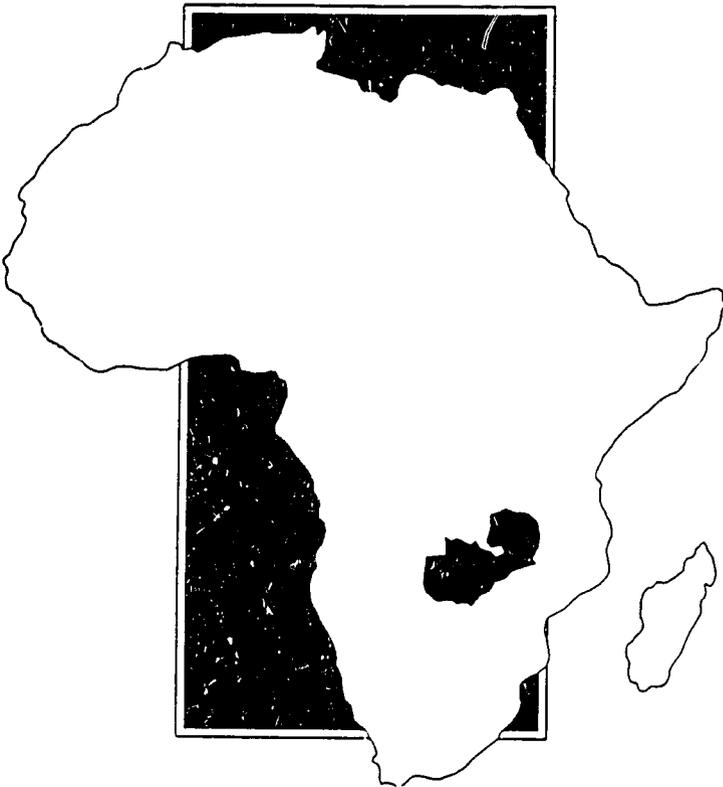


PARCS

PROTECTED AREA CONSERVATION STRATEGY

ASSESSING THE TRAINING NEEDS OF PROTECTED
AREA MANAGERS IN AFRICA



ZAMBIA



AFRICAN WILDLIFE FOUNDATION



The WILDLIFE CONSERVATION SOCIETY

**Biodiversity
Support
Program**



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PARCS

Country Report: ZAMBIA

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**EXECUTIVE SUMMARY:
ZAMBIA
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 areas which PAMs themselves recognize a deficiency.

The PARCS training needs and training opportunities assessments address two questions: (i) 'What is needed in respect to PAM training in order 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 both the skills required for protected area management and the skill levels that PAMs currently possess. Differences between skills needed for the job and those actually possessed are recognized as a training need. Further information on both training needs and training opportunities were obtained through interviews with PAMs and their supervisors.

Training Needs Assessment

Within the Zambian Department of National Parks & Wildlife Services (DNPWS) there is no specific training program for PAMs. However, some PAMs attend quarterly training sessions which are held for various ranks of departmental staff.

Formal, wildlife institutional training is provided for qualified and experienced intermediate staff at Mweka College, in Tanzania. Mweka College graduates assume the rank of PAM, and later, may attend university. PAMs with degrees are eligible to become Regional or Provincial PAMs, or Research Officers or Biologists.

DNPWS has no "training plan"¹ which is designed to ensure that all protected area management staff are trained in fields appropriate and specific to their present responsibilities, or to address short-falls in skills upon graduating from Mweka College. The Department recognizes that Mweka College graduates need further training in:

- Animal population surveys and monitoring;
- Wildlife management techniques;
- Wildlife research;
- Community-based conservation;
- Personnel management; and
- Budgeting and accounting.

Six PAMs, one Regional PAM, and one Research Officer completed the PARCS questionnaire. 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 held by PAMs in Zambia. 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.

PAMs identified training needs in the following key areas:

TECHNICAL	Regional/cultural context of protected area.
MANAGEMENT	Intervention techniques; community conflict resolution.
PLANNING	All Main Divisions of the Job, but with particular emphasis on intervention programs and zoning in protected areas.

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 prior to assuming their posts; it also provides regular professional development and refresher courses, and monitors and evaluates training programs implemented

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 officials

LEGAL	Collecting/exporting specimen material.
POLICIES & PROCEDURES	All Main Divisions of the Job, but with particular emphasis on community conservation programs.
MENTAL & SOCIAL SKILLS	'Comprehension', 'Problem Analysis' & 'Creativity' in Visitor Satisfaction, Intervention Techniques and the Role of Research.

Constraints on PAMs meeting their job responsibilities include:

- the lack of a well-structured in-service training program that addresses the skill deficiencies identified by both PAMs themselves and their supervisors;
- absence of a Departmental training plan implemented by a professional training officer; and
- finances to support more staff to attend formal wildlife training institutions.

PAMs listed their training priorities among the seventeen Job Competencies listed on the questionnaire. Planning Skills ranked highest followed closely by Technical Skills. For Main Divisions of the Job, 'Ensuring Appropriate Balance between Resource Conservation and Use' emerged as the highest priority. These priorities generally agreed with needs identified by the gap analysis, although no priority was given to Policies & Procedures which featured prominently as a training need.

There is a proposal to restructure DNPWS which includes clear guidelines on the responsibilities of Field Operations Directors (FODs), although no indications are given as to how training for FODs will be accomplished. These responsibilities are:

- Planning work of the Division: time-tabling;
- Developing, coordinating and supporting law enforcement activities;
- Developing and implementing methods of evaluating potential commercial operators;
- Control over hunting operations, and advising on profitable wildlife utilization;
- Developing reporting system on law enforcement analysis and evaluation;
- Inspecting and monitoring trophies and other wildlife products;
- Provide an effective flight service for the Department;
- Maintaining a controlling system for purchase, storage, and issue of stores, equipment, and vehicles; and
- Providing an effective radio network service for the Department.

Training Opportunities Assessment

No institutions in Zambia address PAMs' specific protected area management training needs, although a few staff have been sent to a computer course offered at the National Institute of Public Administration and Management, in Lusaka.

All wildlife technical training is undertaken at Mweka College. 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 DNPWS, training is conducted mainly at Chunga College, in Kafue.

Recommendations

Greater attention needs to be paid to the role of in-service and on-the-job training as a means of addressing the training needs of PAMs identified in this report. The quarterly training sessions being held at Nyamaluma could possibly provide the basis of a more structured approach to in-service training for PAMs.

If in-service training was developed, course topics should be based on the key training needs identified by the 'Gap Analysis,' and additional needs deemed important by DNPWS.

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 DNPWS' general training program; and identifying potential course venues and instructors.

On-the-job training is very much based on a PAM's individual initiative to recognize opportunities for enhancing job skills. One such opportunity would be seeking advice from, and/or working with, more experienced, senior colleagues. DNPWS may be able to encourage such "quality" contacts for PAMs by identifying senior staff members who have good communication skills and assign to these staff, for short periods, newly-appointed PAMs.

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

One objective of the PARCS project is to provide data which will assist participating countries to develop appropriate and sustainable training programs for PAMs. One idea for a regional training program emanates from the important wetlands that exist within southern Africa. Within the PARCS southern Africa region there are key wetlands areas-- which include, Kafue, Begweulu, Okavango, Zambezi Floodplain, Elephant Marsh, Lake Chilwa-- all with different ecological, economic, and sociological functions. Wetlands are a threatened habitat throughout most of Africa, and the establishment of a training program which deals specifically with the problems faced by PAMs in the management of wetlands is very opportune at present.

Zambia could possibly be developed as a center for training in wetlands conservation by linking into the WWF Wetlands Project. PAMs from throughout the region could attend specially designed courses at Kafue or Lochinvar. If such a concept were pursued, the role of PARCS, or other donors, could be to provide expertise in preparing a training syllabus, develop course schedules, and coordinate cross-regional participation by all interested parties.

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 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 respond to these questions by:

- a undertaking an assessment of training needs, priorities, constraints, and opportunities for PAMs in three regions of sub-Saharan Africa (east, central, and southern);
- b establishing (pilot) training programs in two focal countries in each region to further develop, in a participatory manner, and 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 assessment of training needs, priorities, and constraints will be completed in each region. Specifically, for PAMs, the assessment is 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. These questions are listed below and are divided into broad, general categories of enquiry, each with a sub-set of more specific enquiries.

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 twenty 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?

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

- a What existing training has been received by PAMs?
- b Comparison 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 in these areas?
- d How well does existing training prepare PAMs? Does the type of training received reflect the degree of preparation for the job requirements?
- e Does exposure to various conservation techniques (other than in-service training) improve PAMs skills and knowledge?
- f 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 NGOs: The African Wildlife Foundation (AWF), Wildlife Conservation Society (WCS), and World Wildlife Fund (WWF). AWF is the lead organization in eastern Africa, WWF heads 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 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 (RM), the BSP core-team member, and a facilitator (training specialist) from Price Waterhouse. [For full details on the methodology 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 and October 2, 1992. The methodology was also reviewed by the core team in September 1992, 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 is the questionnaire (Annexe 1) which was designed at the methodology workshop in Nairobi. A questionnaire approach was adopted for the needs assessment 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 in which to gather both qualitative and quantitative data to assess training needs.
 - d It would lend itself well to standardized data extraction and comparison across the three regions of Africa where PARCS was conducted.
- 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 is 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 Officers, Warden, Senior Warden, etc.). In order to identify the appropriate individuals for the assessment in each country, it

was 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 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 the government's conservation authority's (CA) headquarters).
- 1.6.3 It is 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 have been 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 and/or lecturers at wildlife institutions where PAMs receive training; and
 - f Research Officers.

1.7 TARGET COUNTRIES

- 1.7.1 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 part the continent.

1.7.2 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 (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/inrest;
- 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 A preliminary categorization of countries has been made. These categories 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.

1.7.4.1 The preliminary categorization of countries is as follows:

East Africa

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

Limited Assessments: Somalia.

Central Africa

In-Depth Assessments: Cameroon, Congo, Rwanda, and Zaire.

Limited Assessments: Burundi, Central African Republic, and Gabon.

Southern Africa

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

Limited Assessment: Mozambique.

Special Assessment (training opportunities only): Republic of South Africa.

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 (how often provided? who plans them? numbers of staff attending courses? financing?, etc.);
 - e formal wildlife training institutions used (who attends them? how many?);
 - f other training opportunities (workshops, seminars: who attends? how many? financing?);
 - g number of Departmental training officers (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 fill it out with the RM nearby to assist;
 - b to explain the questionnaire and leave it for the PAM to fill it out 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; and
 - 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 FODs' 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 is 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 comment on the constraints to obtaining this training.

SECTION 2: TRAINING NEEDS ASSESSMENT

2.1 INTRODUCTION

2.1.1 Protected Area System

- 2.1.1.1 Zambia 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. Small, local, highland areas in the north fall within the Afromontane Regional Centre of Endemism (ARCE) characterized by various kinds of forest and high altitude grassland cover. Significant floodplain areas include Kafue, Zambezi, and Bangweulu.
- 2.1.1.2 Protected areas in Zambia fall under three broad categories, Forestry Land, National Parks, and Game Management Areas, and covering 41% of the country.
- 2.1.1.3 Forestry Land covers 70,000 km² (9% land area) and is classified as either production or protection reserves. Production reserves are set aside for the sustainable harvest of timber; and protection reserves function to protect watersheds and prevent soil erosion.
- 2.1.1.4 Zambia has nineteen National Parks covering roughly 8% of the country (Table 1), and thirty-three Game Management Areas covering a further 24% of the country.
- 2.1.1.5 The thirty-three Game Management Areas are sparsely populated, with subsistence farming the main type of activity. The Administrative Design Management (ADMADe) project is working in these GMAs to facilitate the use of wildlife utilization techniques.
- 2.1.1.6 Integrated Conservation Development Projects (ICDPs), such as ADMADe, have been made possible in part, by the establishment of the Wildlife Conservation Revolving Fund (WCRF) under DNPWS. WCRF is a mechanism whereby revenues from community-based utilization schemes are fed directly back to DNPWS, and then to the communities (rather than going through Government central treasury).

Table 1 National Parks of Zambia

Name of Park	Area (km ²)
Blue Lagoon	450
Isangano	840
Kafue	22 400
Kasanka	390
Lavushi Manda	1 500
Liuwa Plain	3 660
Lochinvar	410
Lower Zambezi	4 140
Luambe	254
Lukusuzi	2 720
Lusenga Plain	880
Mosi-Oa-Tunya	66
Mweru-Wantipa	3 134
North Luangwa	4 636
Nsumbu	2 020
Nyika	80
Sioma Ngwezi	5 276
South Luangwa	9 050
West Lunga	1 684

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2.1.2 Protected Area Authority

- 2.1.2.1 Responsibility for most environmental issues lies with the Ministry of Lands and Natural Resources (MLNR). The Department of National Parks and Wildlife Services (DNPWS) and the Forest Department (FD), both under MLNR, administer the parks system and game management areas, wildlife research, hunting licenses, and forest management.
- 2.1.2.2 Wildlife is the main attraction for most tourists to Zambia, and tourism is promoted by the Zambia National Tourist Board (ZNTB), a parastatal body within the Ministry of Tourism.
- 2.1.2.3 Rural communities peripheral to protected areas benefit from wildlife management by participating in a number of projects:
- a The ADMADE program for Game Management Areas (GMAs), a joint venture with DNPWS and WWF, and funded by USAID;
 - b The Luangwa Integrated Resources Development Programme (Luangwa Valley); and
 - c The WWF Wetlands Project in the Kafue Flats and Bengweulu Basin.
- The objective of all these projects is to develop programs of sustainable use of natural resources and generate revenue for communities.
- 2.1.2.4 A proposal (Child & Lee, 1992) has been submitted to Government for the restructuring of the DNPWS. For the purposes of the present report, however, the existing departmental hierarchy is given below.

DIRECTOR

DEPUTY DIRECTOR

CHIEF WARDEN (FOD) CHIEF WILDLIFE RESEARCH OFFICER

Warden (Provincial PAM)
Chief Wildlife Ranger (HQ)
Senior Wildlife Ranger (Regional PAM)
Ranger (PAM)
Assistant Ranger, Scouts, etc.

2.1.3 National Conservation Policy

- 2.1.3.1 Zambia was the first African country to formulate a National Conservation Strategy (NCS), in 1985. The goal of the NCS is to satisfy the basic needs of all generations of Zambians by the rational utilization, conservation, and proper management of the country's natural resources.
- 2.1.3.2 The Strategy further outlines the important role of sustainable development, and identifies conservation priorities, providing a broad plan for achieving them. The NCS is legislated within the National Parks and Wildlife Act, promulgated in 1972 and revised in 1991.

2.1.4 Status of Current Training Programs for PAMS

- 2.1.4.1 It is DNPWS' plan to "professionalize" the rank of PAM, meaning that PAMs will need to have a university degree in the future. The Department's rationale for this requirement is that PAMs who are going to fill Regional or Provincial positions must have a better understanding of research procedures, since they will be supervising Research Officers in the field. The DNPWS believes that science degree-holders will have the ability to read and understand scientific reports, and therefore be in a stronger position to communicate with research staff.

Professionalization is likely to be achieved in two ways: (i) by recruiting staff directly from university, or (ii) sending suitably experienced Mweka College-trained staff to university for further training. The latter option already exists: one staff member is at the University of Dar es Salaam, and another at the University of Zimbabwe. At present staff targeted for this training generally fill positions senior to PAM (i.e. Regional or Provincial PAM) and are not usually assigned to the field.

DNPWS is considering recruiting degree-holders into "pre-PAM" positions and then sending them to Mweka College for the graduate wildlife diploma. At present, direct recruitment of university graduates occurs to fill Research Officer and Biologist positions. A list of institutions used by DNPWS to train their staff is given in Annexe 2.

- 2.1.4.2 Other than Mweka College and universities, the only other formal training received by (some) PAMs is a computer course at the National Institute for Public Administration and Management (NIPAM), in Lusaka.

2.1.4.3 In-service training is limited to quarterly meetings held for select DNPW staff at the ADMADE training school at Nyamaluma. Staff invited to these sessions include PAMs, Regional and Provincial PAMs, and Researchers and Biologists.

2.1.5 Recruitment to Post of PAM

2.1.5.1 The minimum educational requirement to become a PAM is a passing grade in five subjects at the secondary school level. Recruits are taken into DNPWS as trainee Assistant Wildlife Rangers (i.e. Assistant PAMs). They are then sent to Chunga Wildlife Training School, in Kafue National Park, for a six-month orientation course in wildlife management. The College at Chunga is a DNPWS training institution which provides basic induction training for newly-recruited staff into the Department, and trains only to the level of Scout or trainee Wildlife Ranger. Completion of the course at Chunga is normally a pre-requisite to be sent to Mweka College.

2.1.5.2 Graduation from Chunga, with a Certificate in Wildlife Management, is followed by substantive appointment to Assistant Wildlife Ranger.

After at least two years service within the Department, promising PAM candidates are then selected for the Certificate course at Mweka College.

2.1.5.3 Mweka College graduates, with Certificates, then go on to do the Diploma course (assuming eligibility requirements are satisfied). Once returned to DNPWS, Diploma-holders are recommended to the post of Wildlife Ranger (PAM).

PAMs serve under an experienced senior management officer at the Regional or Provincial level before being allocated full responsibility for a National Park.

2.1.5.4 After two or three years as a PAM, a Mweka College graduate may be considered for enrolment at a University to earn a Bachelor of Science degree. Such a degree is required for promotion to the post of Warden, a supervisory position at Regional or Provincial level.

2.1.5.5 Wildlife utilization projects in GMAs are being initiated and supervised by the ADMADE project. The projects' objective is to involve local communities in the management of wildlife resources, and to distribute the accruing economic benefits to the communities.

2.1.5.6 DNPWS and ADMADE train administrative officers, called Unit Leaders, to implement wildlife management projects in GMAs. Training is given at the ADMADE Wildlife Management Training Centre at Nyamaluma. Unit Leaders are recruited from the ranks of Chunga-trained, DNPWS Scouts. Although Unit Leaders (ULs) are not routinely trained at Mweka College, they are, in effect, GMA 'PAMs.' Departmental PAMs (Rangers) are Unit Leaders' senior officers in the field, although ULs report directly to DNPWS Regional Offices.

As stated above, Unit Leaders are not normally trained at a formal wildlife institution such as Mweka College, and are therefore not exposed to training in the more conventional protected area management skills. Rather, the focus of training for ULs at the ADMADE center is on law enforcement and community-based approaches to conservation.

2.1.5.7 At one point, early in Phase I, consideration was given to the idea that ADMADE Unit leaders should be included in the training needs assessment. Subsequent reappraisal of the scope and depth of UL responsibilities resulted in ULs being dropped from the assessment. However, by the time this decision was reached, one UL had already completed a questionnaire.

2.2 METHODS

2.2.1 Data Collection

2.2.1.1 Communication within, and to Zambia from other countries, was often unreliable. Consequently, meetings with PAMs and senior staff at departmental headquarters, in Chilanga, were made on an *ad hoc* basis when the RM arrived in Lusaka. The twin difficulties of communication and travel within Zambia meant that opportunities to visit PAMs in the field were restricted.

2.2.1.2 Three visits were made to Zambia to hand out questionnaires and to conduct interviews: two visits in November 1992, and one visit in June 1993. PAMs were interviewed on-site at three locations, the remainder were interviewed at DNPWS headquarters, in Chilanga. The ranks and categories of all respondents interviewed and/or asked to complete questionnaires are shown in Table 2.

2.2.1.3 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 of an effective PAM. It was then explained that the questionnaire is

Table 2 Summary of data collected during three visits to Zambia, November 1992 and June 1993

PEOPLE INTERVIEWED - 17	HOURS OF INTERVIEWS - 21
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QUESTIONNAIRES: GIVEN OUT - 14	COMPLETED - 8
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Position	Interview only	Method *		Total
		1	2	
PAM + Asst PAM	4	3	3	10
Regional PAM (for PAM)	1		1	2
FOD	2			2
Trainer	1			1
Researcher		1		1
Field Associate	1			1
TOTALS	9	4	4	17

1 = questionnaire completed in presence of RM

2 = questionnaire instructions were explained & respondents completed questionnaire on their own

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a tool to help PAMs identify their own training needs. During a discussion with PAMs, following completion of the questionnaire, general views on its utility were sought.

2.2.1.4 Two IUCN categories of protected area fall under the jurisdiction of DNPWS: Management Category II: National Parks, and Management Category IV: Game Reserve (i.e. GMA). Both categories were included in the questionnaire sample taken in Zambia. (GMAs were excluded since ADMADE Unit Leaders were largely responsible for implementing their management).

2.2.2 FODs Training Needs

2.2.2.1 The training needs of FODs in Zambia were not determined through questionnaire analysis. These needs were discussed during interviews which were roughly based on questions set out in paragraph 1.8.6, and on the Child and Lee (1992) proposal for the restructuring of DNPWS.

2.2.3 Data Analysis

2.2.3.1 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,' or 'in-depth') considered appropriate by PARCS 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' scores 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.

2.2.3.2 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. where a training need existed), 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 the level set by PARCS) than that required for the skill in question.

- 2.2.3.3 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, in order to indicate their perceptions of the levels of skill were for PAMs with whom they had worked and/or supervised. This data 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 Analysis of Questionnaire

- 2.2.4.1 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: Recording 'Accountabilities & Responsibilities' additional to those associated with each Main Division of the Job.

DATA SHEET B: 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: Recording responses to statements on 'Mental & Social' skills.

DATA SHEET D: Recording responses to the three 'Attitudes' questions.

DATA SHEET E: Recording knowledge of languages & computers.

DATA SHEET F: Used for listing the three training priorities identified by respondents linking them to the 16 Competencies and 11 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 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 Zambia.

Of the twelve Assistant PAMs, PAMs, and Regional PAMs who completed questionnaires and/or were interviewed, only one was female.

2.3 RESULTS AND DISCUSSION

2.3.a Introduction

- 2.3.a.i 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 generally 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.a.ii The Over-arching Questions described in Section 1.3 address the main issues of the PARCS project and will be dealt with in that same sequence in both this Section and the Discussion to follow.

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 Zambia are given in Table 2.
- 2.3.1.2 Only eight of the fourteen questionnaires handed out were completed and returned, giving an overall return rate of 57% (Table 2). The training needs assessment was therefore based to a large extent on interviews only (n=17).

2.3.2 Respondents' Years of Service and Years as a PAM

2.3.2.1 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 six respondents in Zambia are shown in Figures 1 and 2 (PARCS 2.3.3a and 2.3.3b).

2.3.2.2 Figure 1 shows that four of the six PAMs who completed questionnaires had served in the DNPWS for five or less years, and only one PAM indicated having held responsibility for managing a protected area for more than six (Figure 2).

2.3.2.3 Although the sample size is small, there does appear to be a trend within the group who were more recently recruited as protected area management staff. It was found that PAMs who have held their posts for only a few years tend to place more emphasis on the role of formal training in skill development than more experienced PAMs, who consider on-the-job training equally, if not more, important. This assessment of relative training needs should be borne in mind when interpreting some of the results of the training needs assessment.

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

2.3.3.1 PAM: Job Description & Responsibilities

2.3.3.1.1 Among staff of DNPWS-- 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 as defined by the questionnaire. None of the respondents made any significant additions or deletions to Column 1, Rows A-K, under 'Accountability & Responsibilities.'

2.3.3.1.2 Since detailed job descriptions for PAMs were either non-existent or not available there was no possibility of matching PARCS' perceptions of responsibilities with any official, written, departmental descriptions.

2.3.3.1.3 There were differences between PAMS' and PARCS' views on responsibilities, which showed up through a small number of 'not applicable' answers to skills and competencies on the questionnaire. In particular, one

respondent put 'not applicable' to three questions under Planning: all questions related to budgeting and financial control. This respondent had been only recently appointed to the post of PAM, and probably had not yet been called upon to contribute to the protected area's financial planning process.

2.3.3.2 Validation Analysis for Knowledge Skills

2.3.3.2.1 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 1-64 under 'Knowledge', with those of PARCS. The results of the validation are shown 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.

2.3.3.3 Technical (Wildlife & Tourism) Knowledge

2.3.3.3.1 Of the 'Technical' skills, knowledge of the cultural and historical context for the location of protected areas was regarded as the most underscored by PARCS. This data shows that there is the view that PAMs need higher levels of knowledge in this area than the level considered appropriate by PARCS. Areas where PAMs felt PARCS had over-scored knowledge levels included skills associated with anti-poaching, visitor (tourist) expectations, design and analysis of visitor services, intervention techniques, and ensuring an appropriate balance between resource use and conservation in protected areas.

2.3.3.4 Management Knowledge

2.3.3.4.1 Levels of knowledge required of 'Management' skills were in general agreement between PARCS and PAMs. However, PAMs considered PARCS had underscored human resources techniques, the need to attend relevant meetings and be aware of peripheral activities important to the management of protected areas. PARCS was considered to over-scored on how to develop and implement protected area management objectives.

2.3.3.5 Planning Knowledge

2.3.3.5.1 Again, there was general agreement between PARCS and PAMs in all areas of 'Planning,' with the notable exception of research planning, which was underscored. PAMs felt that a 'working' or 'in-depth,' rather than 'some,' knowledge was needed for that component of protected area management. Knowledge of research planning would be of benefit to PAMs as it would help them integrate research and management activity timetables, offer opportunities for coordinating financial, staff and equipment resources, foster dialogue, and enhance understanding of the role of research in protected area management.

