historical context for the location of protected area	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I. Be aware of research activities and progress against plan	<ul style="list-style-type: none"> Responsible and accountable for ensuring that research programme is implemented according to the protected area conservation objectives and timetables 	Working knowledge of research methodologies Working knowledge of the role of research in meeting conservation objectives	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
J. Represent the protected area and its interests in public meetings	<ul style="list-style-type: none"> Accountable for ensuring that the protected area is represented in every possible area Responsible for ensuring that the information available about the protected area is up to date 	Up-to-date working knowledge of all activities within the protected area In-depth knowledge of the context of the protected area in the regional/national/global arena	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
K. Ensure an appropriate balance between resource conservation and use in the protected area	<ul style="list-style-type: none"> Responsible and accountable for design and implementation of resource management / protection strategies to meet protected area conservation objectives Responsible and accountable for the preparation, approval, and implementation of a resource conservation management plan for the protected area 	In-depth knowledge of types, locations, trends and requirements of important natural and cultural resources in the protected area In-depth knowledge of types, locations, trends and requirements of threatened and endemic fauna and flora and the key species of the ecosystem. Working knowledge of environmental impact analysis techniques Working knowledge of surveys and monitoring techniques (field data collection/analysis)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
L. Training received			

3. Management	4. Planning	5. Legal	6. Policies/Procedures	7. Financial/accounting
Working knowledge of supervisory and personnel management skills Some knowledge of human resources techniques and their application as appropriate (e.g., job evaluation or worth of job, salary structuring, training needs analysis) Working knowledge of managing casual labour	Working knowledge of scheduling staff development & timetables	Some knowledge of employment laws	In-depth knowledge of staff policies, procedure and practices	
Working knowledge of principles of stock control and procurement Working knowledge of how to apply preventative maintenance	Working knowledge of job planning	Some knowledge of contract law (for writing contracts to subcontractors)	In-depth knowledge of maintenance / construction policies, procedures and standards and procurement procedures	
	Working knowledge of financial planning		Working knowledge of accounting policy and procedures	Working knowledge of accounting and principles of internal control
	Working knowledge of planning, budgeting and control		Working knowledge of overall strategies and direction of his/her organisation (national conservation policy)	
	In-depth knowledge of patrol planning needs	In-depth knowledge of relevant laws and regulations (e.g., firearms, arrest, charging, human rights)	In-depth knowledge of policies and procedures	
Working knowledge of management and accommodation and catering facilities under protected area jurisdiction	In-depth knowledge of techniques in developing long and short-term visitor plans	Working knowledge of contract law as applicable to concessionaires and visitors	In-depth knowledge of visitor policies and procedures	Working knowledge of keeping records of visitor numbers and keeping receipts
Working knowledge of project (job) management	In-depth knowledge of job planning	In-depth knowledge of relevant laws and regulations	In-depth knowledge of policies and procedures related to intervention	
In-depth knowledge of protected area vs people conflict management	Working knowledge of how to develop a community conservation plan	Some knowledge of laws related to community development	In-depth knowledge of policies and procedures related to community conservation	Working knowledge of record keeping for financial disbursements to local communities In-depth knowledge of records of resource use or resources shared - both financial and in-kind distributions
	Some knowledge of development of research plan for the protected area	In-depth knowledge of legal aspects of collecting/exporting materials & specimens	Working knowledge of research policies and procedures	Working knowledge of budget & allocations for research activities
Working knowledge of the concept of public relations and methods of dealing with the media Some knowledge of obligatory role (attendance) at meetings and awareness of activities around the protected area expedient to attend		In-depth knowledge of the legislation regarding protected areas Some knowledge of the laws of slander and libel	In-depth knowledge of the public relations policies, procedures and practices	
	Working knowledge of resource conservation management planning techniques and methodologies In-depth knowledge of how to develop and implement protected area management objectives In-depth knowledge of how to develop and maintain a protected area management zoning system			Working knowledge of how to estimate costs for implementation of resource conservation management plan recommendations

Main Divisions of the Job	1. Accountability and Responsibilities	MENTAL SKILLS	
		8. Comprehension	9. Problem Analysis
A Ensure availability of a competent and well-motivated staff	<ul style="list-style-type: none"> Maximizing potential of allocated staff Responsible for identifying training needs Responsible for recommendations and application of disciplinary measures 	Recognising staff potential/development Y N <input type="checkbox"/>	Determining causes of poor performance and behaviour Y N <input type="checkbox"/>
B Ensure availability of appropriate infrastructure (within budget)	<ul style="list-style-type: none"> Responsible and accountable for maintenance, repair and rehabilitation and construction Recommending additional facilities 	Spotting irregularities and potential hazards Y N <input type="checkbox"/>	Determining causes of specific and trends on equipment and infrastructure failures Y N <input type="checkbox"/>
C Ensure financial and accounting integrity of the protected area	<ul style="list-style-type: none"> Accountable and responsible for all revenue generated and disbursement (received from headquarters and receipts) Responsible for accurate accounting 	Understanding financial implications of information Y N <input type="checkbox"/>	Determining causes of figures not reflecting the true situation Y N <input type="checkbox"/>
D Ensure development and achievement of tactical plans and budgets and contribute to protected area strategic planning	<ul style="list-style-type: none"> Accountable for development of annual plan and budget of protected area Responsible for working within the agreed plan and budget Identify strategic options in the protected area and contribute to strategic planning 	Understanding implications of set objectives including their feasibility Y N <input type="checkbox"/>	Determining true causes of failure to achieve plan and budget Y N <input type="checkbox"/>
E Ensure that all activities within the protected area comply with laws and regulations	<ul style="list-style-type: none"> Accountable for enforcement of law and regulation and ensuring safe practices throughout the protected area 	Understanding applicability of laws and regulations in protected areas Y N <input type="checkbox"/>	Determining true causes of incidences and trends in incidences Y N <input type="checkbox"/>
F Ensure optimum levels of visitor satisfaction	<ul style="list-style-type: none"> Responsible for ensuring that the highest levels of visitors' services and practices under his/her jurisdiction are maintained 	Recognising the significance of physical and statistical information regarding visitor impact Y N <input type="checkbox"/>	Determining true causes of visitor dissatisfaction and behaviour Y N <input type="checkbox"/>
G Ensure agreed intervention programmes are completed to budget and timetables	<ul style="list-style-type: none"> Responsible for design, implementation, and evaluation of intervention programmes to meet conservation objectives in the protected area 	Understanding information that may lead to interventions Y N <input type="checkbox"/>	Determining causes of deviation from intended results of interventions Y N <input type="checkbox"/>
H Ensure harmonious relationships with neighbouring communities	<ul style="list-style-type: none"> Responsible and accountable for design and implementation of a programme to achieve harmonious relations Responsible for instilling acceptance by staff of the role of local communities in protected area management 	Understanding the significance of statistical, physical, written and oral information relating to community-protected area links Y N <input type="checkbox"/>	Understanding underlying causes of conflict both in the long and short term Y N <input type="checkbox"/>
I Be aware of research activities and progress against plan	<ul style="list-style-type: none"> Responsible and accountable for ensuring that research programme is implemented according to the protected area conservation objectives and timetables 	Understanding the significance of research findings and the function of research Y N <input type="checkbox"/>	Determining causes of why research programme is not to timetable Y N <input type="checkbox"/>
J Represent the protected area and its interests in public meetings	<ul style="list-style-type: none"> Accountable for ensuring that the protected area is represented in every possible area Responsible for ensuring that the information available about the protected area is up to date 	Understanding the significance of points raised during press and other meetings Y N <input type="checkbox"/>	Determining the causes of adverse comments in press Y N <input type="checkbox"/>
K Ensure an appropriate balance between resource conservation and use in the protected area	<ul style="list-style-type: none"> Responsible and accountable for design and implementation of resource management/protection strategies to meet protected area conservation objectives Responsible and accountable for the preparation, approval, and implementation of a resource conservation management plan for the protected area 	Understanding of day-to-day and long term implications of the protected area's management objectives Y N <input type="checkbox"/> Recognising and understanding the implications of potential environmental impacts of different activities Y N <input type="checkbox"/>	Identifying and determining the causes of conflicts between protected area resource conservation and use Y N <input type="checkbox"/>
L Training received			

		SOCIAL SKILLS			
10. Creativity	11. Evaluation	12. Oral	13. Written	14. Working with others	
Developing on-the-job training Y N <input type="checkbox"/> ↓	Evaluating staff performance Y N <input type="checkbox"/> ↓	Counselling staff Y N <input type="checkbox"/> ↓	Writing staff appraisals and training briefs Y N <input type="checkbox"/> ↓	Motivating staff Y N <input type="checkbox"/> ↓	
Creating adaptive solutions to infrastructural problems Y N <input type="checkbox"/>	Deciding priorities and selecting from alternative courses of action for maintenance and repair Y N <input type="checkbox"/>	Giving clear instructions to staff and contractors Y N <input type="checkbox"/>	Writing specification orders and instructions to third party Y N <input type="checkbox"/>	Gaining the cooperation of suppliers and subcontractors Y N <input type="checkbox"/>	
		Explaining financial implications to senior management and junior staff Y N <input type="checkbox"/>			
Developing options to achieve plans and budgets in light of changing circumstances Y N <input type="checkbox"/>	Selecting priorities during budget preparation process Y N <input type="checkbox"/>	Presenting plan and budget Y N <input type="checkbox"/>	Preparing planning and budget briefs for manager, justifying proposals Y N <input type="checkbox"/>	Selling plan and budget convincingly Y N <input type="checkbox"/>	
Having flexibility to reach compromises which respect objectives of the law Y N <input type="checkbox"/>	Balancing and evaluating needs of the involved parties in spirit and letter of the law Y N <input type="checkbox"/>	Explaining proper procedures and regulations to residents and users of the protected area Y N <input type="checkbox"/>	Writing clearly worded notices and instructions Y N <input type="checkbox"/>	Gaining cooperation of wrong doers <input type="checkbox"/> <input type="checkbox"/>	
Developing options for improving visitor amenities within means available Y N <input type="checkbox"/>	Evaluating options and selecting courses of action regarding visitor services Y N <input type="checkbox"/>	Getting protected area's perspective across to visitors Y N <input type="checkbox"/>	Preparing interpretive materials Y N <input type="checkbox"/>	Dealing with dissatisfied visitors Y N <input type="checkbox"/>	
Designing (contributing to design) or adapting interventions to meet specific needs Y N <input type="checkbox"/>	Selecting appropriate programmes and evaluating their success Y N <input type="checkbox"/>	Giving clear instructions on technical intervention procedures Y N <input type="checkbox"/>	Writing clear reports explaining intervention, its success, failure, etc. Y N <input type="checkbox"/>	Gaining cooperation of local communities where appropriate Y N <input type="checkbox"/>	
Developing ideas for improving community/protected area relations Y N <input type="checkbox"/>	Determining why certain community-related initiatives have achieved success Y N <input type="checkbox"/>	Presenting information at a level appropriate to target audience Y N <input type="checkbox"/>		Having cultural sensitivity Y N <input type="checkbox"/>	
Identifying opportunities for the application of research Y N <input type="checkbox"/>	Evaluating the results of research and their application Y N <input type="checkbox"/>		Ensuring research reports are comprehensible for lay people Y N <input type="checkbox"/>	Establishing positive relationships with researchers Y N <input type="checkbox"/>	
Developing public relations materials (oral, written, etc) Y N <input type="checkbox"/>	Selecting materials appropriate for each meeting Y N <input type="checkbox"/>	Making formal public presentations and respond to questions unambiguously Y N <input type="checkbox"/>	Preparing press releases Y N <input type="checkbox"/>	Building up and maintaining network of contacts for information on all important/relevant meetings and events Y N <input type="checkbox"/>	
Developing methods to achieve management zone objectives Y N <input type="checkbox"/>				Working with local communities and other concerned parties during plan development and implementation Y N <input type="checkbox"/>	

Main Divisions of the Job	I. Accountability and Responsibilities	ATTITUDES		
		15. Work Ethics	16. Commitment to Conservation	17. Community Attitudes
A Ensure availability of a competent and well-motivated staff	<ul style="list-style-type: none"> Maximizing potential of allocated staff Responsible for identifying training needs Responsible for recommendations and application of disciplinary measures 	Needs objectivity in appraisal and general staff dealings	Needs to demonstrate commitment and instil commitment in others	Needs to demonstrate and instil understanding of need for harmonious relationship
B Ensure availability of appropriate infrastructure (within budget)	<ul style="list-style-type: none"> Responsible and accountable for maintenance, repair and rehabilitation and construction Recommending additional facilities 	Honours contractual agreements in spirit and letter		
C Ensure financial and accounting integrity of the protected area	<ul style="list-style-type: none"> Accountable and responsible for all revenue generated and disbursement (received from headquarters and receipts) Responsible for accurate accounting 	Instils honesty		
D Ensure development and achievement of tactical plans and budgets and contribute to protected area strategic planning	<ul style="list-style-type: none"> Accountable for development of annual plan and budget of protected area Responsible for working within the agreed plan and budget Identify strategic options in the protected area and contribute to strategic planning 			
E Ensure that all activities within the protected area comply with laws and regulations	<ul style="list-style-type: none"> Accountable for enforcement of law and regulation and ensuring safe practices throughout the protected area 	Honesty, tolerant to others' points of view	Finding balance and understanding the needs of both conservation and the involved parties	Tolerance to others' points of view to minimize conflict between protected area and others
F Ensure optimum levels of visitor satisfaction	<ul style="list-style-type: none"> Responsible for ensuring that the highest levels of visitors' services and practices under his/her jurisdiction are maintained 		Needs to demonstrate commitment to conservation	Needs to demonstrate belief in validity of including local communities in protected area management and enterprises linked to tourism
G Ensure agreed intervention programmes are completed to budget and timetables	<ul style="list-style-type: none"> Responsible for design, implementation, and evaluation of intervention programmes to meet conservation objectives in the protected area 			
H Ensure harmonious relationships with neighbouring communities	<ul style="list-style-type: none"> Responsible and accountable for design and implementation of a programme to achieve harmonious relations Responsible for instilling acceptance by staff of the role of local communities in protected area management 			
I Be aware of research activities and progress against plan	<ul style="list-style-type: none"> Responsible and accountable for ensuring that research programme is implemented according to the protected area conservation objectives and timetables 	<p>Must have an open mind to research findings</p> <p>Must support role of research as a component of protected area management</p>		
J Represent the protected area and its interests in public meetings	<ul style="list-style-type: none"> Accountable for ensuring that the protected area is represented in every possible area Responsible for ensuring that the information available about the protected area is up to date 	<p>Honesty, Integrity</p> <p>Must make clear when representing the protected area or a personal view</p> <p>Must never criticize the organisation openly</p>	Demonstrated as absolute	Demonstrated as absolute
K Ensure an appropriate balance between resource conservation and use in the protected area	<ul style="list-style-type: none"> Responsible and accountable for design and implementation of resource management/protection strategies to meet protected area conservation objectives Responsible and accountable for the preparation, approval, and implementation of a resource conservation management plan for the protected area 	Honours conservation objectives of resource management plan		
L Training received				

This chart indicates the principal attitudes of the job. All we require is that you answer the following questions:
As a manager how do you instil:

a. work ethics?

b. commitment to conservation?

c. healthy attitudes to adjacent communities?

(If you need more space use blank sheet on the next page)

LANGUAGES

Do you speak a language understood by the local community adjacent to your protected area?

COMPUTERS

Do you use computers? If so, in what ways?

BEST AVAILABLE DOCUMENT

PAST TRAINING

Please list any additional training after primary school (with dates) not recorded in Row L (formal, in-service or other).

Post-Questionnaire Discussion

43. The discussions that follow the administering of the questionnaire are designed to elicit interviewees' views on training and potential innovative ideas for training. The discussions should flow freely, guided by the following questions:

1. What is your overall impression of the questionnaire?
2. Did the questionnaire teach you anything new about your job?
3. Are there any important aspects of your job not covered by the questionnaire?
4. Do you have any comments (positive or negative) about the questions?
5. Has the questionnaire changed you idea of the role of a protected area manager?
6. Would you have identified (or did you identify) your training priorities differently before reading the questionnaire?
7. What are the strengths and weaknesses of the present training in your department?

Interviewers then lead a discussion of the different types of training (formal, in-service, on-the-job, and other).

8. How would you evaluate the quality of the training in your department? Is more needed? Is better quality training needed? What are your suggestions?
9. What kinds of training materials have you received? What is the source of these materials? On whose initiative have you received these materials?
10. What constraints other than training do you face in your job?
11. What are your three priority needs to fulfill your mandate as a protected area manager?

A written subjective assessment of training within the department is then requested by the interviewer.

44. At the close of the session, the Regional Managers note how each questionnaire was filled out and other relevant details on how the questionnaire was conducted, where applicable, such as:

- (a) Group size: _____
- (b) Time taken to complete the questionnaire: _____

- (c) If interviewee is known to the interviewer:
- relevant details about the interviewee (e.g., experience, intellect, in what capacity known, and how long known)
- (d) Perception of overall level of comprehension of interviewees (including number of questions asked): _____

Amplification of Responses

45. One-on-one discussions may take place as the questionnaire is filled out. These discussions help the Regional Managers understand how well participants grasp the issues in the questionnaire and help validate the responses. As the Regional Manager meets with PAMs, he/she may collect a standard set of background statistics (see Background Information sheets). Other questions are used as prompts to provide an indication of the quality of the responses given to the questionnaire (see Indicative Information sheets). In addition, the Regional Managers conduct on-site visits whenever possible and attempt to verify the validity of responses.

46. The Regional Managers also attempt to verify the data they collect by: (i) asking the FOD to complete the questionnaire, assessing the skill levels required and the skill levels attained, in general, among the managers in the protected areas under their jurisdiction and (ii) interviewing appropriate field associates (individuals working with relevant nongovernmental organizations (NGOs) and other donors in the field) and asking them to complete the questionnaire, again assessing the skill levels required and the skill levels attained, in general, among PAMs with which they work.

47. The broad strategic recommendations from Phase I will be based on PAMs' perceptions of their own skill levels. Systematic skill level verification has not been built into the Phase I assessment but will be built into Phase II.

Background Information

For Each Reserve

Name of Reserve _____

Size _____

Years in Existence _____

Last Change in Protected Status (Year, Describe) _____

Predominant Habitat Type/s (Use International Union for Conservation of Nature and Natural Resources (IUCN) categories, plus marine) _____

Governing Institution: Name/s _____ (Dept., Ministry)
Government? _____ Non-Government? _____ Parastatal? _____
Date of Last Change in Governing Institution _____

Funding Sources: Central Treasury? _____
Direct Revenue from Reserve? _____
Foreign Assistance? _____
Sources _____ Amount this Year from Each _____
(This may be only relevant to national programs)

Technical Assistance: Source/s, Type, Amount _____

Does the Reserve Have:

A Protection Force _____ No. of Reserve Employees _____
Biological Monitoring Program? _____ No. of Monitors _____
Community Liaison Effort? _____ (Describe) No. of Employees _____
Tourism Program? _____ No. of Employees _____
Safari Hunting Program? _____ No. of Employees _____
Research Program? _____ (Describe) No. of Researchers _____
Reserve-Level Training Program? _____ No. of Trainers _____
Annual Funding for Training _____
% of Annual Budget _____
Other (Specify) _____

Are Any of the Above Services Provided by Institutions or Individuals not Formally Part of Reserve's Organization
(e.g., education program visits by national or NGO groups, research by university personnel)?
Describe _____

Briefly Describe Infrastructure Present (e.g., reserve buildings, number of vehicles) _____

Personnel Information (At Reserve Level Only)

Describe Personnel Structure (use organogram if possible):

Who is Highest Level Responsible? Next Level? Next....

For Each Different Staff Position (e.g., Chief Warden, Assistant Warden, Chief of Guards, Tourism Officer, Education Officer, Biologist, Administrative Assistant, Mechanic, Guard):

Title _____

No. of Persons _____

Responsibilities _____

(collect job description, if it exists)

Minimum Requirements for Hiring: Education _____

Experience _____

Skills _____

Actual Qualifications (answer with minimum and maximum for current staff in each position, or actual numbers for each staff person in the position):

Education _____

No. of Years Experience in Reserves _____

No. of Additional Years Experience in Similar Work (outside reserves) _____

Need for More/Different Personnel in this Reserve? Y ___ N ___

Staff Positions Needed & No. of Persons for Each:

Highest Priority _____

Desirable _____

Need for More Training of Existing Personnel or Replacements as Hired? Y ___ N ___

Type/s:

Highest Priority _____

Desirable _____

Indicative Information

Technical

- 1) Are there any endangered species resident in the reserve?
What are they? (List)
What is their conservation status? OK, Threatened? Abundant? Rare?
Where found in reserve (habitat, geographical location)?
If threatened, by what?
How do you know?
- 2) Does tourism in reserve have any impact on wildlife:
Positive impact? Y___ N___ What?
Negative impact? Y___ N___ What?
How do you know?
- 3) Are there species present in reserve that are important ecologically?
Which?
In what way? What role do they play?
If their number were reduced or eliminated, what ecological results might occur?

Management

- 1) What do you look for in hiring a good guard?
What procedure is followed if an employee is not working satisfactorily?
What if he/she continues to work unsatisfactorily?
- 2) What kind/s of contact do you have with the public:
Local?
National?
International?
How important is contact with each of the above?
- 3) Do you personally write/do:
Annual reports? Y___ N___ Other personnel who do _____
Other regular program reports? Y___ N___ Other personnel _____
Budget reports? Y___ N___ Other personnel _____
Accounting? Y___ N___ Other personnel _____
Guard scheduling, supervision? Y___ N___ Other personnel _____

Strategic Planning

- 1) Does the reserve have a management plan? Y ___ N ___
 In progress ___ Planned ___
 Date of formulation ___ Date of last revision ___
 Is the plan used? Y ___ N ___ Somewhat ___ Comments _____
 Is it effective? Y ___ N ___ Somewhat ___ Comments _____
- 2) What plans/reports are regularly produced? (e.g., program, budget, patrols, visitor, research, education)
 Verify (ask to see and keep latest copies)

Legal

- 1) What is the legal status of reserve?
- 2) What activities are illegal within?
- 3) Is any extraction legal (renewable or non-renewable resources)?
 What?

Financial

- 1) Are regular reports compiled? (verify and keep)
- 2) Are procurement and accounting done by the same or different people?
- 3) Who must sign for disbursements/payments?
 How is this recorded?

82

VII. In-Country Training Opportunities Assessment

48. The Regional Managers conduct country-by-country surveys of institutions that provide training programs and opportunities. The Regional Managers use the questionnaire responses to help identify training sources that have been used by people who become PAMs, and then collect the following data on each training institution or program (see Training Institution's Background Information sheet). All available training materials and curricula are collected from the various training sources.

Training Institution's Background Information

Name _____
Years in Existence _____
Type: Governmental _____ Non-Governmental _____ Parastatal _____ Other _____
Supervising ministry, department, institution _____
Estimated annual program budget _____
Funding Sources: Government: Y _____ N _____ Dept. _____
Course/Admission Fees _____
Fee/Completion of Program _____
Foreign Assistance? Y _____ N _____
For Each: Source _____ Amount this Year _____

Technical Assistance? Y _____ N _____
For Each: Source, Type, Amount _____

Technical Fields Covered in Training:
Mark "E" if field is a primary emphasis (1-2 fields only)
Mark "I" if field is included, but not primary
_____ Wildlife Biology _____ Extension/Education
_____ Reserve Management _____ Tourist Operation
_____ Policies/Procedures _____ Other (specify _____)
_____ Legal Planning
_____ Forestry
_____ Business:
_____ Administration
_____ Planning
_____ Financial Planning
_____ Personnel Management

Number of Different Programs within Institution _____

For Each Different Program:

Type/Technical Fields (see above) _____
Years in Existence _____
Length of Training Program _____
Frequency of Offering this Program: Continuous _____ Yearly _____
Other Regular Interval (specify) _____
Irregularly (specify) _____
"Degree" Conferred _____
Admission Requirements: Education _____ Experience _____
Other (specify) _____
Subjects/Course List/Themes _____

Methods Used: Class Instruction _____ Practical _____ On-Site _____ Other
(specify) _____

Pre-service _____ In-Service _____

Follow-Up: Y ___ N ___

Individual Evaluation _____ Supervision _____ In-Service _____

Program Evaluation: Y ___ N ___ Date _____

Number of "graduates"/session, cycle _____ or number/year _____

Number of Graduates: This past year _____

During past 5 years _____

During history of program _____

Full-Time Trainers:

No. _____

No. Years with this Program _____

No. Years as Trainer Elsewhere _____

Background: (answer with maximum, minimum, or numbers for each
trainer if possible)

Highest Educational Degree/Training _____

From which Institution/Program? _____

Number of Years Practical Experience in Reserve _____

Where? _____

Current Curriculum:

First Developed (date) _____ By Whom? _____

Date of Last Revision _____ By Whom? _____

Informational Materials Used:

Text? Y ___ N ___ Name, Author _____

Training Manuals? Y ___ N ___ Name, Author _____

Other (specify) _____

History Following Training:(Define base number of graduates and time period being considered
-- e.g., total number completing last training session: 12; total number completing training in
last 5 years: 67 -- then answer following questions, given these baselines)

Number Getting Jobs in Field of Training:

_____ From Last Session _____ From last 5 years

Average tenure (number of years) in Reserve Management:

_____ From Last Session _____ From Last 5 Years

Number Currently Working in Sector:

_____ From Last Session _____ From Last 5 Years

_____ Total (no time limitation)

49. In order to make preliminary assessments of the training sources, any available evaluations or reports on the training sources are collected. Trainers may also be asked to fill out the questionnaire in order to help evaluate the level of skill being taught in various courses. In addition, trainees (even though they may not be PAMs) may be asked to fill out the questionnaire to assess whether a course or program has accomplished training to a certain level (See alternative instructions for training institutions). Regional Managers will use PAMs' responses on the questionnaire and other information gleaned from the needs assessment to assess how well PAMs are being trained.

PROTECTED AREAS CONSERVATION STRATEGY (PARCS): TRAINING NEEDS ASSESSMENT

Four organisations, the African Wildlife Foundation, Wildlife Conservation International, World Wildlife Fund and the Biodiversity Support Program are working together on a project called PARCS. One of the main aims of the project is to identify the skills required for the job of protected area manager and to assess the training needs.

To achieve this we have developed a chart of the typical skills (competencies) required to do the job of protected area manager. We would like you to assist us by doing two things:

- to check the appropriateness of the chart
- to assess the level of knowledge taught in a specified course at your institute

Before filling in the questionnaire please read everything through very carefully. This information will be confidential and will be used to build up an analysis of the training requirements for each country in Africa participating in the study.

The attached chart has 17 columns and 12 rows.

- Rows A-K show main divisions of the job.
- Row L will be used to identify the parts of the training course which are relevant to the column above.
- The first column shows 'accountabilities and responsibilities' associated with each division A-K. Please add any further accountabilities and responsibilities specific to the job of protected area manager by writing in the relevant compartment.
- Columns 2-17 show the competencies associated with the job in terms of knowledge (2-7), mental skills (8-11), social skills (12-14) and attitudes (15-17).

You will notice that some compartments are blank. These do not need to be filled in.

KNOWLEDGE (columns 2-7)

Knowledge has been grouped into four levels:	
1. None	has no knowledge of subject matter indicated
2. Some	awareness of the subject and general applicability
3. Working	sufficient knowledge to complete routine tasks
4. In-depth	a breadth and depth of knowledge which enables initiative to be taken in non-routine situations
n/a = not applicable in present job. Please indicate your knowledge level.	

We would like you to go down each column 2-7 and fill in the boxes.

In the left hand box put the number which corresponds to your view of the level of knowledge needed to do the job successfully.

In the right hand box (shaded) put the number which corresponds to your assessment of the level of knowledge taught in the course at your institute.

eg. in E5:

In-depth knowledge of relevant laws and regulations eg. firearms, arrest, charging and human rights	4	3
---	---	---

Such an answer shows us that the person completing the questionnaire agrees that in-depth knowledge is needed (4 in the left hand box). By putting 3 in the right hand box the respondent has identified the level of training provided.

When you come to the bottom of each column please complete the compartment (L) by showing which part of the training course contributes most to the knowledge of the subject in the column.

MENTAL AND SOCIAL SKILLS (columns 8-14)

Mental and social skills have been grouped into four levels:

1. None
2. Poor
3. Satisfactory
4. Good

We would like you to go down each column 8-14 and fill in the boxes.

First of all indicate whether each skill is appropriate to the job of protected area manager by circling either Yes (Y) or No (N).

Then indicate in the right hand box (shaded) the level of ability taught in the course for each particular skill.

eg. in F9:

determining true causes of visitor
dissatisfaction & behaviour

Y N

3

Such an answer shows that this skill is required and the course teaches the level of skill needed to successfully complete this aspect of the job.

When you come to the bottom of each column please complete the compartment by showing which part of the training course contributes most to the skills in the subject of the column.

ATTITUDES (columns 15-17)

The chart indicates the principal attitudes of the job. All we require you to do is to answer three questions.

If you do not understand any of the questions in this questionnaire please leave the boxes empty and move onto the next question.

In order for you to keep a record of your completed questionnaires we are providing two copies of each section and a sheet of carbon paper. The **WHITE** sheets (numbers 1, 2, 3 & 4) are to be returned after completion. You may keep all of the **COLOURED** sheets. Once you have completed the questionnaire please carefully tear off the four white sheets and return them to the person organising this component of the PARCS project.

Thank you for helping us undertake this training needs assessment. We appreciate your time and input.



**Biodiversity
Support
Program**

(PARCS INST)

BEST AVAILABLE DOCUMENT

TRAINING PRIORITIES

Having completed this questionnaire and thinking specifically of the requirements of a protected area manager, what areas of training should be focused on at this institute?

1.

2.

3.

How many years have you worked for your department/organisation?

This questionnaire was completed by: Title (no name needed)

..... Department/Section

..... Organisation/Institute

..... Country

Date:

PARCS REF NO:

Date received:

--	--	--	--	--	--	--	--

(PARCS INST)

50. As time permits in Phase I, the Regional Managers also conduct a survey of possible training opportunities outside the institutions and programs already being utilized. Training opportunities in the country or at least in the region are sought that are cost-effective, efficient, local, culturally sensitive, on an appropriate scale, and that use local languages. Regional Managers visit such sources as: professional associations, employers' associations, consulting firms, universities, trade associations, accountancy firms, government institutions, tour/travel companies, hoteliers and hotel training schools, national institutes of management, law societies, and business management institutes.

51. In order to complete this part of the training opportunities assessment, Regional Managers first assess the data gathered in the region and determine the probable areas of need based on preliminary trends observed in the data. For each training need, possible sources of training are listed (for example, see below). Then, a few training needs are chosen for further information gathering.

Needs:	Opportunities:
Bookkeeping	Clerical school Accounting firm Industry
Personnel management	Business school Management consulting firms Industry
Tourist management	Hotel school Business school Tourism and safari companies
Law	Law school Law firms
Infrastructure	Engineering firms Department of roads training center
Strategic planning	Business school Consulting firms Industry

52. The following are four major categories of institutions that have the potential to provide training:

- | | |
|------------------------|---|
| Training Institutions: | Business Schools
Hotel Schools
Law Schools
Public Works Training Centers
(road building, vehicle maintenance) |
| Research Institutions: | Zanzibar Marine Institute
Centre for Applied Social Sciences - Zimbabwe
Desert Ecological Research Unit - Naimibia |
| Private Institutions: | Law Firms
Accounting Firms
Construction Firms
Vehicle Repair
Facilities maintenance
Hotels
Safari Companies
Tourism Operators
Travel Agencies |

Development or Conservation Projects

53. Regional Managers interview fairly senior members of chosen institutions. If training is not presently offered, they enquire whether they investigate future training possibilities. Regional Managers explain that PARCS is looking for non-traditional sources of training and information is being gathered on existing training institutions and private firms with expertise in that field. If they are interested in the concept, Regional Managers pursue additional information (see Alternative Training Opportunities Questions).

Alternative Training Opportunities Questions

For Training Institutions

What is the objective of your institution?

Who are your students, where do they come from, why do they attend?

How is the school structured?

Degree? Course Structure? (e.g., full-year, partial, seminars, workshops, fieldwork)

Who are your instructors? What experience and education do they have generally? Do they work outside the institution?

General description of the curriculum

Where are the courses held? Many locations or one central location?

Is there field-based training, internships? (i.e., in a hotel, in an accounting firm)

Do you ever offer courses/seminars to outside groups (e.g., non-matriculated students, visitors)

Would you be able to provide limited training to PAMS on certain topics to meet their needs?

Could the training take place in the parks or would it have to take place in your facilities?

Could PAMS attend existing courses part-time or would they have to take the whole program?

Could they only take one course?

How much would it cost? Are there government rates? Could it be free?

Do you have country orientation (e.g., Uganda Hotel school) or regional orientation (e.g., Mweka)?

Are you a private or government affiliated institution?

Do you receive donor assistance (financial or technical)?

For Private Companies

How does your staff get trained now?

Formal training (e.g., law school, business school)

On-the-job/in-service

Seminars/workshops

other? outside?

Do you provide any kind of in-service training? To whom? All levels? Could outsiders be brought into this system?

Do you ever provide training outside of your firm? Seminars? Workshops? Courses?

Do you know of anyone who does in your field?

Would you as an individual or your colleagues or staff be interested in providing semi-formal or informal training to PAMS in your field (e.g., seminars, lectures, field courses, refresher courses)?

What might it cost? Possible pro bono, government rates?

If not training itself, would you be willing to provide advice on addressing training needs in a cost effective, culturally sensitive way? (Efficient training that takes PAMS away from their jobs the least amount of time possible.)

Do you have affiliates in other countries, in the region or internationally?

Do your staff speak the local languages?

How long have you existed?

For Research Institutions

Do you train/instruct students or is the institution devoted purely to research?

Is the institution private or connected to the government somehow?

If you do training how is it organized? (Degree, partial degree, in conjunction with a university or school, seminars, lectures)

Do people come to learn from the outside (courses, lectures, informal)?

What training has your staff received at which levels? Receiving now?

Would you be interested in providing formal or informal training to PAMS either at your institution or in the field?

What would it cost, Government rate? free?

Do you have international or regional affiliations?

How long have you existed and expect to in future?

Development or Conservation Projects

What are the objectives of the project?

Do you provide training/instruction to staff assistants/local people? on-the-job, organized in-service, send them away for formal training?

Do outsiders ever come to the project for either formal or informal training/learning experiences?

Do your technical staff ever lecture, or instruct outside of the project?

Would you be interested in providing formal or informal training to PAMS either at your project or as a visiting lecturer?

How long is your project expected to last? How long will the experts remain in the field?

Do you already have any connection to a protected area system?

Could you provide training consistently, regularly or only when there is time?

What would it cost?

Do your staff and/or Principle Investigators speak the local languages?

54. The information gathered on alternative training opportunities will be utilized in Phase II of PARCS.

VIII. Out-of-Country Training Opportunities

55. BSP is building a database of selected training opportunities in West Africa and the Sahel and other training opportunities outside of Africa. When Regional Managers discover training opportunities in countries outside their region, they notify the Regional Manager in that region. As the Regional Managers discover training opportunities outside the three regions (e.g., West Africa, the U.K., the U.S.), they notify BSP to do the follow-up investigation. A catalog of training opportunities and resources will be available from BSP at the close of the project.

IX. Follow-Up Activities

56. Regional Managers individually determine, on a case-by-case basis, whether to complete an entire assessment in one lengthy trip to the country, or to complete the assessment in two or more trips.

57. Before leaving a country and depending on the particular strategy agreed for the assessment, the Regional Manager may hold a final meeting with the senior official(s) at headquarters to brief them on findings and to elicit comments on training in general and the PARCS project in particular. Depending on USAID desires, the Regional Managers will also brief USAID on their activities in country.

58. When second visits are made to a country, the Regional Manager will bring senior level people involved in the assessment up-to-date on the progress of PARCS and report on any early trends in training priorities identified from a preliminary analysis of the questionnaires and training opportunities examined. They will also try to take any follow-up action requested.

X. Feedback

59. Regional Managers submit monthly reports to BSP. These reports are circulated to the other Regional Managers and members of the core team.

60. Regional Managers are in frequent contact with each other, the core team, and the BSP coordinator through telephone, courier, and fax. Meetings for the Regional Managers and meeting for the entire PARCS team are scheduled throughout the course of the year.

61. Copies of the final report will be distributed to all organizations/departments who participated in the project.

XI. Data Organization and Analysis

62. Data sheets for the questionnaire have been developed in Wordperfect (see following Data Sheets). Each Regional Manager transcribes the data onto the data sheets. These data sheets are then be sent to Nairobi for data entry. Data entry will be done throughout the life of the project.

PARCS Reference Number

63. A reference number system has been designated for each completed questionnaire. This system involves a unique number/letter combination and will allow for the sorting of data by several factors (e.g., country, biome, organization). The reference number consists of nine compartments and is filled out according to the instructions on the following page.

PARCS REFERENCE NUMBER Unique code for each individual questionnaire made up of 8 compartments.

