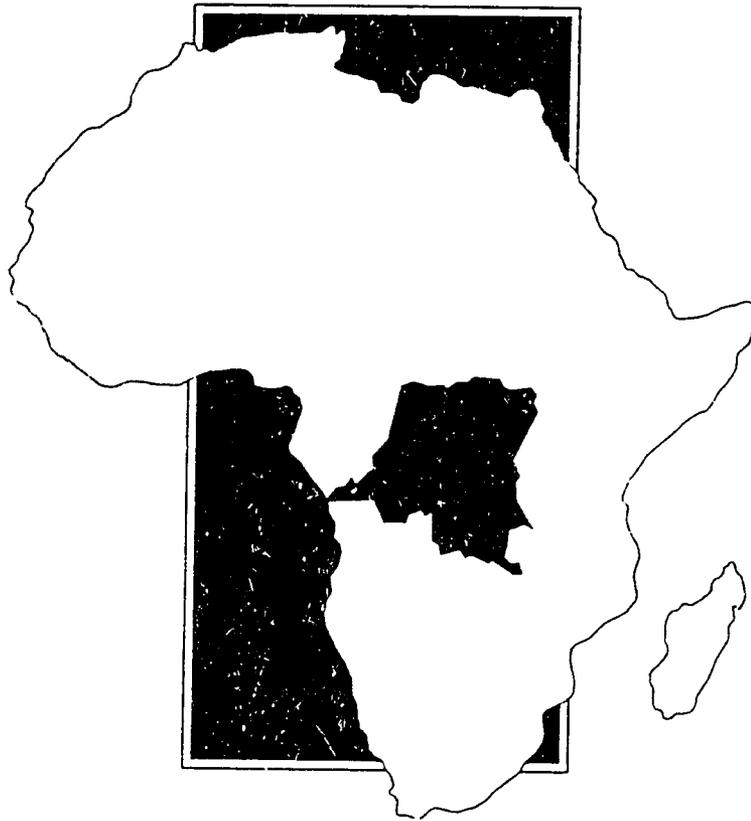


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# PARCS

## PROTECTED AREA CONSERVATION STRATEGY

ASSESSING THE TRAINING NEEDS OF PROTECTED  
AREA MANAGERS IN AFRICA



ZAIRE

PA 7-003-719



The WILDLIFE CONSERVATION SOCIETY

**Biodiversity  
Support  
Program**



PARCS is funded by the United States Agency for International Development (USAID) with additional support from AWF, WCS and WWF-US.

# PARCS

## Country Report: ZAIRE

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December 1993

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# EXECUTIVE SUMMARY

## ZAIRE

### 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 project seeks ways to facilitate the process of developing training programs for skills and competencies in which PAMs themselves recognize a deficiency.

The PARCS Phase I training needs and training opportunities assessments address two questions: (i) "What training do PAMs need in order to enhance the conservation of Africa's protected areas?", and (ii) "What can be done to provide such training for PAMs?"

A questionnaire was designed to gather data on the training needs of protected area managers. The questionnaire was designed as a job description and provided a qualitative and quantitative means of assessing training needs. It assessed both the levels of skill considered necessary to satisfactorily do the job of a protected area manager, and the levels of skill currently possessed by PAMs. Differences between the level of skills needed for the job and the level of skills which PAMs currently have were recognized as a training need. Further information on training needs and training opportunities were obtained through interviews with PAMs, their supervisors and colleagues. This questionnaire was designed in such a manner that the results could be compared and analyzed across three regions of Africa.

Phase I of PARCS (Protected Area Conservation Strategy) constituted the first step in a four year project. The second step, in Phase II, will address the priority training needs in a number of pilot countries in Central, East and Southern Africa, based on the needs and recommendations identified in Phase I.

The first phase of PARCS activities was funded by the Bureau for Africa's Policy, Analysis, Research and Technical Support (PARTS) project through the Research and Development Bureau's Conservation of Biological Diversity Project. Supplementary funding was provided by World Wildlife Fund (WWF). The first year of Phase II (October '93 to October '94) is being funded by the Bureau for Africa's PARTS project.

The Biodiversity Support Program (BSP) is the implementing agent for PARCS. BSP is a USAID-funded consortium of World Wildlife Fund (WWF), The Nature Conservancy (TNC), and World Resources Institute (WRI), established to implement a Cooperative Agreement (No. DHR-5554-A-00-8044-00) between WWF and USAID.

BSP is implementing PARCS in conjunction with three U.S. conservation NGO's active in Africa: The African Wildlife Foundation (AWF), NYZS/ The Wildlife Conservation Society (WCS), and World Wildlife Fund (WWF). For all PARCS activities, AWF is the lead organization in east Africa, WWF implements PARCS in southern Africa, and WCS has responsibility in francophone central Africa.

#### Phase I Training Needs and Opportunities Assessment

In Zaire, the Institut Zairois pour la Conservation de la Nature (IZCN) is the body responsible for protected area management. It is a parastatal institution and is managed by a delegate nominated by the Presidency.

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It is the responsibility of the State Commission of the Environment, Nature Conservation and Tourism. The IZCN keeps detailed records of the different training that staff receive, but there is no formal training plan. Candidates for posting as protected area manager are sent to the Ecole des Spécialistes de la Faune in Garoua, Cameroun, although a few protected area managers have attended university instead. In general, there is no additional training and respondents listed only informal, on-the-job training as having added to their skill levels acquired at Garoua, or at University.

The IZCN recognizes the need for the development of a training plan to better equip protected area managers (PAMs) for their jobs. For the purpose of this assessment, a training plan is defined as a structured programme that operates on a pre-established timetable to ensure that all protected area management staff receive adequate and equal training prior to assuming their posts as well as professional development and regular refresher courses throughout their career. Such a training plan would also include monitoring and evaluation training programs undertaken.

Six protected area managers (PAMs), one Regional PAM, one Field Associate (FA), three Field Operations Directors (FODs) and five researchers completed questionnaires evaluating the skills levels needed and possessed by PAMs during a workshop held in Kinshasa. Interviews were also held with directorate staff at departmental headquarters.

Analysis of the questionnaire formed the backbone of the training needs assessment. The discussions with the PAMs, FODs and other people allowed a great deal of additional information to be incorporated in this assessment which would not have been covered by the questionnaire alone. In order to ensure that the questionnaire accurately reflected the scope of responsibilities held by PAMs in Zaire, the first step in the Phase I assessment was to "validate" the questionnaire: the different categories of respondents reviewed the levels of skill set in the questionnaire by the PARCS team to determine whether they correctly reflected the skills/competencies and main divisions of the PAMs' job. The skills/competencies and main divisions of the job listed in the questionnaire included: Knowledge Skills such as technical knowledge, management knowledge, planning knowledge, legal knowledge, knowledge of policies and procedures, and financial knowledge; Mental and Social skills such as comprehension, problem analysis, creativity, evaluation, oral, written and working with others; Main Divisions of the Job, such as staffing, infrastructure, accounts, tactical plans, laws and regulations, visitors, interventions, community conservation, research, public relations and resource conservation. Training needs for each skill/competency were revealed by a gap analysis which determined the difference between PAMs current skill levels with the levels that they considered necessary to satisfactorily do their job.

#### Major Training Needs Identified in Zaire

Although training needs were identified for all skills, the priority training needs identified were the following:

##### **Policies & Procedures**

###### **Planning**

###### **Technical**

Policies and Procedures involves the knowledge of the national, and institutional, policies for protected areas and the official procedures through which these policies must be met.

Planning involves overall planning skills, as opposed to project planning skills specifically.

Technical skills include knowledge of both the theoretical principles of biology, ecology, and tourism, as well as the practical skills necessary in the field.

The Mental and Social Skills in which priority needs for training were identified were:

**Evaluation** (ability to evaluate problems and situations)

**Creativity**

**Working with Others**

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# Country Report

## Zaire

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The main divisions of the job in which additional skills (and training) were required were:

#### **Laws and Regulations**

**Interventions** (eg., wildlife management and control, vegetation management, human resource use management in and around protected areas)

**Visitors** (tourism)

**Community Conservation** (eg., interacting with local communities and involving them positively in the conservation process)

**Resource Conservation** (eg., balancing human use and protection of natural resources)

Constraints on PAMs meeting their job responsibilities include the lack of a well-structured in-service training programme, as well as inadequate infrastructure and limited budgets. The lack of attention given to the human side of forestry, and the lack of policy promoting the involvement of local populations in forestry and conservation also constrains effective management of forested areas. The major constraints are therefore imposed by limited financial resources and the lack of specific and structured in-service training opportunities.

#### Recommendations

Based on discussions with Field Operation Directors, Researchers and Field Associates as well as Protected Area Managers, it is obvious that there is much enthusiasm and interest in the development of in-service training programs. Programs that have short, frequently repeated and refresher training courses that are developed to the specific needs of protected area staff would be the ideal. This may take the form of courses given by mobile training units, or of short courses given at the direction headquarters when field staff come to the capital. The recipients of these training courses should not only be protected area managers, or "conservateurs". They should include people at a number of different levels, so that training occurs throughout a person's career and so that people arrive at a particular level in the hierarchy already trained to the level necessary for that job.

Formal training has proven very expensive and logistically complicated and as a result, very few people have profited from it outside of pre-service training, preparing them for their position as a PAM. The value of formal training in preparing people for specific positions should not be questioned. The question should be, however, how to supplement this training so that it is no longer elitist and so that everyone can profit from training. In addition, the goal should be that training is seen as available to everyone and as a means of moving forward in a career, so that it also provides pride in the work and professional satisfaction.

The kind of training that would be recommended, therefore, is training that is developed by the department and which is available to everyone in a planned process along a career path. The training is specific to the needs of the job. The choice of protected area manager as target group for this assessment is due in part to the fact that often it is this group that is lacking, both in training and in manpower: field-based managers who are capable of carrying out the large number of functions and responsibilities attributed to the position. The target groups for training will include not only protected area managers, but also people below the level of PAM, who will need to be prepared to one day assume the position of a PAM, and people above the position of a PAM, who will need similar skills to the field-based managers, in order to supervise, coordinate and direct protected area managers. The whole support group of the protected area manager must be trained to enhance the effectiveness of the group as a whole.

In-service training can be used for a number of purposes. Some of the more salient uses are:

- providing people with the necessary skills in order to acquire posts with new responsibilities
- providing people with up-to-date- information or refresher courses on knowledge skills that they have not studied for a number of years
- providing people with opportunities for changing their career path, or taking a new direction
- providing specific skills which cannot be inculcated effectively in people with no experience of employment, and which cannot be included in pre-service courses

This study recommends the creation of a professional training officer post in the IZCN in order to help staff career development and to provide an information base as a precursor to effective planning. One of the crucial first steps would be the training of trainers in order to provide the capacity to carry out in-service training. Expertise could come from a number of existing training institutions, or from technical assistance abroad. A training programme would need to be developed in order to plan and give direction to training for peoples careers. This would demand the creation of a training officer post.

In addition, this study recommends the development of PAM (and the PAM support group) in-service training courses at one training centre outside of Garoua that has been developed for protected area staff in Central Africa: CEFRECOF in the Ituri Forest. This centre could provide a unique basis for training in the field, in a forest habitat (the Ecole des Spécialistes de la Faune in Garoua is in the sudano-sahelian zone of Cameroun) for many of the forest based PAMs in Central Africa. It could be used for a small number of regional workshops in which the recommendations of the PARCS Phase I project could be discussed and developed. Many of the training needs and the PARCS recommendation for the Central African countries assessed are very similar. It would be of great use to develop some broad goals together, using the background and expertise developed in the different countries. Specific training courses for PAMs would probably need to occur in each respective country, due to the expense of sending people abroad for training. The CEFRECOF training centre should be used as an example and a resource wherever possible.

One of the objectives of the PARCS project is to assist 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. The central african region, including the eastern Zaire/Nile Divide and the western Greater Congo Basin include a number of protected areas with different ecological, economic and sociological functions. PAMs from the whole region could profit from initiatives and expertise developed in different countries. As a collaborative project operating in countries in Central, Eastern and Southern Africa, PARCS could play a vital coordinating and facilitating role to this goal.

A primary recommendation of this training needs assessment is to develop and emphasize the role of in-service and on-the-job training as a means of addressing the training needs of PAMs identified. Course topics should be based on the key training needs in each competency identified by the "gap analysis" and should concentrate on the main divisions of the job requiring priority attention. Specifically, these skills include Policies and Procedures, Planning and Technical skills, and involve laws and regulations, interventions, visitors, community conservation, and resource conservation. The development of the mental and social skills involved in problem solving should be a technique used in the training courses with special emphasis on the skills demonstrating the greatest gaps.

The PARCS project would hope to be able to include Zaire in it's coordinating role relative to training in Central Africa. There is a great deal of expertise in Zaire which other countries could greatly profit from sharing, but there is also expertise developed elsewhere which could prove helpful in Zaire. The goal of PARCS would be to include key people in Zaire in training efforts in the region, allowing the linking together of training activities throughout and allowing for the different countries to profit from each other's experience.

## Country Report Zaire

### Section 1: Protected Area Conservation Strategy

#### **1.1 The Approach**

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**

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 such 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
- c developing a broad series of recommendations for training protected area management staff

The PARCS project is envisioned as a multi-year activity. During the first year (Phase I) an in-depth

assessment of training needs, priorities, etc., was completed in each region. Specifically, for PAMs, the assessment was designed to:

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

### **1.3 Overarching Questions**

Data generated by the training needs and training opportunities assessments were used to answer a suite of over-arching questions which address 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.

#### The Questions

1. **What are the responsibilities of a PAM; are they universally recognized?**
  - a What are the descriptions and understandings of the responsibilities of a PAM currently declared by resource management authorities?
  - b What are the responsibilities recognized by PAMs?
  - c How do PAMs perceptions compare with PARCS' perceptions?
  - d How do trainers' perceptions compare with PARCS' perceptions?
  - e Has the job of a PAM changed over the last 20 years?
  - f What are others' perceptions? Do they match PAMs' and/or PARCS'?
2. **What are the constraints on meeting these responsibilities? Where does training fit in?**
  - a Where are the overall constraints?
  - b What is the importance of training in overcoming constraints?
3. **Are PAMs skilled to the level necessary to do the job? If not, where are the deficiencies?**
  - a Are skills satisfactory compared to PARCS' perceptions of job skills?
  - b Are there differences between biomes in the technical knowledge of PAMs?