2.3.3.6 Legal Knowledge

2.3.3.6.1 PARCS over-scored in skills relating to the legal aspects of specimen collection, export licenses, etc. However, PARCS underscored in the important areas of employment and contract law, and in community development.

2.3.3.7 Policies & Procedures Knowledge

2.3.3.7.1 There was general consensus on the levels of knowledge required for the various components of this competency except in the areas of human resource administration, community conservation and public relations, where PARCS over-scored.

2.3.3.8 Financial & Accounting Knowledge

2.3.3.8.1 PAMs considered PARCS to have over-scored skill levels for general accounting principles, budget allocations, and methods of financial disbursement to communities.

2.3.3.9 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). If the average of those responses in each competency is greater than or equal to 70%, then the PARCS score is considered validated and will be used in future analyses of comparison. For Zambia, competency averages ranged between 72% (Legal) to 100% (Financial & Accounting), with an overall accuracy score of 91% (Table 3

[PARCS 2.3.4c]).

- 2.3.3.10 One FOD and one Research Officer (RO) 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 RO under-scored the level of knowledge considered needed for the management of casual labor; the legal aspects of concession and visitor management; and policies and procedures related to accounting, national conservation strategies and tourism.

2.3.3.11 Changing Views on the Role of a PAM

- 2.3.3.11.1 Among the sample of PAMs (n=6) who completed questionnaires, four had been in the employment of the DNPWS for only up to five years, and five had been in the PAM position for five years or less (Figs 1 and 2 [PARCS 2.3.3a & b]). 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. It also 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 Zambia. Most notable were new responsibilities relating to community-based resource utilization, tourism management, and understanding the role of research.

2.3.3.12 Discussion

- 2.3.3.12.1 It is a gratifying result that protected area management staff (PAMs, FODs, etc.) in Zambia agreed very closely with PARCS' perceptions of the scope of responsibilities and the levels of knowledge required of PAMs.

All felt that the questionnaire itself was an excellent and accurate tool to conduct a training needs assessment.

- 2.3.3.12.2 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, at the same time

contributing significantly to a needs assessment designed to address their own skills enhancement.

- 2.3.3.12.3 The questionnaire was further considered by DNPWS staff to be useful in setting down future guidelines for training needs and potentially stimulating the development of an effective in-service training program for PAMs.

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

2.3.4.1 'Gap' Analysis for Knowledge Skills

- 2.3.4.1.1 A 'Gap Analysis' was used to compare PAMs' 'Knowledge' scores against PARCS' scores. This analysis was 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.

2.3.4.2 Technical (Wildlife & Tourism) Knowledge

- 2.3.4.2.1 Training needs (i.e., scores > 0) were identified for all seventeen skills (Column 2, Rows A-K) under Technical Knowledge.

The greatest training needs (scores >2) were indicated in the area of understanding the reasons (regional/national/global) for the establishment of protected areas, and the importance of the areas' cultural/natural resources.

- 2.3.4.2.2 These results generally support the claim by Regional PAMs and FODs that PAMs trained at Mweka College are deficient in certain technical skills and need further training to be effective managers of Zambia's protected area system. The need for a better understanding of a protected area's geographical and cultural setting again points perhaps to one of the criticisms levelled at Mweka College: that insufficient attention is given to protected area systems outside Tanzania.

2.3.4.3 Management Knowledge

2.3.4.3.1 There were fewer 'gaps' in the need for training in the various skills in this competency, than in Technical Knowledge. Only two areas-- management of intervention techniques and conflict resolution (community versus protected area interests)-- were identified as needing higher levels of training.

2.3.4.3.2 The two areas for which further training was identified are both closely linked. The main management interventions that PAMs are concerned with are culling and problem animal control, two activities which often have a direct bearing on local community welfare.

As DNPWS 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. This need has been clearly recognized by the PAMs participating in this assessment.

2.3.4.4 Planning Knowledge

2.3.4.4.1 Planning as whole (Rows A-K) was a key training need, with scores of 2 and 3 for eight of the twelve skills in the competency. Areas with highest training needs (scores of 3) were for planning intervention programs and the development of zoning plans for protected areas.

2.3.4.4.2 In the past, planning (in relation to conservation programs, research, budgeting, etc.) has been the responsibility of more senior level staff. However, it is now becoming necessary for PAMs to be involved with all protected area planning since they are key personnel in the implementation of conservation area plans. PAMs themselves recognize this trend, as the results show.

Senior staff need to ensure PAMs receive appropriate instruction in all phases of planning related to protected area management.

2.3.4.5 Legal Knowledge

2.3.4.5.1 Training needs were identified for seven of the nine legal skills listed. One skill in particular was considered a key area for higher levels of training by nearly 70% of respondents: the legal aspects of collecting and exporting

materials and specimens. Other areas of importance identified were legislation surrounding public relations activities, and tourism.

- 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 especially identified the need for greater depth of knowledge of the legal aspects of scientific collection and trade in wildlife products. These are two very sensitive issues, which if improperly handled could result in embarrassment to DNPWS.

2.3.4.6 Policies & Procedures Knowledge

- 2.3.4.6.1 This competency ranked high in training needs for all ten skills evaluated (scores of at least 2). One PAM gave a score of 3 for training needs in policies and procedures related to community conservation programs.

- 2.3.4.6.2 Policies & 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, in particular, in dealing with community conservation programs.

2.3.4.7 Financial & Accounting Knowledge

- 2.3.4.7.1 Training needs were identified for all six skills under this competency, with greatest gaps (scores of 2 or 3) occurring in the following areas: community finance and fund disbursement, budget allocation for research activities, and cost estimations for management plan recommendations.

- 2.3.4.7.2 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.

De-centralization of financial control has always been a sensitive issue. However, 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 need 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.

2.3.4.8 Discussion

- 2.3.4.8.1 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.
- 2.3.4.8.2 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 64 questions under 'Knowledge' in the questionnaire (Table 5 [PARCS 2.3.5d]).
- 2.3.4.8.3 From Table 5, the highest difference between the average country score and PARCS' score (i.e. the greatest training need identified) for a given skill was 1.83. This high value related to the planning (budgeting/time-tabling) of intervention programs. Other high scores indicating training needs were found for technical knowledge of intervention activities, planning and policies & procedures skills related to community conservation programs, and budgeting.

Data from Table 5 can also be used to derive average scores for training needs in the eleven Main Divisions of the Job.

For Zambia, the greatest needs were found in 'Ensuring optimum levels of visitor satisfaction' and 'Ensuring agreed intervention programs are completed to budget & timetable.'

- 2.3.4.8.4 The percentage of questions (skills) in each competency for which least 60% of respondents considered further skill training was required is shown in Table 6. Two competencies stand out: Policies & Procedures and Technical (Wildlife/Tourism). In the former, 90% of the questions were identified as needing higher levels of skill, and in the latter, 58%. The Competency with the lowest percentage (11%) of questions identified for further training by 60% or more of respondents was 'Legal Knowledge'.

Table 6. Percentage of questions (skills) in each Competency in which at least 60% of respondents recognized a training need

Competency	Total No. Questions (skills)	No. questions (skills) in which 60% of respondents needed training	%
Technical	17	10	58
Management	10	2	20
Planning	12	5	42
Legal	9	1	11
Policies & Procedures	10	9	90
Finances & Accounting	6	2	33

2.3.4.9 Validation Analysis for Mental & Social Skills

2.3.4.9.1 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 >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 85%.

Five of the seven competencies had accuracy scores of between 80 and 95%; only 'Creativity' scored less than 80%.

2.3.4.9.2 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 7 [PARCS 2.3.6b]).

The principal areas (Main Divisions of the Job) where PAMs regarded skills unnecessary or inappropriate were (i) Ensuring Development and Achievement of Tactical Plans & Budgets, and Contributing to Strategic Planning; (ii) Ensuring Optimum Levels of Visitor Satisfaction; (iii) Awareness of Research Activities and Progress; and (iv) Representing Protected Area Interests in Public Meetings.

2.3.4.9.3 Low scores for 'Mental' and 'Social' Skills are shown in Table 8 (PARCS 2.3.7a1). Low scores are those of value 1 or 2 (none or poor).

Competencies identified as having significant training needs (i.e. high cumulative scores of 1 and/or 2) are 'Comprehension', 'Problem Analysis' and 'Creativity.'

For Main Divisions of the Job, highest cumulative scores were recorded for Awareness of Research Activities & Progress and Ensuring Optimum Levels of Visitor Satisfaction.

2.3.4.9.4 Throughout the world's conservation arenas there has been a traditional rivalry between "management" and "research" camps. Both can argue convincingly that one is more important than the other. These discussions 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, there appears to be a common theme related to understanding what research is all about. DNPWS 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.

2.3.4.10 Attitudes

- 2.3.4.10.1 Aside from possessing technical skills and knowledge, PAMs must develop leadership qualities which encourage subordinates to consider seriously their own roles in protected area management. Therefore, 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 instil work ethics, commitment to conservation, and positive attitudes towards local communities (Competencies 15, 16 & 17 in the Questionnaire). The PAMs' responses (see Methodology, Annexe 1) were analyzed on the basis of their years of experience in protected area management.

- 2.3.4.10.2 Only four basic approaches to instilling work ethics were recorded for PAMs in Zambia (Fig. 6 [PARCS 2.3.8a]). The sample size was too small to detect any trends related to PAMs' number of years of service.

Two PAMs with between six and ten years experience indicated that instilling work ethics was achieved by showing hard work and dedication through example. One PAM with more than 10 years experience indicated that reference to departmental standing or administrative orders was appropriate. Another PAM, recently-appointed to the job, considered that cultivating good working relationships with staff and creating rapport for instruction, was important.

2.3.4.10.3 Again, PAMs identified four methods they used, or would use, to instil commitment to conservation in their staff (Figure 7 [PARCS 2.3.8b]). For three PAMs with less than five years job experience, those were: explaining the value of conservation by conducting regular meetings to discuss conservation ethics; demonstrating the importance of conservation in relation to human needs; and participating in the design, implementation and analysis of law enforcement programs.

One PAM with more than ten years service indicated that he would use the second of the three methods described above.

Showing dedication to national, regional and local conservation objectives was the approach taken by another PAM, who had between six and ten years experience.

2.3.4.10.4 Methods used by PAMs to instil positive attitudes towards local communities are shown in Fig. 8 (PARCS 2.3.8c).

Only three methods were indicated (by four PAMs):

- Taking an active role in conflict resolution (e.g. problem animal control);
- Maintaining dialogue with local communities; and
- Seeking ways in which tangible benefits can accrue to communities from the protected area's resources without compromising the area's conservation objectives.

No experience-related trends were discernible.

2.3.4.10.5 One pleasing aspect of the Attitudes analysis is the data that PAMs felt that a participatory approach best instills conservation ethics and commitment in their staff. Every effort should be made to encourage and cultivate this kind of approach, especially in dealings with community-based conservation programs.

2.3.4.11 Language Skills

2.3.4.11.1 Since protected area and adjacent community-based conservation objectives frequently need to be linked, PAMs are becoming 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 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?"

- 2.3.4.11.2 The results are shown in Fig. 9 (PARCS 2.3.9) and clearly indicate that the small sample of PAMS in Zambia can communicate with community leaders through common language.

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 ineffective communication could hamper dialogue with local communities.

- 2.3.4.11.3 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, DNPWS 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.

- 2.3.4.11.4 PAMs who could not speak the language of the communities surrounding his/her protected area, felt that some form of language training would be useful before being posted.

2.3.4.12 Computer Skills

- 2.3.4.12.1 All six PAMs responded that they had no computer skills (Figure 10 [PARCS 2.3.10a]). Upon being questioned, few considered computer-literacy would be important to their job.

The single, university-trained, Research Officer who completed the questionnaire was familiar with computers, and not surprisingly, thought computer literacy important, not only for research but for management as well.

- 2.3.4.12.2 Regional PAMs and FODs felt there was a growing need for PAMs to become familiar with computing, for data storage and analysis; word-processing; and budgeting and accounting.

- 2.3.5 What training has been received by current PAMs that is perceived by them as useful? How much and what kinds? Relevant to which job requirements?**
- 2.3.5.1 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 in that competency. Four kinds of training are recognized: Formal Wildlife (Institutional); Formal (Other, which includes short courses at non-wildlife institutions, seminars, workshops, etc); In-Service; and On-the-Job.
- Further information on training received during employment with DNPWS was recorded during post-questionnaire discussions with PAMs.
- 2.3.5.2 Table 9 (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. Formal wildlife training was indicated for all sixteen competencies, and on-the-Job for eleven competencies, reflecting the importance of these types of training to PAM skill development.
- In only one competency - Oral Skills - was Formal (Other) training indicated as having been received.
- None of the six PAMs who completed questionnaires had received any in-service training.
- 2.3.5.3 In order to find out how perceptions on training changed with the number of years of departmental service, PAMs were grouped into five-year categories of experience (1-5 years, 6-10 years, greater than 10 years). They were then asked which kinds of training have contributed most to protected area management skills. The results are shown in Figures 11-13 (PARCS 2.3.12g1-3).
- 2.3.5.4 Four PAMs with less than five years experience considered that only one type of training-- Formal (Institutional) Wildlife-- contributed most to skill development in all sixteen job competencies. This result most probably reflects these PAMs' recent graduation from Mweka College, and the lack of any follow-up with in-service training provided by DNPWS. It might be expected that some job skills would have been enhanced through on-the-job training, (especially among the Mental & Social Skills). However, these four PAMs may have thought that such training was irrelevant or, because of their short service in the PAM position, there had not been enough time for them to recognize that on-the-job training had in fact occurred.

2.3.5.5 The one PAM with more than five years experience, but less than ten, indicated that on-the-job training played an increasingly important role in job skill development. Figure 12 (PARCS 2.3.12g2) shows that of the thirteen competencies considered, on-the-job training contributed most to eight of the competencies, and Formal Wildlife training to only five. Significantly, technical skills in four of the six Knowledge competencies were considered the beneficiaries of on-the-job training. Again, the absence of any in-service training in skills development is noteworthy.

2.3.5.6 It is expected that with increased job experience, PAMs' perceptions of various types of training and how they contribute to skill development, are likely to change (see 2.3.5.5 above). For this reason, it comes as a surprise that a PAM with more than ten years experience still considers training (Formal Institutional) received at Mweka College as contributing most to skills development (eleven of the thirteen competencies: Figure 13 [PARCS 2.3.12g3]). In only two competencies-- Comprehension and Working with Others-- was on-the-job training considered most important.

PAMs and Regional PAMs who were interviewed, but did not complete questionnaires, supported the view that the longer an individual works in the position of PAM, formal wildlife training takes on less significance and is replaced by on-the-job training. However, there was also concurrence that at some point later in a PAM's career formal training assumes an important role again. This need for more formal training is particularly at the university level, where advanced knowledge in wildlife management techniques is obtained and needed for career advancement.

2.3.5.7 Training Priorities

2.3.5.7.1 After completing the questionnaire PAMs were asked to indicate their three most important training priorities (Fig.14 [PARCS 2.3.11]). One objective of this exercise was to see if indicated training priorities matched training needs determined by the gap analysis (2.3.4).

2.3.5.7.2 Figure 14 shows that among the seventeen job competencies, Planning Skills ranked highest, and was followed closely by Technical Skills.

For Main Divisions of the Job, 'Ensuring Appropriate Balance between Resource Conservation and Use' emerged as the highest training priority. These priorities generally agreed with needs identified by the gap analysis, although no priority was given to Policies & Procedures, which featured prominently as a training need.

2.3.5.7.3 Some stated priorities were clearly preferences for training.

One PAM admitted during the post-questionnaire discussion that environmental education and community extension work was the preferred training requirement, and unconnected to skill deficiencies highlighted by the gap analysis.

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

2.3.6.1 Since the mid-1970's the quality of Mweka College graduates recruited into DNPWS has fallen considerably. This result may have come about due to either one or two key factors, or both: a drop in the standard of secondary school graduates, and a decline in the quality of instruction received at Mweka College.

2.3.6.2 Recent Mweka College graduates, once absorbed into DNPWS, are deemed to require further training in the following areas:

- Animal population surveys and monitoring;
- Wildlife management techniques;
- Wildlife research;
- Community-based conservation;
- Personnel management; and
- Budgeting & accounting.

2.3.6.3 Some in-service training in the above subjects is provided at quarterly training sessions usually held at Nyamaluma (the ADMADE training center). The instructors for these sessions are drawn from DNPWS staff, principally the Chief Warden (FOD), Deputy Director, and Head of Research.

2.3.6.4 Constraints on training include funding (insufficient numbers of PAMs can go to Mweka College) and the lack of a Departmental Training Officer to take responsibility for developing training programs for PAMs.

2.3.6.5 Discussion

2.3.6.5.1 Protected area management in Zambia has become an increasingly complex job. PAMs and FODs interviewed in the field and at Departmental headquarters recognize the main constraint on PAMs meeting the responsibilities associated with effective management of the country's parks

and reserves, is that the scope of training received at Mweka College is not comprehensive enough to deal with all the issues PAMs are likely to face in Zambia. Therefore, there is the need 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. In-service training is held quarterly for PAMs, Assistant PAMs, and Research Officers. Yet, this program is not structured and its effectiveness in addressing the deficiencies in PAMs' skills is somewhat limited.

2.3.6.5.2 The fact that none of the PAMs who filled out questionnaires listed in-service training as either having been received, or contributing to any skills development, is a clear indication of the low priority and/or effectiveness of in-service training within DNPWS.

2.3.6.5.3 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 under-rated, even though it may be the most important kind of training for some skills (e.g., problem-solving, personnel management).

The main constraint to such training lies with the PAM him/herself, and includes lack of interest, motivation, or curiosity about the tasks at hand.

2.3.7 Assessment of Field Operations Directors (FODs)

2.3.7.1 The discussion that follows is not entirely based on meetings with Field Operations Directors, who by definition occupy senior posts at DNPWS headquarters. Other senior ranks, especially Command Wardens (Regional/Provincial PAMs) who supervise PAMs in the field from a Regional/Provincial Office, were also interviewed to get their perspectives on training needs.

2.3.7.2 Regional PAMs (R-PAMs) are recruited from the ranks of suitably qualified and experienced PAMs who have at least five years post-Mweka College service in the DNPWS.

The first attempts to provide training specifically for Regional PAMs were taken in 1983. A Field Management Course, covering legal matters, accounting skills, and administration was provided through in-service training.

- 2.3.7.3 In 1987, a decision was made that all R-PAMs should hold university degrees. Reasons put forward for R-PAMs to be degree-holders were: to facilitate effective communication with departmental researchers (also degree-holders); to properly maintain and monitor management programs; and to better serve the public relations activities of the department.
- 2.3.7.4 Under the Child & Lee (1992) proposal, FODs will need skills to implement the mandate of a newly-structured DNPWS. The main skills needed of FODs, and areas where further training is anticipated, are:
- Planning work of the Division, time-tabling;
 - Developing, coordinating and supporting law enforcement activities;
 - Developing and implementing methods of evaluating potential commercial operators;
 - Control over hunting operations;
 - Advising \ profitable wildlife utilization;
 - Developing reporting system on law enforcement analysis and evaluation;
 - Inspecting and monitoring trophies and other wildlife products;
 - Provide an effective flight service for Department;
 - Maintaining an controlling system for purchase, storage and issue of stores, equipment and vehicles; and
 - Providing an effective radio network service for the Department.
- 2.3.7.5 Child & Lee (op. cit.) recognize that training for FODs will be required to meet the demands of the above responsibilities. However, the logistics of how this training would be provided were not addressed.

2.3.8 What further training is required?

- 2.3.8.1 The answer to what further training is required for PAMs must take account of what PAMs 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 Zambia to enhance their job performance (see Gap Analysis above), which are summarized below:

TECHNICAL	Regional/cultural context of protected area setting.
MANAGEMENT	Intervention techniques; community conflict resolution.
PLANNING	All Main Divisions of the Job, but with particular emphasis on intervention programs and zoning in protected areas.
LEGAL	Collecting/exporting specimen material.
POLICIES & PROCEDURES	All Main Divisions of the Job, but with particular emphasis on community conservation programs.
MENTAL & SOCIAL SKILLS	'Comprehension,' 'Problem Analysis' & 'Creativity' in Visitor Satisfaction, Intervention Techniques and the Role of Research.

2.3.8.2 From the DNPWS' viewpoint, PAMs trained at Mweka are deficient in the following skills:

- Animal population surveys and monitoring;
- Wildlife management techniques;
- Wildlife research;
- Community-based conservation;
- Personnel management; and
- Budgeting & accounting.

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

SECTION 3: TRAINING OPPORTUNITIES ASSESSMENT

- 3.1 Through discussions with DNPWS headquarters staff (including FODs) and taking information from the questionnaires, it was possible to draw up a list of the various institutions used by DNPWS to train staff (Annexe 2).
- 3.2 No institutions in Zambia address specific protected area management training needs of PAMs, although a few staff have been sent to a computer course offered at NIPAM (see 2.4.1.2).
All wildlife technical training is undertaken either at Mweka College. 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 DNPWS training is conducted mainly at Chunga College, in Kafue.

SECTION 4: RECOMMENDATIONS

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

4.1.1 There are a number of possibilities for addressing the training needs of PAMs in areas identified by the PARCS project and DNPWS. The areas fall into two (or possibly three) of the four basic types of training opportunity described in the questionnaire: In-Service training, On-the-Job training, and Formal (non-wildlife) Institutional training.

4.1.2 In-Service Training

4.1.2.1 It first must be recognized that DNPWS considers graduates from Mweka College, trained to be PAMs, are deficient in certain skills it deems important for protected area management in Zambia (see 2.3.6.2). Despite this recognition-- and some attempts to provide further training through quarterly staff meetings (in-service training)-- constraints, such as improperly-organized courses, lack of teaching staff, funding, may have hampered any steps DNPWS have taken in this direction.

4.1.2.2 To undertake effective in-service training, DNPWS must know what skills it requires of its protected area management staff. This information must be known not only in general terms, but specifically as well, for particular problems related to given protected areas and their environs. For instance, the principles of fire-management, population monitoring, and culling are broad-based and widely applicable. However, for the specific situations in Zambia, there is the need for specialized knowledge of local conditions under which those broad-based principles operate.

The accumulated wealth of knowledge (years of experience, on-the-job training, attendance at national/international conferences) possessed by senior members of DNPWS staff ought to be tapped.

What this present training needs assessment has done, by involving PAMs in determining their own training needs, is to highlight the relative simplicity with which areas of weakness can be strengthened. All PAMs felt not enough attention has been paid to improving job skills through in-service training; yet, it is probably in-service training that is best suited to tackle the issues.

4.1.2.3 Even if DNPWS does not have in-house expertise to design and implement an in-service training program for PAMs, it is certainly aware of those areas in which its staff needs improved skill development, and does have a pool of resources (long-serving, experienced staff) to develop those skills.

4.1.2.4 If the training needs of PAMs-- as identified by PAMs themselves (2.3.8.1) and by their supervisors (2.3.6.2)-- are pooled, then a number of key areas can be recommended for inclusion in a departmental in-service training program, viz:

- Regional/cultural setting of protected area settings;
- Intervention techniques; community conflict resolution;
- Planning processes;
- Legal aspects of collecting & exporting specimens;
- Policies & procedures;
- Population surveys & monitoring; and
- Philosophy of research: its role in management.

4.1.3 On-the-Job Training

4.1.3.1 This form of training is very much based on a PAM's individual initiative to recognize opportunities for enhancing job skills. One such opportunity would be seeking advice from, and/or working with, more experienced, senior colleagues.

DNPWS may be able to encourage such "quality" contacts for PAMs by identifying senior staff members who have good communication skills, and assigning to them for short periods, newly-appointed PAMs.

Potential PARCS, or other donors', contribution to on-the-job training may be simply to provide PAMs with suggestions and materials for follow-up activities after spending time with a mentor.

4.1.3.2 In terms of training needs, on-the-job training would therefore best address all Mental & Social Skills identified in section 2.3.8.1.

4.1.4 Formal (non-wildlife) Institutional Training

- 4.1.4.1 It is recommended that DNPWS explores further possibilities of using the National Institute of Public Administration & Management (NIPAM), in Lusaka, for training PAMs in Personnel Management and Budget & Accounting Skills.

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 suggesting opportunities for contact between PAMs from different countries, especially through their participation in regional training programs. One possible option for such training germane to several countries within the PARCS Southern Africa Region relates to the key wetlands areas-- Kafue, Begweulu, Okavango, Zambezi Floodplain, Elephant Marsh, Lake Chilwa-- all with different ecological, economic and sociological functions. Wetlands are a threatened habitat throughout most of Africa, and the establishment of a training program which deals specifically with the problems faced by PAMs in the management of wetlands is very opportune at present. Zambia could possibly be developed as a center for training in wetlands conservation by linking into the WWF Wetlands Project. PAMs from throughout the PARCS region could attend specially designed courses at say Kafue or Lochinvar.
- 4.2.2 In-keeping with the cross-regional approach to PAM training, selected PAMs could be sent to Zimbabwe to get first-hand experience of the CAMPFIRE program to enhance their knowledge and understanding of how community-based wildlife conservation projects function.