1	2	3	4	5	6	7	8

Compartment 1: 1 letter, 4 numbers
 Regional Manager initial (D,A,or M)
 Way questionnaire was administered (1-7)
 Number of questionnaire (001-999)

Regional Manager

1. Explain questionnaire to PAM/FOD and fill out with Regional Manager nearby
2. Explain questionnaire to PAM/FOD and leave to fill out on own time
3. Explain questionnaire to PAM/FOD at workshop and fill out individually with Regional Manager nearby

Consultant

4. Explain questionnaire to PAM/FOD and fill out with consultant nearby
5. Explain questionnaire to PAM/FOD and leave to fill out on own time
6. Explain questionnaire to PAM/FOD at workshop and fill out individually with consultant nearby
7. Send out questionnaire by mail

Compartment 2: Position in organization of person being interviewed 1 number (i.e., 1-9)

1. Position below that of PAM (e.g., Assistant Park Warden)
2. Protected Area Manager
3. Position senior to PAM (e.g., Regional Warden)
4. Field Operation Director (FOD) filling in questionnaire for PAMS
5. FOD (filling in questionnaire for own job)
6. Trainer at a formal training institute
7. Research Officer
8. Field Associates (NGOs/Aid Agencies)
9. PAM working in the private sector

Compartment 3: Organization 2 letter code, personal to each regional manager. If compartment 2 is a trainer, compartment 3 indicates a code for the course (e.g., diploma, certificate)

Compartment 4: Country (2 letter code)

Ethiopia ET	Zimbabwe ZW	Burundi BU	
Kenya KE	Zambia ZA	Cameroon CM	

Somalia	SM	Botswana	BO	Congo	CO
Tanzania	TN	Mozambique	MZ	Rwanda	RW
Uganda	UG	Malawi	MW	Zaire	ZR
Zanzibar	ZN	Swaziland	SW	Lesotho	LE

Compartment 5: Years in service 3 columns. 1 letter, 2 numbers (i.e., A-D 01-99)

A: 1-5 years of service	No. of years as a PAM
B: 6-10 years of service	No. of years as a PAM
C: > 10 years of service	No. of years as a PAM
D: not applicable	No. of years as a PAM

In cases where respondents do not indicate the number of years they have worked for their organization, or the number of years as a PAM, these spaces in the Reference Number should be left blank.

Compartment 6: Conservation Status 2 number column n=10-80
(using IUCN Management Categories as listed in McNeilly & Miller, 1984)

Second column is filled in if two protected areas are managed. Default is blank. If trainer is filling in the form: XX. If respondent is not working in a protected area (e.g., HQ) leave both columns blank.

Category 1: Scientific Reserve/Strict Nature Reserve
 Category 2: National Park
 Category 3: Natural Monument/Natural Landmark
 Category 4: Nature Conservation Reserve/Managed Nature Reserve/Wildlife Sanctuary
 Category 5: Protected Landscape/Seascape
 Category 6: Resource Reserve
 Category 7: Natural Biotic Area/Anthropological Reserve
 Category 8: Multiple Use Management Area/Managed Resource Area

Compartment 7: Biome 2 letter code

First column is representative habitat. Second column is secondary/other (default is blank).

M: Montane	F: Dry Forest
S: Savanna	W: Moist Forest
O: Marine	R: Regional/national
A: Aquatic	X: If trainer filling in the form

Compartment 8: Gender 1 column

Male: 0 Female: 1

Data Sheet A

64. This data sheet allows the additional accountabilities and responsibilities that are identified to be compiled. The Regional Manager keeps a running total and codes according to compartment. These additional accountabilities and responsibilities will be reviewed to assess whether there are any common additions or if additions are country specific. This data will be used to validate the "accountabilities and responsibilities" section of the questionnaire.

PARCS DATA SHEET A

Parcs Ref. No:	Compartment No: A1 to KI	Additions and/or deletions to 'Accountabilities & Responsibilities'

Data Sheet B

65. This data sheet focuses on knowledge. Questions are numbered from the first one in compartment B2, down the columns to question 64 in K7.

Column A is already determined by the levels of knowledge in the questionnaire. These are already filled in.

Column B is the response in the left-hand box.

Column C is the response in the right-hand box

For Columns B and C, 0 = n/a, 1 = none, 2 = some, 3 = working, and 4 = in-depth.

Column D (A-B) is calculated by computer.

Column E (B-A) is calculated by computer.

Column F is either A-B or B-A, whichever is the positive value. This is the validation of the questionnaire. The bigger the number in this column, the greater the difference in perceptions between the developers of the questionnaire and the respondent as to the skill level needed to do the job of a PAM successfully.

Column G is A-C, the training need measure based on the PARCS skill level. In other words, if the questionnaire indicates that, for example, in-depth knowledge of relevant laws is required (4), but the respondent indicates that he/she only has a some knowledge of these laws (2), then a training need according to the PARCS team has been identified (calculated as $4 - 2 = 2$; a 0 or negative value would indicate no training need).

Column H is B-C, the training need measure based on the respondents' skill level. In other words, if the respondent indicates that, for example, working knowledge of relevant laws is required (3), but the respondent indicates that he/she only has some knowledge of these laws (2), then a training need according to the respondent has been identified (calculated as $3 - 2 = 1$; a 0 or negative value would indicate no training need).

PARCS DATA SHEET B: KNOWLEDGE

PARCS Ref No:		For B & C For G, S, H									
		Question #	Score A	Validation B	Skill level C	A-B D	B-A E	A-B or B-A F	A-C G	B-C H	
TECHNICAL		1	2								
		2	4								
		3	4								
		4	4								
		5	4								
		6	4								
		7	4								
		8	3								
		9	2								
		10	3								
		11	3								
		12	3								
		13	4								
		14	4								
		15	4								
		16	3								
		17	3								
sub-total											
MANAGEMENT		18	3								
		19	2								
		20	3								
		21	3								
		22	3								
		23	3								
		24	3								
		25	4								
		26	3								
		27	2								
sub-total											
PLANNING		28	3								
		29	3								
		30	3								
		31	4								
		32	4								
		33	4								
		34	4								
		35	3								
		36	2								
		37	3								
		38	4								
		39	4								
sub-total											
LEGAL		40	2								
		41	2								
		42	4								
		43	3								
		44	4								
		45	2								
		46	4								
		47	4								
		48	2								
sub-total											
POLICIES / PROC		49	4								
		50	4								
		51	3								
		52	3								
		53	4								
		54	4								
		55	4								
		56	4								
		57	3								
		58	4								
sub-total											
FINANCIAL		59	3								
		60	3								
		61	3								
		62	4								
		63	3								
		64	3								
sub-total											
TOTAL											

Data Sheet C

66. This data sheet is for "Mental and Social Skills". Questions are numbered 1 to 69 starting in A8 and going down the columns to K14. In the first column, the Regional Managers enter 1 for yes or 0 for no. The skill level column is to be filled in with a 1 (none), 2 (poor), 3 (satisfactory), 4 (good). The figure 1 or 2 indicates a training need; a 3 or 4 indicates no training need.

PARCS DATA SHEET C - MENTAL AND SOCIAL SKILLS

PARCS Ref No:		Question	Yes / No	Skill level
Cognitive	Cognitive	1		
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		
		10		
		11		
		12		
		sub-total		
Communication	Communication	13		
		14		
		15		
		16		
		17		
		18		
		19		
		20		
		21		
		22		
		23		
sub-total				
Community	Community	24		
		25		
		26		
		27		
		28		
		29		
		30		
		31		
		32		
		33		
		sub-total		
Emotional	Emotional	34		
		35		
		36		
		37		
		38		
		39		
		40		
		41		
sub-total				
General	General	42		
		43		
		44		
		45		
		46		
		47		
		48		
		49		
		50		
		51		
		sub-total		
Health	Health	52		
		53		
		54		
		55		
		56		
		57		
		58		
		59		
		60		
sub-total				
Social Skills	Social Skills	61		
		62		
		63		
		64		
		65		
		66		
		67		
		68		
		69		
		70		
sub-total				
TOTAL				

Data Sheet D

67. This data sheet is for attitudes. The columns are coded according to the following generalized attitudes expressed by project participants.

A. Instilling Work Ethics

- A1. referring staff regularly to Administrative Orders on codes of work conduct and behavior in staff meetings, seminars.
- A2. showing hard work and dedication through example
- A3. ensuring objectives of the organization are explained to staff
- A4. acknowledging good work in others while positively criticizing bad work
- A5. showing tolerance to others' points of view
- A6. showing understanding when taking disciplinary measures
- A7. providing attentive supervision to staff's work, especially when new responsibilities are given
- A8. developing performance appraisal schemes
- A9. encouraging subordinate staff to participate in program formulation
- A10. cultivating good working relationships which creates rapport for instruction
- A11. ensure that staff are suitably equipped as regards their training and tools (equipment) needed to perform efficiently.
- A12. never criticize organization openly

B. Instilling commitment to conservation

- B1. showing dedication to national, regional and local conservation objectives
- B2. explaining to staff the value of conservation by conducting regular in-service refresher courses on conservation ethics
- B3. demonstrating the importance of conservation in relation to human needs

- B4 becoming involved in extension conservation activities, especially with school groups/wildlife clubs
- B5 participating in the design, implementation and analysis of effective law enforcement programs
- B6 teaching protected area management that fully covers conservation concept
- B7 discouragement of activities contrary to the ethics of conservation (e.g., off road driving, killing animals, animal disturbance)
- B8 provide incentives for conservation staff especially the wardens who are lowly paid for outstanding performances etc so as to motivate them
- B9 teach cost and benefits of conservation
- B10 studying past conservation efforts and plans and learning from experiences of others and causes of their successes and failures
- B11 providing necessary working tools
- B12 reward parks or conservation areas with outstanding conservation records
- C. Instilling Healthy Attitudes to Adjacent Communities
- C1. accepting the validity of community participation in protected area management
- C2. listening to and demonstrating willingness to understand community problems
- C3. instructing staff on the value of harmonious relations with adjacent communities to the conservation objectives of protected areas
- C4. taking an active role in conflict resolution (e.g., problem animal control)
- C5. taking opportunities to provide employment for local communities as appropriate to the conservation objectives of the protected area
- C6. maintaining dialogue with local communities, and getting staff involved in keeping communities up to date with conservation developments in the area
- C7. seeking ways in which tangible benefits can accrue to communities without jeopardizing the area's conservation objectives

Data Sheet E

68. This data sheet pulls together the information on languages and computer use. Language responses are coded as Y (yes), N (no), or B (blank). Computer use responses are coded as Y (yes), N (no), or B (blank) and then 1 or 0 under uses for WP (word processing, AC (accounting/budgeting), and DA (data analysis).

PARCS DATA SHEET E: LANGUAGE & COMPUTERS

key: B = Blank WP = wordprocessing AC = accounting budgets DA = data analysis (fill 1 or 0)

Parcs Ref. No:	Language	Computer uses				
	Y or N or B	Y or N or B	WP	AC		DA

Data Sheet F

69. This data sheet looks at the three training priorities identified by the respondents and categorizes them into the compartments of the questionnaire. The categories are A-K and 2-17 as on the questionnaire; 18 is other. When the figure 18 is filled in a column, a comment must be added in the far right column as to what "other" is. Tick marks are made whether the training is F (formal), I (in-service), J (on-the-job), or O (other). When more than three training priorities are listed, only the first three are recorded.

PARCS DATA SHEET F: RESPONDENTS' STATED TRAINING PRIORITIES

key: 18=other (fill in details under comment) Limit of 4 rows in each priority																			
Parcs Ref. No:	1						2						3						Comment
	2-18	A-K	F	I	J	O	2-18	A-K	F	I	J	O	2-18	A-K	F	I	J	O	

F=Formal

I=Inservice

J=On the job

O=Other

110

Data Sheet G

70. This data sheet summarizes training already received as described in compartment L and uses categories 2-17 as on the questionnaire.

71. Column 18 is for the name of an institute where known (a two-letter code is used) and column 19 is for details of the course (2-letter code is used). This primarily refers to formal wildlife institutes (i.e., those that will come under 1) and will allow Mweka/Garoua graduates to be pulled out. The type of training is divided into five sections:

1. Formal wildlife institute (e.g., Mweka)
2. Other formal training (e.g., seminars, workshops)
3. In-service
4. On-the-job
5. Other

If a respondent does not indicate what their course at a formal institute was (e.g., diploma or certificate) a dash is inserted in column 19.

72. In order to be able to record how recently the respondent has graduated from an institute, four sections have been put within row 1. This information is requested on the questionnaire. If a respondent does not indicate a specific date, "no date" is marked. As no dates are requested for the other types of training, there are no subsections in rows 2, 3, or 4. Under 5, however, other training is identified if it is deemed relevant. In this data sheet records are only made with a 1. In row 6, B is used to indicate that a blank was left in this compartment of row L (but other compartments in row L are filled in); a Z is used to indicate if all of the compartments in row L were left blank.

73. Column 20 is for other. A Z in column 20 will indicate that respondents were not asked to record additional training on page 4 of the questionnaire. A B indicates that respondents were asked to record their additional training on page 4 of the questionnaire, but the page was left blank. Column 21 is used for institute and column 22 for course.

PARCS DATA SHEET G: SUMMARY OF TRAINING RECEIVED

PARCS Ref. No:																					
key: 1=formal wildlife institute, 2=other formal training, 3=in-service, 4=on-the-job, 5=other (Fill in 1 or 0) B=blank in row L Z=zero line in Row L																					
Type of training	Knowledge						Mental & social skills							Attitudes			Institute	Course	Other	Institute	Course
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	2 letter code			2 letter code	
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1.																					
0-2 yrs																					
3-5 yrs																					
6-10 yrs																					
> 10 yrs																					
No Date																					
2.																					
3.																					
4.																					
5.																					
(specify)																					
-																					
-																					
6.																					
B or Z																					

112

Analytical Questions

74. Data generated by the training needs and training opportunities assessments will be used to answer a suite of overarching questions. These questions are listed below and are divided into broad, general categories of enquiry each with a subset of subordinate, specific ones.

What are the responsibilities of a PAM? Are these responsibilities universally recognized?

What are the descriptions and understandings of the responsibilities of a PAM currently declared by resource management authorities?

What are the responsibilities recognized by PAMs?

How do PAMs' perceptions compare with PARCS' perceptions?

How do trainers' perceptions compare with PARCS' perceptions?

Has the job of PAM changed over the last 20 years?

What are others' perceptions: do they match PAMs' and/or PARCS' perceptions?

What are the constraints on meeting these responsibilities? Where does training fit in?

What are the overall constraints?

What is the importance of training in overcoming constraints?

Are PAMs skilled to the level judged by this training needs assessment to satisfactorily do their job? Where are the deficiencies?

Are skills satisfactory compared to PARCS' perceptions of job skills?

Are there differences between biomes in the technical knowledge of PAMs?

What training has been received by current PAMs that is perceived by them as useful? How much? What kinds? Relevant to which kinds of job requirements?

What is the existing training that has been received by current PAMs?

Comparisons of types of training received by PAMs, in respect of years of service, that has contributed most to gaining skills.

Does training received cover all major requirements?

How well does existing training prepare PAMs? Does type of training received reflect the degree of preparation for requirements?

Does exposure to various conservation techniques (other than in-service training) improve PAMs' skills and knowledge?

What do training programs aim for?

Assessments of Field Operations Directors (FODs)

What are the responsibilities of senior management positions (i.e., FOD)?

What kind of training has been received in these areas?

What are FOD training priorities?

What further training is required?

Where are the biggest gaps perceived by PAMs between self-evaluated skills and those required for the job?

Where are the biggest gaps perceived by others?

What are the constraints to training?

What present programs could be restructured/enlarged to include training opportunities for PAMs?

Are there other appropriate training opportunities that have not been utilized?

75. Regional reports and an integrated final report of the findings of the Phase II assessment will be produced in September 1993.

XII. References

Child, Dr. Graham, and Leonard D. Sefu. 1987. "Needs and Priorities for Training in Wildlife Management and Utilisation in the SADCC Region." Results of a consultant mission on behalf of the Coordinator for Forestry, Fisheries and Wildlife, Government of Malawi.

Jingu, R.A. 1986. "A Study on Wildlife and Protected Area Management Training and Manpower Requirements in Africa." United Nations Food and Agriculture Organization.

**ANNEXE 2:
TRAINING OPPORTUNITIES ASSESSMENT**

A. INSTITUTIONS CURRENTLY USED BY DNPW TO TRAIN PROTECTED AREA MANAGEMENT STAFF

Scouts, Rangers (Technical Assistants)

Natural Resources College, Lilongwe

Technical Officers (Non-professional PAMs, Asst PAMs)

Mweka College, Tanzania

Mangosuthu Technikon, Republic of South Africa

PAMs (Professional), Regional PAMs, FODs

Rhodes University, Republic of South Africa

Canterbury University, United Kingdom

Chancellor College (Including Bunda Agricultural College), Malawi

University of Massachusetts, U.S.A.

University of Colorado, U.S.A.

University of Guelph, Canada

Edinburgh University, United Kingdom

Other formal training institutions used include:

Jordan Hill College, United Kingdom (Environmental Education)

ICCE, Cheltenham, United Kingdom (Environmental Education)

J.L.B. Smith Institute, Grahamstown, Republic of South Africa

B. ASSESSMENT OF TRAINING INSTITUTES AND OPPORTUNITIES IN MALAWI

TRAINING OPPORTUNITIES

BACKGROUND

1. NAME NATURAL RESOURCES COLLEGE

2. YEARS IN EXISTENCE 1983 - todate (9 years)

3. Governmental

4. Ministry of Agriculture

5. ESTIMATED ANNUAL PROGRAM BUDGET

3 Million (Malawi Kwacha)

6. FUNDING SOURCES

6.1. GOVERNMENT MALAWI GOVERNMENT

6.1.1. COURSE/ADMISSION FEES

Information Not Available

6.1.2. FEE/COMPLETION OF PROGRAM

Information Not Available

6.2. FOREIGN ASSISTANCE? Yes

6.2.1. SOURCE

-In the early 1980s the college received funding from the Canadian International Development Agency (CIDA) for development of infrastructure:

- . Lecture Rooms
- . Library and Resources Centre
- . Hall
- . Cafeteria
- . Staff houses
- . Teaching facilities/amenities. In the case of wildlife
 - e.g. - shooting Range
 - Environmental Study Area
- . Workshop facilities
- . Animal Farm facilities
- . Purchase of vehicles and plant.

6.2.2. AMOUNT THIS YEAR

- Nil. But an estimated 18 million (Malawi Kwacha) was made available for Infrastructural Development and another 2 million (Malawi Kwacha) for equipment.

7. TECHNICAL ASSISTANCE? Yes

7.1 SOURCE

- Canadian International Development Agency (CIDA)

- Chinese Agricultural Mission
- Volunteer Service Overseas (VSO)

7.2. TYPE

- CIDA sponsorship enabled a number of staff from the college to travel to Canada to receive training in various fields, including the Wildlife discipline, in the 1980s. Again, Canadian personnel came to work at Natural Resources College.
- Two (2) Chinese Officers are at present under Horticulture Section providing technical expertise.
- V.S.O. staff in teaching, library services are a regular feature at Natural Resources College.

There is at the moment one V.S.O staff under Horticulture.

7.3 AMOUNT THIS YEAR

Information Not Available

8. TECHNICAL FIELDS COVERED IN TRAINING

- E Wildlife Biology
- E Reserve Management,
Forestry
- I Financial Planning
- E Extension/Education

Business

Administration

I Tourist Operation

E Planning

9. NUMBER OF DIFFERENT PROGRAMS WITHIN INSTITUTION

The College runs seven (7) disciplines. These are

- . Parks and Wildlife Management (Technical Assistant Level)
- . Fisheries Management (Technical Assistant Level)
- . Land Surveying and Cartography (Technical Officer Level)
- . Agriculture Assistant (Technical Assistant Level)
- . Veterinary Assistant (Technical Assistant Level)
- . Farm Home Assistant (Technical Assistant Level)
- . Landscape Horticulture (Technical Officer Level)

The college provides training in these disciplines through an organisational structure which groups the disciplines in five academic departments which are:

- Veterinary Science
- Crop Science
- General Science and Home Management

- Extension and Farm Management
- Natural Resources Management

Since opening, the college has expanded its activities and has become an important centre for both national and international conference, workshops, refresher and up-grading courses.

10. FOR EACH DIFFERENT PROGRAM (UNDER NATURAL RESOURCES MANAGEMENT DEPARTMENT)

10.1. PARKS AND WILDLIFE MANAGEMENT

10.1.1 YEARS IN EXISTENCE

9 years

10.1.2 LENGTH

2 years

10.1.3 FREQUENCY

From 1983 and 1991 it was every other year. With effect from 1991, every year.

10.1.4. 'DEGREE' CONFERRED

Certificate in the Practices and Principles of Wildlife Management.

10.1.5. ADMISSION

EDUCATION

Full Malawi School Certificate of Education with credit pass in Biology and passes in English, Mathematics and Geography

or

Full Junior Certificate of Education.

EXPERIENCE

Those with Junior Certificate of Education Must not have less than four years experience as Parks and Wildlife Scout (Sc III) in Parks and Wildlife Department.

OTHER

Candidates must be physically fit and prepared for hard out-door work in isolated areas.

Course open to both male and female Malawians.

10.1.6.

SUBJECTS

- . Zoology (Anatomy and Physiology, Mammalogy, Ornithology, Herpetology)
- . Wildlife Management I
- . National Parks and Equivalent Reserves: Planning and Interpretation

- . Biome: · Population Estimates
- . Range Management
- . Wildlife Management II
- . Administration and Public Relations
- . Wildlife Law Enforcement and Court Procedures
- . Plant Ecology
- . General Ecology
- . First Aid
- . Mechanics
- . Rural Building/Carpentry

10.1.7. METHODS USED

- Class instruction
- Practicals in National Parks and Game Reserves
- . Attachment for about six (6) weeks in a National Park/Game Reserve

10.1.8. FOLLOW-UP Yes

- Individual Evaluation through
- . terminal examinations

8

. report writing

. projects

- Supervision

. By Instructors

. By Head of Section

. By Head of Department

. By Principal.

10.1.9.

PROGRAM EVALUATION

- No systematic and comprehensive work has been undertaken. No direct impact study.

10.1.10.

NO. OF "GRADUATES"/YEAR

12

NO. OF GRADUATES

- This past year (1991) 10

- During past 5 years 20

- During history of program 34

10.2 FISHERIES MANAGEMENT COURSE**10.2.1. YEARS IN EXISTENCE**

9 years

10.2.2. LENGTH

2 years (The course is done at two campuses):

- Year One Program at Natural Resources College
- Year Two Program at Mpwapwe Fisheries (Mangochi)

10.2.3. FREQUENCY

Every year

10.2.4. 'DEGREE' CONFERRED

Certificate in Practices and Principles in Fisheries Management

**10.2.5. ADMISSION
EDUCATION:**

Holders of a full Malawi School Certificate of Education with a credit pass in Biology and passes in Mathematics and Science subjects;

Full Junior Certificate of Education.

EXPERIENCE

Those with Junior Certificate must have not less than four years experience as Fish Scout (SC.IV) in Fisheries Department.

OTHER

Course open to both male and female of Malawi origin.

10.2.6

SUBJECTS

- . Fisheries Biology
- . Fisheries Statistics
- . Fisheries Legislation
- . Fish Marketing
- . Sea - Manship
- . Fishing Methods
- . Fish gear Technology
- . First Aid
- . Fish Handling, Preservation and Processing
- . Boat Building

- . Beach Survey
- . Ecology
- . Marine Engineering
- . Fish Culture

10.2.7.

METHODS USED

- One year of more theoretical work at Natural Resources College and a second year of a practically oriented course at Mpwepwe.
- Other activities include field visits and tours to Fisheries institutions and enterprises.
- For about six weeks (after completion of theory at Natural Resources College) students are attached to major fisheries stations.

10.2.8

FOLLOW-UP Yes

- **Individual Evaluation through**
- . terminal examinations
- . report writing
- . projects
- **Supervision**

12

- . By Principal
- . By Instructors
- . By Head of Department
- . By Head of Section

10.2.9. PROGRAM EVALUATION

- No systematic and comprehensive work has been undertaken

10.3 LAND SURVEYING AND CARTOGRAPHY

10.3.1 YEARS IN EXISTENCE

9 years

10.3.2. LENGTH

2 years

10.3.3. FREQUENCY

Every two years

10.3.4. 'DEGREE' CONFERRED

Certificate in Surveying/Cartography

129

1' 5

ADMISSION**EDUCATION**

Full Malawi School Certificate of Education (MSCE) with good passes in Maths, Physical Science and Geography

or

Full Junior Certificate of Education

EXPERIENCE

Those with MSCE must have four years experience in surveying/cartography. Those with Junior Certificate must have at least seven years experience in surveying/cartography.

OTHER

Open to both male and female candidates.

Foreign Students are admitted on recommendation of their respective states.

10.3.6.**SUBJECTS**

- . Land Surveying
- . Surveying Mathematics
- . Cartography

- . Photogrammetry
- . Measurement Science
- . Communication

10.3.7

METHODS USED

- The course is delivered by theory and practicals within the college campus. Students also conduct field practicals in some selected districts and pay study visits to chosen mapping agencies within Malawi.

10.3.8

FOLLOW -UP Yes

- **Individual Evaluation through**
 - . terminal examinations
 - . report writing
 - . projects
- **Supervision**
 - . By Instructors
 - . By Principal
 - . By Head of Department

By Head of Section

10.3.9.

PROGRAM EVALUATION

- No systematic and comprehensive work has been undertaken

* **ADDITIONAL INFORMATION ON SUBJECTS**

A. **CROP SCIENCE DEPARTMENT**

One of the five academic departments and renders the bulk of the courses to Agriculture and Farm Home Science Students. The department comprises four sections - Soil Science, Forestry, Horticulture and Crop Husbandry.

A. new three-year Landscape and Horticulture Programme was established in the 1989/90 academic year.

AIMS AND OBJECTIVES The Department aims at imparting basic theory and practical skills in the management of crops and understanding the importance and vulnerability of the soil.

SECTION	SUBJECT	DISCIPLINE TAUGHT
Soil Science	Soil Science	Parks and Wildlife, Veterinary, Farm Home Assistants, Agriculture, Horticulture Assistant.
Forestry	Forestry/Extension	Agriculture
Horticulture	Horticulture	Farm Home Assistants, Agriculture, Horticulture Assistants.
Crop Husbandry	Crop Production theory	Farm Home Assistants and Agriculture
	Crop Production practice	

B. DEPARTMENT OF EXTENSION AND FARM MANAGEMENT

The department offers subjects to disciplines as follows:

SUBJECT	DISCIPLINE	AREA
Extension methods	Agric. Assistants, Vet. Assistants, Fisheries Assistant Farm Home Assistant	-History of Extension -Extension teaching methods -Importance of Agriculture -Programme Planning -Use of Audio Visual Aids -Leadership -Job Description
Farm Management	Agric. Assistants, Vet. Assistants, Hort. Assistants, Farm Home Assist.	-Introduction to farm management -Basic Economic Principles -Farm accounting and record keeping -Farm finance -Agriculture Marketing
Communication	Agric. Assistants, Vet. Assistants, Farm Home Assistants. Fisheries Assistants Parks & Wildlife Asst. Agric. Assistants.	-Communication process -Barriers to Communication -Adoption and diffusion process -Report writing
Land Husbandry	Agric. Assistants, Farm Home Assts. Vet. Assistants, Hort. Assistants, Parks and Wildlife.	-Land Surveying -Farm Planning -Soil and water conservation
Rural Sociology	Agric. Assistants Vet. Assistants Farm Home Assists. Fisheries Assistants	-Understanding the family and the rural community -Barriers to change -Agents of Change -Effects of demographic changes on rural development
Rural Building	Agric Assistants, Vet. Assistants Fisheries Assists.	-Building materials and equipment -Procedures in construction various farm structures

C THE DEPARTMENT OF VETERINARY SCIENCE

The Department is responsible for teaching specific Veterinary courses to Veterinary Assistant trainees. However, such disciplines as Agriculture Field Assistants, Farm Home Assistants, and Parks and Wildlife are also served.

The Department is organised into two sections namely;

- Disease Control Section
- Animal Production Section

DISEASE CONTROL SECTION

The Subjects are:-

- (a) Microbiology
- (b) Parasitology
- (c) Pathology
- (d) Pharmacology
- (e) Veterinary Assistant Procedures
- (f) Public Health and Meat Inspection
- (g) Disease Control
- (h) Veterinary Gynaecology and Obstetrics
- (i) Anatomy and Physiology

ANIMAL PRODUCTION SECTION

The subjects are:-

- (a) Animal Breeding
- (b) Animal Nutrition
- (c) Pasture Production
- (d) Sheep and Goat Production
- (e) Pig Production
- (f) Poultry Production
- (g) Rabbit Production
- (h) Beef Production
- (i) Dairy Production

D. **GENERAL SCIENCE AND HOME MANAGEMENT DEPARTMENT**

The Department has two sections:

- (a) General Science
- (b) Home Management

GENERAL SCIENCE SECTION

The Section officers general tertiary sciences in preparation for students' various specialities. It has three subjects serving client discipline as follows:-

SUBJECT	DISCIPLINE
Mechanics	Agriculture Assistants, Fisheries Assistants, Veterinary Assistants;
Mathematics	Agriculture Assistants, Fisheries Assistant, Farm Home Assistants, Veterinary Assistants, Horticulture Assistants;
Plant Science	Agriculture Assistants, Veterinary Assistants, Farm Home Assistants

HOME MANAGEMENT SECTION

The section is mainly responsible for the training of Farm Home Assistants apart from providing related subsidiary courses to Agriculture and Veterinary Students.

The following subjects are offered to client departments:-

SUBJECT	DISCIPLINE
Family Economics and Management	Farm Home Assistants
Food and Food Management	Farm Home Assistants
Child Development and Care	Farm Home Assistants
Housing and Technology	Farm Home Assistants, Agriculture Assistants Veterinary Assistants
Human Nutrition	Farm Home Assistants, Agriculture Assistants, Veterinary Assistants
Health and Health Services	Agriculture and Farm Home Assistants

11.0 FULL -TIME TRAINERS

- Number for all programs (50)
- Number of years with Natural Resources College (Variable)
- Number of years as trainer elsewhere (Variable)

- **BACKGROUND**
 - . Highest educational degree (Master of Science) and training in various institutions within Malawi, Africa and outside Africa.

- * **FULL-TIME TRAINERS (WILDLIFE DISCIPLINE)**
 - Number 4
 - Number of years with program (ranges from one month to about a year)

 - Number of years as trainer elsewhere:
 - . One trainer with 4 years experience in Conservation Education.
 - . One trainer with 2 years experience in Conservation Education.
 - . One trainer with experience in training of Parks and Wildlife Scouts

 - Highest qualification:
 - . Post Graduate Diploma in Wildlife Management, Mweka, Tanzania.

- Number of years practical experience in reserve:
 - . One trainer has 1 year reserve experience in management
 - . One trainer with 3 years experience with reserve management
 - . Two with vast experience in reserve management of not less than ten years.
 - . One trainer conversant with research activity at middle management.

12. CURRENT CURRICULUM

- No revision has been undertaken
- Information materials used
 - . various texts
 - . the course adopts Mweka Notes

13. HISTORY FOLLOWING TRAINING

- All Parks and Wildlife Students that have graduated from Natural Resources College have automatically been employed by the Department of National Parks and Wildlife.
- From a total of 34 graduates only 2 have left the department on account of indiscipline.

TRAINING OPPORTUNITIES

BACKGROUND

1. NAME MALAWI COLLEGE OF FORESTRY
2. YEARS IN EXISTENCE 1958 - todate (34 years)
3. Governmental
4. Ministry of Forestry and Natural Resources, Department of Forestry.
5. ESTIMATED ANNUAL PROGRAMME BUDGET

638,772 (Malawi Kwacha) (1992/93 Fiscal Year)
6. FUNDING SOURCES
 - 6.1 GOVERNMENT Malawi Government
 - 6.1.1. COURSE/ADMISSION FEES

Information Not Available
 - 6.1.2. FEE/COMPLETION OF PROGRAM

Information Not Available
 - 6.2 FOREIGN ASSISTANCE? Yes
 - 6.2.1 SOURCE
 - Finnish Government
 - Norwegian Government
 - World Bank

6.2.2. AMOUNT THIS YEAR

- Finnish Government (I.N.A.)
- Norwegian Government (I.N.A.)
- World Bank (2.7 Million Malawi Kwacha)

7. TECHNICAL ASSISTANCE? Yes**7.1 SOURCE**

- Finnish Government (From 1989 up to present)
- British Government (From 1986 - 1987)
- Japan (From 1989 - 1991) * More expected this year.

7.2 TYPE

- Finnish Government

Mostly in teaching and construction of college infrastructure e.g. Building of two Hostel Blocks, Kitchen, Dinning Hall, Library, Store Room, and Mechanical Workshop.

At the meantime there is one Finnish Officer engaged both in teaching as well as co-ordinating Finnish Funded Project. The Finnish Government has also enabled college to procure teaching Aids/Materials, Textbooks, Vehicles and Plant.

Funding also provides for Teaching Staff to proceed abroad on Study Tours, and currently four members of staff at the College are attending a Diploma in Teaching course in Zambia.

Finnish funding also provides for revising and updating of curriculum.

- British Government

Teaching staff in Motor Vehicle Technology.

Staff in maintaining College Fleet.

- Japan

Teaching Staff in Motor Vehicle Technology.

Staff in Maintaining College Fleet.

8. TECHNICAL FIELDS COVERED IN TRAINING

I WILDLIFE BIOLOGY

RESERVE MANAGEMENT

E FORESTRY BUSINESS

E ADMINISTRATION

E FINANCIAL PLANNING

E EXTENSION/EDUCATION

TOURIST OPERATION

E PLANNING

9. **NUMBER OF DIFFERENT PROGRAMS WITHIN INSTITUTION**

The College currently offers two regular academic courses in Forestry.

These are:

General Forestry Certificate Course (2 years)

Diploma in Forestry Course (18 months)

In addition, there are three short courses which are conducted on request as follows:

Forest Resource Conservation Course (6 weeks)

Forest Patrolmen Course (4 weeks)

Forest Nursery Management Course (6 weeks)

These three courses are for subordinate class personnel and a certificate of attendance is awarded to successful candidates.

10. **FOR EACH DIFFERENT PROGRAM:**

10.1 **DIPLOMA IN FORESTRY COURSE**

10.1.1. **YEARS IN EXISTENCE**

Since 1969 (23 years). However, between 1969 and 1976 part of the program was conducted in institutions abroad. It was until 1976 when the whole program began being offered by the college.

10.1.2. LENGTH (18 months/one and half years)

10.1.3. FREQUENCY

Continuous. There have been times, however, when intake has had to pend until one class graduates.

10.1.4. 'DEGREE' CONFERRED

Diploma in Forestry

10.1.5. ADMISSION

EDUCATION: Full Malawi School Certificate of Education (M.S.C.E) (Ordinary Level) with at least credit passes in English, Mathematics and Biology

EXPERIENCE: Four (4) years field work in Forestry.

OTHER: Candidates should be 18 to 30 years of age, and be physically and mentally fit. Foreign candidates are admitted in addition to having obtained approval of their Government in agreement with Malawi Government and prior evidence of adequate financial support.

10.1.6. SUBJECTS

- . Silviculture I
- . Silviculture II
- . Forest Surveying
- . Forest Protection
- . Wood Technology and Utilization
- . Forest Mensuration
- . Forest Engineering

- . Forest Policy and Law
- . Agro-forestry
- . Forest Resource and Land Management
- . Administration I
- . Administration II
- . Soil Science
- . Forest Botany and Ecology
- . Forest Meteorology
- . Forestry Management
- . Forest Economics
- . Forest Fire Management
- . Social Forestry
- . Statistics
- . Motor Vehicle Technology

10.1.7. METHODS USED

- Class instruction 60%
- Practicals 40%
- . Includes attachment for about a month in forestry establishments, during which station officers assign various tasks to trainees.

10.1.8. FOLLOW-UP Yes

- Individual evaluation through
 - . terminal examinations
 - . report writing 40%
 - . projects
- Supervision
 - . By Lecturers
 - . The Principal

10.1.9. PROGRAM EVALUATION Yes

- This program was last updated in June 1992

10.1.10 NO OF "GRADUATES"/YEAR 14

- This past year 11

- During past 5 years 38

- During history of program 159

10.2 GENERAL FORESTRY CERTIFICATE COURSE

10.2.1. YEARS IN EXISTENCE

Since 1958 (ie 34 years)

10.2.2. LENGTH

2 Years

10.2.3. FREQUENCY

Continuous/every year

10.2.4. 'DEGREE' CONFERRED

Certificate in General Forestry

10.2.5. ADMISSION

EDUCATION: Full Malawi School Certificate of Education (M.S.C.E) (Ordinary Level) with at least credit passes in English, Mathematics and Biology.

14/10

EXPERIENCE: Not a requirement

OTHER: Candidates should be 18 to 30 years of age, and be physically and mentally fit. Foreign candidates are admitted in addition to having obtained approval of their Government in agreement with Malawi Government and prior evidence of adequate financial support.

10.2.6.

SUBJECTS

- . Silviculture I
- . Silviculture II
- . Forest Surveying
- . Forest Protection
- . Forest Harvesting
- . Wood Technology and Utilization
- . Forest Mensuration
- . Forest Engineering
- . Forest Extension
- . Forest Policy and Law
- . Agro-Forestry
- . Forest Resources and Land Management
- . Administration
- . Soil Science
- . Forest Botany and Ecology
- . Forest Meteorology
- . Motor Vehicle Technology
- . First Aid.

10.2.7.

METHODS USED

- Class instruction 40%
- Practicals 60%

. includes study tour and one month practical work at any major forestry station.

10.2.8 FOLLOW-UP Yes

- Individual evaluation through
 - . terminal examinations
 - . report writing
- Supervision by Lectures and Principal.

10.2.9. PROGRAM EVALUATION Yes

- This program was last evaluated in June 1990

10.2.10 NO. OF "GRADUATES"/YEAR 40NO. OF GRADUATES

- This past year 42
- During past 5 years 180
- During history of program 666

11.0 FULL-TIME TRAINERS**11.1** NUMBER

- 6 (Six) Lectures with an additional four (4) on training

11.2 NUMBER OF YEARS WITH THIS PROGRAM

- Ranges from 3 to 9 years

11.3 NUMBER OF YEARS AS TRAINER ELSEWHERE

- Most Lecturers at the College have received normal training in teaching whilst at the college. Except one who has undergone Teaching Methodology Course both within the country as well as outside the country.
- Most Lecturers also have field experience in relevant fields, with academic performance rated 'above average'.

- There is one Lecturer at Professional Officer Grade with a Bachelor of Science in Forestry. The rest are Instructors at Technical Officer Grade, some having received their training at the Malawi College of Forestry itself.
- * There is a part-time Lecturer who operates from Department of Forestry Headquarters (Lilongwe). He holds an MSc. in Forestry.