4. **What training has been received by current PAMs that is perceived by them as useful: how much and what kinds, and relevant to which job requirements?**
  - a What existing training has been received by PAMs?
  - b Comparisons of types of training received by PAMs (in respect of years of service) that has contributed most to gaining skills
  - c Does training received cover all major requirements?
  - d How well does existing training prepare PAMs? Does type of training received reflect the degree 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?
  
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?
  
6. **What further training is required?**
  - a Where are the biggest gaps perceived by PAMs between self-evaluation and those required for the job?
  - b Where are the biggest gaps perceived by others?
  - c What are the constraints to training?
  
7. **What present programs could be enlarged/restructured to include training opportunities for PAMs?**
  
8. **Are there other appropriate training opportunities that have not been utilized?**
  
9. **What kind of training should be recommended?**

#### 1.4 The Process

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), NYZS/The 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.

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.

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 BSP 1993 "Protected Area Conservation Strategy (PARCS). The Methodology".]

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 Sep and 2 Oct. The methodology was also reviewed by the core team in September and amended in light of those reviews.

### **1.5 Goal of the Methodology**

The main tool of the training needs assessment was 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 qualitative and quantitative means of assessing training needs
- d It would lend itself well to standardized data extraction, manipulation, comparison and analyses across the three regions of Africa

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 was designed to stimulate thought and discussion on the important facets of protected area management - the questionnaire may well influence the way some PAMs look at their jobs and their role in managing those Areas.

### **1.6 Target Groups**

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.

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.

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 therefore also sometimes included 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. In countries such as Zaire, where there are rarely managerial positions below the PAM, lower levels were not included.

The categories of people who were potentially 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
- f Research Officers

## 1.7 Target Countries

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

Practical realities, however, inevitably dictated that in-depth assessments could 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 followed the methodology described in this document. Limited assessments involved 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.).

The practical realities that dictated where assessments were conducted included, but were 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
- e potential for follow-on activities

The categorization of countries was 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

## Southern Africa

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

Limited Assessment: Mozambique

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

### **1.8 Preliminary Groundwork**

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 CA 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 CA training officers (job descriptions?)
- h training programs (annual budget, evaluations, constraints)

Since PARCS is intended to be conducted in an adaptive way, reflecting the needs and wishes of government programs and interests in training, the government CAs were invited to plan how the PARCS project should be conducted.

It was explained to the CAs that the preferred (PARCS) strategy for conducting the questionnaire was 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
- e to use a consultant or colleague to do one or more of options a-c

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.

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. In other words, the FODs evaluated the questionnaire in terms of its validity as a job description, and then evaluated PAMs' skill levels in general, over all the skills/competencies and main divisions of the job.

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
- h Managing concessions in protected areas

The FOD was asked to: verify that these are the key aspects of the job and to comment on the list; indicate what kind of training is needed to accomplish these tasks, and what are the constraints to obtaining this training.

## Section 2: Training Needs Assessment

### 2.1 Introduction

#### 2.1.1 Summary of country's Protected Area system

Table 1  
Protected Areas in Zaire (IUCN, 1992)

Protected Area	IUCN Category	Area (ha)	Year Notified
Garamba National Park	II/X	492,000	1938/82
Kahuzi Biega Nat. Park	II/X	600,000	1975/80
Kundelungu Nat. Park	II	760,000	1970
Mai'ko National Park	II	1,083,000	1970
Salonga National Park	II/X	3,656,000	1970/84
Upemba National Park	II	1,173,000	1939
Virunga National Park	II/X	780,000	1925/79
Okapi Wildlife Reserve	I		1991
Bili-Uere Hunting Res.	VI	600,000	
Bombo-Lumene Hunt. R.	VI	250,000	
Bushimale Hunting Res.	VI	60,000	
Luama Hunting Reserve	VI	340,000	
Lubudi-Samppa Hunt. R.	VI	9,200	
Maika-Penge Hunt. Res.	VI	900,000	
Mangai Hunting Reserve	VI	36,000	
Mondo Missa Hunt. Res.	VI	1,000,000	
Rutshuru Hunting Res.	VI	100,000	
Swa-Kibula Hunt. Res.	VI	140,000	
Vallée de la Lufira	IX	14,700	1982
Luki Forest Reserve	IX	33,000	1979
Yangambi Floristic Reserve	IX	250,000	1976

About 90% of the tropical moist forest area in Africa is shared by Cameroun, Congo, Gabon and Zaire (Sayer in Cleaver, et.al). Zaire is the third largest country in Africa and contains about half of the continent's tropical moist forests. It ranks second in the world, next to Brazil in tropical moist forest cover. Most of this forest is in the Central Congo Basin, and it is estimated that about 87% of the forest is considered undisturbed and in its natural state (Mbaelele and Largentaye in Cleaver, et.al.).

On the whole, the main ecosystems in Zaire have remained intact due to the low overall population density. These ecosystems include lowland rain forest in the central and western parts of the country, with areas of

secondary grassland, and relatively wet miombo woodlands in the southern areas. Large areas of swamp forest are found in the northwestern parts of the country, in the Zaire and Ubangui floodplains. The eastern parts of Zaire include montane forests and secondary grasslands. Small patches of mangrove forest can be found along the coastal areas on the Atlantic.

The first national park in Africa was created in what was then Congo-Rwanda-Urundi, and which now spans the Zaire-Rwanda border. This was the Albert National Park, created in 1925.

More than 7 % of the country is protected as parks, reserves and hunting areas, and most of the main ecosystems are represented as protected areas. Although some of the protected areas were established for the conservation of certain species, the later parks were created for their representation of certain habitats and ecosystems. Certain areas of the Zaire forests have very high levels of endemism. There are a number of pleistocene refugia, notably in the Ituri and Itombwe forests, which have a high biodiversity. There are a number of animals unique to Zaire's forests, including the Okapi (*Okapia johnstonii*), the Congo Peacock (*Afropavo congensis*), and the Pygmy Chimpanzee (*Pan paniscus*) which are protected in the Ituri and Maiko, and Salonga National Parks respectively.

### 2.1.2 Protected Area organisations

Protected areas are the overall responsibility of the Ministère de l'Environnement et la Conservation de la Nature, (Ministry of the Environment and Conservation of Nature), and are under financial control of the Ministère du Portefeuille (Ministry of the Portfolio). The Institut Zairois pour la Conservation de la Nature (Zaire Institute for the Conservation of Nature, IZCN) is a parastatal and public institution which is the principle management and protection organization in charge of protected areas. It is the responsibility of the State Commission of the Environment, Nature Conservation and Tourism. The institute is managed by a delegate nominated by the President of the Republic.

Outside of the national parks, all forest falls under the "domaine protégée" and belongs to the state. Forest management is also the responsibility of the Département de l'Environnement, Conservation de la Nature et Tourisme (DECNT). Administration of the DECNT is divided between 10 departments, including the IZCN, and headed by the Ministry of Environment and Conservation of Nature. The department is represented regionally by a "Coordinateur Régional" in each region who coordinates conservation of the environment and nature, forestry, hunting, fishing and reforestation activities. There is also sub-regional and zonal representation. Funding for all these offices and activities comes in part from the state, in part from the "Fonds de la Reconstitution du Capital Forestier" (fed from taxation on forestry exploitation), and from investments.

A new forest law was defined in 1989 and introduced a new classification of forests. Amongst other points, it formally stated that local people should be involved in forest management, that reforestation should be a civic duty of all citizens, and that the forest policy should be supported by forest research (IUCN, 1990). It is stated that forests should be preserved and reconstituted. These points are not enforced, and the state maintains the right to intervene in the management of all land, even on concessions. Concessions are given for only short periods of time, and there is no guarantee that the same foresters will profit from any land improvement efforts at a later date (Doumenge, 1990). As a consequence, there is little incentive to reforest after foresters have exploited an area.

### 2.1.3 National Conservation Strategy & Conservation Objectives

Zaire contains some of the oldest protected areas in Africa, including the first formally established national park, under colonial rule. The King Albert National Park was established in 1925 while Zaire was still a Belgian colony, and in 1969 the independent Zaire confirmed the existing protected areas and established the IZCN. The Garamba and Upemba National Parks were also established very early on, in the 1930's. Elephant reserves were established in the 1880's and in 1912 the hunting of mountain gorillas was officially prohibited. Since independence, nature conservation has been considered important by the government and Zaire stands out, in Central Africa, as having relatively well-established, and managed protected areas.

Overall, there are more trained staff in protected areas and the different field offices have better equipment and more funding than many other Central African countries. The national commitment to conservation in Zaire has been comparatively strong over the past years and other Central African countries often hold it in an exemplary position.

The President of Zaire has always clearly demonstrated his interest in wildlife, and the establishment of the IZCN as a parastatal, directly attached to the presidency has enabled much to be done in terms of conservation and protection of Zaire's natural resources. The government of Zaire has stated that 12 to 15% of the country will be designated as reserves before the end of the century (IUCN, 1992).

#### 2.1.3.1 Major Threats to Conservation

The major threats to wildlife come from poaching. A large proportion of the population depend directly on the forests for their livelihood. In addition to use of ligneous resources in the forest for firewood and construction, it is estimated that 75% of the animal protein consumed by the average Zairois comes from hunting (Lanjouw, 1987), and in the South Kivu, studies have shown that the majority of the population depend on hunting for their meat. There is also considerable commercialization of hunting and bushmeat, with a large proportion of the meat being sent to urban centres for sale. An additional threat to the wildlife comes from poaching for export on the international market. Hunting for the sale of animals or animal parts forms an important source of income, on both the local scale and for the chain of people involved in this illegal market.

Threats to the forests of Zaire occur predominantly from population growth, which is estimated at 3.3% per annum (IUCN, 1992), and traditional agricultural practices which include slash and burn agriculture. Rather than favoring crop rotation, they prefer "land/soil rotation" (Vangu Lutete, 1988). Natural forest destruction is estimated at 200,000 ha per annum for agriculture, and the same amount again for charcoal and firewood production (Mbaelele and Largentaye in Cleaver, et.al.). Industrial exploitation of Zaire's forests does not pose a real threat, due to the following reasons:

- lack of infrastructure for transport
- inaccessibility of the forest in the Central Congo Basin
- insufficient equipment of forestry organizations
- unfavorable economic conditions, which include rapid devaluation of the national currency, high foreign debt, high inflation rate and high taxation of forest resources.
- lack of coordination between the different national organizations responsible for the control of forest exploitation (Doumenge, 1990).

#### 2.1.4 Existing training programs

Training records are kept by the Administrative Department, who are in charge of maintaining training records for all staff. Reports are kept of all training received, but it is not programmed by the Department. It is up to individuals themselves to plan and obtain training, be it through seminars/conferences, or scholarships to attend universities/institutes abroad. Although the Administrative Department has a Service de Formation (Training branch), which is in charge of "stages et recyclage" (courses) as well as "bourses" (grants), this is more in the form of record keeping than actual programming and providing of training. When courses, seminars, etc. are offered, however, the Service will select the candidates to participate. This is often based not only on who would be best suited for the training. As elsewhere, this choice is often influenced by personal factors and favors. Only in the case of the Ecole des Spécialistes de la Faune at Garoua, Cameroun is personnel chosen, more or less on an equal basis, for training. Most Conservateurs, and even Conservateurs Assistants, are trained at Garoua. Over 30 Zairois conservateurs have been trained there. For many potential candidates for training a source of much frustration is the age limit at Garoua. People older than 45 are not usually accepted at the school, whereas many of the conservateurs, or assistant conservateurs in Zaire are that age if not older. Those who have not yet attended the school by that age are not able to do so due to the age limit.

### 2.1.5 In-country PAM profile

In Zaire, a conservateur must have completed his secondary school education, or Baccalauréat, and has usually attended the Ecole des Spécialistes de la Faune for a specialization of 2 years before becoming eligible for the post of conservateur. Some conservateurs have come from a university background, where they have attained a bachelors degree ("license") in the natural sciences. Those that come from a university background do not generally go to Garoua for further specialized training, but are posted as conservateurs directly from a research position within the IZCN. Very rarely do conservateurs have a training background in management, or have they received training in law, finance/accounting, planning, etc.

A small number of conservateurs were trained at the Ecole de Foresterie at Boiké, in the Côte d'Ivoire, and have a forestry background. Most wardens have a wildlife background, rather than a forestry one, unlike in many other Central African countries.

In 1990 the minimum educational level required for recruitment as a guard in the IZCN was elevated secondary school level. Previously, it was considered adequate for guards to have completed only 4 years of primary school. Given these greater educational requirements, it will be possible, in the future, for guards to move up the hierarchy to eventually attain the level of chef de poste, and even conservateur. This will greatly motivate people to improve their performance, and thus facilitate training and its effectiveness in improving standards and both work performance and satisfaction.

## 2.2 Methods Used in PARCS Questionnaire and Analysis

Results from the analyses of questionnaire data were expected to provide the backbone of the training needs assessment. The following methods were developed to extract the information from the questionnaire.

### 2.2.1 Analysis by Validation and Gap Analysis

The questionnaire was analyzed on two levels. On the first level, respondents commented on the accuracy of the questionnaire as a job description for a protected area manager based in the field. This was the Validation Analysis. On the second level, the level of skill in a number of different skills/competencies was judged for PAMs, by different categories of respondents. The level of skill was then compared to the level of skill considered necessary for the job. The size of the "gap" between required skill level and actual skill level was the training need. This gap analysis indicated which skills/competencies had the greatest priority training needs. The following discussion of methodology describes the different ways in which the analysis were conducted.