REFERENCES

- Child, G., and D. Lee. 1992. Reorganization and Restructuring the Department of National Parks and Wildlife Services. Report to the Government of Zambia. WWF, Lusaka.

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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 14 - 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

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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

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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.

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**

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, strings, 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 <input type="checkbox"/> <input type="checkbox"/> In-depth knowledge of techniques of anti-poaching <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 <input type="checkbox"/> <input type="checkbox"/> In-depth knowledge of protected area infrastructure techniques, site design and analysis <input type="checkbox"/> <input type="checkbox"/> In-depth knowledge of interaction between tourist and local areas <input type="checkbox"/> <input type="checkbox"/>
G Ensure agreed intervention (eg. early burning, 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 <input type="checkbox"/> <input type="checkbox"/> Some knowledge of cultural and historical context for the location of protected area <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 <input type="checkbox"/> <input type="checkbox"/> Working knowledge of the role of research in meeting conservation objectives <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 <input type="checkbox"/> <input type="checkbox"/> In-depth knowledge of the context of the protected area in the regional/national/global arena <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 <input type="checkbox"/> <input type="checkbox"/> In-depth knowledge of types, locations, trends and requirements of threatened and endemic fauna and flora and the key species of the ecosystem. <input type="checkbox"/> <input type="checkbox"/> Working knowledge of environmental impact analysis techniques <input type="checkbox"/> <input type="checkbox"/> Working knowledge of surveys and monitoring techniques (field data collection/analysis) <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 <input type="checkbox"/> <input type="checkbox"/> Some knowledge of human resources techniques and their application as appropriate (e.g. job evaluation or worth of job, salary structuring, training needs analysis) <input type="checkbox"/> <input type="checkbox"/> Working knowledge of managing casual labour <input type="checkbox"/> <input type="checkbox"/>	Working knowledge of scheduling staff development & committees <input type="checkbox"/> <input type="checkbox"/> ↓	Some knowledge of employment laws <input type="checkbox"/> <input type="checkbox"/> ↓	In-depth knowledge of staff policies, procedure and practices <input type="checkbox"/> <input type="checkbox"/> ↓	↓
Working knowledge of principles of stock control and procurement <input type="checkbox"/> <input type="checkbox"/> Working knowledge of how to apply preventative maintenance <input type="checkbox"/> <input type="checkbox"/>	Working knowledge of job planning <input type="checkbox"/> <input type="checkbox"/>	Some knowledge of contract law (for writing contracts to subcontractors) <input type="checkbox"/> <input type="checkbox"/>	In-depth knowledge of maintenance / construction policies, procedures and standards and procurement procedures <input type="checkbox"/> <input type="checkbox"/>	
	Working knowledge of financial planning <input type="checkbox"/> <input type="checkbox"/>		Working knowledge of accounting policy and procedures <input type="checkbox"/> <input type="checkbox"/>	Working knowledge of accounting and principles of internal control <input type="checkbox"/> <input type="checkbox"/>
	Working knowledge of planning, budgeting and control <input type="checkbox"/> <input type="checkbox"/>		Working knowledge of overall strategies and direction of his/her organisation (national conservation policy) <input type="checkbox"/> <input type="checkbox"/>	
	In-depth knowledge of patrol planning needs <input type="checkbox"/> <input type="checkbox"/>	In-depth knowledge of relevant laws and regulations (e.g. firearms, arrest, charging, human rights) <input type="checkbox"/> <input type="checkbox"/>	In-depth knowledge of policies and procedures <input type="checkbox"/> <input type="checkbox"/>	
Working knowledge of managing and accommodation and catering facilities under protected area jurisdiction <input type="checkbox"/> <input type="checkbox"/>	In-depth knowledge of techniques in developing long and short-term visitor plans <input type="checkbox"/> <input type="checkbox"/>	Working knowledge of contract law as applicable to concessionaires and visitors <input type="checkbox"/> <input type="checkbox"/>	In-depth knowledge of visitor policies and procedures <input type="checkbox"/> <input type="checkbox"/>	Working knowledge of keeping records of visitor numbers and keeping receipts <input type="checkbox"/> <input type="checkbox"/>
Working knowledge of project (job) management <input type="checkbox"/> <input type="checkbox"/>	In-depth knowledge of job planning <input type="checkbox"/> <input type="checkbox"/>	In-depth knowledge of relevant laws and regulations <input type="checkbox"/> <input type="checkbox"/>	In-depth knowledge of policies and procedures related to intervention <input type="checkbox"/> <input type="checkbox"/>	
In-depth knowledge of protected area vs people conflict management <input type="checkbox"/> <input type="checkbox"/>	Working knowledge of how to develop a community conservation plan <input type="checkbox"/> <input type="checkbox"/>	Some knowledge of laws related to community development <input type="checkbox"/> <input type="checkbox"/>	In-depth knowledge of policies and procedures related to community conservation <input type="checkbox"/> <input type="checkbox"/>	Working knowledge of record keeping for financial disbursements to local communities <input type="checkbox"/> <input type="checkbox"/> In-depth knowledge of records of resource use or resources shared – both financial and in-kind distributions <input type="checkbox"/> <input type="checkbox"/>
	Some knowledge of development of research plan for the protected area <input type="checkbox"/> <input type="checkbox"/>	In-depth knowledge of legal aspects of collecting/exporting materials & specimens <input type="checkbox"/> <input type="checkbox"/>	Working knowledge of research policies and procedures <input type="checkbox"/> <input type="checkbox"/>	Working knowledge of budget & allocations for research activities <input type="checkbox"/> <input type="checkbox"/>
Working knowledge of the concept of public relations and methods of dealing with the media <input type="checkbox"/> <input type="checkbox"/> Some knowledge of obligatory role (attendance) at meetings and awareness of activities around the protected area expedient to attend <input type="checkbox"/> <input type="checkbox"/>		In-depth knowledge of the legislation regarding protected areas <input type="checkbox"/> <input type="checkbox"/> Some knowledge of the laws of slander and libel <input type="checkbox"/> <input type="checkbox"/>	In-depth knowledge of the public relations policies, procedures and practices <input type="checkbox"/> <input type="checkbox"/>	
	Working knowledge of resource conservation management planning techniques and methodologies <input type="checkbox"/> <input type="checkbox"/> In-depth knowledge of how to develop and implement protected area management objectives <input type="checkbox"/> <input type="checkbox"/> In-depth knowledge of how to develop and maintain a protected area management zoning system <input type="checkbox"/> <input type="checkbox"/>			Working knowledge of how to estimate costs for implementation of resource conservation management plan recommendations <input type="checkbox"/> <input type="checkbox"/>

Main Divisions of the Job	1. Accountability and Responsibilities	MENTAL SKILLS	
		3. 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 	Maximizing staff potential achievement 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 malpractices 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 factual 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 cause 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"/>	Counseling staff Y N <input type="checkbox"/>	Writing staff appraisals and training orders 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	1. 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 	Must have an open mind to research findings Must support role of research as a component of protected area management		
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 	Honesty, Integrity Must make clear when representing the protected area or a personal view Must never criticize the organisation openly	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?

TRAINING PRIORITIES

Having completed this questionnaire and thinking specifically of the requirements of your job, what do you think are your three greatest training needs? What form of training do you think would be best to address these needs (eg. formal, in-service, on-the-job, or others)?

1.

2.

3.

This questionnaire was completed by: Title (no name needed)
..... Department/Section
..... Organisation
..... Country
Date:

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

If applicable, how many years have you been in charge of a protected area?

What is the conservation status of your protected area? (eg. national park, game reserve etc)

What biome is most representative of the protected area under your management? (please circle) montane, savanna, marine, aquatic, dry forest, moist forest, desert

Are you male or female ? (Please tick appropriate box)

PARCS REF NO:

Date received:

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

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 your 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 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 Form Reserve's Organization
(e.g., education program visits by national or NGO groups, research by university
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?

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.

AWF



**Biodiversity
Support
Program**

(PARCS INST)

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 I 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 meetings 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

98

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

99

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 K1	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).

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	Score	Level	
STIMULUS	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			
	10			
	11			
	12			
	13			
sub-total				
STIMULUS	14			
	15			
	16			
	17			
	18			
	19			
	20			
	21			
	22			
	23			
	24			
	25			
	sub-total			
STIMULUS	26			
	27			
	28			
	29			
	30			
	31			
	32			
	33			
	sub-total			
	STIMULUS	34		
		35		
		36		
		37		
38				
39				
40				
41				
42				
sub-total				
STIMULUS		43		
		44		
		45		
	46			
	47			
	48			
	49			
	50			
	51			
	sub-total			
	STIMULUS	52		
		53		
		54		
55				
56				
57				
58				
59				
sub-total				
STIMULUS		60		
		61		
		62		
		63		
	64			
	65			
	66			
	67			
	68			
	69			
	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

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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 I. Z=zero line in Row I.

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			
																	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																						

114

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 Used by the DNPWS for Training Assistant PAMS, PAMS, and regional PAMS

Assistant PAM	Chunga Wildlife Training School
PAM	Mweka College National Institute for Public Administration
Regional PAM	University of Zambia University of Dar es Salaam University of Zimbabwe University of Arizona

B. Other Training Institutions Used

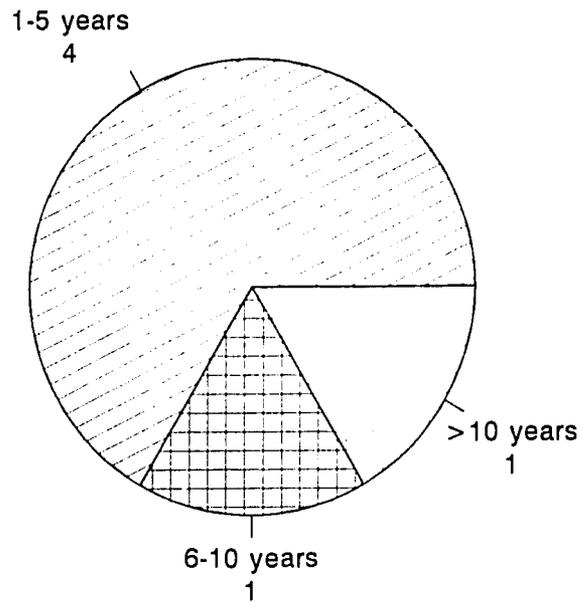
National Institute of Public
Administration and Management, Lusaka

(ADMAGE Unit Leaders are trained at Nyamaluma)

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

Figure 1:

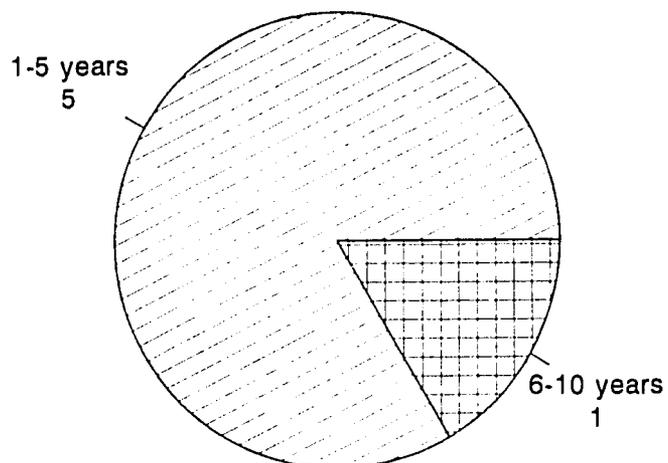
2.3.3a Respondents years in service Zambia



Total Sample n = 8 (Ass PAMs & PAMs n =6)

2.3.3b Respondents years as a PAM Zambia

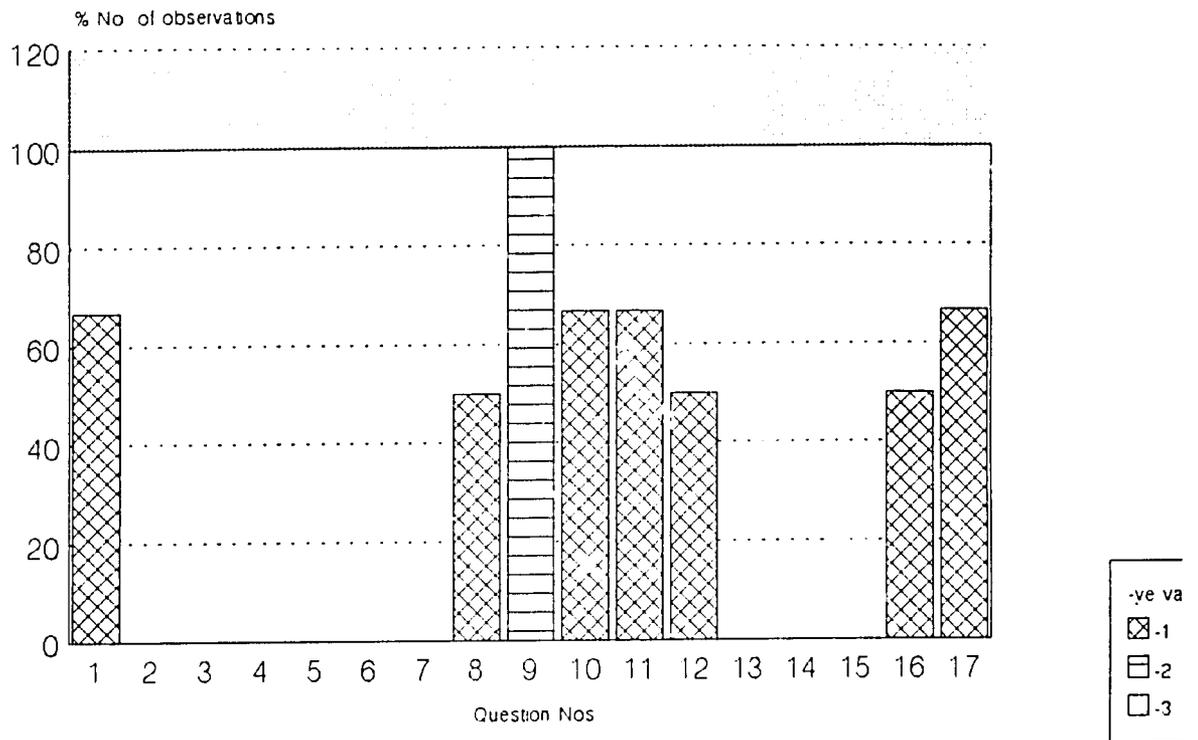
Figure 2:



Total Sample n = 8 (PAMS & Ass PAMS combined: n=6)

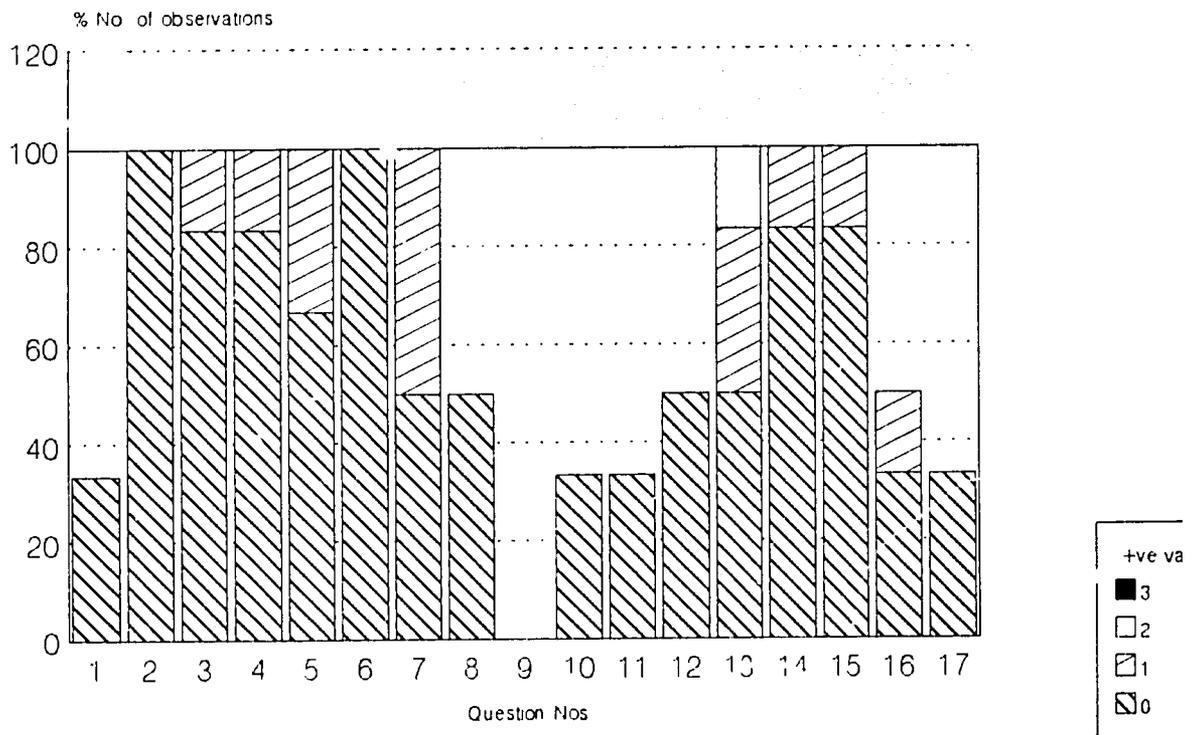
Figure 3:

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



Total Sample n=8 (Asst PAMs & PAMs combined n=6)

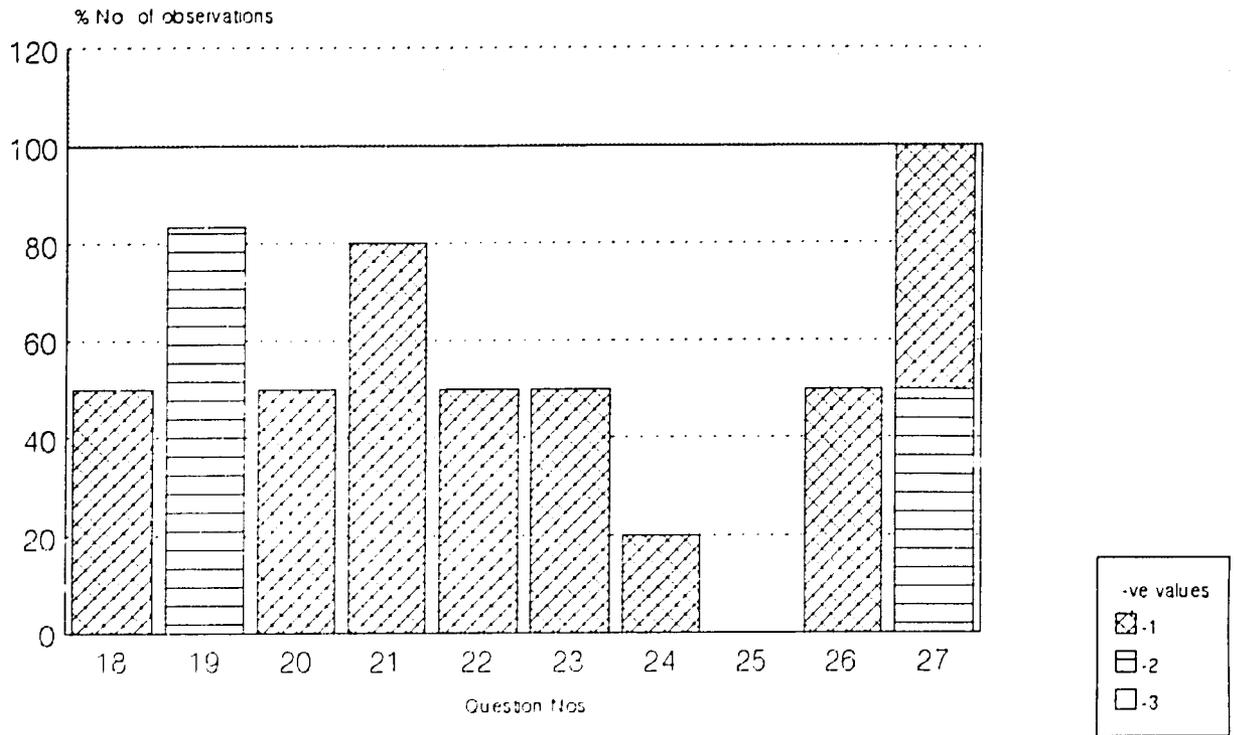
2.3.4.b Validation analysis: Knowledge of PAMs relative to PARC
 Technical +ve scores: Zambia



Total Sample n=8 (Asst PAMs & PAMs combined n=6)

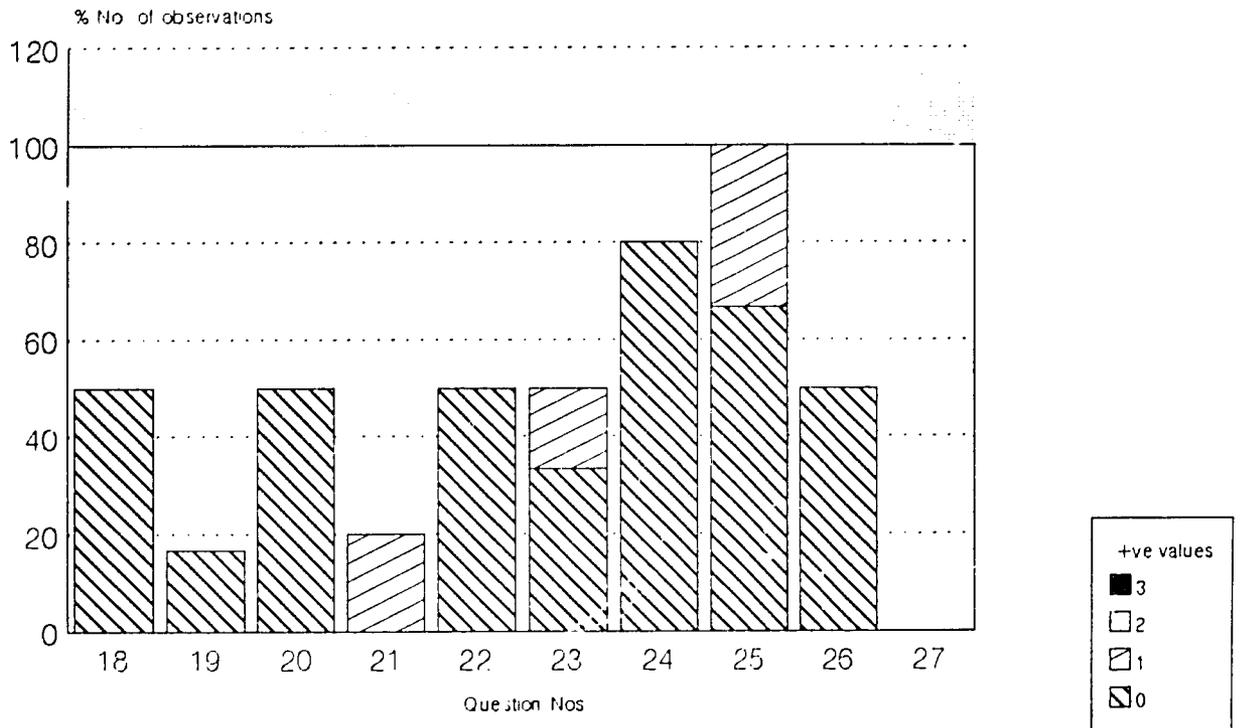
Figure 3:

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



Total Sample n=8 (Asst PAMs & PAMs combined n=6)

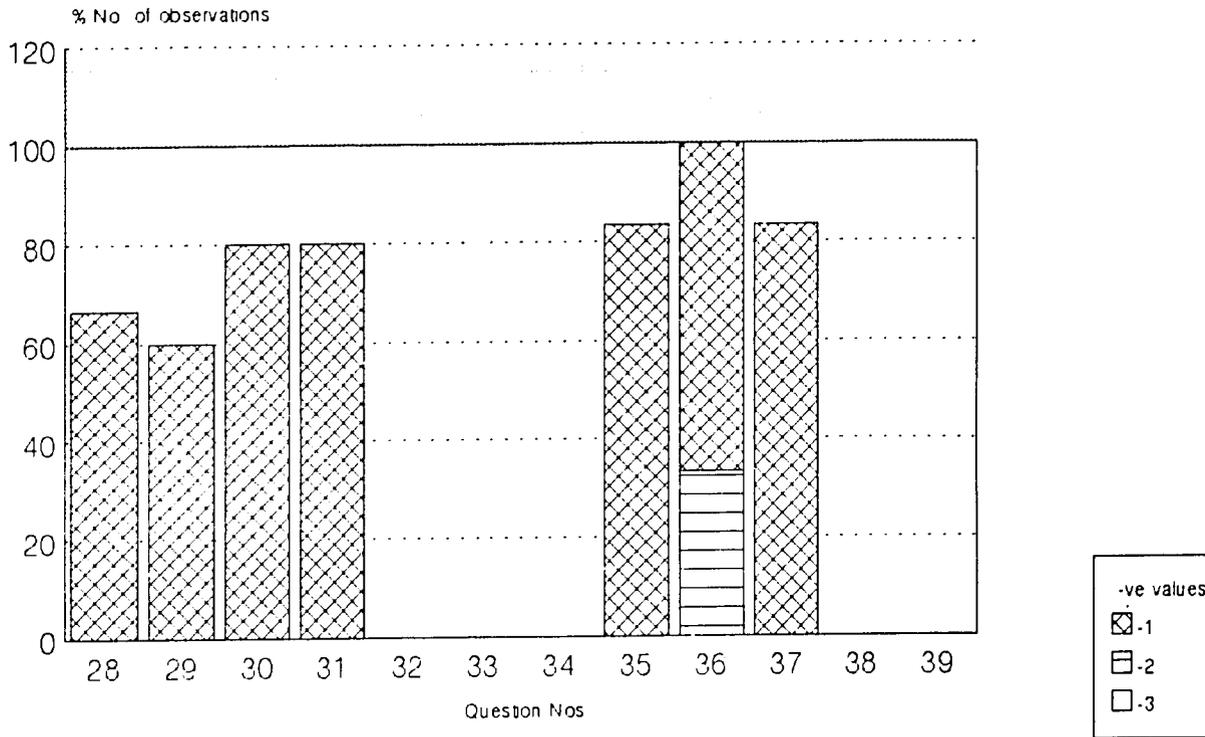
2.3.4.b Validation analysis: Knowledge of PAMs relative to PARCS
 Management +ve scores: Zambia