12.0 CURRENT CURRICULUM

12.1. DATE OF LAST REVISION

- General Forestry Certificate Course (June, 1990)
- Diploma in Forestry Course (June, 1992)

12.2 INFORMATION MATERIALS USED

12.2.1. TEXT? Yes

12.2.2. TRAINING MANUALS? Yes

12.2.3. OTHER

- A workshop was convened. It drew participants from

- . Government institutions
- . Parastatal institutions
- . Non-governmental organisations
- . Private organisations

* Graduates from the College were involved.

13. HISTORY FOLLOWING TRAINING

- Most graduates from the College are absorbed by the Department of Forestry. However, there are candidates sent to Malawi College of Forestry by institutions such as Malawi Young Pioneers, Kasungu Flue Cured Tobacco Authority (K.F.C.T.A) and City Councils. After completion of training, such candidates proceed to work with their respective institutions.

TRAINING OPPORTUNITIES

BACKGROUND

1. NAME BUNDA COLLEGE OF AGRICULTURE
2. YEARS OF EXISTENCE 1966-Todate (26 years)
3. Parastatal
4. University of Malawi
5. Information Not Available
6. FUNDING SOURCES

6.1 Government Subvention

6.1.1. COURSE/ADMISSION FEES

Information Not Available

6.1.2. FEE/COMPLETION OF PROGRAM

Information Not Available

6.2 FOREIGN ASSISTANCE ? Yes

6.2.1. SOURCE

- Human Resources Institutional Development (USAID)
- GTZ.
- SADC
- ODA (For Foreign Students)
- IDRC

251

6.2.2. AMOUNT THIS YEAR

Information Not Available

7. TECHNICAL ASSISTANCE ? Yes

7.1. SOURCE

- Human Resources Institutional Development (USAID)
- World Bank
- IDRC
- GTZ

7.2 TYPE

- USAID (HRID)

Mostly in providing teaching staff e.g.

- 1 Lecturer in Rural Development
- 1 Lecturer in Agriculture Engineering

- World Bank

eg.

- 1 Lecturer in Agriculture Economics

- GTZ, IDRC and TAIWAN (Expertise in Aquaculture)

8. **TECHNICAL FIELDS COVERED IN TRAINING**

- I Wildlife Biology
- Reserve Management
- E Business Administration
- E Financial Planning
- E Extension/Education
- Tourist Operation
- E Planning
- E Range Management
- E Agro - Forestry

9. **NUMBER OF DIFFERENT PROGRAMS WITHIN INSTITUTION**

The College currently offers regular academic courses as follows:-

- Diploma in Agriculture (3 years)
- Bachelor of Science in Agriculture (5 years)

In addition it offers post-graduate studies (notably at Masters Level) in the following fields, sometimes even on part-time basis

- .. Animal Science with specialisations in Nutrition, Breeding, and Production.
- .. Agriculture Economics

- .. Agronomy
- .. Fisheries/Wildlife

Masters programs span two (2) years

The college has (7) seven departments (sections);

- .. Agriculture Economics
- .. Animal Science
- .. Crop Production
- .. Home Economics and Human Nutrition
- .. Rural Development
- .. Agro - Forestry
- .. Aquaculture

10. FOR EACH DIFFERENT PROGRAM

- 10.1 - Masters (Animal Science)
Masters (Agronomy)

* Much emphasis in Wildlife started in 1988

10.1.1. **YEARS IN EXISTENCE**

Since 1985 (8 years)

10.1.2.

LENGTH

24 Calender months (2 years). However, under special circumstances the program could be extended to a maximum of 48 Calender months at the recommendation of the student advisory committee.

10.1.3.

FREQUENCY

Continuous

10.1.4.

'DEGREE' CONFERRED

EDUCATION

Candidates should hold at least a credit degree or its equivalent in Agriculture or a relevant field unless a special case for admitting someone with a pass degree can be made by the Head of Department.

EXPERIENCE

Information Not Available.

OTHER

Information Not Available

10.1.6.

SUBJECTS/COURSES/THEMES

Common Core Courses

6

- . Animal Physiology
- . Research Methods
- . Farming Systems
- . Biometry and Computer Science
- . Biochemistry
- . Animal Nutrition
- . Animal Breeding
- . Range and Pasture Management
- . Animal Health
- . Animal Production
- . Economics of Livestock Production
- . Seminars (thesis projects)

OPTION COURSES

- . Animal Nutrition
- . Animal Breeding
- . Animal Production:

* (Including Fish and Wildlife)

155

ADDITIONAL INFORMATION*COURSE CONTENT****.. RANGE AND PASTURE MANAGEMENT (40 HOURS)**

- Characteristics of rangelands
- Definition/terminology
- Principles of range management
- Range ecology and physiology in relation to management
- Methods of evaluation of rangelands
- Management of grazing systems, pastoral and agro-pastoral systems
- Ranch inventory and planning
- Range improvement
- Multiple use of rangelands/including agro-and silvo-forestry

**.. ANIMAL PRODUCTION (40 HOURS)
(Fish and Wildlife)**

- FISH
 - . Fish ecology
 - . Feeding

. Pond management

. Breeding

. Marketing

- WILDLIFE

. Ecology of game species

. Hygiene and health

. Management systems (national parks, game ranching)

. Harvesting techniques

. Marketing

10.1.7.

METHODS USED

- CLASS INSTRUCTION

.. for one year.

- PRACTICAL

.. Research Project. Normally carried out at Bunda College. But with approval of the Students' Advisory Committee, it may be carried out elsewhere provided facilities are adequate and supervision can be arranged.

The project is for a Dissertation/Thesis.

- OTHER

PROJECT SEMINAR REQUIREMENTS

- . Each students is required to give at least one seminar.
- . The first seminar is given during the first year which outlines proposed plan of research.
- . The second seminar is given at completion of the research work before submission of the dissertation/thesis.
- . Additional seminars in the opinion of the Students' Advisory Committee at any time.

10.1.8.

FOLLOW - UP Yes

- Individual Evaluation

. Exams

. Presentations

. External Examiners

- Supervision

. There is a supervisory committee for each student.

. The committee is composed of an advisor whose discipline is in the students' field of study and two other members.

. The committee monitors the progress of the student in both course work and research for dissertation/thesis.

10.1.9 PROGRAM EVALUATION Yes

- Date (1990/91)

10.1.10 NO. OF "GRADUATES"/SESSION

- Number per year (5)

- This past year (2)

- During past 5 years (12)

- During history of program (13)

11.0 FULL - TIME TRAINERS

- Number 12 (including 3 on training abroad)

- Number of years with MSc program

.(11 years in ten trainers at MSc Level)

- Number of years as trainer elsewhere

.(Information Not Available)

- BACKGROUND

Vast range of experience

- HIGHEST EDUCATIONAL DEGREE

Doctor of Philosophy

12.0 CURRENT CURRICULUM

- Date of last revision: 1987 (Another is coming soon)

13.0 HISTORY FOLLOWING TRAINING

- Information made available shows that most graduates of the MSc program have been absorbed by institutions that sent them to obtain such training at Bunda College e.g. - Government
 - National Bank
 - Teaching
- No one within the Department of National Parks and Wildlife (Malawi) has attended the MSc program at Bunda College so far. Opportunity is nonetheless present.
- Those officers with the Department of National Parks in Malawi (from Bunda College) attained either:
 - (a) a BSc in Agriculture
 - (b) a Diploma in Agriculture.

**ANNEXE 3:
'GAP ANALYSIS' RESULTS**

FIGURE 1:

2.3.3a Respondents years in service Malawi

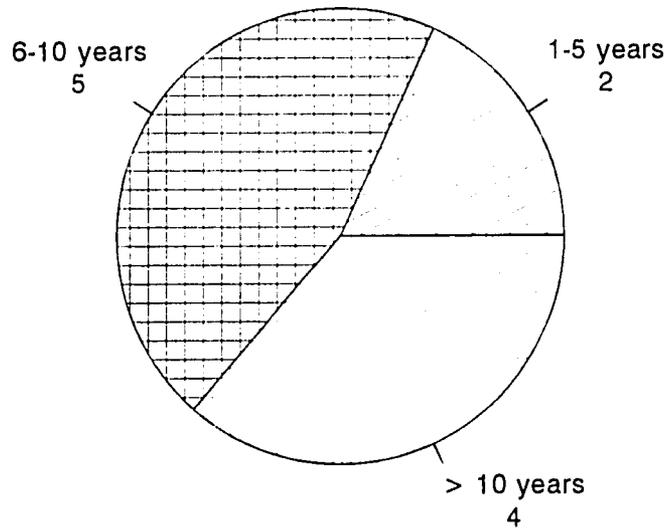
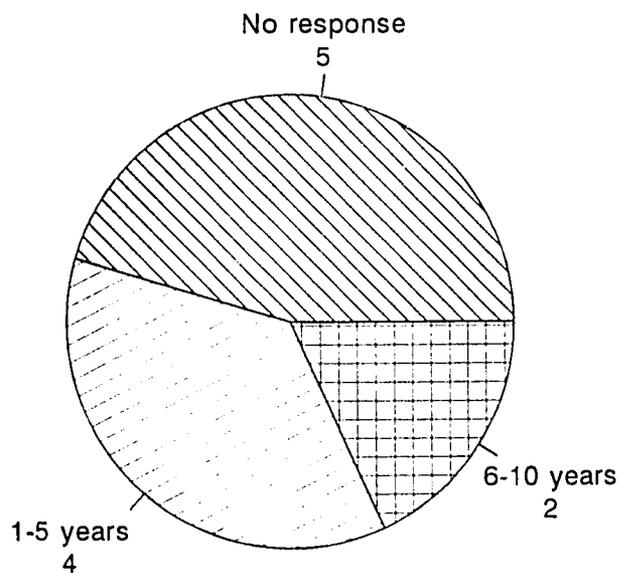


FIGURE 2:

Total Sample n = 16 (PAMS & Ass. PAMS combined: n=11)

2.3.3b Respondents years as a PAM Malawi

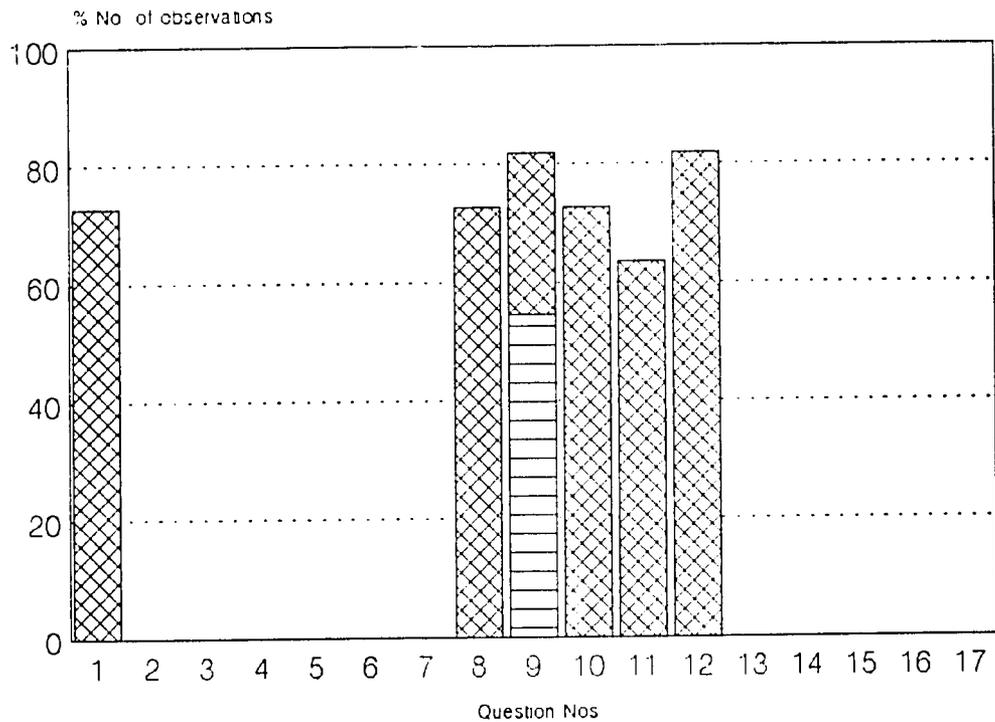


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Total Sample n = 16 (PAMS & Ass PAMS combined: n=11)

FIGURE 3:

2.3.4 b Validation analysis: Knowledge of PAMs relative to PARCS
 Technical -ve scores: Malawi

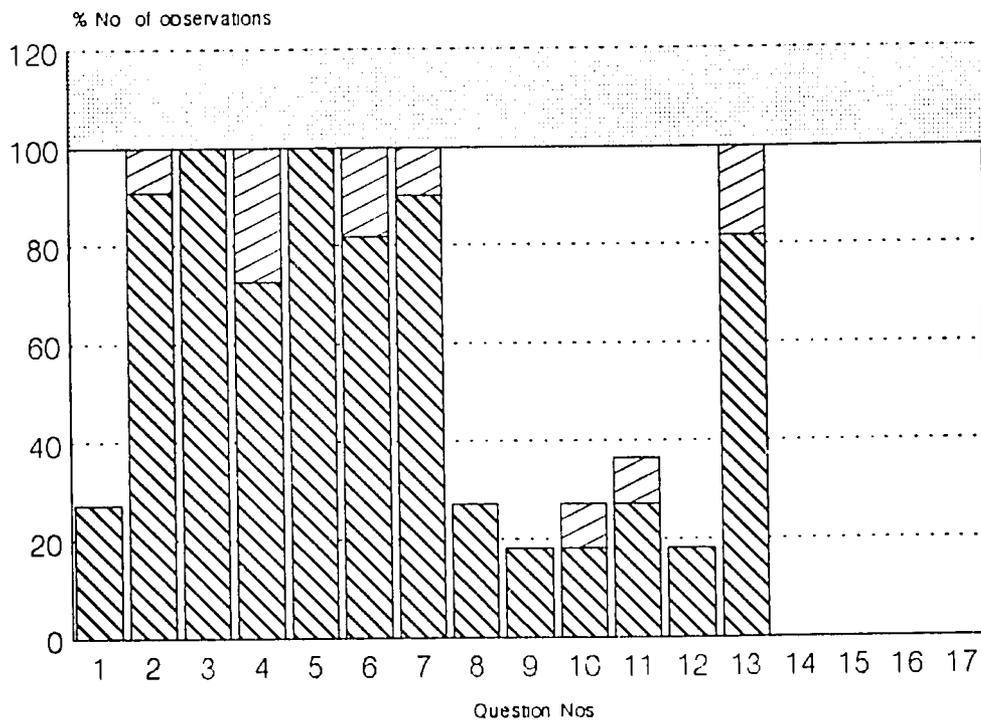


-ve values

- [-1]
- [-2]
- [-3]

Total Sample n=16 (Asst PAMs & PAMs combined n=11)

2.3.4.b Validation analysis: Knowledge of PAMs relative to PARCS
 Technical +ve scores: Malawi



+ve values

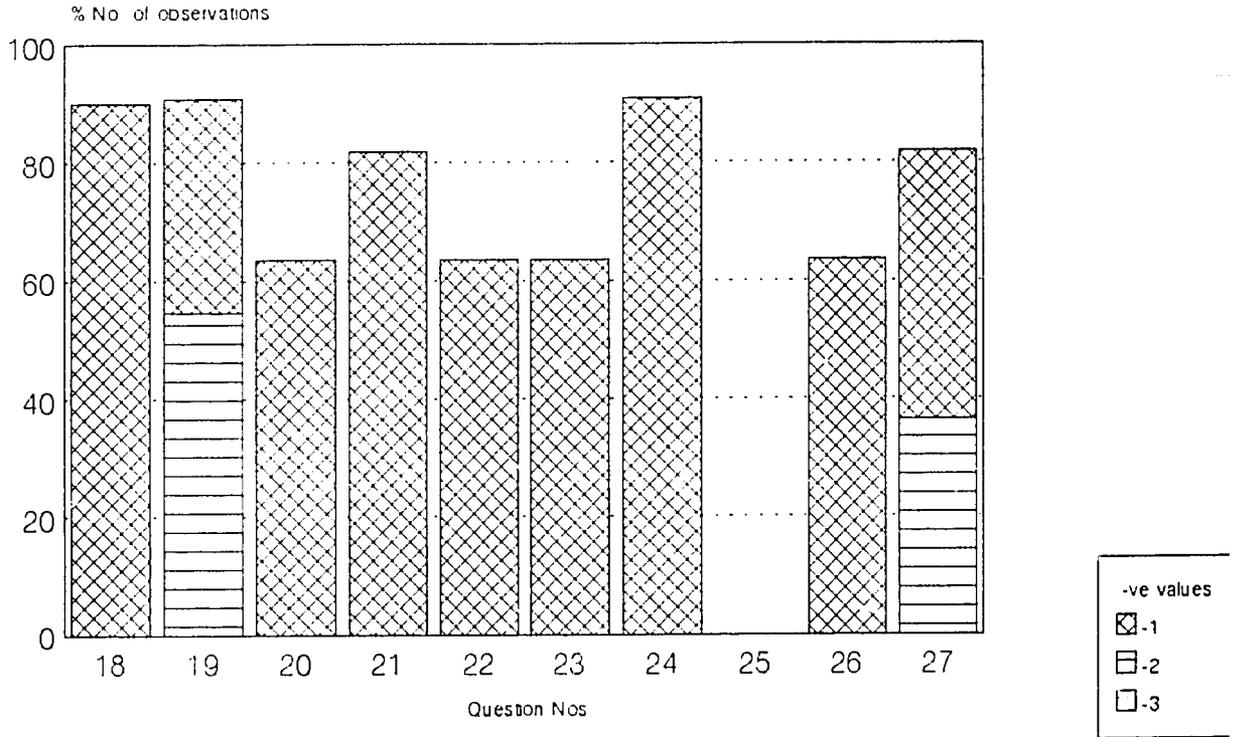
- [3]
- [2]
- [1]
- [0]

Total Sample n=16 (Asst PAMs & PAMs combined n=11) **AVAILABLE DOCUMENT**

163

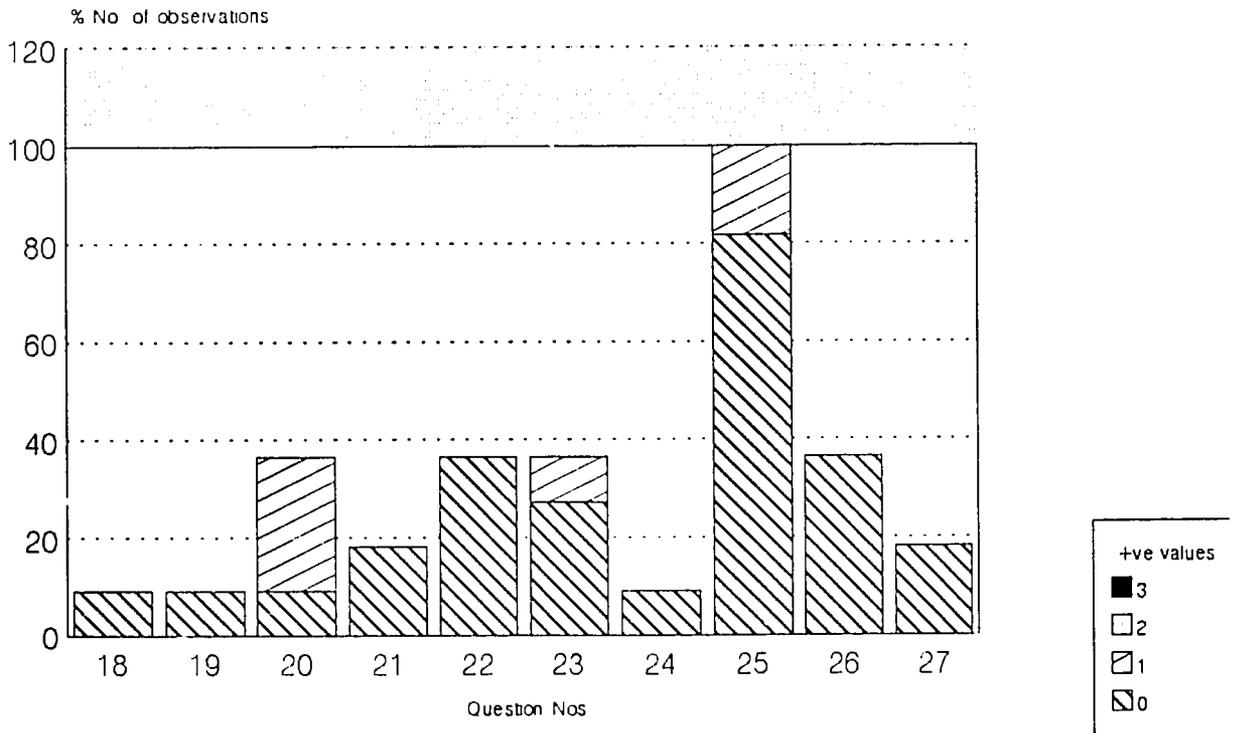
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FIGURE 3:
2.3.4.b Validation analysis: Knowledge of PAMs relative to PARCS
 Management -ve scores: Malawi



Total Sample n=16 (Asst PAMs & PAMs combined n=11)

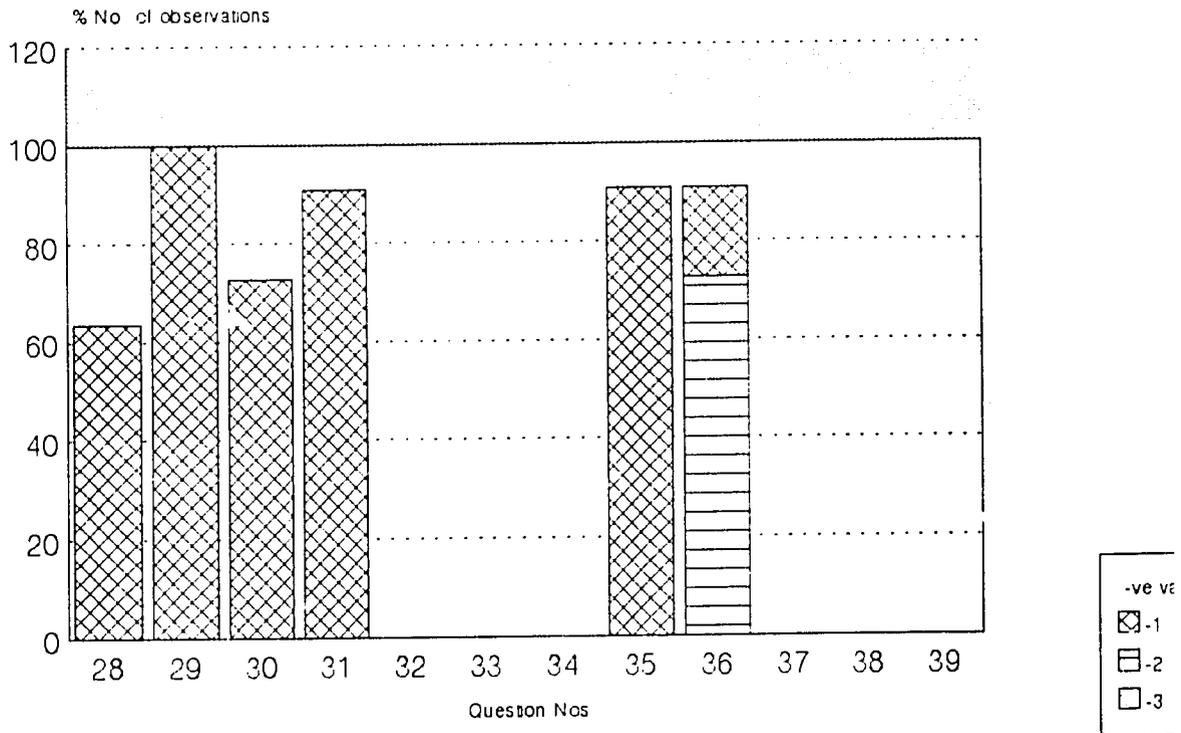
2.3.4.b Validation analysis: Knowledge of PAMs relative to PARCS
 Management +ve scores: Malawi



Total Sample n=16 (Asst PAMs & PAMs combined n=11)

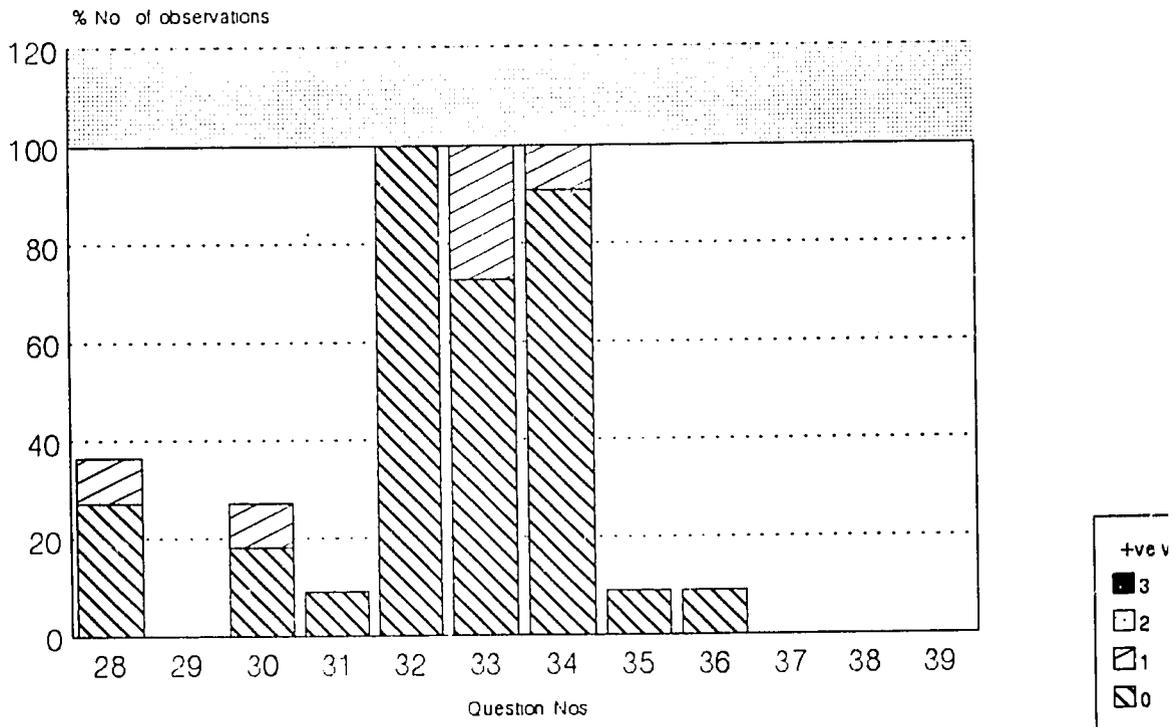
FIGURE 3:

2.3.4.b Validation analysis: Knowledge of PAMs relative to PARC
 Planning -ve scores: Malawi



Total Sample n=16 (Asst PAMs & PAMs combined n=11)

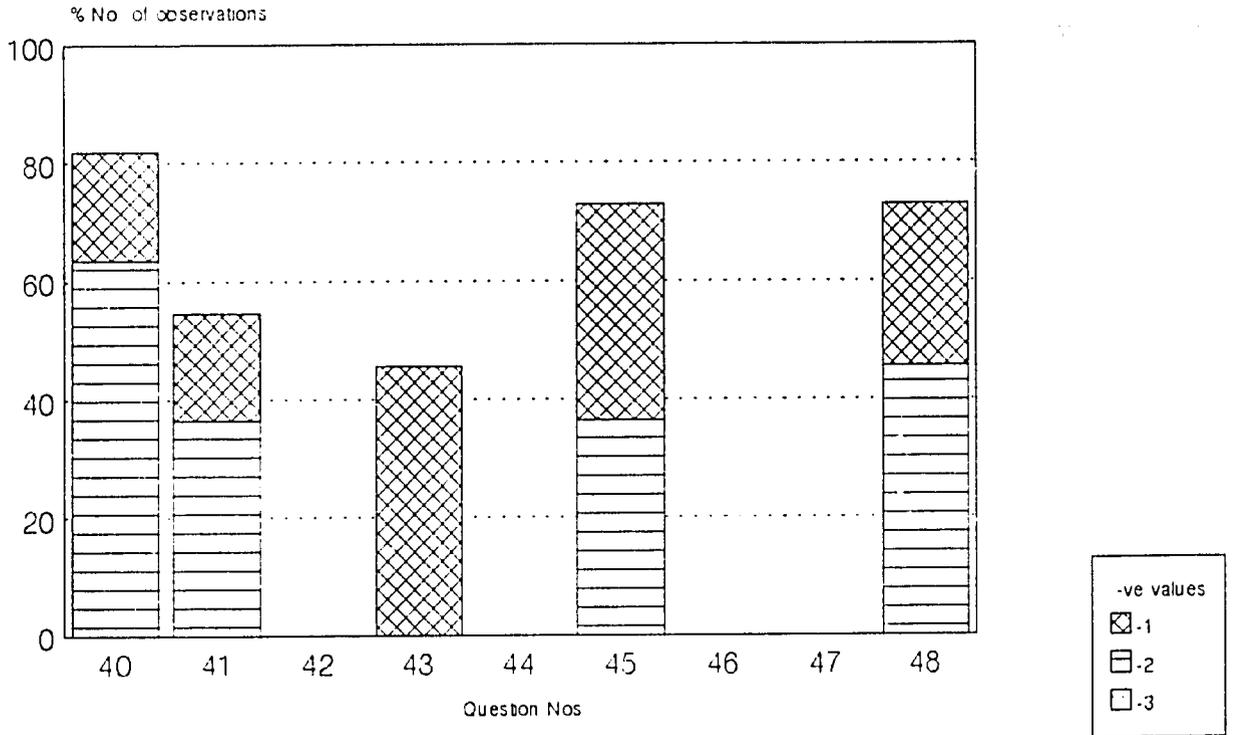
2.3.4.b Validation analysis :Knowledge of PAMs relative to PARC
 Planning +ve scores: Malawi



Total Sample n=16 (Asst PAMs & PAMs combined n=11)

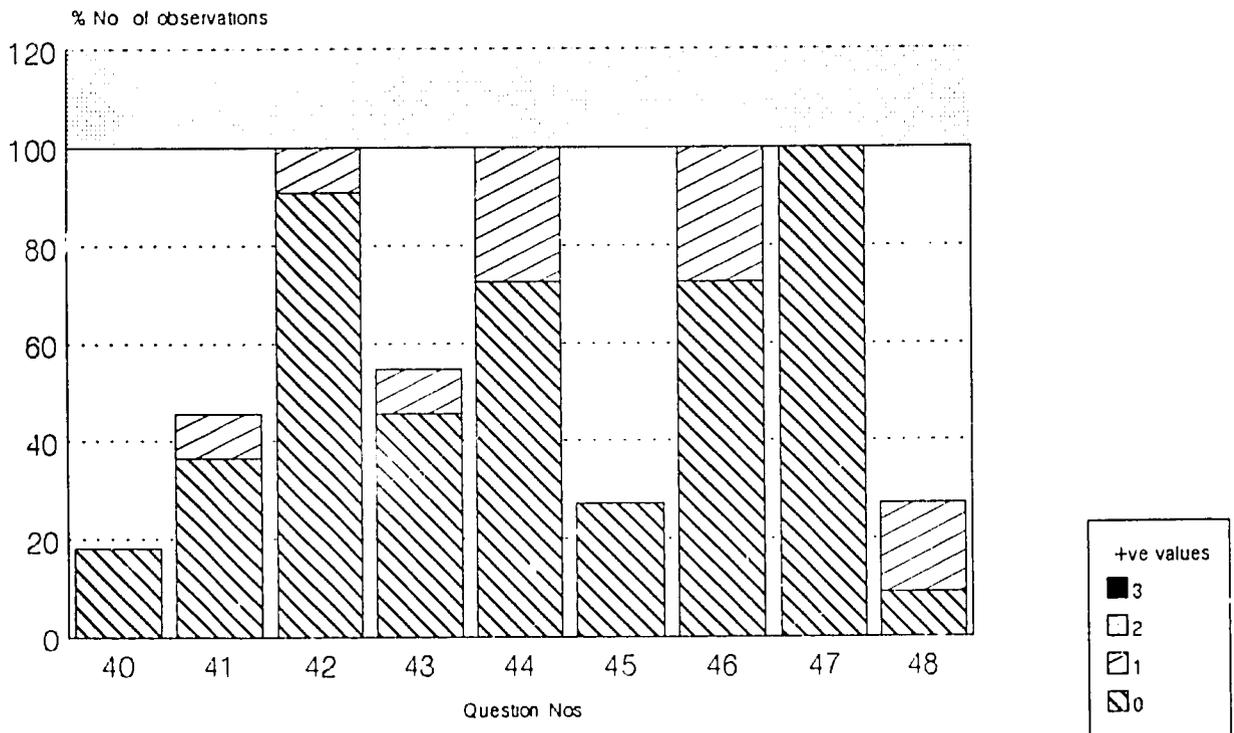
FIGURE 3:

2.3.4.b Validation analysis: Knowledge of PAMs relative to PARCS
 Legal -ve scores: Malawi



Total Sample n=16 (Asst PAMs & PAMs combined n=11)

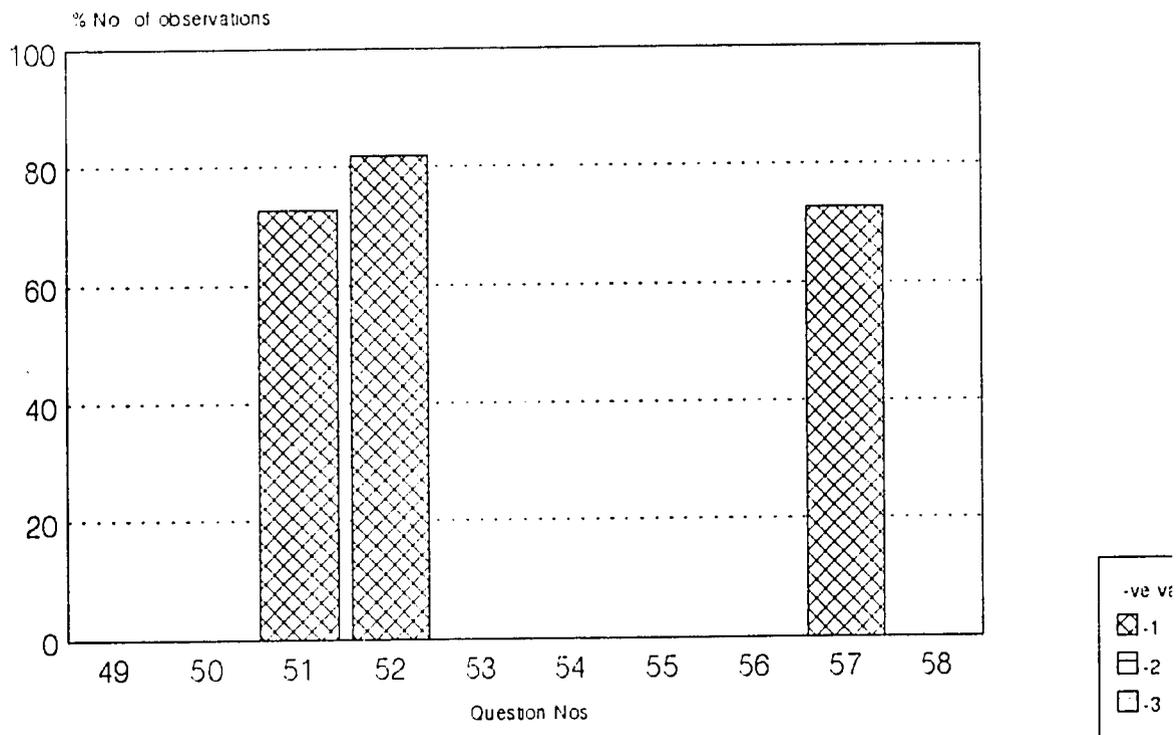
2.3.4.b Validation analysis: Knowledge of PAMs relative to PARCS
 Legal +ve scores: Malawi



Sample n=16 (Asst PAMs & PAMs combined n=11)

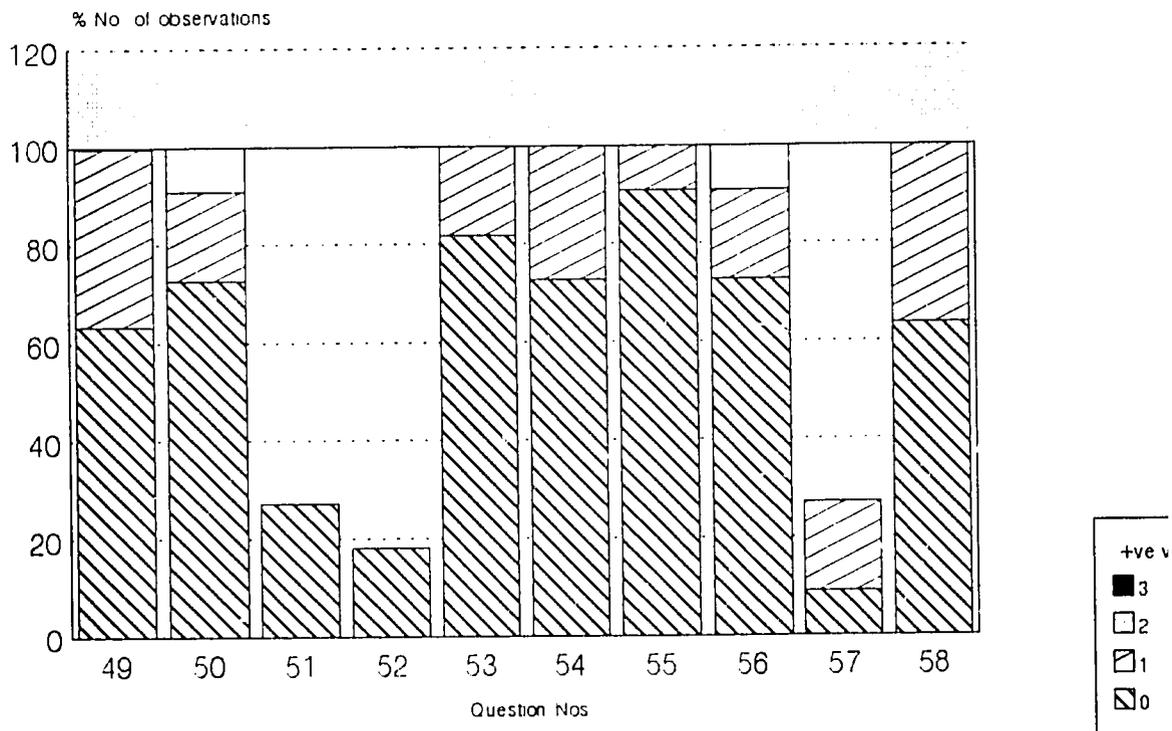
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FIGURE 3:
 2.3.4.b Validation analysis: Knowledge of PAMs relative to PARC
 Policies & Procedures -ve scores: Malawi