#### *Validation Analysis for Knowledge, relative to PARCS score*

In this analysis comparison is made between the level of knowledge respondents considered necessary to satisfactorily do their job and the level PARCS considered necessary. The level PARCS considered necessary was established by the three regional managers, based on their experience in a number of African countries, and their collaboration with both African and expatriate colleagues. Any variance between the two levels would indicate a difference in how the job was perceived. For this reason, the smaller the difference in scores (i.e. scores of 0, -1 or +1), the greater the similarity in the perception of the job. Positive scores indicate that the respondents consider the necessary level to be lower than that set by PARCS, as the level they consider necessary is subtracted from the PARCS level, and negative scores indicate that respondents consider the necessary level to be higher than that set by PARCS. A score of zero indicates total agreement. The responses could include four skill levels, as described in detail in the methodology. The highest skill level possible was "in-depth knowledge", followed by "working knowledge", "some knowledge" and lastly by "no knowledge".

This analysis is necessary to determine whether or not the level set by PARCS is considered accurate and whether it can be used as the standard of comparison for the analysis of training needs, or whether another standard of comparison needs to be found.

### *Comparison of PAM and Assistant PAM Validation Analysis of Knowledge Scores with Target Validators (average scores)*

This analysis compares all the average validation scores for each category of respondent (position within the institution). The comparison will show whether or not the different categories of respondents agreed with PARCS, in general, with respect to the levels of skill required to fulfill the position of PAM successfully. The average country/organization score is an average score of all the PAMs and Assistant PAMs combined, and represents the general level considered necessary by PAMs and Assistant PAMs. The greater the difference in scores, the greater the difference of perception in the required skill level.

### *Gap Analysis of Training Needs for Knowledge Relative to PARCS/Respondent's Validation Score*

In this analysis, the skill level required in each competency set by PARCS will be used as the standard of comparison. The level considered by each respondent to best reflect their actual skill level is compared to the level considered necessary by PARCS, to measure the gap and possible training need. Only when the difference results in a positive score (meaning that PARCS set the level higher than the respondent) is the score considered in the analysis below. Negative scores mean that respondents have a higher level than considered necessary and a score of 0 means that the actual level reflects the level required. As respondents tended to agree with PARCS as to the level of skill required, there isn't much variation between measuring the gap using the PARCS standard and using the respondents own set standard. What variation did occur between the two standards, however, tended to indicate higher levels of skill considered necessary by PAMs than considered necessary by PARCS. The gaps identified when compared to respondents' own validation score, therefore, tended to be somewhat greater than when compared to PARCS.

### *Comparison of Average PAM and Assistant PAM Gap Analysis of Knowledge Scores with reference to PARCS score, with Target Validators*

The scores in the gap analysis (indicating the difference between the level of knowledge considered necessary by PARCS and the actual level of PAMs and Assistant PAMs) are calculated for all categories of respondents, and presented in a table. Categories of respondents other than PAMs still evaluated the level of skill attained by an "average" PAM. This enables comparison of the training needs for PAMs identified by each category, using the same standard of comparison. The greater the score, the larger the gap in knowledge. Only positive scores are considered in this analysis, as a negative score would indicate overtraining which is not of interest in this exercise.

### *Validation Analysis of Social and Mental Skills*

The extent of agreement with the mental and social skills considered necessary for PAMs to do their job by PARCS is measured, to derive an overall percentage of agreement. Where respondents agreed with PARCS, the response was "yes". The amount of agreement for each skill is presented in a histogram and is considered the validation for the questionnaire. Where the answer is "no", respondents felt the skill was not relevant to the job of a PAM. Even a low skill level in such a question would not indicate a training need from their perspective, because the skill is not considered necessary.

### *Analysis of Current Mental and Social Skill Levels*

A cumulative total of responses indicating low skills levels is calculated, and presented in a table for all competencies and main divisions of the job. Scores of 1 or 2 indicate low skills, where 1 represents no skill, and 2 represents poor skill. This allows the competency and the main division of the job in which low skills are frequently identified to be isolated as areas in which training is needed.

### *Analysis of Attitudes*

The analysis of attitudes is linked to respondents years of service, in order to determine whether this has a bearing on the way in which they would instil work ethics, commitment to conservation and community attitudes. The responses to the three questions are demonstrated in a stacked histogram showing their years of service. The different responses given by PAMs are numbered, and the frequency in which each response

is identified is shown in the histogram.

### *Training Received*

The training which respondents have received is analyzed using histograms and tables, in order to show in which competencies they feel training has contributed to their skill levels, and which forms of training (formal wildlife, formal other in-service and on-the-job) have contributed most to their current levels of knowledge, mental and social skills. Only training which they recognize as having contributed is listed.

### *Training Priorities*

The three listed training priorities are fitted to the competencies and main divisions of the job to show in which part of the matrix the priorities fall. They are then linked with the training needs as demonstrated by the gap analysis, and the analysis of low skill levels in mental and social skills. This allows for comparison between the areas in the matrix in which the questionnaire has shown the greatest training needs to lie and the areas in which respondents feel their greatest training needs to occur.

## **2.2.2 Country-specific methods**

Given certain USAID imposed restrictions on the assessment in Zaire, it was not possible to visit the protected areas in the country, and only those protected area managers temporarily in Kinshasa at the time of the assessment were included in the workshop, with one exception. Personal knowledge and contacts in Zaire made it possible to discuss with a number of PAMs outside the workshop, and one questionnaire was completed by a PAM outside the workshop context. It was fortunate that a significant number of PAMs were in Kinshasa, as well as a number of researchers having field experience, and a workshop could be organized to determine the training needs and skills levels of PAMs in Zaire. A two-day workshop was organized, so that one full day could be used to explain and complete the questionnaire, followed by extensive discussion on the second day, of both the questionnaire and protected area management in general. The discussion held after completion of the questionnaire provided a great deal of insight into the problems, and positive sides of protected area management in Zaire. The discussions were exceptionally frank and touched upon a large number of issues central to management in the field in a country as large as Zaire.

### **People Contacted:**

Président Délégué Général Mankoto ma Mbaelele  
Mr. Luhunu Kitsidikiti, IZCN  
Mr. Lulengo K'Kul Vihamba, Directeur Technique  
Mr. Mwembo Kabemba, Directeur Recherches  
Mr. Makela Mansoni, Directeur Administratif  
Workshop with 14 PAMs, Assistant PAMs and Researchers  
CRSN (Centre de Recherche des Sciences Naturelles)  
Delfi Messenger  
Mr. Kavalli, UNDP  
Ministère de Recherches  
Dr. Marc Langui, WWF Reforestation/Education Project  
Dr. Conrad Aveling, EEC  
Mr. Muhindo, IZCN, PAM Garamba National Park

Table 2  
IUCN Categories Present/Surveyed

IUCN Category	No. Present in Zaire	No. Surveyed for PARCS
1. Strict Nature Reserve	1	0
2. National Park	7	3
3. Natural Monument	0	0
4. Nature Reserve	0	0
5. Protected landscape	0	0
6. Resource Reserve	10	5
7. Natural Biotic Area	0	0
8. Managed Resource Area	0	0
9. Biosphere Reserve	3	0
10. World Heritage Site	4	3
Total	21	8

### 2.2.3 FODs comments on training needs

Interviews were held with the following people at departmental headquarters, for their comments on training and the constraints to PAMs working in the field.

#### **Président Délégué Général, Mankoto ma Mbaelele**

Institutional analysis of the IZCN shows that there is a great need for training of its personnel. Concrete and realistic management models need to be developed which would provide a practical basis for training. There is a need to incorporate local peoples in the management of protected areas, and this requires the development of specific skills in IZCN personnel. There is also a great need for training at a higher level than the field-based level. Administrative personnel need to be trained in order to be able to provide the support for field activities. Among the main constraints to conservation of Zaire's biodiversity are lack of knowledge and expertise, lack of institutional authority, insufficient technical and management personnel and lack of economic resources to protect already established areas.

#### **Technical Director Lulengo K'Kul Vihamba, Director of Research, Mwembo Kabemba, and Director of Administration, Makela Manoni**

Most PAMs are hired as chef de poste and get sent to Garoua afterwards. After attendance at Garoua they become a conservateur. Some guards have also become conservateur, but this is much harder now with the greater educational background required. Recently some university graduates have become conservateurs. First they become researchers and then conservateurs. They usually have not been to Garoua.

A number of conservateurs have also been to the Ecole de Foresterie at Boiké, Côte d'Ivoire.

In order to become a FOD, candidates must have university training and have a specific background in either administration, biology or natural resource management.

There is a training officer at the IZCN, although he does not programme training and develop the careers of IZCN personnel.

There are no management plans for the parks except for the Virunga National Park, Okapi Wildlife Reserve, and Garamba National Park.

#### **2.2.4 Analysis of Questionnaire**

For the analysis of all the data generated by the questionnaire, a series of data sheets were devised, in which all the data could be sorted and stored, and to facilitate entry into the computer programme for the actual analysis. The following seven data sheets were created:

- Data sheet A allows the additional accountabilities and responsibilities to the job of a PAM that were identified to be compiled.
- Data sheet B focuses on knowledge skills and records 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 to reflect the actual skill level of PAMs. From the data sheet, the differences between the respondents scored necessary level and the PARCS score was calculated, and the difference between the necessary level (PARCS and own) and their current skill level was calculated.
- Data sheet C focuses on mental and social skills and records whether respondents agreed with the statements made by PARCS, and what their skill level is with respect to these tasks.
- Data sheet D lists the responses to the three attitudes questions.
- Data sheet E records whether respondents spoke the language of the neighboring communities, and whether they were able to use computers, and if yes, to what purpose.
- Data sheet F lists the three training priorities identified by respondents and ties them in with the 16 competencies and 11 main divisions of the job in the questionnaire. It also identifies the form which these training priorities should take, as either formal, in-service, on-the-job and other.
- Data sheet G summarizes training already received as described in the bottom row of the questionnaire and uses the competencies 2-17 as in the questionnaire.

Two workshops were held with the regional managers, data entry and computer analysts attending. The first, held in August 1992 was to develop the overarching questions which were to be answered by the questionnaire, and to determine how those questions could best be answered using the data generated by the questionnaire. The second workshop developed the programs required to answer each question and devised the specific questions with which the computer analysts were to run the programme.

SPSS (Statistical package for the Social Sciences, PC Version 4) was used to do the analysis on most of the questions, and Word Perfect and Harvard Graphics were used to do the tables and graphics. The computer analyst, Vitalis Mbanda Wafula spent 1000 hours on PARCS, and his colleague David Sumba spent over 500 hours on data entry and on analysis as well as the presentation and graphics of the results.

#### **2.2.5 Gender**

A question on gender was included in the questionnaire in order to determine whether there was a link between a respondent's gender and the responses given. Unfortunately this question was not included in the first questionnaires used, but added at a later date. Where female respondents filled in the questionnaire, any variations in the responses were considered from this point of view. In none of the countries assessed were large enough sample sizes of women assessed to allow any link to be made.

## 2.3 Results

The results of the PARCS survey in Zaire are presented below. A short paragraph follows each set of results and provides a brief interpretation. Throughout this section of the report, reference will be made to figures and tables with results from various analyses of questionnaire data. Each analysis figure and table is defined by a PARCS number which generally refers to the paragraph in this section where the data is discussed. 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. The figures and tables on which these discussions are based are annexed to each report.

### 2.3.1 Data collection table

A total number of 16 people were contacted and completed the questionnaire for the training needs assessment. Fourteen people participated in a two-day workshop held in Kinshasa on 21/22 October. The first day of the workshop involved the explanation and completion of the questionnaire, and the second day involved extensive discussions of the content of the questionnaire and other issues relating to training and protected area management in Zaire. A total of 7 protected area managers and assistant protected area managers completed the questionnaire. In addition, 5 researchers, one field associate and three field operations directors (all three having direct contact with PAMs in the field) completed the questionnaire evaluating the skill levels and training needs of PAMs in general.

### 2.3.2 Background information sheets

See Annexe

### 2.3.3 Respondent's Years in Service/Years as a PAM

All of the PAMs questioned in this study have been working for the Institut Zairois pour la Conservation de la Nature for more than 10 years. When asked how many years they had worked as a protected area manager, 57% replied more than 5 years. In other words, most of the people surveyed have quite extensive experience with protected area management and conservation of natural resources in Zaire. They have also all spent a considerable amount of time in the field, in parks, reserves or hunting reserves. In Zaire there is a great emphasis on sending trained people into the field, as opposed to keeping them in Kinshasa at the IZCN headquarters. Most, if not all, protected areas are directed by somebody with specialized training, and that person is in the field, based at the protected area headquarters.

### 2.3.4 Validation Analysis for Knowledge

**In general, respondents agreed with PARCS with respect to the level of knowledge considered necessary to satisfactorily do the job of a PAM. The overall level of agreement was 94.8%.**

#### 2.3.4.a Additions and Deletions to Accountabilities and Responsibilities

Two respondents, one PAM and one FOD, added some comments under column 1 of the questionnaire. Relative to Main Division A (Ensure availability of a competent and well-motivated staff), one respondent added "Provide an adequate support system for guards to ensure the proper collection of information and surveillance during patrols". Under Main Division F (Ensure optimum levels of visitor satisfaction), two responsibilities were added: "Responsible for all tourism statistics" and "responsible for all tourism infrastructure". With respect to Main Division G (Ensure agreed intervention programs are completed to budget and timetables), the additions included "Elaborating different intervention techniques for different areas and animals so as to maximize benefits of interventions" and "ensuring that an inventory of each animal population exists". Lastly, with respect to Main Division I (Be aware of research activities and progress against plan), the additions included "Identify research priorities in order to adapt them to management needs", and "Responsible for application of research recommendations". These comments indicate that respondents thought carefully through every aspect of the questionnaire and the possible omissions made by PARCS. They also demonstrate that respondents feel that PAMs should have a very strong influence on protected area management and that they should have real decision-making power in

management. There were no deletions, indicating that the PARCS job description fits the responsibilities of a PAM quite accurately.