Total Sample n=8 (Asst PAMs & PAMs combined n=6)

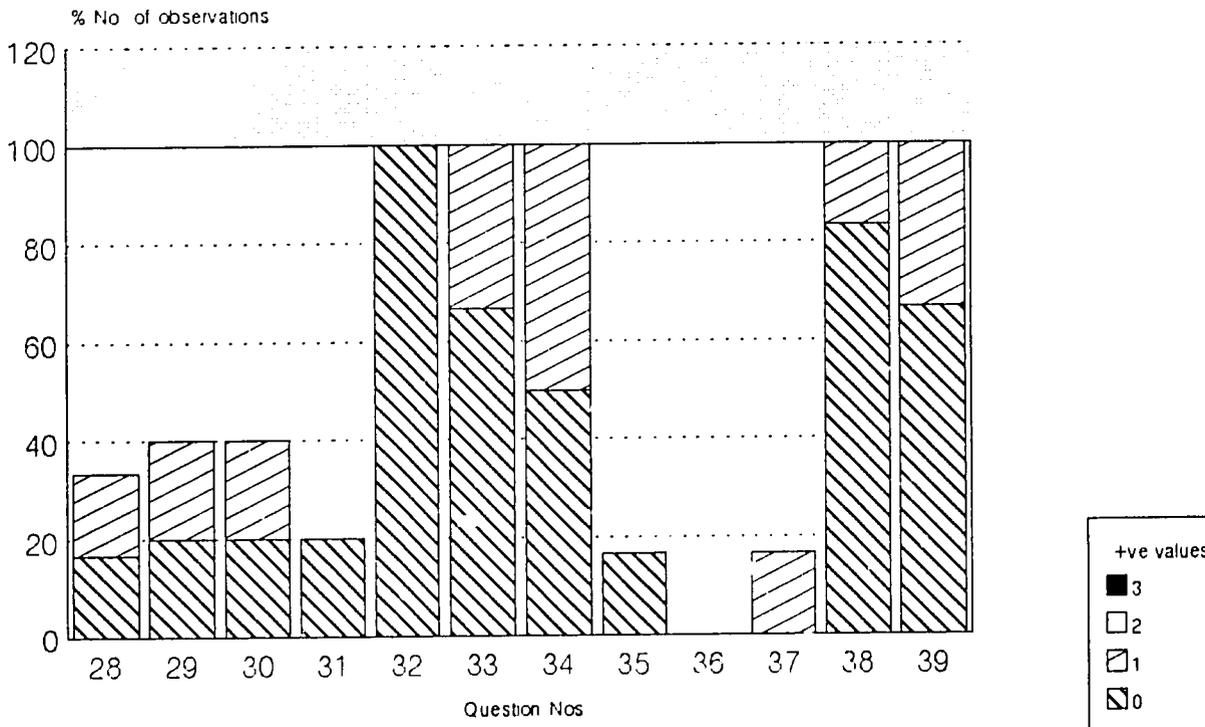
Figure 3:

2.3.4.b Validation analysis: Knowledge of PAMs relative to PARCS
 Planning -ve scores Zambia



Total Sample n=8 (Asst PAMs & PAMs combined n=6)

2.3.4.b Validation analysis: Knowledge of PAMs relative to PARCS
 Planning +ve scores Zambia

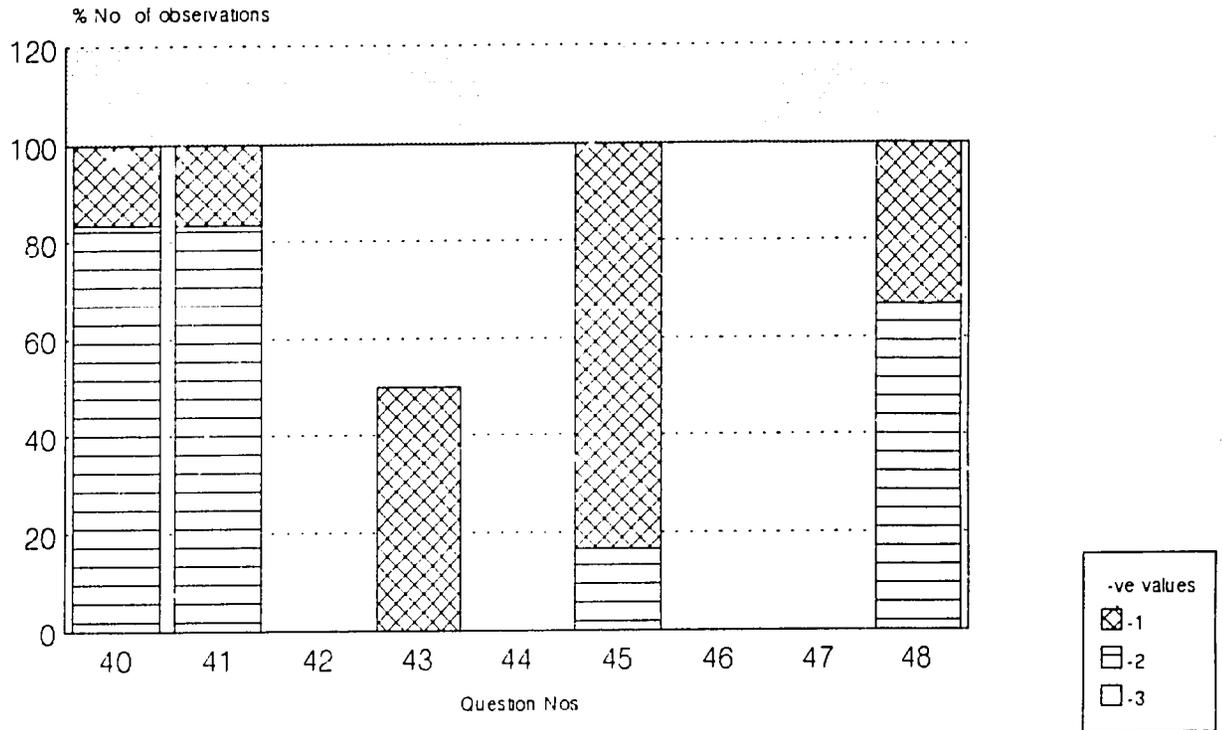


Total Sample n=8 (Asst PAMs & PAMs combined n=6)

Figure 3:

2.3.4.b Validation analysis: Knowledge of PAMs relative to PARCS

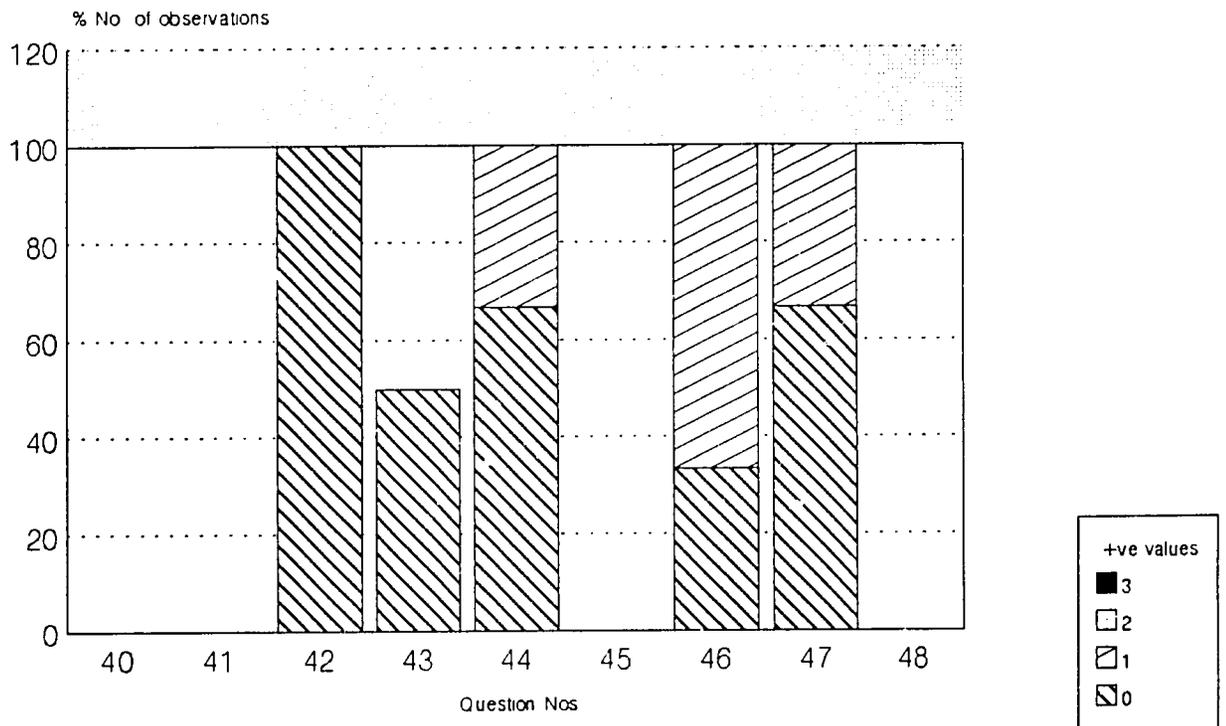
Legal -ve scores: Zambia



Total Sample n=8 (Asst PAMs & PAMs combined n=6)

2.3.4.b Validation analysis: Knowledge of PAMs relative to PARCS

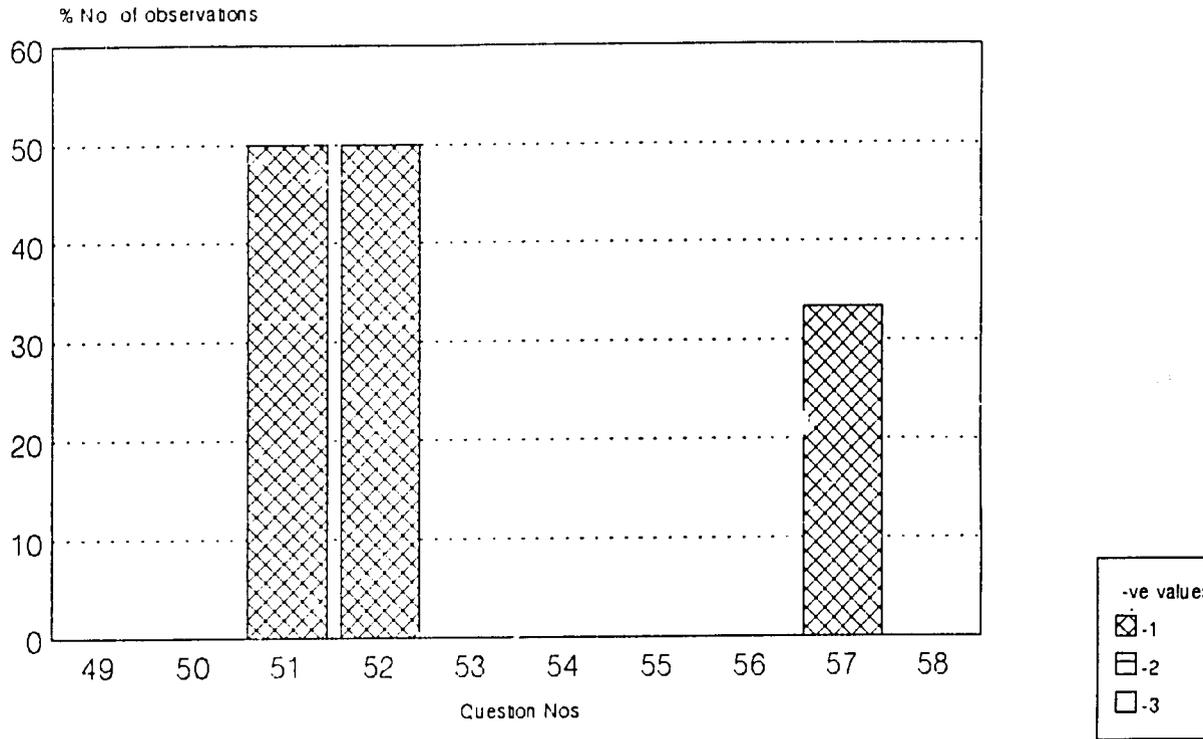
Legal +ve scores: Zambia



Sample n=8 (Asst PAMs & PAMs combined n=6)

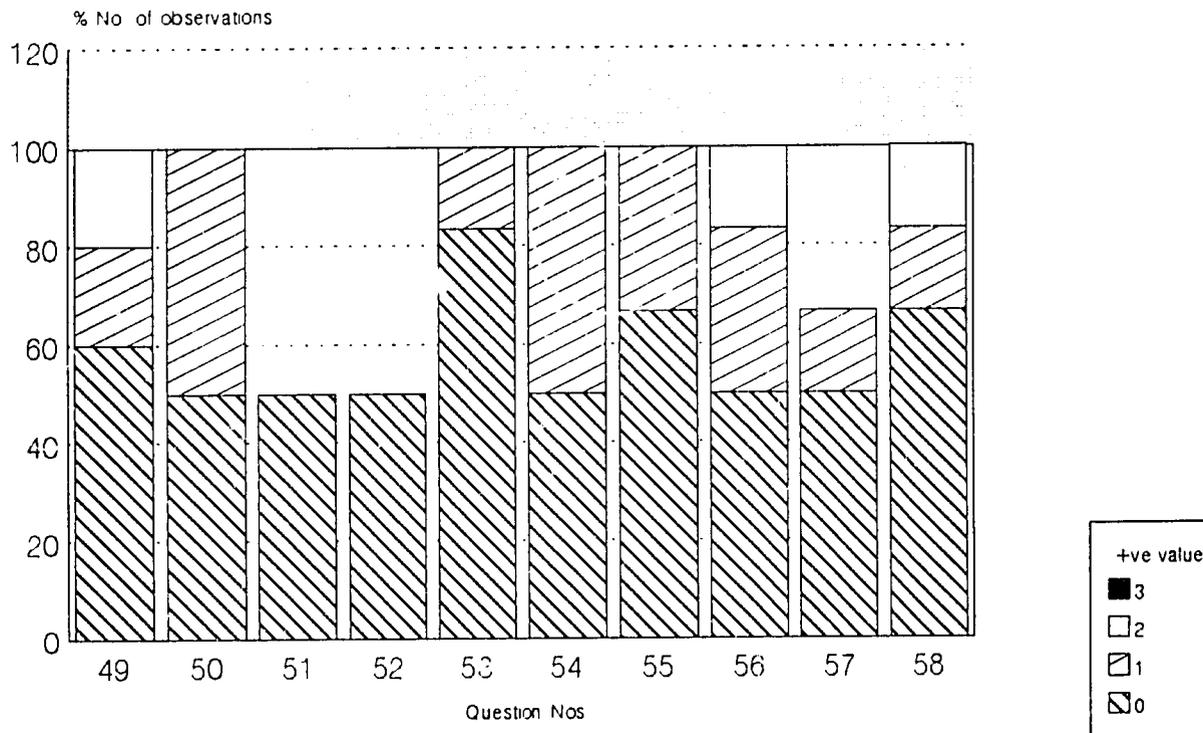
Figure 3:

2.3.4.b Validation analysis: Knowledge of PAMs relative to PARCS
Policies & Procedures -ve scores Zambia



Total Sample n=8 (Asst PAMs & PAMs combined n=6)

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

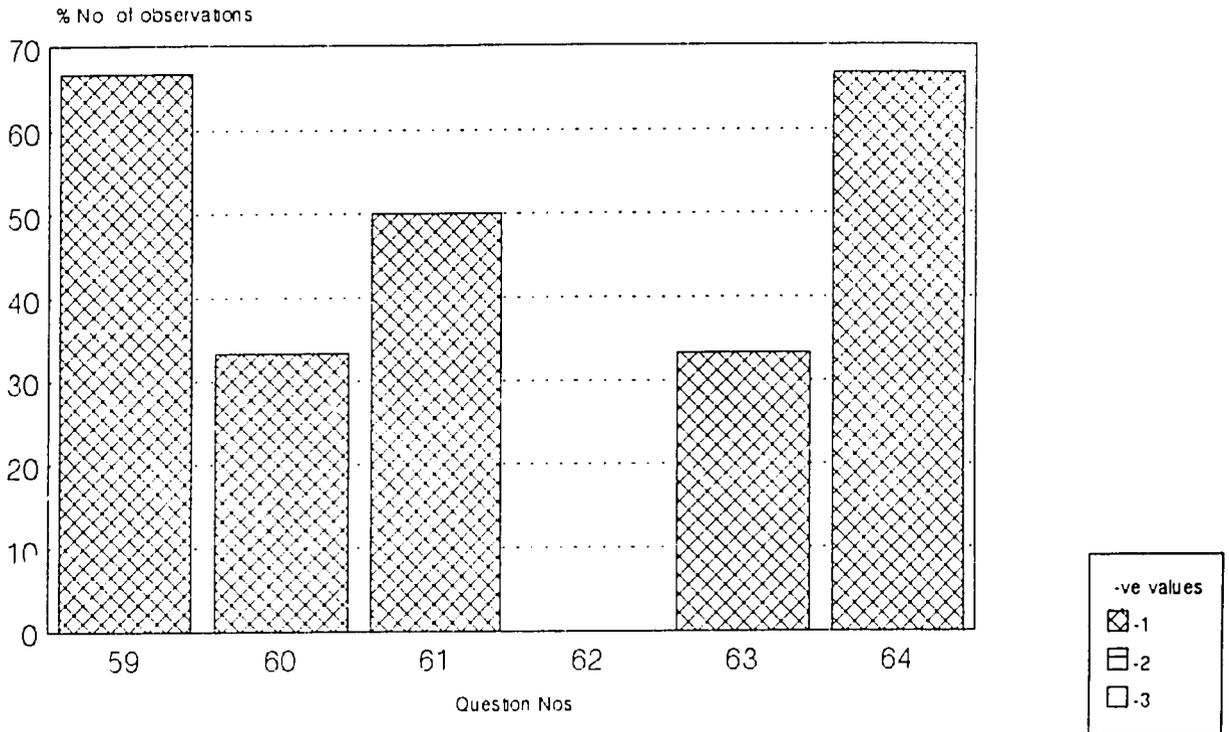


Total Sample n=8 (Asst PAMs & PAMs combined n=6)

Figure 3:

2.3.4.b Validation analysis: Knowledge of PAMs relative to PARCS

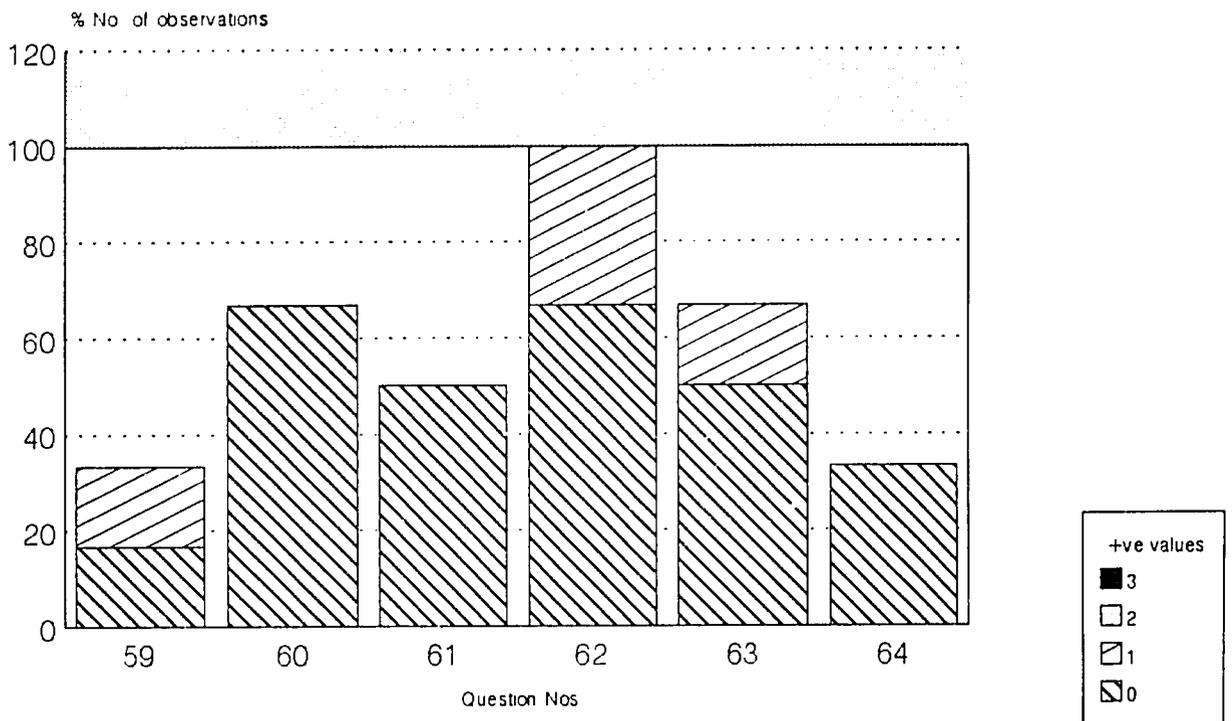
Financial -ve scores Zambia



Total Sample n=8 (Asst PAMs & PAMs combined n=6)

2.3.4.b Validation analysis: Knowledge of PAMS relative to PARCS

Financial +ve scores: Zambia



Total Sample n=8 (Asst PAMs & PAMs combined n=6)

Table 3:

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

COMPETENCY	Question No	Total % of combined scores of -1,0,1	
		Question	Competency average
Technical	1	100	93.1
	2	100	
	3	100	
	4	100	
	5	100	
	6	100	
	7	100	
	8	100	
	9	0	
	10	100	
	11	100	
	12	100	
	13	83.3	
	14	100	
	15	100	
	16	100	
	17	100	
Management	18	100	86.8
	19	16.7	
	20	100	
	21	100	
	22	100	
	23	100	
	24	100	
	25	100	
	26	100	
	27	100	
	Planning	28	
29		100	
30		100	
31		100	
32		100	
33		100	
34		100	
35		100	
36		66.7	
37		100	
38		100	
39		100	
Legal	40	16.7	72.2
	41	16.7	
	42	100	
	43	100	
	44	100	
	45	83.3	
	46	100	
	47	100	
	48	33.3	
Policy and Procedures	49	80	94.7
	50	100	
	51	100	
	52	100	
	53	100	
	54	100	
	55	100	
	56	83.3	
	57	100	
	58	83.3	
Financial and Accounting	59	100	100
	60	100	
	61	100	
	62	100	
	63	100	
	64	100	

Overall % accuracy score

90.7

Total sample: n = 8

Asst PAMs & PAMs combined: n = 6

Table 4:

2.3.4d Own score validation analysis: Knowledge average scores
Zambia

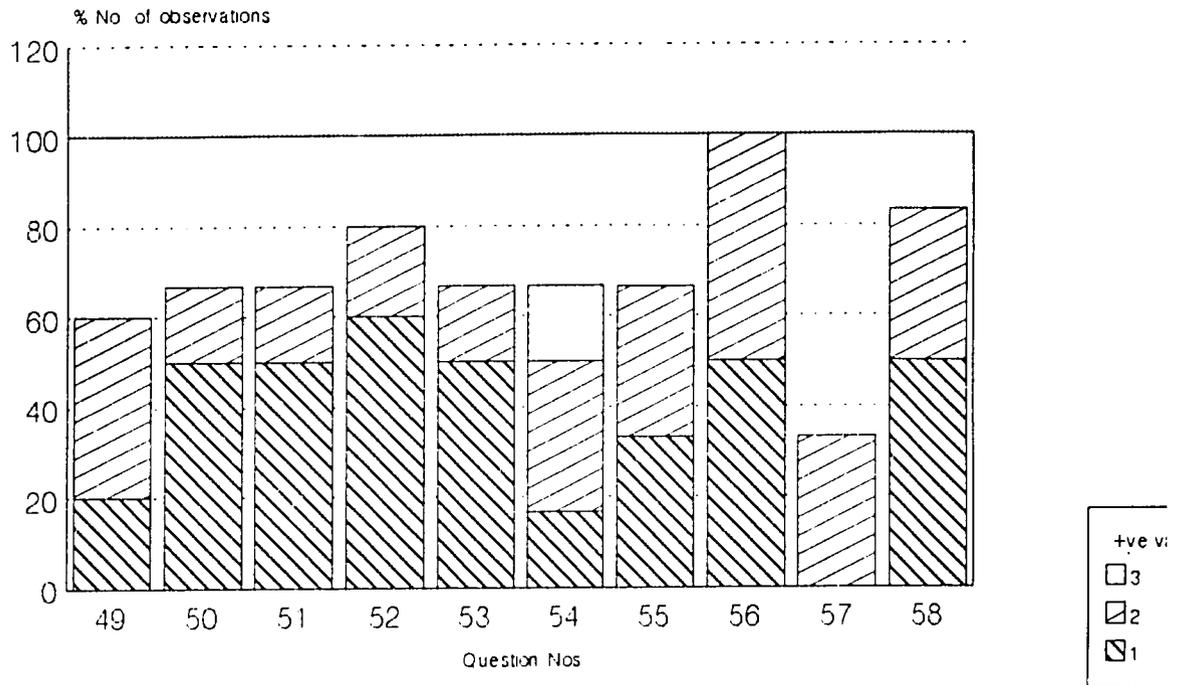
COMPETENCY	Qs No.	Box No.	PARCS Score	Average Country / Org. Score	POSITION								
					1 n=3	2 n=3	3 n=	4 n=1	5 n=	6 n=	7 n=1	8 n=	9 n=
Technical	1	B	3	3.7	3.7	3.7		4			3		
	2	E	4	4	4	4		4			3		
	3	F	4	3.8	4	3.7		4			3		
	4	F	4	3.8	4	3.7		4			3		
	5	F	4	3.7	3.7	3.7		4			2		
	6	F	4	4	4	4		4			3		
	7	G	4	3.5	3.3	3.7		4			4		
	8	H	3	3.5	3.7	3.3		4			2		
	9	H	2	4	4	4		4			2		
	10	I	3	3.7	4	3.3		4			4		
	11	I	3	3.7	4	3.3		4			3		
	12	J	3	3.5	3.3	3.7		4			3		
	13	J	4	3.3	3	3.7		4			4		
	14	K	4	3.8	4	3.7		4			4		
	15	K	4	3.8	3.7	4		4			3		
	16	K	3	3.3	3	3.7		4			4		
	17	K	3	3.7	3.7	3.7		4			4		
Management	18	A	3	3.5	3.3	3.7		4			3		
	19	A	2	3.7	3.3	4		4			2		
	20	A	3	3.5	3.7	3.3		4			1		
	21	B	3	3	3.3	2.7		4			2		
	22	B	3	3.5	3.3	3.7		4			2		
	23	F	3	3.3	3	3.7		4			3		
	24	F	3	3.2	3	3.3		4			3		
	25	G	4	3.7	3.7	3.7		4			2		
	26	H	3	3.5	3.3	3.7		4			3		
	27	J	2	3.5	3.3	3.7		4			2		
Planning	28	A	3	3.5	3.3	3.7		4			3		
	29	B	3	2.8	3	2.7		4			2		
	30	C	3	3.2	4	2.3		4			2		
	31	D	3	3.2	4	2.3		4			3		
	32	E	4	4	4	4		4			2		
	33	F	4	3.7	3.7	3.7		4			3		
	34	F	4	3.5	3.3	3.7		4			3		
	35	G	3	3.8	3.7	4		4			3		
	36	H	2	3.3	3.3	3.3		4			3		
	37	I	3	3.7	3.3	4		4			3		
	38	K	4	3.8	3.7	4		4			3		
	39	K	4	3.7	3.3	4		4			4		
Legal	40	A	2	3.8	3.7	4		4			2		
	41	B	2	3.8	3.7	4		4			3		
	42	E	4	4	4	4		4			3		
	43	F	3	3.5	3.7	3.3		4			1		
	44	F	4	3.7	3.3	4		4			3		
	45	G	2	3.2	3.3	3		4			2		
	46	H	4	3.3	3.3	3.3		4			3		
	47	I	4	3.7	3.7	3.7		4			4		
48	J	2	3.7	3.7	3.7		4			2			
Policy and Procedures	49	A	4	3.4	3	4		4			3		
	50	B	4	3.5	3.7	3.3		4			2		
	51	C	3	3.5	3.7	3.3		4			1		
	52	D	3	2.8	3.7	1.5		4			1		
	53	E	4	3.8	3.7	4		4			3		
	54	F	4	3.5	3.3	3.7		4			1		
	55	F	4	3.7	3.7	3.7		4			3		
	56	G	4	3.3	3	3.7		4			3		
	57	H	3	3.2	3	3.3		4			4		
	58	I	4	3.5	3.3	3.7		4			3		
Financial and Accounting	59	C	3	3.5	3.3	3.7		4			3		
	60	C	3	3.3	3.3	3.3		4			4		
	61	H	3	3.5	3.3	3.7		4			4		
	62	H	4	3.7	3.3	4		4			3		
	63	I	3	3.2	3	3.3		4			4		
	64	K	3	3.7	3.7	3.7		4			2		

Total Sample n=8

Ass PAMs & PAMs combined: n=6

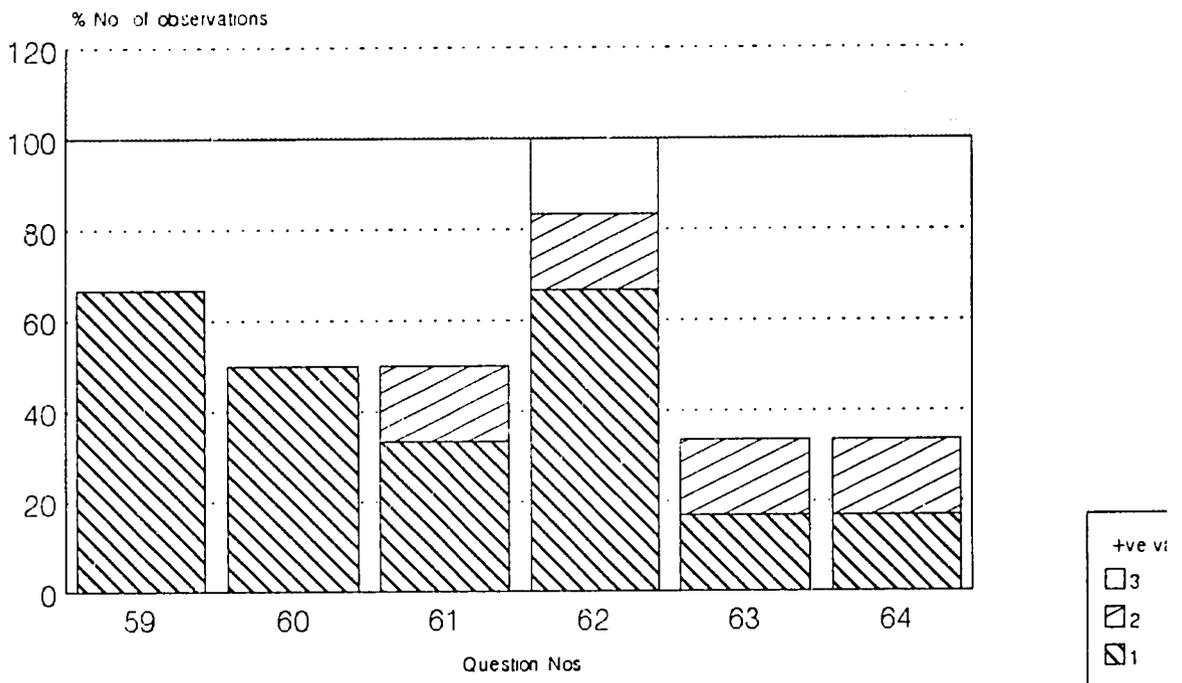
Figure 4:

2.3.5.a. PAMs gap analysis relative to PARC Policies & Procedures Knowledge: Zambia



Sample n=6 (PAMs & Ass PAMs)

2.3.5.a. PAMs gap analysis relative to PARC: Financial Knowledge: Zambia

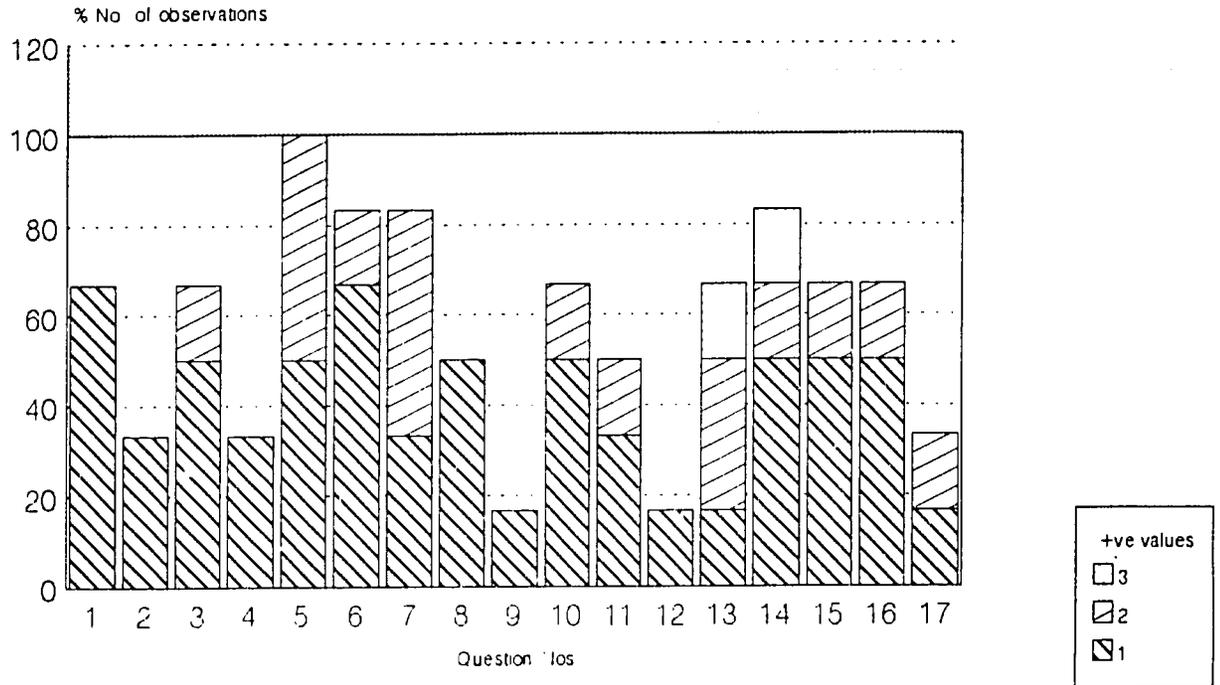


Sample n=6

Figure 4;

2.3.5.a. PAMs gap analysis relative to PARCS

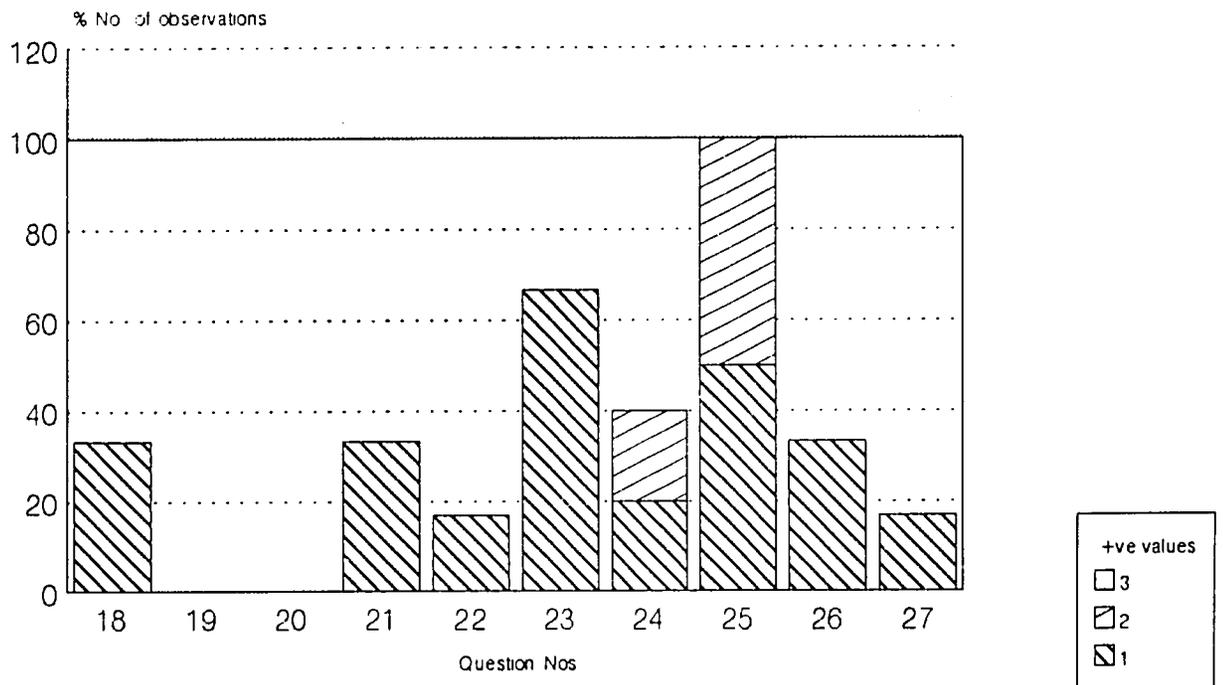
Technical Knowledge: Zambia



Sample n=6 (PAMs & Ass PAMs)

2.3.5.a. PAMs gap analysis relative to PARCS.

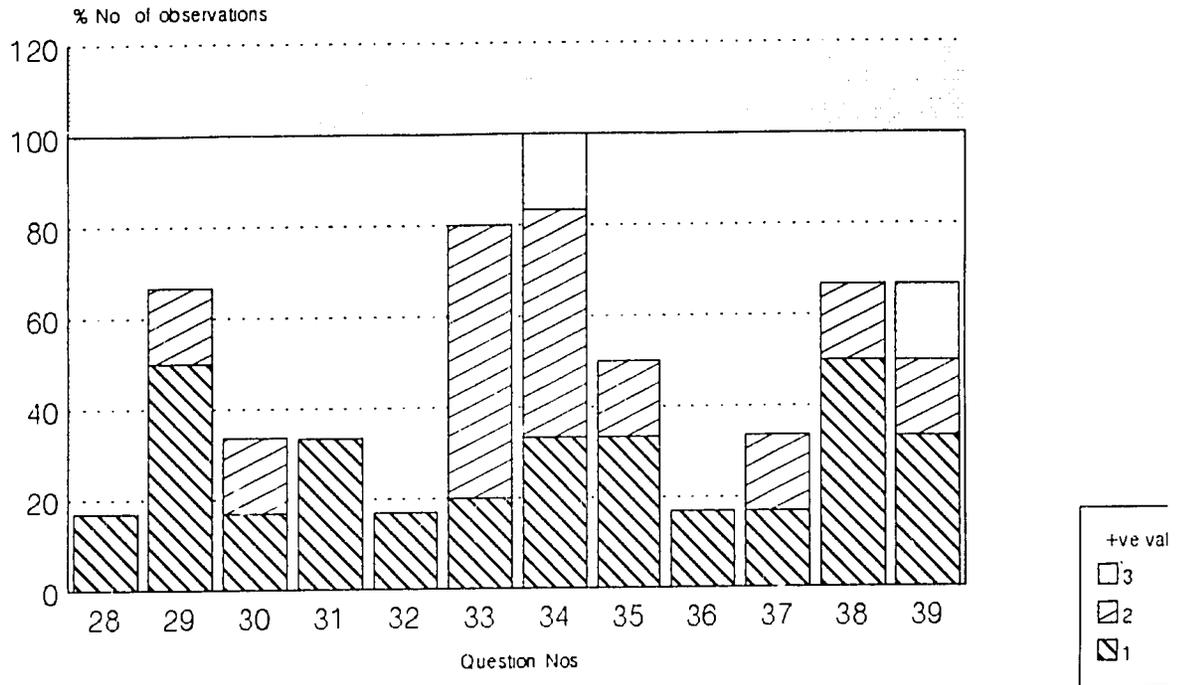
Management Knowledge: Zambia



Sample n=6 (PAMs & Ass PAMs)

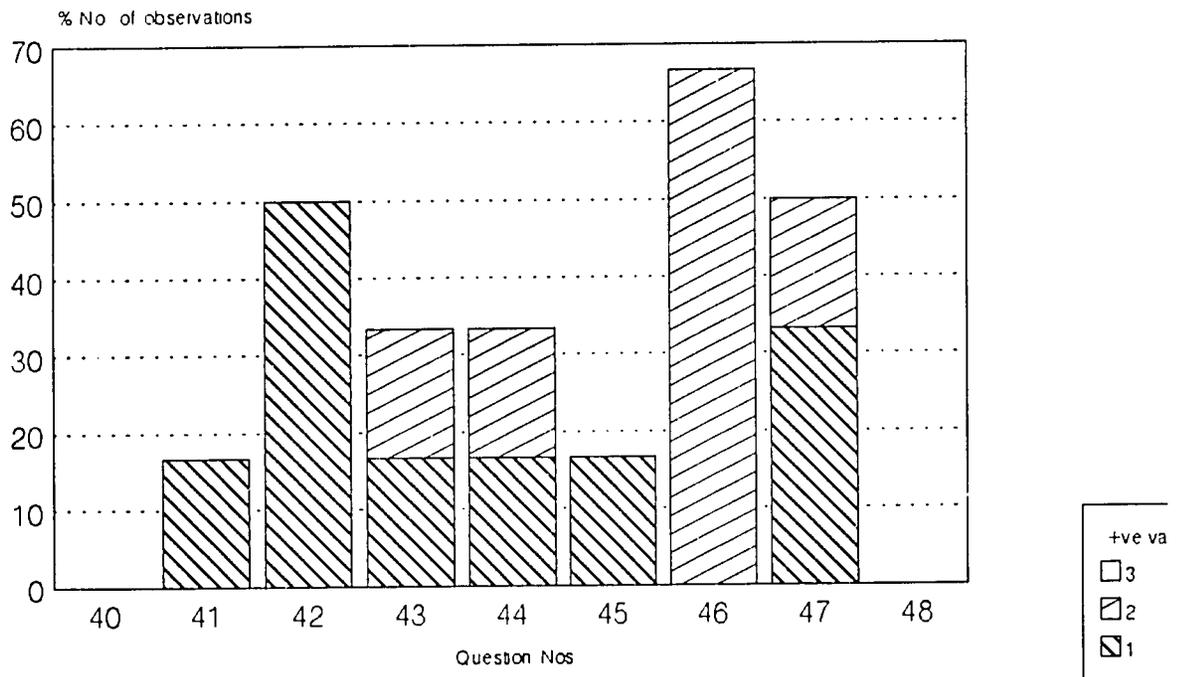
Figure 4:

2.3.5.a. PAMs gap analysis relative to PARCS Planning Knowledge: Zambia



Sample n=6 (PAMs & Ass PAMs)

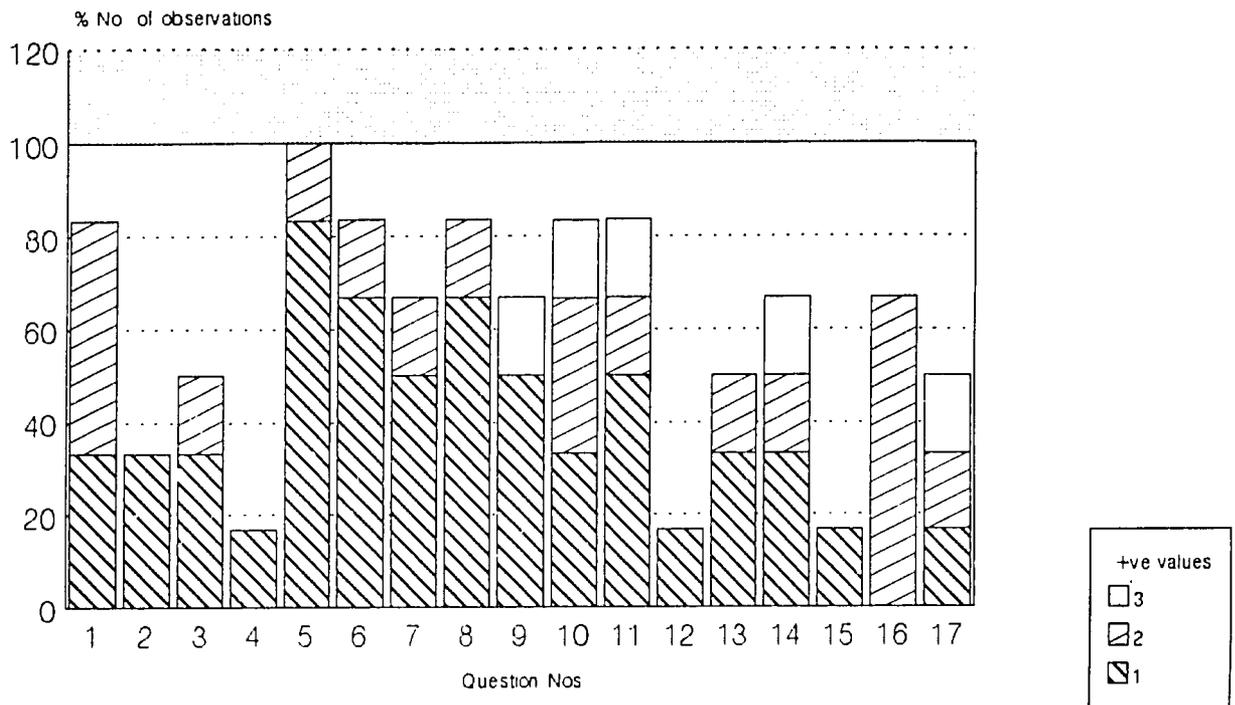
2.3.5.a. PAMs gap analysis relative to PARC Legal Knowledge: Zambia



Sample n=6 (PAMs & Ass PAMs)

2.3.5.b. PAMs gap analysis relative to own score

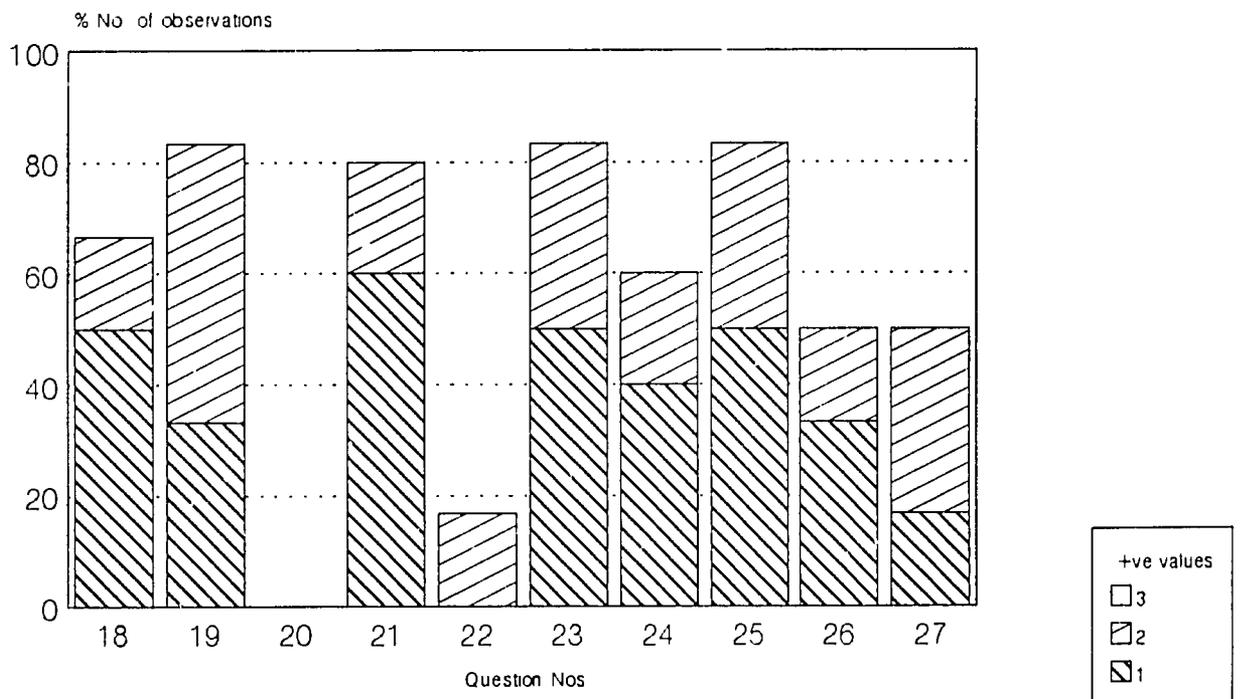
Technical Knowledge: Zambia



Sample n=8 (PAMs & Ass PAMs: n=6)