Total Sample n=16 (Asst PAMs & PAMs combined n=11)

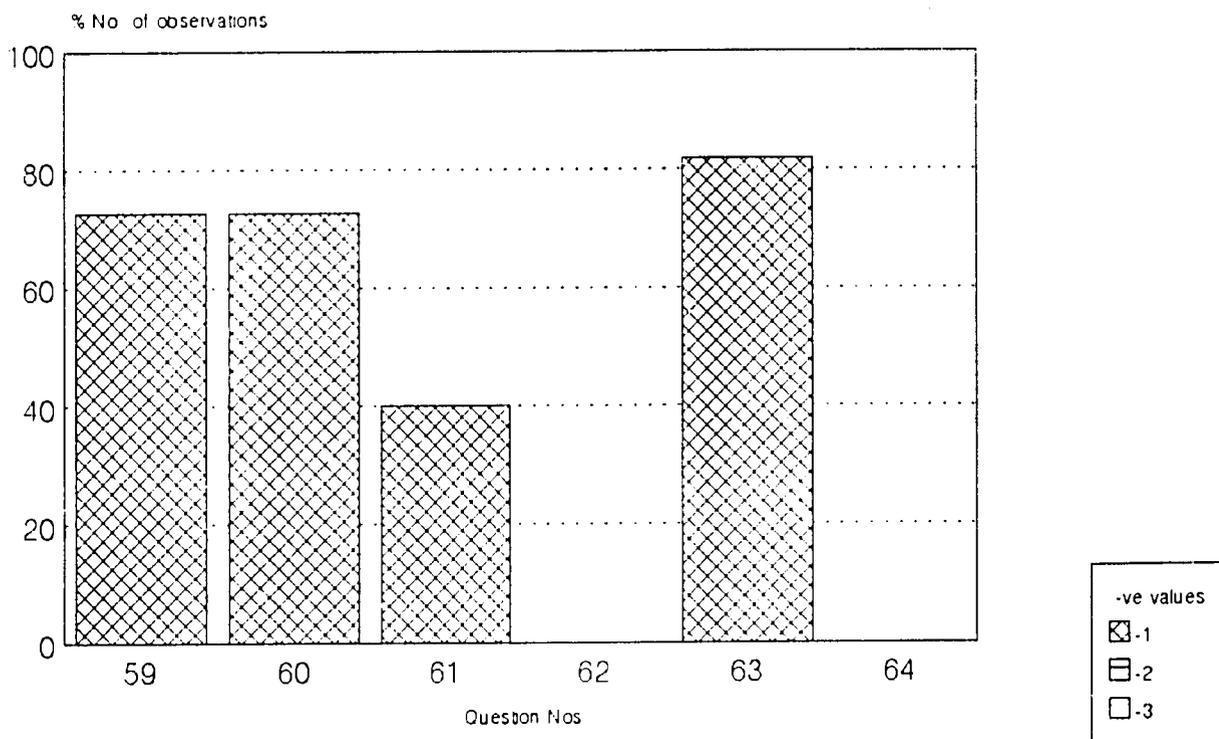
2.3.4.b Validation analysis: Knowledge of PAMs relative to PARC
 Policies & Procedures +ve scores: Malawi



Total Sample n=16 (Asst PAMs & PAMs combined n=11)

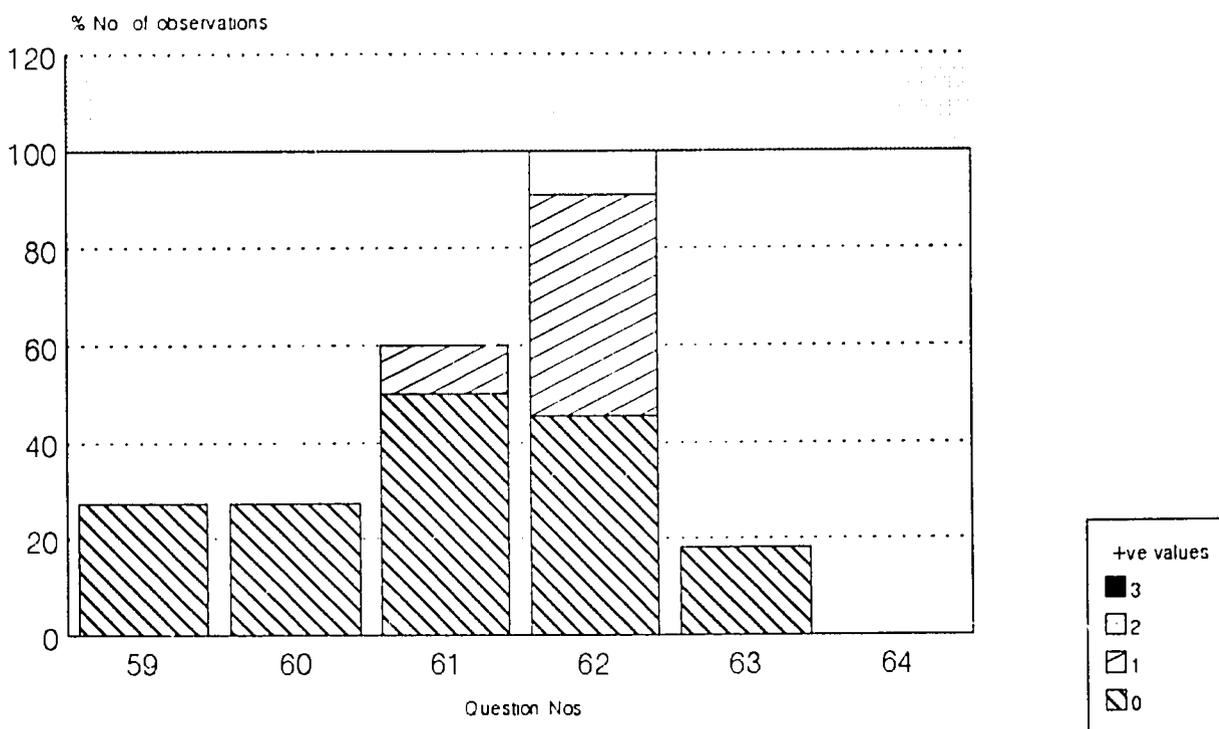
FIGURE 3:

2.3.4.b Validation analysis: Knowledge of PAMs relative to FARCS
Financial -ve scores Malawi



Total Sample n=16 (Asst PAMs & PAMs combined n=11)

2.3.4.b Validation analysis: Knowledge of PAMS relative to PARCS
Financial +ve scores: Malawi



Total Sample n=16 (Asst PAMs & PAMs combined n=11)

TABLE 3:

2.3.4c PAMs' Measure of Agreement: PARCS validation score
Malawi

COMPETENCY	Question No	Total % of combined scores of -1,0,1	
		Question	Competency average
Technical	1	100	95.8
	2	100	
	3	100	
	4	100	
	5	100	
	6	100	
	7	100	
	8	100	
	9	45.5	
	10	100	
	11	100	
	12	100	
	13	100	
	14		
	15		
	16		
	17		
Management	18	100	90.9
	19	45.5	
	20	100	
	21	10	
	22	100	
	23	100	
	24	100	
	25	100	
	26	100	
	27	63.6	
	Planning	28	
29		100	
30		100	
31		100	
32		100	
33		100	
34		100	
35		100	
36		27.3	
37			
38			
39			
Legal	40	36.4	57.5
	41	63.6	
	42	100	
	43	100	
	44	100	
	45	63.4	
	46	100	
	47	100	
	48	54.5	
Policy and Procedures	49	100	98.2
	50	90.9	
	51	100	
	52	100	
	53	100	
	54	100	
	55	100	
	56	90.9	
	57	100	
	58	100	
Financial and Accounting	59	100	98.2
	60	100	
	61	100	
	62	91	
	63	100	
	64		

Overall % accuracy score

88.8

Total sample: n = 16

Asst PAMs & PAMs combined: n = 11

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TABLE 4:

2.3.4d Own score validation analysis: Knowledge average scores
Malawi

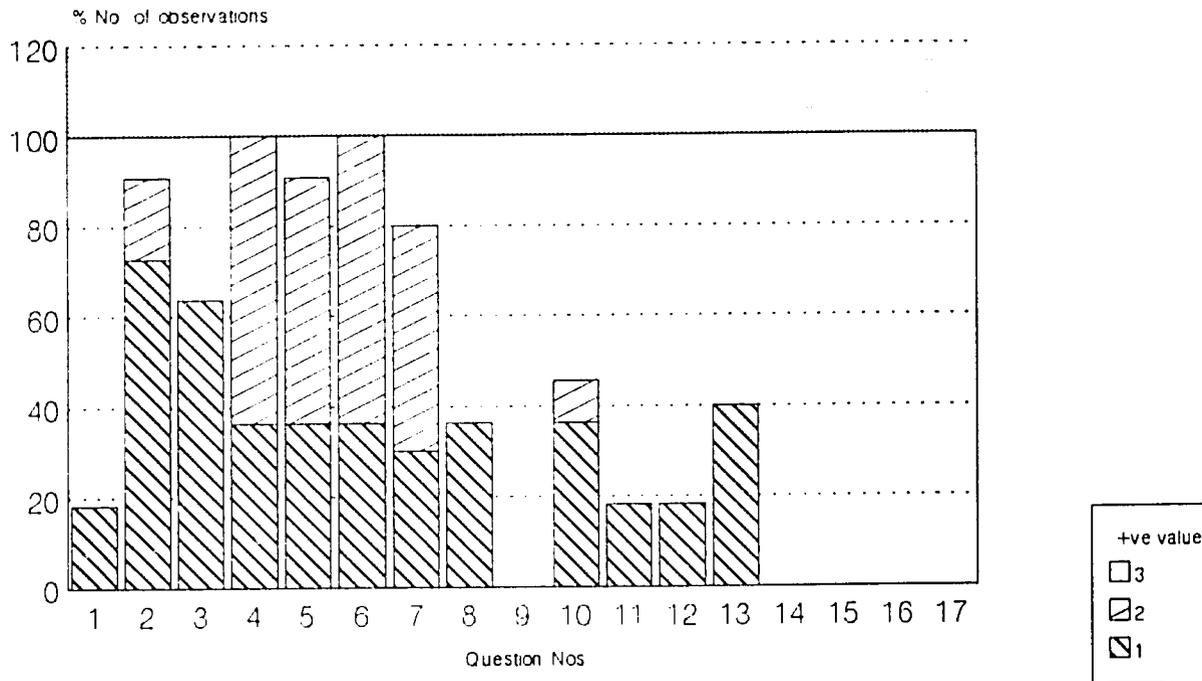
COMPETENCY	Qs No.	Box No.	PARCS Score	Average Country / Org. Score	POSITION								
					1 n=	2 n=11	3 n=2	4 n=1	5 n=	6 n=	7 n=2	8 n=	9 n=
Technical	1	B	3	3.7		3.7	3	2			3.5		
	2	E	4	3.9		3.9	3	4			4		
	3	E	4	4		4	4	4			4		
	4	F	4	3.7		3.7	3	4			3.5		
	5	F	4	4		4	3	4			3		
	6	F	4	3.8		3.8	4	4			4		
	7	G	4	3.5		3.5	4	4			4		
	8	H	3	3.7		3.7	3.5	4			3.5		
	9	I	2	3.4		3.4	4	4			3		
	10	I	3	3.6		3.6	4	3			3		
	11	I	3	3.5		3.5	4	3			3.5		
	12	J	3	3.8		3.8	3.5	4			3.5		
	13	J	4	3.8		3.8	3.5	4			4		
	14	K	4										
	15	K	4										
	16	K	3										
	17	K	3										
Management	18	A	3	3.9		3.9	3.5	4			3		
	19	A	2	3.5		3.5	3.5	3			3		
	20	A	3	3.4		3.4	3.5	4			2.5		
	21	B	3	3.8		3.8	3.5	4			3		
	22	B	3	3.6		3.6	4	2			3		
	23	F	3	3.5		3.5	3	4			4		
	24	G	3	3.9		3.9	3.5	4			3.5		
	25	H	4	3.8		3.8	4	4			4		
	26	J	3	3.6		3.6	4	4			3.5		
	27	J	2	3.2		3.2	4	4			3.5		
Planning	28	A	3	3.5		3.5	3	3			3.5		
	29	B	3	4		4	3	4			3.5		
	30	C	3	3.6		3.6	4	4			3		
	31	D	3	3.9		3.9	3.5	4			3		
	32	E	4	4		4	3	4			4		
	33	F	4	3.7		3.7	3	4			4		
	34	G	4	3.9		3.9	4	4			4		
	35	H	3	3.9		3.9	3.5	4			4		
	36	I	2	3.6		3.6	3	3			3.5		
	37	K	3										
	38	K	4										
Legal	40	A	2	3.5		3.5	3.5	3			2.5		
	41	B	2	2.8		2.8	3	2			3		
	42	E	4	3.9		3.9	3	4			4		
	43	F	3	3.4		3.4	3.5	3			3.5		
	44	G	4	3.7		3.7	3.5	4			4		
	45	H	2	3.1		3.1	3.5	3			2.5		
	46	I	4	3.7		3.7	3	3			4		
	47	J	4	4		4	4	4			4		
	48	J	2	3		3	3.5	3			2.5		
Policy and Procedures	49	A	4	3.6		3.6	4	4			3.5		
	50	B	4	3.6		3.6	4	4			3.5		
	51	C	3	3.7		3.7	4	4			3		
	52	D	3	3.8		3.8	3	4			3		
	53	E	4	3.8		3.8	3	4			4		
	54	F	4	3.7		3.7	3	4			3.5		
	55	G	4	3.9		3.9	3.5	4			4		
	56	H	4	3.6		3.6	4	4			3.5		
	57	I	3	3.5		3.5	3	3			3		
	58	J	4	3.6		3.6	3	4			3		
Financial and Accounting	59	C	3	3.7		3.7	3	4			3		
	60	C	3	3.7		3.7	3	4			3		
	61	H	3	3		3	3	4			3		
	62	H	4	3.4		3.4	3	4			3		
	63	I	3	3.8		3.8	3	3			3		
	64	K	3										

Total sample: n = 16

Asst PAMs & PAMs combined: n = 11

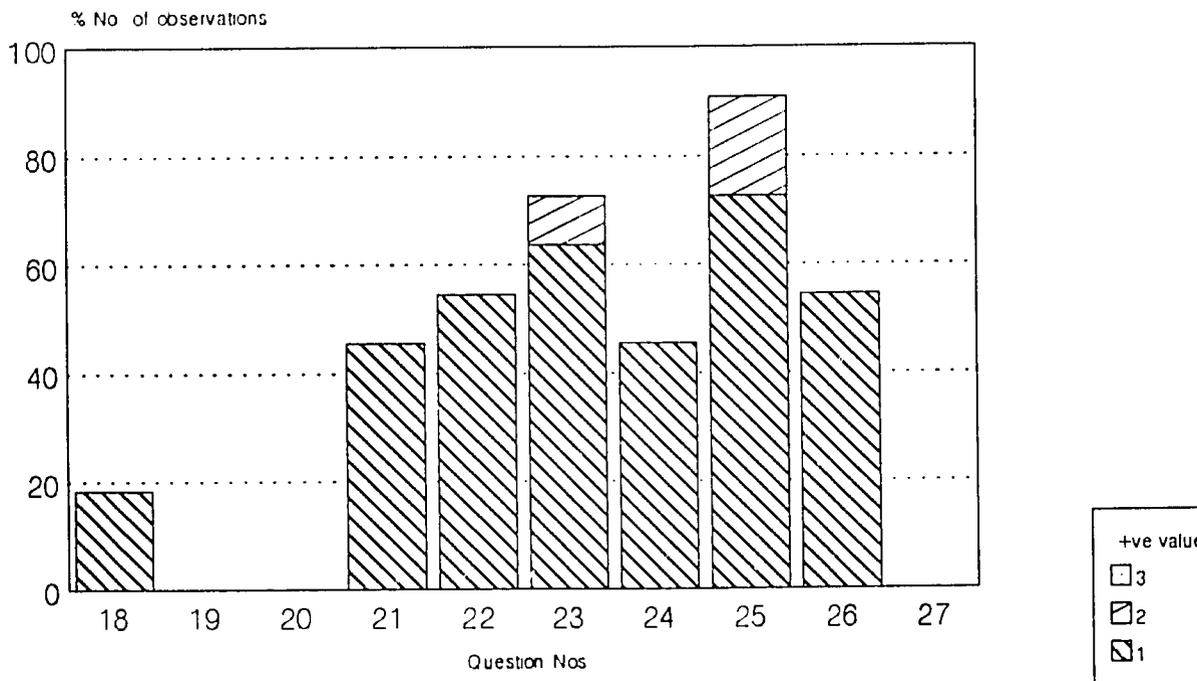
FIGURE 4:

2.3.5.a. PAMs gap analysis relative to PARCS Technical Knowledge: Malawi



Sample n=11 (PAMs & Ass PAMs)

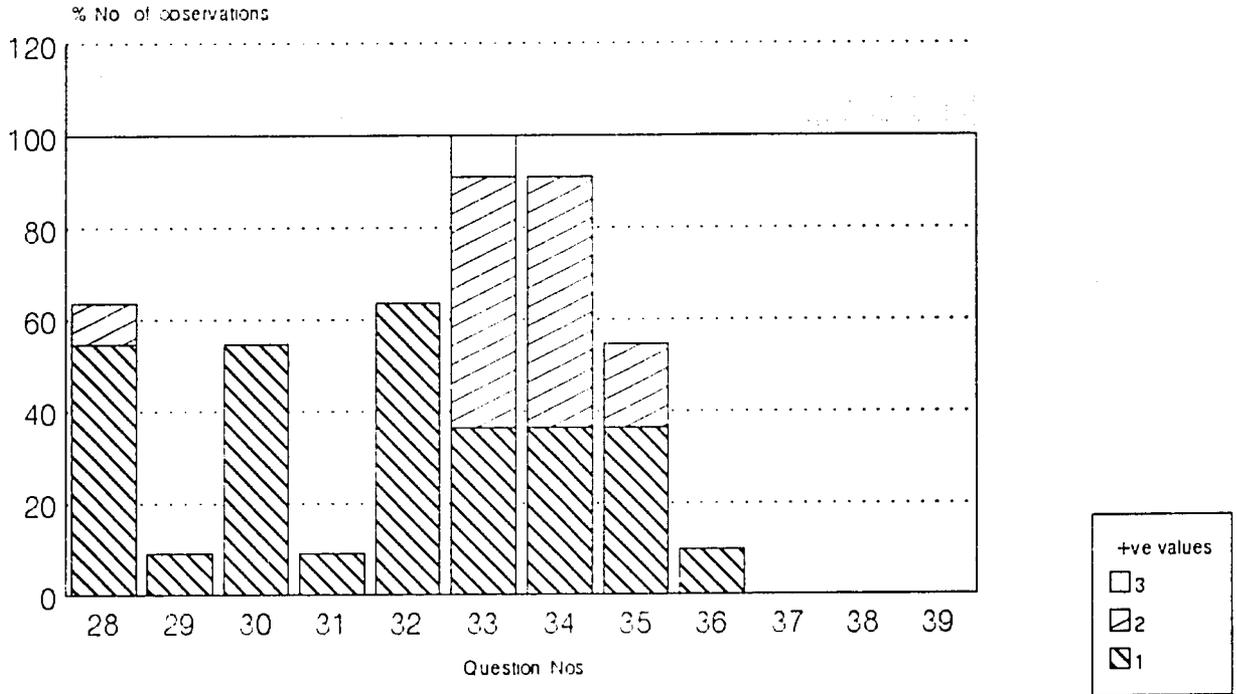
2.3.5.a. PAMs gap analysis relative to PARCS Management Knowledge: Malawi



Sample n=11 (PAMs & Ass PAMs)

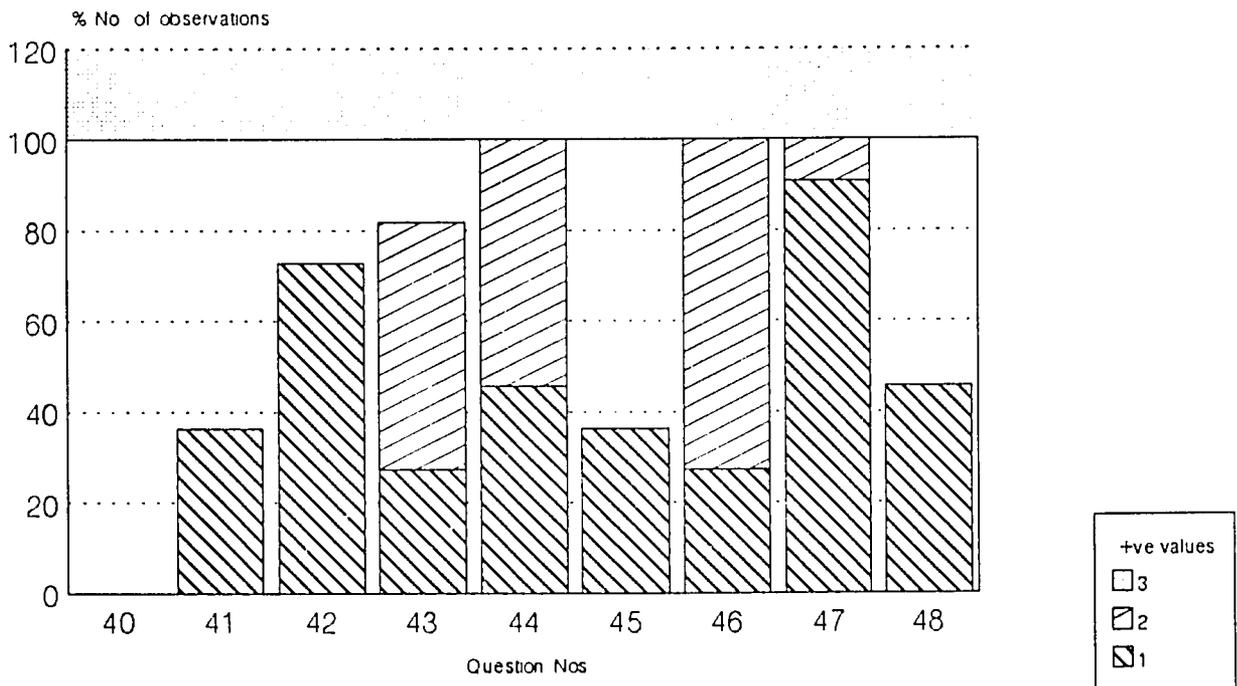
FIGURE 4:

2.3.5.a. PAMs gap analysis relative to PARCS. Planning Knowledge Malawi



Sample n=11 (PAMs & Ass PAMs)

2.3.5.a. PAMs gap analysis relative to PARCS Legal Knowledge: Malawi

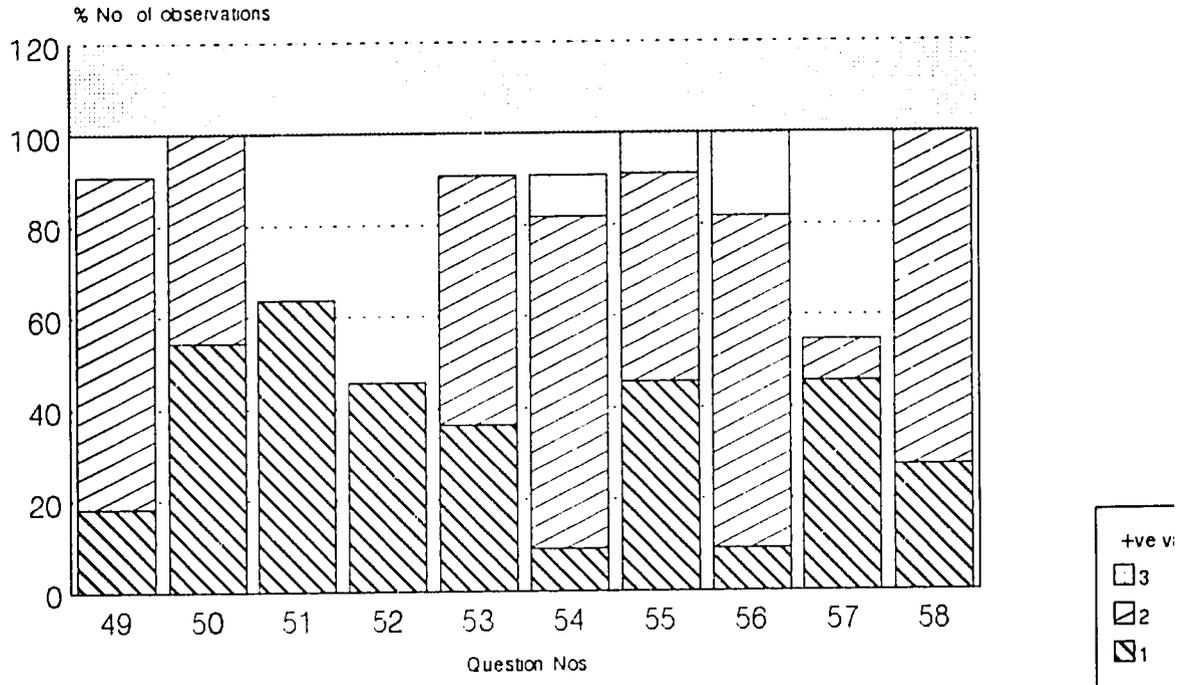


Sample n=11 (PAMs & Ass PAMs)

FIGURE 4:

2.3.5.a. PAMs gap analysis relative to PARC

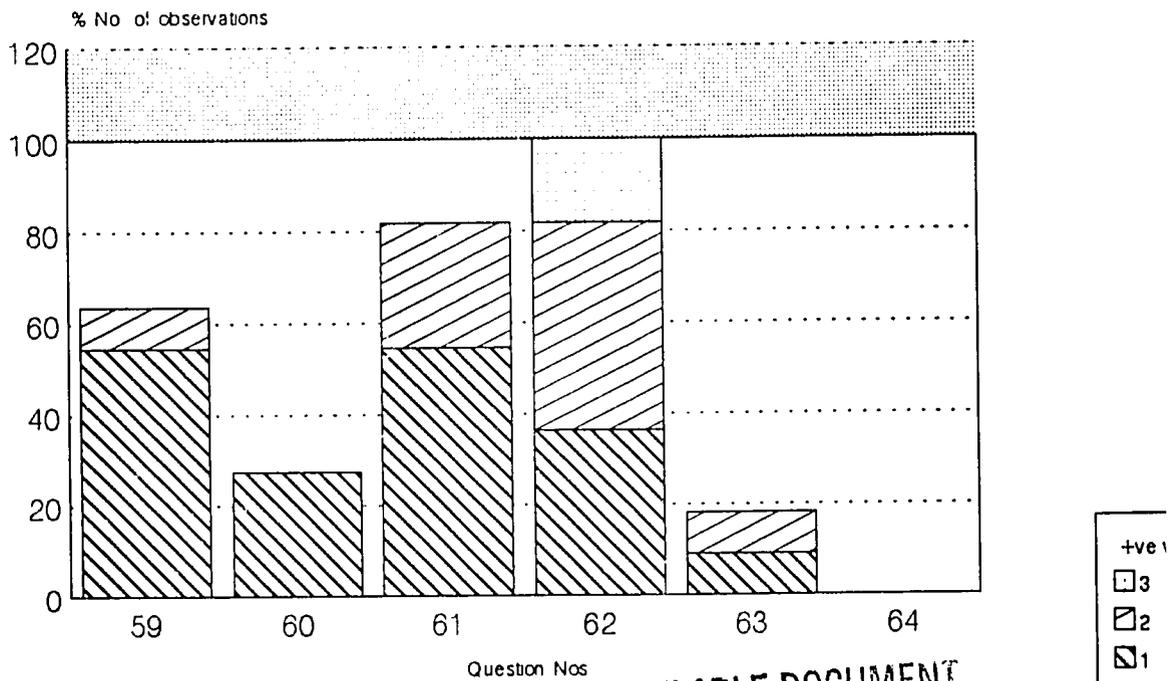
Policies & Procedures Knowledge: Malawi



Sample n=11 (PAMs & Ass PAMs)

2.3.5.a. PAMs gap analysis relative to PARC

Financial Knowledge: Malawi

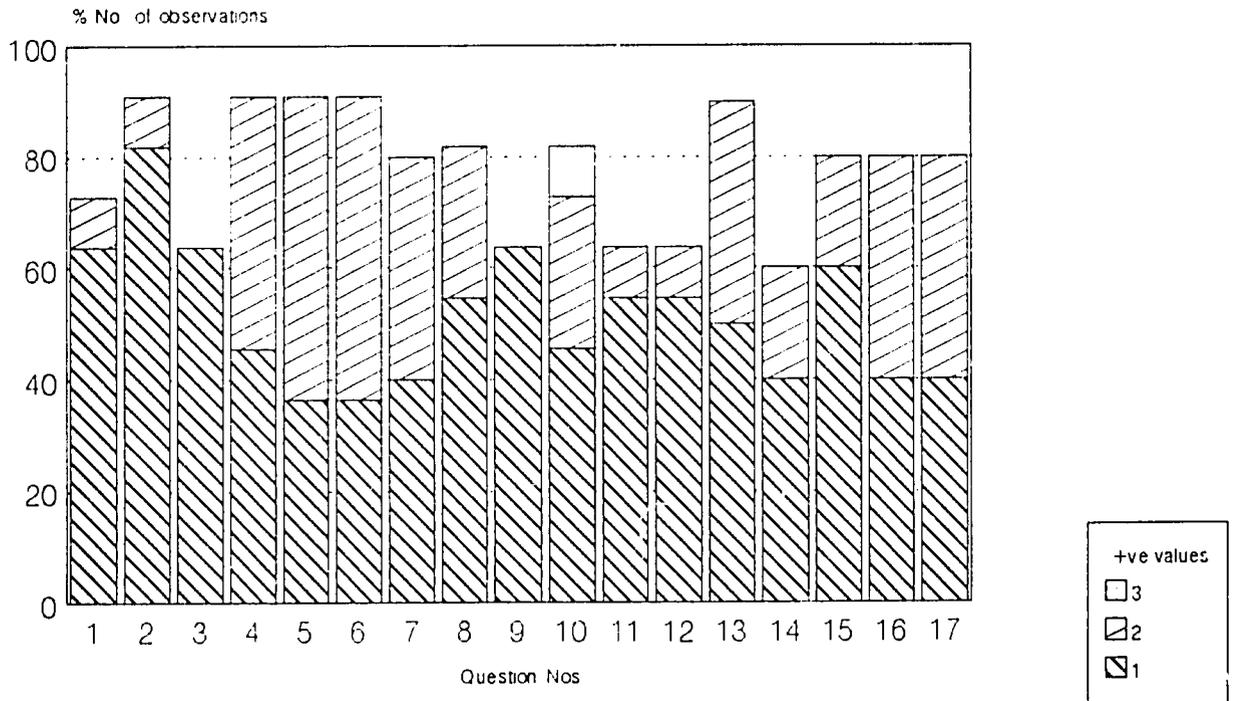


Sample n=11 (PAMs & Ass PAMs)

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2.3.5.b. PAMs gap analysis relative to own score

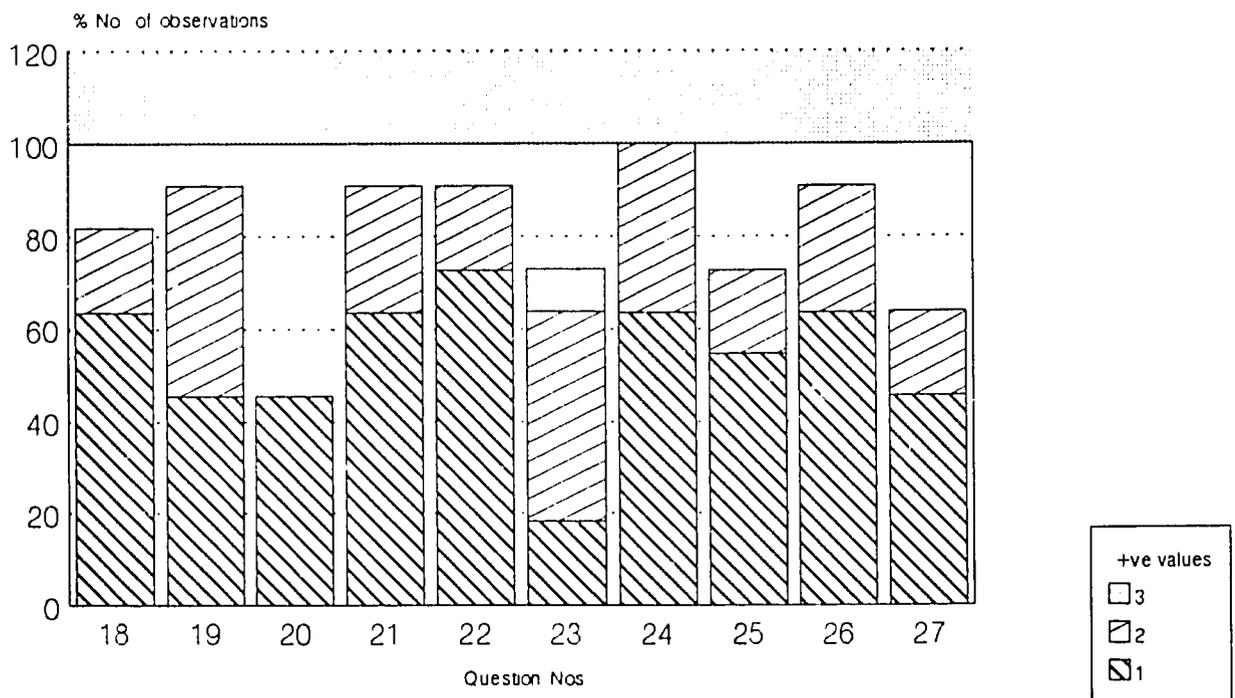
Technical Knowledge: Malawi



Sample n=16 (PAMs & Ass PAMs: n=11)

2.3.5.b. PAMs gap analysis relative to own score

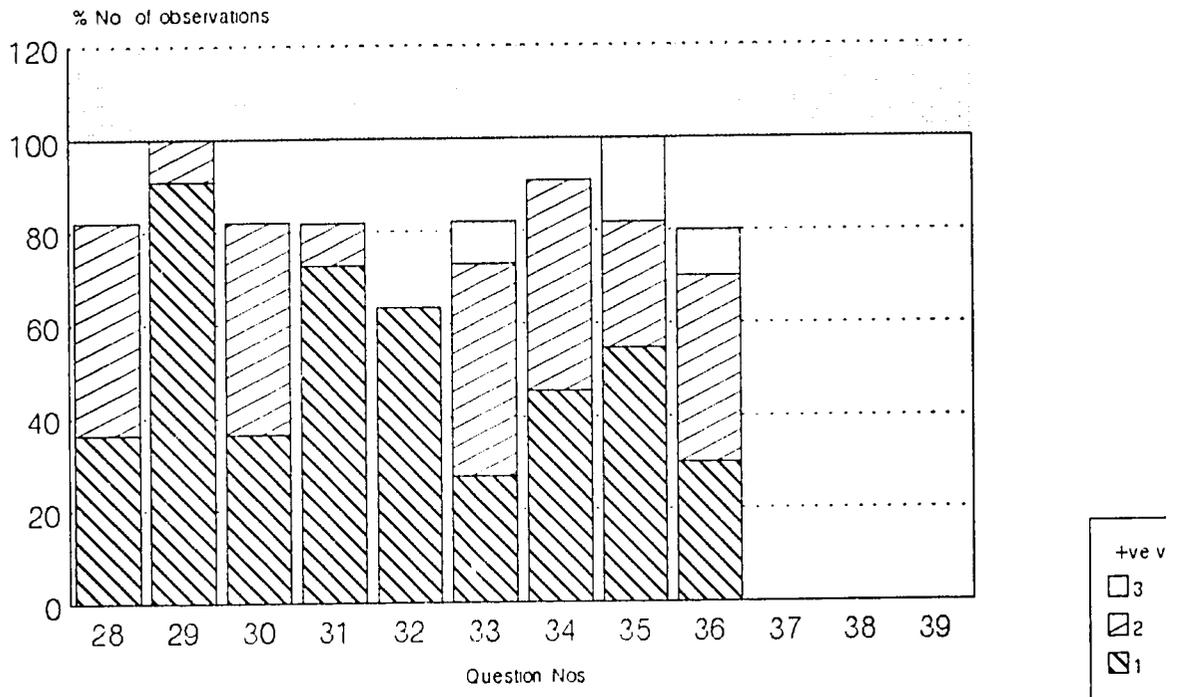
Management Knowledge: Malawi



Sample n=16 (PAMs & Ass PAMs: n=11)