#### 2.3.4.b Validation Analysis of Knowledge of PAMs and Assistant PAMs, relative to PARCS' validation

This analysis compares the level respondents considered necessary to satisfactorily do their job with the level PARCS considered necessary. Any variance between the two levels would indicate a difference in how the job was perceived. For this reason, the smaller the difference in scores (i.e. scores of 0, -1 or +1), the greater the similarity in the perception of the job. Positive scores indicate that the respondents consider the necessary level to be lower than that set by PARCS, and negative scores indicate that respondents consider the necessary level to be higher than that set by PARCS.

A score of zero indicates total agreement.

This analysis is necessary to determine whether or not the level set by PARCS is considered accurate and whether it can be used as the standard of comparison for the analysis of training needs, or whether another standard of comparison needs to be found. The following piece by piece discussion of the results indicates that in general, with a few exceptions, the level set by PARCS is considered accurate (see also 2.3.4.c). As a consequence, the PARCS level was used for analysis of training needs (gap-analysis 2.3.5).

Where there is disagreement, it is generally a higher level of knowledge that is considered necessary. The overall level of agreement was high, but unfortunately this is deceptive. When PARCS didn't set the level at "in-depth knowledge", it was frequently "working knowledge". There is only one level higher possible from "working knowledge", namely "in-depth knowledge". It would have been impossible for PAMs to respond unanimously for a higher level required and be considered significant by this analysis because a difference of -1 is not considered significant. The cut-off point taken was a difference of -2 or -3 (see 2.3.4.c). In other words, there was little option other than overall agreement, if responses varied in favour of higher levels of knowledge. In general, there seemed to be little differentiation and discrimination in the responses by the PAMs; they considered a level of "in-depth knowledge" necessary throughout the Knowledge section of the questionnaire. Where PARCS marked the level necessary as "in-depth", there was agreement, where it was less than "in-depth", they increased the levels accordingly.

##### i. Technical Knowledge

Variance from the standard set by PARCS tended to bring the required level to "in-depth" knowledge. Only on one question was variance in favour of a lower level for over 40% of respondents (3 out of 7 respondents). This question dealt with the knowledge of interaction between tourist and local areas. Most wardens felt that "working" or "some" knowledge would suffice. On question 9, 71% of respondents felt that a higher level of skill was required than "some" knowledge. This question referred to the cultural and historical context of the PA. On the whole, however, the required standard set by PARCS was considered accurate (difference of 0).

##### ii. Management knowledge:

Agreement with PARCS was very high, and when variance occurred, it favored "in-depth" knowledge over "working" knowledge. Only in question 25, dealing with protected area vs people conflict, did 2 out of 7 people (ca 30%) of wardens feel that "working" knowledge would suffice, and "in-depth" knowledge was not necessary.

##### iii. Planning Knowledge:

Overall agreement was high, but in 8 out of 12 questions did at least some respondents (perhaps only 1 or 2) feel that lower levels of knowledge were adequate. In question 32, 3 out of 7 respondents (43%) felt that working knowledge of patrol planning was sufficient. In question 36, 4 out of 7 respondents felt that working or in-depth knowledge of developing research plans was necessary for a PAM.

iv. Legal Knowledge:

The level considered necessary for all aspects of legal matters was considered to be at least "working", if not "in-depth". Only one or maximum two respondents ever decreased the level set by PARCS, but never to a level below "working" knowledge. The legal background of a PAM is considered very important in all aspects of the job. This is apparent in all the Central African countries considered in this survey. The legal standard set by PAMs tends to be very high. Although variation from the PARCS standard tends to be relatively low, when variation of more than 1 or -1 is considered, the greatest unanimity in variation tends to be in this skill.

v. Policies & Procedures Knowledge:

Agreement with the standard set by PARCS is high. There is a small amount of variance from the PARCS standard in both directions: decreasing or increasing the level required, but rarely more than one level, and rarely below "working knowledge".

vi. Financial Knowledge:

Most respondents (71%) felt that the standard set by PARCS at "working" knowledge was accurate for most questions, although some respondents brought the level up to "in-depth" knowledge. 2 of the 7 PAMs responding felt that the two questions in main division H ("Ensure harmonious relationships with neighboring communities") could drop one level, but this aspect of finances/accounting is not something known in Zaire.

2.3.4.c Measure of Agreement for PARCS Validation Score

The overall accuracy score is 94.8%, meaning that overall, in the majority of cases, the level respondents consider necessary for the job of a PAM does not vary more than 1 score from the level PARCS considers necessary for a PAM. As mentioned above, this is a bit deceptive. There were only 4 levels possible in the questionnaire. As the level chosen by PARCS was often "working knowledge", or level 3, a variance of more than one was not possible if the level was to increase, and if the level was to decrease, only "no knowledge" was possible, which is unlikely, due to the fact that respondents agreed that the questionnaire reflects the job of a PAM in Zaire. It was therefore to be expected that the "Overall Accuracy Score" would be high.

2.3.4.d Comparison of PAM and Assistant PAM Validation Analysis of Knowledge Scores with Target Validators (average scores)

This table presents all the average validation scores for each category of respondent (position). This shows whether or not the different categories of respondents agreed with PARCS, in general, with respect to the levels of skill required to fulfill the position of PAM successfully. The average country/organization score is an average score of all the PAMs and Assistant PAMs combined, and represents the general level considered necessary by PAMs and Assistant PAMs. The greater the difference in scores, the greater the difference of perception in the required skill level.

Comparison of the average scores shows that Field Associates, and FODs had a very high level of agreement with PARCS and that in general, over all knowledge skills, the level of skill considered necessary to satisfactorily fulfill the job were the same or very similar. Even when comparing the average PAM/Assistant PAM score with PARCS, the differences were small. This shows that the questionnaire is considered, by respondents in different positions, to accurately describe the job of a PAM. FODs, who possibly have different expectations of a PAM than would a PAM, consider the job description as accurate as do PAMs. Researchers also vary very little from the PARCS description.

### 2.3.5 Gap Analysis of Training Needs for Knowledge: PAMs and Assistant PAMs

In general, the three categories of respondents identified gaps for all knowledge skills (competencies), although the gaps were not equally large over all competencies. The same competencies were identified as having the greatest training needs for all categories of respondents, and these included: Policies & Procedures, Planning and Technical knowledge. FODs, Researchers and Field Associates felt that on average the PAMs level of knowledge was lower than PAMs did themselves, although they all identified gaps.

#### 2.3.5.a/b PAM level, relative to PARCS/Respondent's own validation score

In this analysis, the skill level required in each competency set by PARCS will be used as the standard of comparison. The level considered by each respondent to best reflect their actual skill level is compared to the level considered necessary by PARCS, to measure the gap and possible training need. Only when the difference results in a positive score (meaning that PARCS set the level higher than the respondent) is the score considered below. Negative scores mean that respondents have a higher level than considered necessary and a score of 0 means that the actual level reflects the level required. As respondents tended to agree with PARCS as to the level of skill required, there isn't much variation between a and b. What variation did occur, however, tended to favour higher levels of skill than considered necessary by PARCS. The gaps identified when compared to respondents' own validation score, therefore, tended to be somewhat greater than when compared to PARCS.

#### i. Technical Knowledge

Although some training was needed in all but one aspect of technical knowledge, the gaps identified both relative to PARCS and relative to their own scores were not very large. They rarely exceeded 1, meaning that there was rarely a difference greater than one between the level required and the actual level. For more than half of the questions, most respondents (57%) did not identify a training need. The questions in which more than 57% of respondents identified training needs were in divisions F, G, H and K, and involved knowledge of visitors' expectations, interactions between tourist and local areas, intervention needs & techniques, extension methodology and conservation of the fauna, flora and natural resources of the PA. Only with respect to knowledge of the natural and cultural resources in the PA did 100% of respondents identify a training need.

#### ii. Management Knowledge

In only two of the three questions did more than 50% of respondents identify training needs. In other words, relative to the standards set by PARCS and the definition of "management" used by PARCS, PAMs in Zaire considered their management skills to be generally satisfactory. Public relations/media could receive some training, as could intervention job management in the PA. On the whole, however, their management skills were not considered to require urgent training or priority in training.

#### iii. Planning Knowledge

This skill could, on the other hand, profit a great deal from training as most wardens considered their skill levels to be quite low. The gaps were more extreme when their own standards were used, as opposed to the PARCS standard, but they did not vary qualitatively. The most urgent training needs were in developing visitor plans (No. 33) and intervention job planning (No. 34), as well as developing PA management plans (No. 38) and PA zoning systems (No. 39). How to develop a community conservation plan was also considered a training need by almost 60% of respondents.

#### iv. Legal Knowledge

Relative to PARCS and to respondents' own score, the greatest training need in this skill deals with the legal aspects of collecting/exporting materials and specimens. This is, in fact, a problem in Zaire with many of illegally transported animals and materials exported from various countries originating in Zaire. Not all of this trade originates in protected areas, but often comes from areas covered by natural forests outside PAs.

They often do need to pass through protected areas in order to reach the borders and the legal aspects of this trade are not always clearly understood. Even when the illegal materials and specimens do come from protected areas, PAMs are not always able to take effective action. The power of PAMs to do something about the trade (halt or discourage traders) is very limited. Training in this aspect of the law would be very beneficial to help stem the traffic of specimens/materials from the country and to give PAMs confidence in taking action.

Due to the fact that respondents considered the required legal skills to be much higher than PARCS, the gaps are much more marked when using respondents' own standard of comparison. PARCS considered that their legal knowledge in other aspects was fairly adequate, with gaps rarely identified by more than 43% of PAMs, although gaps of 2 were not uncommon.

v. Policies & Procedures Knowledge

In this section, 70% of the questions had gaps in knowledge identified in them by over 60% of respondents. In most of those cases the gaps were relatively large. In other words, this skill is considered to require training by most PAMs. The gaps are found in Main Divisions A (Surfing), B (Infrastructure), F (Visitors), G (Interventions), H (Community Conservation), and I (Research). Some respondents even felt they had no knowledge in some of the questions. Evidently PAMs have little knowledge of the policies and procedures which bear on a number of key areas of their job and feel their skills in these areas to be very low. They also feel that these skills are important to their job as they tended to agree with the levels set by PARCS (2.3.4.b).

vi. Financial Knowledge

Interestingly, the greatest gaps were identified in those questions where PAMs also felt the necessary skill level to be lower than PARCS. PAMs unanimously felt that the level required for questions 61 and 62, referring to record keeping of disbursements to and resource use by local communities was either the level set by PARCS or lower. Yet they also felt the least confident of their skills in these two questions, with 71% or more identifying gaps of 1 or 2. The question on budget and allocations was also considered to identify a great gap by 43% of respondents.

Using the PARCS standard of comparison, the Main Division that was the most frequently singled out as requiring training was K, involving finding a balance between resource use and conservation. This was followed by F, G and H; ensuring optimum levels of visitor satisfaction, ensuring intervention programs are completed, and ensuring harmonious relationships with the neighboring communities, respectively. It is not surprising that C and D are not singled out as often as there are far fewer questions in these divisions than in the others.

The following table demonstrates that the skill in which training was most frequently considered necessary is Policies & Procedures. This does not show the extent of difference between the level required and the level PAMs consider themselves to have, it just demonstrates quantitatively where the gaps occurred. From the preceding discussion can be seen that the largest gaps occur in Planning and Policy & Procedures, with, to a lesser extent, Legal and Financial.

**Table 3**  
Percentage of Questions in which 60% of Respondents Identified a Training Need for each Knowledge Skill relative to the PARCS Standard of Comparison

Skill	Percentage
Technical knowledge	41
Management knowledge	0
Planning knowledge	33
Legal knowledge	11
Policies & Procedures knowledge	70
Financial knowledge	33

**2.3.5.d Comparison of Average PAM and Assistant PAM Gap Analysis of Knowledge Scores (with reference to PARCS score) with Target Validators**

This table presents a gap analysis of all categories of respondents (positions) with respect to the PARCS score (which is considered to accurately reflect the job of a PAM). This will enable comparison of the training needs identified by each category, using the same standard of comparison. The greater the score, the larger the gap. Only positive scores are considered in this table, as a negative score would indicate overtraining which is not the point of this exercise.

Table 2.3.5.d shows very clearly the similarity in gaps identified by the FOD with respect to PAM training needs and the gaps identified by PAMs themselves. In all knowledge skills the perceived training needs of PAMs by the FOD was very similar, although frequently just slightly greater. In other words, although difference was small, the FOD felt the gap in knowledge was greater than PAMs, or the training need was greater. With respect to the 5 researchers that also filled in the questionnaire, the training needs were a bit greater, in general, than those identified by PAMs. Even with respect to technical knowledge, they felt, on the whole, that training was necessary in most aspects of the job.

**Table 4**  
Percentage of questions in which an average gap of 1 or more was identified for each competency

Competency	PAM	FOD	R	FA
Technical	18	41	47	94
Management	0	10	10	70
Planning	33	42	42	100
Legal	11	11	40	88
Policies & Procedures	70	70	70	90
Financial & Accounting	33	0	33	83

The greatest gaps in knowledge were identified by the Field Associate. The following table shows the percentage of questions in which a gap of more than 1 was identified by the Field Associate. The researchers and the field associate were the most critical of knowledge levels of PAMs and identified the greatest needs for training.

Table 5

Percentage of questions in which a gap of more than 1 was identified for each competency by the Field Associate

Competency	Percentage
Technical	59
Management	20
Planning	50
Legal	11
Policy & Procedures	60
Financial & Accounting	33

The competency in which the greatest training needs were identified, by all categories of respondents was Policy & Procedures. It is the competency in which training was most lacking, followed by Planning and Technical skills. Interestingly, it is not necessarily the competency in which respondents immediately feel they need the most training. From analysis 2.3.11 it is evident that respondents felt their greatest priority in training was in Management skills (amongst the competencies with the lowest gaps in knowledge) and in Planning, followed equally by Technical, Legal and Financial knowledge. Policies & Procedures was never mentioned as a training priority. On the whole, there were very few questions in which respondents, over all categories, felt that PAMs were sufficiently qualified, or even over qualified (scores of 0 in Table 2.3.5.d). Training is needed throughout all categories of knowledge skills.