2.3.5.b. PAMs gap analysis relative to own score

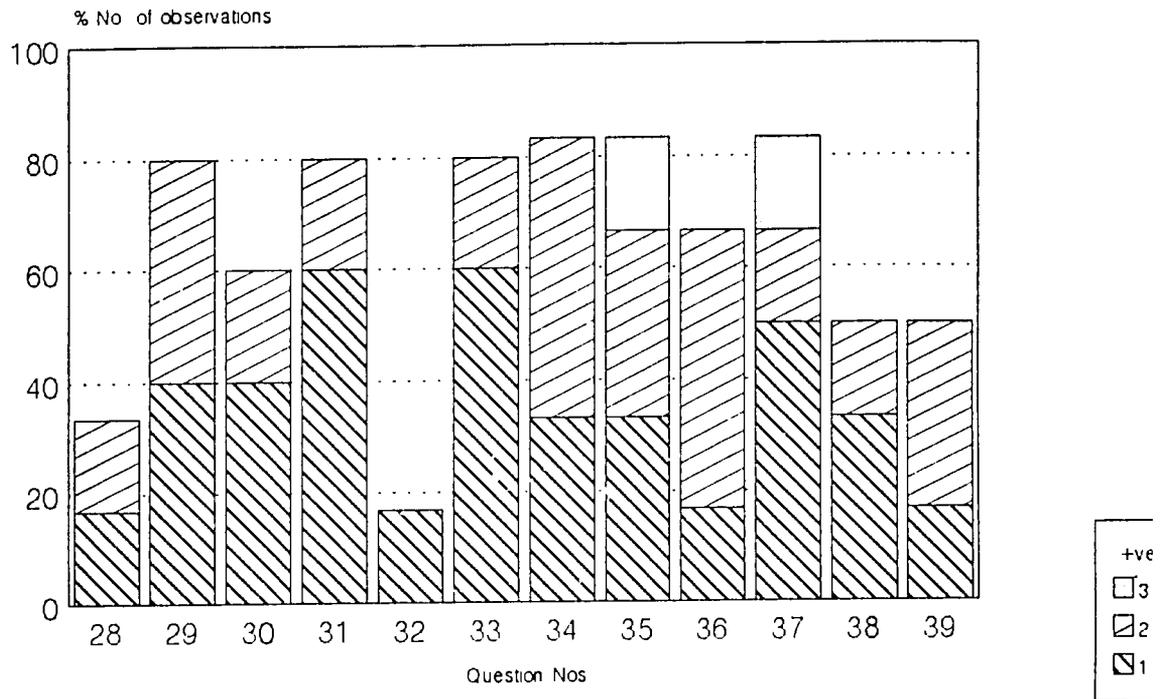
Management Knowledge: Zambia



Sample n=8 (PAMs & Ass PAMs: n=6)

2.3.5.b. PAMs gap analysis relative to own score

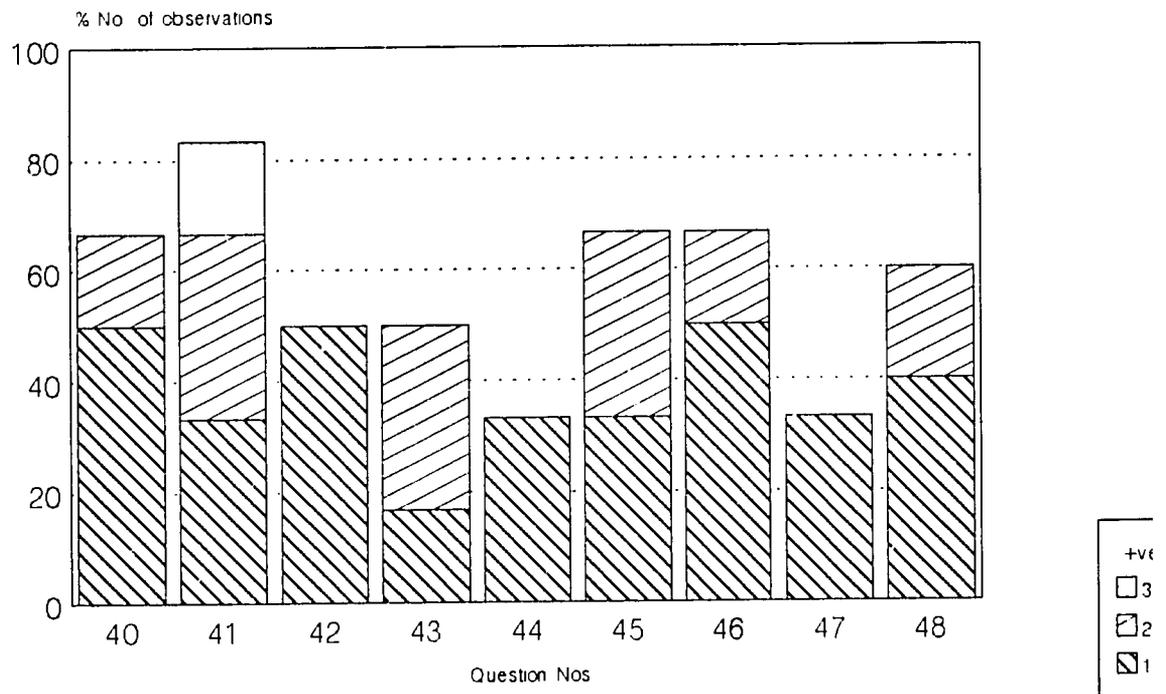
Planning Knowledge: Zambia



Sample n=8 (PAMs & Ass PAMs: n=6)

2.3.5.b PAMs gap analysis relative to own score

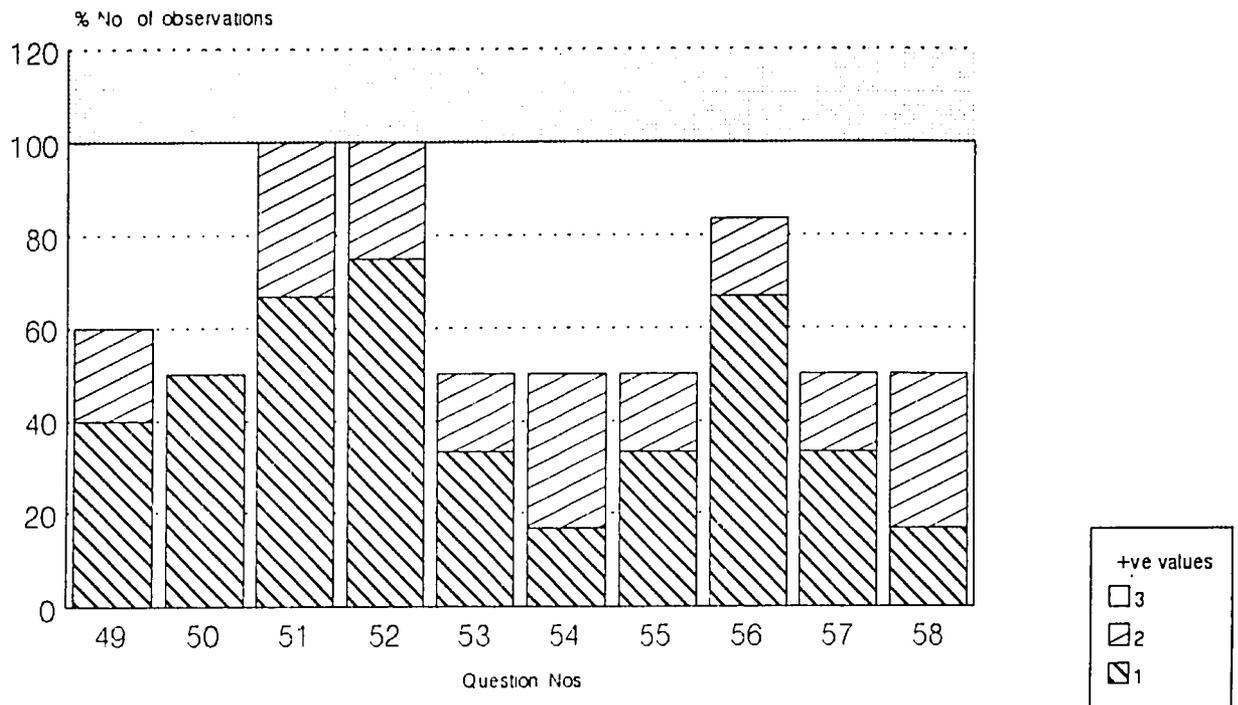
Legal Knowledge: Zambia



Sample n=8 (PAMs & Ass PAMs: n=6)

2.3.5.b. PAMs gap analysis relative to own score

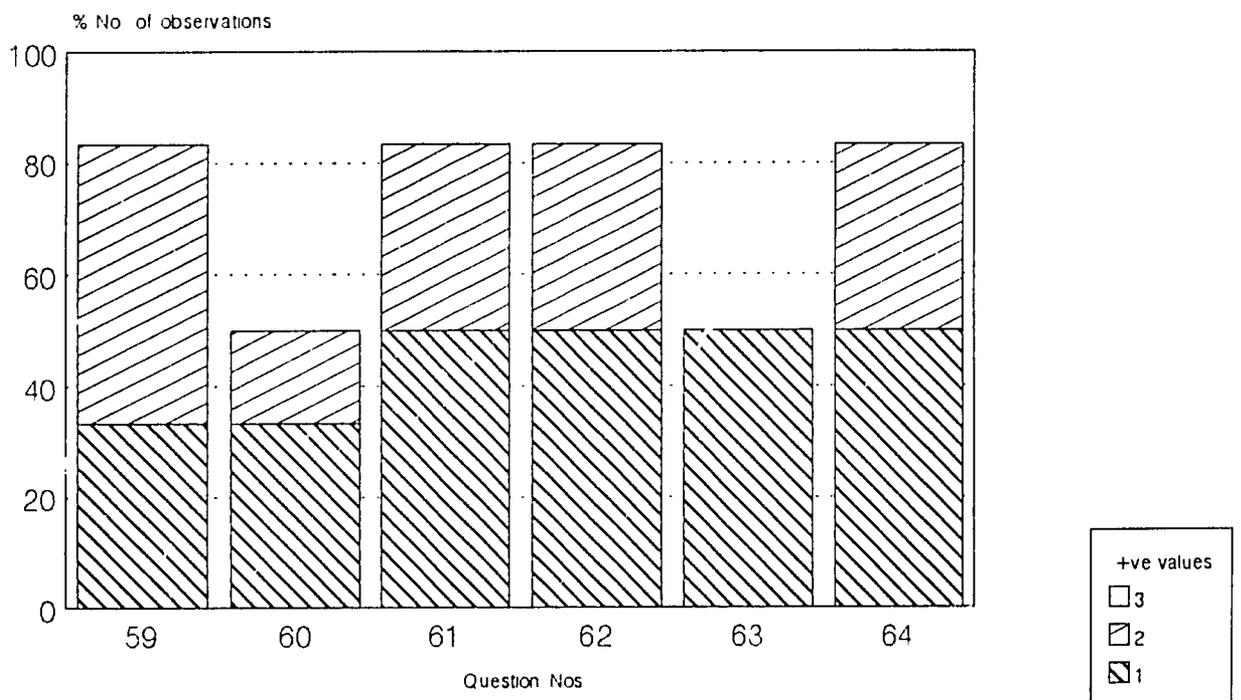
Policies & Procedures Knowledge: Zambia



Sample n=8 (PAMs & Ass PAMs: n=6)

2.3.5.b PAMs gap analysis relative to own score

Financial Knowledge: Zambia



Sample n=8 (PAMs & Ass PAMs: n=6)

Table 5:

2.3.5d PARCS score gap analysis: Knowledge average scores
Zambia

COMPETENCY	Qs No.	Box No.	PARCS Score	Average Country / Org. Score	POSITION									
					1 n=3	2 n=3	3 n=	4 n=1	5 n=	6 n=	7 n=1	8 n=	9 n=	
Technical	1	B	3	0.67	0.7	0.7		1				1		
	2	E	4	0.33	0	0.7		1				0		
	3	E	4	0.83	0.7	1		1				1		
	4	F	4	0.33	0.3	0.3		2				2		
	5	F	4	1.5	1.7	1.3		2				1		
	6	F	4	1	1	1		2				0		
	7	G	4	1.33	2	0.7		1				1		
	8	H	3	0.5	0.7	0.3		1				0		
	9	H	2	0.17	0.3	0		0				0		
	10	I	3	0.83	1.3	0.3		0				0		
	11	I	3	0.67	1	0.3		0				0		
	12	J	3	0.17	0.3	0		0				0		
	13	J	4	1.33	1.7	1		2				1		
	14	K	4	1.33	2	0.7		1				0		
	15	K	4	0.83	0.7	1		1				1		
	16	K	3	0.83	1	0.7		1				0		
	17	K	3	0.5	0.7	0.3		0				0		
Management	18	A	3	0.33	0.7	0		1				0		
	19	A	2	0	0	0		0				0		
	20	A	3	0	0	0		1				0		
	21	B	3	0.33	0.3	0.3		1				1		
	22	B	3	0.17	0	0.3		1				1		
	23	F	3	0.67	0.7	0.7		1				1		
	24	G	3	0.6	1	0.3		1				0		
	25	H	4	1.5	1.7	1.3		1				0		
	26	I	3	0.33	0.7	0		0				0		
	27	J	2	0.17	0.3	0		0				0		
Planning	28	A	3	0.17	0	0.3		0				1		
	29	B	3	0.83	0.7	1		1				0		
	30	C	3	0.5	0.3	0.7		1				0		
	31	D	3	0.33	0.3	0.3		1				0		
	32	E	4	0.17	0	0.3		1				1		
	33	F	4	1.4	1.3	1.5		2				1		
	34	G	4	1.83	2	1.7		2				0		
	35	H	3	0.67	1	0.3		0				0		
	36	I	2	0.17	0.3	0		0				0		
	37	K	3	0.5	1	0		0				0		
	38	K	4	0.83	1	0.7		1				0		
	39	K	4	1.17	2	0.3		1				0		
Legal	40	A	2	0	0	0		0				0		
	41	B	2	0.17	0	0.3		1				0		
	42	E	4	0.5	0.3	0.7		1				1		
	43	F	3	0.5	0.7	0.3		0				1		
	44	G	4	0.5	0.7	0.3		2				1		
	45	H	2	0.17	0	0.3		0				0		
	46	I	4	1.33	0.7	2		1				1		
	47	J	4	0.67	0.7	0.7		1				0		
	48	J	2	0	0	0		0				0		
Policy and Procedures	49	A	4	1	0.7	1.5		1				1		
	50	B	4	0.83	0.3	1.3		2				1		
	51	C	3	0.83	0.7	1		0				0		
	52	D	3	1	0.7	1.5		0				0		
	53	E	4	0.83	0.3	1.3		1				1		
	54	F	4	1.33	1.3	1.3		2				1		
	55	G	4	1	0.7	1.3		2				1		
	56	H	4	1.5	1.7	1.3		1				0		
	57	I	3	0.67	0.7	0.7		1				0		
	58	J	4	1.17	1	1.3		1				1		
Financial and Accounting	59	C	3	0.67	0.7	0.7		0				1		
	60	C	3	0.5	0.7	0.3		0				0		
	61	H	3	0.67	1	0.3		1				0		
	62	H	4	1.5	2	1		2				1		
	63	I	3	0.5	0.7	0.3		0				0		
	64	K	3	0.5	1	0		0				0		

Total sample: n=8

Asst PAMs & PAMs combined: n=6

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

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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	1	0	0																4	0	0						
2	1	0	0																2	0	0						
3	1	0	0																3	1	0						
4	1	0	0																2	0	0						
5	0	2	0																3	3	0						
6	1	1	0																4	1	0						
7	1	1	0																2	3	0						
8	1	0	0																3	0	0						
9																			1	0	0						
10	2	0	0																3	1	0						
11	2	0	0																2	1	0						
12																			1	0	0						
13	0	1	0																1	2	1						
14	1	1	0																3	1	1						
15	1	0	0																3	1	0						
16	1	0	0																3	1	0						
17																			1	1	0						

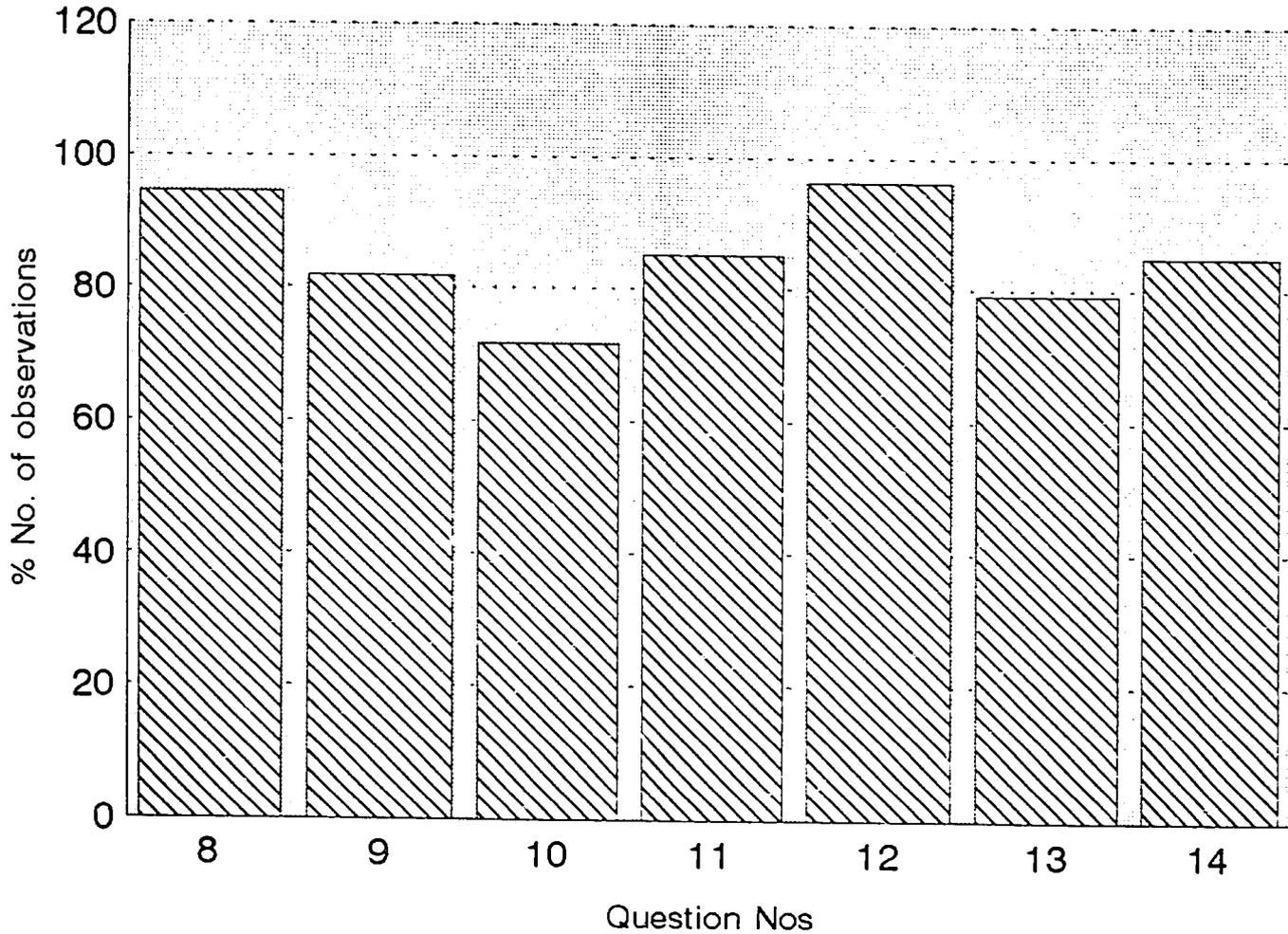
Total sample: n=8

Asst PAMs & PAMs combined: n=6

2.3.6a Validation analysis of Mental and Social Skills

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PAMs Yes responses: Zambia



Overall % accuracy score
84.79

 % Score

Total Sample n=8 (Ass PAMs & PAMs combined: n=6)

Table 7:

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

MAIN DIVISIONS	COMPETENCY (% of respondents)						
	8	9	10	11	12	13	14
A			16.7	16.7		16.7	
B		16.7	16.7				16.7
C		16.7					
D		16.7	33.3	16.7	16.7		50
E		16.7		16.7	16.7		16.7
F	33.3	33.3	16.7	16.7		16.7	33.3
G		16.7	16.7			16.7	
H	16.7	16.7	16.7	16.7			
I	16.7	33.3	33.3	33.3		50	
J		16.7	33.3	16.7		66.7	16.7
K		16.7					16.7

Total sample: n=8

Asst PAMs & PAMs combined: n=6

Table 8:

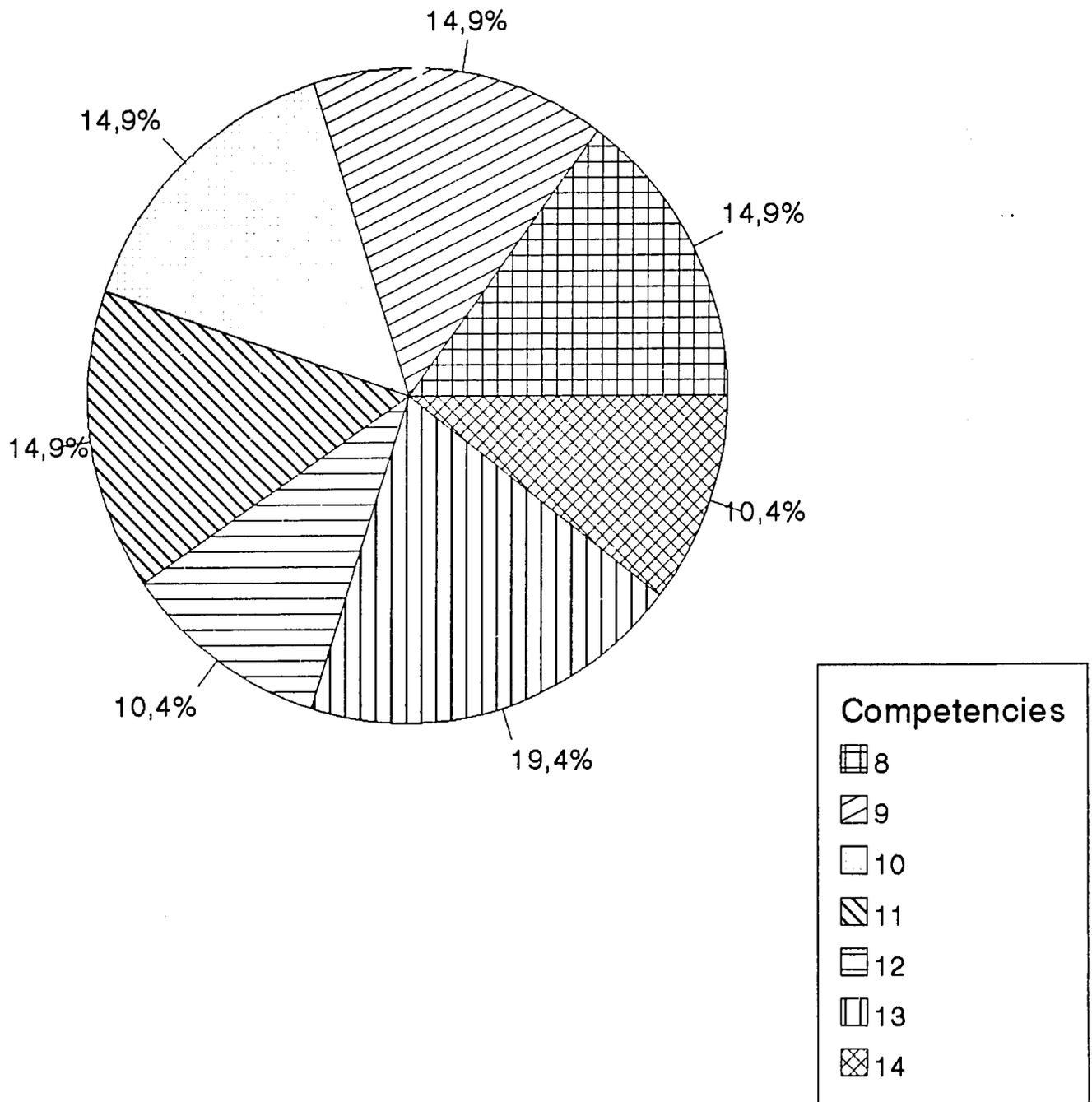
2.3.7a.1 Current Mental and Social Skill Level of Asst PAMs & PAMs: Low Skill Levels Zambia

MAIN DIVISIONS	COMPETENCY (cumulative score of all 1&2 responses)							Total
	8	9	10	11	12	13	14	
A						1		1
B		1	1	1			1	4
C	2	1						3
D	1	1	2	1	1		2	8
E		1		1	1		1	4
F	4	1			2	2	1	10
G	1	1	2		1	1		6
H		1	1	1				3
I	3	2	3	4			1	13
J		2	1	1		3	1	8
K	1							1
Total	12	11	10	9	5	7	7	61