2.3.5.b. PAMs gap analysis relative to own scc

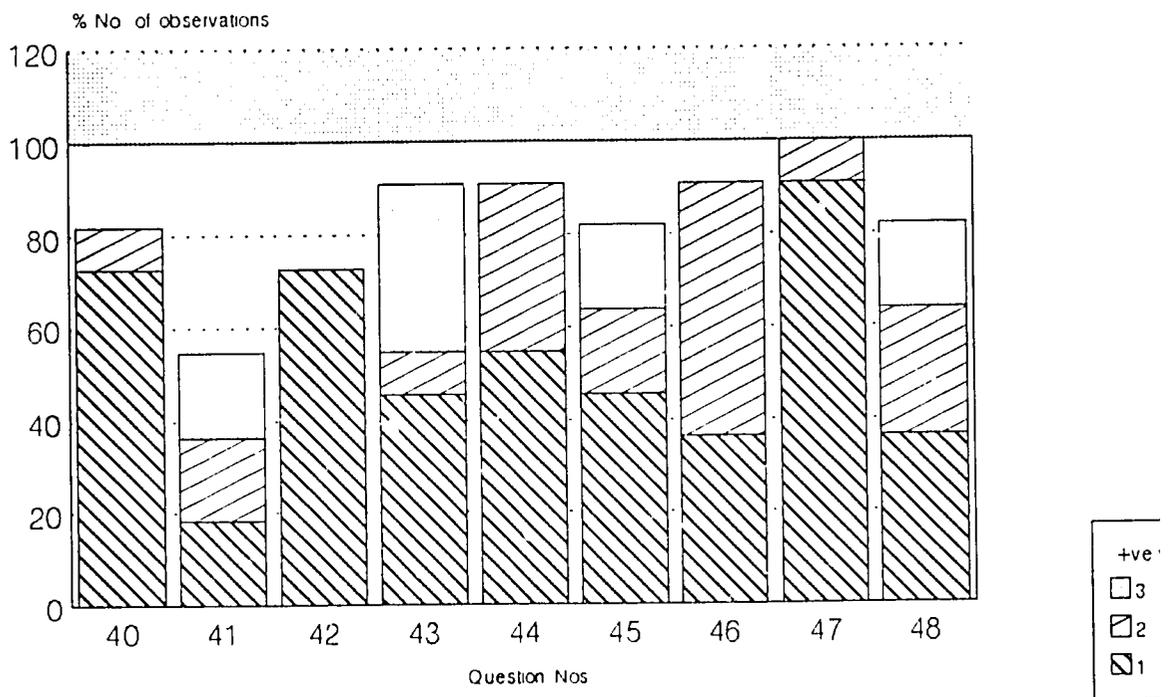
Planning Knowledge: Malawi



Sample n=16 (PAMs & Ass PAMs: n=11)

2.3.5.b PAMs gap analysis relative to own scc

Legal Knowledge: Malawi

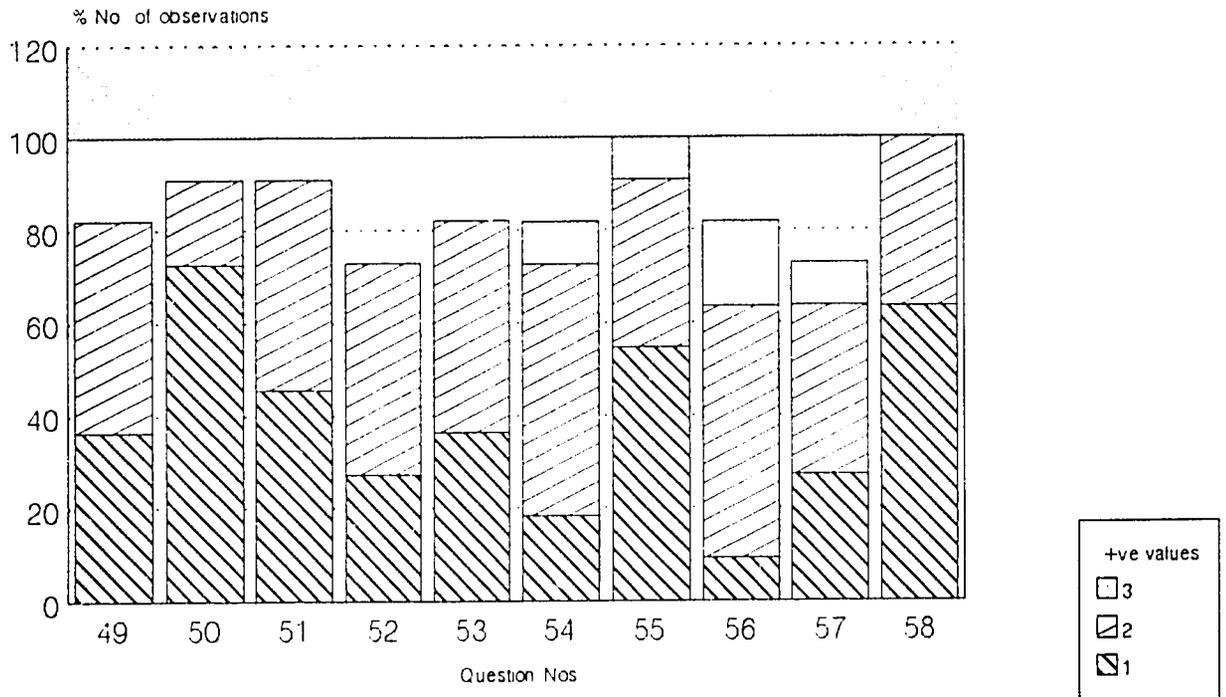


Sample n=16 (PAMs & Ass PAMs: n=11)

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2.3.5.b. PAMs gap analysis relative to own score

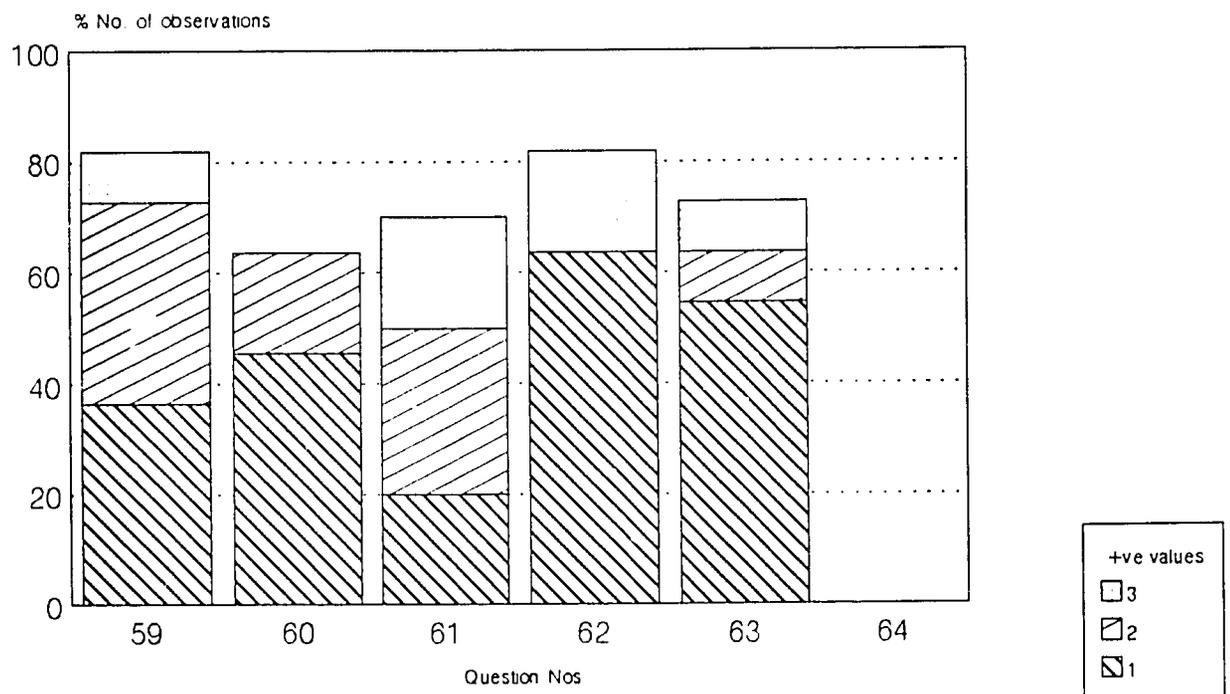
Policies & Procedures knowledge: Malawi



Sample n=16 (PAMs & Ass PAMs: n=11)

2.3.5.b PAMs gap analysis relative to own score

Financial Knowledge: Malawi



Sample n=16 (PAMs & Ass PAMs: n=11)

TABLE 5:

2.3.5d PARCS score gap analysis: Knowledge average scores
Malawi

COMPETENCY	Qs No.	Box No.	PARCS Score	Average Country / Org. Score	POSITION									
					1 n=	2 n=11	3 n=2	4 n=1	5 n=	6 n=	7 n=1	8 n=	9 n=	
Technical	1	B	3	0.18		0.2	1	1				0		
	2	E	4	1.09		1.1	2	0				1		
	3	E	4	0.64		0.6	1.5	0				2		
	4	F	4	1.64		1.6	2	2				1.5		
	5	F	4	1.45		1.5	2	1				2		
	6	F	4	1.64		1.6	1.5	1				0.5		
	7	C	4	1.3		1.3	1.5	1				0.5		
	8	H	3	0.36		0.4	1	1				0.5		
	9	H	2	0		0	0	0				0		
	10	I	3	0.55		0.5	1	1				0		
	11	I	3	0.18		0.2	1	1				0		
	12	I	3	0.18		0.2	1	0				0.5		
	13	J	4	1.4		1.4	2	1				0		
	14	K	4											
	15	K	4											
	16	K	3											
	17	K	3											
Management	18	A	3	0.18		0.2	1	1				0		
	19	A	2	0		0	0	0				0		
	20	A	3	0		0	1	0				0.5		
	21	B	3	0.45		0.5	1	0				0		
	22	B	3	0.55		0.5	1	1				0		
	23	B	3	0.82		0.8	1.5	1				0		
	24	C	3	0.45		0.5	0	0				0		
	25	H	4	1.09		1.1	2	2				1		
	26	J	3	0.55		0.5	1	1				0		
	27	J	2	0		0	0	0				0		
Planning	28	A	3	0.73		0.7	1	1				0		
	29	B	3	0.09		0.1	1	1				0		
	30	C	3	0.55		0.5	1.5	1				0		
	31	D	3	0.09		0.1	1.5	1				0		
	32	E	4	0.64		0.6	2	0				0.5		
	33	F	4	1.73		1.7	3	2				2		
	34	G	4	1.45		1.5	2	1				0		
	35	H	3	0.73		0.7	1.5	2				0		
	36	I	2	0.1		0.1	0	0				0		
	37	K	3											
	38	K	4											
39	K	4												
Legal	40	A	2	0		0	0	0				0		
	41	B	2	0.36		0.4	1	1				0		
	42	E	4	0.73		0.7	2	0				1.5		
	43	F	3	1.36		1.4	1.5	2				1		
	44	G	4	1.55		1.5	2	0				1.5		
	45	H	2	0.36		0.4	1	0				0		
	46	I	4	1.73		1.7	1.5	1				0		
	47	J	4	1.09		1.1	2	0				1		
	48	J	2	0.45		0.5	0	0				0		
Policy and Procedures	49	A	4	1.64		1.6	2	1				1		
	50	B	4	1.45		1.5	2.5	2				1.5		
	51	C	3	0.64		0.6	1	1				1		
	52	D	3	0.45		0.5	1	1				0.5		
	53	E	4	1.45		1.5	2	1				1		
	54	F	4	1.82		1.8	2.5	2				2		
	55	G	4	1.64		1.6	2	0				1		
	56	H	4	2.09		2.1	2	2				2		
	57	I	3	0.64		0.6	1	1				0		
	58	J	4	1.73		1.7	2.5	2				1.5		
Financial and Accounting	59	C	3	0.73		0.7	1.5	1				0		
	60	C	3	0.27		0.3	1	0				0		
	61	H	3	1.09		1.1	1.5	2				0.5		
	62	H	4	1.82		1.8	2.5	2				0.5		
	63	I	3	0.27		0.3	1.5	0				0		
	64	K	3											

Total sample: n = 16

Asst PAMs & PAMs combined: n = 11

2.3.5f PAMs Technical Knowledge skill level with respect to Biome:
Malawi

Question #	BIOMES																										
	A			F			M			O			R			D			S			W			X		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
1																			2	0	0						
2							2	1	0										8	1	0						
3							3	0	0										5	0	0						
4	1	0	0				2	1	0										2	7	0						
5							1	2	0										5	4	0						
6	1	0	0				1	2	0										4	5	0						
7							1	1	0										2	4	0						
8	1	0	0				1	0	0										2	0	0						
9																											
10							1	0	0										4	1	0						
11																			2	0	0						
12																			2	0	0						
13							1	2	0										4	4	0						
14																											
15																											
16																											
17																											

Total sample: n=16

Asst PAMs & PAMs combined: n=11

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FIGURE 5:

2.3.6a Validation analysis of Mental and Social Skills

PAMs Yes responses: Malawi

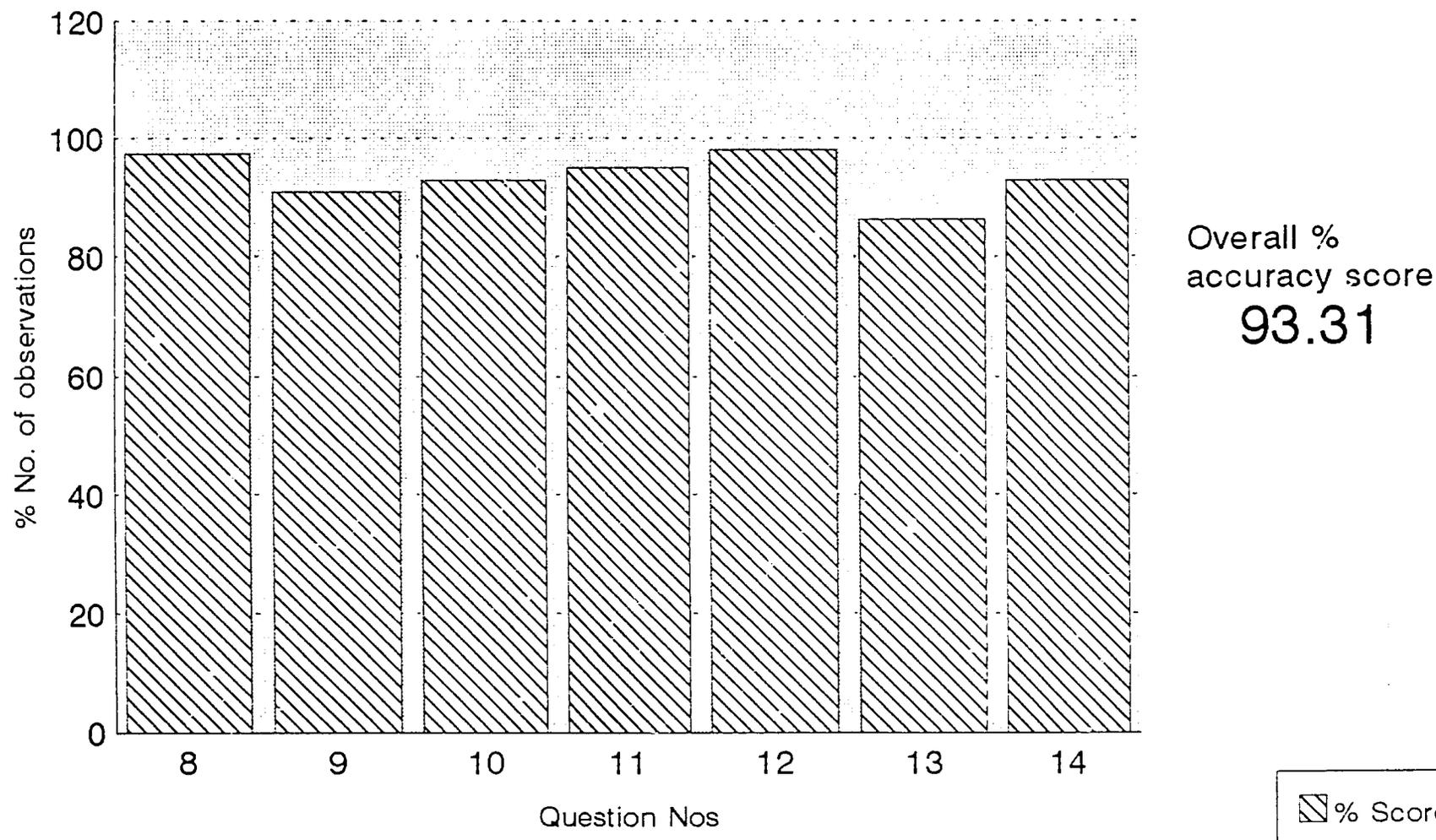


TABLE 6:

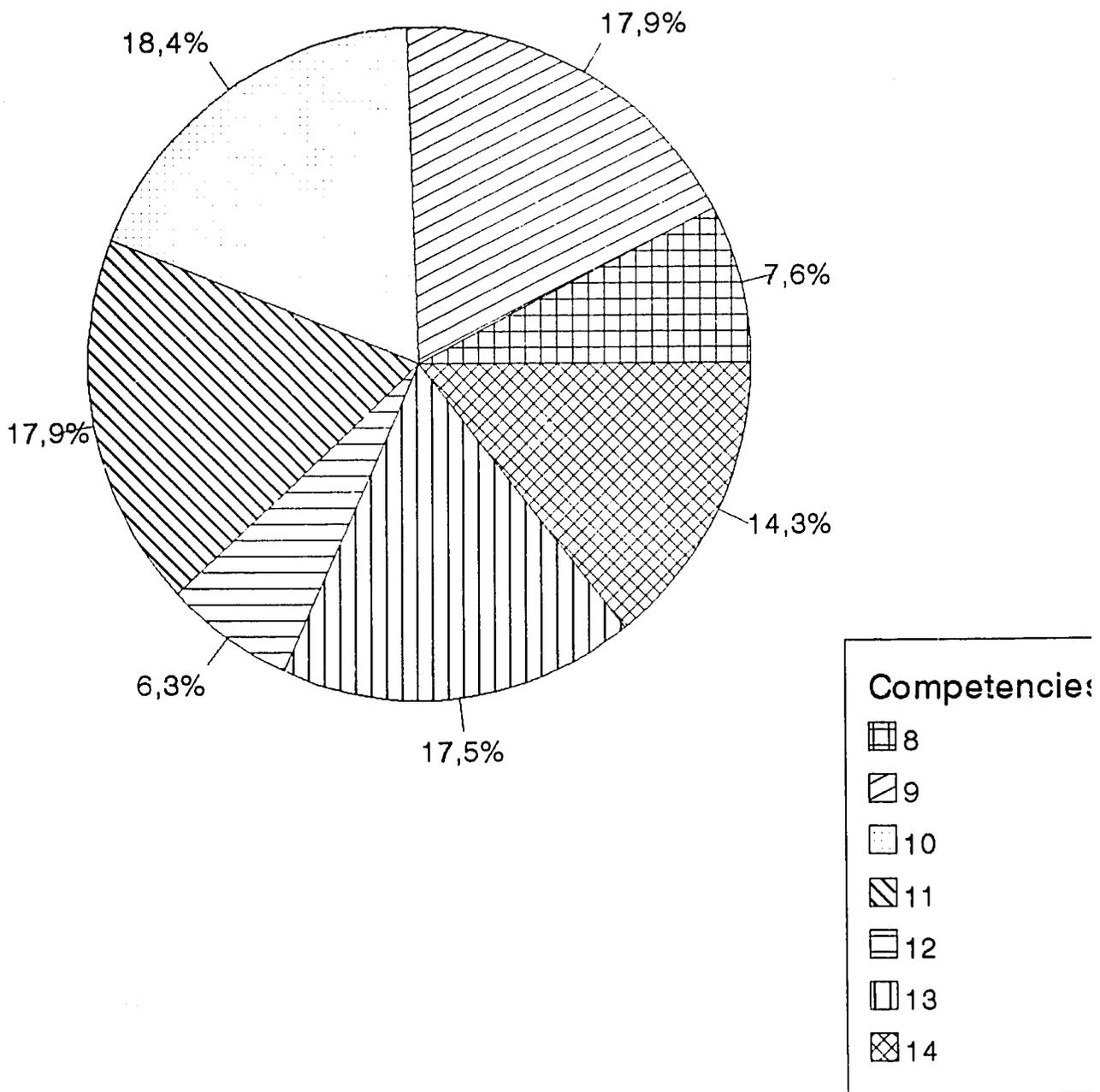
**2.3.6b Validation analysis of Mental and Social Skills
PAMs Scattergram for 'NO' responses: Malawi**

MAIN DIVISIONS	COMPETENCY (% of respondents)						
	8	9	10	11	12	13	14
A		9.1	9.1			9.1	
B	9.1	9.1				10	18.2
C		9.1					
D			9.1			9.1	9.1
E			9.1	9.1			9.1
F							
G	9.1	18.2	18.2	9.1	18.2	18.2	18.2
H	9.1	9.1					
I		9.1	18.2	27.3		27.3	
J		9.1				36.4	9.1
K							

Total sample: n = 16

Asst PAMs & PAMs combined: n = 11

2.3.7.a2 Current Mental and Social Skill Level of Ass PAMs & PAMs
 Average % of Low Skill Levels: Malawi



Total Sample: n= 16

Ass PAMs & PAMs combined: n=11

TABLE 7:

2.3.7a.1 Current Mental and Social Skill Level of Asst PAMs & PAMS: Low Skill Levels Malawi

MAIN DIVISIONS	COMPETENCY (cumulative score of all 1&2 responses)							Total
	8	9	10	11	12	13	14	
A	1	2	4	1	1	3	1	13
B		6	5	2		4	2	19
C		6			1			7
D	2	2	3	2	4	4	7	24
E		4	5	6		2	6	23
F	3	5	2	3		3	3	19
G	3	6	6	6	4	4	2	31
H	5	4	3	4	2		3	21
I	4	4	7	7		7	3	32
J	2	5	6	5	3	6	5	32
K								
Total	20	44	41	36	15	33	32	221

Total sample: n=16

Asst PAMs & PAMs combined: n=11

2.3.7b PAMs vs Validators Mental and Social Skills :Average scores Malawi.

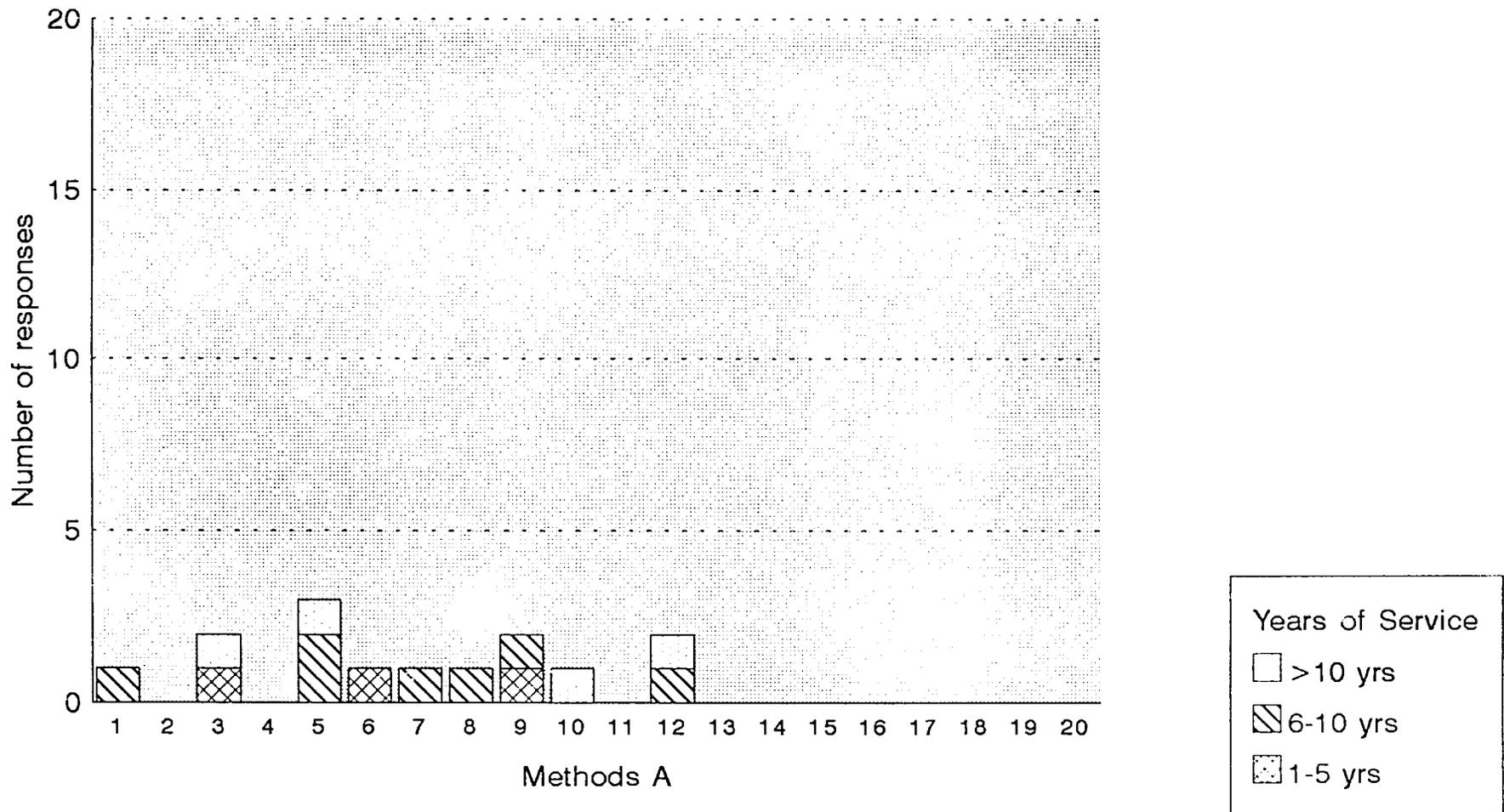
COMPETENCY	Qs No.	Box No.	Average Country / Org. Score	POSITION										
				1 n=	2 n=11	3 n=2	4 n=1	5 n=	6 n=	7 n=2	8 n=	9 n=		
Comprehension	1	A	3.2		3.2	3.0	3				3.5			
	2	B	3.1		3.4	2.5	2				3.5			
	3	C	3.1		3.1	2.0	3				3.0			
	4	D	2.9		2.9	2.0	4				4.0			
	5	E	3.3		3.3	2.0	4				3.0			
	6	F	2.8		2.8	2.5	3				3.0			
	7	G	2.5		2.5	2.0	3				3.5			
	8	H	2.3		2.3	1.0	3				2.0			
	9	I	2.9		2.9	2.0	2				4.0			
	10	J	2.9		2.9	1.5	3				3.5			
	11	K												
	12	K												
Problem analysis	13	A	3.2		2.2	1.5	2				2.0			
	14	B	2.5		2.5	2.0	2				2.0			
	15	C	2.6		2.6	1.5	2				2.0			
	16	D	2.9		2.9	2.0	3				3.0			
	17	E	2.7		2.7	2.5	2				3.0			
	18	F	3.0		3.0	1.5	2				2.5			
	19	G	2.5		2.5	2.5	3				3.0			
	20	H	2.6		2.6	1.5	3				3.5			
	21	I	2.5		2.5	2.0	1				4.0			
	22	J	2.6		2.6	2.0	3				2.5			
	23	K												
	Creativity	24	A	2.7		2.7	2.5	3				3.5		
25		B	2.6		2.6	1.0	2				2.5			
26		D	2.8		2.8	2.0	2				3.5			
27		E	2.8		2.8	1.5	2				3.5			
28		F	2.9		2.9	1.5	3				3.5			
29		G	2.4		2.4	1.0	2				3.0			
30		H	2.8		2.8	1.5	2				3.5			
31		I	2.5		2.5	2.0	2				4.0			
32		J	2.6		2.6	2.0	2				2.0			
33		K												
Evaluation		34	A	3.4		3.4	2.0	3				3.5		
		35	B	3.0		3.0	2.0	3				3.0		
	36	D	3.3		3.3	1.5	4				3.5			
	37	E	2.5		2.5	1.5	2				3.0			
	38	F	2.8		2.8	2.0	4				2.5			
	39	G	2.2		2.2	2.0	2				3.5			
	40	H	2.6		2.6	1.5	2				3.0			
	41	I	2.5		2.5	2.0	2				4.0			
	42	J	2.5		2.5	2.0	2				3.5			
	Oral	43	A	3.2		3.2	1.0	2				3.0		
44		B	3.3		3.3	2.0	3				3.5			
45		C	3.1		3.1	2.5	2				3.5			
46		D	3.1		3.1	1.5	3				3.5			
47		E	3.4		3.4	1.5	3				3.5			
48		F	3.2		3.2	2.0	4				3.0			
49		G	2.4		2.4	2.0	2				3.0			
50		H	3.1		3.1	1.0	3				4.0			
51		J	2.9		2.9	1.0	3				3.0			
Written		52	A	3.0		3.0	1.5	3				2.5		
	53	B	2.6		2.6	2.5	1				3.5			
	54	D	2.6		2.6	1.0	3				4.0			
	55	E	3.1		3.1	2.5	4				3.5			
	56	F	2.7		2.7	1.5	3				2.0			
	57	G	2.4		2.4	2.5	2				3.0			
	58	I	2.3		2.3	1.5	1				3.5			
	59	J	2.1		2.1	2.0	2				3.0			
	Working with others	60	A	3.2		3.2	2.5	2				3.5		
61		B	2.6		2.6	2.5	3				3.0			
62		D	2.3		2.3	2.0	3				2.0			
63		E	2.5		2.5	1.5	2				2.5			
64		F	2.8		2.8	1.0	3				3.0			
65		G	2.6		2.6	2.0	2				3.5			
66		H	2.9		2.9	2.5	4				3.0			
67		I	3.0		3.0	2.0	2				4.0			
68		J	2.3		2.3	2.5	2				3.0			
69		K												

Total sample: n = 16

Asst PAMs & PAMs combined: n = 11

FIGURE 6:

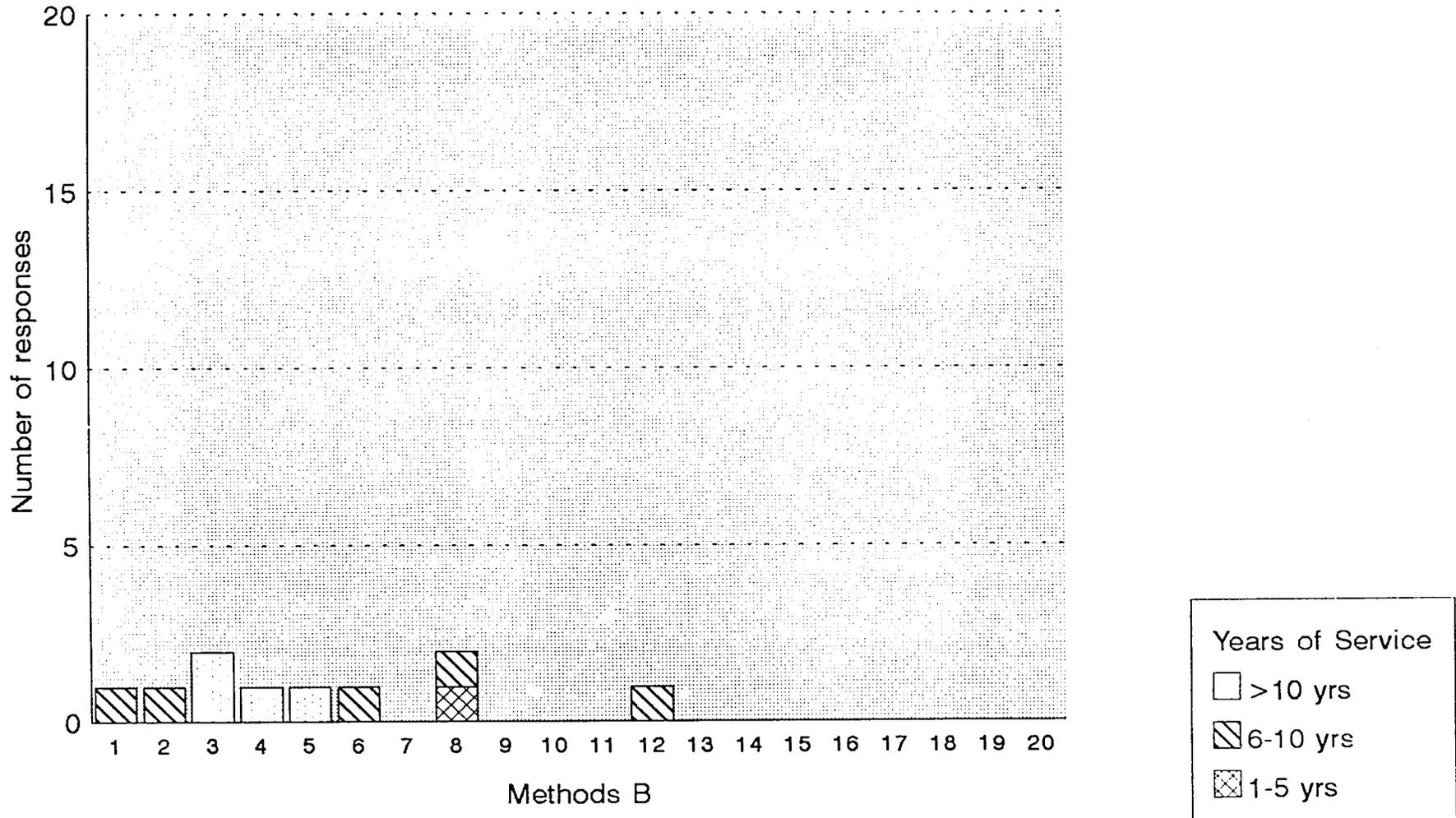
2.3.8a PAMs Methods To Instill Work Ethics Malawi



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Total Sample: n=16 (Ass PAMs & PAMs: n=11)

FIGURE 7:

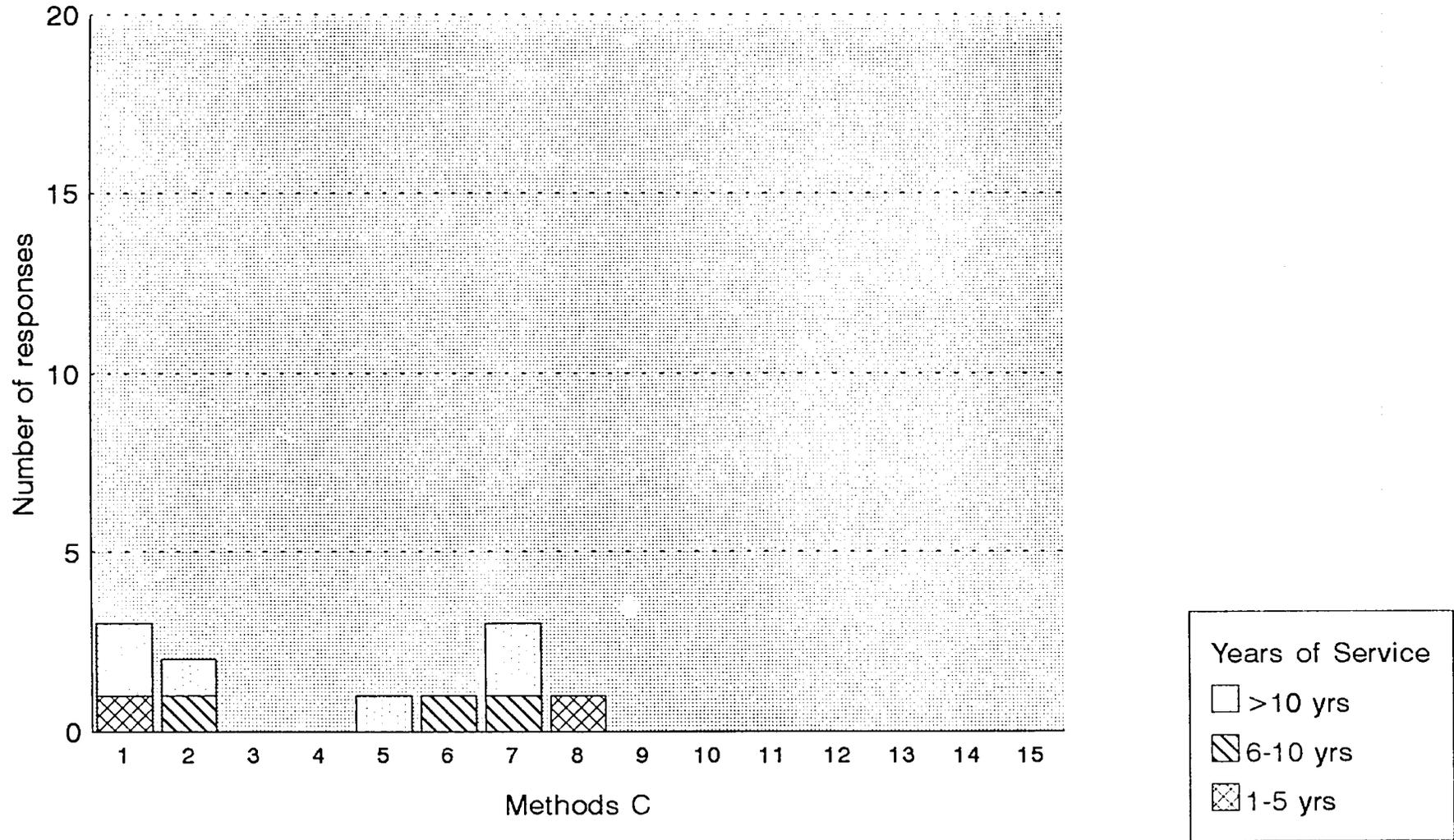
2.3.8b PAMs Methods To Instill Commitment to Conservation Malawi



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FIGURE. 8:

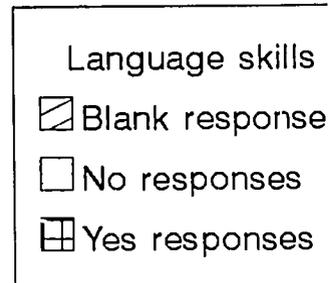
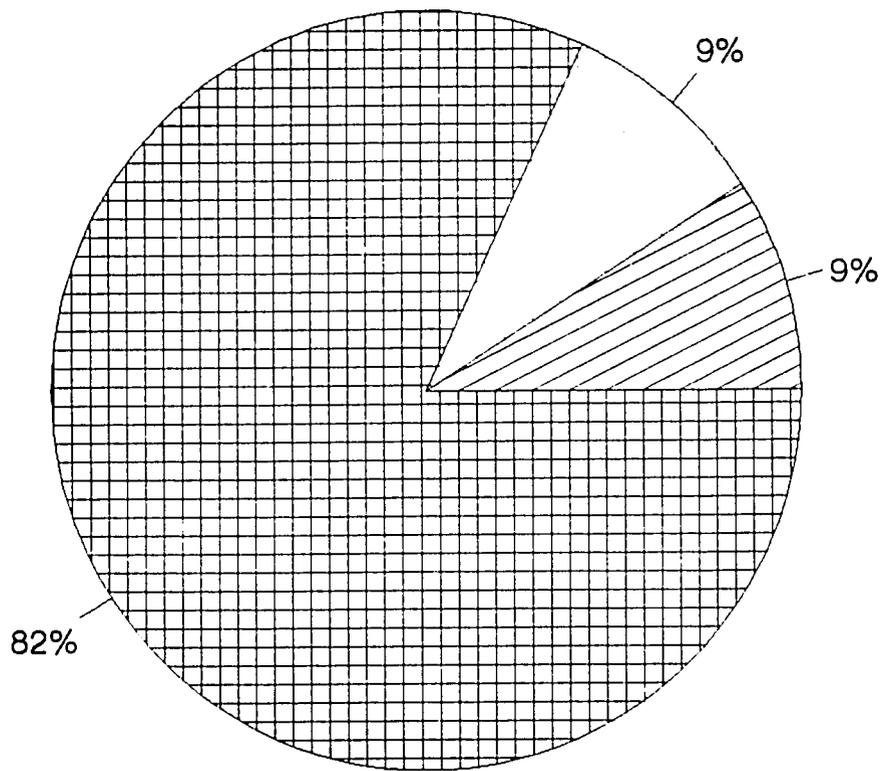
2.3.8c PAMs Methods To Instill Healthy Attitudes to Adjacent Communities Malawi



186 Total Sample:n=16 (Ass PAMs & PAMs:n=11)

FIGURE 9:

2.3.9. PAMs Language Skills Malawi

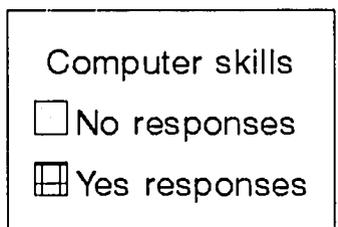
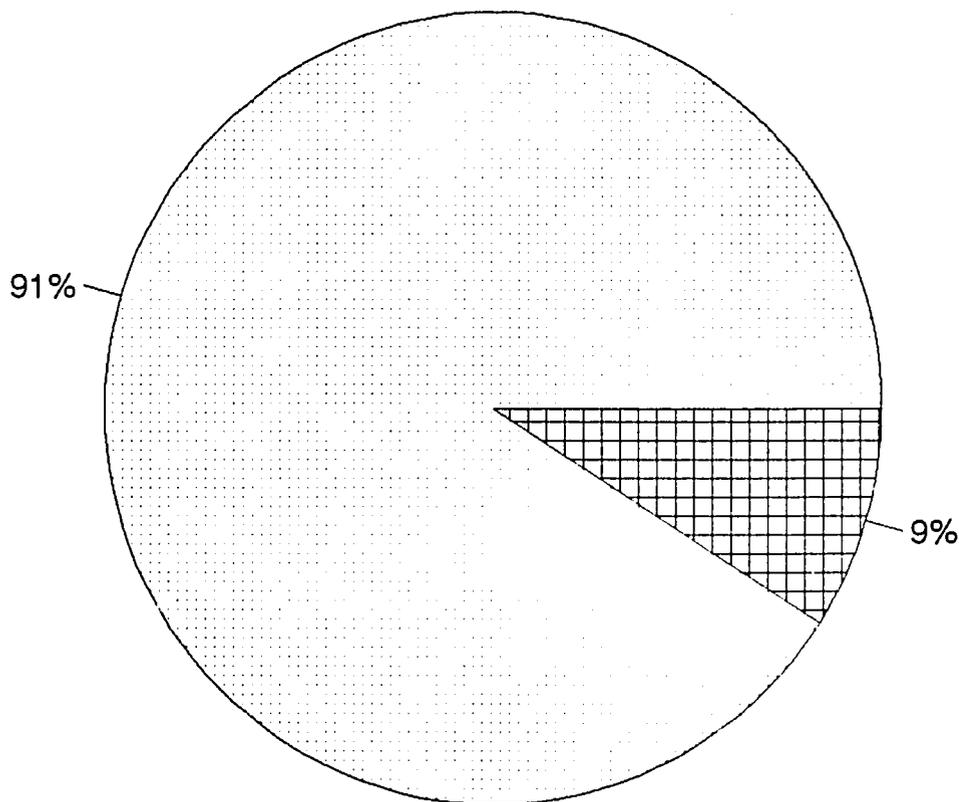


Total Sample: n=16 (Ass PAMs & PAMs: n=11)

FIGURE 10:

2.3.10a PAMs Computer Skills

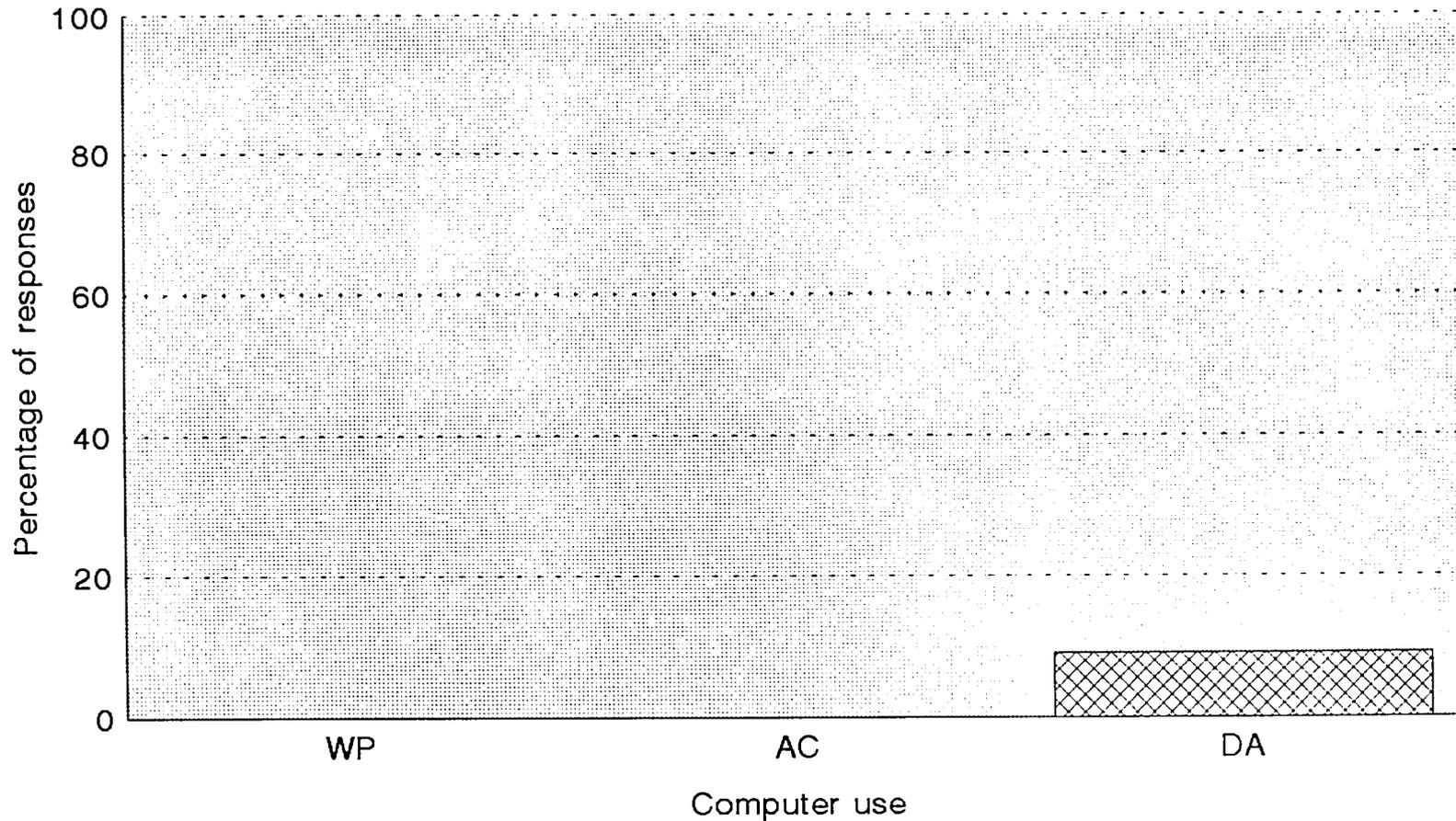
Malawi



Total Sample: n=16 (Ass PAMs & PAMs: n=11)

FIGURE 11:

2.3.10.b PAMs Computer Uses Malawi



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**2.3.11 PAMs identified Training priorities:
Malawi**

MAIN DIVISIONS	COMPETENCIES																	Totals	
	Blank	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
Blank																			
A			1	2															3
B			1																1
C				1			1												2
D																			
E		1				1													2
F		4					2												6
G			1																1
H			2	1															3
I		1																	1
J																			
K																			
Totals		6	5	4		1	3												19

Total sample: n=16

Asst PAMs & PAMs combined: n=11

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TABLE 8:

2.3.12 PAMs training received:
Malawi

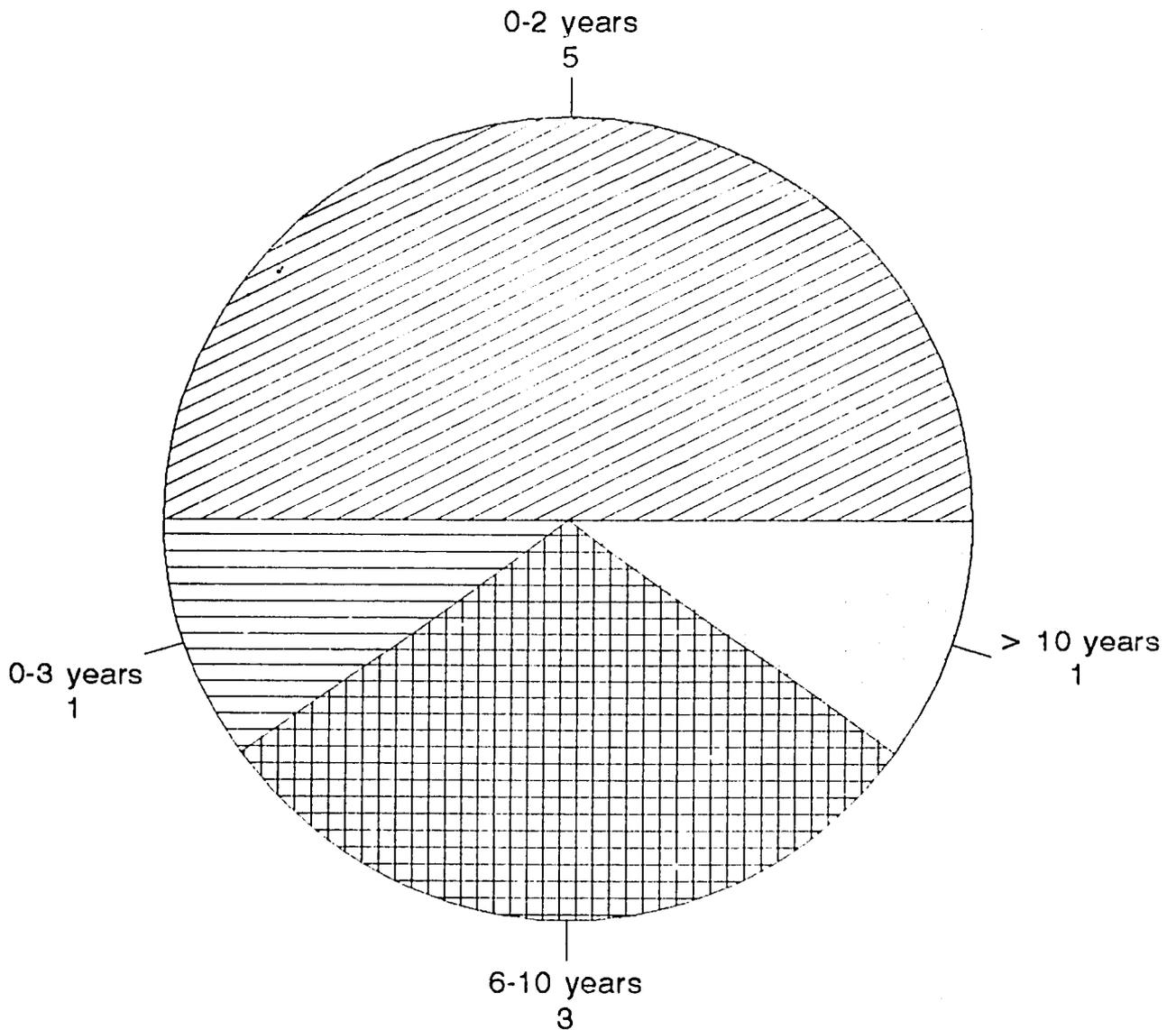
	Competencies	TYPES OF TRAINING (Dot if training has occurred)				
		Formal wildlife	Formal Other	In Service	On- the-job	Other
(a) Knowledge	2	■	■		■	
	3	■			■	
	4	■		■	■	
	5	■		■	■	
	6	■	■		■	
	7	■		■	■	
(b) Mental and Social Skills	8	■	■		■	
	9	■	■		■	
	10		■		■	
	11	■	■		■	
	12	■	■		■	
	13	■			■	
	14	■	■		■	
(c) Attitudes	15		■		■	
	16	■			■	
	17	■			■	

Total sample: n=16

Asst PAMs & PAMs combined: n=11

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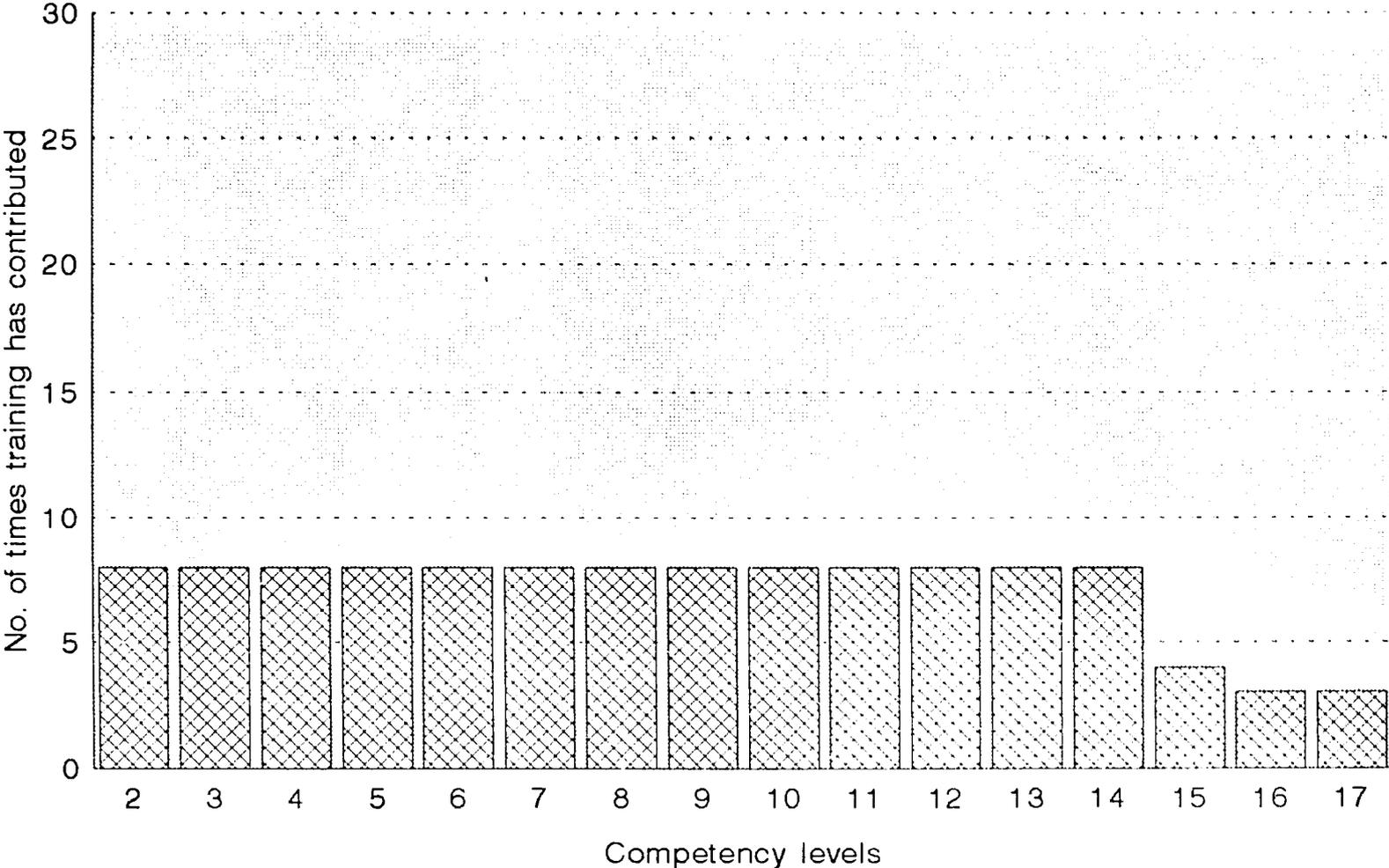
2.3.12d PAMs years since formal wildlife training received
Malawi



Total Sample n = 16 (PAMS & Ass. PAMS combined: n=11)

2.3.12.f. Training that has contributed most to PAMs skill level.

Malawi



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TABLE 9:

2.3.12h Training needs identified by gap analysis for PAMs & asst PAMs Malawi.

MAIN DIVISIONS	COMPETENCIES													
	Knowledge						Mental & Social skills							
	2	3	4	5	6	7	8	9	10	11	12	13	14	
A			1		8		1	2	4	1	1	3	1	
B					5			6	5	2		4	2	
C						1		6			1			
D							2	2	3	2	4	4	7	
E	1				6			4	5	6		2	6	
F	6.7	1	7	6	8		3	5	2	3		3	3	
G	5		6	6	6		3	6	6	6	4	4	2	
H		2	2		10	5	5	4	3	4	2		3	
I	0.5			8	1	1	4	4	7	7		7	3	
J	2.5			0.5	8		2	5	6	5	3	6	5	
K														

Total sample: n=16

Asst PAMs & PAMs combined: n=11

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2.3.12i Training needs identified by gap analysis for PAMs & asst PAMs Malawi.

MAIN DIVISIONS	COMPETENCIES													
	Knowledge						Mental & Social skills							
	2	3	4	5	6	7	8	9	10	11	12	13	14	
A		<i>1/0</i>	<i>2/1</i>		<i>0/8</i>		<i>0/1</i>	<i>0/2</i>	<i>0/4</i>	<i>0/1</i>	<i>0/1</i>	<i>0/3</i>	<i>0/1</i>	
B		<i>1/0</i>			<i>0/5</i>			<i>0/6</i>	<i>0/5</i>	<i>0/2</i>		<i>0/4</i>	<i>0/2</i>	
C			<i>1/0</i>			<i>1/1</i>		<i>0/6</i>			<i>0/1</i>			
D							<i>0/2</i>	<i>0/2</i>	<i>0/3</i>	<i>0/2</i>	<i>0/4</i>	<i>0/4</i>	<i>0/7</i>	
E	<i>1/1</i>				<i>1/6</i>			<i>0/4</i>	<i>0/5</i>	<i>0/6</i>		<i>0/2</i>	<i>0/6</i>	
F	<i>4/6.7</i>	<i>0/1</i>	<i>0/7</i>	<i>0/6</i>	<i>0/8</i>	<i>2/0</i>	<i>0/3</i>	<i>0/5</i>	<i>0/2</i>	<i>0/3</i>		<i>0/3</i>	<i>0/3</i>	
G	<i>0/5</i>	<i>1/0</i>	<i>0/6</i>	<i>0/6</i>	<i>0/6</i>		<i>0/3</i>	<i>0/6</i>	<i>0/6</i>	<i>0/6</i>	<i>0/4</i>	<i>0/4</i>	<i>0/2</i>	
H		<i>2/2</i>	<i>1/2</i>		<i>0/10</i>	<i>0/5</i>	<i>0/5</i>	<i>0/4</i>	<i>0/3</i>	<i>0/4</i>	<i>0/2</i>		<i>0/3</i>	
I	<i>1/0.5</i>			<i>0/8</i>	<i>0/1</i>	<i>0/1</i>	<i>0/4</i>	<i>0/4</i>	<i>0/7</i>	<i>0/7</i>		<i>0/7</i>	<i>0/3</i>	
J	<i>0/2.5</i>			<i>0/0.5</i>	<i>0/8</i>		<i>0/2</i>	<i>0/5</i>	<i>0/6</i>	<i>0/5</i>	<i>0/3</i>	<i>0/6</i>	<i>0/5</i>	
K														

Total sample: n=16

Asst PAMs & PAMs combined: n=11

Identified training priorities: represented by italics

Total gaps: represented by normal numbers

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**ANNEXE 4:
NATIONAL PARK SURVEY**

PERSONNEL

BACKGROUND FOR EACH RESERVE

1. NAME OF RESERVE: KASUNGU NATIONAL PARK
2. SIZE: 2,316Km²
3. YEARS IN EXISTENCE: 1970-todate (22 years)
4. - Open canopy woodland of plateaus: dominated by Brachystegia - Julbernadia
- Woodlands of wet fringes (Terminalia sericea)
5. - DEPARTMENT OF NATIONAL PARKS AND WILDLIFE
- MINISTRY OF FORESTRY AND NATURAL RESOURCES
- 5.1 GOVERNMENT
- 5.2 1973

From Department of Forestry and Game, within Ministry of Agriculture and Natural Resources to Department of National Parks and Wildlife.
6. FUNDING SOURCES
 - 6.1 Central Treasury
 - Recurrent Budget, Development Budget and Revolving Fund
Amount this year (622,000.00 Malawi Kwacha)
 - 6.2 Direct Revenue From Reserve?
 - None

6.3 Foreign Assistance? Yes

- From United Nations Development Programme
(FAO)
- David Shepherd Fund

7. TECHNICAL ASSISTENCE:

At the meantime the park receives assistance from - Japanese International Cooperation Agency (JICA)

- . 1 x Parks and Wildlife Officer (Research)

8. DOES THE RESERVE HAVE:

8.1 A Protection Force? Yes

- Number of employees
 - . Permanently established 40
 - . Non-established Nil

8.2 Biological Monitoring Program? Yes

- Number of monitors
 - . Permanently established 5
 - . Non-established Nil

8.3 Community Liaison Effort? Yes

- Caterpillar Collection (Saturniidae Caterpillar)

. The aim is to intergrate biological conservation with economic development for the rural people

- The Park Personnel engage in a general education service in the departments' (i.e. parks and wildlife) sphere of interest

- Bee Keeping Activity

8.4 Tourism? Yes

- Number of employees

. Permanently established Nil

. Non-established 25

8.5 Safari Hunting? None

8.6 Reserve - Level Training Program? Yes

Periodically (say once every two years) a training program for Parks and Wildlife Scouts takes place in the park. On completion of training the trainees are posted to various conservation areas in the country. It is a six months programme.

- Number of full time Trainers: 3

8.7 Other (Information Not Available)

9 - Information Not Available

10 INFRASTRUCTURE

- Reserve buildings. Buildings are located at six sites. A list by site follows:
Lifupa (Management)

.. 1 Office block

.. 1 Research block

.. 1 Mechanical Maintenance block

.. 1 Carpentry and store block

.. 1 Open vehicle port

.. 1 Generator House

.. 1 Metal store

.. 1 Airport hanger

- .. 1 Dispensary
- .. 1 Mill house
- .. 16 Family dormitory block
- .. 1 School (2 classrooms)
- .. 1 Shop
- .. 3 DH7 houses
- .. 4 EL2 houses
- .. 2 PH4 houses
- .. 13 Unclassified dwelling houses
- .. 1 Unclassified rest house
- .. 11 Metal roofed rondavels
- .. 4 Grass roofed rondavels

Lifupa (Visitors' lodge)

- .. 1 Main Lodge
- .. 1 Office block
- .. 1 Museum/Information room
- .. 12 Visitor
- .. 7 Tented accommodation units
- .. 1 Bathroom block (tented camp)
- .. 1 Kitchen block (tented camp)
- .. 1 Dining room (tented)
- .. 4 Unclassified mudbrick houses
- .. 2 Unclassified dwelling houses
- .. 15 Unclassified other buildings
- .. 1 Swimming pool
- .. 1 Generator house
- .. 1 Petrol pump
- .. 1 DH7 house
- .. 2 EL2 houses

Kangwa

- .. 1 EL2A house
- .. 2 EL2 houses
- .. 5 Traditional houses

700

Kapusi

.. 6 Traditional House

Lisitu

.. 7 EL2 houses

.. 5 Traditional houses

.. 1 Entrance gate and office

Chipiri

.. 1 EL2 house

.. 5 Traditional houses

- Vehicles

. 1 Lorry
. 4 Pick Ups
. 1 Tow grader
. 1 Tractor
. 7 Motorcycles (Off-road)

- Roads

. The internal road system measures about 440Km. Most is used only for management purposes. About 120 Km are negotiable by private cars. All roads are earth surfaced, and most are usable only in the dry season.

- Trails

. There is one managed trail of about 10Km.

- Airfields

. There is one airfield.

- **Dams and waterholes**

. There is a dam. Maximum depth is about 3m.

- **Fences**

. 30 Km solar powered fence

11. **PERSONNEL**

11.1 **Present Strength is as follows**

- **Permanently Established**

- 1 x Parks and Wildlife Officer (Research)
- 1 x Parks and Wildlife Officer
- 1 x Assistant Parks and Wildlife Officer\
- 1 x Assistant Parks and Wildlife Officer (Research)
- 3 x Parks and Wildlife Assistants
- 1 x Senior Mechanical Supervisor
- 1 x Senior Clerical Officer
- 2 x Copy Typist
- 1 x Building Foreman
- 49 x Park Scout (all grades) Sc III/II/I
- 1 x Messenger
- 1 x Watchman

- **Non Established**

25 x (Camp Attendants/Stewards/Driver/Porter)

- Also see Model Organogram. Annex I

11.2 **Responsibilities**

- See Annex II

11.3 Requirements for Hiring

- See Annex III

12 NEED FOR MORE PERSONNEL: Yes

- Proposed Strength of Established Personnel

Management:

- 1 x Parks and Wildlife Officer (PO)
- 1 x Senior Mechanical Supervisor (STO)
- 1 x Assistant Parks and Wildlife Officer (TO)
- 1 x Clerical Officer (CO)
- 1 x Copy Typists (D8/7/6)
- 1 x Senior Parks and Wildlife Assistant (STA)
- 2 x Parks and Wildlife Assistant (TA)
- 46 x Parks and Wildlife Scout (All grades) (SC.III/II/I)
- 1 x Messenger (SC.IV)
- 1 x Watchman (SC.IV)

Research

- 1 x Parks and Wildlife Officer (PO)
- 1 x Copy Typist (D8/7/6)
- 1 x Parks and Wildlife Assistant TA
- 4 x Parks and Wildlife Scouts (All grades)
- 1 x Messenger (SC IV)

13. NEED FOR MORE TRAINING: Yes

- See Annex V

INDICATIVE INFORMATION

Technical

1. (i) Yes

(ii) (a) Plants

Information Not Available

(b) Animals

. Acinonyx jubatus (Rare and endangered in Malawi. Found nowhere else in Malawi).

. Loxondonta africana (Fairly rare and endangered in Malawi)

2. Information Not Available

3. Elephant is key species. Changes in their distribution result in Changes to the woodland structure.

STRATEGIC PLANNING

- See Annex IV

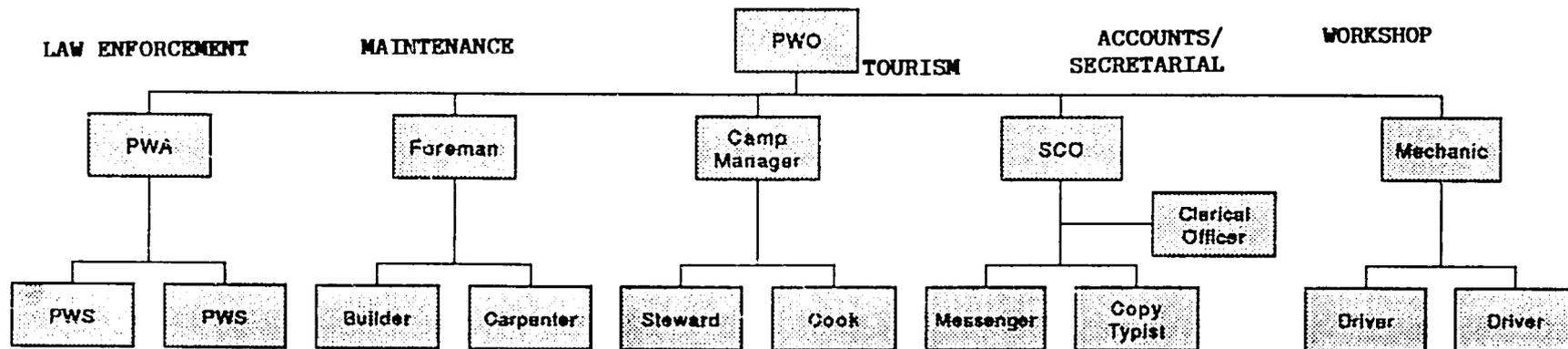
FINANCIAL

- See Annex IV

ANNEX I

MODEL ORGANOGRAM (MANAGEMENT SERVICES)

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Abbreviations:

PWO (Parks and Wildlife Officer)
PWA (Parks and Wildlife Assistant)

PWS (Parks and Wildlife Scout)
SCO (Senior Clerical Officer)

ANNEX II

Responsibilities of some Selected Personnel

(A) Parks and Wildlife Officer

- Management of Kasungu National Park. Law enforcement in the immediate vicinity of the park. Management procedures include
 - (i) People Management
 - eg. Anti-poaching
 - Public relations and education
 - (ii) Habitat Management
 - eg. Prescribed Burning
 - (iii) Animal Population Management
 - eg. - Re-introduction
 - Harvesting
 - Fencing

(B) Parks and Wildlife Officer (Research)

- Undertaking studies on
 - . Hydrology
 - . Climate
 - . Grass layer
 - . Tsetses
 - . Public relations
 - . Tourism/Public attitudes
 - . Vertebrate Pest Control
 - . Law enforcement

 - . Woodlands
 - . Mammalian Grazers/Browsers and mixed feeders
 - . Burning
 - . Soils

ANNEX III

Recruitment to the different classes of established posts

(A) Parks and Wildlife Officer (Professional Grade)

- Minimum entry requirement is a bachelor degree in natural science. Entry may be direct or by promotion from other classes where in-service officers have completed degree courses.

(B) Senior Assistant Parks and Wildlife Officer/Assistant Parks and Wildlife Officer (Technical Grade)

- Minimum entry requirement is a Diploma in Wildlife Management from the College of African Wildlife Management, Mweka, Tanzania. Members of the Technical Assistant class (Parks and Wildlife Assistant) who hold a Diploma from the Cwaka College of Agriculture, Empangeni, South Africa, and who have completed one years' service, are eligible for promotion to the technical class after successfully completing a departmental examination. Promotion is also possible for longer serving officers who have demonstrated their ability to accept higher responsibility.

(C) Parks and Wildlife Assistant (Technical Assistant Grade)

- Minimum entry requirement is a Certificate in Wildlife Management from Mweka, a Diploma from Cwaka, or (for entry to the Research Assistant Posts) a Malawi School Certificate of Education (MSCE), or a Certificate in Wildlife Management from Natural Resources College (Malawi).

(D) Clerical Officers

- Members of this class are common services personnel subject to the control of the Secretary for Personnel Management and Training (SPMT) in the office of President and Cabinet (OPC). Minimum entry requirement is the Junior Certificate of Education (J.C.E.). Members of the Clerical class known as Accounts Assistants are subject to the Accountant Generals' control.

Members of the Clerical class can gain promotion to Executive rank after five years' service and successful completion of a six month course. Direct entry to post of Executive Officer grade is open to candidates who hold a Diploma in Public Administration.

(E) Copy Typists (Secretarial)

- Common services personnel controlled by the Secretary for Personnel Management & Training. Minimum entry requirement is a Standard 8 education (Primary School Leaving Certificate) plus an approved typing certificate - usually Pitmans'. Entry points and promotions are based upon levels of skill.

(F) Parks and Wildlife Scout (Subordinate)

- Normal minimum entry requirement is a standard 8 education (Primary School Leaving Certificate). Sturdy physique and good eyesight are pre requisites for entry to all grades other than Messenger.

ANNEX IV

STRATEGIC PLANNING

1. (i) - Management Plan? Yes
 - Date of formulation 1983
 - Date of last revision None
 - Is plan used Yes, somewhat. Not fully implemented due to financial constraints.
-
2. . Expenditure Planning Documents
 - . Work Programs (Yearly)
 - . Patrol programs (Yearly, Monthly, Weekly)
 - . Monthly reports (Patrols, Personnel, Stores, Research, Equipment, Visitors, Stores, Weather, etc)
 - . Returns

FINANCIAL

1. Yes
2. By different offices
3. Regional office and Head office.

ANNEX V

NEED FOR MORE TRAINING

- The Department of National Parks and Wildlife recognises need for further training of protected area personnel at all levels of staffing. The Department seeks to promote training in all protected area services, whether these be in law-enforcement, research, education/extension, tourism etc.
- As well as promoting training of area personnel in all fields, for the furtherance of effective protected area management,
 - (a) It is the Departments' wish to ensure an improvement in the work performance of scouts. They need to be accorded formal training. Theirs' should be practical type of training.
 - (b) In view of high population pressure on land in Malawi (and its attendant negative effects on protected areas, such as encroachment), the department seeks to intensify public education programmes. This includes training in Environmental Education for area personnel.
- The Departments' approach to training of protected area personnel is again very much influenced by the fragility of protected area resources. To this effect, Lake Malawi National Park receives the highest priority, followed by Nyika, Kasungu, Liwonde and Lengwe in that order.
- It is felt that protected area personnel with sufficient training in wildlife management or research, must be exposed to other areas (pertinent to protected area management) they are not versed with.

PERSONNEL

BACKGROUND FOR EACH RESERVE

1. NAME OF RESERVE: MAJETE GAME RESERVES
2. SIZE: 784 KM²
3. YEARS IN EXISTENCE: FROM 1955 to date (37 years)
4.

- Open canopy woodland of plateaus (<u>Brachystegia/Julbernardia/Isoberlinia</u>)	7.40
- Open canopy woodland of hills and scarps (<u>Brachystegia</u> spp)	27.42
- Thicket/Savanna (Combretum/Acacia)	2.04
- Woodland/Savanna (Mixed species)	<u>63.14</u>
	<u>100.00%</u>
5. -DEPARTMENT OF NATIONAL PARKS AND WILDLIFE
-MINISTRY OF FORESTRY AND NATURAL RESOURCES
 - 5.1 GOVERNMENT
 - 5.2 1973

From Department of Forestry and Game, within Ministry of Agriculture and Natural Resources to Department of National Parks and Wildlife.
6. FUNDING SOURCES
- 6.1 Central Treasury? Yes
 - Recurrent Budget and Development Budget
 - Amount this year (45,000.00 Malawi Kwacha)
- 6.2 Direct Revenue From Reserve?
 - None

6.3 Foreign Assistance?

- David Shepherd Fund

7. TECHNICAL ASSISTANCE:

- None

8. DOES THE RESERVE HAVE:

8.1 A Protection force? Yes

- Number of employees
Permanently Established
Non-Established

8.2 Biological Monitoring Program?

- The research sub-unit from nearby Lengwe National Park carries out limited studies in Majete.

8.3 Community Liaison Effort?

- Information Not Available

8.4 Tourism? No

- There is no visitor program. Occasionally people reach Kapichila Falls. A few visitors have used the chalet at Mkurumadzi.

8.5 Safari Hunting? None

8.6 Reserve-Level Training Program? None

8.7 Other (Information Not Available)

9. - **Biological Monitoring**

Limited studies have been conducted by the Department of Fisheries.

10. **INFRASTRUCTURE**

- **Management Buildings** are situated at four locations: All are Scouts' camps. These are:

Mathithi : 3 Traditional houses

Mkurumadzi : 1 Chalet

: 3 Traditional houses

Mendulo : 3 Traditional houses

Phwadzi : 3 Traditional houses

- **Vehicles**

1 x Motorcycle

- **Roads**

The internal road system measures about 24 km. It comprises two rough, earth surfaced tracks.