Table 6

Percentage of questions in which an average gap of 1 or more was identified for each division of the job

Main Division of the Job	PAM	FOD	R	FA
A. Staffing	17	17	17	50
B. Infrastructure	17	17	17	100
C. Finance & Accounts	0	0	0	75
D. Tactical Plans	0	0	0	50
E. Laws & Regulations	20	40	100	100
F. Visitors	43	43	71	100
G. Interventions	40	60	80	100
H. Community Conservation	38	38	50	100
I. Research	17	50	17	100
J. Public Relations	14	29	43	71
K. Resource Conservation	50	38	50	100

All categories of respondent felt that training was needed in all the main divisions of the job, although Finance and Tactical Planning were relatively low. The greatest amount of training was usually considered to be necessary in K, F, G, H and I. Laws and Regulations also tended to be high. These divisions of the job all involve active management to resolve conflicts or possible problems in the protected area. They require decision making skills and sufficient knowledge of the facts involved. They therefore link in with technical, policy and planning skills.

### 2.3.6 Validation Analysis of Social & Mental Skills

#### 2.3.6.a Analysis of "yes" responses

This analysis shows the extent to which respondents agreed that the skills listed under mental and social skills are required by PAMs, in order to satisfactorily do their job. Where respondents agreed with PARCS, they answered "yes". The histogram presents the amount of agreement for each skill, and can be considered the validation of the questionnaire. If agreement is high, the questionnaire is validated. There was a very high overall accuracy score of 96% for the agreement on each question in this section, indicating that the questions were considered relevant to the job of a PAM. It is sufficiently high, therefore, that the PARCS description of the mental and social skills required of a PAM can be considered to accurately reflect the needs of a PAM in Mental and Social skills.

#### 2.3.6.b Analysis of "no" responses

This analysis shows where there was disagreement, in the cases that PAMs considered the question not to be relevant to the job of a PAM. The figures shown represent the percentage of respondents that felt that a particular question did not relate to the job of a PAM.

Most disagreement related to Creativity (column 10). In 60% of the questions there was some disagreement (by a few respondents only; never more than 30%, or 2 people). In main divisions B,E and I 43% of questions had some disagreement (again, never more than 30%). In other words, there was some disagreement, but never very much, and it was distributed quite evenly throughout the questionnaire, and not all in one place.

### 2.3.7 Current Mental & Social Skill Level

#### 2.3.7.a Low Skill Levels

Table 2.3.7.a presents the cumulative total of all respondents having answered 1 or 2, indicating those questions where respondents felt their skill level to be low (needing training). A score of 1 indicates no skill, 2 indicates poor skill.

In most questions at least 2 or 3 people identified a gap, and in some questions, 4 or 5 people identified a gap. In all skills but oral (Competency 12) were gaps frequently identified. These gaps were found over all main divisions of the job. Only E, referring to laws and regulations of the protected area, was the least frequently singled out. Discussions demonstrated that people had little idea about the possibilities of receiving training in social and mental skills. Nonetheless, these skills were considered deficient in most PAMs. The following table lists the percentage of times a low skill level was identified for each competency.

Table 7  
Percentage of times a score of 1 or 2 (indicating low skill level) was given for each competency

Mental & Social Skills	Percentage
8. Comprehension	32
9. Problem Analysis	32
10. Creativity	37
11. Evaluation	41
12. Oral	19
13. Written	30
14. Working with Others	37

As with the different competencies, there is very little difference between the main divisions of the job with respect to the areas needing training in mental and social skills. The skill levels are relatively similar and PAMs could profit from training in these skill in all areas of their job.

Table 8  
Percentage of times a score of 1 or 2 was given for each main division of the job

Main Division of the Job	Percentage
A. Staffing	24
B. Infrastructure	35
C. Finance/Accounts	33
D. Tactical Plans	35
E. Laws & Regulations	18
F. Visitors	26
G. Interventions	24
H. Community Conservation	33
I. Research	52
J. Public Relations	51
K. Resource Conservation	39

2.3.7b Comparison of Average PAM and Assistant PAM Gap Analysis of Mental & Social Skills with other Target Groups

According to FODs, PAMs greatest training needs in mental and social skills are in Problem Analysis and Creativity, followed by Working with Others. This is not the case according to researchers and Field Associates. Researchers feel that PAMs greatest training needs are in Comprehension, followed by Written and Creativity skills, and the Field Associate feels that their greatest gaps are in Working with Others, followed by Evaluation, Oral and Written skills.

The following table (Table 9) demonstrates the competencies in which target validators felt the greatest gaps in mental and social skills occurred. The percentages represent the percentage of times an average score of 1 or 2 was recorded for each competency. According to PAMs themselves, their greatest needs were in Evaluation, Creativity and Working with Others. There was general agreement in that FODs, Field Associates and Researchers felt that Working with Others, Creativity and Evaluation demonstrated important gaps. There was considerable variation in the size of the gaps, with the Field Associate and Researchers again the most critical of PAM's skills. They felt that PAMs tended to overestimate their social and mental skills.

**Table 9**  
**Percentage of times an average score of 1 or 2 was identified for each competency**

Mental & Social Skills	FOD	R	FA
8. Comprehension	0	58%	83%
9. Problem Analysis	27%	0	82%
10. Creativity	20%	13%	80%
11. Evaluation	0	11%	89%
12. Oral	0	0	89%
13. Written	0	13%	88%
14. Working with Others	10%	10%	100%

There tends to be little difference between the divisions of the job and the amount of training required. It is spread out evenly over all the areas of responsibility of a PAM.

### 2.3.8 Analysis of Attitudes

In order to effectively manage protected areas and deal with people both within and outside the department, protected area managers must have social skills which do not necessarily fall under the categories of knowledge or mental & social skills listed above. Leadership and team building are important components of a PAM's responsibility. To assess the skill levels of PAMs in these qualities, the respondents were asked to describe the methods they felt were the best suited to instil work ethics, commitment to conservation and healthy attitudes to adjacent communities in their staff. The responses to these questions fell into a number of broad categories, which were subsequently listed and numbered. Overall, the responses favored showing hard work and dedication to conservation through example and involving both staff and local communities in management of the protected areas. Participation in management and conservation is a common theme throughout most of the responses, as well as maintaining dialogue and communication.

As all PAMs responding to the questionnaire had spent at least 10 years with the IZCN, it was impossible to link years of service with the choice of responses to the three questions on attitudes.

#### 2.3.8a Methods to Instil Work Ethics

The methods chosen most frequently to help instil proper work ethics included showing hard work and dedication through example and showing tolerance to others' point of view.

#### 2.3.8b Methods to Instil Commitment to Conservation

The largest response was for demonstrating the importance of conservation in relation to human needs, followed by showing dedication to national, regional and local conservation objectives. Becoming involved in extension conservation activities was also included.

#### 2.3.8c Methods to Instil Healthy Attitudes to Adjacent Communities

All respondents felt that the best method to achieve this goal was by accepting the validity of community participation in protected area management. This is a relatively new concept, and has not yet been brought into effect in Zaire, although there have been initiatives taken to start including neighboring communities in development and conservation efforts. Such initiatives will involve protected area staff learning a large number of new skills, not the least of which will be the sociological skills required in extension work and community participation efforts.

### 2.3.9 Language skills of PAMs and Assistant PAMs

Zaire is a country in which several hundred different languages are spoken by the different ethnic groups. Although French is the lingua franca, and Lingala is spoken by the trading community throughout the country, not all people speak these languages fluently. In general, protected area managers are rotated around the different parks and reserves and do not stay for more than 5 years or so in one area. For them to be able to communicate with the local people around the protected area, they must be able to speak more than just French or Lingala. In order to assess whether it was possible for PAMs to speak with the communities and be actively involved in community extension work, or whether communication problems could lie at the root of the conflict between protected areas and neighboring communities, a question was asked on the language skills of protected area managers. From the pie-chart can be seen that 100% of the PAMs assessed spoke the language of the neighboring communities. Perhaps they did not speak all of the different dialects, but at the least they were able to communicate in a language spoken by the local people. This is an extremely important consideration. Guards and guides do not usually move between the protected areas, once they are in place. Although the educational level required of guards and guides is now 4th year of secondary school, rather than primary school, in the past, many of the guards were only primary school graduates, and they did not speak french. These guards are still working for the IZCN and the PAM must be able to communicate with them as well as with local people.

### 2.3.10 Computer skills

None of the PAMs assessed were able to use computers. This is not surprising as none of them ever have access to computers unless associated with a project which makes one available to them and which gives them training in computer use. Even at the IZCN headquarters in Kinshasa computers are not commonly used by everybody, and most work is still done on typewriters and documents are kept in dossiers in filing cabinets.

### 2.3.11 Training Priorities Identified by Respondents

**In general, PAMs still felt that their greatest training priorities were in Management skills, followed by Technical and Planning skills. None identified Policies & Procedures skills.**

The table on the following page presents the training priorities PAMs listed after having completed the questionnaire. These are listed by main division of the job and by competency. The first row and the first column are "blank", where the response did not link a competency with a main division.

From this analysis it is evident that respondents still feel that their greatest training needs are in management skills, followed by technical and planning skills. Management skills do not represent their greatest training needs as identified by the gap analysis (section 2.3.5.d). Gap analysis showed that Policies & Procedures was an important priority for training and that skill levels of PAMs tended to be very low in this competency. Both Technical and Planning skills were also identified in the gap analysis as demonstrating a training need, so in these two competencies PAMs were aware of their needs. The fact that skills other than management and technical skills may be relatively more important in the changing job of a PAM, and that they may precede other forms of training is not always obvious.

Management and technical skills are the skills that PAMs most frequently are confronted with in their jobs and which seem the most obvious to their jobs. Their actual skills levels in the management, however, were relatively good, and ranked lowest in the gap analysis of training needs. This is not only because their management skills, relative to other skills, need less priority training, but also because their interpretation of the word "management" is less specific, in this context, than in the PARCS context. In the job description, and questionnaire, management is specifically defined with respect to the skills and competencies needed for each main division of the job. When listed as a training priority by respondents, a more general definition is considered, and management is vaguely defined as the combination of all skills and competencies required to satisfactorily fulfill the job of a protected area manager. In other words, it is seen as a combination of technical, management, planning, legal, policies and financial skills.

Another interesting point worth noting is that community conservation was listed as a priority division of the job for training. Although in the past Zaire's protected area authorities have been little involved in community conservation, it is an area in which people are becoming increasingly aware of the need for action. The 1989 Forest Law has included a strong emphasis for the involvement of local people in forest management. It is obvious from this analysis that people are very much aware of the need for community conservation and consider training in these skills as an absolute priority.

### 2.3.12 Training Received

#### 2.3.12.a,b,c Knowledge, Mental & Social, and Attitudes

Formal Training is considered to have contributed to respondent's skill levels in all aspects of the job, including knowledge skills, mental and social skills and attitudes. On-the-job training is also considered to have contributed in all competencies. There has been no in-service training identified for any of the competencies, because the department (IZCN) does not itself carry out training programs. When training has been received, it has been organized by others, such as donor programs or projects, but not by the IZCN. All formal wildlife training has been received at Garoua or at University. A total of over 30 PAMs have been trained at the Ecole des Spécialistes de la Faune in Garoua, Cameroun, and more than 20 researchers have been trained at University. In general PAMs do not come from a university background. Other formal training has been at universities in Europe or the USA.

#### 2.3.12.d Years since Formal Wildlife Training Received

From the Pie Chart it is evident that most PAMs and Assistant PAMs (71%) have been trained more than 5 years ago. Only 1 has received formal wildlife training less than 5 years ago. Since then, little else has been done about training as training at Garoua is considered still to be the best and only option. A few wardens have profited from formal training abroad, due to a particular interest taken in them by someone, but this is not the rule. In general, all PAMs have been to Garoua, although not all were able to go at the beginning of their careers. Some have only been able to receive the funds to go once established as PAMs in a protected area. Nonetheless, overall, protected area managers in the field in Zaire have been to Garoua and have profited from the field-oriented training offered there. This is in sharp contrast to countries like Congo, where people who have attended the Ecole de Faune in Garoua tend to end in positions at the departmental headquarters in Brazzaville, and only very rarely do they return to the field. The expertise obtained at Garoua, therefore, is not brought into the protected areas. Relative to other Central African countries, Zaire has well-trained PAMs and there is an emphasis on sending qualified people into the field.

#### 2.3.12.f Frequency of which training has contributed to PAM skills levels

The histogram shows that PAMs felt that they had received training in all skills, to some extent. The greatest amount of training was in Technical skills (2), as well as the mental and social skills (8,9,10,11). Little training was received in attitudes, although they did feel that training had contributed to some extent to their skill levels.

#### 2.3.12.g Type of training that has contributed most to job requirements

The histogram shows that PAMs felt that formal wildlife training (mostly at the Ecole des Spécialistes de la Faune in Garoua) and on-the-job training contributed most to their skill levels. In knowledge skills, usually formal wildlife training was listed as the most valuable source of training, whereas in mental and social skills, both forms of training contributed equally.

#### 2.3.12.h Training needs identified by gap analysis of questionnaire for PAMs and Assistant PAMs

This table presents the cumulative total of scores in which a gap of 2 or 3 (large gaps) was identified in Knowledge skills, and a score of 1 or 2 (low skill) was identified in Mental and Social skills as a symbol. The size of the dot is determined by the number of times a gap was identified. Large dots indicate frequently identified training needs, small dots indicate relatively rarely identified gaps. The total number of times a

Table 10  
 Training Priorities as listed by the PAMs and Assistant PAMs  
 Competencies 2-7 by Main Divisions of the Job A-K

Main Div.	Competencies																	
	B	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Tot.
B		1	5	4	3		5				2							
A			1															1
B	2																	2
C																		0
D			1															1
E		1																1
F			1	1														2
G			1															1
H	4	2	2								1							9
I	2	1		1														4
J																		0
K	1	2																3
Tot.		7	11	6	3		5				3							

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gap was identified in each box in the matrix is divided by the number of questions in each box, in order to evenly weigh all the boxes in the questionnaire. The table is a summary of the gap analysis for all the competencies and the main divisions. The columns, or competencies in which a large gap was the most frequently identified are 6 (policy and procedures) and 4 (planning) for knowledge skills, and 10 (creativity), 11 (evaluation) and 14 (working with others) in mental and social skills. These results are presented separately in the previous sections 2.3.5 and 2.3.7.