Total sample: n=8

Asst PAMs & PAMs combined: n=6

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



Total Sample: n = 8

Ass PAMs & PAMs combined: n=6

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

COMPETENCY	Qs No.	Box No.	Average Country / Org. Score	POSITION									
				1 n=3	2 n=3	3 n=	4 n=1	5 n=	6 n=	7 n=1	8 n=	9 n=	
Comprehension	1	A	3.5	3.7	3.3		3			4			
	2	B	3.0	3.0	3.0		3			3			
	3	C	2.8	2.7	3.0		3			4			
	4	D	2.8	3.0	2.7		2			3			
	5	E	3.5	3.7	3.3		3			4			
	6	F	2.3	2.3	2.3		3			3			
	7	G	3.0	2.7	3.3		2			4			
	8	H	3.0	3.0	3.0		3			4			
	9	I	2.7	2.7	2.7		3			4			
	10	J	3.3	3.0	3.7		3			4			
	11	K	3.0	2.7	3.3		3			4			
	12	K	3.0	2.7	3.3		3			4			
Problem analysis	13	A	3.3	3.3	3.3		3			3			
	14	B	3.2	3.7	2.7		3			3			
	15	C	2.8	3.0	2.7		3			3			
	16	D	3.0	3.3	2.7		3			4			
	17	E	2.7	3.0	2.3		3			3			
	18	F	3.0	3.3	2.7		3			3			
	19	G	2.8	3.0	2.7		3			3			
	20	H	3.0	3.3	2.7		3			3			
	21	I	3.0	3.3	2.7		3			4			
	22	J	2.8	3.0	2.7		3			4			
	23	K	3.0	3.0	3.0		3			4			
Creativity	24	A	3.7	3.7	3.7		3			4			
	25	B	3.0	3.0	3.0		3			4			
	26	D	2.7	2.7	2.7		3			4			
	27	E	3.3	3.3	3.3		3			4			
	28	F	3.5	3.7	3.3		3			4			
	29	G	2.5	2.7	2.3		2			4			
	30	H	3.0	3.3	2.7		3			4			
	31	I	2.7	3.0	2.3		2			4			
	32	J	3.2	3.3	3.0		3			4			
	33	K	3.2	3.3	3.0		3			4			
	Evaluation	34	A	3.5	3.7	3.3		3			3		
35		B	3.3	3.7	3.0		3			4			
36		D	3.3	3.3	3.3		3			4			
37		E	2.8	3.0	2.7		3			3			
38		F	3.5	3.7	3.3		2			3			
39		G	3.2	3.3	3.0		3			4			
40		H	3.0	3.0	3.0		3			4			
41		I	2.5	3.0	2.0		2			4			
42		J	3.2	3.3	3.0		3			4			
Oral		43	A	3.7	3.7	3.7		3			4		
		44	B	3.2	3.3	3.0		3			4		
	45	C	3.5	3.7	3.3		3			3			
	46	D	2.8	3.3	2.3		3			4			
	47	E	3.7	4.0	3.3		3			4			
	48	F	3.0	3.3	2.7		3			4			
	49	G	3.0	3.3	2.7		3			4			
	50	H	3.2	3.3	3.0		3			3			
	51	J	3.5	3.3	3.7		3			4			
	Written	52	A	3.0	3.0	3.0		3			3		
		53	B	3.2	3.0	3.3		2			4		
54		D	3.3	3.3	3.3		2			4			
55		E	3.7	3.7	3.7		3			4			
56		F	3.0	3.0	3.0		3			4			
57		G	3.0	3.3	2.7		3			4			
58		I	2.5	3.0	2.0		3			4			
59		J	2.3	2.7	2.0		3			3			
Working with others		60	A	3.5	3.3	3.7		3			4		
	61	B	3.0	3.7	2.3		2			3			
	62	D	2.7	3.3	2.0		2			4			
	63	E	3.2	3.7	2.7		3			3			
	64	F	3.2	3.7	2.7		3			3			
	65	C	3.7	3.7	3.7		3			4			
	66	H	3.7	3.7	3.7		3			4			
	67	I	3.0	3.7	2.3		2			4			
	68	J	3.0	3.3	2.7		2			4			
	69	K	3.5	4.0	3.0		3			4			

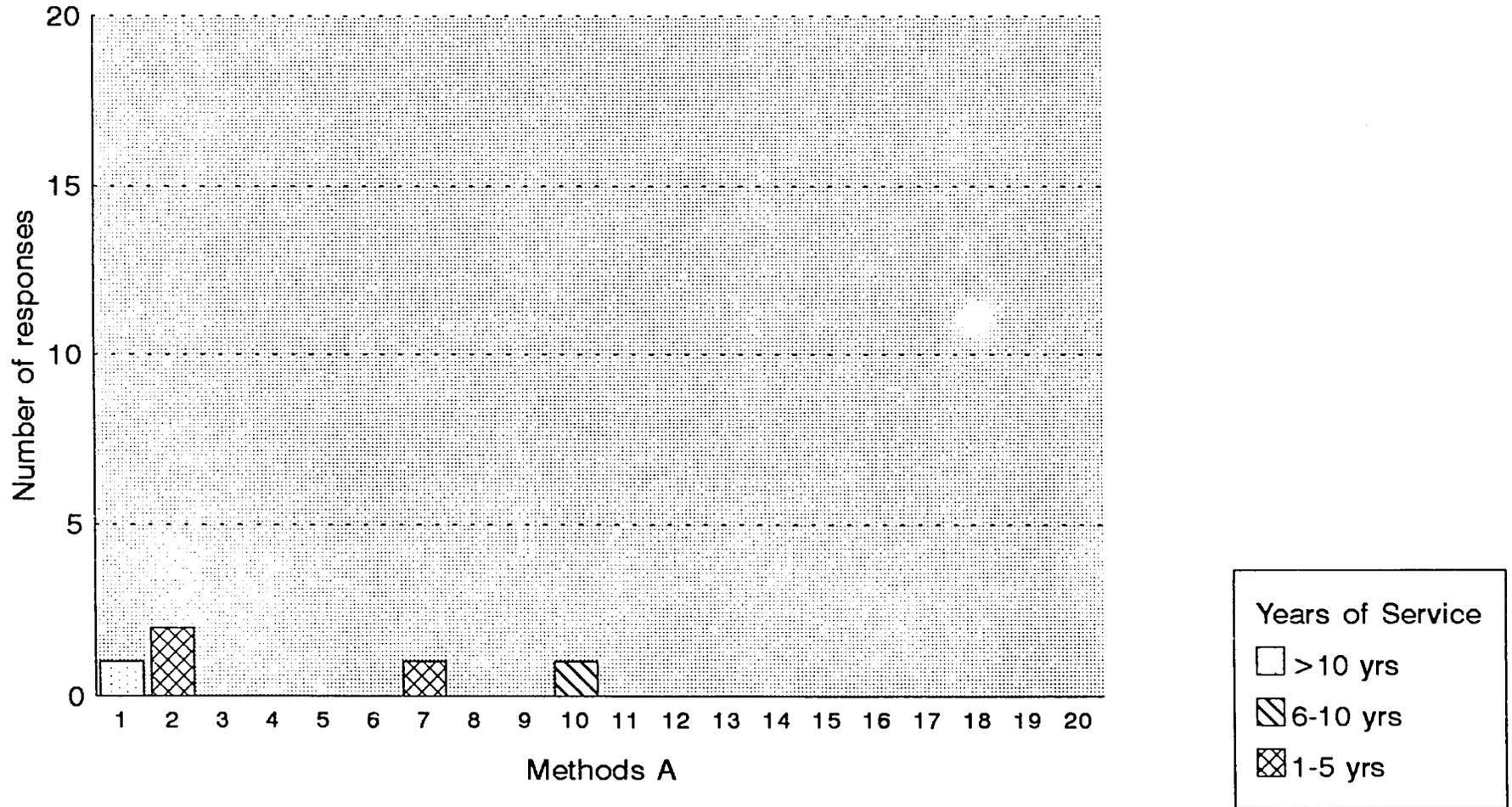
Total sample: n=8

Asst PAMs & PAMs combined: n=6

Figure 6:

2.3.8a PAMs Methods To Instill Work Ethics Zambia

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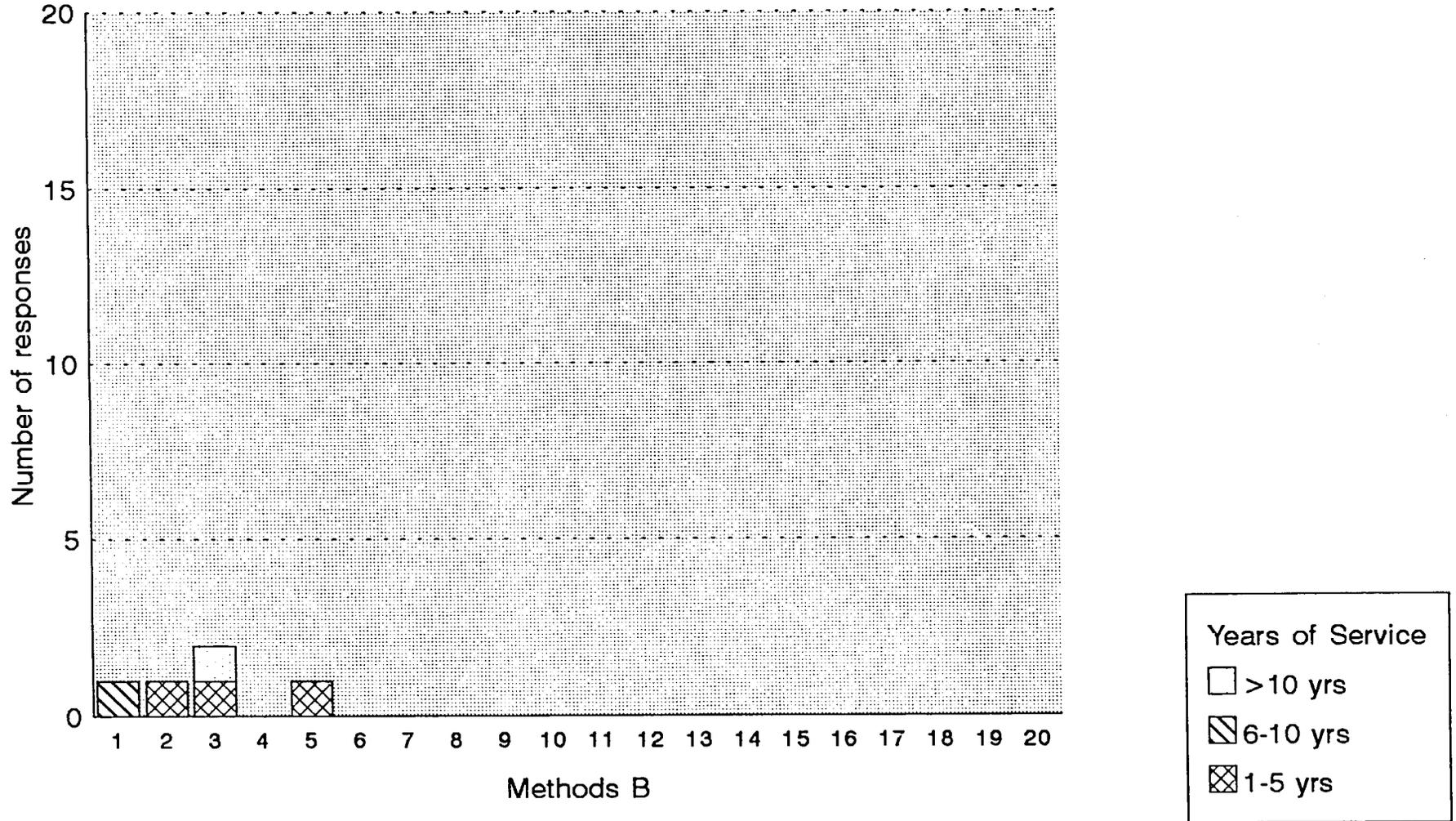


Total Sample:n=8 (Ass PAMs & PAMs:n=6)

Figure 7:

2.3.8b PAMs Methods To Instill Commitment to Conservation Zambia

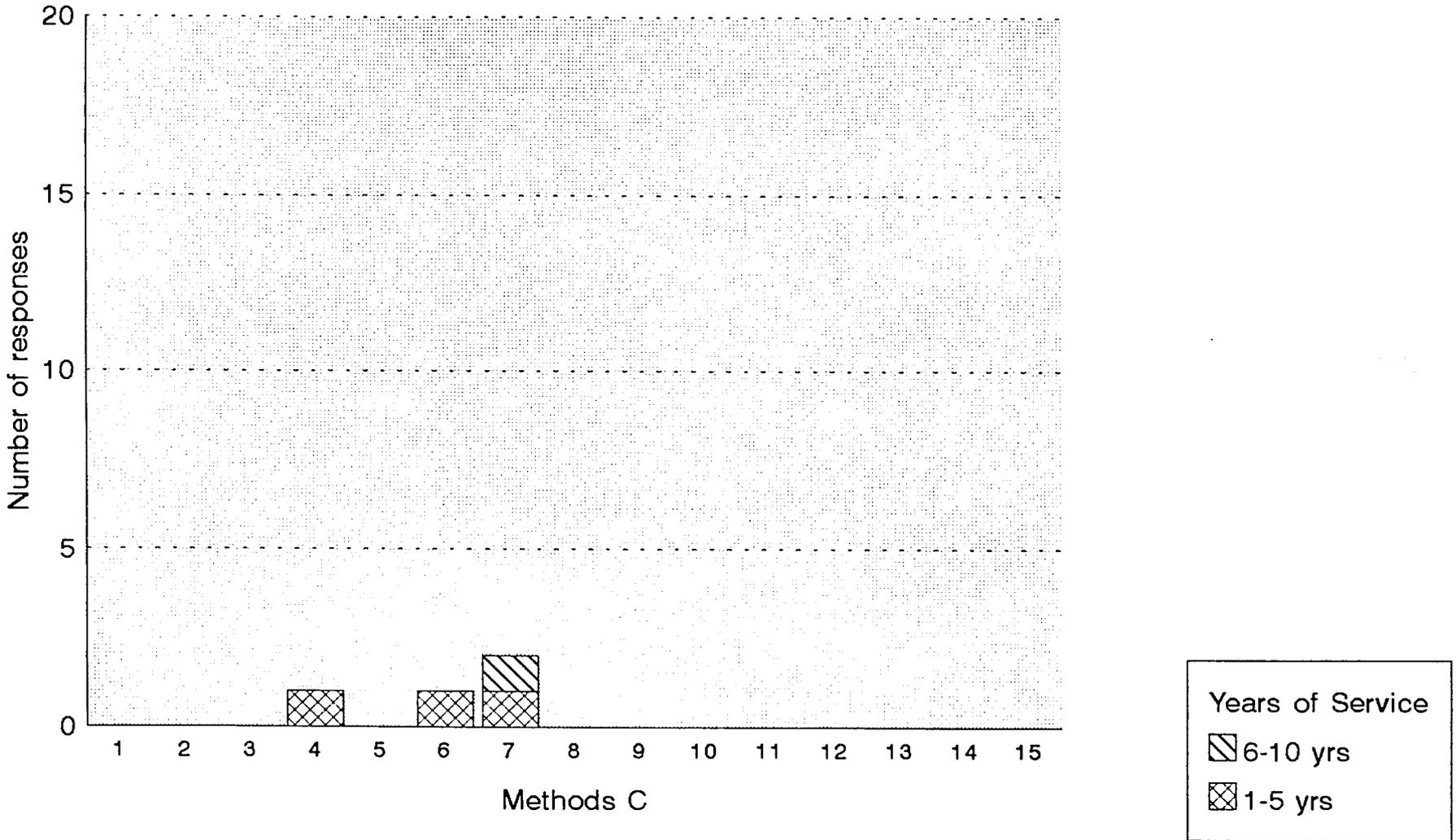
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Total Sample:n= 8 (Ass PAMs & PAMs:n=6)

Figure 8:

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

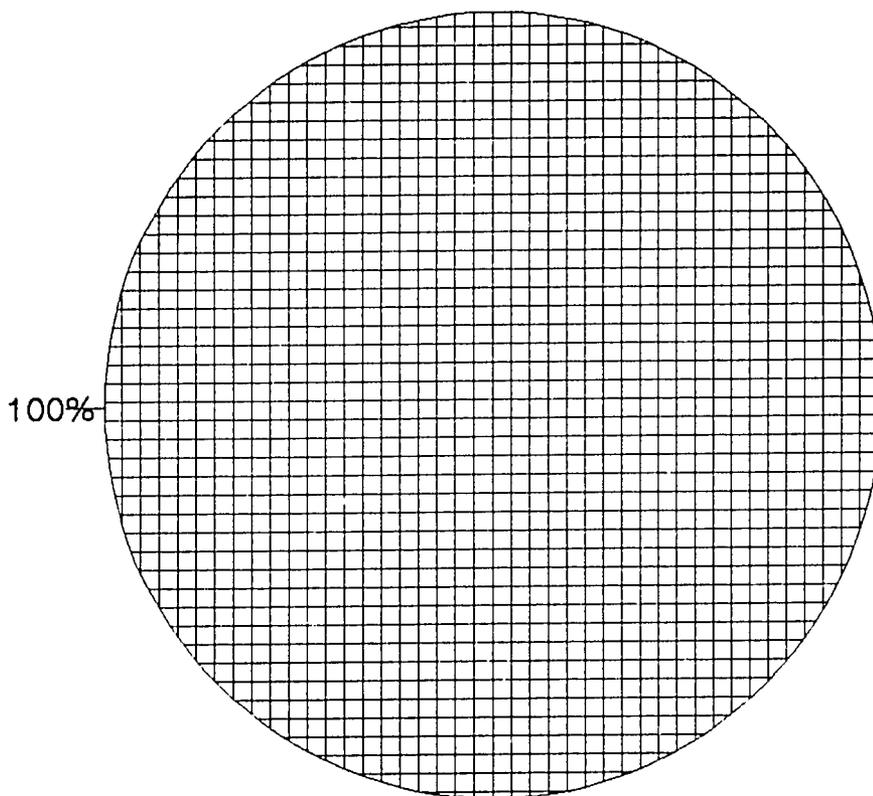


Total Sample: n= 8 (Ass PAMs & PAMs: n=6)

145-

Figure 9:

2.3.9. PAMs Language Skills Zambia



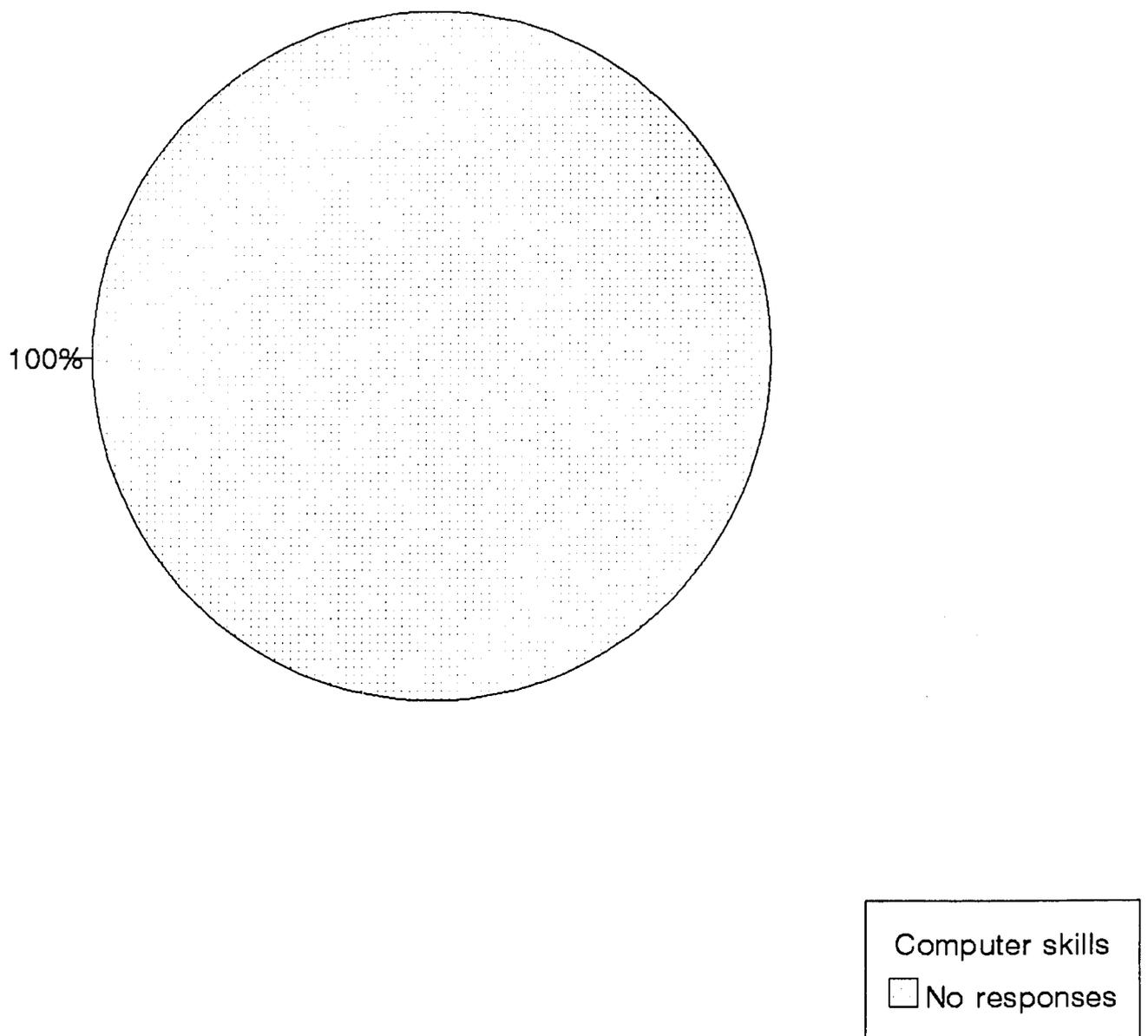
Language skills
▣ Yes responses

Total Sample: n=8 (Ass PAMs & PAMs: n=6)

Figure 10:

2.3.10a PAMs Computer Skills

Zambia

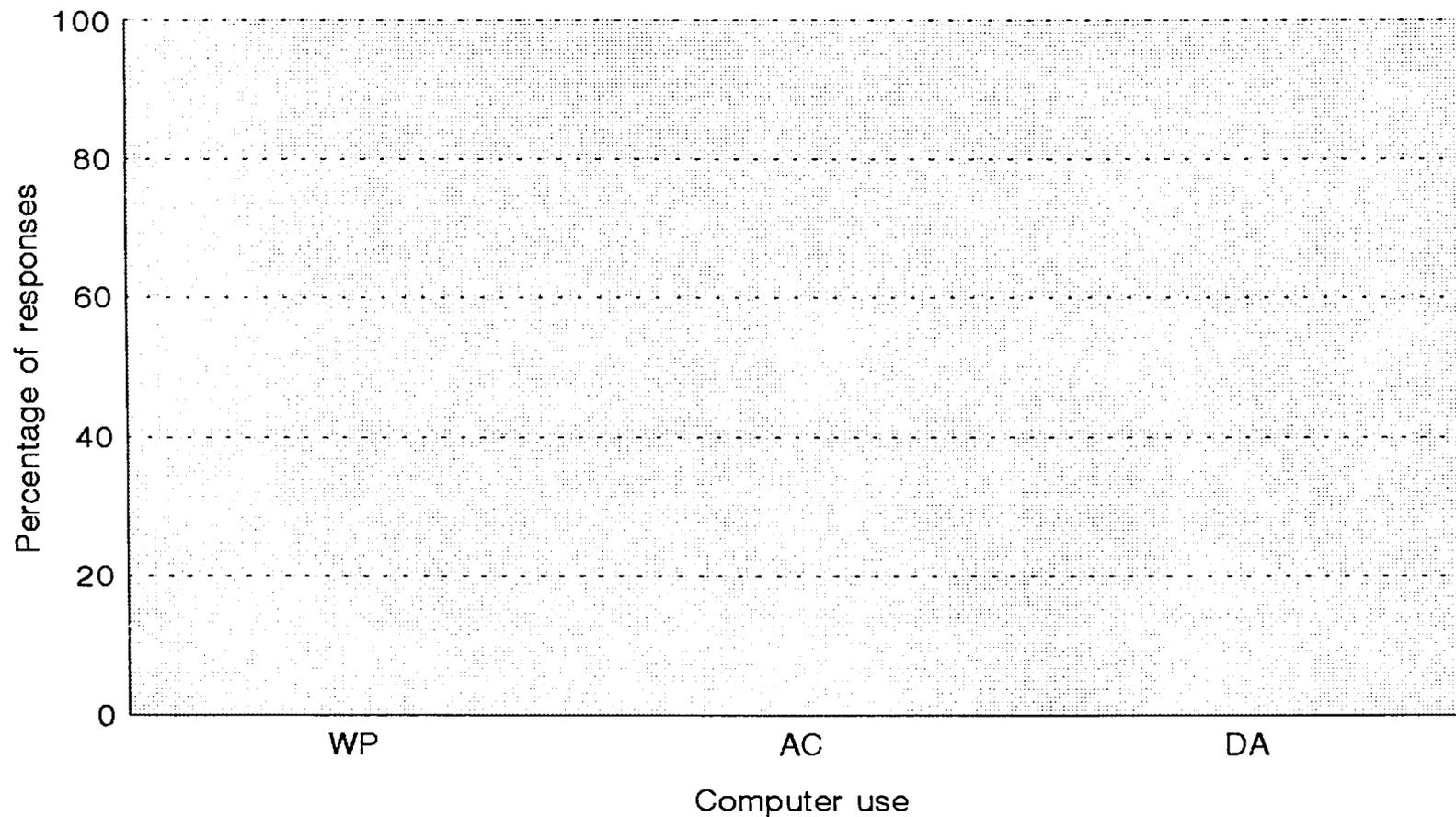


Total Sample:n=8 (Ass PAMs & PAMs:n=6)

