

PARCS

PROTECTED AREA CONSERVATION STRATEGY

ASSESSING THE TRAINING NEEDS OF PROTECTED
AREA MANAGERS IN AFRICA



BOTSWANA



The WILDLIFE CONSERVATION SOCIETY

**Biodiversity
Support
Program**



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PARCS

Country Report: BOTSWANA

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
SECTION 1: PROTECTED AREA CONSERVATION STRATEGY (PARCS)	7
1.1 The Approach	7
1.2 The Project	8
1.3 Over-arching Questions	9
1.4 The Process	10
1.5 Goal of the Methodology	11
1.6 Target Groups	12
1.7 Target Countries	13
1.8 Preliminary Groundwork	14
SECTION 2: TRAINING NEEDS ASSESSMENT	17
2.1 Introduction	17
2.1.1 Protected Area System	17
2.1.2 Protected Area Authority	18
2.1.3 National Conservation Policy	19
2.1.4 Status of Current Training Programs: The Botswana Wildlife Training Institute (BWTI)	20
2.2 Methods	22
2.2.1 Introduction	22
2.2.2 Data Collection	22
2.2.3 FODs Training Needs	23
2.2.4 Data Analysis	23
2.2.5 Analysis of Questionnaire	24
2.2.6 Gender Ratio	25
2.3 Results and Discussion	25
Introduction	25
2.3.1 Data Collection	25
2.3.2 Respondents' Years of Service & Years as a PAM	26
2.3.3 What are the Responsibilities of a PAM?	26
Job Description	26
Validation Analysis for Knowledge	27
Technical	27
Management	28
Planning	28
Legal	28
Policies & Procedures	29
Finance & Accounting	29
Changing Views on the Role of a PAM	30
Discussion	30
2.3.4 Are PAMs skilled to the level necessary to do the job?	31
'Gap' Analysis for Knowledge Skills	31
Technical	31
Management	32
Planning	32

Legal	33
Policies & Procedures	33
Finance & Accounting	34
Discussion	34
Validation Analysis for Mental & Social Skills	36
Attitudes	38
Language Skills	40
Computer Skills	41
2.3.5 What training has been received by PAMs?	41
Training Priorities	44
2.3.6 What are the constraints on PAMs meeting their responsibilities?	45
2.3.7 Assessment of FODs	46
2.3.8 What further training is required?	46
 SECTION 3: TRAINING OPPORTUNITIES ASSESSMENT	 48
 SECTION 4: RECOMMENDATIONS	 50
4.1 What present programs could be enlarged or restructured?	50
In-Service Training: Rehabilitation of BWTI	50
On-the-Job Training: Cross-Divisional Assignment	50
4.2 Other recommended training initiatives and programs	51
 REFERENCES	 52
 SECTION 5: ACKNOWLEDGEMENTS	 53
 SECTION 6: ANNEXES	
Annexe 1: Protected Area Conservation Strategy (PARCS): The Methodology	
Annexe 2: Training Opportunities Assessment	
Annexe 3: 'Gap Analysis' Results	

SECTION 6:

ANNEXES

a

EXECUTIVE SUMMARY:

BOTSWANA TRAINING NEEDS AND TRAINING OPPORTUNITIES ASSESSMENTS

Introduction

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

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

The PARCS training needs and training opportunities assessments address two questions:

- (i) What is needed in respect of PAM training to enhance the conservation of Africa's protected areas?; and
- (ii) What can be done to provide such training for PAMs?

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

Training Needs Assessment

Within the Department of Wildlife & National Parks (DWNP), initial, basic wildlife management training is given at Botswana Wildlife Training Institute (BWTI) at Maun. Formal wildlife training is provided for qualified and experienced intermediate staff at Mweka College, Tanzania.

The DWNP 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.

Eight PAMs and Assistant PAMs, two FODs and a Trainer completed questionnaires; interviews were also held with directorate staff at departmental headquarters.

Analyses of questionnaire data provided the backbone of the training needs assessment. The levels of skill required for the job (as set by PARCS² in the questionnaire) were first validated to ensure that the questionnaire truly reflected the scope of responsibilities held by PAMs in Botswana. 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 general areas:

- Intervention techniques/programs (policies and procedures);
- Infrastructure techniques (tourism and visitors);
- Context of protected area location (public relations);
- People versus protected area conflict management;
- Policies and procedures related to community conservation programs;
- Research budgets and allocations;
- Tourism/visitor services planning; and
- Legal aspects of collecting and exporting specimens and materials.

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 professional development and refresher courses regularly and monitors and evaluates training programs undertaken

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

For Main Divisions of the Job (the principal areas of responsibility of PAMs), key training needs were identified in:

- H: Ensuring harmonious relationships with neighboring communities.
- G: Ensuring intervention programs are completed to budget and time-table.
- F: Ensuring optimum levels of visitor satisfaction.
- B: Ensuring appropriate infrastructure is developed and maintained within budget.
- D: Ensuring development of tactical plans and budgets.
- C: Ensuring the financial and accounting integrity of the protected area.
- E: Ensuring all activities with the protected area comply with laws and regulations.
- J: Representing the protected area and its interests in public meetings.
- K: Ensuring an appropriate balance between resource conservation and use in the protected area.
- I: Being aware of research activities and progress against plan.
- A: Ensuring the availability of a competent and well-motivated staff.

Constraints on PAMs meeting their job responsibilities include:

- the lack of a well-structured In-Service training program (at BWTI) that addresses the skill deficiencies identified by both PAMs themselves and their supervisors; and
- limited opportunities for On-the-Job training.

A proposal has been tabled to rehabilitate BWTI to meet the training demands of DWNP in light of its expanded mandate to implement national policies of wildlife, conservation & tourism.

FODs' training needs were identified as:

- Staffing and personnel management, including monitoring and evaluation of training records of all levels of staff. Closely linked to staff management was the need for skills in developing and preparing job descriptions.
- Tourism/visitor management, and all aspects of this management component (from visitor services to visitor impacts).
- Development and management of community conservation programs (such as CAMPFIRE).

Training Opportunities Assessment

Annexe 2 lists all the institutions presently attended by, or potentially available to, staff of DWNP.

Recommendations

In-Service Training: BWTI Rehabilitation

The most significant training initiative potentially underway for PAMs in Botswana is the rehabilitation of BWTI. This restructuring is specifically designed to address the training needs of DWNP in light of its largely expanded mandate to implement national policies relating to wildlife, conservation and tourism. All cadres of staff are expected to benefit from training offered at BWTI, but initially, the main emphasis will be on induction/basic training for new recruits into DWNP.

An opportunity exists therefore, to take results from the PARCS Phase I training needs assessment and suggest their incorporation into the new training modules to be designed for BWTI. The titles of proposed modules cover many of the key areas of skills training identified by PAMs. By reviewing in detail specific skills requiring further development (see Gap Analysis in this report), recommendations for including appropriate subject matter, at the required skill level, could be made to ensure that PAMs receive the training they have identified as being necessary to effect their job responsibilities.

PARCS could play a pivotal role in identifying the topics that need to be included in training modules designed for PAMs, in particular, topics that are not presently covered

in the proposed list of modules scheduled to be developed under the rehabilitation scheme. If there were interest and available resources, PARCS could be involved in the early stages of module development to ensure that the training needs identified for PAMs in the Phase I assessment were correctly incorporated in to the modules.

On-the-Job Training: Cross-Divisional Assignment

Opportunities for On-the-Job training need to be created for PAMs. Lack of such opportunities is seen as a major constraint on PAMs effectively carrying out their job responsibilities.

Insufficient devolvement of authority comes down to PAMs in the field to allow them to make on-the-spot decisions on even very basic protected area management issues. Such decision-making authority is essential to On-the-job training.

Furthermore, PAMs need to be more involved with the activities and programs of other Divisions of DWNP, at least from a "working knowledge" point-of-view, which have a direct bearing on effective protected area management. Law enforcement, conservation education, and research and utilization are all major components of a PAM's responsibilities, and it is strongly recommended that they are exposed to these components by periodic, short-term, on-the-job training assignments in the different Divisions of DWNP (Conservation Education, Management & Utilization, Research). Special attention would need to be paid to skills development in areas identified by the training needs assessment (gap analysis).

Cross-Divisional on-the-job training could be directly linked to modular training at BWTI. New skills/concepts taught to PAMs could be tested during short-term attachments to appropriate Divisional staff.

One objective of the PARCS project is to assist participating, and more specifically, target countries to develop appropriate and sustainable training programs for PAMs. Another objective is to promote inter- and intra-regional approaches to training by providing opportunities for contact between PAMs from different countries and for them to participate in regional training programs. For example, a key area of training identified by PAMs in Botswana was in community-based conservation projects.

Another training idea would be to send selected PAMs to Zimbabwe to get first-hand experience of the CAMPFIRE

program to enhance their knowledge and understanding of how community-based wildlife conservation projects are designed and operated.

**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 do this 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 to implement recommendations from the project's training needs and opportunities assessments; and
- c developing a broad series of recommendations for training protected area management staff.

1.2.2 The PARCS project is envisioned as a multi-year activity. During the first year (Phase I) an in-depth assessment of training needs, priorities, constraints, and opportunities, 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 addresses the main points outlined in Section 1.2 above. These questions are listed below and are divided into broad, general categories of enquiry each with a sub-set of subordinate, specific ones.

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 FARCS' perceptions?
- d How do trainers' perceptions compare with PAMs' perceptions?
- e Has the job of a PAM changed over the last 20 years?
- f What are others' perceptions? Do they match PAMs' and/or FARCS'?

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

c Does training received cover all major requirements of these areas?

d How well does existing training prepare PAMs? Does type of training received reflect the degree for preparation of 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 managed 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 (AID). Supplementary funding has been provided by WWF, with AWF, WCS and WWF contributing 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 13 September and 2 October, 1992. The methodology was also reviewed by the core team in September and amended in light of those reviews.

1.5 GOAL OF THE METHODOLOGY

1.5.1 The main tool of the training needs assessment is a questionnaire (Annexe 1) 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 outside 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 and analyses across the three regions of Africa.

1.5.2 A strength of the questionnaire is that it is not just a means of gathering information, but it is a training tool in and of itself. The process of leading the PAM through the questionnaire has been designed to stimulate thought and discussion on the important facets of protected area management. In fact, the questionnaire may well influence the way some PAMs look at their jobs and their role in managing those 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). In order to identify the appropriate individuals for the assessment in each country, it is necessary to carefully examine organizational structures and job descriptions.
- 1.6.2 In some countries problems in protected area management may result from the placement of higher level staff who have little, if any, experience in such fields as management and planning. Hence, in countries where the PARCS RM and his/her core team representative deemed it possible and desirable, the assessment was broadened to include the level of management above the PAM (i.e., Field Operations Director (FOD) at the government's conservation authority's (CA) headquarters).
- 1.6.3 It 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 have therefore decided to include in the assessment, individuals directly below the PAM. In Tanzania, for example, there are senior wardens, wardens, and assistant wardens, so assistant wardens may be included in the assessment.

- 1.6.4 The categories of people who may be asked to participate in the assessment are listed below:
- a Subordinates to the PAM (e.g., assistant warden) and other individuals who are likely to work as PAMs in the future;
 - b Protected Area Manager (PAM);
 - c Officers senior to PAMs, and other individuals who have recently worked as PAMs;
 - d Field Operations Director (FOD);
 - e Trainers/lecturers at wildlife institutions where PAMs receive training; and
 - f Research Officers.

1.7 TARGET COUNTRIES

- 1.7.1 The PAMCS 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/unrest;

- d relative importance placed on a country's biodiversity and protected areas vis a vis other countries in the region; and
- e potential for follow-on activities.

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

1.7.4.1 The categorization of countries is as follows:

Eastern Africa

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

Limited Assessments: Somalia.

Central Africa

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

Limited Assessments: Burundi, Central African Republic, Gabon.

Southern Africa

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

Limited Assessment: Mozambique.

Special Assessment (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 manner, 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, within budget; and
 - h Managing concessions in protected areas.
- 1.8.7 The FOD was asked to:
- a verify that these are the key aspects of the list and to comment on the list;
 - b indicate what kind of training is needed to accomplish these tasks; and
 - c discuss what the constraints to obtaining this training.

**SECTION 2:
TRAINING NEEDS ASSESSMENT**

2.1 INTRODUCTION

2.1.1 Protected area system

- 2.1.1.1 Botswana lies within two of Africa's major biomes (phytochoria) - the Zambezi Regional Centre of Endemism (ZRCE) and the Kalahari-Highveld Transition Zone (KHTZ). 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. KHTZ is floristically quite rich with more than 3500 spp; however, it is faunistically impoverished with low levels of endemism and biodiversity. [For further details see White, 1983; Mackinnon & Mackinnon, 1986 and IUCN, 1987.]
- 2.1.1.2 Botswana has three categories of land tenure: communal grazing areas, state land, and commercial farming areas. Seventeen percent of the country is under National Parks and Game Reserves (Table 1) and less than 1% is forestry land. There are three National Parks, eight Game Reserves and five Forest Reserves.
- 2.1.1.3 The Government of Botswana has recently created twelve new Wildlife Management Areas (WMAs) whose stewardship will be turned over to local communities. DWNP will be responsible for implementing national policies of resource management, conservation, and tourism in these areas.
- 2.1.1.4 The twelve new WMAs cover an area of 165,952 km², or 28% of the country. Thus, DWNP will be responsible for wildlife conservation and management programs in over 40% of Botswana (Table 2).
- 2.1.1.5 WMAs will be areas where both consumptive and non-consumptive use of wildlife will be the primary form of land use. None of the WMAs has been gazetted as they are in various stages of acceptance at local authority level.

BEST AVAILABLE DOCUMENT

Table 1 National Parks, Game Reserves, and Forest Reserves of Botswana, and their area

Name of Protected Area	Status	Area (km ²)
Chobe	National Park	11 000
Nxai Pan	National Park	2 100
Gemsbok	National Park	26 000
Central Kalahari	Game Reserve	52 800
Moremi	Game Reserve	3 900
Mabuasehube	Game Reserve	3 900
Makgadikgadi	Game Reserve	2 500
Khutse	Game Reserve	1 800
Manyelanong	Game Reserve	3
Maun	Game Reserve	3
Gaberone	Game Reserve	4
Chobe	Forest Reserve	2 400
Kasane	Forest Reserve	1 200
Kazuma	Forest Reserve	128
Sibuyu	Forest Reserve	1 010
Maikaelelo	Forest Reserve	300

UNIVERSITY OF BOTSWANA

Table 2 Proposed Wildlife Management Areas, Botswana

Name	Area (km ²)
Nunga	2 334
Masama/Kanyu	12 938
Tamafupa	11 138
Ngamiland	22 444
West Sandveld	3 234
Grootlaagate	3 853
East Ghanzi	55 159
West Ghanzi	11 616
Kgalagadi	34 481
Kweneng	6 075
Ngwaketse	2 672

2.1.2 Protected Area Authority

2.1.2.1 The Department of Wildlife and National Parks (DWNP) is responsible for protected area management and conservation in Botswana. It also controls hunting through the issue of licenses and permits and is responsible for the implementation of wildlife conservation education programs.

2.1.2.2 DWNP consists of six Divisions:

- Research;
- National Parks & Game Reserves;
- Wildlife Management & Utilization;
- Administration;
- Training Institute; and
- Conservation Education.

2.1.2.3 The organizational structure of DWNP is given below.

DIRECTOR

DEPUTY DIRECTOR

Management

Technical Cadre	District Wildlife	Corporate Computer Management	Human Resources	Aviatic Unit	Unit
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Divisions

Nat. Parks	Wildlife Reserves	Management Conserv.	Research & Utilization	BWTI
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DIVISION OF NATIONAL PARKS & GAME RESERVES

ASSISTANT DIRECTOR (FOD)

Regional Wildlife Officer

Warden (PAM)

Assistant Warden

Scouts

2.1.2.3 The DWNP structure is like none other of the countries participating in the PARCS Southern Africa Region. With its many Divisions, each headed by an Assistant Director, the role of protected area management is very much fragmented. The result of this structuring is that PAMs are mainly responsible for visitor management and not much else.

2.1.3 National Conservation Policy

2.1.3.1 A Wildlife Conservation Policy received Parliamentary approval in 1986. The WCP objectives were:

- to increase use of wildlife resources;
- to develop a commercial wildlife industry for economic opportunities in the rural sector; and
- to increase the supply of game meat.

2.1.3.2 Sustainable utilization of resources was to be pursued by developing resources into a rurally-based industry as well as a source of nutrition, and therefore ensuring the participation and benefit of citizens. Existing legislation was to be adapted, or new legislation introduced, to facilitate development of the wildlife resource industry.

2.1.3.3 The Ministry of Commerce and Industry carried out a cost-benefit analysis of the WCP and showed that for every additional cost to the Government of 1 Pula, benefits of 15 to 26 Pula would accrue. Furthermore, at least 500 new permanent jobs would be created.

2.1.3.4 Additional comments on the WCP are:

- the importance of granting land-owners custodial rights to wildlife;
- compulsory requirements for fencing for wildlife utilization activities;
- minimizing taxation on wildlife production; and
- minimizing licensing fees for citizens.

2.1.3.5 A separate Government Policy on Tourism was approved in 1990. The objectives of the Tourism Policy are to provide sustainable benefits to Botswana from tourism resources such as landscape, wildlife and culture.

- 2.1.3.6 Development of tourism is to be primarily a private sector concern, with Government acting to promote and regulate the industry.
- 2.1.3.7 The Wildlife and Tourism Policies are linked under the umbrella of the National Conservation Strategy (NCS) set out in 1990. The NCS goals are to:
- increase the effectiveness with which natural resources are managed and used, with optimization of benefits and minimization of environmental impacts; and
 - integrate the activities of sectoral ministries and interest groups to improve the development of national resources through conservation and vice versa.
- 2.1.3.8 The NCS identifies wildlife utilization as one of the main sustainable development opportunities based on natural resources.
- 2.1.4 Status of Current Training Programs: The Botswana Wildlife Training Institute (BWTI)**
- 2.1.4.1 The Botswana Wildlife Training Institute (BWTI) at Maun was established in 1979. At the time its main objectives were to provide pre- and in-service training programs for all categories of staff, serve as an operational base for the dissemination of information on wildlife conservation, and provide facilities for wildlife education for Government authorities and the general public (Pfau, 1991). It was also recommended that BWTI offers training for community leaders of wildlife utilization schemes and for personnel from private sector wildlife industries (Pfau, op. cit.).
- 2.1.4.2 There is a proposal to rehabilitate BWTI in order to meet the training demands of DWNP which is to assume responsibility for wildlife management on tribal and state lands and wildlife management areas which together constitute 23% of Botswana's land area (Chemonics/NRMP, 1991).
- 2.1.4.3 An evaluation of BWTI has already been conducted (Pfau, op. cit.), which is closely linked to the training objectives of the Chemonics/NRMP (1991) proposal. The

key points raised in these reports, relating to training in DWNP in general, and specific to BWTI, are:

- DWNP needs to undergo a transformation over the next decade to accomplish its vital role in implementing national policies on wildlife, conservation and tourism
- This transformation must develop the capacity, through training, to support policy goals.
- DWNP will be unable to meet its responsibilities unless training & management are radically reformed.
- Supervisors expect too much from formal training, and too little from on-the-job training. This thinking needs to be altered.
- A comprehensive and effective training program will require a complete overhaul of BWTI.
- The proposed training and management program needs to consist of induction/basic and certificate training at BWTI, with additional, specialized training obtained through other institutions, regional and international.
- All DWNP wildlife staff should participate in an induction training course (at BWTI) to establish a uniform understanding of the Department's goals and responsibilities.
- The nine-month certificate course at BWTI should be restructured as a series of training modules, each addressing a group of closely-related skills.

If the proposal to re-habilitate BWTI comes to fruition, then many, if not most, of the training needs of PAMs identified later in this report will be adequately addressed. It is therefore essential that any action to address training needs of PAMs in Phase II must be carefully considered in light of initiatives already proposed. Reference to the Chemonics/NRMP proposal document should be mandatory at all stages in any proposed activities in Botswana.

- 2.1.4.1 There are seven formal wildlife institutions in the region offering diploma courses in wildlife management (Annexe 2). However, only one institution, Mweka College, remains the best alternative despite a number

of constraints (gaps in syllabus, decreasing staff, and inadequate scholarship funding).

The best training for field-biologists is available at the various Technikon programs in South Africa and Namibia. However, a major constraint on Botswana nationals attending these institutions is the high entry-level requirements.

- 2.1.4.2 University training, both under-graduate and post-graduate, in wildlife-related subjects is available from at a number of traditional institutions (Annexe 2). Recruitment into DWNP of B.Sc. graduates from University of Botswana is increasing.

2.2 METHODS

2.2.1 Introduction

- 2.2.1.1 At the end of 1991 approximately 44% of all supervisory, scientific and training positions in DWNP were either vacant or occupied by expatriates (including Peace Corps Volunteers).

This shortage of staff was still apparent at the time the RM visited Gaborone to interview PAMs for the training needs assessment. Four PCVs had been acting as PAMs, some with Botswana counterparts, for more than a year. That situation clearly placed a constraint on PAM training needs assessments in Botswana since PCVs could not contribute in a meaningful way to the self-evaluation of job skills. PCV-PAMs were therefore asked only to validate skills levels (as they perceived them for PAMs in Botswana), and not indicate their own levels of skill for each component of the job.

2.2.2 Data Collection

- 2.2.2.1 Three visits were made to Botswana to hand out questionnaires and conduct interviews: 26 November-2 December, 1992; 14-25 January and 5-6 May, 1993. Locations visited included the Botswana Wildlife Training Institute, Maun; DWNP HQ in Gaborone, and Chobe and Nxai Pan National Parks.
- 2.2.2.2 Before PAMs started to complete the questionnaire, a presentation on the PARCS Project, its goals and objectives was given. The RM introduced the questionnaire as PARCS' perception of the tasks, skills and competencies required to be an effective PAM. It

was then explained that the questionnaire is a tool to help PAMs identify their own training needs.

During a discussion with PAMs following completion of the questionnaire, general views on its utility were sought.

2.2.2.3 Two IUCN categories of protected area fall under the jurisdiction of DWNP: Management Category II - National Parks and Management Category IV - Game Reserve (i.e. GMA). Both categories were included in the questionnaire sample taken in Botswana.

2.2.3 FODs Training Needs

2.2.3.1 The training needs of FODs in Botswana were not determined through questionnaire analysis. These were discussed during interviews and based on questions set out in paragraph 1.8.6.

2.2.4 Data Analysis

2.2.4.1 Results from the analyses of questionnaire data were expected to provide the backbone of the training needs assessment. In the first instance it would be necessary to determine whether or not the levels of knowledge ('some', 'working', 'in-depth') considered appropriate by PARCS for skills in the various competencies within each Main Division of the Job were in agreement with those considered appropriate by the different categories of respondents (Assistant PAMs, PAMs, FODs, Research Officers, Trainers, etc.). A validation analysis was therefore designed which compared PARCS' 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.

2.2.4.2 To determine where a gap in knowledge occurred between what was required for a given skill (as set by PARCS and validated by respondents) and the actual level of knowledge possessed by each respondent, i.e. a training need, a 'gap' analysis was carried out. This analysis involved comparing PARCS' and respondents' scores and looking for positive differences (i.e. gaps of +1, +2 and +3). Positive scores arise when the level of knowledge set by PARCS for a given skill is higher than the level possessed by the respondent. The bigger the

gap, the greater the training need. Negative scores and scores of zero indicate that a respondent has higher knowledge (or at least the same as set by PARCS) than that required for the skill in question.

- 2.2.4.3 Although PAMs were the principal target group for the training needs assessment, other groups (e.g. FODs, Research Officers, etc.) were also asked to complete questionnaires, not to assess their own training needs but rather, to indicate what they thought the levels of skill knowledge were for PAMs they had worked with and/or supervised. This was deemed important from the point of view of obtaining perspectives on PAMs skills and training needs from sources other than PAMs.

2.2.5 Analysis of Questionnaire

- 2.2.5.1 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 and computers.
- DATA SHEET F: For listing the three training priorities identified by respondents linking them to the sixteen Competencies and eleven Main Divisions of the Job in the questionnaire.

Sheet F is also used to list the form of

training considered best to address each training priority.

DATA SHEET G: For summarizing training already received as described in Row L of the questionnaire.

2.2.6 Gender Ratio

2.2.6.1 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 Botswana.

Of the nine Assistant PAMs and PAMs who completed questionnaires and/or interviewed, two were women (including one PCV).

2.3 RESULTS AND DISCUSSION

Introduction

Throughout this Section of the report reference will be made to figures and tables which present results drawn from various analyses of questionnaire data. Each figure and table is defined by a PARCS number which 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.

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 Botswana are given in Table 3.

Table 3 Summary of data collected during two visits to Botswana, November 1992 and January 1993

PEOPLE INTERVIEWED - 18		HOURS OF INTERVIEWS - 24	
QUESTIONNAIRES: GIVEN OUT - 17		COMPLETED - 11	
Position	Interview only	Method * 1 2	Total
PAM + Asst PAM (incl US Peace Corps Vol.)	3	1 7	11
Regional PAM	2		2
FOD (for PAMs)	1		3
Trainer			1
TOTALS	6	1 10	17

* 1 = questionnaire was completed in presence of RM
 2 = questionnaire instructions were explained & respondents complete questionnaire on their own

- 2.3.1.2 Only eleven of the eighteen questionnaires handed out were completed and returned, giving an overall return rate of 61% (Table 2).

One questionnaire was given to a Field Associate, but it was not filled out and returned.

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 eight respondents in Botswana are shown in Figures 1 and 2 (PARCS 2.3.3a and 2.3.3b)

- 2.3.2.2 Figure 1 shows that three of the eight PAMs/Assistant PAMs (including PCVs) who completed questionnaires had served in the DWNP for five or less years, and four for more than ten.

Five respondents indicated that they had held the post of PAM for less than five years, and the other three, between six and ten years (Figure 2).

- 2.3.2.3 Although the sample size is small, there does appear to be a trend towards more recent recruitment of 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 finding needs to 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 DWNP, 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 in Botswana.

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 non-available there was no possibility of matching PARCS' perceptions of responsibilities with any official, written, departmental ones.

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

2.3.3.3 Technical (Wildlife/Tourism) Knowledge

2.3.3.3.1 On the whole PAMs felt that the levels of technical knowledge required for their jobs was lower than the levels set by PARCS. Fourteen of the questions were considered over-scored, with major differences (of 2 or 3) in knowledge levels for "anti-poaching techniques", "intervention methods", "design and placement of tourism infrastructures" and "research methodologies".