#### 2.3.12.i Measure of agreement of training needs of respondents' priorities and questionnaire analysis

This table merges the figures presented above (2.3.12.h) with the three priorities listed by each respondent at the end of the questionnaire (2.3.11). Where there is overlap (i.e. a training need identified both by themselves and by the gap analysis) there is an asterisk in the box.

Only in two instances are there asterisks, marking agreement in both the training priorities marked by PAMs and those identified by the gap analysis. These two asterisks were in management knowledge of problems relating to community conservation, and in technical knowledge of balancing resource use and resource conservation. Overall, however, there were few areas in which there was overlap.

## 2.4 Summary and Conclusions

The Protected Area Conservation Strategy (PARCS) was devised in order to address two important questions: 1) what training do Protected Area Managers (PAMs) need in order to enhance the conservation of Africa's protected areas? and 2) what can be done to provide this training for PAMs, as well as what steps can PAMs themselves take to identify and design pilot educational efforts that respond to their needs?

In order to answer the first question, and to begin to understand how to answer the second, a training needs assessment was undertaken in 15 African countries. A questionnaire general enough to be applicable in all countries was developed for this purpose, enabling comparison across regions and countries.

In addition to the training needs assessment, a training opportunities assessment was started. This assessment will continue after the needs assessment has ended, in order to develop a more thorough, and useful list of opportunities.

The results from the training needs assessment, which are summarized below, will be used in developing participatory pilot training projects in the second phase of the PARCS project.

The training needs assessment and training opportunities assessment were designed in order to generate data which could then be used to answer a number of overarching questions. The questions are relevant throughout Africa and represent the problems of training and protected area management in a wide variety of habitats and situations. The answers to these questions can be used to address some of these problems, and in many cases provide solutions to the problems.

### Overarching questions

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

It is possible to describe, in a general manner, the role of a Protected Area Manager, and have this description fit for managers all over Africa and in the variety of habitats and categories of protected areas that exist over the continent. The questionnaire, which was a job-description for a protected area manager, was used in 15 different countries and there was very little disagreement on the responsibilities listed. Within each country, a number of different people were contacted and questioned on the validity of the questionnaire as a job description. These people were not only protected area managers, they were also field operation directors at headquarters, regional managers, field associates, trainers and research officers. They all agreed to a very high degree with the description proposed by the PARCS project.

In Zaire there were very few changes made to the description of the job of a protected area manager proposed by PARCS, and the overall level of agreement was 94.8%. In other words, very few people, of all categories, queried any aspect of the questionnaire and its relevance to a protected area manager in Zaire. Although not all aspects of the job as described in the questionnaire are put into effect in Zaire, respondents did feel that they were skills required of a PAM, especially as it would be possible to include these activities in the future.

#### **b. What are the constraints on meeting these responsibilities? Where does training fit in?**

There are a number of constraints in Zaire which make it difficult for protected area authorities to carry out all their responsibilities. One of the major constraints is a budgetary one, which limits not only infrastructure and logistics, but it also limits the staffing possibilities in protected areas, and it limits the training available to staff. This is a constraint of particular importance in Central Africa where protected area management has not been as great a priority in the past as in other parts of Africa, and where funding is often very limited. It also has bearing on all the other constraints in Zaire.

Financial constraints, however, are not the only ones. One of the major problems is the lack of adequate planning at the IZCN headquarters. Training is not planned and there is no coordinated training programme to meet the needs of IZCN staff. Planning skills are needed both with respect to protected areas in general and with respect to specific projects. Strategic and tactical planning are skills which need to be emphasized

in training at all levels. In addition, projects and programs often do not include a follow-up phase, which severely limits their value. Monitoring and evaluation programs must also be emphasized.

One of the difficulties in Zaire, as elsewhere in Central Africa, is the lack of sufficient staff in the field. The proportion of staff to area meriting protection is extremely imbalanced. In some areas there is one guard for 1,900ha of protected area (Virunga National Park) and in others only one guard for 27,000 ha of protected area (Salonga National Park). The IZCN authorities pointed out that there are far too few guards to adequately cover the protected areas and to ensure their safety from encroachment. Population pressure on these areas is very great, both for agricultural land and for the resources they contain, especially in the east and southeast of the country. If there are insufficient numbers of people to guard these areas, there are certainly too few people to also be involved in community education and extension work. Zaire has a very good record of sending its trained staff into the field, but many more people have to be trained, and then supported by the organization to satisfy the need for trained personnel.

Zaire is one of the largest countries in Africa, covering about 2.5 million sq km. Infrastructure is very poor, with no roads connecting the different regions with each other. Most transport occurs along the numerous riverways, and by air. Postal services tend to be slow and expensive. Telephone does not exist, apart from satellite and cellular telephone from Kinshasa. As a consequence, most communication within the IZCN goes by radio-phonie. One of the major constraints, therefore, is this lack of a reliable communication system and the difficulty of sending written reports and documents from one area to another. It often takes a very long time for a PAM to receive a response from the IZCN headquarters in Kinshasa to a query. The centralization of all authority is a contributing factor. All major decisions must be made in Kinshasa, by the director general of the IZCN, and it often takes many months before decisions are communicated to the field. The importance of decentralization has been acknowledged by the IZCN and attempts are slowly being made towards that goal, but at present there is still a very strong central authority responsible for protected area management. Training must emphasize decision making abilities and provide the necessary basis in knowledge, mental and social skills for such decisions.

There are presently a number of training programs underway in Zaire, starting to address the needs of the protected area staff. Initiatives include the CEFRECOF (Centre de Formation et Recherche en Conservation Forestière) training centre in the Okapi Wildlife Reserve and training programs set up by the FZS/IUCN/WWF (Frankfurt Zoological Society/International Union for the Conservation of Nature/Worldwide Fund for Nature) Garamba National Park project and the IGCP (International Gorilla Conservation Project) in the Virungas. The emphasis, however, has been exclusively on guard and guide training, or technician-level training. The needs of field-based managers, and even directorate-level managers have not been addressed to date. One of the major constraints on effective use of human resources is the lack of repeated training. Training is still often seen as leading to elitist positions and is usually only a preparation for recruitment, for a specific position, and never repeated. Training is therefore not seen as part of the process of movement throughout a person's career. This form of training is very limiting, in that it is relatively inflexible and not adapted to the needs which arise during the process of a person's career. As a consequence, gaps arise in the knowledge and skills required to do the job successfully, and these gaps are not addressed. Training should be seen as periodic and repeated as frequently as possible and necessary, so that changing job requirements and responsibilities can be constantly addressed.

According to the Director of the IZCN, Mankoto ma Mbaelele, the major constraints to conservation of the biodiversity of Zaire include an overall lack of technical knowledge, lack of institutional authority, insufficient technical and management personnel and lack of economic resources to protect already established areas. Institutional analysis of the IZCN has shown that there is an urgent and important need for training of its personnel. The development of concrete management and planning models, responding to the realities of the country, would provide a practical basis for training (Mankoto ma Mbaelele and Rioust de Largentaye, in Cleaver, K., et al, 1992).

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

The process of filling in and discussing the questionnaire for the needs assessment already brought out some of the gaps in the skills of PAMs which limit them in their jobs. The questionnaire as a job description was a useful exercise for people who had never actually seen a description of their job. It helped them see both the complexity of the job itself and the skills, in terms of knowledge as well as mental and social skills, that were required for the job. It was clear to them that in a large majority of those skills they had never received any form of training. After filling in the questionnaire, however, they still tended to list, as their three training priorities, those competencies which were the most obvious, and frequently addressed ones. There was a some discrepancy between the competencies in which the greatest gaps in skill level were identified by the needs assessment, and the competencies in which respondents felt their priority training needs occurred.

The knowledge skills in which the greatest gaps occurred (in other words, in which the greatest training needs were identified), from the perspective of protected area managers, field operations directors, researchers and field associates were "policy and procedures", "planning" and "technical" knowledge. Although the order of importance between these three competencies may have varied a little, in general, there was a high level of agreement between all categories with respect to the skills requiring priority training.

With respect to the mental and social skills, the greatest gaps in skill level were identified in "working with others", "creativity" and "evaluation". Others were also identified, but not by all categories of respondent.

The main divisions of the job in which the greatest training needs were identified by all categories of respondents were "interventions", "visitors" and, to some extent "laws and regulations" and "resource conservation".

**d. 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?**

The only training that PAMs regularly list as having contributed to their skill levels is formal wildlife training and on-the-job training. Formal wildlife training (at the Ecole des Spécialistes de la Faune in Garoua, Cameroun) contributed to skill levels in all knowledge, mental and social skills. On-the-job training, or informal learning while executing one's responsibilities, was also felt to be important in contributing to skill levels. In-service training was never listed as having contributed to training. This is indicative of one of the crucial problems of in-service training. Because any such training courses organized by the department are not officially recognized by a certificate or diploma of some sort, or followed by a promotion, participants do not feel that they are true forms of training. This is also true of attendance at workshops, seminars, conferences, etc. The latter are more frequently listed, especially if they involve travel and per diems, due to the prestige attached to their attendance. If in-service training is to be a useful form of training, participants should receive some form of recognition for participation in them. A system of evaluating participation, and rewarding excellence should be included. One of the reasons that formal wildlife training is listed as having contributed to skill levels in all knowledge, mental and social skills is because of the value attached to such training. A diploma from a university, the Ecole de Faune in Garoua or Mweka Wildlife College is prestigious and valuable to the holder. It will make him eligible for positions he would not otherwise be able to apply for. Although these schools and universities do not necessarily contribute to all the skills mentioned, participants did list them as having done so. The Ecole des Spécialistes de la Faune does not include much training in planning and no training in the laws and regulations in effect outside of Cameroun (apart from international wildlife laws). It is clear why these skills were considered low by respondents to the questionnaire and why they felt they required more training in them.

Most protected area managers have received their formal wildlife training more than 10 years ago. Since that time, they have received no additional training, nor any form of refresher courses. This is due to the lack of in-service training, and the expense of sending people to training institutes. Repeated training and refresher courses are forms of training that can most easily, effectively and cost-efficiently be organized by

the department so that all candidates get equal opportunities for training and so that training is frequent and meets the needs of the job. The actual training need not be carried out in the department or by trainers from the department, as long as the department is ensuring that the courses meet the needs of its staff and that all members of the staff get equal opportunities for training.

**e. Assessments of Field Operations Directors**

Although not based in the field, the field operations director has responsibilities not unlike those of a PAM. The difference is mainly in the scale of responsibilities, which is much larger for the FOD. In other words, whereas the PAM is responsible for tactical plans and budgets and for contributing to the protected area strategic plan, the FOD is responsible for strategic planning of the whole protected area system. The FOD must also set policies, procedures and standards for the whole of the system and answer to the Ministry for all of the departments's activities.

The field operations director, in general, has a higher level of training, both in terms of formal wildlife training as well as other forms of training, such as workshops, conferences and seminars. FODs in the IZCN have generally had university training. Training needs identified for FODs include planning, computer training, personnel training and management skills, and overall management. Planning, combined with overall management, receives the major emphasis for training, for all levels of personnel.

One point of training is that it should not be limited to only one target group. There should be an emphasis on the development of training programs for the support group of the PAMs, or, in other words, the "formation des collaborateurs". The protected area manager is the link between the institute's headquarters and the guards in the field. The training programs must focus on both the higher and lower levels so that the whole support group can function as a whole.

One of the problems of training of the higher levels is that appointment to these positions is often a political move, and it is not always a candidate's training background which makes him/her eligible for the position. Although their technical knowledge is not crucial given a strong support group, their planning and management skills, as well as knowledge of policies and procedures, are very important. If PAMs were trained to successfully meet the requirements of the job, it would not be so important that a FOD have a wildlife background. The PAMs could provide much of the needed expertise and it would be possible to consult other experts for the overall system approach. At present, however, due to the lack of sufficient expertise of PAMs, FODs still have to maintain a strong supervisory position.

**f. What further training is required?**

Although the questionnaire did bring a different emphasis to the traditional description of the job of a protected area manager, and highlighted a variety of responsibilities of a PAM, there was a tendency to fall back into the traditional perspective when questioned about what the priority training needs were. The most frequently listed training priorities were in management training, followed by technical knowledge training and planning. Although training in technical and planning skills were highly ranked in the gap analysis, management did not figure as very important at all. As PAMs are, by definition, managers, however, they feel that management is one of the most obvious, and therefore most important skills required of them, and one of the most important training needs. The PAMs had little experience with in-service training. The training that they were most familiar with was formal wildlife, or on-the-job training. Given the lack of in-service training programs, most PAMs had never given short courses as part of such a programme any thought. For this reason, when respondents were asked about further training requirements, they tended to list formal wildlife training in the skills mentioned above. Yet the need to take people from their jobs for prolonged periods of time, the expense of sending people to formal training institutions all make formal training an option which is not realistic, once a person has been assigned to a post. Short courses, organized by the department to specifically address needs encountered by staff would be a preferable and more realistic solution.

Further training is required in a large number of areas. The most important gaps in knowledge skills were in Policies & Procedures, Planning and Technical skills. The most important gaps in Mental and Social skills were in Working with Others, Evaluation and Creativity. The main divisions of the job that required training the most frequently were Visitors, Interventions, followed by Laws and Regulations and Resource

Conservation. This would indicate a need for technical training, and specifically in skills which would enable managers to make decisions on how to obtain the full potential benefits from protected areas (resource use, tourism, etc) while maintaining the optimal level of protection.