2.3.10.b PAMs Computer Uses

Zambia

148



Total Sample:n= 8 (Ass PAMs & PAMs:n=6)

Figure 14:

2.3.11 PAMs identified Training priorities:
Zambia

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

Total sample: n=8

Asst PAMs & PAMs combined: n=6

2.3.12 PAMs training received:
Zambia

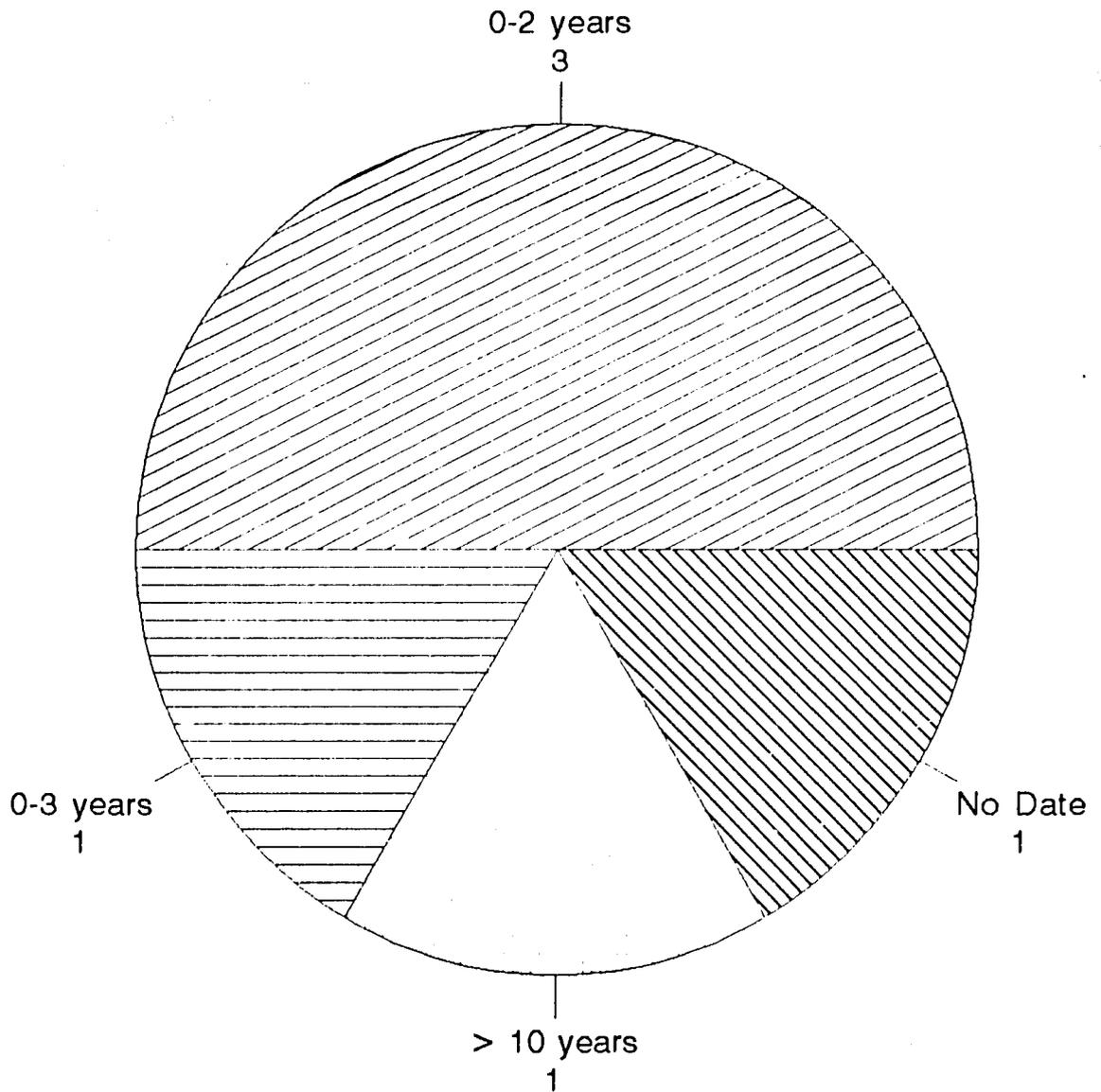
151

	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=8

Asst PAMs & PAMs combined: n=6

2.3.12d PAMs years since formal wildlife training Zambia

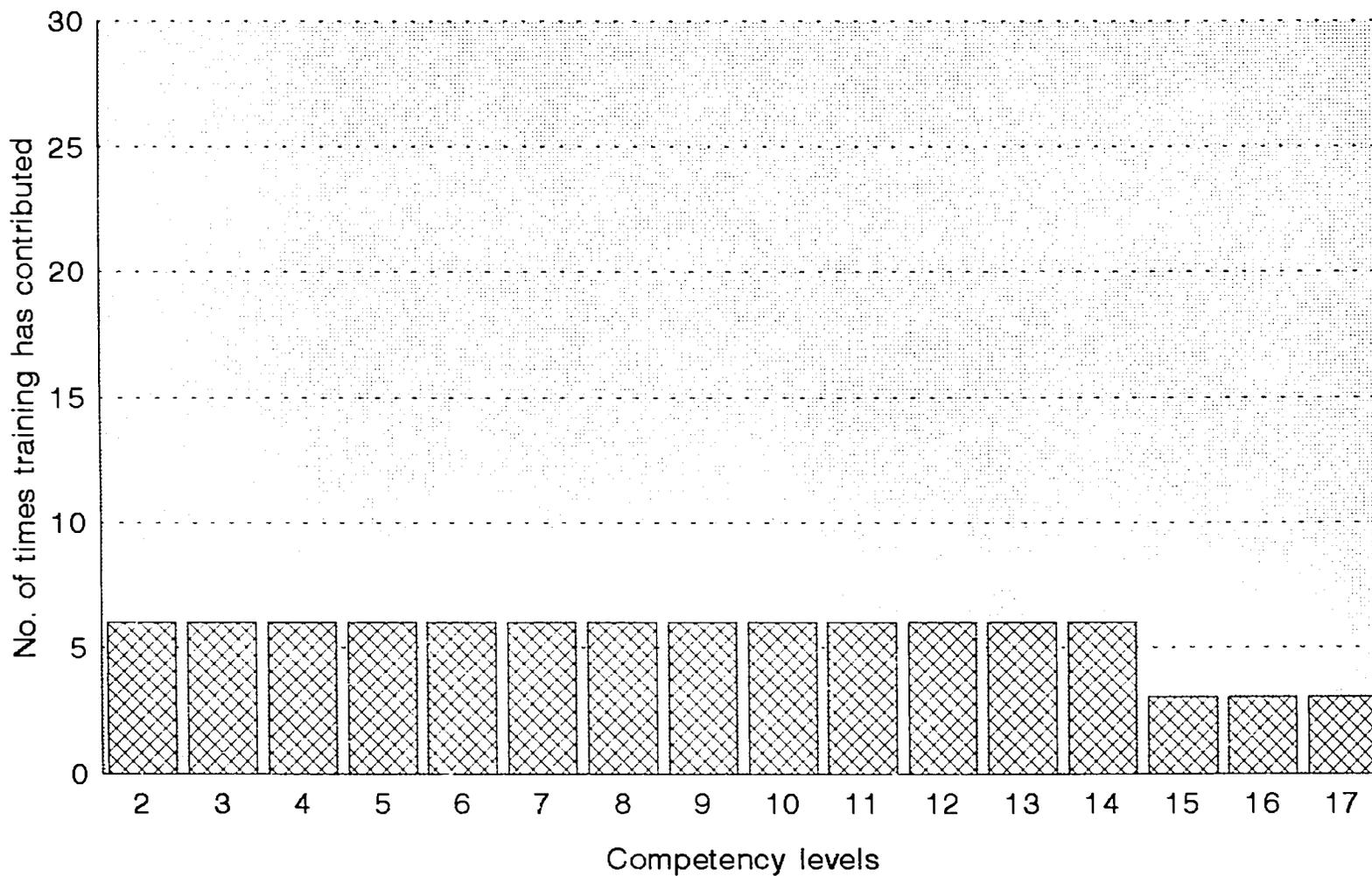


Total Sample n = 8 (Ass PAMs & PAMs n = 6)

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

Zambia

152



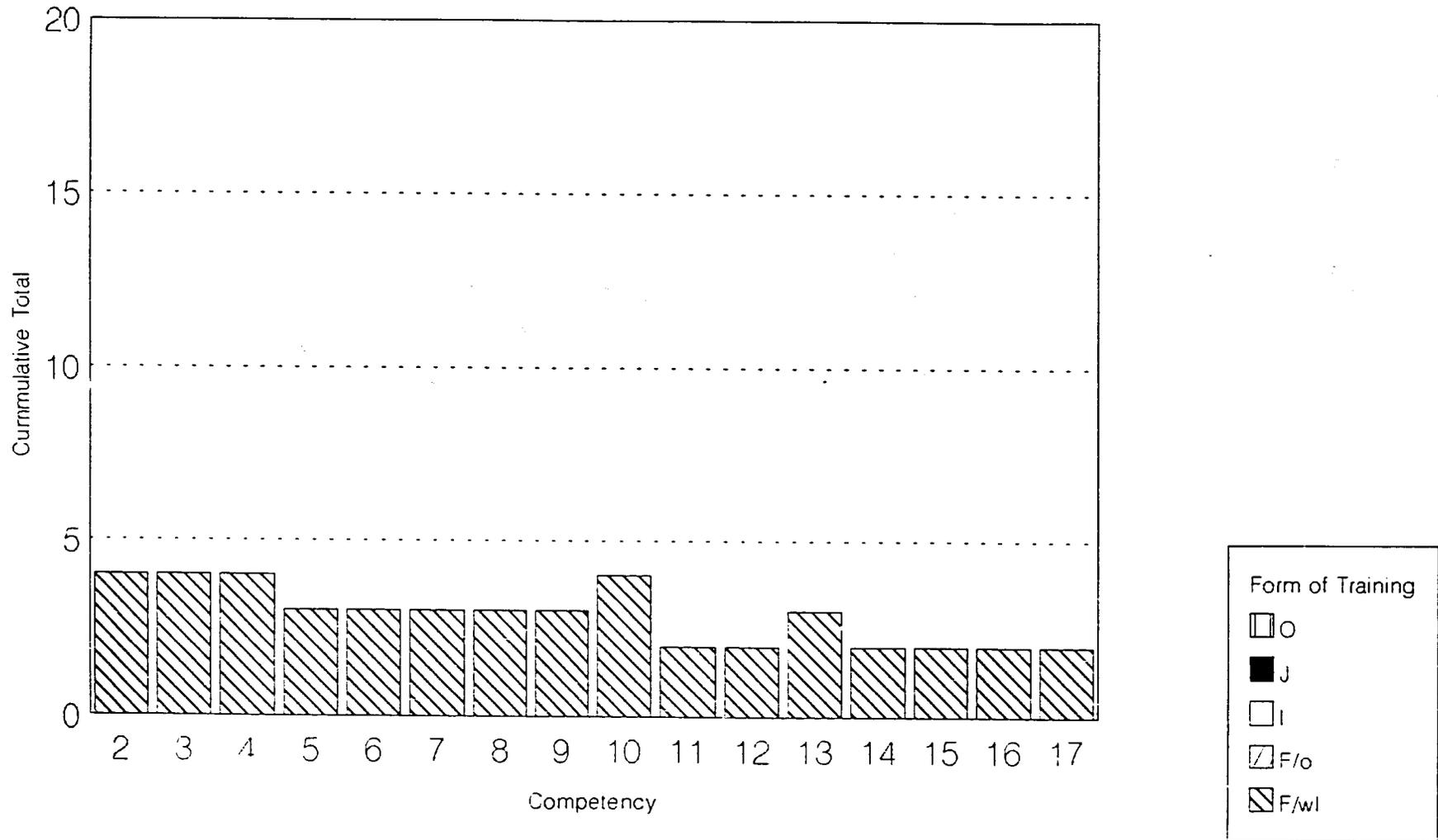
Total Sample: n= 8 (Ass PAMs & PAMs: n= 6)

Figure 11:

2.3.12.g.1 PAMs training that has contributed most: n=1-5

Zambia

253

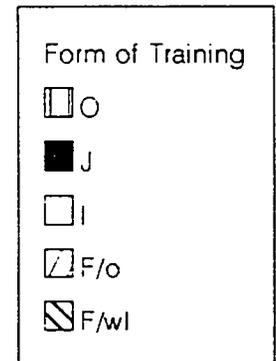
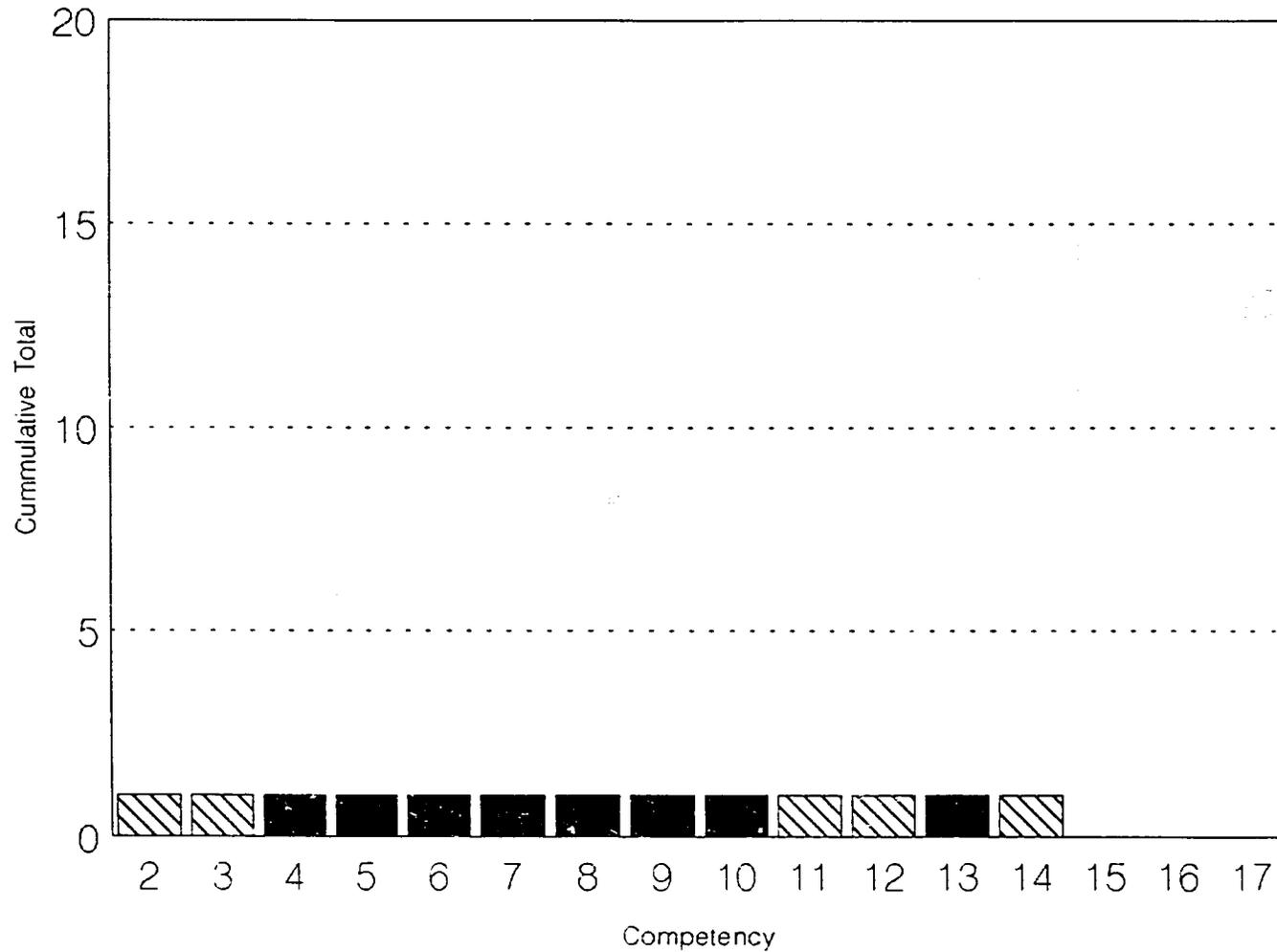


Total Sample n=8 (PAMs 3, Ass PAMs n=6)

2.3.12.g.2 PAMs training that has contributed most: n=6-10

Zambia

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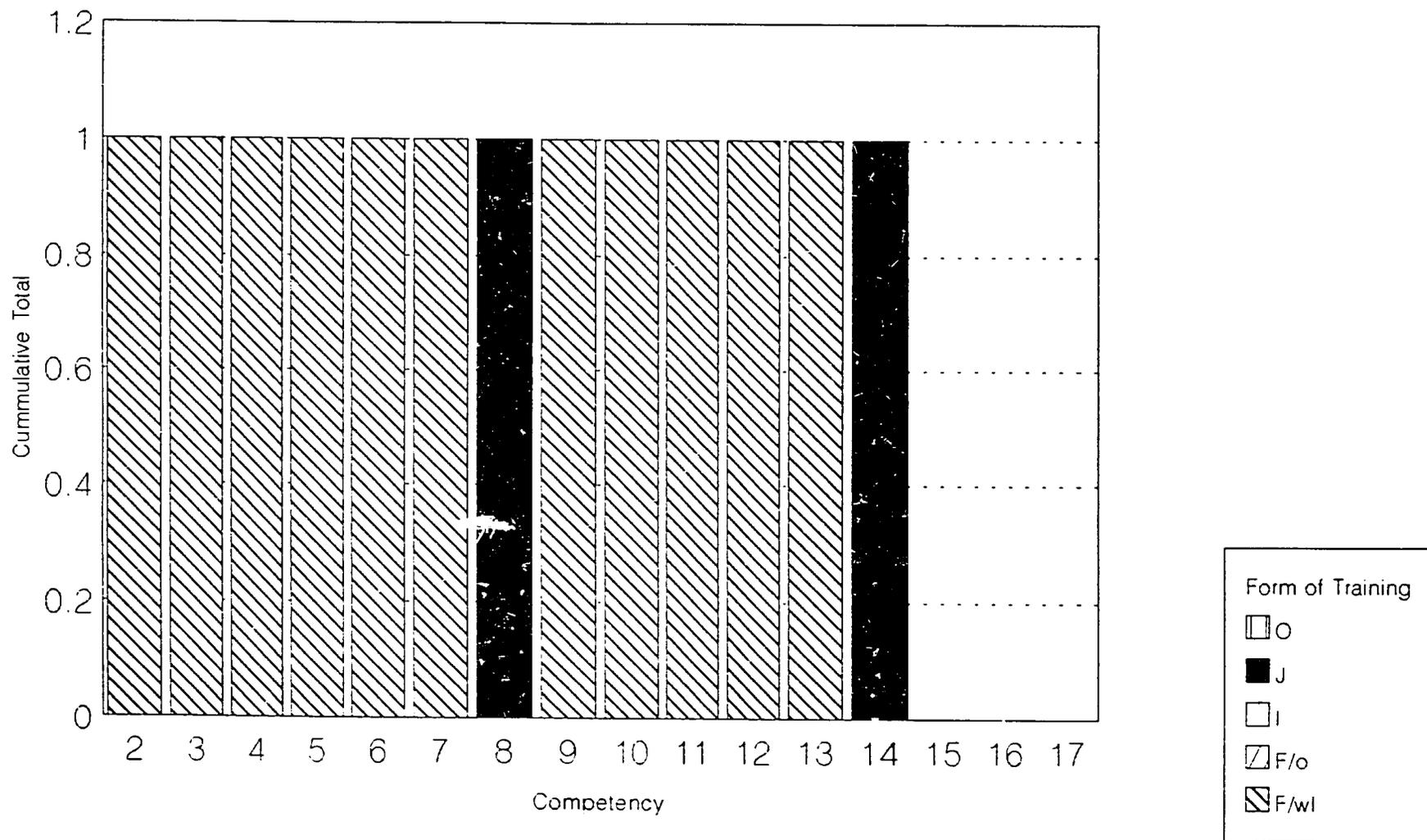
Total Sample n=8 (PAMs & Ass PAMs n=8)

Figure 13:

2.3.12.g.3 PAMs training that has contributed most: n > 10

Zambia

155



Total Sample n=3 (PAMs & Ass PAMs n=6)

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

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MAIN DIVISIONS	COMPETENCIES													
	Knowledge						Mental & Social skills							
	2	3	4	5	6	7	8	9	10	11	12	13	14	
A					2							1		
B			1		1			1	1	1			1	
C			1		1		2	1						
D					1		1	1	2	1	1		2	
E	0.5				1			1		1	1		1	
F	1.3		3	1	3		4	1			2	2	1	
G	3	1	4	1	2		1	1	2		1	1		
H		3	1		3	1.5		1	1	1				
I	1			4	2	1	3	2	3	4			1	
J	1.5			1	2			2	1	1		3	1	
K	2		1.3			1	1							

Total sample: n=8

Asst PAMs & PAMs combined: n=6

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

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MAIN DIVISIONS	COMPETENCIES													
	Knowledge						Mental & Social skills							
	2	3	4	5	6	7	8	9	10	11	12	13	14	
A					2							1		
B			1		1			1	1	1			1	
C			1		1		2	1						
D					1		1	1	2	1	1		2	
E	0.5				1			1		1	1		1	
F	1.3		3	1	3		4	1			2	2	1	
G	3	1	4	1	2		1	1	2		1	1		
H		3	1		3	1.5		1	1	1				
I	1			4	2	1	3	2	3	4			1	
J	1.5			1	2			2	1	1		3	1	
K	2		1.3			1	1							

Total sample: n=8

Asst PAMs & PAMs combined: n=6

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

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MAIN DIVISIONS	COMPETENCIES													
	Knowledge						Mental & Social skills							
	2	3	4	5	6	7	8	9	10	11	12	13	14	
A					<i>0/2</i>							<i>0/1</i>		
B			<i>0/1</i>		<i>0/1</i>			<i>0/1</i>	<i>0/1</i>	<i>0/1</i>			<i>0/1</i>	
C			<i>0/1</i>		<i>0/1</i>		<i>0/2</i>	<i>0/1</i>						
D					<i>0/1</i>		<i>0/1</i>	<i>0/1</i>	<i>0/2</i>	<i>0/1</i>	<i>0/1</i>		<i>0/2</i>	
E	<i>0/0.5</i>			<i>2/0</i>	<i>0/1</i>			<i>0/1</i>		<i>0/1</i>	<i>0/1</i>		<i>0/1</i>	
F	<i>0/1.3</i>		<i>0/3</i>	<i>0/1</i>	<i>0/3</i>		<i>0/4</i>	<i>0/1</i>			<i>0/2</i>	<i>1/2</i>	<i>0/1</i>	
G	<i>0/3</i>	<i>0/1</i>	<i>0/4</i>	<i>0/1</i>	<i>0/2</i>		<i>0/1</i>	<i>0/1</i>	<i>0/2</i>		<i>0/1</i>	<i>0/1</i>		
H		<i>0/3</i>	<i>1/1</i>		<i>0/3</i>	<i>0/1.5</i>		<i>0/1</i>	<i>0/1</i>	<i>0/1</i>				
I	<i>1/1</i>			<i>0/4</i>	<i>0/2</i>	<i>0/1</i>	<i>0/3</i>	<i>0/2</i>	<i>0/3</i>	<i>0/4</i>			<i>0/1</i>	
J	<i>0/1.5</i>			<i>0/1</i>	<i>0/2</i>			<i>0/2</i>	<i>0/1</i>	<i>0/1</i>		<i>0/3</i>	<i>0/1</i>	
K	<i>2/2</i>		<i>4/1.3</i>			<i>1/1</i>	<i>0/1</i>							

Total sample: n=8

Asst PAMs & PAMs combined: n=6

Identified training priorities: represented by italics

Total gaps: represented by normal numbers

**ANNEXE 4:
OVERALL ATTITUDES RESPONSES**

DATA SHEET D: ATTITUDES

A. Instilling Work Ethics

- A1. referring staff regularly to Administrative Orders on codes of work conduct and behaviour in staff meetings, seminars.
- A2. showing hard work and dedication through example.
- A3. ensuring objectives of the organisation are explained to staff
- A4. acknowledging good work in others while positively criticising 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 programme formulation.
- A10. cultivating good working relationships which creates rapport for instruction.
- A11. ensure that staff are suitably equipped and motivated as regards their training and tools (equipment) needed to perform efficiently.
- A12. never criticise organisation openly.
- A13. respect agreements
- A14. giving others responsibility
- A15. objectivity and justice of personnel

B. Instilling commitment to conservation

- B1. showing dedication to national, regional and local conservation objectives or give example of commitment to conservation.
- 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 programmes.
- 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 etc.
- 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.
- B13. researching continual on animal population, behaviour + habitat.
- B14. regulating and controlling exports and imports of scheduled and non-scheduled animals.
- B15. delegating responsibility to others
- B16. Active participation of PAM in conservation activities with regular surveillance of work carried out by staff.
- C. Instilling Healthy Attitudes to Adjacent Communities
- C1. accepting the validity of community participation in protected area management and involving them.
- C2. listening to and demonstrating willingness to understand community areas.
- 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 jeopardising the area's conservation objectives.
- C8. Education for local communities in conservation.
- C9. Law enforcement.