2.3.3.3.2 The degree to which PAMs considered PARCS had overscored on technical skill knowledge is a good indication of the rather narrow scope of responsibilities PAMs presently have. Anti-poaching and law enforcement, which are key areas of responsibility for PAMs in countries neighboring Botswana, are here often handled by the Botswana Defence Force (BDF). Similarly, issues relating to intervention procedures and research, are the responsibility of other Divisions (Management & Utilization, and Research) within DWNP.

2.3.3.4 Management Knowledge

- 2.3.3.4.1 For 'Management', PAMs were generally much more in agreement with PARCS as to the levels of knowledge set. If anything, PARCS slightly underscored throughout, but noticeably in the management of casual labor and public relations activities. On the other hand, one PAM felt that PARCS had set the knowledge level for protected area versus conflict management too high.

2.3.3.5 Planning Knowledge

- 2.3.3.5.1 It is, perhaps, a reflection of the few demands on planning skills that PAMs generally considered PARCS to have set knowledge levels in this competency too high.

In keeping with the points made in 2.3.3.3.1, planning anti-poaching patrols, tourism development and protected area management, three key areas that were deemed overscored by PARCS, are largely outside the scope of responsibility of PAMs in Botswana.

However, 90% of respondents thought that PARCS had underscored on knowledge of the development of research plans, which suggests that PAMs need/would like to know more about how research activities are planned and conducted.

2.3.3.6 Legal Knowledge

- 2.3.3.6.1 Although PAMs may not be closely involved with anti-poaching and other legal activities associated with enforcing protected area legislation, the results of the validation exercise here clearly show that they feel they need to know more about civil law and its ramifications. In particular, laws relating to labor employment, concessions, sub-contracting, and community conservation program development were thought to be important enough for some PAMs to disagree with, what was in their opinion, a less-than-appropriate level of knowledge set for these skills by PARCS.

- 2.3.3.6.2 To balance the above view, there were some areas (5 of 9) where PARCS knowledge levels were thought to have been set too high. These were:

- fire-arm regulations;
- contract law;

- intervention procedures (e.g. problem animal control);
- specimen collection and export; and
- public relations issues.

This finding again possibly indicates the little relevance these issues have to PAMs' responsibilities.

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 that a minority of PAMs felt that PARCS had overscored on:

- construction policies;
- standards and procurement;
- finances and accounting; and
- public relations.

2.3.3.8 Financial & Accounting Knowledge

2.3.3.8.1 PAMs have very little to do with the financial aspects of managing protected areas. Financial control is highly centralized in DWNP and PAMs have virtually no immediate access to finances in the field.

The results here support the view that PAMs require only a little knowledge of financial and accounting procedures in their day-to-day management of protected areas. Five of the six skills in this competency were regarded as over-scored by PARCS, particularly general accounting principles, community-based financial processes, research budgeting and cost estimation.

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 4 (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 Botswana, competency averages ranged between 85.3% (Financial & Accounting) to 94.8% (Planning), with an overall accuracy score of 91% (Table 4 [PARCS 2.3.4c]).

- 2.3.3.10 Two FODs and a Trainer (lecturer at BWTI) were requested to complete the questionnaire in order to validate both the PARCS' and average country scores for each question (Table 5 [PARCS 2.3.4d]). In general, there was close agreement between the target validators' scores and those of PARCS and PAMS.

The only major discrepancy was the Trainer's opinion that 'In-depth' Knowledge was required for Research Budgeting, as compared to the 'average' of between 'some' and 'Working'.

2.3.3.11 Changing Views on the Role of a PAM

- 2.3.3.11.1 Among the sample of PAMs/Assistant PAMs (n=8) who completed questionnaires, three (excluding the PCVs) had been in the employment of the DWNP for only up to five years, and three, for more than six (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, and confirmed PARCS' view that their present views on the role of a PAM were not up-to-date.

PAMs who had held their posts for more than five years felt that considerable changes were occurring in protected area management in Botswana. Most notable were the anticipated new responsibilities relating to community-based resource utilization and tourism management.

2.3.3.12 Discussion

- 2.3.3.12.1 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

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

2.3.4 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 16 of the 17 skills (Column 2, Rows A-K) under Technical Knowledge.

Knowledge of the regional/national/global context for the establishment of protected areas was the only skill for which training was not needed.

Most training, i.e., gaps of two or more, was identified for all skills related to:

- infrastructure design and development;

- law enforcement;
- tourism and visitors' services;
- intervention techniques;
- research methodologies; and
- methods of resource conservation.

2.3.4.2.2 These results generally support the claim by FODs that PAMs and Assistant PAMs trained either at Mweka College or BWTI are deficient in those technical skills required to be effective managers of Botswana's protected area system.

The deficiencies may also be indicative of the small scope of responsibilities that PAMs have at present, and the results here could be interpreted as training "wants" as much as training "needs".

2.3.4.3 Management Knowledge

2.3.4.3.1 Again, training needs were identified across the board in this competency, but with two areas in particular needing further skill development: preventative maintenance (buildings and equipment) and protect area versus people conflict management.

2.3.4.3.2 The need for preventative maintenance training is interpreted to mean that because of centralized financial control in DWNP, PAMs often have to conduct emergency repair work on buildings and equipment until money for the purchase of spare-parts, etc. is released. If this system of control continues, then it is imperative that PAMs receive appropriate maintenance training to ensure the continued functioning of his/her protected area.

2.3.4.4 Planning Knowledge

2.3.4.4.1 Planning as a whole was perceived as a key area for further training. Eleven of the twelve skills in his competency require 'In-depth' or 'Working' Knowledge, most of the PAMs responded they had only 'Some'.

The main areas where knowledge levels were identified as needing to be raised from 'Some' to 'In-depth' were:

- financial planning;
- strategic planning;
- visitor/tourism planning;
- developing intervention program plans; and
- resource management planning.

2.3.4.5 Legal Knowledge

2.3.4.5.1 Training needs were identified for eight of the nine legal skills listed. Four skills in particular were considered key areas for higher levels of training by at least 80% of respondents:

- the legal aspects of collecting and exporting materials and specimens;
- laws relating to arrest and prosecution;
- intervention programs; and
- protected area legislation.

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. They have identified especially, the need for greater depth of knowledge of the legal aspects of scientific collection and trade in wildlife products.

2.3.4.6 Policies & Procedures Knowledge

2.3.4.6.1 This competency ranked high in training needs for eight of the ten skills (scores of at least 2). One PAM gave a score of three for training needs in policies related to maintenance and construction, and to procurement procedures.

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

2.3.4.7 Financial & Accounting Knowledge

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

- principles of accounting and internal control;
- community-based financial procedures 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, but the sooner PAMs become familiar with accounting procedures the more competent they will become in dealing with the important financial issues they have targeted as needing improved knowledge. This 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 to be carried out.

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 6 [PARCS 2.3.5d]).

2.3.4.8.3 From Table 6, the highest difference between the average country score and PARCS' score (i.e. the greatest training need identified) for a given skill was 2.0. This high value was recorded for Financial & Accounting knowledge relating to community-based resource use and resource sharing. Other high average gaps indicating training needs were found for:

- Intervention techniques/programs (policies and procedures);
- Infrastructure techniques (tourism and visitors);
- Context of protected area location (public relations);
- People versus protected area conflict management;
- Policies and procedures related to community conservation programs;
- Research budgets and allocations;
- Tourism/visitor services planning; and
- Legal aspects of collecting and exporting specimens and materials.

2.3.4.8.4 Data from Table 6 can also be used to derive average scores for training needs in the eleven Main Divisions of the Job.

For Botswana, the four highest needs were found in (in descending order):

- H: Ensuring harmonious relationships with neighboring communities.
- G: Ensuring intervention programs are completed to budget and time-table.
- F: Ensuring optimum levels of visitor satisfaction.

B: Ensuring appropriate infrastructure is developed and maintained within budget.

Less important training needs were identified for:

D: Ensuring development of tactical plans and budgets.

C: Ensuring the financial and accounting integrity of the protected area.

E: Ensuring all activities with the protected area comply with laws and regulations.

J: Representing the protected area and its interests in public meetings.

K: Ensuring an appropriate balance between resource conservation and use in the protected area.

I: Being aware of research activities and progress against plan.

A: Ensuring the availability of a competent and well-motivated staff.

2.3.4.8.5 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.

Four of the six competencies stand out in having at least 75% of associated skills requiring further training:

- Policies & Procedures;
- Finance & Accounting;
- Technical (Wildlife/Tourism); and
- Planning.

The competency with the lowest percentage (40%) of questions identified for further training by 60% or more of respondents, was 'Management'.

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 90%. All seven competencies had accuracy scores of between 80% and 95%.

- 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 8 [PARCS 2.3.6b]).

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

- C: Ensuring the financial and accounting integrity of the protected area.
- D: Ensuring Development and Achievement of Tactical Plans and Budgets, and Contributing to Strategic Planning.
- G: Ensuring agreed intervention programs are completed to budget and time-table.
- I: Being aware of research activities and progress against plan.
- J: Representing the protected area and its interests in public meetings.

- 2.3.4.9.3 Low scores for 'Mental' and 'Social' Skills are shown in Table 9 (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 as follows:

- 'Creativity';
- 'Evaluation';
- 'Oral' & 'Written' Skills; and
- 'Working with Others'.

For Main Divisions of the Job, highest cumulative scores were recorded for D, G, J (see 2.3.4.9.2 above) and B: Ensuring appropriate infrastructure is maintained & developed within budget.

- 2.3.4.9.4 Throughout the world's conservation arenas there has been a traditional rivalry between "management" and "research" camps. Both groups can argue convincingly that one is more important than the other. This rivalry has often led to serious rifts in conservation agencies, where management and research function separately, but supposedly towards common conservation objectives.

It is now common-place in most Government protected area authorities that research staff have little understanding of, or interest in, management techniques and objectives, and vice versa. However, there is a move these days towards what is known as "adaptive management" which closely links research and monitoring with trial-and-error conservation management. PAMs therefore need to more fully understand and appreciate the role of research and be able to grasp the significance of research findings. Under 'Mental & Social' Skills training needs, there appears to be a common theme related to understanding what research is all about.

The DWNP 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. 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 three basic approaches to instilling work ethics were recorded for PAMs in Botswana (Fig. 6 [PARCS 2.3.8a]). The sample size was too small to detect any real trends related to PAMs' number of years of service, however PAMs from all three 'Years of Service' categories indicated that between six and ten years experience indicated that instilling work ethics was achieved by showing hard work and dedication through example.

One PAM with less than five years experience felt that encouraging subordinate staff to participate in program formulation was an appropriate method. Another PAM with between six and ten year service considered that cultivating good working relationships with staff was important for instilling work ethics.

2.3.4.10.3 PAMs identified six methods they used, or would use, to instil commitment to conservation in their staff (Figure 7 [PARCS 2.3.8b]).

For PAMs with less than five years job experience, those included:

- explaining the value of conservation by conducting regular meetings to discuss conservation ethics;
- demonstrating the importance of conservation in relation to human needs; and
- explaining the cost/benefits of conservation.

One PAM with between six and ten years service selected the second of the three methods above used by PAMs with less than five years experience.

Longer-serving PAMs, with more than ten years in DWNP identified the following methods:

- showing dedication to national, regional and local conservation objectives;

- becoming involved in extension conservation activities; and
- participating in the design, implementation and analysis of law enforcement programs.

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

Four methods were identified, one of which was common to all three 'Years of Service' categories, namely, instructing staff on the value of harmonious relationships with adjacent communities to the conservation objectives of the protected area.

Two PAMs, with between one and five years service, identified two different methods: taking an active role in conflict resolution, and seeking ways in which tangible benefits can accrue to communities from the protected area's resources without compromising the area's conservation objectives. The fourth method, selected by a PAM with more than ten years service was, accepting the validity of community participation in protected area management.

2.3.4.10.5 One pleasing aspect of the Attitudes analysis is the fact that PAMs feel that a participatory approach best serves their goals to instil 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 to strengthen and support national/regional strategies for the rational, sustainable use of natural resources, PAMs are having to become increasingly involved with local community issues. Often, this involvement centers on resolving conflicts between protected area and community interests.

The ability of PAMs to communicate effectively with community leaders, in the language spoken by local communities, over matters of mutual concern is seen by PARCS as an important asset for PAMs to have.

To find out to what extent PAMs possessed this basic ability, they were asked to indicate "Yes" or "No" to the question "Do you speak a language understood by local communities living around your protected area?"

2.3.4.11.2 The results are shown in Figure 9 (PARCS 2.3.9) and clearly indicate that the small sample of PAMS in Botswana 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 HQ staff in positioning PAMs where lack of effective communication could hamper dialogue over 'protected area versus community' conflict resolution.

2.3.4.11.3 During interviews, PAMs did raise the point that if they could not speak a language spoken by local communities around a protected area, they would expect DWNP to give them language training before being sent to their post.

2.3.4.12 Computer Skills

2.3.4.12.1 Three respondents (40%) indicated that they had computer skills (Figure 10 [PARCS 2.3.10a]); however, two of them were PCVs who had learned their skills prior to coming to Botswana.

2.3.4.12.2 Word-processing and data storage were the two uses to which computers were put (Fig. 11 [PARCS 2.3.10b]). Computers were not used in the remote field stations where PAMs were posted; rather, computers were used, when available, at DWNP headquarters in Gaborone.

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

2.3.5.1 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 of skills 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 DWNP was recorded during post-questionnaire discussions with PAMs.

2.3.5.2 Table 10 (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; In-service training for eight competencies; and On-the-Job for only three competencies.

Formal training here includes both Mweka College and BWTI, although the latter is generally considered 'In-service' by DWNP.

2.3.5.3 It might be worth pointing out the unusual situation that On-the-Job training was considered to have contributed to the development of skills in the least number of competencies, only three: Management, Creativity and Evaluation.

The sample of PAMS on which Table 10 was based included five with more than six years service. It is expected therefore that On-the-Job training should have played a much wider role in contributing to job skills than indicated here.

If, indeed, the results in Table 10 are a true reflection of the role of various kinds of training received, then perhaps the small contribution of On-the-Job training is a further indication of the limited scope of responsibilities PAMs have in Botswana.

On-the-Job training is very much a 'hands-on', self-motivated type of instruction. If responsibility for the functioning of protected areas is divided between several Units within DWNP, then the opportunities for PAMs to accumulate 'hands-on' experience in all aspects of protected area management may therefore be limited.

2.3.5.4 In order to find out how perceptions of training changed with the number of years of departmental service, PAMs were grouped into five-year categories of experience (1-5, 6-10, >10) and asked which kinds of training were considered to have contributed most to protected area management skills. The results are shown in Figures 12-14 (PARCS 2.3.12g1-3).

2.3.5.5 Three PAMs with less than five years experience considered that three types of training-- Formal (Institutional) Wildlife, In-service and On-the-Job-- contributed most to skill development in all thirteen of the sixteen job competencies.

'In-service' may be taken here to include BWTI, which if combined with 'Formal', i.e. Mweka College, gives the result that Formal, institutional training is perceived to have contributed most to skill development.

2.3.5.6 The one PAM with between six and ten years experience indicated that only In-service training (BWTI) had contributed most to skills development.

2.3.5.7 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). Therefore, it comes as a surprise that PAMs with more than ten years experience still consider training (Formal Institutional) received at Mweka and BWTI (In-service) as contributing most to skills development (11 of 16 competencies: Figure 14 [PARCS 2.3.12g3]).

In only three competencies-- Management, Creativity and Evaluation-- was On-the-Job training considered most important.

PAMs who were interviewed, but did not complete questionnaires, supported the view that with increasing time in the position of PAM, formal wildlife training should take on less significance and be replaced by On-the-Job training.

2.3.5.8 Training Priorities

- 2.3.5.8.1 After completing the questionnaire PAMs were asked to indicate their three most important training priorities. The objective of this exercise was to see if indicated training priorities matched training needs determined by the gap analysis (2.3.4).

The indicated training priorities, in terms of Main Divisions of the Job, were:

- J: Public Relations;
- F: Tourism/visitors' Services, especially interpretation techniques;
- K: Resource Management;
- A: Personnel Administration;
- C: Finance & Accounting;
- D: Tactical Planning; and
- H: Community Conservation work.

- 2.3.5.8.2 Only one of the training priorities listed above, Tourism and Visitors' Services appears amongst the four top training needs identified by the gap analysis (2.3.4.8.4).

The highest-ranked training need, Community-based Conservation activities, ranked lowest in priority. The second- and fourth-ranked training needs, Intervention Programs and Infrastructure Development and Maintenance, did not appear at all on the list of PAMs' training priorities.

- 2.3.5.8.3 What these results probably show is the difference between what PAMs actually need in training and what they would prefer.

There is no doubt that all the priorities listed above are legitimate ones, further training in which would enhance PAMs' protected area management skills. But given that there are bound to be constraints on the scope of training made available to PAMs, it would be in DWNP's best interests to address the needs rather than the preferences.

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 DWNP has fallen considerably. This situation may have come about as a result of either one or two key factors, or both: viz., a drop in the standard of secondary school graduates, and a decline in the quality of instruction received at Mweka.

2.3.6.2 Aside from the declining quality of training at Mweka College, other constraints on PAMs meeting their job responsibilities, include

- the lack of follow-up training once PAMs have moved to field positions;
- little or no assessment of training needs;
- inadequate use of BWTI to provide In-service, and refresher courses; and
- little opportunity for On-the-Job training.

2.3.6.3 The issue of On-the-Job training has already been touched upon in 2.3.5.3, but will be re-stated here.

Lack of On-the-Job training, or opportunity for it must be seen as a major constraint on PAMs effectively carrying out their job responsibilities. It seems that not enough devolvement of responsibility or authority has come down to PAMs in the field to allow them to make on-the-spot decisions on even very basic protected area management issues. Such decision-making authority is essential to On-the-job training.

Furthermore, PAMs need to be more involved with the activities and programs of other Divisions of DWNP, at least from a "working knowledge" point-of-view. Law enforcement, conservation education, research and utilization are all major components of protected area management; PAMs could be exposed to these components by periodic, short-term, On-the-Job training assignments in the different Divisions of DWNP.

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

- 2.3.7.1 Although two FODs participated in the Phase I assessment, neither was able to give enough time to a full discussion of their own training needs. What follows is a rather sketchy impression of the key training needs identified during brief meetings at DWNP headquarters in Gaborone.
- 2.3.7.2 One FOD placed high priority on staffing and personnel management, including monitoring and evaluation of training records of all levels of staff. Closely linked to staff management was the need for skills in developing and preparing job descriptions.
- 2.3.7.3 One of the key elements of a PAM's job is tourism/visitor management, and all aspects of this management component (from visitor services to visitor impacts) is seen by FODs to be a high skill priority.
- 2.3.7.4 In keeping with the proposed community-based wildlife utilization schemes (see 2.1.4.2), FODs indicated that they would like to have more 'hands-on' experience with community conservation programs such as CAMPFIRE in Zimbabwe.

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 Botswana to enhance their job performance (see Gap Analysis above), and these are summarized below:

- Ensuring harmonious relationships with neighboring communities;
- Ensuring intervention programs are completed to budget and time-table;
- Ensuring optimum levels of visitor satisfaction;
- Ensuring appropriate infrastructure is developed and maintained within budget;
- Ensuring development of tactical plans and budgets;

- Ensuring the financial and accounting integrity of the protected area;
- Ensuring all activities with the protected area comply with laws and regulations;
- Representing the protected area and its interests in public meetings;
- Ensuring an appropriate balance between resource conservation and use in the protected area;
- Being aware of research activities & progress against plan;
- Ensuring the availability of a competent and well-motivated staff; and
- Mental & Social Skills: Creativity, Evaluation, Oral & Written Skills, and Working with Others.

2.3.8.2 This list should serve as a basis for any In-service training courses developed specifically for PAMs, either at BWTI or other venues in DWNP.

The list could also be referred to when evaluating other training institutes (including universities, Technikon, business colleges, etc) for their appropriateness in providing relevant training for PAMs.

**SECTION 3:
TRAINING OPPORTUNITIES ASSESSMENT**

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

3.2 Mweka College has been the institution of choice for training PAMs, and protocol considerations may need to be reviewed (Mweka College is the SADCC regional wildlife training center) when the rehabilitation of BWTI is complete.

However, BWTI probably cannot address all DWNP's training needs. Therefore, Mweka College will continue to play an important role in PAM training.

3.3 The proposed BWTI certificate program (Chemonics/NRMP, 1991) is to be redesigned to offer a series of four-to-ten week in-service training modules.

It is expected that between modules, staff enrolled at BWTI will return to field service to put into practice the skills they have recently learned.

It is relevant to note that some of the proposed modules, at least in title, address training needs identified in this assessment. They include:

- Public Relations and Communications;
- Computer Training;
- Problem Animal Control (Intervention Techniques);
- Law Enforcement and Anti-poaching;
- Administration;
- Conservation;
- Interpretation;
- Business Management Skills; and
- Wildlife Management.

3.4 Linkages in training between DWNP and the Department of Tourism are expected to provide short-term, immediate benefits to a select number of supervisory and management staff from DWNP and the private and public sectors of tourism.

It is proposed that BWTI will offer tourism training to DWNP staff in the following areas:

- Understanding Nature Tourism;
- Cultural History and Diversity of Botswana; and
- Field Course.

SECTION 4: RECOMMENDATIONS

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

4.1.1 In-Service Training: BWTI Rehabilitation

- 4.1.1.1 The most significant training initiative potentially underway for PAMs in Botswana is the rehabilitation of BWTI. This restructuring is specifically designed to address the training needs of DWNP in light of its largely expanded mandate to implement national policies relating to wildlife, conservation and tourism.

All cadres of staff are expected to benefit from training offered at BWTI. However, initially, the main emphasis will be on induction/basic training for new recruits into DWNP.

- 4.1.1.2 An opportunity exists therefore, to take results from the PARCS Phase I training needs assessment and suggest their incorporation into the new training modules to be designed for BWTI.

The titles of proposed modules cover many of the key areas of skills training identified by PAMs. By reviewing in detail specific skills requiring further development (see Gap Analysis in this report), recommendations for including appropriate subject matter, at the required skill level, could be made to ensure that PAMs receive the training they have identified as being necessary to effect their job responsibilities.

- 4.1.1.3 PARCS could play a pivotal role in identifying the topics that need to be included in training modules designed for PAMs, in particular, topics that are not presently covered in the proposed list of modules scheduled to be developed under the rehabilitation scheme.

4.1.2 On-the-Job Training: Cross-Divisional Assignment

- 4.1.2.1 Opportunities for On-the-Job training need to be created for PAMs. Lack of such opportunities is seen as a major constraint on PAMs effectively carrying out their job responsibilities.

Insufficient devolvement of authority comes down to PAMs in the field to allow them to make on-the-spot decisions on even very basic protected area management issues. Such decision-making authority is essential to On-the-job training.

Furthermore, PAMs need to be more involved with the activities and programs of other Divisions of DWNP, at least from a "working knowledge" point-of-view, which have a direct bearing on effective protected area management.

Law enforcement, conservation education, research, and utilization are all major components of a PAM's responsibilities, and it is strongly recommended that they are exposed to these components by periodic, short-term, on-the-job training assignments in the different Divisions of DWNP (Conservation Education, Management & Utilization, Research).

Special attention would need to be paid to skills development in areas identified by the training needs assessment (gap analysis).

- 4.1.2.2 Cross-Divisional on-the-job training could be directly linked to modular training at BWTI. New skills/concepts taught to PAMs could be tested during short-term attachments to appropriate Divisional staff.

4.2 Other recommended training initiatives and programs

- 4.2.1 One objective of the PARCS project is to assist participating, and more specifically, target countries to develop appropriate and sustainable training programs for PAMs. Another objective is to promote inter- and intra-regional approaches to training by providing opportunities for contact between PAMs from different countries and for them to participate in regional training programs. For example, a key area of training identified by PAMs in Botswana was in community-based conservation projects.

- 4.2.2 In-keeping with the cross-regional approach to PAM training, selected PAMs might 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 are designed and operated.

REFERENCES

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- Pfau, R. H. 1991. Evaluation of the Botswana Wildlife Training Institute. An IDM Development Study. Institute for Development Management, Gaborone, 126 pp.

**SECTION 5:
ACKNOWLEDGEMENTS**

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

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.

Table of Contents

I.	The Approach	1
II.	The Project	3
III.	The Process	4
IV.	Target Groups and Geographical Focus	5
V.	Preliminary Groundwork	7
	The Initial Meeting	7
	General Information on Training	8
	Meeting the FOD	10
VI.	The Needs Assessment	11
	Pre-Questionnaire Discussion	12
	The Questionnaire	14
	Post-Questionnaire Discussion	24
	Amplification of Responses	25
	Background Information Sheets	26
	Indicative Information Sheets	28
VII.	In-Country Training Opportunities Assessment	30
	Training Institutions Background Information	31
	Instructions for Training Institutions	34
	Alternative Training Opportunities Questions	39
VIII.	Out-of-Country Training Opportunities	41
IX.	Follow-Up Activities	41
X.	Feedback	41
XI.	Data Organization and Analysis	42
	PARCS Reference Number	42
	Data Sheet A	46
	Data Sheet B	48
	Data Sheet C	50
	Data Sheet D	52
	Data Sheet E	55
	Data Sheet F	57
	Data Sheet G	59
	Analytical Questions	61
XII.	References	63

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.

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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.

General Information on Training

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

--Minimum requirements for jobs

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

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

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

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

In-service training programs:

Listing of titles/description

How are they planned?

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

_____credentials _____funding _____other

What is the basis for these decisions?

--General numbers of people trained per year

Formal wildlife training institutions:

Listing of institutions

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

What is the basis for these decisions?

--General numbers of people trained per year

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

Listing of titles/description

How are they planned?

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

What is the basis for these decisions?

--General numbers of people trained per year

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

If yes, what is the job description?

--Number of trainers

--Percentage of annual recurrent budget spent on training

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

--Training material provided to staff?
What kinds?

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

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

--General assessment of training?

--What are the constraints to training?

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

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

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

Meeting the FOD

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

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

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

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

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

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

VI. The Needs Assessment

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

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

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

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

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Pre-Questionnaire Discussion

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

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

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

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

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

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

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PROTECTED AREAS CONSERVATION STRATEGY (PARCS): TRAINING NEEDS ASSESSMENT

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

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

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

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

The attached chart has 17 columns and 12 rows.