Most PAMs have profited from traditional wildlife training. The majority of PAMs have been to the Ecole des Spécialistes de la Faune in Garoua, Cameroon. A small minority have been to university and have degrees in either agronomy or biology. Despite this training, there is a need for specific training in the technical skills required of protected area managers. The traditional wildlife colleges are apparently not satisfying the needs of present-day protected area managers, in knowledge, mental and social skills. The development of specific courses covering the needs in Zaire of protected area managers would be a possible solution. In service training would be able to satisfy the needs in Zaire. It also seems that there is a need to improve the curriculum of the primary wildlife training college in central francophone africa so that the needs of all countries can be met. Zaire is one of the countries utilizing the Ecole de Faune in Garoua for what it was intended, unlike countries such as Congo. Although not all the necessary skills are taught at traditional wildlife colleges, technical skills are an emphasis of these schools.

Given the extremely high population density in certain parts of Zaire, and the resulting high pressure on protected areas, it would be logical to include skills in dealing with communities in any training programme to be developed for protected area managers. Skills in dealing with the community and involving them in the management of protected areas are important, as well as skills in determining their needs and cultural practices, so as to avoid conflict wherever possible, and ensure that their needs and interests are being met. An important focus is promoting local participation in protected area management through the strengthening of community rights. Social skills need to be further developed in the government services for forestry and protected areas.

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

One of the main training programs presently operating in Zaire, which could be enlarged to include training for PAMs is the Centre de Formation et Recherche en Conservation Forestière (CEFRECOF), set up by NYZS/ The Wildlife Conservation Society with funds from USAID in the Okapi Wildlife Reserve. The centre was established to form the basis for training for all protected area staff and forest conservation research. At present it has been utilized mainly for training of guards and guides and for research programs for students from the University of Kisangani. Field-based training programs could easily be set up at CEFRECOF, given the existing infrastructure and research base set up by Drs. John and Terese Hart, and the expertise developed by the projects established at Epulu in the Ituri forest (WCS, Animals in Motion and World Wide Fund for Nature). Outside of the Centre's importance from a national perspective, it could also provide a unique base for a number of regional workshops including other Central African countries. It's location and infrastructure would prove invaluable for training of forest-based protected area managers. In addition, Zaire is held in an exemplary position by other Central African countries due to the relatively high level of training and support given to PAMs in Zaire and due to the high profile of the IZCN and protected areas in Zaire. Zaire was frequently mentioned as a centre of expertise by PAMs in Congo and Cameroun. Zaire should be able to share this expertise with other central african countries and develop a more regional emphasis and influence with its neighbors.

A new school is presently being developed by the IZCN with the help of UNESCO and the Canadian government (ACCT) which will provide training in Natural Resources and Forestry. Although the school will be focussed on university graduates, it may be possible to use the expertise and infrastructure to help develop training programs for PAMs who do not necessarily come from a university background. At present the school is only in it's earliest developmental stages and it is not possible to determine which, if any, role it will play in the training of protected area managers.

At present, no training programs are being used for the training of protected area managers outside of the Ecole des Spécialistes de la Faune in Garoua, Cameroun. Although a few PAMs have been to the University of Kinshasa or the University of Kisangani, most PAMs have a secondary school education followed by a 2 year course at Garoua. It may be possible to adapt some of the courses available at the universities to fit the requirements for PAMs, or it may be possible to use the training and technical expertise available as a

resource in order to develop the courses required to bring PAMs to the level required, and to help the IZCN develop training programs for their staff. At present, the universities are struggling to stay open, given the political and economical crisis in Zaire. In Kinshasa, the university has been closed for many months.

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

The list of training opportunities for Zaire is far from exhaustive. there will unquestionably be many training opportunities that have not been utilized, outside of the ones mentioned above. There are a number of resources in Zaire, and people with expertise in a number of fields that could be approached to help develop specific training programs. There are also unquestionably a large number of training opportunities that have not yet been assessed which could contribute to developing training programs. At present, none of these are being used. Formal training tends to be abroad, and there is very little specific training going on in the country. Any training outside of the country will have very important budgetary constraints. Attempts must be made to identify opportunities within the country, and to develop training programs which will not prove to be an enormous financial burden on an institute which has enough financial constraints as it is.

**i. What kinds of training should be recommended?**

Based on discussions with Field Operation Directors, Researchers and Field Associates as well as Protected Area Managers, it is obvious that there is much enthusiasm and interest in the development of in-service training programs. Programs that have short, frequently repeated and refresher training courses that are developed to the specific needs of protected area staff would be the ideal. This may take the form of courses given by mobile training units, or of short courses given at the direction headquarters when field staff come to the capital. The recipients of these training courses should not only be protected area managers, or "conservateurs". They should include people at a number of different levels, so that training occurs throughout a person's career and so that people arrive at a particular level in the hierarchy already trained to the level necessary for that job.

Formal training has proven very expensive and logistically complicated and as a result, very few people have profited from it outside of pre-service training, preparing them for their position as a PAM. The value of formal training in preparing people for specific positions should not be questioned. The question should be, however, how to supplement this training so that it is no longer elitist and so that everyone can profit from training. In addition, the goal should be that training is seen as available to everyone and as a means of moving forward in a career, so that it also provides pride in the work and professional satisfaction.

The kind of training that would be recommended, therefore, is training that is developed by the department and which is available to everyone in a planned process along a career path. The training is specific to the needs of the job. The choice of protected area manager as target group for this assessment is due in part to the fact that often it is this group that is lacking, both in training and in manpower: field-based managers who are capable of carrying out the large number of functions and responsibilities attributed to the position. The target groups for training will include not only protected area managers, but also people below the level of PAM, who will need to be prepared to one day assume the position of a PAM, and people above the position of a PAM, who will need similar skills to the field-based managers, in order to supervise, coordinate and direct protected area managers. The whole support group of the protected area manager must be trained to enhance the effectiveness of the group as a whole.

In-service training can be used for a number of purposes. Some of the more salient uses are:

- providing people with the necessary skills in order to acquire posts with new responsibilities
- providing people with up-to-date- information or refresher courses on knowledge skills that they have not studied for a number of years
- providing people with opportunities for changing their career path, or taking a new direction
- providing specific skills which cannot be inculcated effectively in people with no experience of employment, and which cannot be included in pre-service courses

This study recommends the creation of a professional training officer post in the IZCN in order to help staff career development and to provide an information base as a precursor to effective planning. One of the crucial first steps would be the training of trainers in order to provide the capacity to carry out in-service training. Expertise could come from a number of existing training institutions, or from technical assistance abroad. A training programme would need to be developed in order to plan and give direction to training for peoples careers. This would demand the creation of a training officer post.

In addition, this study recommends the development of PAM (and the PAM support group) in-service training courses at one training centre outside of Garoua that has been developed for protected area staff in Central Africa: CEFRECOF in the Ituri Forest. This centre could provide a unique basis for training in the field, in a forest habitat (the Ecole des Spécialistes de la Faune in Garoua is in the sudano-sahelian zone of Cameroun) for many of the forest based PAMs in Central Africa. It could be used for a small number of regional workshops in which the recommendations of the PARCS Phase I project could be discussed and developed. Many of the training needs and the PARCS recommendation for the Central African countries assessed are very similar. It would be of great use to develop some broad goals together, using the background and expertise developed in the different countries. Specific training courses for PAMs would probably need to occur in each respective country, due to the expense of sending people abroad for training. The CEFRECOF training centre should be used as an example and a resource wherever possible.

One of the objectives of the PARCS project is to assist 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. The central african region, including the eastern Zaire/Nile Divide and the western Greater Congo Basin include a number of protected areas with different ecological, economic and sociological functions. PAMs from the whole region could profit from initiatives and expertise developed in different countries. As a collaborative project operating in countries in Central, Eastern and Southern Africa, PARCS could play a vital coordinating and facilitating role to this goal.

A primary recommendation of this training needs assessment is to develop and emphasize the role of in-service and on-the-job training as a means of addressing the training needs of PAMs identified. Course topics should be based on the key training needs in each competency identified by the "gap analysis" and should concentrate on the main divisions of the job requiring priority attention. Specifically, these skills include Policies and Procedures, Planning and Technical skills, and involve laws and regulations, interventions, visitors, community conservation, and resource conservation. The development of the mental and social skills involved in problem solving should be a technique used in the training courses with special emphasis on the skills demonstrating the greatest gaps.

The PARCS project would hope to be able to include Zaire in it's coordinating role relative to training in Central Africa. There is a great deal of expertise in Zaire which other countries could greatly profit from sharing, but there is also expertise developed elsewhere which could prove helpful in Zaire. The goal of PARCS would be to include key people in Zaire in training efforts in the region, allowing the linking together of training activities throughout and allowing for the different countries to profit from each other's experience.

## Recommendations

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Formal training has proven very expensive and logistically complicated and as a result, very few people have profited from it outside of pre-service training, preparing them for their position as a PAM. The value of formal training in preparing people for specific positions should not be questioned. The question should be, however, how to supplement this training so that it is no longer elitist and so that everyone can profit from training. In addition, the goal should be that training is seen as available to everyone and as a means of moving forward in a career, so that it also provides pride in the work and professional satisfaction.

The kind of training that would be recommended, therefore, is training that is developed by the department and which is available to everyone in a planned process along a career path. The training is specific to the needs of the job. The choice of protected area manager as target group for this assessment is due in part to the fact that often it is this group that is lacking, both in training and in manpower: field-based managers who are capable of carrying out the large number of functions and responsibilities attributed to the position. The target groups for training will include not only protected area managers, but also people below the level of PAM, who will need to be prepared to one day assume the position of a PAM, and people above the position of a PAM, who will need similar skills to the field-based managers, in order to supervise, coordinate and direct protected area managers. The whole support group of the protected area manager must be trained to enhance the effectiveness of the group as a whole.

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probably need to occur in each respective country, due to the expense of sending people abroad for training. The CEFRECOF training centre should be used as an example and a resource wherever possible.

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### Annexures

- Annexe 1      Questionnaire
- Annexe 2      Data Tables and Figures

## PROTECTED AREAS CONSERVATION STRATEGY (PARCS): TRAINING NEEDS ASSESSMENT

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

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

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

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

The attached chart has 17 columns and 12 rows.

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

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

### KNOWLEDGE (columns 2-7)

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

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

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

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

eg. in E5:

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

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"> <li>Maximizing potential of allocated staff</li> <li>Responsible for identifying training needs</li> <li>Responsible for recommendations and application of disciplinary measures</li> </ul>		
B. Ensure appropriate infrastructure within budget	<ul style="list-style-type: none"> <li>Responsible and accountable for maintenance, repair, rehabilitation and construction</li> <li>Recommending additional facilities</li> </ul>	Working knowledge of infrastructure, construction, sitings, materials etc.	<input type="checkbox"/> <input type="checkbox"/>
C. Ensure financial and accounting integrity of the protected area	<ul style="list-style-type: none"> <li>Accountable and responsible for all revenue generated and disbursement (received from headquarters and receipts)</li> <li>Responsible for accurate accounting</li> </ul>		
D. Ensure development and achievement of tactical plans and budgets and contribute to protected area strategic planning	<ul style="list-style-type: none"> <li>Accountable for development of annual plan and budget of protected area</li> <li>Responsible for working within the agreed plan and budget</li> <li>Identify strategic options in the protected area and contribute to strategic planning</li> </ul>		
E. Ensure that all activities within the protected area comply with laws and regulations	<ul style="list-style-type: none"> <li>Accountable for enforcement of law and regulation and ensuring safe practices throughout the protected area</li> </ul>	In depth knowledge of safe practices with respect to wildlife	<input type="checkbox"/> <input type="checkbox"/> 2
F. Ensure optimum levels of visitor satisfaction	<ul style="list-style-type: none"> <li>Responsible for ensuring that the highest levels of visitors' services and practices under his/her jurisdiction are maintained</li> </ul>	In depth knowledge of techniques of anti-poaching	<input type="checkbox"/> <input type="checkbox"/> 3
G. Ensure agreed intervention (eg. early burning, problem animal control) programmes are completed to budget and timetables	<ul style="list-style-type: none"> <li>Responsible for design, implementation, and evaluation of intervention programmes to meet conservation objectives in the protected area</li> </ul>	In depth knowledge of visitors' expectations	<input type="checkbox"/> <input type="checkbox"/> 4
H. Ensure harmonious relationships with neighbouring communities	<ul style="list-style-type: none"> <li>Responsible and accountable for design and implementation of a programme to achieve harmonious relations</li> <li>Responsible for instilling acceptance by staff of the role of local communities in protected area management</li> </ul>	In depth knowledge of protected area infrastructure techniques, site design and analysis	<input type="checkbox"/> <input type="checkbox"/> 5
I. Be aware of research activities and progress against plan	<ul style="list-style-type: none"> <li>Responsible and accountable for ensuring that research programme is implemented according to the protected area conservation objectives and timetables</li> </ul>	In depth knowledge of interaction between tourist and local areas	<input type="checkbox"/> <input type="checkbox"/> 6
J. Represent the protected area and its interests in public meetings	<ul style="list-style-type: none"> <li>Accountable for ensuring that the protected area is represented in every possible area</li> <li>Responsible for ensuring that the information available about the protected area is up to date</li> </ul>	In depth knowledge of intervention needs, techniques and implications	<input type="checkbox"/> <input type="checkbox"/> 7
K. Ensure an appropriate balance between resource conservation and use in the protected area	<ul style="list-style-type: none"> <li>Responsible and accountable for design and implementation of resource management / protection strategies to meet protected area conservation objectives</li> <li>Responsible and accountable for the preparation, approval, and implementation of a resource conservation management plan for the protected area</li> </ul>	Working knowledge of extension methodology	<input type="checkbox"/> <input type="checkbox"/> 8
L. Training received		Some knowledge of cultural and historical context for the location of protected area	<input type="checkbox"/> <input type="checkbox"/> 9
		Working knowledge of research methodologies	<input type="checkbox"/> <input type="checkbox"/> 10
		Working knowledge of the role of research in meeting conservation objectives	<input type="checkbox"/> <input type="checkbox"/> 11
		Up to date working knowledge of all activities within the protected area	<input type="checkbox"/> <input type="checkbox"/> 12
		In depth knowledge of the context of the protected area in the regional/national/global arena	<input type="checkbox"/> <input type="checkbox"/> 13
		In depth knowledge of types, locations, trends and requirements of important natural and cultural resources in the protected area	<input type="checkbox"/> <input type="checkbox"/> 14
		In-depth knowledge of types, locations, trends and requirements of threatened and endemic fauna and flora and the key species of the ecosystem	<input type="checkbox"/> <input type="checkbox"/> 15
		Working knowledge of environmental impact analysis techniques	<input type="checkbox"/> <input type="checkbox"/> 16
		Working knowledge of surveys and monitoring techniques (field data collection/analysis)	<input type="checkbox"/> <input type="checkbox"/> 17