11. **PERSONNEL**

11.1 **Present Strength is as follows:**

- **Permanently Established**

1 x Parks and Wildlife Assistant

8 x Parks and Wildlife Scout

- **Non-Established**

6 x Porters

* Also see Model Organogram. Annex I

11.2 **Responsibilities**

- See Annex II

11.3 **Requirements for Hiring**

- See Annex III

12. **NFED FOR MORE PERSONNEL:**

- **Proposed Strength of Established Personnel**

- **Management:**

1 x Senior Parks and Wildlife Assistant (STA)

1 x Parks and Wildlife Assistant (TA)

18 x Parks and Wildlife Scout (all grades)

13. NEED FOR MORE TRAINING: Yes

- See Annex V

INDICATIVE INFORMATION

TECHNICAL

1. (i) Yes
- (ii) (a) Plants
None is Known
- (b) Animals

Loxodonta africana (fairly rare and endangered in Malawi)

2. Information Not Available

3. Elephant is a key species

STRATEGIC PLANNING

- See Annex IV

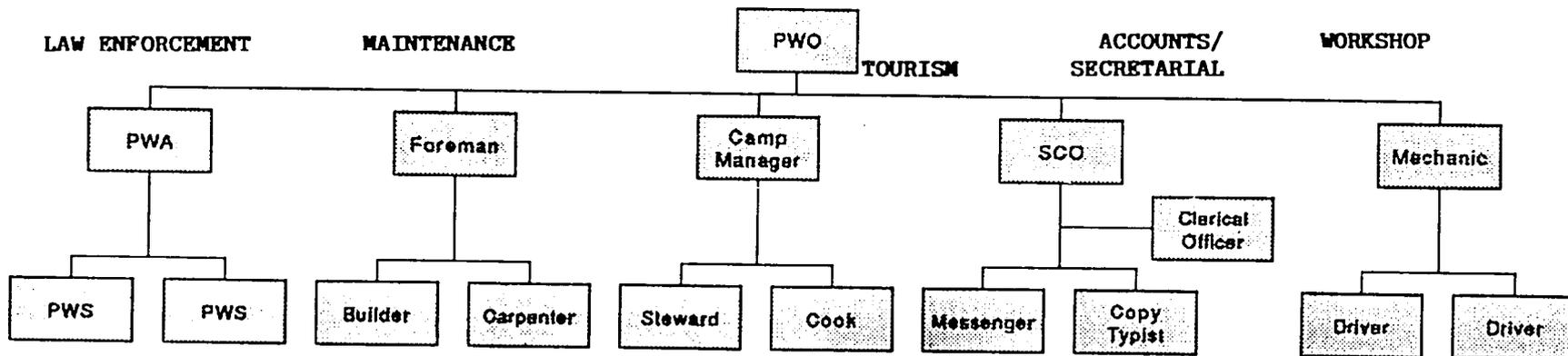
FINANCIAL

- See Annex IV

ANNEX I

MODEL ORGANOGRAM (MANAGEMENT SERVICES)

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Abbreviations:

PWO (Parks and Wildlife Officer)
 PWA (Parks and Wildlife Assistant)

PWS (Parks and Wildlife Scout)
 SCO (Senior Clerical Officer)

ANNEX II

Responsibilities

(A) Parks and Wildlife Assistant

- Management of Majete Game Reserve. Law enforcement in the immediate vicinity of the reserve. Management procedure for the reserve include.
 - (i) People Management e.g.
 - Anti-poaching

 - Public relations and education
 - (ii) Habitat Management eg.
 - Prescribed burning
 - (iii) Animal Population Management

ANNEX III

Recruitment to the different classes of established posts

(A) Parks and Wildlife Officer (Professional Grade)

- Minimum entry requirement is a bachelor degree in natural science. Entry may be direct or by promotion from other classes where in-service officers have completed degree courses.

(B) Senior Assistant Parks and Wildlife Officer/Assistant Parks and Wildlife Officer (Technical Grade)

- Minimum entry requirement is a Diploma in Wildlife Management from the College of African Wildlife Management, Mweka, Tanzania. Members of the Technical Assistant class (Parks and Wildlife Assistant) who hold a Diploma from the Cwaka College of Agriculture, Empangeni, South Africa, and who have completed one years' service, are eligible for promotion to the technical class after successfully completing a departmental examination. Promotion is also possible for longer serving officers who have demonstrated their ability to accept higher responsibility.

(C) Parks and Wildlife Assistant (Technical Assistant Grade)

- Minimum entry requirement is a Certificate in Wildlife Management from Mweka, a Diploma from Cwaka, or (for entry to the Research Assistant Posts) a Malawi School Certificate of Education (MSCE), or a Certificate in Wildlife Management from Natural Resources College (Malawi).

(D) Clerical Officers

- Members of this class are common services personnel subject to the control of the Secretary for Personnel Management and Training (SPMT) in the office of President and Cabinet (OPC). Minimum entry requirement is the Junior Certificate of Education (J.C.E.). Members of the Clerical class known as Accounts Assistants are subject to the Accountant Generals' control.

Members of the Clerical class can gain promotion to Executive rank after five years' service and successful completion of a six month course. Direct entry to post of Executive Officer grade is open to candidates who hold a Diploma in Public Administration.

(E) Copy Typists (Secretarial)

- Common services personnel controlled by the Secretary for Personnel Management & Training. Minimum entry requirement is a Standard 8 education (Primary School Leaving Certificate) plus an approved typing certificate - usually Pitmans'. Entry points and promotions are based upon levels of skill.

(F) Parks and Wildlife Scout (Subordinate)

- Normal minimum entry requirement is a standard 8 education (Primary School Leaving Certificate). Sturdy physique and good eyesight are pre requisites for entry to all grades other than Messenger.

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ANNEX IV

STRATEGIC PLANNING

1. (i) - Management Plan? Yes
- Date of formulation 1983
- Date of last revision None
- Is plan used Yes, somewhat. Not fully implemented due to financial constraints.

2. . Expenditure Planning Documents
- . Work Programs (Yearly)
- . Patrol programs (Yearly, Monthly, Weekly)
- . Monthly reports (Patrols, Personnel, Stores, Research, Equipment, Visitors, Stores, Weather, etc)
- . Returns

FINANCIAL

1. Yes
2. By different offices
3. Regional office and Head office.

PERSONNEL

BACKGROUND FOR EACH RESERVE

1. NAME OF RESERVE: NYIKA NATIONAL PARK

2. SIZE: : 3,134 Km²

3. YEARS IN EXISTENCE: 1965 - todate (27 years)

4. - Montane Evergreen Forest 4.66
- Montane Grassland 36.06
- Brachystegia Woodland 59.29
100.00%

5. - DEPARTMENT OF NATIONAL PARKS AND WILDLIFE
- MINISTRY OF FORESTRY AND NATURAL RESOURCES

5.1 Government

5.2 1973

From Department of Forestry and Game, within Ministry of Agriculture and Natural Resources to Department of National Parks and Wildlife.

6. FUNDING SOURCES

6.1 Central Treasury Yes

- Recurrent Budget, Development Budget and Revolving Fund
Amount this year (472,000.00 Malawi Kwacha)

6.2 Direct Revenue From Reserve?

- None

6.3 Foreign Assistance? Yes

ANNEX V

NEED FOR MORE TRAINING

- The Department of National Parks and Wildlife recognises need for further training of protected area personnel at all levels of staffing. The Department seeks to promote training in all protected area services, whether these be in law-enforcement, research, education/extension, tourism etc.
- As well as promoting training of area personnel in all fields, for the furtherance of effective protected area management,
 - (a) It is the Departments' wish to ensure an improvement in the work performance of scouts. They need to be accorded formal training. Theirs' should be practical type of training.
 - (b) In view of high population pressure on land in Malawi (and its attendant negative effects on protected areas, such as encroachment), the department seeks to intensify public education programmes. This includes training in Environmental Education for are personnel.
- The Departments' approach to training of protected area personnel is again very much influenced by the fragility of protected area resources. To this effect, Lake Malawi National Park receives the highest priority, followed by Nyika, Kasungu, Liwonde and Lengwe in that order.
- It is felt that protected area personnel with sufficient training in wildlife management or research, must be exposed to other areas (pertinent to protected area management) they are not versed with.

- From German Government (Bee-keeping)
- From United Nations Development Programme (FAO)
- David Shepherd Fund.

7. TECHNICAL ASSISTANCE:

- None

8. DOES THE RESERVE HAVE:

8.1 A Protection Force? Yes

- Number of employees
 - . Permanently established 39
 - . Non-established (Porters) 12

8.2 Biological Monitoring Program? Yes

- Number of Monitors
 - . Permanently established 4
 - . Non-established (Porters) 2

8.3 Community Liason Effort? Yes

- Bee keeping Activity

. This is a project designed to ensure that the local community living next to the park obtains direct utilitarian benefits from the wildlife resource, as well as to foster good relations between the park and the local community.

- The Park Personnel engage in a general education service in the departments' (i.e. parks and wildlife) sphere of interest.

8.4 Tourism? Yes

- Number of employees
 - . Permanently established Nil
 - . Non-established 15

8.5 Safari Hunting? None

8.6 Reserve-Level Training Program? None

8.7 Other (Information not available)

9. - Information Not Available

10. INFRASTRUCTURE

- Reserve buildings. The park has two main operation centers (Chilinda and Thazima)

. Chilinda has the following building infrastructure

- .. 2 Office blocks
- .. 1 Workshop
- .. 2 Sawmill sheds
- .. Timber drying sheds
- .. 2 Generator Sheds
- .. 1 Dispensary
- .. 4 Fuel pumps
- .. 80 Unclassified junior staff houses
- .. 1 Drivers' block
- .. 1 Pump house (water)
- .. 1 Trophy store
- .. 1 Shop/Store block
- .. 1 Vehicle shelter
- .. 1 Oil store
- .. 1 Maize Mill
- .. 1 School (Primary)
- .. 3 Unclassified Senior Staff Houses
- .. 5 Visitors' chalets
- .. Dining room, Sitting room, Kitchen, and Information room

Thazima has the following building infrastructure

- .. 1 Office block
- .. 3 Fuel pumps
- .. 1 Generator shed
- .. 1 Entrance gate and office
- .. 4 EL2A houses
- .. 9 PH4 houses (double units)
- .. 1 Workshop/store/vehicle block
- .. 1 Cresote dip tank
- .. 1 Pump house
- .. 3 DH7 modified houses
- .. 2 EL2 houses
- .. 1 Unclassified house

• There are 11 Unclassified houses just outside the park boundary.

. Kaperekezi

- .. 2EL houses
- .. 1 Entance gate and office

. Juniper Forest

- .. 1 Unclassified semi-detached, prefabricated, timber house
- .. 1 Unclassified prefabricated, timber visitors' chalet

- Vehicles

- . 1 Nissan Lorry
- . 2 Land Rover pick-ups
- . 1 Ten seater Land Rover
- . 2 Tractor tailers
- . 1 Toyota Hilux (Twin cub)
- . 1 Ford Tractor
- . 1 Towed Grader
- . 1 Bedford Lorry

- Roads

The internal road system measures about 350km. All roads are earth surfaced. The whole system is managed and maintained by the Department of National Parks and Wildlife (apart from the S10 which is 96km, and S77 which is 18km

- Trails

The Park has three managed trails

- Airfields

There is one airfield.

- Dams and Waterholes

There are three small, earthwall dams at Chilinda

11. PERSONNEL

11.1 Present Strength is as follows:

- Permanently Established:

- 1 x Parks and Wildlife Officer
- 1 x Senior Assistant Parks and Wildlife Officer
- 1 x Assistant Parks and Wildlife Officer (Research)
- 1 x Assistant Parks and Wildlife Officer (Bee Keeping)
- 4 x Parks and Wildlife Assistant
- 1 x Building Foreman
- 2 x Clerical Officer
- 1 x Clerk/Storekeeper
- 26 x Parks and Wildlife Scout (All grades)
- 2 x Copy Typist
- 2 x Messenger
- 2 x Watchman

- **Non Established**

15 x Porter

15 x Camp Attendant/Steward/Plumber/Carpenter

2 x Mechanic

3 x Driver

* Also see Model Organogram. Annex I

11.2 Responsibilities

- See Annex II

11.3 Requirements for hiring

- See Annex III

12. NEED FOR MORE PERSONNEL: Yes

- Proposed Strength of Established Personnel

Management:

1 x Senior Parks and Wildlife Officer (P8)

2 x Parks and Wildlife Officer (PO)

1 x Senior Mechanical Supervisor (STO)

3 x Assistant Parks and Wildlife Officer (TO)

1 x Senior Clerical Officer (SCO)

2 x Clerical Officers (CO)

1 x Clerk/Storekeeper (CO)

3 x Copy Typists (D8/7/6)

2 x Senior Parks and Wildlife Assistant (STA)

1 x Building Foreman (STA)

1 x Parks and Wildlife Assistant (TA)

63 x Parks and Wildlife Scouts (Sc.III/II/I)

3 x Messengers (Sc.IV)

2 x Watchmen (Sc. IV)

Research:

- 1 x Senior Parks and Wildlife Officer (P8)
- 1 x Parks and Wildlife Officer (PO)
- 1 x Senior Clerical Officer (SCO)
- 2 x Copy Typist (D8/7/6)
- 1 x Assistant Parks and Wildlife Officer
- 1 x Parks and Wildlife Assistant
- 8 x Parks and Wildlife Scout (All grades) (Sc. III/II/I)
- 1 x Messenger (Sc.IV)

13. **NEED FOR MORE TRAINING:** Yes

* See Annex V

INDICATIVE INFORMATION

TECHNICAL

1. (i) Yes

(ii) (a) **Plants**

. **Juniperus procera** (Rare and endangered in Malawi)

- Locality : Juniper Forest (Evergreen Forest Patch)
Uyagaiya Stream (South-eastern plateau)

(b) **Animals**

. **Loxodonta africana** (Fairly rare and endangered in Malawi)

2. Information Not Available

3. Elephant is considered key species in the Northern Hills compartment

STRATEGIC PLANNING

- See Annex IV

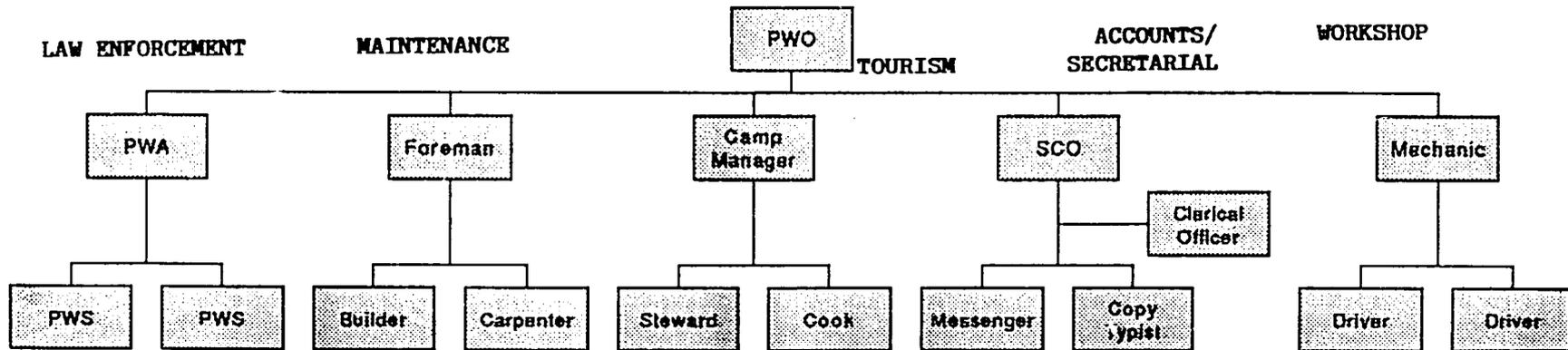
FINANCIAL

- See Annex IV

ANNEX I

MODEL ORGANOGRAM (MANAGEMENT SERVICES)

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Abbreviations:

PWO (Parks and Wildlife Officer)
PWA (Parks and Wildlife Assistant)

PWS (Parks and Wildlife Scout)
SCO (Senior Clerical Officer)

ANNEX II

Responsibilities of some selected personnel

(A) Parks and Wildlife Officer Jointly with Senior Assistant Parks and Wildlife Officer

- Management of North Nyika National Park and Vwaza Marsh Game Reserve. Law enforcement in the immediate vicinity of both protected areas. Management procedures for the park include
 - (i) People Management e.g.
 - Antipoaching
 - Public relations and education (Influencing local people, especially decision makers, so as to encourage positive attitudes towards the park)
 - (ii) Habitat Management e.g.- Prescribed burning
 - (iii) Animal Population Management e.g.
 - Trout translocation
 - Harvesting (Licensed angling for trout)
- * The responsibilities of the Parks and Wildlife Officer (North Nyika) include management of Visitor Accommodation Amenities

(B) Assistant Parks and Wildlife Officer (Research)

- To undertake studies on
 - . Hydrology
 - . Woodlands
 - . Grass Layer
 - . Vertebrate Pest Control
 - . Climate
 - . Mammalian Grazers/Browsers/Mixed Feeders
 - . Forests

- . Burning Regime
- . Public Relations
- . Tourism/Public Attitudes
- . Erosion
- . Law Enforcement
- . Soils

(C) Assistant Parks and Wildlife Officer (Bee-Keeping)

- To undertake bee-keeping extension

ANNEX III

Recruitment of 50% of different classes of established posts

(A) Parks and Wildlife Officer (Professional Grade)

- Minimum entry requirement is a bachelor degree in natural science. Entry may be direct or by promotion from other classes where in-service officers have completed degree courses.

(B) Senior Assistant Parks and Wildlife Officer/Assistant Parks and Wildlife Officer
(Technical Grade)

- Minimum entry requirement is a Diploma in Wildlife Management from the College of African Wildlife Management, Mweka, Tanzania. Members of the Technical Assistant class (Parks and Wildlife Assistant) who hold a Diploma from the Cwaka College of Agriculture, Empangeni, South Africa, and who have completed one years' service, are eligible for promotion to the technical class after successfully completing a departmental examination. Promotion is also possible for longer serving officers who have demonstrated their ability to accept higher responsibility.

(C) Parks and Wildlife Assistant (Technical Assistant Grade)

- Minimum entry requirement is a Certificate in Wildlife Management from Mweka, a Diploma from Cwaka, or (for entry to the Research Assistant Posts) a Malawi School Certificate of Education (MSCE), or a Certificate in Wildlife Management from Natural Resources College (Malawi).

(D) Clerical Officers

- Members of this class are common services personnel subject to the control of the Secretary for Personnel Management and Training (SPMT) in the office of President and Cabinet (OPC). Minimum entry requirement is the Junior Certificate of Education (J.C.E.). Members of the Clerical class known as Accounts Assistants are subject to the Accountant Generals' control.

Members of the Clerical class can gain promotion to Executive rank after five years' service and successful completion of a six month course. Direct entry to post of Executive Officer grade is open to candidates who hold a Diploma in Public Administration.

(E) Copy Typists (Secretarial)

- Common services personnel controlled by the Secretary for Personnel Management & Training. Minimum entry requirement is a Standard 8 education (Primary School Leaving Certificate) plus an approved typing certificate - usually Pitmans'. Entry points and promotions are based upon levels of skill.

(F) Parks and Wildlife Scout (Subordinate)

- Normal minimum entry requirement is a standard 8 education (Primary School Leaving Certificate). Sturdy physique and good eyesight are pre requisites for entry to all grades other than Messenger.

ANNEX IV

STRATEGIC PLANNING

1. (i) - Management Plan? Yes
- Date of formulation 1983
- Date of last revision None
- Is plan used Yes, somewhat. Not fully implemented due to financial constraints.

2. . Expenditure Planning Documents
- . Work Programs (Yearly)
- . Patrol programs (Yearly, Monthly, Weekly)
- . Monthly reports (Patrols, Personnel, Stores, Research, Equipment, Visitors, Stores, Weather, etc)
- . Returns

FINANCIAL

1. Yes
2. By different offices
3. Regional office and Head office.

ANNEX V

NEED FOR MORE TRAINING

- The Department of National Parks and Wildlife recognises need for further training of protected area personnel at all levels of staffing. The Department seeks to promote training in all protected area services, whether these be in law-enforcement, research, education/extension, tourism etc.
- As well as promoting training of area personnel in all fields, for the furtherance of effective protected area management,
 - (a) It is the Departments' wish to ensure an improvement in the work performance of scouts. They need to be accorded formal training. Theirs' should be practical type of training.
 - (b) In view of high population pressure on land in Malawi (and its attendant negative effects on protected areas, such as encroachment), the department seeks to intensify public education programmes. This includes training in Environmental Education for are personnel.
- The Departments' approach to training of protected area personnel is again very much influenced by the fragility of protected area resources. To this effect, Lake Malawi National Park receives the highest priority, followed by Nyika, Kasungu, Liwonde and Lengwe in that order.
- It is felt that protected area personnel with sufficient training in wildlife management or research, must be exposed to other areas (pertinent to protected area management) they are not versed with.

PERSONNEL

BACKGROUND FOR EACH RESERVE

1. NAME OF RESERVE: VWAZA MARSH GAME RESERVE
2. SIZE: 1,000 Km²
3. YEARS IN EXISTENCE: From 1977 to date (15 years)
4.
 - Open canopy woodland of hills and scarps (Brachystegia spp) 5.10
 - Mixed thicket/woodland 77.10
 - Woodlands of wet fringes 1.70
 - Grasslands (seasonally wet) 11.00
 - Grasslands (Perennially wet/swamps) 5.10

100.00%
5. -DEPARTMENT OF NATIONAL PARKS AND WILDLIFE
-MINISTRY OF FORESTRY AND NATURAL RESOURCES
 - 5.1 Government
 - 5.2 Not Applicable
6. FUNDING SOURCES
 - 6.1 Central Treasury? Yes
 - Recurrent Budget and Development Budget
Amount this year (115,000.00 Malawi Kwacha)
 - 6.2 Direct Revenue From Reserve?
 - None
 - 6.3 Foreign Assistance?
 - None

7. TECHNICAL ASSISTANCE:

- None

8. DOES THE RESERVE HAVE:

8.1 A protection Force? Yes

- Number of employees

. Permanently Established	16
. Non-Established	Nil

8.2 Biological Monitoring Program? Yes

- The Research sub-unit staff at Thazima(Nyika National Park) operates in Vwaza Marsh Game Reserve.

8.3 Community Liaison Effort?

- None

8.4 Tourism?

- There is a tented camp in the reserve with limited facilities. Tourism is not developed.

8.5 Safari Hunting?

- An experimental safari hunt was held in 1978. Another in 1983.

8.6 Reserve-Level Training Program?

- None

8.7 Other (Information Not Available)

9. Information Not Available

10 **INFRASTRUCTURE**

- Management buildings occur at one site only. This is Kazuni Game Scouts' Camp. It consists of
 - 3 Unclassified buildings
 - 6 Traditional houses

- A second management camp is located outside the reserve. This is Kawiya.
 - 1 EL2 house
 - 1 PH4 house
 - 7 Traditional houses

- **Roads**
 - . The internal road system measures about 140 Km. It is entirely a system of rough, bush tracks.

- **Vehicles**
 - . 1 x Motor cycle

11. **PERSONNEL**

11.1 **Present Strength is as follows:**

- **Permanently Established:**
 - 1 x Parks and Wildlife Assistant
 - 18 x Parks and Wildlife Scout (all grades)

 - **Non-Established**
 - 6 (Camp Attendant/Porter/Watchman)
- Also see Model Organogram. ANNEX I

11.2 Responsibilities

- See Annex II

11.3 Requirements for hiring

- See Annex III

12. NEED FOR MORE PERSONNEL: Yes

- Proposed Strength of Established Personnel

- Management:

- 1 x Senior Assistant Parks and Wildlife Officer (STO)
- 1 x Clerical Officer (CO)
- 1 x Copy Typist (D8/7/6)
- 3 x Parks and Wildlife Assistant (TA)
- 20 x Parks and Wildlife Scout (all grades)
- 1 x Messenger (SC.IV)
- 1 x Watchman (SC. IV)

13. NEED FOR MORE TRAINING: Yes

- See Annex V

INDICATIVE INFORMATION

TECHNICAL

1. (i) Yes

(ii) (a) Plants

None is known

(b) Animals

. Loxodonta africana (Fairly rare and endangered in Malawi)

. Neocichla gutturalis (white-winged starling)

2. Information Not Available

3. Elephant is a key species

STRATEGIC PLANNING

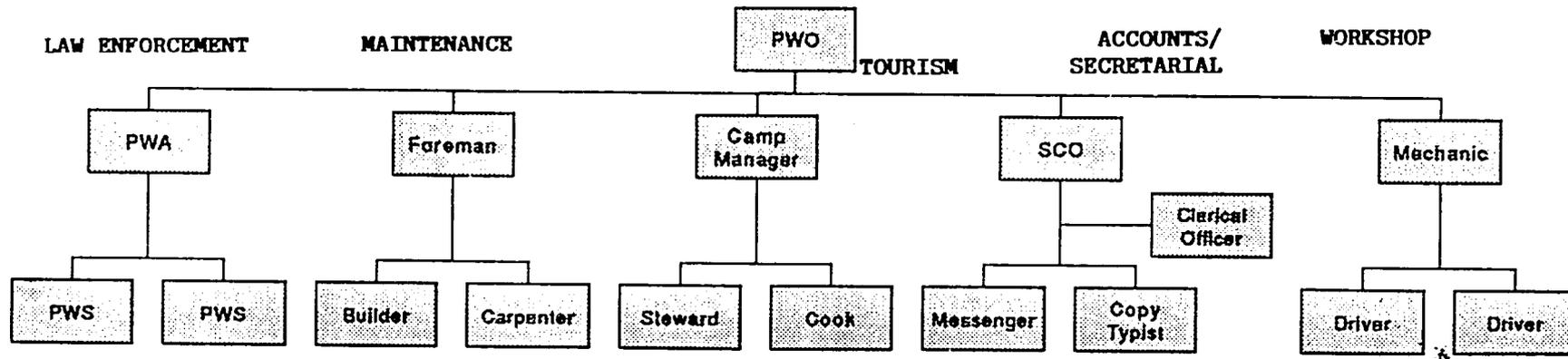
- See Annex IV

FINANCIAL

- See Annex IV

ANNEX I MODEL ORGANOGRAM (MANAGEMENT SERVICES)

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Abbreviations:

PWO (Parks and Wildlife Officer)
 PWA (Parks and Wildlife Assistant)

PWS (Parks and Wildlife Scout)
 SCO (Senior Clerical Officer)

ANNEX II

Responsibilities of Some Selected Personnel

(A) Parks and Wildlife Assistant

- Management of Vwaza Marsh Game Reserve. Law enforcement in the immediate vicinity of the reserve. Management procedures for the reserve include:
 - (i) People Management e.g.
 - Anti-poaching

 - Public relations and education
 - (ii) Habitat Management e.g.
 - Prescribed burning
 - (iii) Animal Population Management

ANNEX III

Recruitment to the different classes of established posts

(A) Parks and Wildlife Officer (Professional Grade)

- Minimum entry requirement is a bachelor degree in natural science. Entry may be direct or by promotion from other classes where in-service officers have completed degree courses.

(B) Senior Assistant Parks and Wildlife Officer/Assistant Parks and Wildlife Officer
(Technical Grade)

- Minimum entry requirement is a Diploma in Wildlife Management from the College of African Wildlife Management, Mweka, Tanzania. Members of the Technical Assistant class (Parks and Wildlife Assistant) who hold a Diploma from the Cwaka College of Agriculture, Empangeni, South Africa, and who have completed one years' service, are eligible for promotion to the technical class after successfully completing a departmental examination. Promotion is also possible for longer serving officers who have demonstrated their ability to accept higher responsibility.

(C) Parks and Wildlife Assistant (Technical Assistant Grade)

- Minimum entry requirement is a Certificate in Wildlife Management from Mweka, a Diploma from Cwaka, or (for entry to the Research Assistant Posts) a Malawi School Certificate of Education (MSCE), or a Certificate in Wildlife Management from Natural Resources College (Malawi).

(D) Clerical Officers

- Members of this class are common services personnel subject to the control of the Secretary for Personnel Management and Training (SPMT) in the office of President and Cabinet (OPC). Minimum entry requirement is the Junior Certificate of Education (J.C.E.). Members of the Clerical class known as Accounts Assistants are subject to the Accountant Generals' control.

Members of the Clerical class can gain promotion to Executive rank after five years' service and successful completion of a six month course. Direct entry to post of Executive Officer grade is open to candidates who hold a Diploma in Public Administration.

(E) Copy Typists (Secretarial)

- Common services personnel controlled by the Secretary for Personnel Management & Training. Minimum entry requirement is a Standard 8 education (Primary School Leaving Certificate) plus an approved typing certificate - usually Pitmans'. Entry points and promotions are based upon levels of skill.

(F) Parks and Wildlife Scout (Subordinate)

- Normal minimum entry requirement is a standard 8 education (Primary School Leaving Certificate). Sturdy physique and good eyesight are pre requisites for entry to all grades other than Messenger.

ANNEX IV

STRATEGIC PLANNING

1. (i) - Management Plan? Yes
- Date of formulation 1983
- Date of last revision None
- Is plan used Yes, somewhat. Not fully implemented due to financial constraints.

2. . Expenditure Planning Documents
- . Work Programs (Yearly)
- . Patrol programs (Yearly, Monthly, Weekly)
- . Monthly reports (Patrols, Personnel, Stores, Research, Equipment, Visitors, Stores, Weather, etc)
- . Returns

FINANCIAL

1. Yes
2. By different offices
3. Regional office and Head office.

ANNEX V

NEED FOR MORE TRAINING

- The Department of National Parks and Wildlife recognises need for further training of protected area personnel at all levels of staffing. The Department seeks to promote training in all protected area services, whether these be in law-enforcement, research, education/extension, tourism etc.
- As well as promoting training of area personnel in all fields, for the furtherance of effective protected area management,
 - (a) It is the Departments' wish to ensure an improvement in the work performance of scouts. They need to be accorded formal training. Theirs' should be practical type of training.
 - (b) In view of high population pressure on land in Malawi (and its attendant negative effects on protected areas, such as encroachment), the department seeks to intensify public education programmes. This includes training in Environmental Education for are personnel.
- The Departments' approach to training of protected area personnel is again very much influenced by the fragility of protected area resources. To this effect, Lake Malawi National Park receives the highest priority, followed by Nyika, Kasungu, Liwonde and Lengwe in that order.
- It is felt that protected area personnel with sufficient training in wildlife management or research, must be exposed to other areas (pertinent to protected area management) they are not versed with.

PERSONNEL

BACKGROUND FOR EACH RESERVE

1. NAME OF RESERVE: NKHOTA-KOTA GAME RESERVE

2. SIZE: 1,802 Km²

3. YEARS IN EXISTENCE: From 1954 to date (38 years)

4. - Montane evergreen forest 0.94
- Open canopy woodland (Brachystegia spp) 99.06
100.00%

5. - DEPARTMENT OF NATIONAL PARKS AND WILDLIFE
- MINISTRY OF FORESTRY AND NATURAL RESOURCES

5.1 GOVERNMENT

5.2 1973

From Department of Forestry and Game, within Ministry of Agriculture and Natural Resources to Department of National Parks and Wildlife

6. FUNDING SOURCES

6.1 Central Treasury? Yes

- Recurrent Budget and Development Budget
Amount this year (65,000.00 Malawi Kwacha)

6.2 Direct Revenue from Reserve?

- None

6.3 Foreign Assistance?

- From United Nations Development Programme
(FAO)
- David Shepherd Fund

7. TECHNICAL ASSISTANCE

- None

8. DOES THE RESERVE HAVE:

8.1 A Protection Force?

- Number of employees
 - . Permanently Established 27
 - . Non-Established Nil

8.2 Biological Monitoring Program?

- Limited studies are made by Research Officers from Kasungu National Park.

8.3 Community Liason Effort?

- Bee Keeping on experimental basis.
- General Wildlife Education Service

8.4 Tourism? Yes

- Number of employees
 - . Permanently Established Nil
 - . Non-Established 3

8.5 Safari Hunting? None

8.6 Reserve-Level Training Program

None

8.7 Other (Information Not Available)

9. - Biological Monitoring:

The Department of Fisheries carries out an ongoing, annual research and monitoring program mainly directed at the lake salmon (Opsaridium microlepis)

10. INFRASTRUCTURE

- Management buildings occur at the following seven locations:

Chipala 6 Traditional houses

Kasaka 4 Traditional houses

Navundi 4 Traditional houses

Bua There are three sub-sites

(i) 1 Metal rondavel

1 Caravan

(ii) 1 Unclassified brick house

1 Metal rondavel store

1 Traditional house

1 Meeting room

(iii) 4 Traditional houses

Wodzi 6 Traditional houses

Mbobo 5 EL2 houses

3 Traditional houses

Chipata 1 Metal rondavel

2 Traditional houses (metal roofed)

1 Youth Hostel

- **Vehicles**

1 x Land Rover Pick-up

2 x Motor cycle

- **Roads**

The internal road system measures about 120km. All roads are earth surfaced. The main road accounts for 40 Km and is maintained by the Ministry of Works.

11. **PERSONNEL**

11.1 **Present Strength is as follows**

- **Permanently Established:**

1 x Assistant Parks and Wildlife Officer

3 x Parks and Wildlife Assistant

13 x Parks and Wildlife Scout

- **Non-Established**

9 (Camp Attendant/Driver/Watch/Porter)

* Also see Model Organogram. Annex I

11.2 **Responsibilities**

- See Annex II

11.3 **Requirements for hiring**

- See Annex III

12. **NEED FOR MORE PERSONNEL:** Yes

- **The Proposed Strength of Established Personnel**

Management:

1 x Senior Assistant Parks and Wildlife Officer (STO)

1 x Clerical Officer (CO)

1 x Copy Typist (D8/7/6)

2 x Parks and Wildlife Assistant (TA)

36 x Parks and Wildlife Scout (all grades)

1 x Messenger (Sc. IV)

1 x Watchman (Sc. IV)

Research:

1 x Parks and Wildlife Officer (PO)

1 x Clerical Officer (CO)

1 x Copy Typist (D8/7/6)
1 x Parks and Wildlife Assistant (TA)
4 x Parks and Wildlife Scout (all grades)
1 x Messenger (Sc.IV)

13. **NEED FOR MORE TRAINING:** Yes

- See Annex V

INDICATIVE INFORMATION

TECHNICAL

1. (i) Yes

(ii) (a) Plants

None is Known

(b) Animals

• Loxodonta africana (Fairly rare and endangered in Malawi)

• Opsaridium microlepis (lake Salmon). A potentially endangered species in Malawi

2. Information Not Available

3. Elephant is a key species

STRATEGIC PLANNING

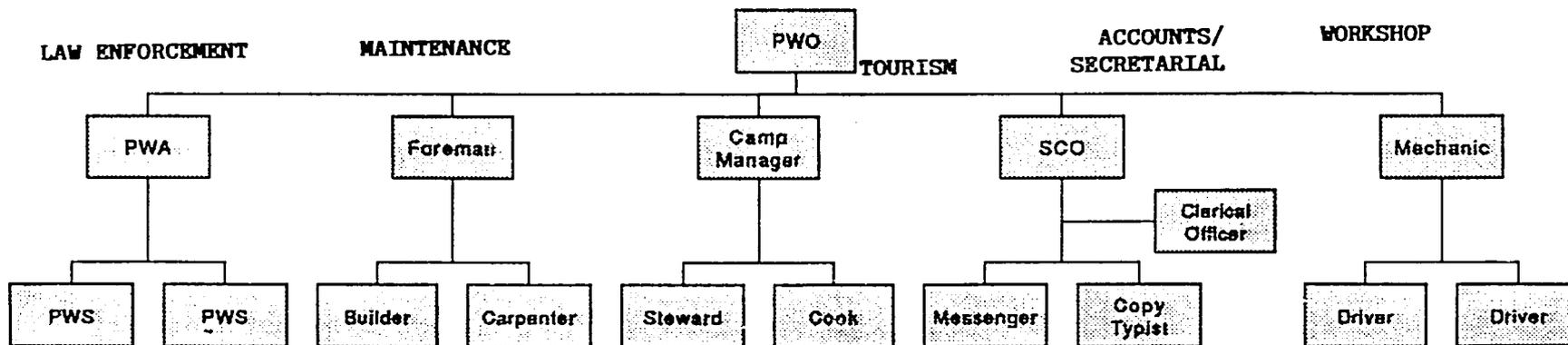
- See Annex IV

FINANCIAL

- See Annex IV

MODEL ORGANOGRAM (MANAGEMENT SERVICES)

056



Abbreviations:

PWO (Parks and Wildlife Officer)
PWA (Parks and Wildlife Assistant)

PWS (Parks and Wildlife Scout)
SCO (Senior Clerical Officer)

ANNEX II

Responsibilities of Some Selected Personnel

(A) Assistant Parks and Wildlife Officer

- Management of Nkhota-Kota Game Reserve. Law enforcement in the immediate vicinity of the reserve. Management procedures for the reserve include.
 - (i) People Management e.g.
 - Anti-poaching
 - Public relations and education
 - (ii) Habitat Management
 - e.g. Prescribed burning
 - (iii) Animal Population Management

ANNEX III

Recruitment to the different classes of established posts

(A) Parks and Wildlife Officer (Professional Grade)

- Minimum entry requirement is a bachelor degree in natural science. Entry may be direct or by promotion from other classes where in-service officers have completed degree courses.

(B) Senior Assistant Parks and Wildlife Officer/Assistant Parks and Wildlife Officer
(Technical Grade)

- Minimum entry requirement is a Diploma in Wildlife Management from the College of African Wildlife Management, Mweka, Tanzania. Members of the Technical Assistant class (Parks and Wildlife Assistant) who hold a Diploma from the Cwaka College of Agriculture, Empangeni, South Africa, and who have completed one years' service, are eligible for promotion to the technical class after successfully completing a departmental examination. Promotion is also possible for longer serving officers who have demonstrated their ability to accept higher responsibility.

(C) Parks and Wildlife Assistant (Technical Assistant Grade)

- Minimum entry requirement is a Certificate in Wildlife Management from Mweka, a Diploma from Cwaka, or (for entry to the Research Assistant Posts) a Malawi School Certificate of Education (MSCE), or a Certificate in Wildlife Management from Natural Resources College (Malawi).

(D) Clerical Officers

- Members of this class are common services personnel subject to the control of the Secretary for Personnel Management and Training (SPMT) in the office of President and Cabinet (OPC). Minimum entry requirement is the Junior Certificate of Education (J.C.E.). Members of the Clerical class known as Accounts Assistants are subject to the Accountant Generals' control.

Members of the Clerical class can gain promotion to Executive rank after five years' service and successful completion of a six month course. Direct entry to post of Executive Officer grade is open to candidates who hold a Diploma in Public Administration.

(E) Copy Typists (Secretarial)

- Common services personnel controlled by the Secretary for Personnel Management & Training. Minimum entry requirement is a Standard 8 education (Primary School Leaving Certificate) plus an approved typing certificate - usually Pitmans'. Entry points and promotions are based upon levels of skill.

(F) Parks and Wildlife Scout (Subordinate)

- Normal minimum entry requirement is a standard 8 education (Primary School Leaving Certificate). Sturdy physique and good eyesight are pre requisites for entry to all grades other than Messenger.