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

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

KNOWLEDGE (columns 2-7)

Knowledge has been grouped into four levels:

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

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

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

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

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

eg. in E5:

In-depth knowledge of relevant laws and regulations eg. firearms, arrest, charging and human rights
<input type="checkbox"/> 4 <input checked="" type="checkbox"/> 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, fittings, materials etc.	<input type="checkbox"/> <input type="checkbox"/>
C. Ensure financial and accounting integrity of the protected area	<ul style="list-style-type: none"> Accountable and responsible for all revenue generated and disbursement (received from headquarters and receipts) Responsible for accurate accounting 		
D. Ensure development and achievement of tactical plans and budgets and contribute to protected area strategic planning	<ul style="list-style-type: none"> Accountable for development of annual plan and budget of protected area Responsible for working within the agreed plan and budget Identify strategic options in the protected area and contribute to strategic planning 		
E. Ensure that all activities within the protected area comply with laws and regulations	<ul style="list-style-type: none"> Accountable for enforcement of law and regulation and ensuring safe practices throughout the protected area 	In-depth knowledge of safe practices with respect to wildlife In-depth knowledge of techniques of anti-poaching...	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
F. Ensure optimum levels of visitor satisfaction	<ul style="list-style-type: none"> Responsible for ensuring that the highest levels of visitors' services and practices under his/her jurisdiction are maintained 	In-depth knowledge of visitors' expectations In-depth knowledge of protected area infrastructure techniques, site design and analysis In-depth knowledge of interaction between tourist and local areas	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
G. Ensure agreed intervention (eg. early 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 Some knowledge of cultural and historical context for the location of protected area	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I. Be aware of research activities and progress against plan	<ul style="list-style-type: none"> Responsible and accountable for ensuring that research programme is implemented according to the protected area conservation objectives and timetables 	Working knowledge of research methodologies Working knowledge of the role of research in meeting conservation objectives	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
J. Represent the protected area and its interests in public meetings	<ul style="list-style-type: none"> Accountable for ensuring that the protected area is represented in every possible area Responsible for ensuring that the information available about the protected area is up to date 	Up-to-date working knowledge of all activities within the protected area In-depth knowledge of the context of the protected area in the regional/national/global arena	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
K. Ensure an appropriate balance between resource conservation and use in the protected area	<ul style="list-style-type: none"> Responsible and accountable for design and implementation of resource management / protection strategies to meet protected area conservation objectives Responsible and accountable for the preparation, approval, and implementation of a resource conservation management plan for the protected area 	In-depth knowledge of types, locations, trends and requirements of important natural and cultural resources in the protected area In-depth knowledge of types, locations, trends and requirements of threatened and endemic fauna and flora and the key species of the ecosystem. Working knowledge of environmental impact analysis techniques Working knowledge of surveys and monitoring techniques (field data collection/analysis)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
L. Training received			

3. Management	4. Planning	5. Legal	6. Policies/Procedures	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 & vacancies <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 management 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 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	2. 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 and placement ↓ 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 inaccuracies and potential hazards Y N <input type="checkbox"/>	Determining causes of specific and trends on equipment and infrastructure failures Y N <input type="checkbox"/>
C Ensure financial and accounting integrity of the protected area	<ul style="list-style-type: none"> Accountable and responsible for all revenue generated and disbursement (received from headquarters and receipts) Responsible for accurate accounting 	Understanding financial implications of information Y N <input type="checkbox"/>	Determining causes of figures not reflecting the true situation Y N <input type="checkbox"/>
D Ensure development and achievement of tactical plans and budgets and contribute to protected area strategic planning	<ul style="list-style-type: none"> Accountable for development of annual plan and budget of protected area Responsible for working within the agreed plan and budget Identify strategic options in the protected area and contribute to strategic planning 	Understanding implications of set objectives including their feasibility Y N <input type="checkbox"/>	Determining true causes of failure to achieve plan and budget Y N <input type="checkbox"/>
E Ensure that all activities within the protected area comply with laws and regulations	<ul style="list-style-type: none"> Accountable for enforcement of law and regulation and ensuring safe practices throughout the protected area 	Understanding applicability of laws and regulations in protected areas Y N <input type="checkbox"/>	Determining true causes of incidences and trends in incidences Y N <input type="checkbox"/>
F Ensure optimum levels of visitor satisfaction	<ul style="list-style-type: none"> Responsible for ensuring that the highest levels of visitors services and practices under his/her jurisdiction are maintained 	Recognising the significance of physical and statistical information regarding visitor impact Y N <input type="checkbox"/>	Determining true causes of visitor dissatisfaction and behaviour Y N <input type="checkbox"/>
G Ensure agreed intervention programmes are completed to budget and timetables	<ul style="list-style-type: none"> Responsible for design, implementation, and evaluation of intervention programmes to meet conservation objectives in the protected area 	Understanding information that may lead to interventions Y N <input type="checkbox"/>	Determining causes of deviation from intended results of interventions Y N <input type="checkbox"/>
H Ensure harmonious relationships with neighbouring communities	<ul style="list-style-type: none"> Responsible and accountable for design and implementation of a programme to achieve harmonious relations Responsible for instilling acceptance by staff of the role of local communities in protected area management 	Understanding the significance of statistical, physical, written and oral information relating to community-protected area links Y N <input type="checkbox"/>	Understanding underlying causes of conflict both in the long and short term Y N <input type="checkbox"/>
I Be aware of research activities and progress against plan	<ul style="list-style-type: none"> Responsible and accountable for ensuring that research programme is implemented according to the protected area conservation objectives and timetables 	Understanding the significance of research findings and the function of research Y N <input type="checkbox"/>	Determining causes of why research programme is not to timetable Y N <input type="checkbox"/>
J Represent the protected area and its interests in public meetings	<ul style="list-style-type: none"> Accountable for ensuring that the protected area is represented in every possible area Responsible for ensuring that the information available about the protected area is up to date 	Understanding the significance of points raised during press and other meetings Y N <input type="checkbox"/>	Determining the causes of adverse comments in press Y N <input type="checkbox"/>
K Ensure an appropriate balance between resource conservation and use in the protected area	<ul style="list-style-type: none"> Responsible and accountable for design and implementation of resource management/protection strategies to meet protected area conservation objectives Responsible and accountable for the preparation, approval, and implementation of a resource conservation management plan for the protected area 	Understanding of day-to-day and long term implications of the protected area's management objectives Y N <input type="checkbox"/> Recognising and understanding the implications of potential environmental impacts of different activities Y N <input type="checkbox"/>	Identifying and determining the causes of conflicts between protected area resource conservation and use Y N <input type="checkbox"/>
L Training received			

SOCIAL SKILLS

10. Creativity	11. Evaluation	12. Oral	13. Written	14. Working with others
Developing on-the-job training Y N <input type="checkbox"/>	Evaluating staff performance Y N <input type="checkbox"/>	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 areas perspective across to visitors Y N <input type="checkbox"/>	Preparing interpretive materials Y N <input type="checkbox"/>	Dealing with dissatisfied visitors Y N <input type="checkbox"/>
Designing (contributing to design) or adapting interventions to meet specific needs Y N <input type="checkbox"/>	Selecting appropriate programmes and evaluating their success Y N <input type="checkbox"/>	Giving clear instructions on technical intervention procedures Y N <input type="checkbox"/>	Writing clear reports explaining intervention, its success, failure, etc. Y N <input type="checkbox"/>	Gaining cooperation of local communities where appropriate Y N <input type="checkbox"/>
Developing ideas for improving community/protected area relations Y N <input type="checkbox"/>	Determining why certain community-related initiatives have achieved success Y N <input type="checkbox"/>	Presenting information at a level appropriate to target audience Y N <input type="checkbox"/>		Having cultural sensitivity Y N <input type="checkbox"/>
Identifying opportunities for the application of research Y N <input type="checkbox"/>	Evaluating the results of research and their application Y N <input type="checkbox"/>		Ensuring research reports are comprehensible for lay people Y N <input type="checkbox"/>	Establishing positive relationships with researchers Y N <input type="checkbox"/>
Developing public relations materials (oral, written, etc.) Y N <input type="checkbox"/>	Selecting materials appropriate for each meeting Y N <input type="checkbox"/>	Making formal public presentations and respond to questions unambiguously Y N <input type="checkbox"/>	Preparing press releases Y N <input type="checkbox"/>	Building up and maintaining network of contacts for information on all important/relevant meetings and events Y N <input type="checkbox"/>
Developing methods to achieve management zone objectives Y N <input type="checkbox"/>				Working with local communities and other concerned parties during plan development and implementation Y N <input type="checkbox"/>

Main Divisions of the Job	I. Accountability and Responsibilities	APTTT D'S		
		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 instill:

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, savannah, 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 you idea of the role of a protected area manager?
6. Would you have identified (or did you identify) your training priorities differently before reading the questionnaire?
7. What are the strengths and weaknesses of the present training in your department?

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

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

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

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

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

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

Amplification of Responses

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

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

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

Background Information

For Each Reserve

Name of Reserve _____

Size _____

Years in Existence _____

Last Change in Protected Status (Year, Describe) _____

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

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

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

Technical Assistance: Source/s, Type, Amount _____

Does the Reserve Have:

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

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

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

Personnel Information (At Reserve Level Only)

Describe Personnel Structure (use organogram if possible):
Who is Highest Level Responsible? Next Level? Next....

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

Title _____

No. of Persons _____

Responsibilities _____

(collect job description, if it exists)

Minimum Requirements for Hiring: Education _____

Experience _____

Skills _____

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

Education _____

No. of Years Experience in Reserves _____

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

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

Staff Positions Needed & No. of Persons for Each:

Highest Priority _____

Desirable _____

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

Type/s:

Highest Priority _____

Desirable _____

Indicative Information

Technical

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

Management

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

Strategic Planning

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

Legal

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

Financial

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

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 in 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

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

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

ATTITUDES (columns 15-17)

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

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

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

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



**Biodiversity
Support
Program**

(PARCS INST)

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)

94

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

6/5

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 - Namibia |
| Private Institutions: | Law Firms
Accounting Firms
Construction Firms
Vehicle Repair
Facilities maintenance
Hotels
Safari Companies
Tourism Operators
Travel Agencies |

Development or Conservation Projects

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

Alternative Training Opportunities Questions

For Training Institutions

What is the objective of your institution?

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

How is the school structured?

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

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

General description of the curriculum

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

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

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

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

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

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

Could they only take one course?

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

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

Are you a private or government affiliated institution?

Do you receive donor assistance (financial or technical)?

For Private Companies

How does your staff get trained now?

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

On-the-job/in-service

Seminars/workshops

other? outside?

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

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

Do you know of anyone who does in your field?

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

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

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

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

Do your staff speak the local languages?

How long have you existed?

For Research Institutions

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

Is the institution private or connected to the government somehow?

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

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

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

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

What would it cost, Government rate? free?

Do you have international or regional affiliations?

How long have you existed and expect to in future?

Development or Conservation Projects

What are the objectives of the project?

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

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

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

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

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

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

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

What would it cost?

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

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

VIII. Out-of-Country Training Opportunities

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

IX. Follow-Up Activities

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

57. Before leaving a country and depending on the particular strategy agreed for the assessment, the Regional Manager may hold a final meeting with the senior official(s) at headquarters to brief them on 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	

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

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

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

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

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

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

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

Compartment 7: Biome 2 letter code

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

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

Compartment 8: Gender 1 column

Male: 0 Female: 1

Data Sheet A

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

PARCS DATA SHEET A

Parcs Ref. No:	Compartment No: A1 to 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 Ref Num	Question	Response	Final Score	
EMOTIONAL	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			
	10			
	11			
	12			
sub-total				
ADVERSE	13			
	14			
	15			
	16			
	17			
	18			
	19			
	20			
	21			
	22			
	23			
	sub-total			
COURTESY	24			
	25			
	26			
	27			
	28			
	29			
	30			
	31			
	32			
	33			
	sub-total			
	EMOTIONAL	34		
35				
36				
37				
38				
39				
40				
41				
42				
sub-total				
OTHER		43		
		44		
	45			
	46			
	47			
	48			
	49			
	50			
	51			
	sub-total			
	RELATIONSHIP	52		
		53		
54				
55				
56				
57				
58				
59				
sub-total				
BOYS IN THE CLASS		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

Pares 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

115

Data Sheet G

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

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

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

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

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

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

PARCS DATA SHEET G: SUMMARY OF TRAINING RECEIVED

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

117

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

**INSTITUTIONS USED (OR RECOMMENDED FOR USE) BY DWNP FOR TRAINING
ASSISTANT PAMS & PAMS**

Diploma

College of Africa Wildlife Management, Mweka, Tanzania

Degree Courses

University of Botswana
University of Stellenbosch, RSA
University of Pretoria, RSA
University of Zimbabwe
Colorado State University, College of Forestry & Natural
Resources
University of Idaho, College of Forestry, Wildlife & Range
Sciences
Michigan State University, College of Natural Resources
Oregon State, Dept of Forest Resources
Clemson University, College of Forest & Recreation Resources
Texas A & M, Dept of Recreation & Parks
University of Vermont, School of Natural Sciences
University of Montana, Recreation Management Program
University of Manchester, UK
University of Leeds, UK
University of Edinburgh, UK

Post-Graduate Courses

University of Zimbabwe, M.Sc., M.Phil., Tropical resource
Ecology
University of Capetown, M.Sc., Environmental Studies
University of Capetown, M.Sc., Conservation Biology
(Fitzpatrick Institute)
University of Witwatersrand, M.Sc., Conservation Biology
University of Natal, Institute of Natural Resources, M.Sc.,
Ph.D

Specialized Training

Institute of Development Management (IDM), Gaborone
Human Resource Management
Training Coordination
Records Management
Training the Trainers (for BWTI staff)
Public Relations
Computer Training

ANNEXE 3:
'GAP ANALYSIS' RESULTS

FIGURE 1:

2.3.3a Respondents years in service Botswana

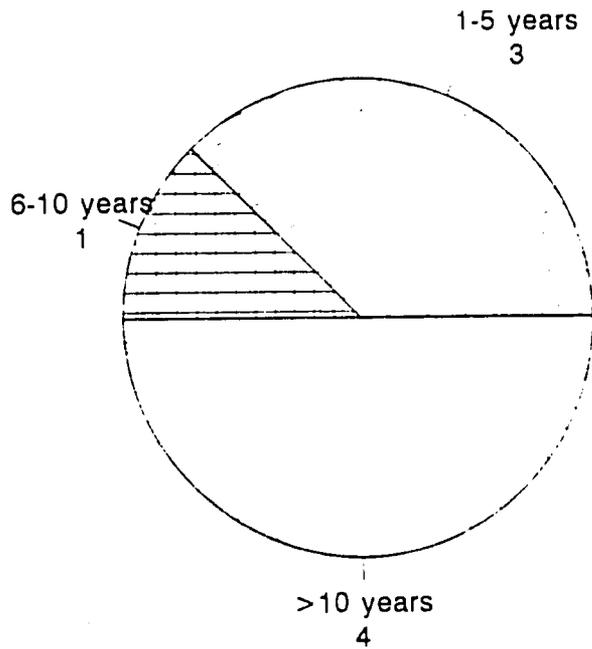
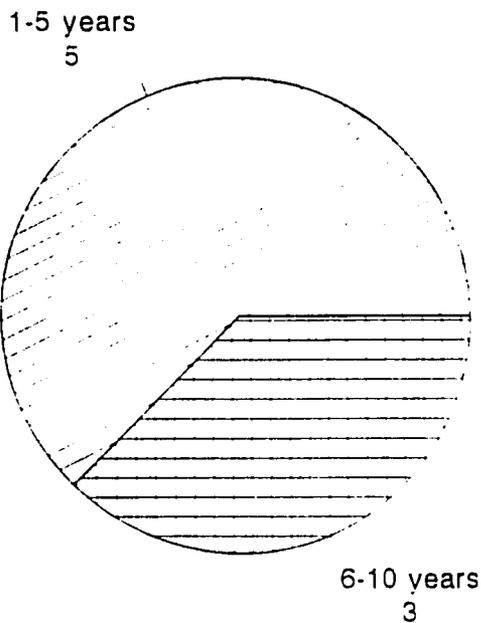


FIGURE 2:

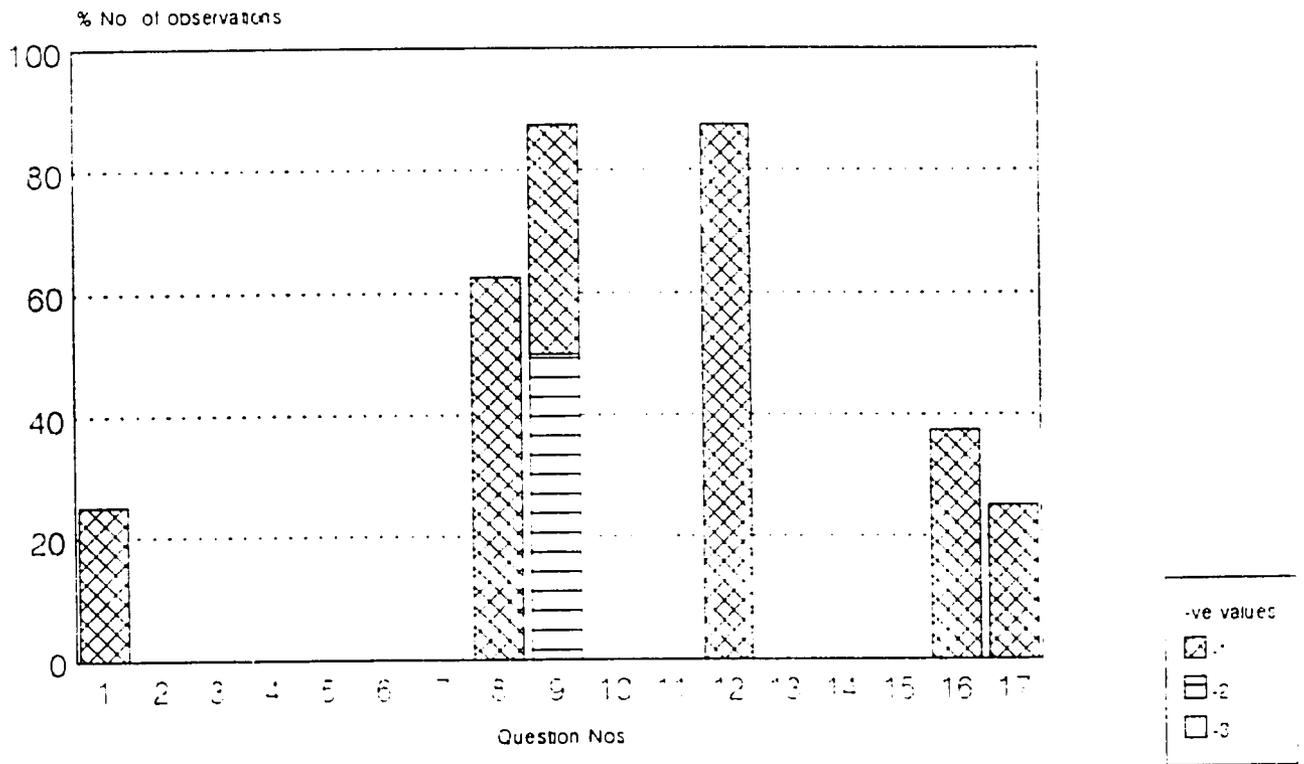
Total Sample n = 11 (Ass PAMs & PAMs n=8)

2.3.3b Respondents years as a PAM Botswana



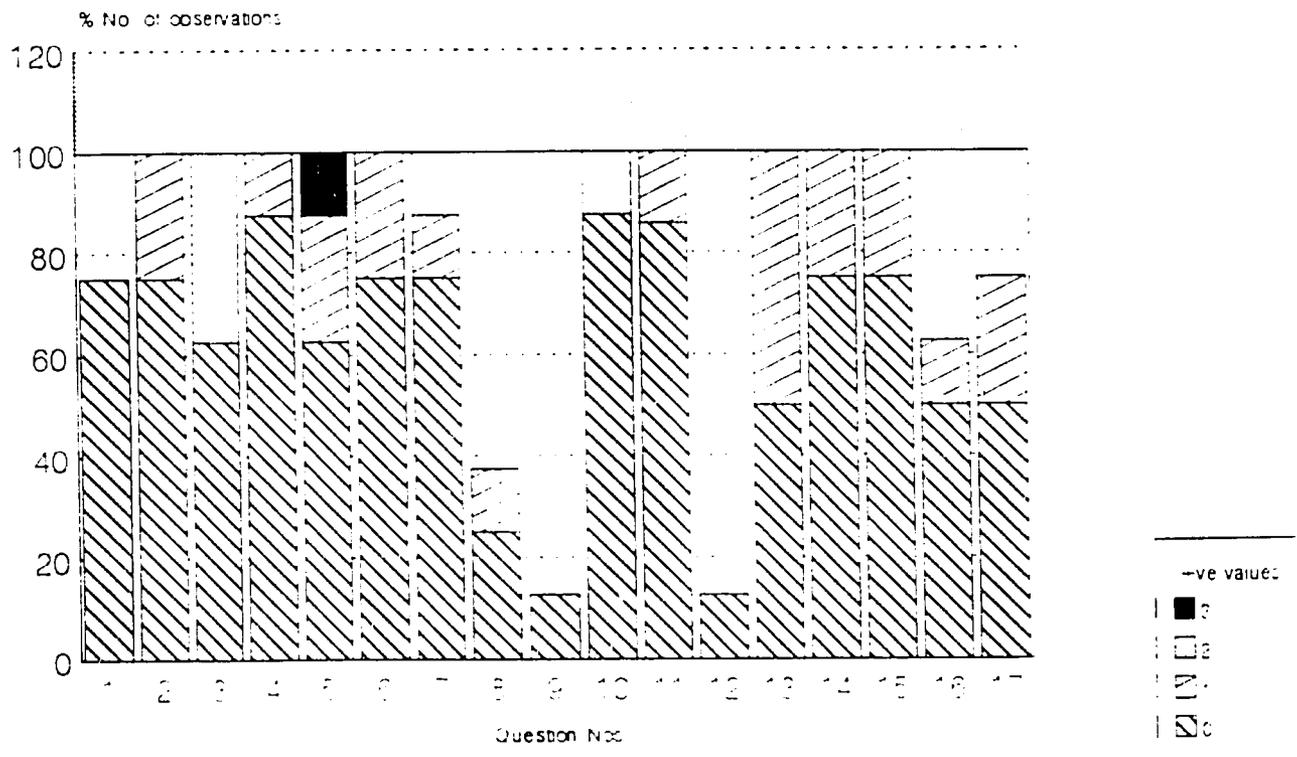
Total Sample n = 11 (Ass PAMs & PAMs n=8)

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



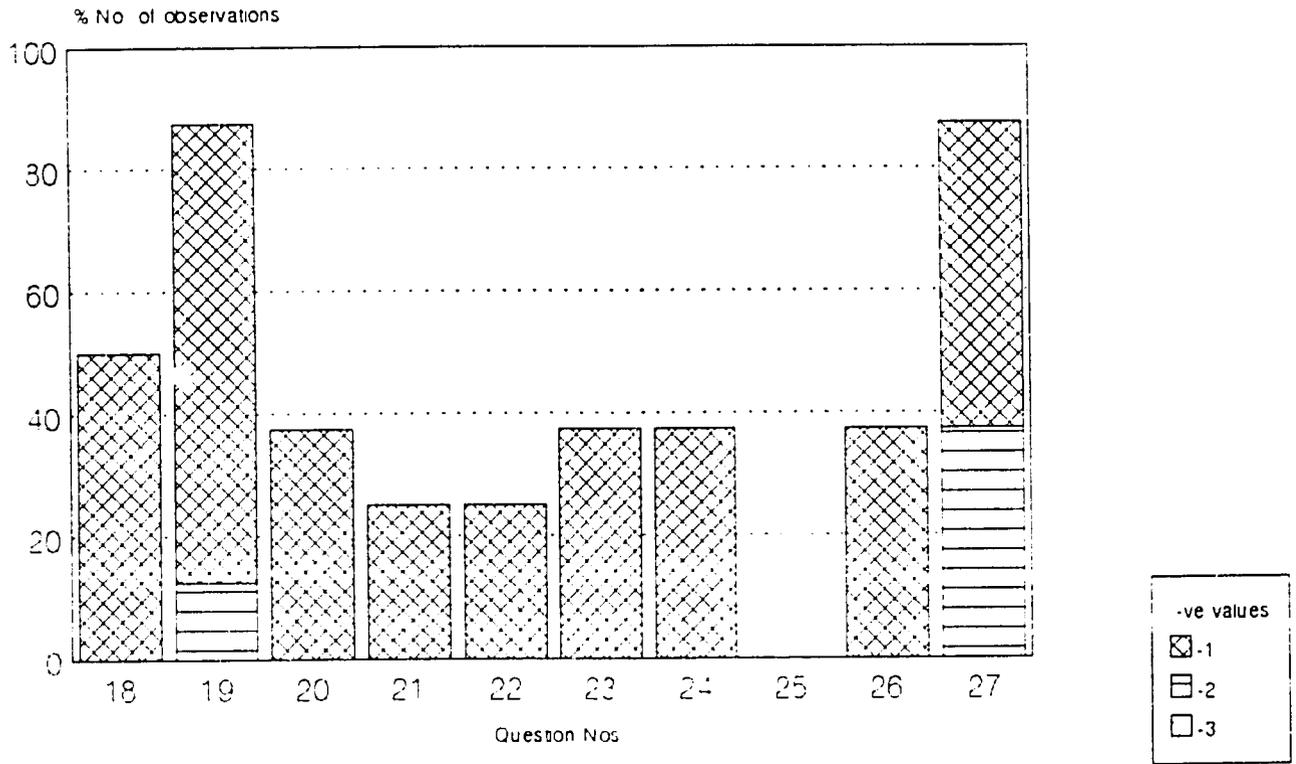
Total Sample n=11 (Asst PAMs & PAMs combined n=8)