ANNEX IV

STRATEGIC PLANNING

1. (i) - Management Plan? Yes
- Date of formulation 1983
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- Is plan used Yes, somewhat. Not fully implemented due to financial constraints.

2. . Expenditure Planning Documents
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- . Returns

FINANCIAL

1. Yes
2. By different offices
3. Regional office and Head office.

ANNEX V

NEED FOR MORE TRAINING

- The Department of National Parks and Wildlife recognises need for further training of protected area personnel at all levels of staffing. The Department seeks to promote training in all protected area services, whether these be in law-enforcement, research, education/extension, tourism etc.
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- It is felt that protected area personnel with sufficient training in wildlife management or research, must be exposed to other areas (pertinent to protected area management) they are not versed with.

PERSONNEL

BACKGROUND FOR EACH RESERVE

1. NAME OF RESERVE: LAKE MALAWI NATIONAL PARK

2. SIZE: 94 Km²

3. YEARS IN EXISTENCE: 1980 to date (12 years)

4.
 - Open canopy woodland of hills and scarps (Brachystegia spp.) 72.33
 - Thicket/Savanna (Combretum/Acacia) 7.45
 - Lakes (fresh) 7.45
 - Islands 12.77

100.00%

5.
 - DEPARTMENT OF NATIONAL PARKS AND WILDLIFE
 - MINISTRY OF FORESTRY AND NATURAL RESOURCES
 - 5.1 Government

 - 5.2 Not Applicable

Note: Because of its unique fish species, in 1984 UNESCO added it to their list of World Heritage Sites.

6. FUNDING SOURCES
 - 6.1 Central Treasury? Yes
 - Recurrent Budget, Development Budget and Revolving Fund
Amount this year (346,000.00 Malawi Kwacha).

 - 6.2 Direct Revenue From Reserve?
 - None

6.3 Foreign Assistance? Yes

- From W.W.F. (World Wide Fund for Nature) US.
- UNESCO
- United Nations Development Program
(FAO)

7. TECHNICAL ASSISTANCE:

- The park has two Peace Corps US Volunter (professional) workers:
 - (i) Parks and Wildlife Officer (Education)
 - (ii) Parks and Wildlife Officer (Research)

8. DOES THE RESERVE HAVE:

8.1 A Protection Force?

- Number of employees
 - Permanently Established 5
 - Non-Established Nil

8.2 Biological Monitoring Program?

- Number of monitors
 - Permanently Established 2
 - Non-Established Nil

8.3 Community Liaison Effort? Yes

- Licensed collection of dead wood for subsistence purposes.
- The park personnel engage in a general education service in the departments' sphere of interest.

8.4 Tourism? Yes

- Number of employees

. Permanently Established	2
. Non-Established	29

8.5 Safari Hunting? None

8.6 Reserve-Level Training Program? None

8.7 Other (Information Not Available)

9. - **Biological Monitoring**

. The Department of Fisheries maintains its research headquarters in Monkey Bay, beside the park. It carries out studies of the lake fishes, including those which occur in the park waters.

- **Tourism**

. There are several rest-houses and luxury hotels close to the park. Boats and wind surfers may be hired from these places.

10. **INFRASTRUCTURE**

- **Permanent Management buildings are located at two sites:**

Cape Maclear (Golden Sands)

- . 1 Central building complex
- . 14 Chalets
- . 6 Rondavels
- . 3 Unclassified houses
- . 1 Visitor Information Room
- . 1 Conference Room
- . 1 Dining/Kitchen (Student's)
- . 1 Student Hostel (4 Rondavels)
- . 1 Aquarium

Monkey Bay

- . 1 Office
- . 1 DH7 house

- **Vehicles**

- . 1 x Land Rover Pick-up
- . 1 x Toyota Pick-up
- . 1 x Motor cycle
- . 1 x Boat

- **Roads**

- . The internal road system measures about 10km. It is earth surfaced, but a section is tarred where it passes over steepest gradients. It is maintained by the Ministry of Works and Supplies.

- **Trails**

- . There is one underwater trail at Golden Sands.

- **Overhead Cables**

- . An overhead telephone line connects Golden Sands rest camp with Monkey Bay.

11. PERSONNEL

11.1 Present Strength is as follows:

- **Permanently Established:**

- 1 x Parks and Wildlife Officer (Education)
- 1 x Parks and Wildlife Officer (Research)
- 2 x Assistant Parks and Wildlife Officer
- 1 x Clerical Officer

2 x Parks and Wildlife Assistant
4 x Parks and Wildlife Scout

- **Non Established**

32 (Camp Attendant/Steward/Watchmen/Driver)

• Also see Model Organogram. Annex I

11.2 Responsibilities

- See Annex II

11.3 Requirements For Hiring

- See Annex III

12. NEED FOR MORE PERSONNEL: Yes

- **Proposed Strength of Established Personnel**

Management:

1 x Parks and Wildlife Officer (PO)
1 x Parks and Wildlife Officer (Education) (PO)
1 x Assistant Parks and Wildlife Officer (TO)
1 x Parks and Wildlife Assistant (TA)
1 x Senior Clerical Officer (SCO)
1 x Copy Typist (D8/7/6)
8 x Parks and Wildlife Scout (All Grades)
1 x Messenger (Sc IV)
1 x Watchman (Sc.IV)

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Research:

1 x Parks and Wildlife Assistant

1 x Clerical Officer

1 x Copy Typist (D8/7/6)

4 x Parks and Wildlife Scout (All grades)

1 x Messenger (SC IV)

1 x Watchman (Sc IV)

13. **NEED FOR MORE TRAINING:** Yes

• See Annex V

INDICATIVE INFORMATION

TECHNICAL

1. (i) None are known
2. Information Not Available
3. Information Not Available

STRATEGIC PLANNING

- See Annex IV

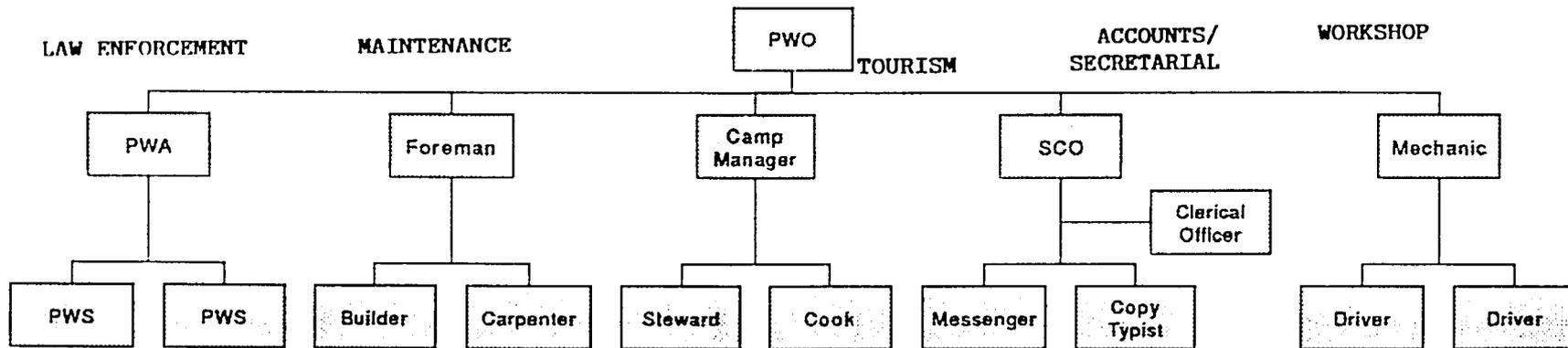
FINANCIAL

- See Annex IV

ANNEX I

MODEL ORGANOGRAM (MANAGEMENT SERVICES)

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Abbreviations:

PWO (Parks and Wildlife Officer)
PWA (Parks and Wildlife Assistant)

PWS (Parks and Wildlife Scout)
SCO (Senior Clerical Officer)

ANNEX II

Responsibilities of Some Selected Personnel

(A) Assistant Parks and Wildlife Officer

- Management of Lake Malawi National Park, Law enforcement in the immediate vicinity of the park. Management procedures for the park include.
 - (i) People Management e.g. - Anti-poaching
 - Public relations and education
 - (ii) Habitat Management e.g.- Prescribed Burning
- Management of Golden Sands Camp.

(B) Parks and Wildlife Officer (Research)

- To undertake studies on
 - . Hydrology
 - . Climate
 - . Woodlands
 - . Aquatic Plants
 - . Public Relations
 - . Landscape Classification
 - . Fishes
 - . Burning
 - . Vertebrate Pest Control
 - . Law Enforcement
 - . Tourism/Public attitudes

(C) Parks and Wildlife Officer (Education)

- To undertake park interpretive works, development of interpretive material and facilities

ANNEX III

Recruitment to the different classes of established posts

(A) Parks and Wildlife Officer (Professional Grade)

- Minimum entry requirement is a bachelor degree in natural science. Entry may be direct or by promotion from other classes where in-service officers have completed degree courses.

(B) Senior Assistant Parks and Wildlife Officer/Assistant Parks and Wildlife Officer
(Technical Grade)

- Minimum entry requirement is a Diploma in Wildlife Management from the College of African Wildlife Management, Mweka, Tanzania. Members of the Technical Assistant class (Parks and Wildlife Assistant) who hold a Diploma from the Cwaka College of Agriculture, Empangeni, South Africa, and who have completed one years' service, are eligible for promotion to the technical class after successfully completing a departmental examination. Promotion is also possible for longer serving officers who have demonstrated their ability to accept higher responsibility.

(C) Parks and Wildlife Assistant (Technical Assistant Grade)

- Minimum entry requirement is a Certificate in Wildlife Management from Mweka, a Diploma from Cwaka, or (for entry to the Research Assistant Posts) a Malawi School Certificate of Education (MSCE), or a Certificate in Wildlife Management from Natural Resources College (Malawi).

(D) Clerical Officers

- Members of this class are common services personnel subject to the control of the Secretary for Personnel Management and Training (SPMT) in the office of President and Cabinet (OPC). Minimum entry requirement is the Junior Certificate of Education (J.C.E.). Members of the Clerical class known as Accounts Assistants are subject to the Accountant Generals' control.

Members of the Clerical class can gain promotion to Executive rank after five years' service and successful completion of a six month course. Direct entry to post of Executive Officer grade is open to candidates who hold a Diploma in Public Administration.

(E) Copy Typists (Secretarial)

- Common services personnel controlled by the Secretary for Personnel Management & Training. Minimum entry requirement is a Standard 8 education (Primary School Leaving Certificate) plus an approved typing certificate – usually Pitmans'. Entry points and promotions are based upon levels of skill.

(F) Parks and Wildlife Scout (Subordinate)

- Normal minimum entry requirement is a standard 8 education (Primary School Leaving Certificate). Sturdy physique and good eyesight are pre requisites for entry to all grades other than Messenger.

ANNEX IV

STRATEGIC PLANNING

1. (i) - Management Plan? Yes
- Date of formulation 1983
- Date of last revision None
- Is plan used Yes, somewhat. Not fully implemented due to financial constraints.

2. . Expenditure Planning Documents
- . Work Programs (Yearly)
- . Patrol programs (Yearly, Monthly, Weekly)
- . Monthly reports (Patrols, Personnel, Stores, Research, Equipment, Visitors, Stores, Weather, etc)
- . Returns

FINANCIAL

1. Yes
2. By different offices
3. Regional office and Head office.

ANNEX V

NEED FOR MORE TRAINING

- The Department of National Parks and Wildlife recognises need for further training of protected area personnel at all levels of staffing. The Department seeks to promote training in all protected area services, whether these be in law-enforcement, research, education/extension, tourism etc.

- As well as promoting training of area personnel in all fields, for the furtherance of effective protected area management,
 - (a) It is the Departments' wish to ensure an improvement in the work performance of scouts. They need to be accorded formal training. Theirs' should be practical type of training.

 - (b) In view of high population pressure on land in Malawi (and its attendant negative effects on protected areas, such as encroachment), the department seeks to intensify public education programmes. This includes training in Environmental Education for are personnel.

- The Departments' approach to training of protected area personnel is again very much influenced by the fragility of protected area resources. To this effect, Lake Malawi National Park receives the highest priority, followed by Nyika, Kasungu, Liwonde and Lengwe in that order.

- It is felt that protected area personnel with sufficient training in wildlife management or research, must be exposed to other areas (pertinent to protected area management) they are not versed with.

PERSONNEL

BACKGROUND FOR EACH RESERVE

1. NAME OF RESERVE: LENGWE NATIONAL PARK

2. SIZE: 887 Km²

3. YEARS IN EXISTENCE: 22 YEARS (1970 TODATE)

4.	-	Mopane Woodland	10.94
	-	Thicket/Savanna (<u>Combretum/Terminalia</u>)	18.26
	-	Woodland/Savanna (mixed spp.)	<u>70.80</u>
			<u>100.00%</u>

5. - DEPARTMENT OF NATIONAL PARKS AND WILDLIFE
- MINISTRY OF FORESTRY AND NATURAL RESOURCES

5.1 Governmental

5.2 1973

. From Department of Forestry and Game, within Ministry of Agriculture and Natural Resources to Department of National Parks and Wildlife

6 FUNDING SOURCES

6.1 Central Treasury? Yes

- Recurrent Budget, Development Budget and Revolving Fund

. Amount this year (265,000.00 Malawi Kwacha)

6.2 Direct Revenue From Reserve?

- None

6.3 Foreign Assistance?

- United Nations Development Programme
(FAO)
- David Shepherd Fund

7 TECHNICAL ASSISTANCE:

- None

8. DOES THE RESERVE HAVE:

8.1 A protection force? Yes

- Number of employees
 - Permanently Established 20
 - Non-Established 3

8.2 Biological Monitoring Program? Yes

- Number of monitors
 - Permanently Established 2
 - Non-Established 1

8.3 Community Liaison Effort? Yes

- The park personnel engage in a general education service in the departments'(i.e. parks and wildlife) sphere of interest.

8.4 Tourism? Yes

- Number of employees

.	Permanently Established	Nil
.	Non-Established	7

8.5 Safari Hunting? None

8.6 Reserve-Level Training Program? None

8.7 Other (Information Not Available)

9. - Biological Monitoring:

. Detailed studies of the plant communities by Hall-Martin (1974, 1981)

. Annual Nyala counts by the Wildlife Society of Malawi.

- Community Liaison Effort:

. General wildlife education service in villages and schools adjoining the park. This program is under the auspices of Wildlife Society of Malawi.

10 INFRASTRUCTURE:

- Reserve buildings; Management buildings are located at six sites in the park as follows:

Lengwe (Staff camp)

. 2 Unclassified, double unit houses

. 5 Unclassified, single unit houses

. 4 Traditional houses

Lengwe (Visitors' camp)

. 4 Double Unit Chalets

. 2 Ablution/Kitchen blocks

. 3 Open air dining shelters

. 1 Shop/Grocery

. 1 Bar

North Thicket

- . 1 Unclassified, double Unit house
- . 1 Traditional house

Jasi

- . 1 Unclassified, double unit house
- . 1 Traditional house

Makanga

- . 1 Unclassified, double unit house
- . 1 Traditional house

Kanzimbi

- . 1 Unclassified Scouts' block

Several Management buildings are situated outside the park close to the entrance.

These are as follows:

- . 1 Office block (6 rooms)
- . 1 Workshop
- . 1 Student hostel
- . 1 DH7 house
- . 1 EL2A house
- . 2 EL2B houses
- . 16 Traditional houses
- . 1 Entrance gate and office

Vehicles

- . 2 x Land Rover Pick-up
- . 1 x Lorry
- . 1 x Tractor

- **Roads**

- . The internal road system measures about 97 km. It is confined to the eastern salient, is entirely earth surfaced, and is mostly usable only in dry season.

- **Trails**

- . The park has one managed trail

- **Dams and Waterholes**

- . Four waterholes provide water (for animals) that would not otherwise be available during dry season. Each waterhole is fed by a borehole and pump.

- **Fences**

There is 32 Km of fencing along part of eastern boundary.

- **Hides**

- . Animal observation hides are located besides each waterhole mentioned above.

- **Overhead Cables**

- . An overhead power line enters the park. It supplies power to the parks' headquarters and to Lengwe (Visitors' camp)

11. **PERSONNEL**

11.1 **Present Strength is as follows**

- **Permanently Established:**

1 x Parks and Wildlife Officer (Research)

1 x Assistant Parks and Wildlife Officer

3 x Parks and Wildlife Assistant
1 x Senior Clerical Officer
18 x Parks and Wildlife Scout (All grades)
1 x Messenger
1 x Watchman

- **Non Established**

32(CampAttendant/Steward/Porter/Mechanic/CarpenterPlumber/Driver
etc)

* Also see Model Organogram. Annex I

11.2 **Responsibilities**

- See Annex II

11.3 **Requirements for hiring**

- See Annex III

12. **NEED FOR MORE PERSONNEL:** Yes

- **Proposed Strength of Established Personnel**

- **Management:**

1 x Parks and Wildlife Officer (PO)
1 x Assistant Parks and Wildlife Officer (TO)
1 x Mechanical Supervisor (TO)
1 x Senior Clerical Officer (SCO)
1 x Copy Typist (D8/7/6)
2 x Parks and Wildlife Assistant (PA)
28 x Parks and Wildlife Scout (All grades) (Sc III/II/I)
1 x Messenger (Sc IV)
1 x Watchman (Sc. IV)

Research

- 1 x Senior Parks and Wildlife Officer (P8)
- 1 x Senior Clerical Officer
- 1 x Copy Typist (D8/7/6)
- 1 x Assistant Parks and Wildlife Officer (TO)
- 1 x Parks and Wildlife Assistant (TA)
- 4 x Parks and Wildlife Scout (All grades)
- 1 x Messenger (Sc.IV)

13. **NEED FOR MORE TRAINING?**

- See Annex V

INDICATIVE INFORMATION

TECHNICAL

1. (i) No
2. Information Not Available
3. (i) Yes
(ii) Nyala
(iii) The increase in Nyala numbers has apparently been directly responsible for the opening up of thicket and forest communities. Hall-Martin (1981) records signs of heavy browsing and significant invasion by Savanna grasses. This also presented a very definite fire hazard in a community that fire had previously been unable to penetrate. It is believed that this might adversely affect the status of certain other thicket animals, especially suni and crested guineafowl.

STRATEGIC PLANNING

- See Annex IV

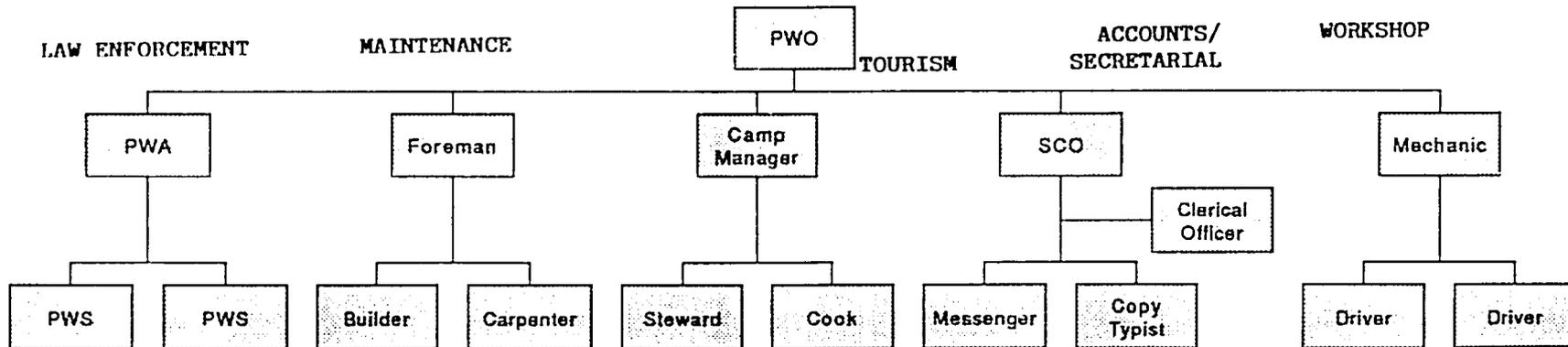
FINANCIAL

- See Annex IV

ANNEX I

MODEL ORGANOGRAM (MANAGEMENT SERVICES)

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Abbreviations:

PWO (Parks and Wildlife Officer)
 PWA (Parks and Wildlife Assistant)

PWS (Parks and Wildlife Scout)
 SCO (Senior Clerical Officer)

ANNEX II

Responsibilities of Some Selected Personnel

(A) Assistant Parks and Wildlife Officer

- Management of Lengwe National Park. Law enforcement in the immediate vicinity of the park. Management procedures for the park include:
 - (i) People Management e.g.
 - Anti-poaching
 - Public relations and education
 - (ii) Habitat Management e.g.
 - Prescribed burning
 - Providing water
 - (iii) Animal Population Management e.g.
 - Culling
 - Fencing
- Management of Visitor Accommodation Amenities

(B) Parks and Wildlife Officer (Research)

- To undertake studies on:
 - . Hydrology
 - . Climate
 - . Woodlands
 - . Forests
 - . Grass layer
 - . Tsetse
 - . Other invertebrates
 - . Soils
 - . Mammalian grazers/browser and mixed feeders
 - . Burning
 - . Vertebrate Pest Control
 - . Public relations
 - . Law enforcement
 - . Tourism/Public attitudes
 - . Landscape Classification

ANNEX III

Recruitment to the different classes of established posts

(A) Parks and Wildlife Officer (Professional Grade)

- Minimum entry requirement is a bachelor degree in natural science. Entry may be direct or by promotion from other classes where in-service officers have completed degree courses.

(B) Senior Assistant Parks and Wildlife Officer/Assistant Parks and Wildlife Officer (Technical Grade)

- Minimum entry requirement is a Diploma in Wildlife Management from the College of African Wildlife Management, Mweka, Tanzania. Members of the Technical Assistant class (Parks and Wildlife Assistant) who hold a Diploma from the Cwaka College of Agriculture, Empangeni, South Africa, and who have completed one years' service, are eligible for promotion to the technical class after successfully completing a departmental examination. Promotion is also possible for longer serving officers who have demonstrated their ability to accept higher responsibility.

(C) Parks and Wildlife Assistant (Technical Assistant Grade)

- Minimum entry requirement is a Certificate in Wildlife Management from Mweka, a Diploma from Cwaka, or (for entry to the Research Assistant Posts) a Malawi School Certificate of Education (MSCE), or a Certificate in Wildlife Management from Natural Resources College (Malawi).

(D) Clerical Officers

- Members of this class are common services personnel subject to the control of the Secretary for Personnel Management and Training (SPMT) in the office of President and Cabinet (OPC). Minimum entry requirement is the Junior Certificate of Education (J.C.E.). Members of the Clerical class known as Accounts Assistants are subject to the Accountant Generals' control.

Members of the Clerical class can gain promotion to Executive rank after five years' service and successful completion of a six month course. Direct entry to post of Executive Officer grade is open to candidates who hold a Diploma in Public Administration.

(E) **Copy Typists (Secretarial)**

- Common services personnel controlled by the Secretary for Personnel Management & Training. Minimum entry requirement is a Standard 8 education (Primary School Leaving Certificate) plus an approved typing certificate - usually Pitmans'. Entry points and promotions are based upon levels of skill.

(F) **Parks and Wildlife Scout (Subordinate)**

- Normal minimum entry requirement is a standard 8 education (Primary School Leaving Certificate). Sturdy physique and good eyesight are pre requisites for entry to all grades other than Messenger.

ANNEX IV

STRATEGIC PLANNING

1. (i) - Management Plan? Yes
 - Date of formulation 1983
 - Date of last revision None
 - Is plan used Yes, somewhat. Not fully implemented due to financial constraints.
-
2. . Expenditure Planning Documents
 - . Work Programs (Yearly)
 - . Patrol programs (Yearly, Monthly, Weekly)
 - . Monthly reports (Patrols, Personnel, Stores, Research, Equipment, Visitors, Stores, Weather, etc)
 - . Returns

FINANCIAL

1. Yes
2. By different offices
3. Regional office and Head office.

ANNEX V

NEED FOR MORE TRAINING

- The Department of National Parks and Wildlife recognises need for further training of protected area personnel at all levels of staffing. The Department seeks to promote training in all protected area services, whether these be in law-enforcement, research, education/extension, tourism etc.
- As well as promoting training of area personnel in all fields, for the furtherance of effective protected area management.
 - (a) It is the Departments' wish to ensure an improvement in the work performance of scouts. They need to be accorded formal training. Theirs' should be practical type of training.
 - (b) In view of high population pressure on land in Malawi (and its attendant negative effects on protected areas, such as encroachment), the department seeks to intensify public education programmes. This includes training in Environmental Education for are personnel.
- The Departments' approach to training of protected area personnel is again very much influenced by the fragility of protected area resources. To this effect, Lake Malawi National Park receives the highest priority, followed by Nyika, Kasungu, Liwonde and Lengwe in that order.
- It is felt that protected area personnel with sufficient training in wildlife management or research, must be exposed to other areas (pertinent to protected area management) they are not versed with.

PERSONNEL

BACKGROUND FOR EACH RESERVE:

1. NAME OF RESERVE: LIWONDE NATIONAL PARK
2. SIZE: 538 Km²
3. YEARS IN EXISTENCE: 1973 To date (19 years)
4.

- Open canopy woodland of hills and scarps (Brachystegia spp.)	17.52
- Mopane woodland	58.39
- Grasslands (seasonally wet)	23.36
- Lakes (fresh)	<u>0.73</u>
	<u>100.00%</u>
5. - DEPARTMENT OF NATIONAL PARKS AND WILDLIFE
- MINISTRY OF FORESTRY AND NATURAL RESOURCES
 - 5.1 GOVERNMENT
 - 5.2 Not Applicable
6. FUNDING SOURCES
 - 6.1 Central Treasury Yes
 - Recurrent Budget, Development Budget and Revolving Fund
 - Amount this year (416,000.00 Malawi Kwacha)
 - 6.2 Direct Revenue From Reserve?
 - None
 - 6.3 Foreign Assistance? Yes
 - From South African Government for purchase of materials in construction of fence and buildings.

- United Nations Development Programme (FAO)
- David Shepherd Fund

7. TECHNICAL ASSISTANCE: Yes

- Under the South African Funded Project.

1 officer to oversee construction works e.g. fence, roads, and buildings.

8. DOES THE RESERVE HAVE:

8.1 A Protection Force? Yes

- Number of employees
 - . Permanently Established 20
 - . Non-Established 7

8.2 Biological Monitoring Program? Yes

- Number of monitors
 - . Permanently Established 4
 - . Non-Established 1

8.3 Community Liaison Effort ? Yes

- The park personnel engage in a general education service in the departments' (ie. parks and wildlife) sphere of interest.

8.4 Tourism? Yes

- Number of employees
 - . Permanently Established 1
 - . Non-Established 8

8.5 Safari Hunting ? None

8.6 Reserve-Level Training Program

None

8.7 Other (Information Not Available)

9. - Biological Monitoring:

Wildlife Society of Malawi members, as well as members of the University of Malawi's Chancellor College have contributed to collection of base data.

- Tourism:

There is a privately owned Visitor Lodge on the Southern end of the park and it provides boat cruise service into the park.

- Community Liaison Effort:

The Wildlife Society of Malawi sponsors educational visits to Liwonde by primary schools and colleges.

10. INFRASTRUCTURE

- Reserve buildings: Management buildings occur at five locations in the park. A list by site follows:

Likwenu

.. 1 Entrance gate, office, curio shop, Information Room

.. Scouts Camp (Swazi thatched Semi-detached buildings)

Chinguni

- .. 7 EL2 (modified) houses
- .. 3 EL2 houses
- .. 1 Workshop and Vehicle shed
- .. 1 Office block (5 rooms)
- .. 2 Unclassified Senior Staff houses
- .. 1 Guest House
- .. 1 Generator House
- .. 1 Pump House

Mvuu: (Visitor Centre)

- .. 2 Duplex chalets
- .. 5 Rondavels (some with outside barbecues, concrete tables, and benches)
- .. 2 Kitchen and store block
- .. 1 Ablution block
- .. 5 Day visitor concrete tables with benches

Makanga Scouts Camp

- .. 11 Traditional houses
- .. 2 Improved traditional houses

Mpwapwata Camp

- .. 4 Traditional houses

- Vehicles

- . 1 x Lorry
- . 2 x Landrover pick-up
- . 3 x Motorcycle
- . 1 x Gallion grader
- . 1 x Tractor
- . 3 x Boat

- **Roads**

. The internal road system measures about 119 Km. All roads are earth surfaced and much of the system is usable only during the dry season.

- **Airfields**

. There is one airfield

- **Fences**

. Available along eastern, western and southern park boundaries

11. **PERSONNEL**

11.1 **Present Strength is as follows**

- **Permanently Established:**

1 x Parks and Wildlife Officer (Research)

1 x Assistant Parks and Wildlife Officer

2 x Parks and Wildlife Assistant

1 x Senior Clerical Officer

1 x Clerical Officer

20 x Parks and Wildlife Scout (All grades)

1 x Messenger

- **Non-Established**

16 (Camp Attendants/Stewards/Porters/Mechanic/Driver)

* Also see Model Organogram. Annex I

11.2 **Responsibilities**

- See Annex II

11.3 Requirements for Hiring

- See Annex III

12 NEED FOR MORE PERSONNEL: Yes

- Proposed Strength of Established Personnel

Management

- 1 x Parks and Wildlife Officer (PO)
- 1 x Assistant Parks and Wildlife Officer (TO)
- 1 x Mechanical Supervisor (TO)
- 1 x Senior Clerical Officer (SCO)
- 1 x Copy Typist (D8/7/6)
- 2 x Parks and Wildlife Assistant (TA)
- 15 x Parks and Wildlife Scouts (All grades)
- 1 x Messenger (Sc.IV)
- 1 x Watchman (Sc.IV)

Research

- 1 x Parks and Wildlife Officer (PO)
- 1 x Clerical Officer (CO)
- 1 x Copy Typist (D8/7/6)
- 1 x Parks and Wildlife Assistant (TA)
- 4 x Parks and Wildlife Scout (all grades)
- 1 x Messenger (Sc. IV)

13. NEED FOR MORE TRAINING: Yes

- See Annex V

INDICATIVE INFORMATION

TECHNICAL

1. (i) Yes
- (ii) (a) Plants

None

- (b) Animals

. Loxodonta africana (Rare and endangered in Malawi)

2. Information Not Available
3. Elephant and Hippopotamus are the parks' key species.

STRATEGIC PLANNING

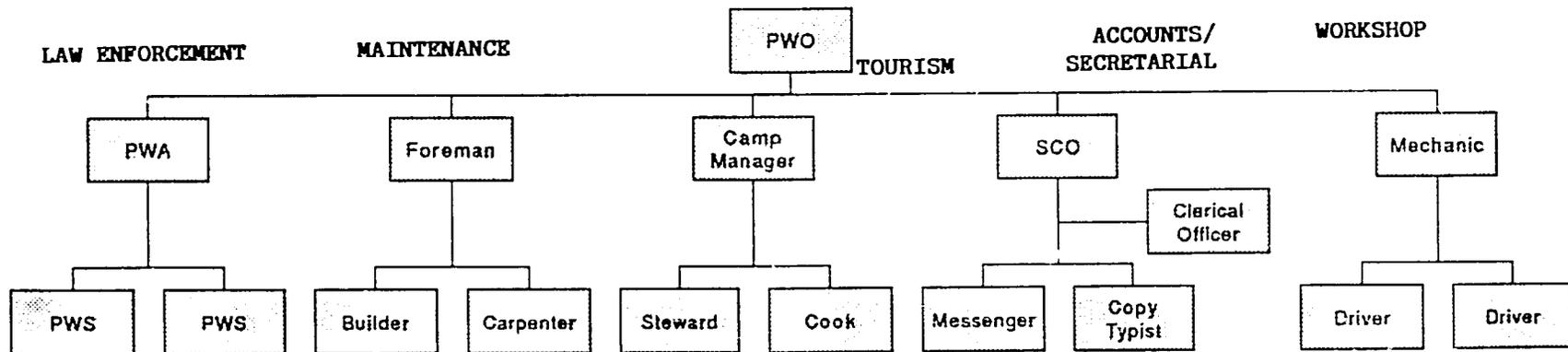
- * See Annex IV

FINANCIAL

- * See Annex IV

ANNEX I

MODEL ORGANOGRAM (MANAGEMENT SERVICES)



Abbreviations:

PWO (Parks and Wildlife Officer)
PWA (Parks and Wildlife Assistant)

PWS (Parks and Wildlife Scout)
SCO (Senior Clerical Officer)

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ANNEX II

Responsibilities of some Selected Personnel

(A) Parks and Wildlife Officer (Research)

- To undertake studies on
 - . Hydrology
 - . Grass layer
 - . Tsetse
 - . Burning regime
 - . Vertebrate Pest Control
 - . Public relations
 - . Law enforcement
 - . Tourism/Public attitudes
 - . Climate
 - . Woodlands
 - . Mammalian grazers/browsers and mixed feeders
 - . Soils
 - . Landscape classification

(B) Assistant Parks and Wildlife Officer

- Management of Liwonde National Park. Law enforcement in immediate vicinity of the park. Management procedures for the park include
 - (i) People Management e.g - Anti-poaching,
Public relations and education
 - (ii) Habitat Management e.g. Prescribed burning
 - (iii) Animal Population Management e.g.
 - Reintroduction
 - Fencing

ANNEX III

Recruitment to the different classes of established posts

(A) Parks and Wildlife Officer (Professional Grade)

- Minimum entry requirement is a bachelor degree in natural science. Entry may be direct or by promotion from other classes where in-service officers have completed degree courses.

(B) Senior Assistant Parks and Wildlife Officer/Assistant Parks and Wildlife Officer (Technical Grade)

- Minimum entry requirement is a Diploma in Wildlife Management from the College of African Wildlife Management, Mweka, Tanzania. Members of the Technical Assistant class (Parks and Wildlife Assistant) who hold a Diploma from the Cwaka College of Agriculture, Empangeni, South Africa, and who have completed one years' service, are eligible for promotion to the technical class after successfully completing a departmental examination. Promotion is also possible for longer serving officers who have demonstrated their ability to accept higher responsibility.

(C) Parks and Wildlife Assistant (Technical Assistant Grade)

- Minimum entry requirement is a Certificate in Wildlife Management from Mweka, a Diploma from Cwaka, or (for entry to the Research Assistant Posts) a Malawi School Certificate of Education (MSE), or a Certificate in Wildlife Management from Natural Resources College (Malawi).

(D) Clerical Officers

- Members of this class are common services personnel subject to the control of the Secretary for Personnel Management and Training (SPMT) in the office of President and Cabinet (OPC). Minimum entry requirement is the Junior Certificate of Education (J.C.E.). Members of the Clerical class known as Accounts Assistants are subject to the Accountant Generals' control.

Members of the Clerical class can gain promotion to Executive rank after five years' service and successful completion of a six month course. Direct entry to post of Executive Officer grade is open to candidates who hold a Diploma in Public Administration.

(E) Copy Typists (Secretarial)

- Common services personnel controlled by the Secretary for Personnel Management & Training. Minimum entry requirement is a Standard 8 education (Primary School Leaving Certificate) plus an approved typing certificate – usually Pitmans'. Entry points and promotions are based upon levels of skill.

(F) Parks and Wildlife Scout (Subordinate)

- Normal minimum entry requirement is a standard 8 education (Primary School Leaving Certificate). Sturdy physique and good eyesight are pre requisites for entry to all grades other than Messenger.

ANNEX IV

STRATEGIC PLANNING

1. (i) - Management Plan? Yes
 - Date of formulation 1983
 - Date of last revision None
 - Is plan used Yes, somewhat. Not fully implemented due to financial constraints.
-
2. . Expenditure Planning Documents
 - . Work Programs (Yearly)
 - . Patrol programs (Yearly, Monthly, Weekly)
 - . Monthly reports (Patrols, Personnel, Stores, Research, Equipment, Visitors, Stores, Weather, etc)
 - . Returns

FINANCIAL

1. Yes
2. By different offices
3. Regional office and Head office.

ANNEX V

NEED FOR MORE TRAINING

- The Department of National Parks and Wildlife recognises need for further training of protected area personnel at all levels of staffing. The Department seeks to promote training in all protected area services, whether these be in law-enforcement, research, education/extension, tourism etc.

- As well as promoting training of area personnel in all fields, for the furtherance of effective protected area management,
 - (a) It is the Departments' wish to ensure an improvement in the work performance of scouts. They need to be accorded formal training. Theirs' should be practical type of training.

 - (b) In view of high population pressure on land in Malawi (and its attendant negative effects on protected areas, such as encroachment), the department seeks to intensify public education programmes. This includes training in Environmental Education for are personnel.

- The Departments' approach to training of protected area personnel is again very much influenced by the fragility of protected area resources. To this effect, Lake Malawi National Park receives the highest priority, followed by Nyika, Kasungu, Liwonde and Lengwe in that order.

- It is felt that protected area personnel with sufficient training in wildlife management or research, must be exposed to other areas (pertinent to protected area management) they are not versed with.

PERSONNEL

BACKGROUND FOR EACH RESERVE

1. NAME OF RESERVE: MWABVI GAME RESERVE

2. SIZE: 340 Km²

3. YEARS IN EXISTENCE: From 1953 to date (39 years)

4.

4.	-	Mopane Woodland	38.24
	-	Woodlands (<u>Adansonia/Cordia/Acacia albida</u>)	2.35
	-	Thicket/Savanna (<u>Combretum/Acacia</u>)	<u>59.41</u>
			<u>100.00%</u>

5.

5.	-	DEPARTMENT OF NATIONAL PARKS AND WILDLIFE
	-	MINISTRY OF FORESTRY AND NATURAL RESOURCES
5.1		Government
5.2		Not Applicable

6. FUNDING SOURCES
 - 6.1 Central Treasury Yes

-	Recurrent Budget	
	Amount this year (5,000.00 Malawi Kwacha)	

 - 6.2 Direct Revenue from Reserve?

-	None
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 - 6.3 Foreign Assistance?

-	None
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7. TECHNICAL ASSISTANCE:

-	None
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