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



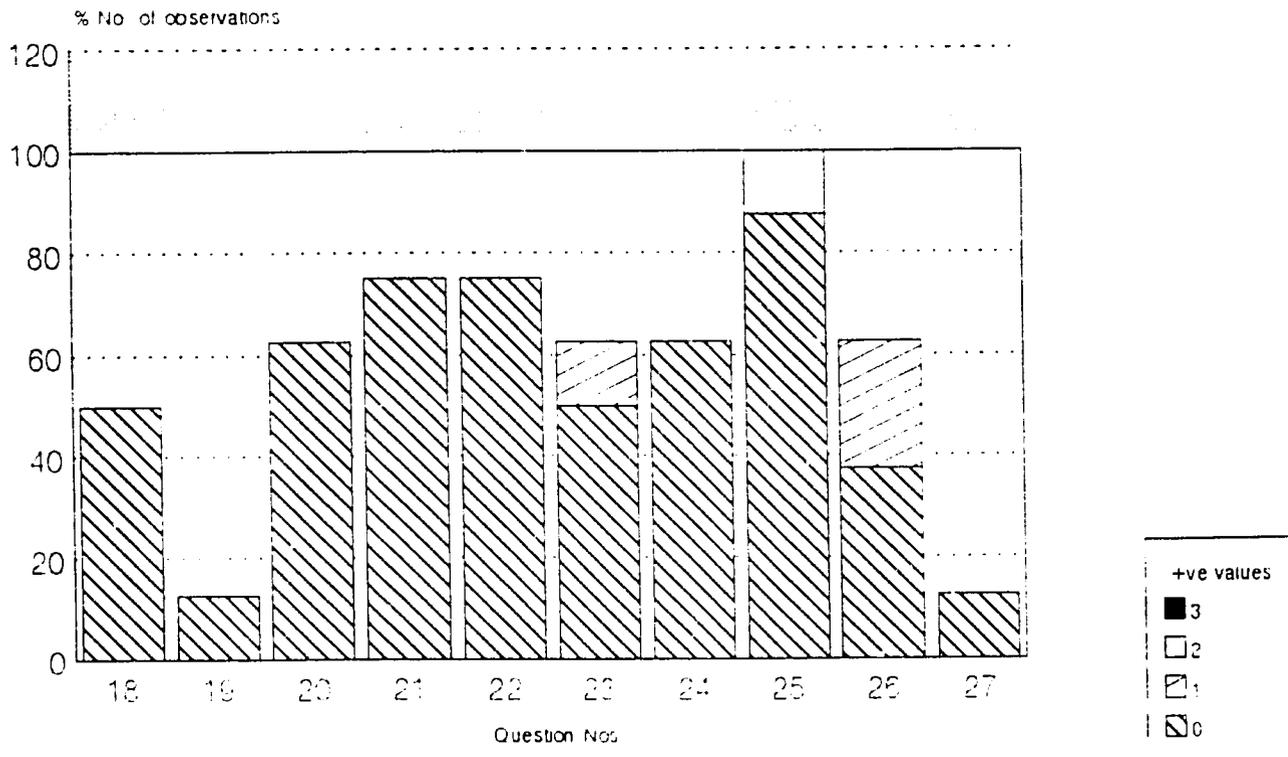
Total Sample n=11 (Asst PAMs & PAMs combined n=8)

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



Total Sample n=11 (Asst PAMs & PAMs combined n=6)

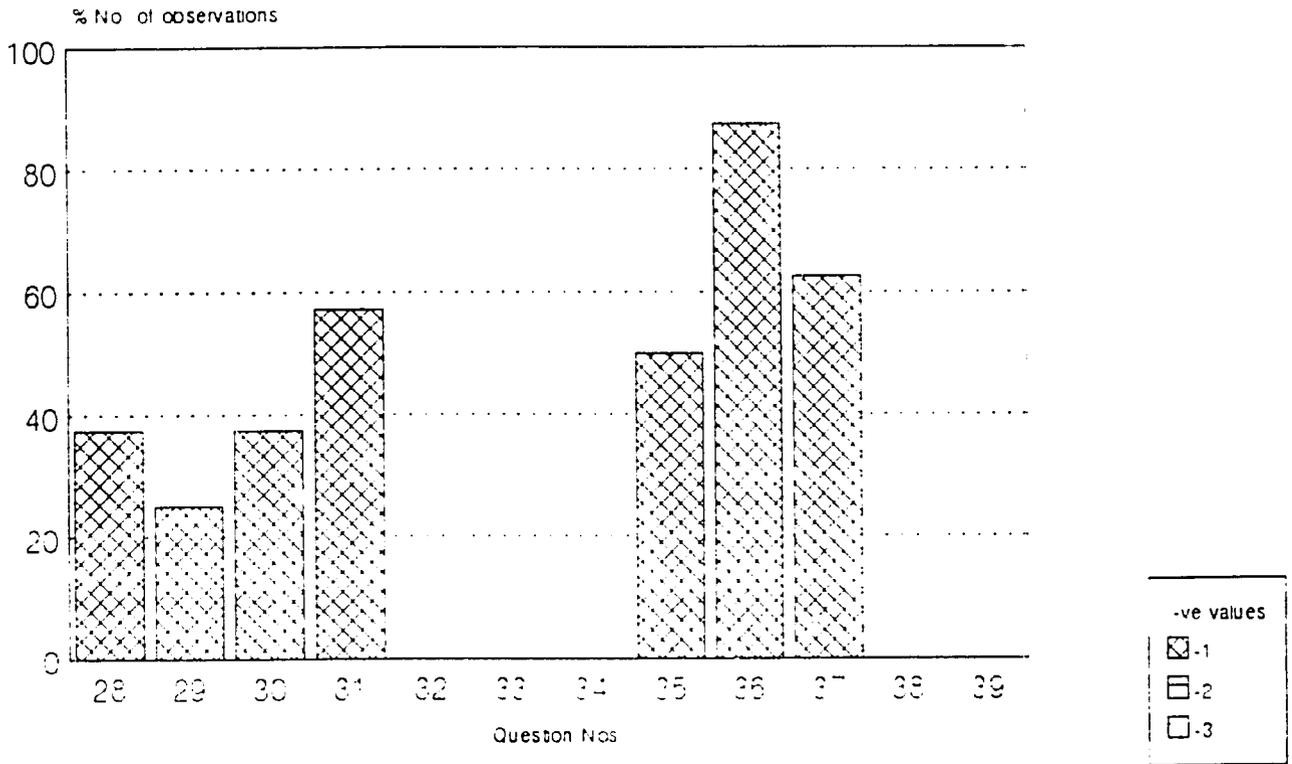
2.3.4.b Validation analysis: Knowledge of PAMs relative to PARCS
 Management +ve scores: Botswana



Total Sample n=11 (Asst PAMs & PAMs combined n=8)

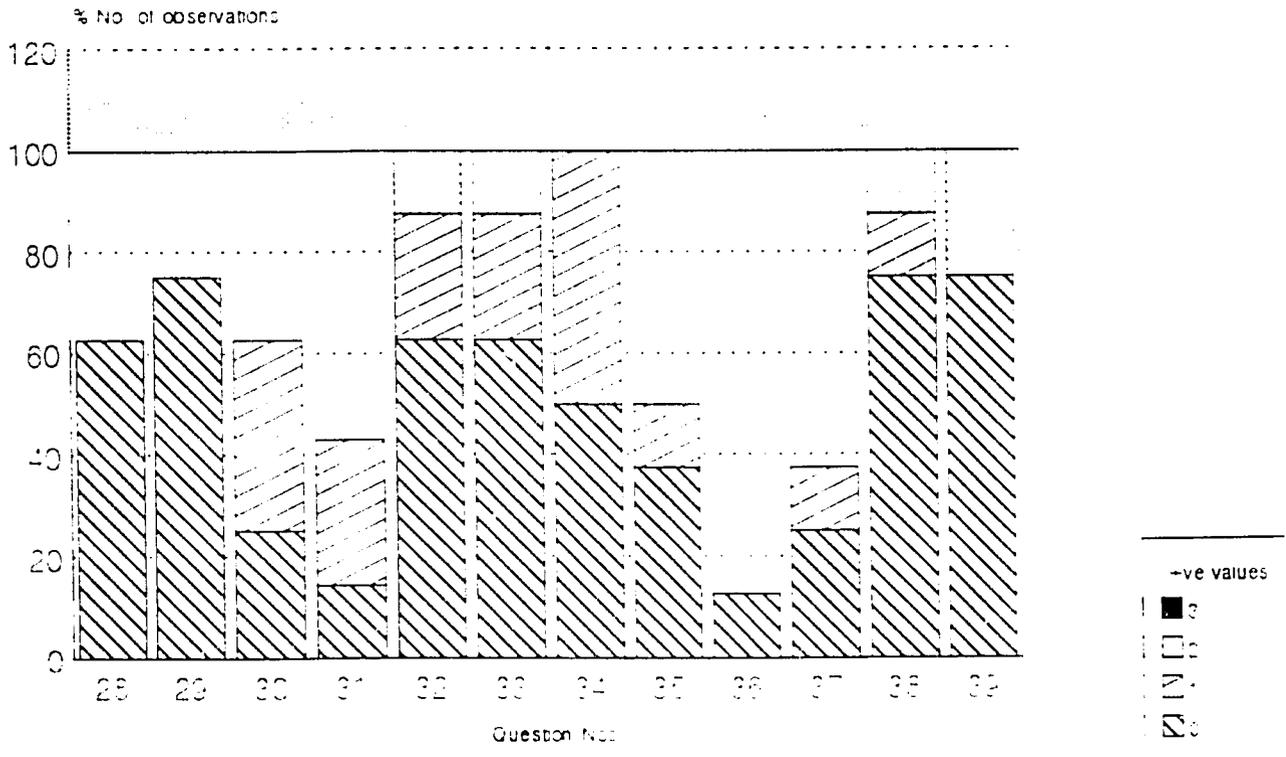
FIGURE 3:

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



Total Sample n=11 (Asst PAMs & PAMs combined n=8)

2.3.4.c Validation analysis: Knowledge of PAMs relative to PARCS
 Planning -ve scores Botswana

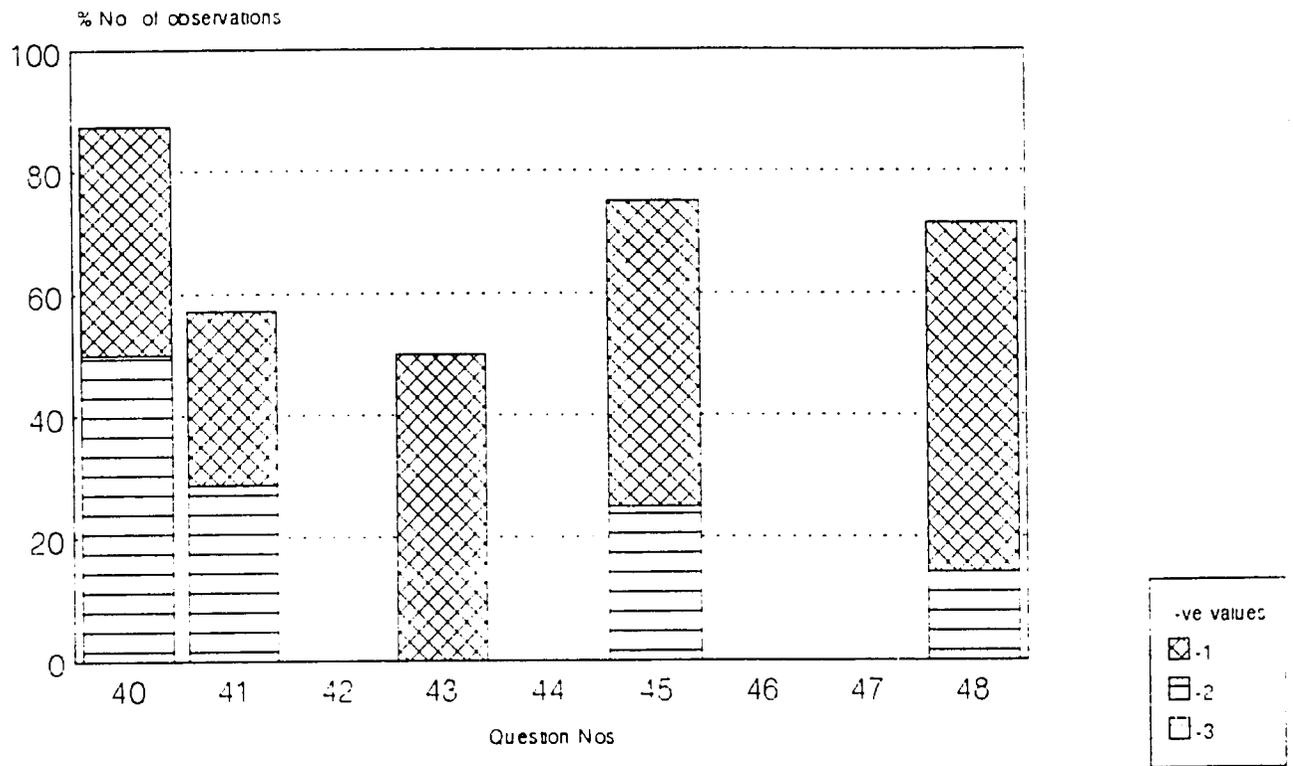


Total Sample n=11 (Asst PAMs & PAMs combined n=8)

FIGURE 3:

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

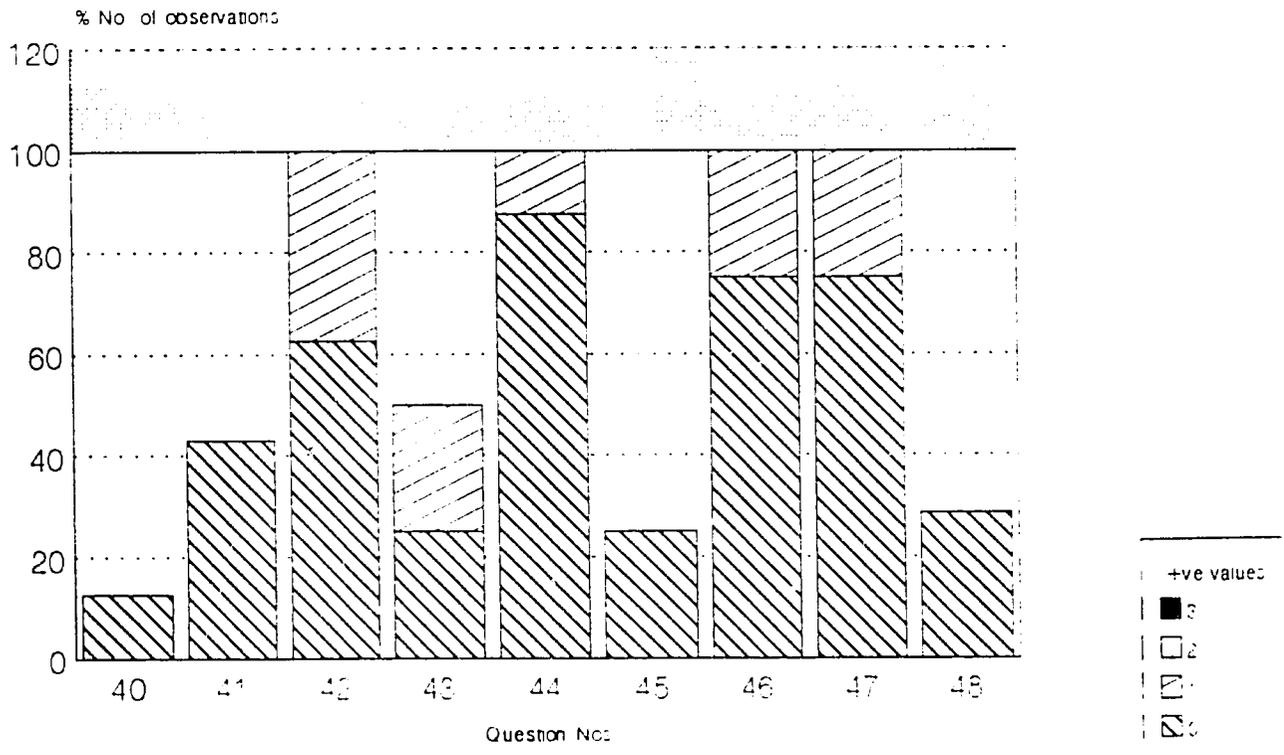
Legal -ve scores: Botswana



Total Sample n=11 (Asst PAMs & PAMs combined n=8)

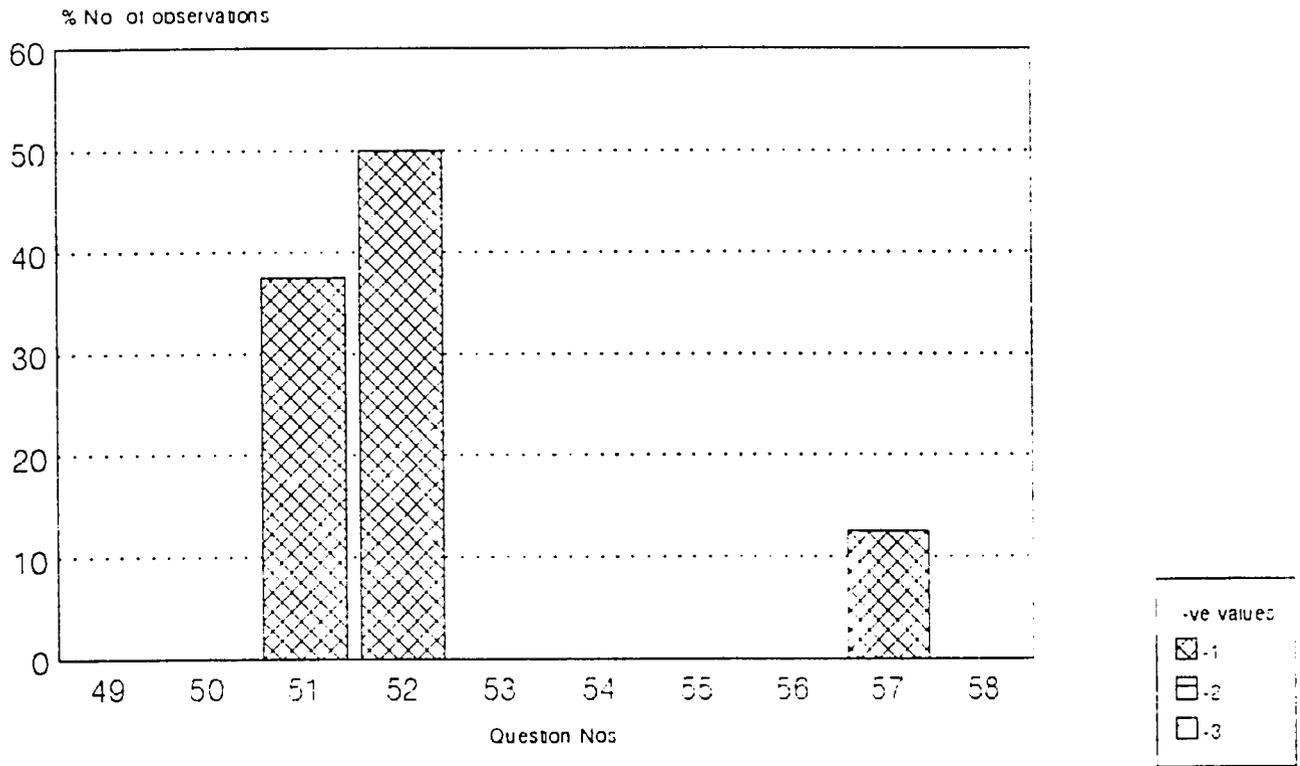
2.3.4.b Validation analysis: Knowledge of PAMs relative to PARCS

Legal +ve scores: Botswana



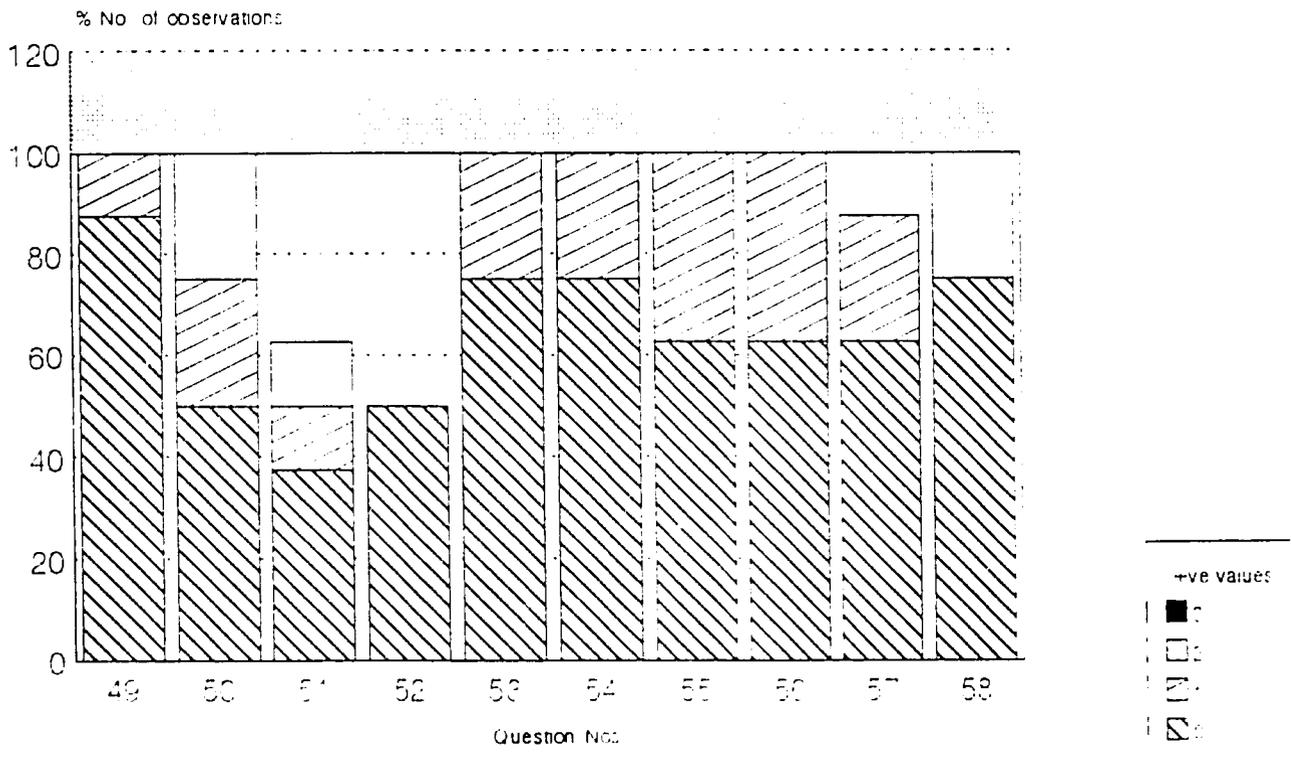
Sample n=11 (Asst PAMs & PAMs combined n=8)

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



Total Sample n=11 (Asst PAMs & PAMs combined n=8)

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



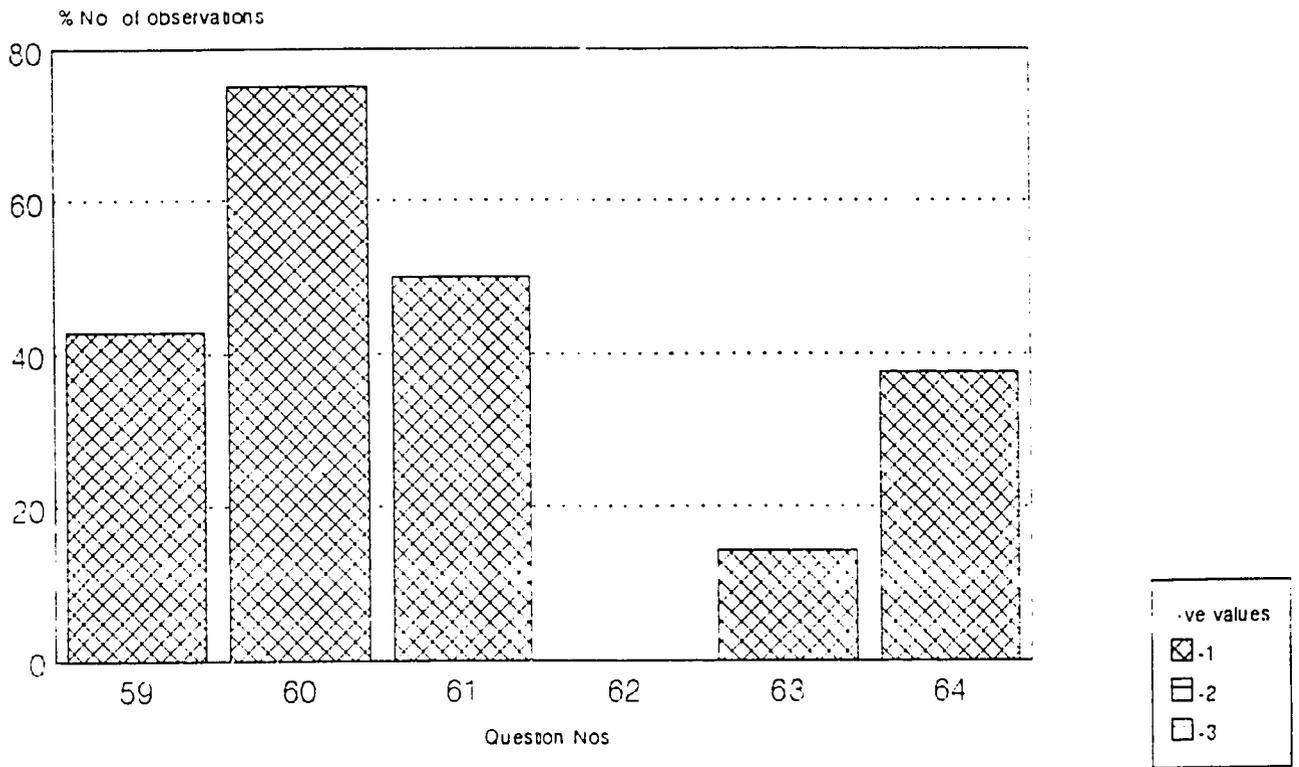
Total Sample n=11 (Asst PAMs & PAMs combined n=8)

129

FIGURE 3:

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

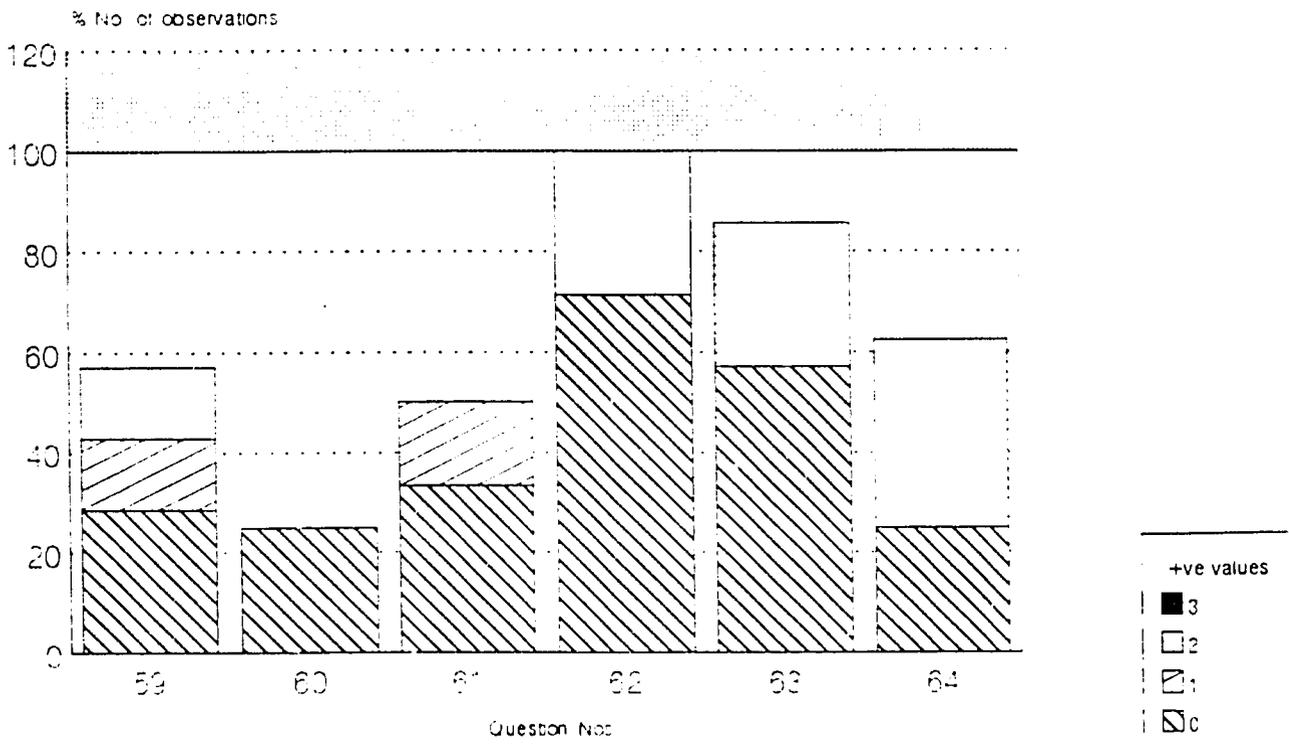
Financial -ve scores: Botswana



Total Sample n=11 (Asst PAMs & PAMs combined n=6)

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

Financial +ve scores: Botswana



Total Sample n=11 (Asst PAMs & PAMs combined n=8)

TABLE 4:

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

COMPETENCY	Question No	Total % of combined scores of -1,0,1	
		Question	Competency average
Technical	1	100	92.6
	2	100	
	3	62.5	
	4	100	
	5	87.5	
	6	100	
	7	87.5	
	8	100	
	9	50	
	10	87.5	
	11	100	
	12	100	
	13	100	
	14	100	
	15	100	
	16	100	
	17	100	
Management	18	100	93.8
	19	87.5	
	20	100	
	21	100	
	22	100	
	23	100	
	24	100	
	25	87.5	
	26	100	
	27	62.5	
Planning	28	100	94.8
	29	100	
	30	100	
	31	100	
	32	87.5	
	33	87.5	
	34	100	
	35	100	
	36	100	
	37	100	
	38	87.5	
39	75		
Legal	40	50	85.9
	41	71.4	
	42	100	
	43	100	
	44	100	
	45	75	
	46	100	
	47	100	
48	85.7		
Policy and Procedures	49	100	93.8
	50	75	
	51	87.5	
	52	100	
	53	100	
	54	100	
	55	100	
	56	10	
	57	100	
	58	75	
Financial and Accounting	59	85.7	85.3
	60	100	
	61	83.3	
	62	71.4	
	63	71.4	
	64	100	

Overall % accuracy score

91.2

Total sample: n = 11

Asst PAMs & PAMs combined: n = 8

TABLE 5:

2.3.4d Own score validation analysis: Knowledge average scores
Botswana

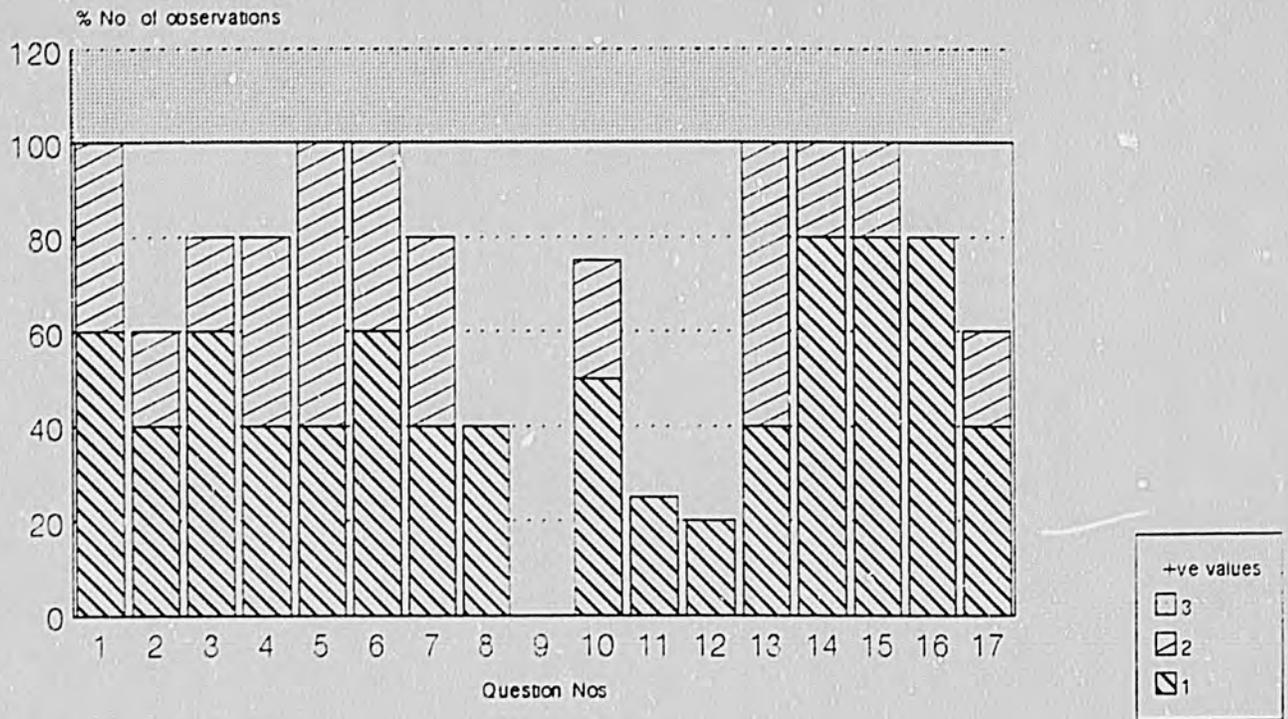
COMPETENCY	Qs No.	Box No.	PARCS Score	Average Country / Org. Score	POSITION									
					1 n=1	2 n=7	3 n=	4 n=2	5 n=	6 n=1	7 n=	8 n=	9 n=	
Technical	1	B	3	3.3	4			3.5		3				
	2	E	4	3.8	4	3.1			4	4				
	3	E	4	3.3	2	3.4			4	4				
	4	F	4	3.9	4	3.9			4	4				
	5	F	4	3.4	4	3.3			4	4				
	6	F	4	3.8	3	3.9			4	4				
	7	G	4	3.6	4	3.6			3.5	4	4			
	8	H	3	3.5	4	3.4			4	4	4			
	9	H	2	3.4	4	3.3			4	4	4			
	10	I	3	2.8	3	2.7			3	3	3			
	11	I	3	2.9	3	2.8			3	3	3			
	12	J	3	3.9	3	4			4	4	4			
	13	J	4	3.5	3	3.6			4	4	4			
	14	K	4	3.8	4	3.7			4	4	4			
	15	K	4	3.8	4	3.7			4	4	4			
	16	K	3	3.3	3	3.3			4	4	4			
	17	K	3	3	3	3			4	4	3			
Management	18	A	3	3.5	4	3.4			4	3				
	19	A	2	3	3	3			3.5	3				
	20	A	3	3.4	3	3.4			3.5	3				
	21	B	3	3.3	3	3.3			3	3				
	22	B	3	3.3	3	3.3			3	3				
	23	F	3	3.3	4	3.1			4	3				
	24	F	3	3.4	3	3.4			4	3				
	25	H	4	3.8	4	3.7			4	4				
	26	J	3	3.1	3	3.1			3.5	4	4			
	27	J	2	3.3	3	3.3			3.5	4	4			
Planning	28	A	3	3.4	3	3.4			3.5	3				
	29	B	3	3.3	3	3.3			4	4				
	30	C	3	3	3	3			3	3				
	31	D	3	3.3	3	3.3			3	4				
	32	E	4	3.5	4	3.4			3.5	4				
	33	F	4	3.5	4	3.4			3.5	4				
	34	G	4	3.5	3	3.6			3.5	4				
	35	H	3	3.4	3	3.4			3.5	4				
	36	I	2	2.9	3	2.9			3	2				
	37	K	3	3.5	3	3.6			3.5	3				
	38	K	4	3.6	4	3.6			3.5	4				
	39	K	4	3.5	4	3.4			3.5	4				
Legal	40	A	2	3.4	2	3.6			4	3				
	41	B	2	2.9	2	3			3	3				
	42	E	4	3.6	4	3.6			4	4				
	43	F	3	3.3	2	3.4			3	3				
	44	G	4	3.9	3	4			4	3				
	45	H	2	3	2	3.1			4	4				
	46	I	4	3.8	4	3.7			3.5	4				
	47	J	4	3.8	4	3.7			4	4				
	48	J	2	2.9	4	2.7			3.5	3				
Policy and Procedures	49	A	4	3.9	4	3.9			4	4				
	50	B	4	3.3	4	3.1			4	3				
	51	C	3	3	3	3			3	3				
	52	D	3	3.5	3	3.6			4	4				
	53	E	4	3.8	4	3.7			3.5	4				
	54	F	4	3.8	4	3.7			4	3				
	55	G	4	3.6	4	3.6			3.5	4				
	56	H	4	3.6	4	3.6			3	4				
	57	I	3	2.9	4	2.7			3	2				
	58	J	4	3.5	4	3.4			3.5	4				
Financial and Accounting	59	C	3	2.6	2	2.7			2.5	4				
	60	C	3	3.8	4	3.7			4	3				
	61	H	3	2.5	3	2.4			3.5	3				
	62	H	4	3	4	2.9			3.5	3				
	63	I	3	2.3	3	2.1			3	4				
64	K	3	3	3	3			3.5	3					

Total sample: n = 11

Asst PAMs & PAMs combined: n = 8

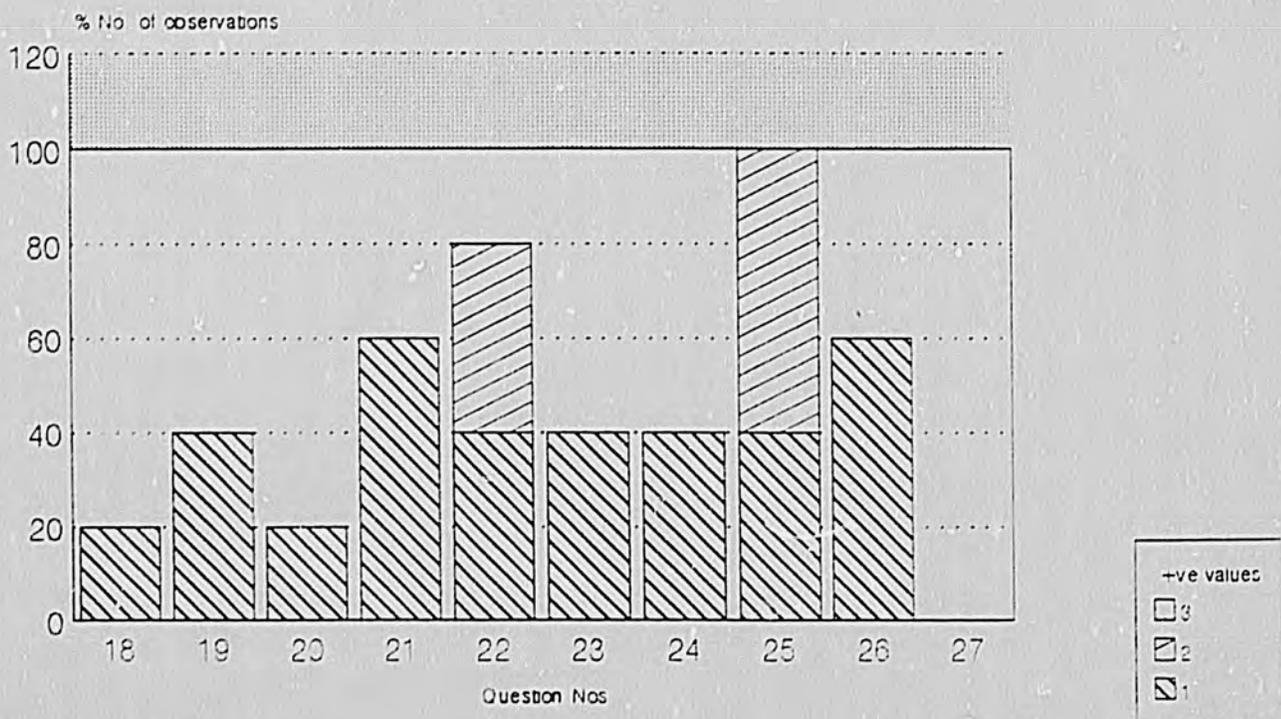
FIGURE 4:

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



Sample n=8 (PAMs & Ass PAMs)

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

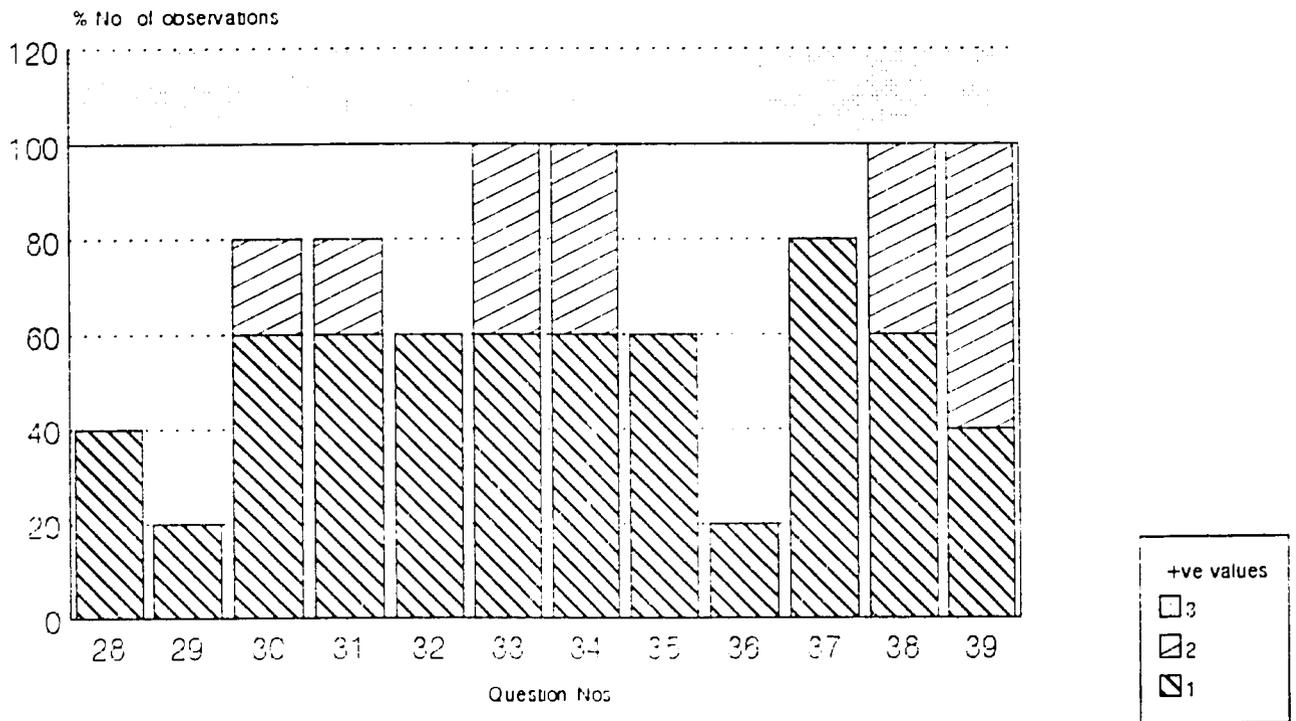


Sample n=8 (PAMs & Ass PAMs)

FIGURE 4:

2.3.5.a. PAMs gap analysis relative to PARCS.

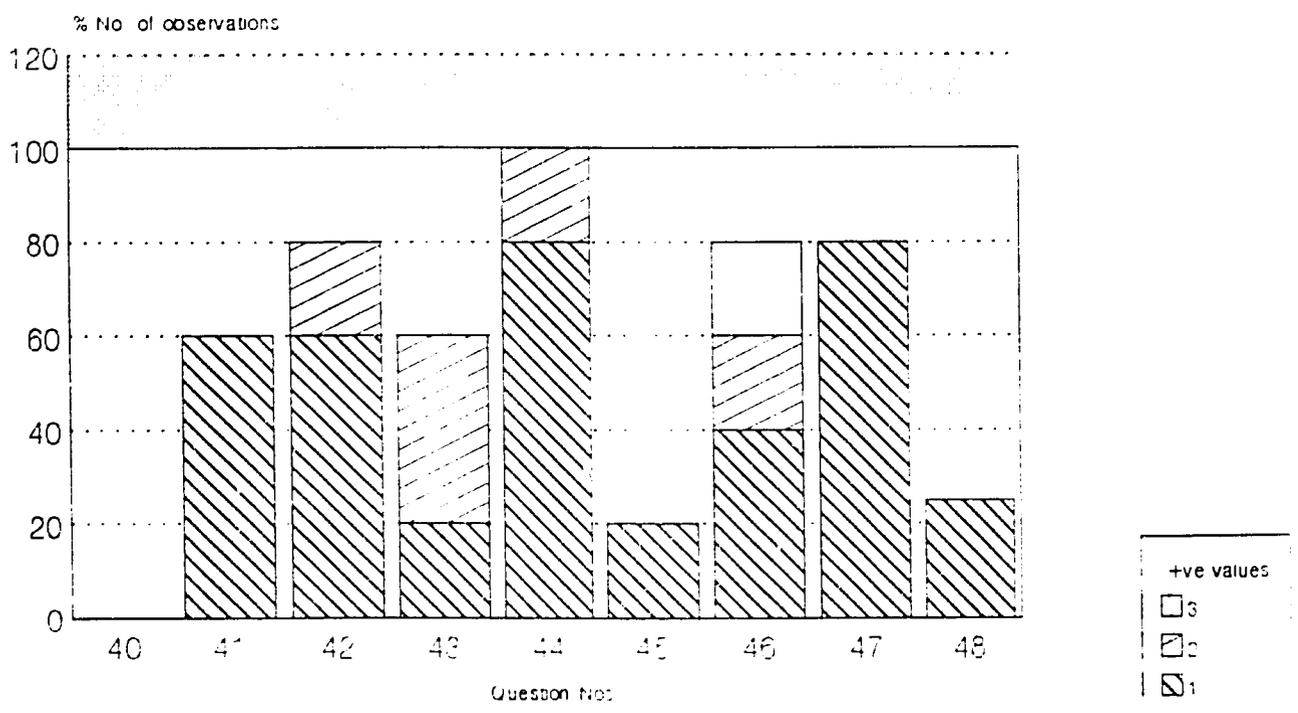
Planning Knowledge: Botswana



Sample n=8 (PAMs & Ass PAMs)

2.3.5.a. PAMs gap analysis relative to PARCS

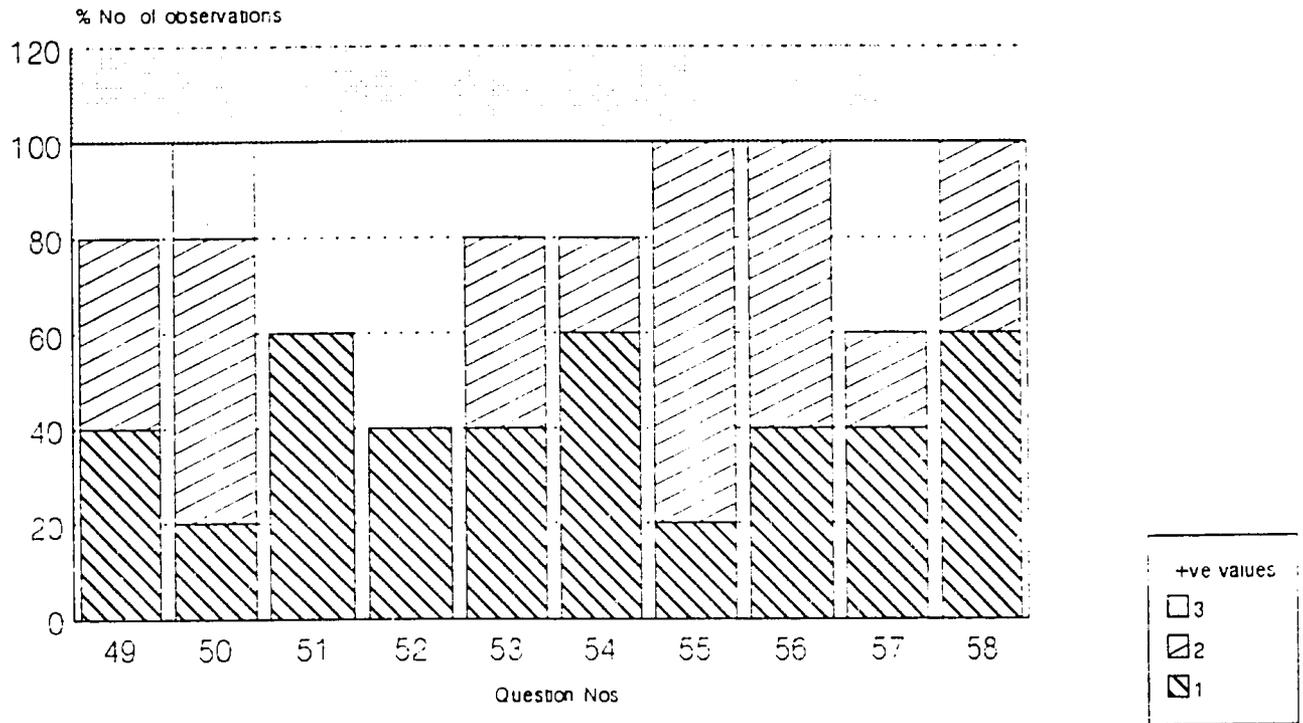
Legal Knowledge: Botswana



Sample n=8 (PAMs & Ass PAMs)

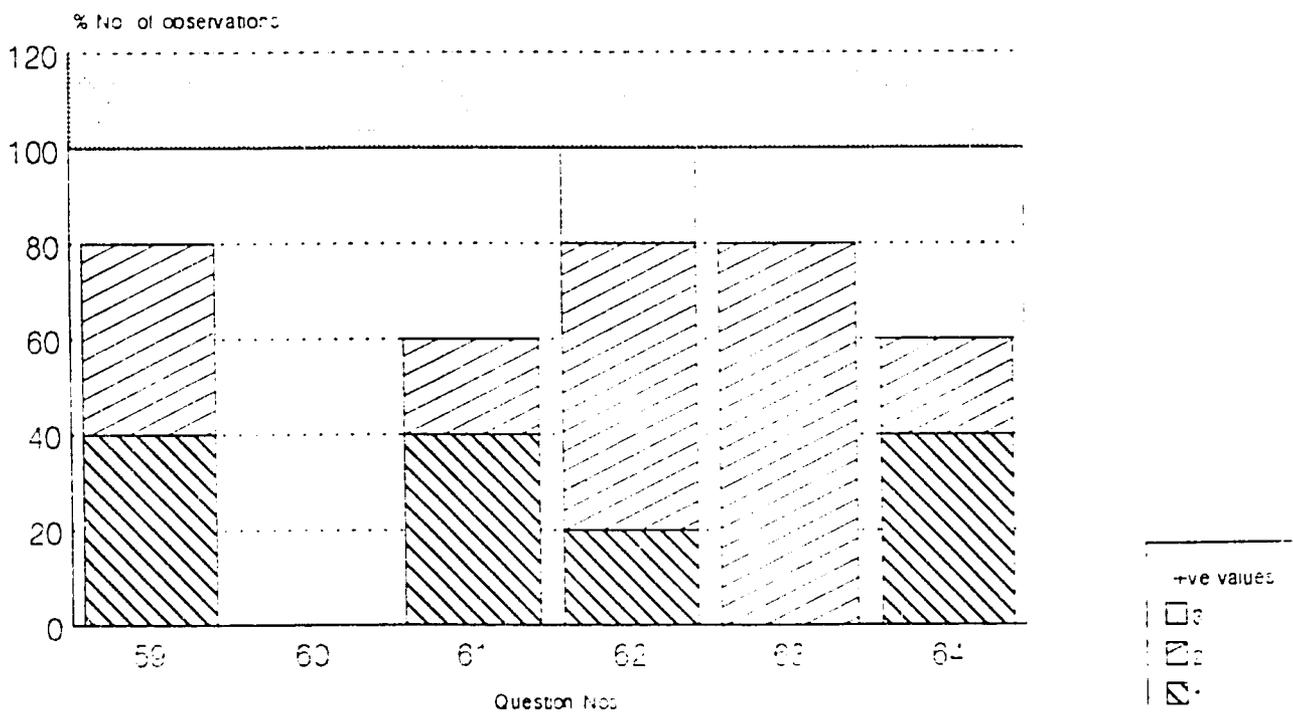
FIGURE 4:

2.3.5.a. PAMs gap analysis relative to PARCS Policies & Procedures Knowledge: Botswana



Sample n=8 (PAMs & Ass PAMs)

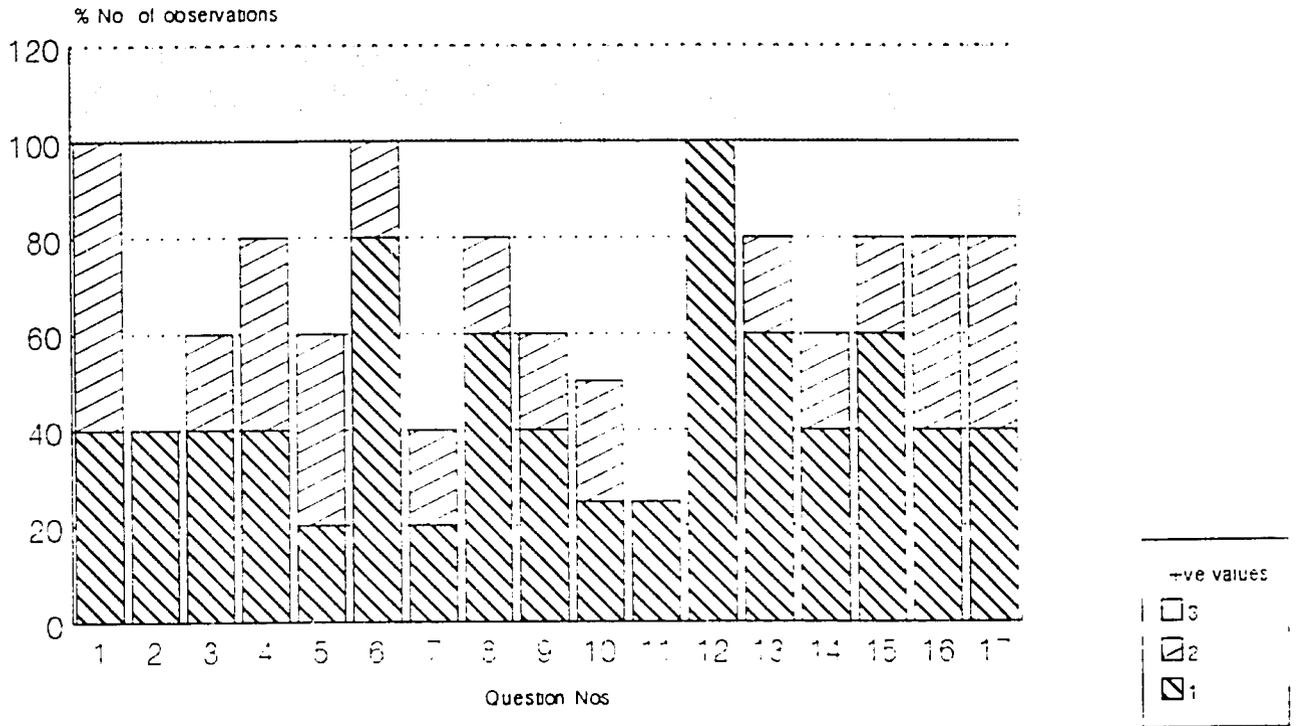
2.3.5.a. PAMs gap analysis relative to PARCS. Financial knowledge: Botswana



Sample n=8 (PAMs & Ass PAMs)

2.3.5.b. PAMs gap analysis relative to own score

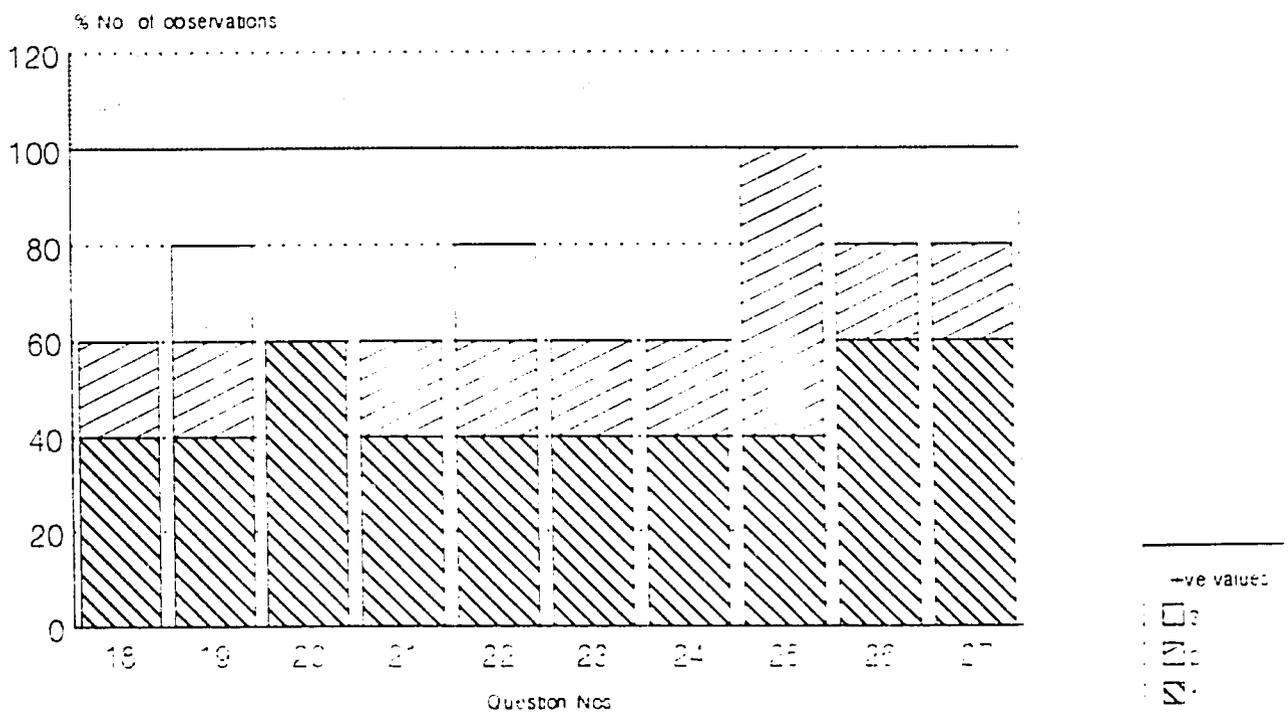
Technical Knowledge: Botswana



Sample n=11 (PAMs & Ass PAMs: n=8)

2.3.5.b. PAMs gap analysis relative to own score

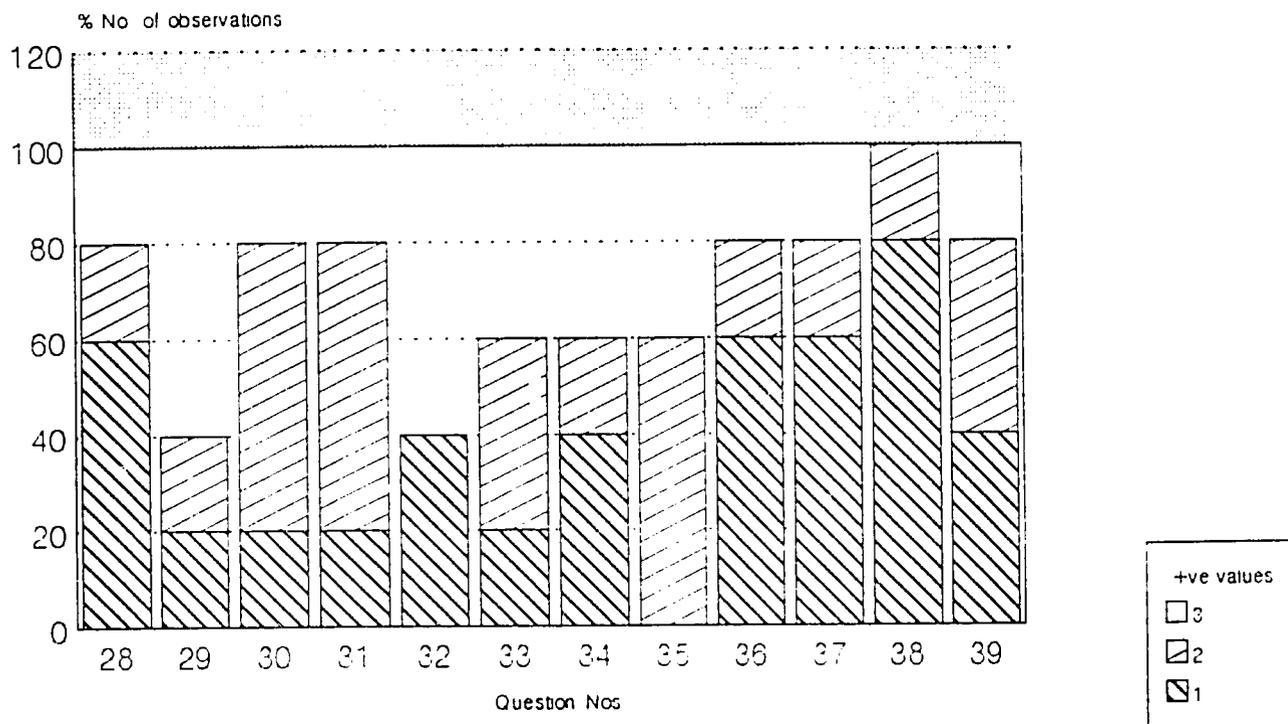
Management Knowledge: Botswana



Sample n=11 (PAMs & Ass PAMs: n=8)

2.3.5.b. PAMs gap analysis relative to own score

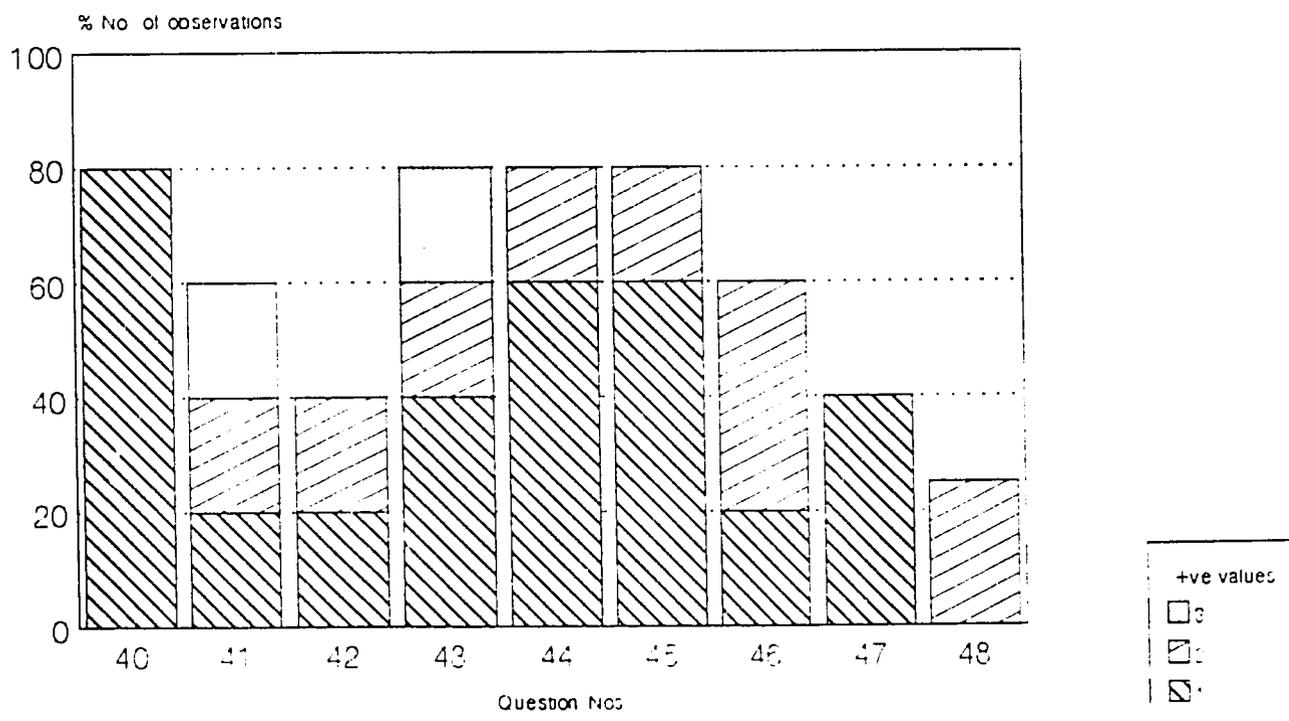
Planning knowledge: Botswana



Sample n=11 (PAMs & Ass PAMs. n=8)

2.3.5.b PAMs gap analysis relative to own score

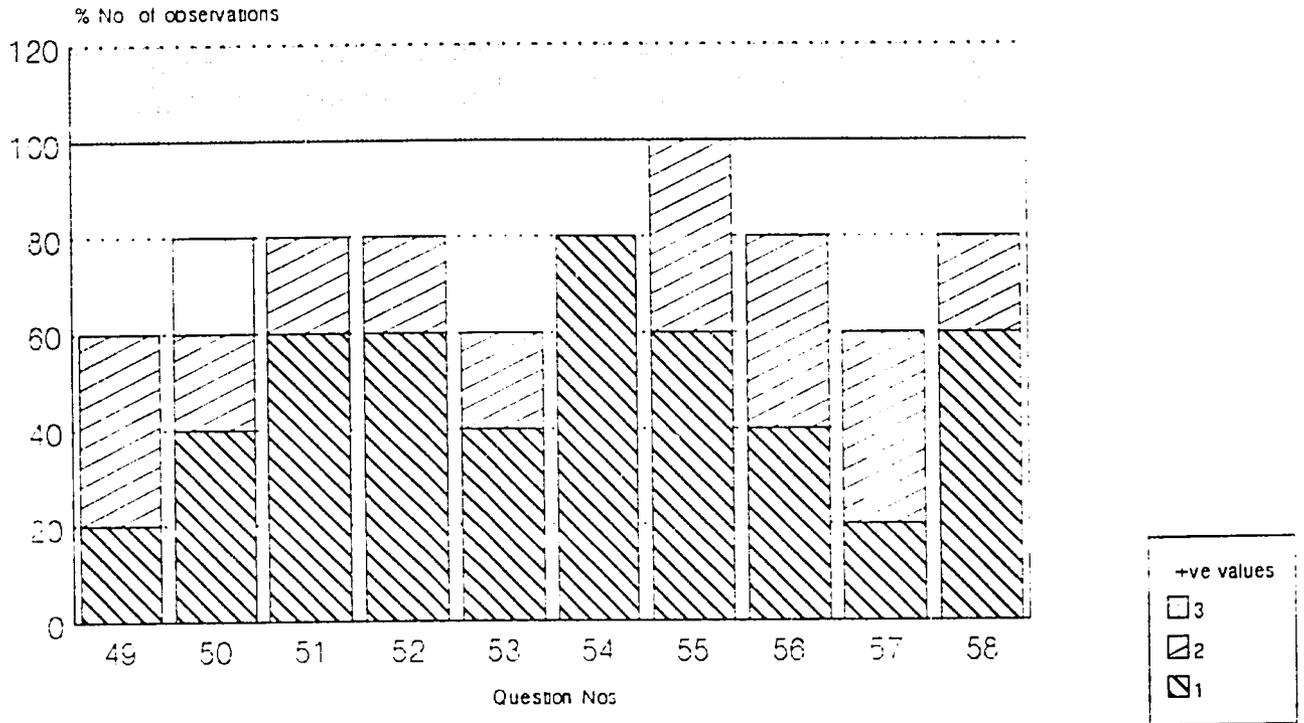
Legal Knowledge: Botswana



Sample n=11 (PAMs & Ass PAMs. n=8)

2.3.5.b. PAMs gap analysis relative to own score

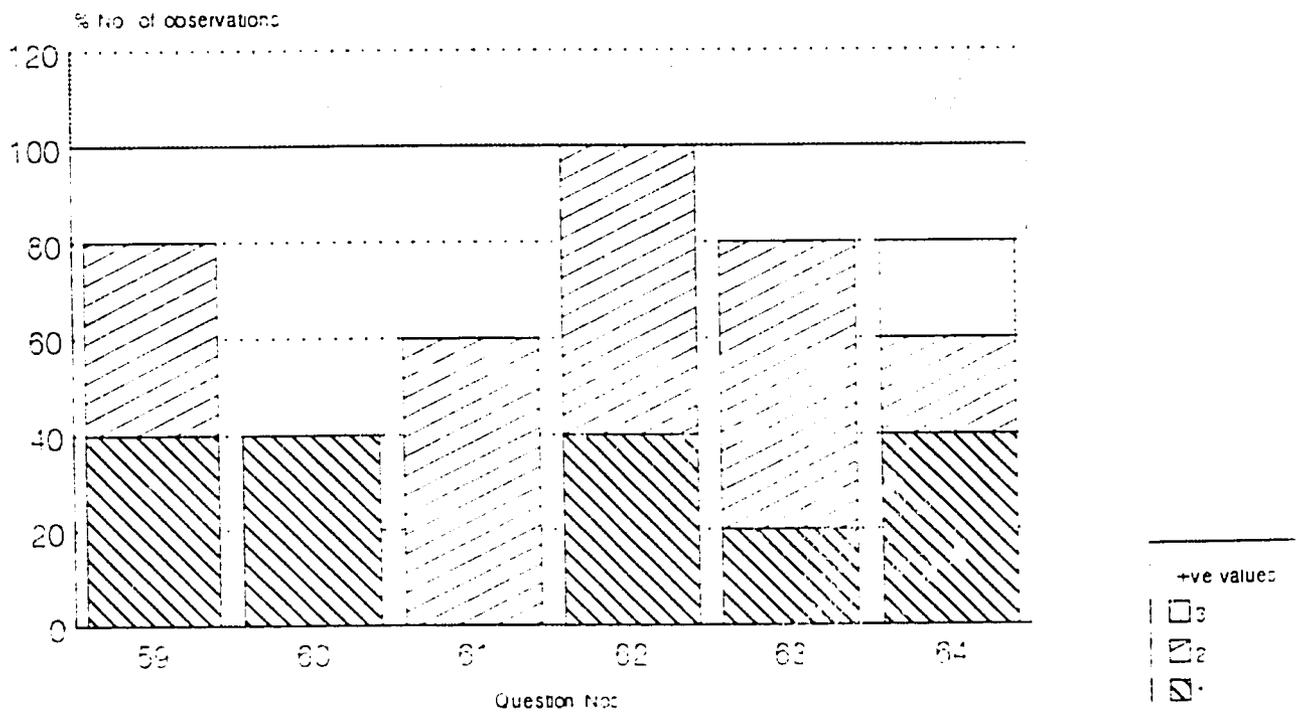
Policies & Procedures Knowledge: Botswana



Sample n=11 (PAMs & Ass PAMs: n=8)

2.3.5.b PAMs gap analysis relative to own score

Financial Knowledge: Botswana



Sample n=11 (PAMs & Ass PAMs: n=8)

134

TABLE 6:

2.3.5d PARCS score gap analysis: Knowledge average scores
Botswana

COMPETENCY	Qs No.	Box No.	PARCS Score	Average Country / Org. Score	POSITION								
					1 n=1	2 n=7	3 n=	4 n=1	5 n=	6 n=1	7 n=	8 n=	9 n=
Technical	1	B	3	1.4	1	1.5		0.5		1			
	2	E	4	0.8	0	1		1		1			
	3	E	4	1	1	1		2		2			
	4	F	4	1.2	0	1.5		2		2			
	5	F	4	1.6	2	1.5		1.5		1			
	6	F	4	1.4	2	1.3		1		2			
	7	G	4	1.2	0	1.5		2		2			
	8	H	3	0.4	1	0.3		1		1			
	9	H	2	0	0	0		0		0			
	10	I	3	1	1	1		0.5		1			
	11	I	3	0.25	1	0		0.5		1			
	12	J	3	0.2	1	0		0.5		0			
	13	J	4	1.6	2	1.5		1.5		2			
	14	K	4	1.2	1	1.3		2		2			
	15	K	4	1.2	2	1		2		2			
	16	K	3	0.8	1	0.8		1.5		1			
	17	K	3	0.8	2	0.5		0		1			
Management	18	A	3	0.2	0	0.3		1		1			
	19	A	2	0.4	0	0.5		0.5		0			
	20	A	3	0.2	1	0		1		1			
	21	B	3	0.6	0	0.8		1.5		1			
	22	B	3	1.2	1	1.3		1		2			
	23	F	3	0.4	0	0.5		0.5		1			
	24	G	3	0.4	1	0.3		1		1			
	25	H	4	1.6	2	1.5		2		2			
	26	J	3	0.6	1	0.5		1.5		1			
	27	J	2	0	0	0		0		0			
Planning	28	A	3	0.4	0	0.5		1		1			
	29	B	3	0.2	0	0.3		1		1			
	30	C	3	1	2	0.8		1		1			
	31	D	3	1	2	0.8		1.5		1			
	32	E	4	0.6	0	0.8		2		2			
	33	F	4	1.4	2	1.3		2.5		3			
	34	F	4	1.4	1	1.5		2.5		2			
	35	H	3	0.6	0	0.8		1		2			
	36	I	2	0.2	0	0.3		0		0			
	37	K	3	0.8	1	0.8		0		1			
	38	K	4	1.4	1	1.5		2.5		2			
39	K	4	0	2	1.5		2		2				
Legal	40	A	2	0	0		0.5		0				
	41	B	2	0.61	1	0.5		0.5		1			
	42	E	4	1	2	0.8		1		2			
	43	F	3	1	2	0.8		1.5		3			
	44	G	4	1.2	1	1.3		2		3			
	45	H	2	0.2	1	0		0.5		0			
	46	I	4	1.4	2	1.3		2		1			
	47	J	4	0.8	0	1		2		1			
	48	J	2	0.25	0	0.3		0.5		0			
Policy and Procedures	49	A	4	1.2	0	1.5		1		1			
	50	B	4	2	2		1.5		3				
	51	C	3	0.6	1	0.5		1		1			
	52	D	3	0.4	1	0.3		0.5		1			
	53	E	4	1.2	2	1		1.5		2			
	54	F	4	1	1	1		0.5		3			
	55	G	4	1.8	2	1.8		2.5		2			
	56	H	4	1.6	2	1.5		1.5		1			
	57	I	3	0.8	1	0.8		0.5		1			
	58	J	4	1.4	1	1.5		1.5		2			
Financial and Accounting	59	C	3	1.2	2	1		2.0		1			
	60	C	3	0	0	0		0.5		1			
	61	H	3	0.8	2	0.5		0.5		1			
	62	H	4	2	2	2		2.5		2			
	64	K	3	0.8	1	0.8		1.5		1			

Total sample: n = 11

Asst PAMs & PAMs combined: n = 8

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

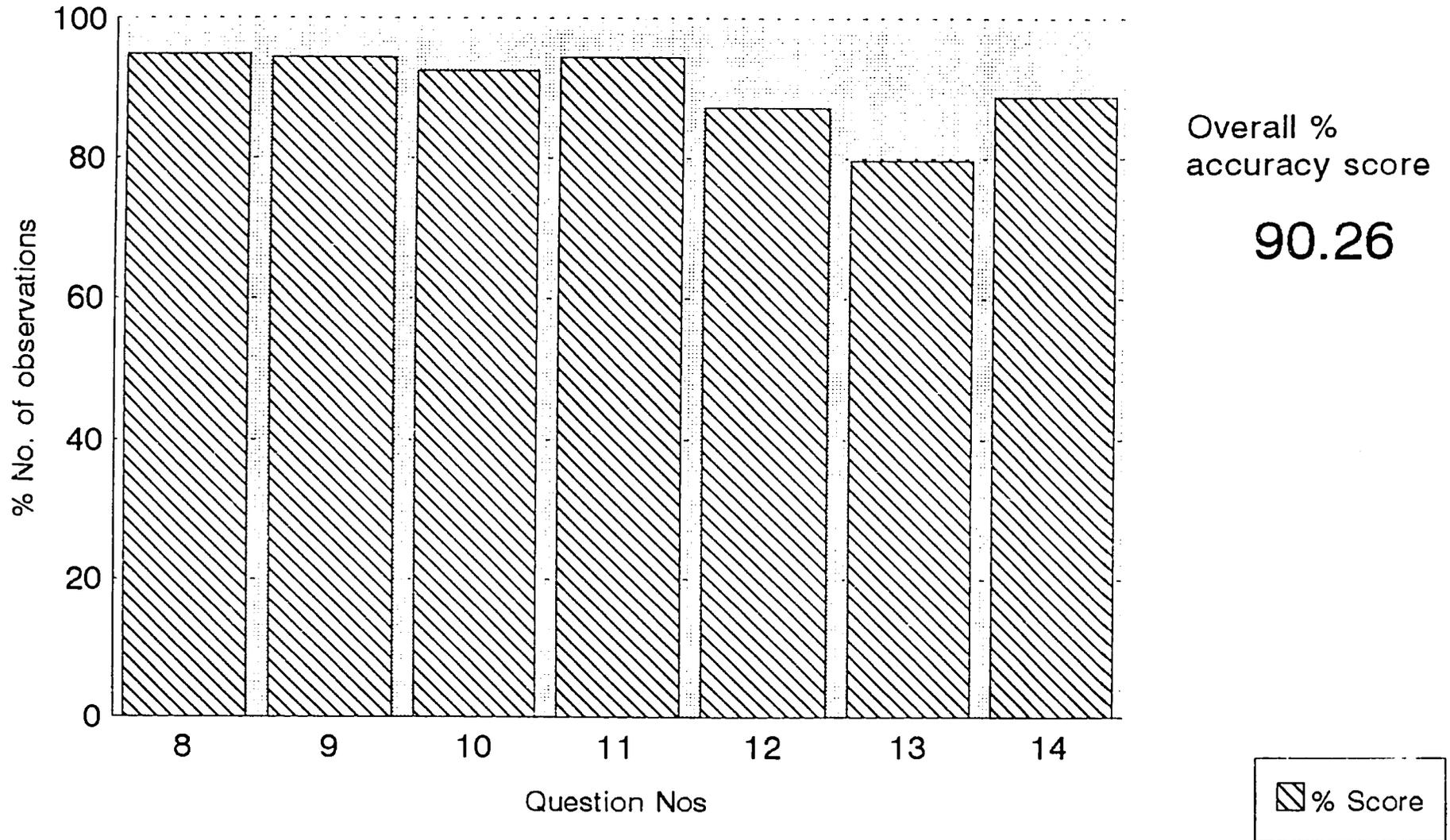
Question #																											
	A			F			M			O			R			D			S			W			X		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
1															2	1	0	1	1	0							
2															2	1	0										
3															2	0	0	1	0	0							
4															2	1	0	0	2	0							
5															2	1	0	0	2	0						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

Total sample: n=11

Asst PAMs & PAMs combined: n=8

2.3.6a Validation analysis of Mental and Social Skills

PAMs Yes responses: Botswana



Total Sample n=11 (Ass PAMs & PAMs combined: n=8)

TABLE 8:

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

MAIN DIVISIONS	COMPETENCY (% of respondents)						
	8	9	10	11	12	13	14
A			12.5			12.5	
B						12.5	12.5
C	25	12.5			14.3		
D	12.5	12.5	12.5	12.5	50	25	25
E		12.5			12.5	12.5	
F						12.5	
G	12.5	12.5		12.5	25		12.5
H							12.5
I	12.5	12.5	12.5	25		37.5	
J			25		12.5	50	25
K							25

Total sample: n=11

Asst PAMs & PAMs combined: n=8

Table 7. 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	13	76
Management	10	4	40
Planning	12	9	75
Legal	9	6	67
Polic. & Proc.	10	9	90
Fin. & Account.	6	5	83

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

COMPETENCY	Qs No.	Box No.	Average Country / Org. Score	POSITION								
				1 n=1	2 n=7	3 n=	4 n=2	5 n=	6 n=	7 n=	8 n=	9 n=
Comprehension	1	A	3.2	3	3.3		3.0					
	2	B	3.0	2	3.3		2.5					
	3	C	2.8	4	2.5		2.0					
	4	D	2.4	3	2.3		2.0					
	5	E	3.6	4	3.5		3.0					
	6	F	2.8	4	2.5		2.5					
	7	G	2.8	3	2.8		2.0					
	8	H	2.8	3	2.8		3.0					
	9	I	3.2	3	3.3		2.5					
	10	J	3.0	3	3.0		3.0					
	11	K	3.0	3	3.0		2.5					
	12	K	2.6	2	2.8		2.0					
Problem analysis	13	A	3.0	3	3.0		3.5					
	14	B	2.6	3	2.5		2.5					
	15	C	2.6	3	2.5		2.0					
	16	D	2.4	3	2.3		2.0					
	17	E	2.8	4	2.5		2.5					
	18	F	3.4	4	3.3		2.5					
	19	G	2.6	3	2.5		2.0					
	20	H	3.0	3	3.0		3.0					
	21	I	3.0	3	3.0		2.5					
	22	J	2.4	3	2.3		2.5					
	23	K	3.0	3	3.0		2.5					
Creativity	24	A	2.8	3	2.8		3.0					
	25	B	2.6	3	2.5		2.5					
	26	C	1.8	3	1.5		2.5					
	27	D	2.6	3	2.5		3.0					
	28	E	2.6	3	2.5		2.0					
	29	F	2.0	3	1.8		2.0					
	30	G	2.6	3	2.5		2.5					
	31	H	3.0	3	3.0		2.5					
	32	I	2.8	4	2.5		2.0					
	33	K	2.6	3	2.5		2.5					
	Evaluation	34	A	2.8	4	2.5		3.5				
35		B	2.6	3	2.5		2.5					
36		C	2.4	3	2.5		2.5					
37		D	2.8	4	2.3		2.0					
38		E	2.6	3	2.5		2.0					
39		F	2.4	3	2.5		2.0					
40		G	2.0	3	2.3		2.0					
41		H	2.4	2	1.8		2.5					
42		I	2.4	3	2.5		3.0					
Oral	43	A	2.8	4	2.5		3.5					
	44	B	3.0	4	2.3		3.0					
	45	C	2.3	3	2.5		2.5					
	46	D	1.8	2	2.8		2.0					
	47	E	3.0	4	2.0		4.0					
	48	F	2.6	3	1.8		2.0					
	49	G	1.8	2	2.8		2.0					
	50	H	2.8	4	2.5		2.0					
	51	J	2.4	3	1.8		3.0					
	Written	52	A	2.2	3	2.0		3.0				
53		B	1.8	2	1.8		2.5					
54		C	2.0	3	1.8		2.0					
55		D	2.6	3	2.5		3.0					
56		E	2.6	3	2.5		2.0					
57		F	2.6	3	2.5		2.0					
58		G	2.4	3	2.3		2.5					
59		I	1.2	1	1.3		2.5					
Working with others		60	A	3.0	3	3.0		3.0				
	61	B	1.4	1	1.0		2.0					
	62	C	1.6	1	1.0		2.5					
	63	D	2.2	2	2.0		2.0					
	64	E	2.8	3	3.0		2.5					
	65	F	2.8	3	3.0		2.5					
	66	G	3.4	3	3.0		3.0					
	67	H	2.6	2	2.0		2.5					
	68	I	2.2	3	3.0		2.5					
	69	K	2.4	2	2.5		2.5					

Total sample: n = 11

Asst PAMs & PAMs combined: n = 8

144

TABLE 9:

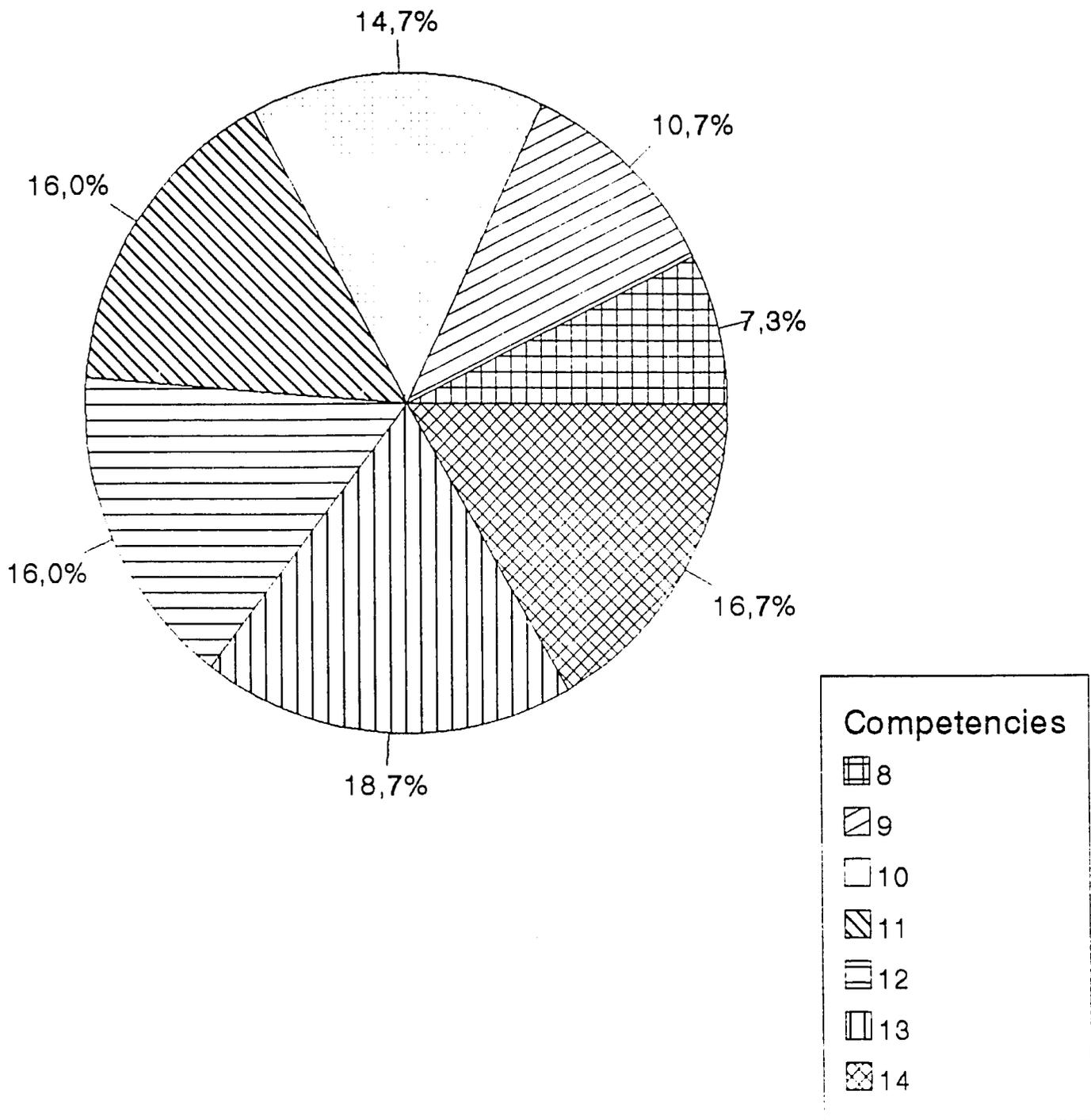
2.3.7a.1 Current Mental and Social Skill Level of Asst PAMs & PAMS: Low Skill Levels Botswana

MAIN DIVISIONS	COMPETENCY (cumulative score of all 1&2 responses)							Total
	8	9	10	11	12	13	14	
A		1	1	1	1	2		6
B	1	2	2	2	1	4	5	17
C	2	1			3			6
D	3	3	4	3	5	3	5	26
E		2	2	2	1	2	1	10
F	2		2	2	2	2	1	11
G	2	3	4	3	5	2		19
H	1	1	2	4	2			10
I		1	1	3		2	3	10
J		3	2	2	2	5	3	17
K	2	1	2				4	9
Total	13	18	22	22	22	22	22	141

Total sample: n=11

Asst PAMs & PAMs combined: n=8

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



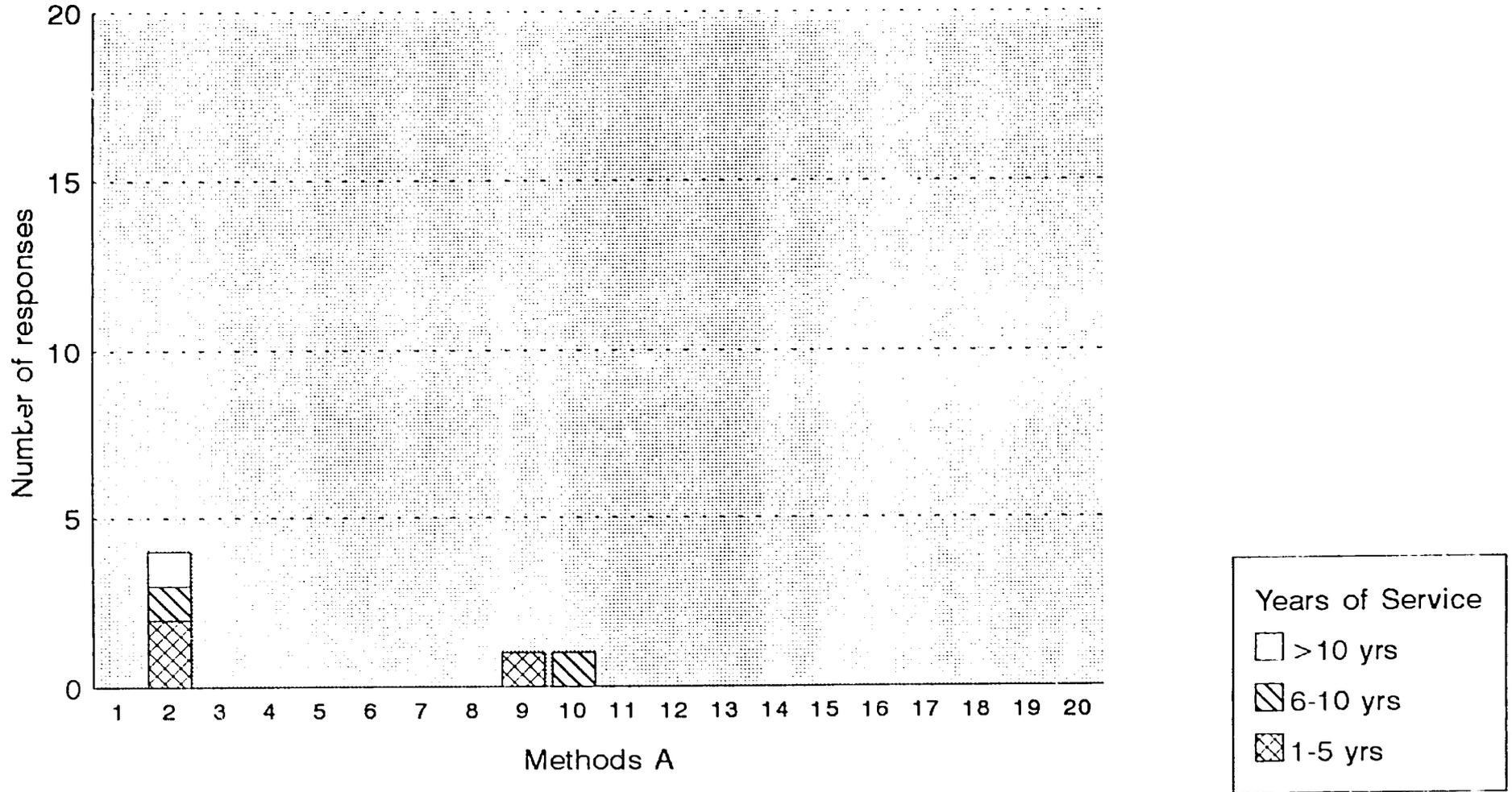
Total Sample: n= 11

Ass PAMs & PAMs combined: n=8

FIGURE 6:

2.3.8a PAMs Methods To Instill Work Ethics Botswana

147

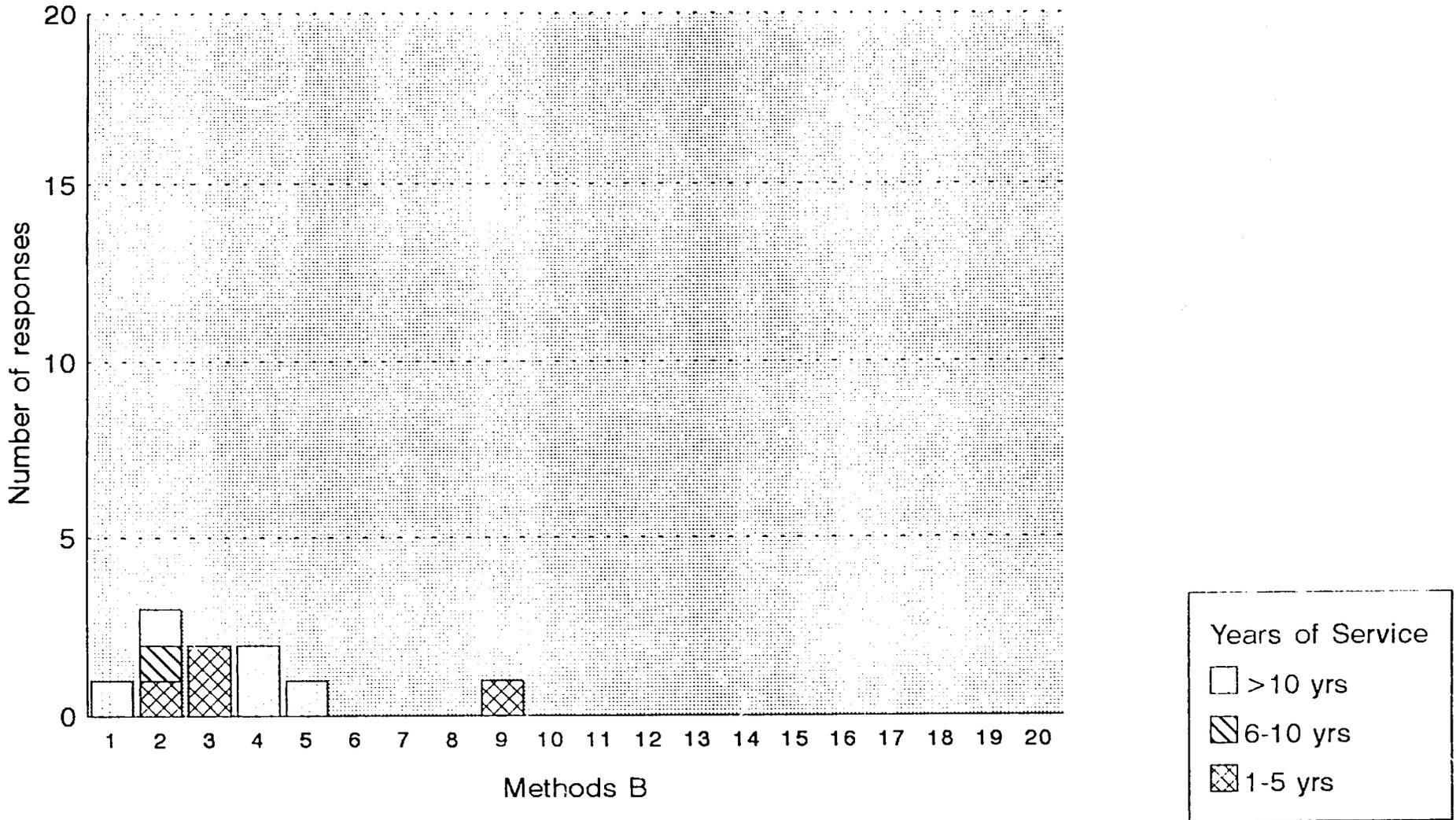


Total Sample: n=11 (Ass PAMs & PAMs: n=8)

FIGURE 7:

2.3.8b PAMs Methods To Instill Commitment to Conservation Botswana

148

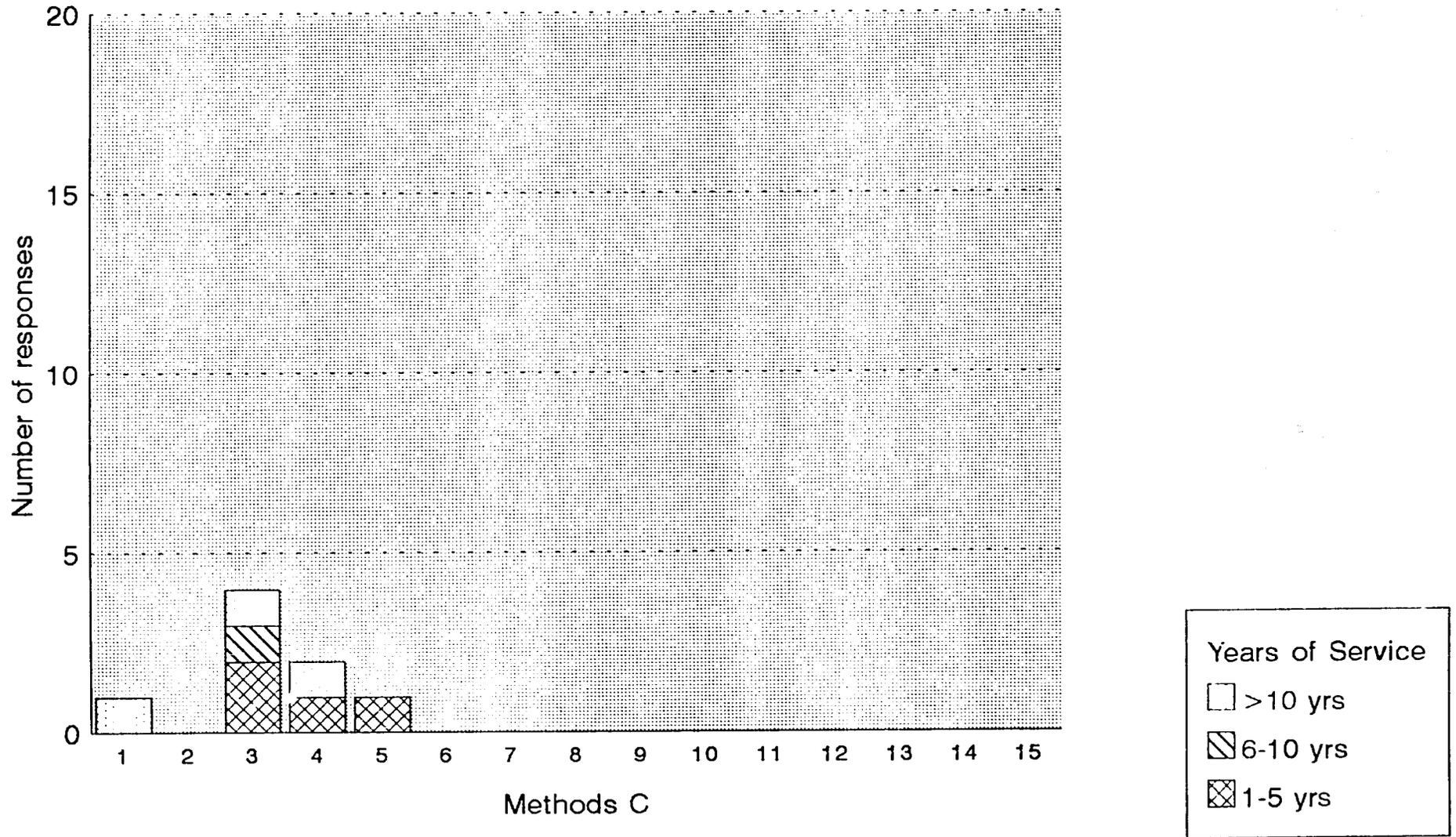


Total Sample: n=11 (Ass PAMs & PAMs: n=8)

FIGURE 8:

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

149

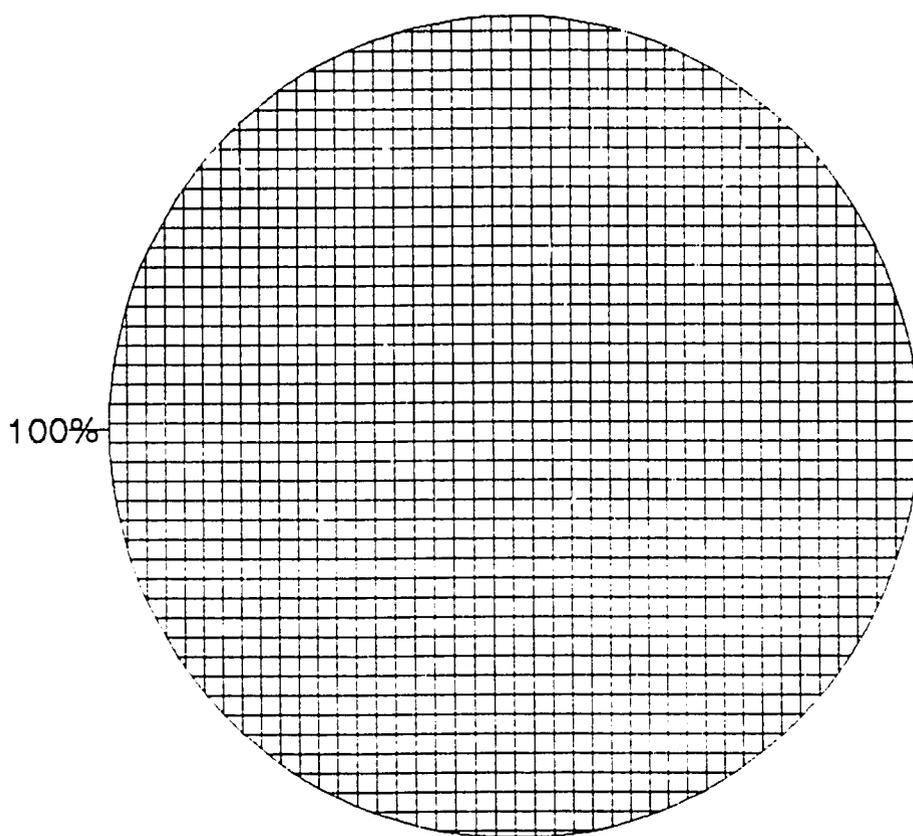


Total Sample:n= 11 (Ass PAMs & PAMs:n=8)

FIGURE 9:

2.3.9. PAMs Language Skills

Botswana



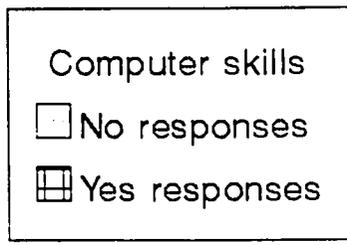
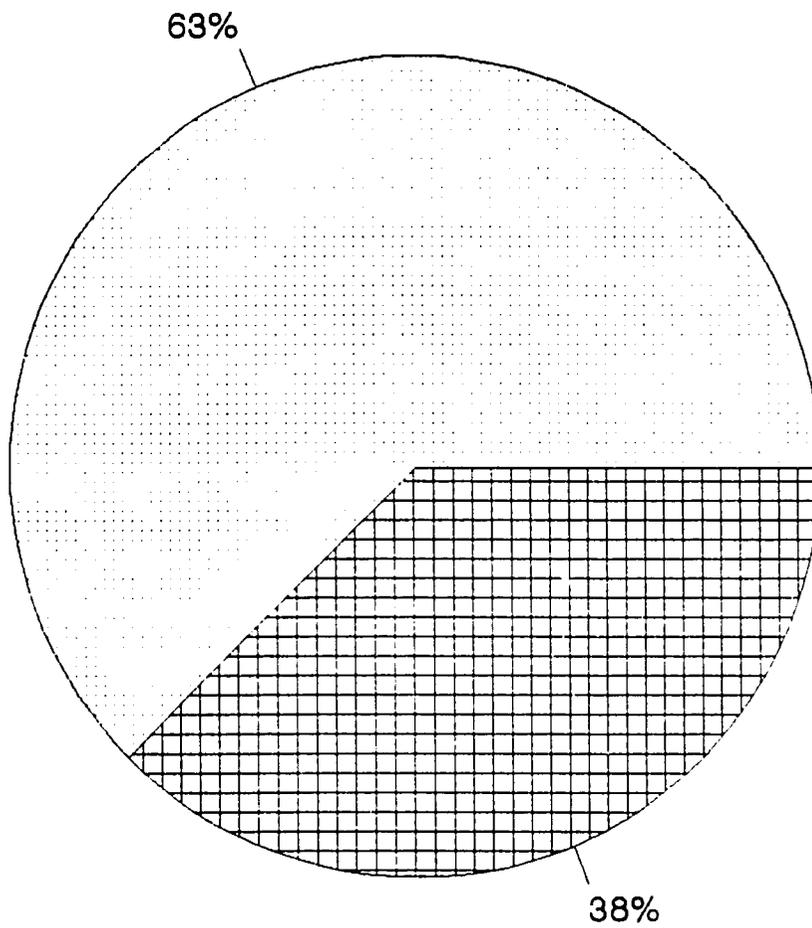
Language skills
■ Yes responses

Total Sample: n = 11 (Ass PAMs & PAMs: n = 8)

FIGURE 10:

2.3.10a PAMs Computer Skills

Botswana

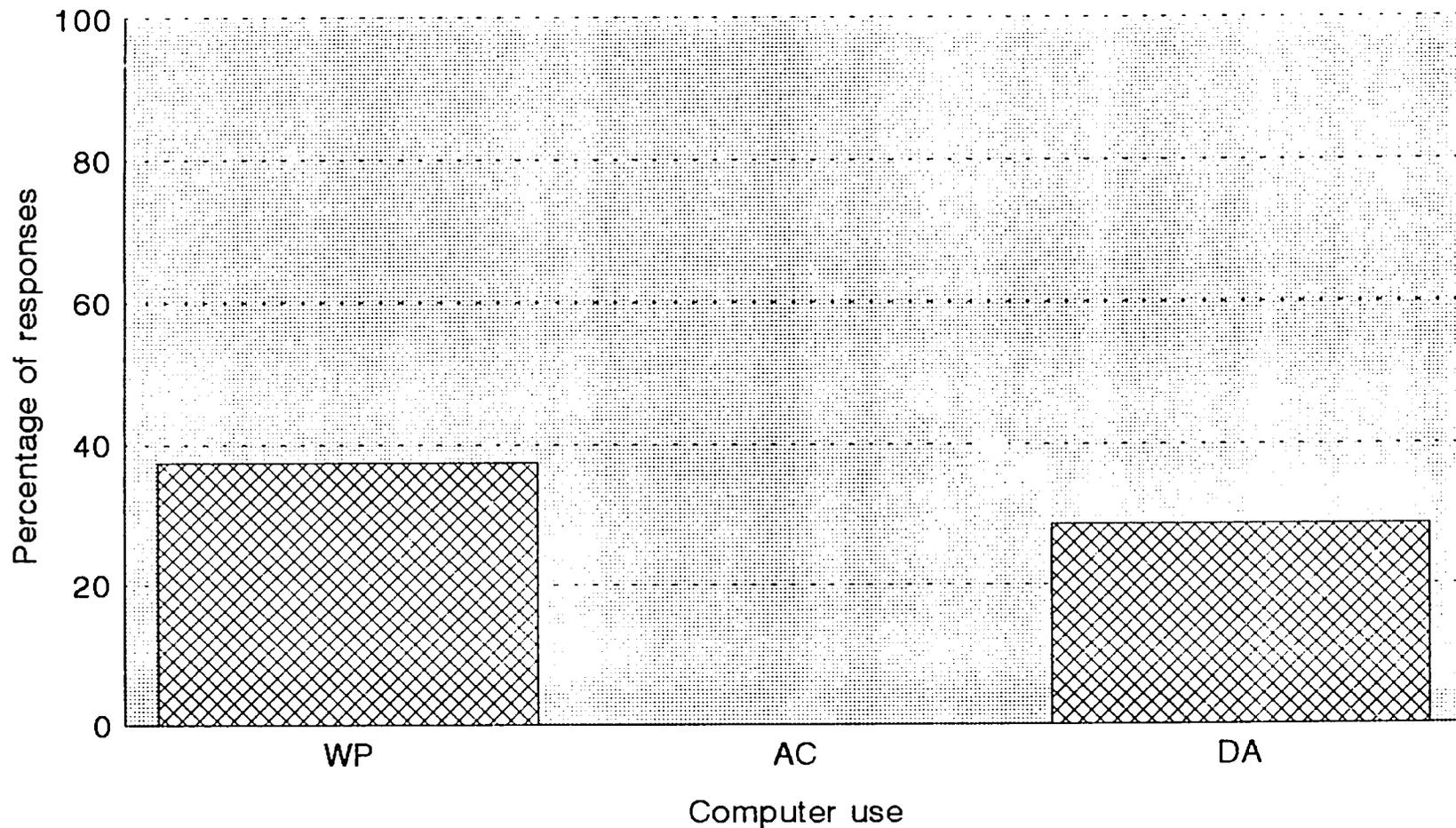


Total Sample: n=11 (Ass PAMs & PAMs: n=8)

2.3.10.b PAMs Computer Uses

Botswana

158



Total Sample: n=11 (Ass PAMs & PAMs: n=8)

**2.3.11 PAMs identified Training priorities:
Botswana**

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	1					1												2
B							1											1
C																		
D																		
E													1					1
F						1							1					2
G																		
H		1	1															2
I																		
J																		
K		1											1					2
Totals	1	2	1			2	2						3					11

Total sample: n=11

Asst PAMs & PAMs combined: n=8

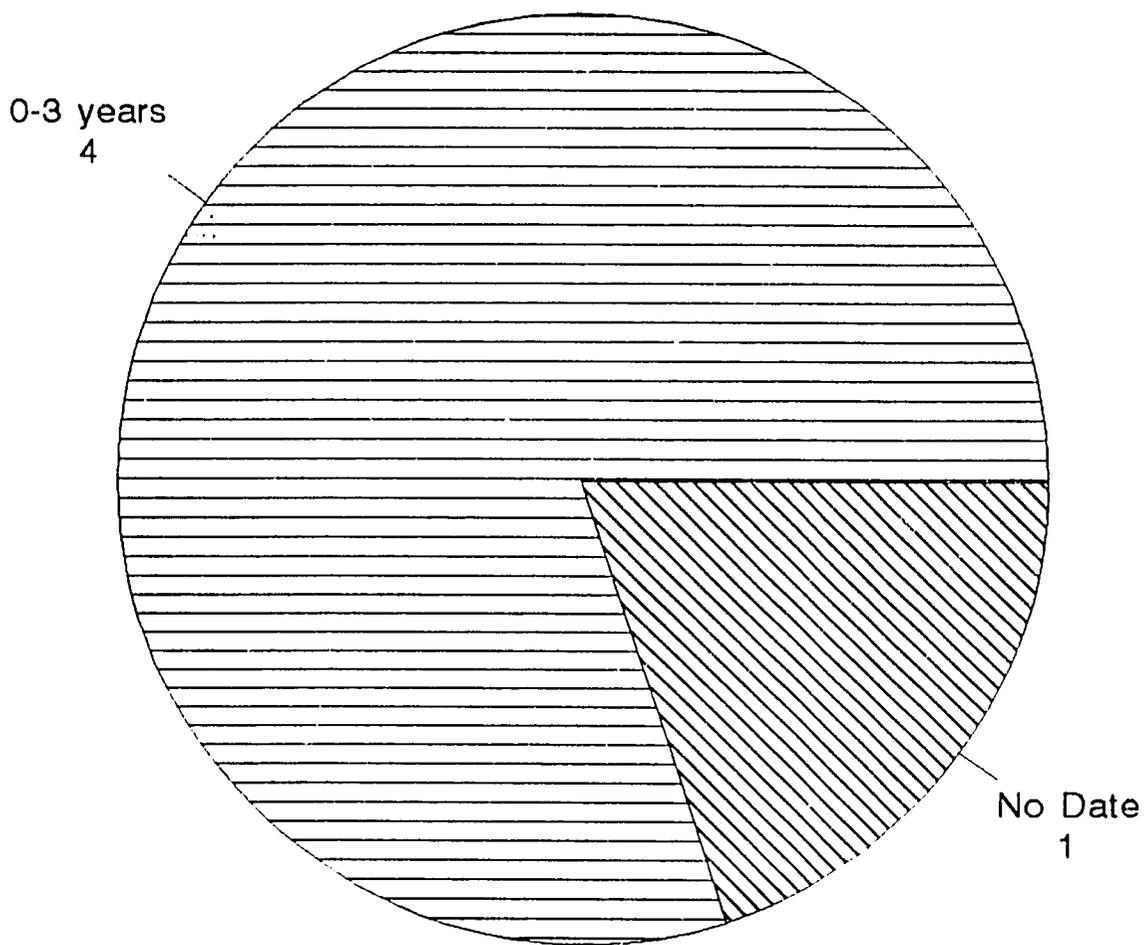
2.3.12 PAMs training received:
Botswana

	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=11

Asst PAMs & PAMs combined: n=8

2.3.12d PAMs years since formal wildlife training received Botswana

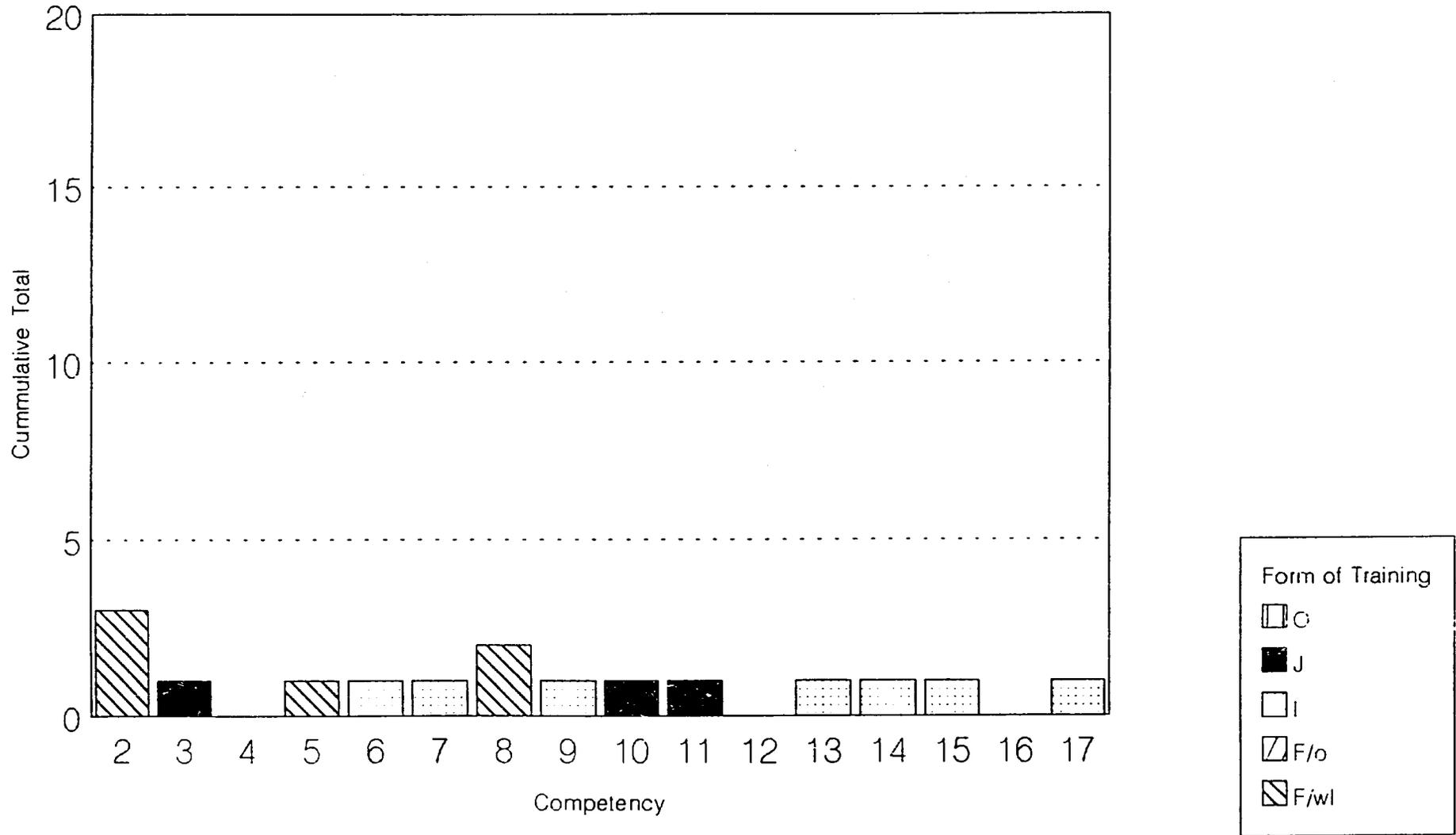


Total Sample n = 11 (Ass PAMs & PAMs n=8)

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

Botswana

156



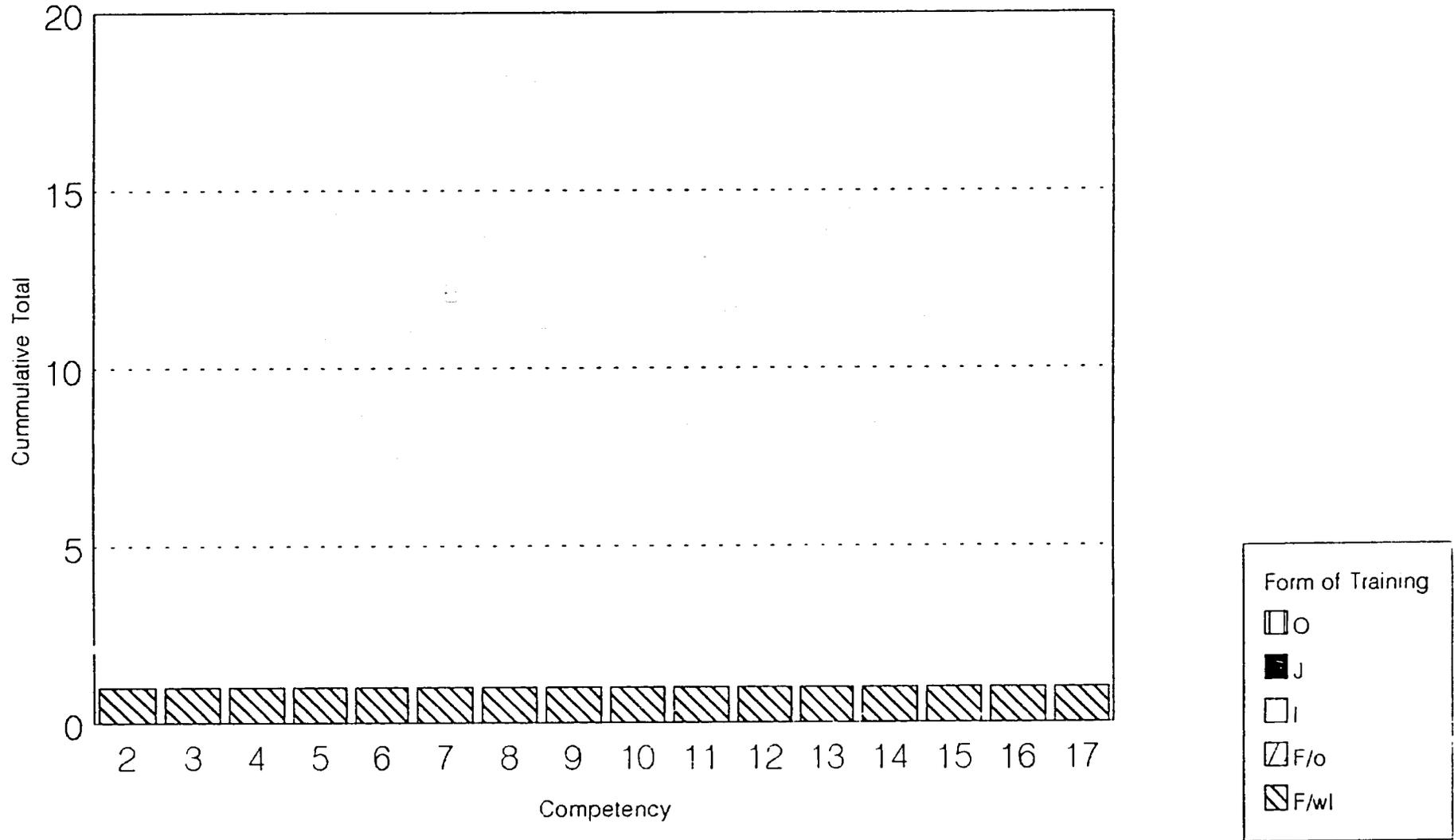
Total Sample n=11 (PAMs & Ass PAMs n=8)

FIGURE 13:

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

Botswana

159



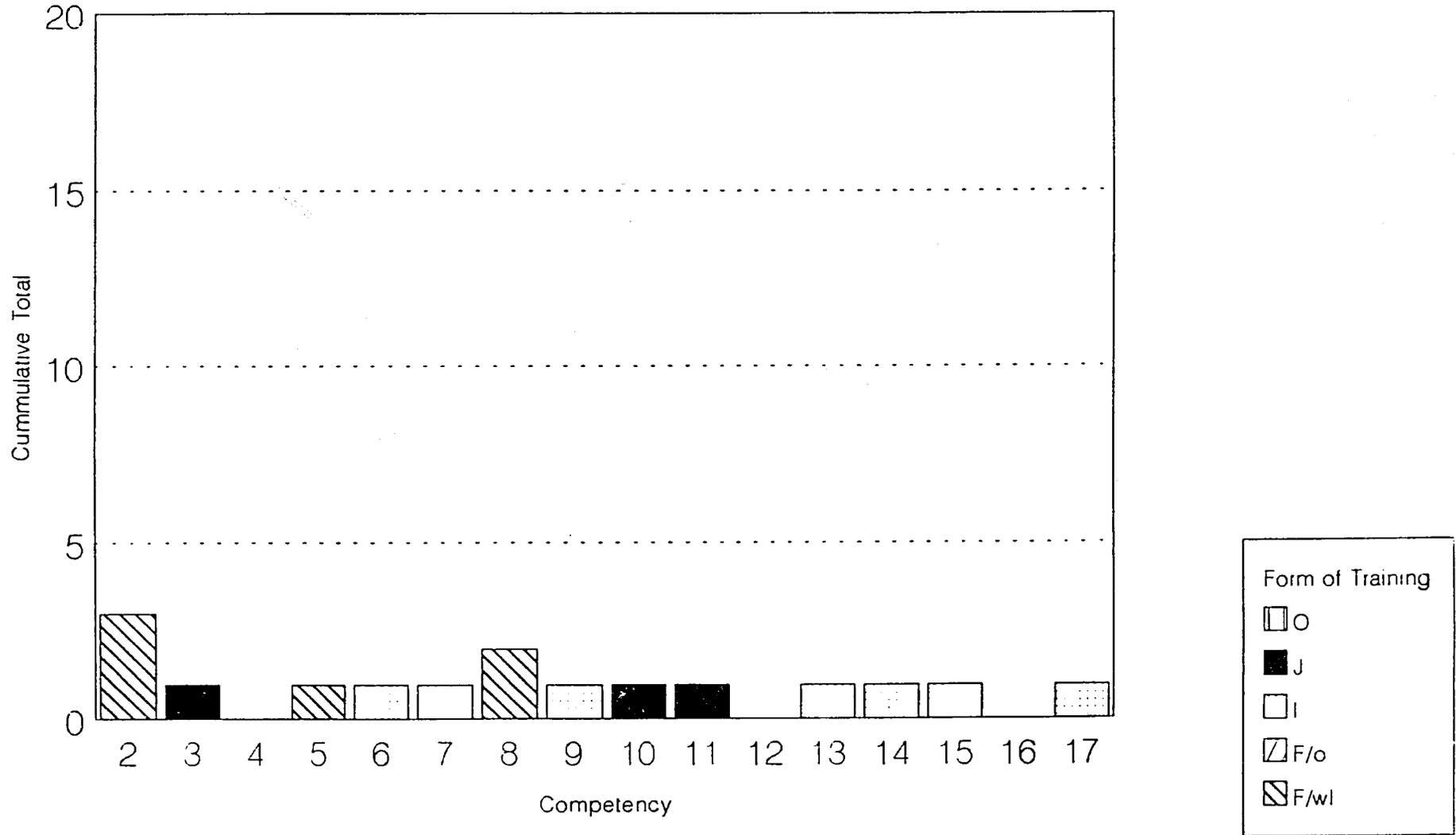
Total Sample n=11 (PAMs & Ass PAMs n=8)

FIGURE 14:

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

851
158

Botswana

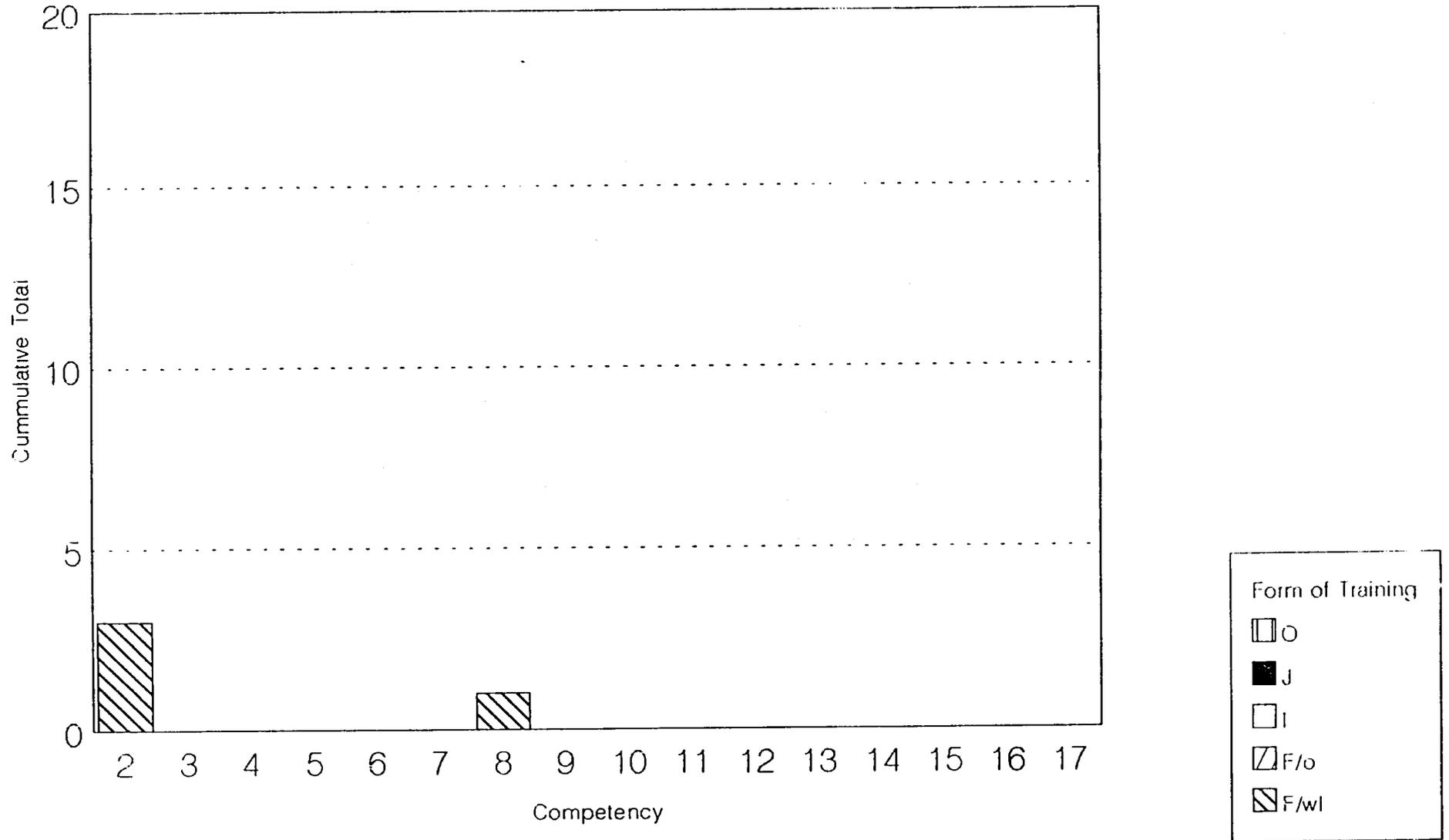


Total Sample $n=11$ (PAMs & Ass PAMs $n=8$)

2.3.12.g.4 PAMs training that has contributed most: n>10 and training also recieved in last 5 yrs

159

Botswana



Total Sample n=11 (PAMs & Ass PAMs n=8)

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

MAIN DIVISIONS	COMPETENCIES													
	Knowledge						Mental & Social skills							
	2	3	4	5	6	7	8	9	10	11	12	13	14	
A					2			1	1	1	1	2		
B	2	1	1		4		1	2	2	2	1	4	5	
C			1			2	2	1			3			
D							3	3	4	3	5	3	5	
E	1			1	2			2	2	2	1	2	1	
F	2.3		2	2	1		2		2	2	2	2	1	
G	2		2	1	4		2	3	4	3	5	2		
H		3			3	2	1	1	2	4	2			
I	0.5			2	1	4		1	1	3		2	3	
J	1.5				2			3	2	2	2	5	3	
K	0.8		1.7			1	2	1	2				4	

Total sample: n=11

Asst PAMs & PAMs combined: n=8

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

MAIN DIVISIONS	COMPETENCIES													
	Knowledge						Mental & Social skills							
	2	3	4	5	6	7	8	9	10	11	12	13	14	
A					<i>1/2</i>			<i>0/1</i>	<i>0/1</i>	<i>0/1</i>	<i>0/1</i>	<i>0/2</i>		
B	<i>0/2</i>	<i>0/1</i>	<i>0/1</i>		<i>0/4</i>		<i>0/1</i>	<i>0/2</i>	<i>0/2</i>	<i>0/2</i>	<i>0/1</i>	<i>0/4</i>	<i>0/5</i>	
C			<i>0/1</i>			<i>0/2</i>	<i>0/2</i>	<i>0/1</i>			<i>0/3</i>			
D							<i>0/3</i>	<i>0/3</i>	<i>0/4</i>	<i>0/3</i>	<i>0/5</i>	<i>0/3</i>	<i>0/5</i>	
E	<i>0/1</i>			<i>0/1</i>	<i>0/2</i>			<i>0/2</i>	<i>0/2</i>	<i>0/2</i>	<i>0/1</i>	<i>1/2</i>	<i>0/1</i>	
F	<i>0/2.3</i>		<i>0/2</i>	<i>0/2</i>	<i>1/1</i>		<i>0/2</i>		<i>0/2</i>	<i>0/2</i>	<i>0/2</i>	<i>1/2</i>	<i>0/1</i>	
G	<i>0/2</i>		<i>0/2</i>	<i>0/1</i>	<i>0/4</i>		<i>0/2</i>	<i>0/3</i>	<i>0/4</i>	<i>0/3</i>	<i>0/5</i>	<i>0/2</i>		
H		<i>1/3</i>			<i>0/3</i>	<i>0/2</i>	<i>0/1</i>	<i>0/1</i>	<i>0/2</i>	<i>0/4</i>	<i>0/2</i>			
I	<i>0/0.5</i>			<i>0/2</i>	<i>0/1</i>	<i>0/4</i>		<i>0/1</i>	<i>0/1</i>	<i>0/3</i>		<i>0/2</i>	<i>0/3</i>	
J	<i>0/1.5</i>				<i>0/2</i>			<i>0/3</i>	<i>0/2</i>	<i>0/2</i>	<i>0/2</i>	<i>0/5</i>	<i>0/3</i>	
K	<i>1/0.8</i>		<i>0/1.7</i>			<i>0/1</i>	<i>0/2</i>	<i>0/1</i>	<i>0/2</i>				<i>0/4</i>	

Total sample: n=11

Asst PAMs & PAMs combined: n=8

Identified training priorities: represented by numbers in italics

Total gaps: represented by normal numbers