3. Management	4. Planning	5. Legal	6. Policies/Procedures	7. Financial/accounting
Working knowledge of supervisory and personnel management skills 18 <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) 19 <input type="checkbox"/> <input type="checkbox"/> Working knowledge of managing casual labour 20 <input type="checkbox"/> <input type="checkbox"/>	Working knowledge of scheduling staff development & timetables 28 <input type="checkbox"/> <input type="checkbox"/> ↓	Some knowledge of employment laws 40 <input type="checkbox"/> <input type="checkbox"/> ↓	In depth knowledge of staff policies, procedure, and practices 49 <input type="checkbox"/> <input type="checkbox"/> ↓	↓
Working knowledge of stock control and procurement 21 <input type="checkbox"/> <input type="checkbox"/> Working knowledge of how to apply preventative maintenance 22 <input type="checkbox"/> <input type="checkbox"/>	Working knowledge of job planning 29 <input type="checkbox"/> <input type="checkbox"/>	Some knowledge of contract law (for writing contracts to subcontractors) 41 <input type="checkbox"/> <input type="checkbox"/>	In depth knowledge of maintenance / construction policies, procedures and standards and procurement procedures 50 <input type="checkbox"/> <input type="checkbox"/> Working knowledge of accounting policy and procedures 51 <input type="checkbox"/> <input type="checkbox"/>	Working knowledge of accounting and principles of internal control 59 <input type="checkbox"/> <input type="checkbox"/>
	Working knowledge of financial planning 30 <input type="checkbox"/> <input type="checkbox"/>		Working knowledge of overall strategies and direction of his/her organisation (national conservation policy) 52 <input type="checkbox"/> <input type="checkbox"/>	
	Working knowledge of planning, budgeting and control 31 <input type="checkbox"/> <input type="checkbox"/>		In depth knowledge of policies and procedures 53 <input type="checkbox"/> <input type="checkbox"/>	
	In depth knowledge of patrol planning needs 32 <input type="checkbox"/> <input type="checkbox"/>	In depth knowledge of relevant laws and regulations (e.g., firearms, arrest, charging, human rights) 42 <input type="checkbox"/> <input type="checkbox"/>	In depth knowledge of visitor policies and procedures 54 <input type="checkbox"/> <input type="checkbox"/>	Working knowledge of keeping records of visitor numbers and keeping receipts 60 <input type="checkbox"/> <input type="checkbox"/>
Working knowledge of management and accommodation and catering facilities under protected area jurisdiction 23 <input type="checkbox"/> <input type="checkbox"/>	In depth knowledge of techniques in developing long and short term visitor plans 33 <input type="checkbox"/> <input type="checkbox"/>	Working knowledge of contract law as applicable to concessionaires and visitors 43 <input type="checkbox"/> <input type="checkbox"/>	In depth knowledge of policies and procedures related to intervention 55 <input type="checkbox"/> <input type="checkbox"/>	
Working knowledge of project (job) management 24 <input type="checkbox"/> <input type="checkbox"/>	In depth knowledge of job planning 34 <input type="checkbox"/> <input type="checkbox"/>	In depth knowledge of relevant laws and regulations 44 <input type="checkbox"/> <input type="checkbox"/>	In depth knowledge of policies and procedures related to community conservation 56 <input type="checkbox"/> <input type="checkbox"/>	Working knowledge of record keeping for financial disbursements to local communities 61 <input type="checkbox"/> <input type="checkbox"/> In depth knowledge of records of resource use or resources shared -- both financial and in-kind distributions 62 <input type="checkbox"/> <input type="checkbox"/>
In depth knowledge of protected area vs people conflict management 25 <input type="checkbox"/> <input type="checkbox"/>	Working knowledge of how to develop a community conservation plan 35 <input type="checkbox"/> <input type="checkbox"/>	Some knowledge of laws related to community development 45 <input type="checkbox"/> <input type="checkbox"/>	Working knowledge of research policies and procedures 57 <input type="checkbox"/> <input type="checkbox"/>	Working knowledge of budget & allocations for research activities 63 <input type="checkbox"/> <input type="checkbox"/>
	Some knowledge of development of research plan for the protected area 36 <input type="checkbox"/> <input type="checkbox"/>	In depth knowledge of legal aspects of collecting/exporting materials & specimens 46 <input type="checkbox"/> <input type="checkbox"/>	In depth knowledge of the public relations policies, procedures and practices 58 <input type="checkbox"/> <input type="checkbox"/>	
Working knowledge of the concept of public relations and methods of dealing with the media 26 <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 27 <input type="checkbox"/> <input type="checkbox"/>		In depth knowledge of the legislation regarding protected areas 47 <input type="checkbox"/> <input type="checkbox"/> Some knowledge of the laws of slander and libel 48 <input type="checkbox"/> <input type="checkbox"/>		
	Working knowledge of resource conservation management planning techniques and methodologies 37 <input type="checkbox"/> <input type="checkbox"/> In depth knowledge of how to develop and implement protected area management objectives 38 <input type="checkbox"/> <input type="checkbox"/> In depth knowledge of how to develop and maintain a protected area management zoning system 39 <input type="checkbox"/> <input type="checkbox"/>			Working knowledge of how to estimate costs for implementation of resource conservation management plan recommendations 64 <input type="checkbox"/> <input type="checkbox"/>

Main Divisions of the Job	I. Accountability and Responsibilities	MENTAL SKILLS	
		8. Comprehension	9. Problem Analysis
A. Ensure availability of a competent and well-motivated staff	<ul style="list-style-type: none"> <li>Maximising potential of allocated staff</li> <li>Responsible for identifying training needs</li> <li>Responsible for recommendations and application of disciplinary measures</li> </ul>	Recognising staff potential advancement Y N <input type="checkbox"/> ↓ 1 <input type="checkbox"/>	Determining causes of poor performance and behaviour Y N <input type="checkbox"/> ↓ 3 <input type="checkbox"/>
B. Ensure availability of appropriate infrastructure (within budget)	<ul style="list-style-type: none"> <li>Responsible and accountable for maintenance, repair and rehabilitation and construction</li> <li>Recommending additional facilities</li> </ul>	Spotting malpractices and potential hazards Y N <input type="checkbox"/> 2 <input type="checkbox"/>	Determining causes of specific and trends on equipment and infrastructure failures Y N <input type="checkbox"/> 14 <input type="checkbox"/>
C. Ensure financial and accounting integrity of the protected area	<ul style="list-style-type: none"> <li>Accountable and responsible for all revenue generated and disbursement (received from headquarters and receipts)</li> <li>Responsible for accurate accounting</li> </ul>	Understanding financial implications of information Y N <input type="checkbox"/> 3 <input type="checkbox"/>	Determining causes of figures not reflecting the true situation Y N <input type="checkbox"/> 15 <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"> <li>Accountable for development of annual plan and budget of protected area</li> <li>Responsible for working within the agreed plan and budget</li> <li>Identify strategic options in the protected area and contribute to strategic planning</li> </ul>	Understanding implications of set objectives including their feasibility Y N <input type="checkbox"/> 4 <input type="checkbox"/>	Determining true causes of failure to achieve plan and budget Y N <input type="checkbox"/> 16 <input type="checkbox"/>
E. Ensure that all activities within the protected area comply with laws and regulations	<ul style="list-style-type: none"> <li>Accountable for enforcement of law and regulation and ensuring safe practices throughout the protected area</li> </ul>	Understanding applicability of laws and regulations in protected areas Y N <input type="checkbox"/> 5 <input type="checkbox"/>	Determining true causes of incidences and trends in incidences Y N <input type="checkbox"/> 17 <input type="checkbox"/>
F. Ensure optimum levels of visitor satisfaction	<ul style="list-style-type: none"> <li>Responsible for ensuring that the highest levels of visitors services and practices under his/her jurisdiction are maintained</li> </ul>	Recognising the significance of physical and statistical information regarding visitor impact Y N <input type="checkbox"/> 6 <input type="checkbox"/>	Determining true causes of visitor dissatisfaction and behaviour Y N <input type="checkbox"/> 18 <input type="checkbox"/>
G. Ensure agreed intervention programmes are completed to budget and timetables	<ul style="list-style-type: none"> <li>Responsible for design, implementation, and evaluation of intervention programmes to meet conservation objectives in the protected area</li> </ul>	Understanding information that may lead to interventions Y N <input type="checkbox"/> 7 <input type="checkbox"/>	Determining causes of deviation from intended results of interventions Y N <input type="checkbox"/> 19 <input type="checkbox"/>
H. Ensure harmonious relationships with neighbouring communities	<ul style="list-style-type: none"> <li>Responsible and accountable for design and implementation of a programme to achieve harmonious relations</li> <li>Responsible for instilling acceptance by staff of the role of local communities in protected area management</li> </ul>	Understanding the significance of statistical, physical, written and oral information relating to community protected area links Y N <input type="checkbox"/> 8 <input type="checkbox"/>	Understanding underlying causes of conflict both in the long and short term Y N <input type="checkbox"/> 20 <input type="checkbox"/>
I. Be aware of research activities and progress against plan	<ul style="list-style-type: none"> <li>Responsible and accountable for ensuring that research programme is implemented according to the protected area conservation objectives and timetables</li> </ul>	Understanding the significance of research findings and the function of research Y N <input type="checkbox"/> 9 <input type="checkbox"/>	Determining causes of why research programme is not to timetable Y N <input type="checkbox"/> 21 <input type="checkbox"/>
J. Represent the protected area and its interests in public meetings	<ul style="list-style-type: none"> <li>Accountable for ensuring that the protected area is represented in every possible area</li> <li>Responsible for ensuring that the information available about the protected area is up to date</li> </ul>	Understanding the significance of points raised during press and other meetings Y N <input type="checkbox"/> 10 <input type="checkbox"/>	Determining the causes of adverse comments in press Y N <input type="checkbox"/> 22 <input type="checkbox"/>
K. Ensure an appropriate balance between resource conservation and use in the protected area	<ul style="list-style-type: none"> <li>Responsible and accountable for design and implementation of resource management/protection strategies to meet protected area conservation objectives</li> <li>Responsible and accountable for the preparation, approval, and implementation of a resource conservation management plan for the protected area</li> </ul>	Understanding of day-to-day and long term implications of the protected area's management objectives Y N <input type="checkbox"/> 11 <input type="checkbox"/> Recognising and understanding the implications of potential environmental impacts of different activities Y N <input type="checkbox"/> 12 <input type="checkbox"/>	Identifying and determining the causes of conflicts between protected area resource conservation and use Y N <input type="checkbox"/> 23 <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"/> ↓ 24	Evaluating staff performance Y N <input type="checkbox"/> ↓ 34	Counselling staff Y N <input type="checkbox"/> ↓ 43	Writing staff appraisals and training briefs Y N <input type="checkbox"/> ↓ 52	Motivating staff Y N <input type="checkbox"/> ↓ 60	
Creating adaptive solutions to infrastructural problems Y N <input type="checkbox"/> 25	Deciding priorities and selecting from alternative courses of action for maintenance and repair Y N <input type="checkbox"/> 35	Giving clear instructions to staff and contractors Y N <input type="checkbox"/> 44	Writing specification orders and instructions to third party Y N <input type="checkbox"/> 53	Gaining the cooperation of suppliers and subcontractors Y N <input type="checkbox"/> 61	
		Explaining financial implications to senior management and junior staff Y N <input type="checkbox"/> 45			
Developing options to achieve plans and budgets in light of changing circumstances Y N <input type="checkbox"/> 26	Selecting priorities during budget preparation process Y N <input type="checkbox"/> 36	Presenting plan and budget Y N <input type="checkbox"/> 46	Preparing planning and budget briefs for manager, justifying proposals Y N <input type="checkbox"/> 54	Selling plan and budget convincingly Y N <input type="checkbox"/> 62	
Having flexibility to reach compromises which respect objectives of the law Y N <input type="checkbox"/> 27	Balancing and evaluating needs of the involved parties in spirit and letter of the law Y N <input type="checkbox"/> 37	Explaining proper procedures and regulations to residents and users of the protected area Y N <input type="checkbox"/> 47	Writing clearly worded notices and instructions Y N <input type="checkbox"/> 55	Gaining cooperation of wrong doers Y N <input type="checkbox"/> 63	
Developing options for improving visitor amenities within means available Y N <input type="checkbox"/> 28	Evaluating options and selecting courses of action regarding visitor services Y N <input type="checkbox"/> 38	Getting protected area's perspective across to visitors Y N <input type="checkbox"/> 48	Preparing interpretive materials Y N <input type="checkbox"/> 56	Dealing with dissatisfied visitors Y N <input type="checkbox"/> 64	
Designing (contributing to design) or adapting interventions to meet specific needs Y N <input type="checkbox"/> 29	Selecting appropriate programmes and evaluating their success Y N <input type="checkbox"/> 39	Giving clear instructions on technical intervention procedures Y N <input type="checkbox"/> 49	Writing clear reports explaining intervention, its success, failure, etc. Y N <input type="checkbox"/> 57	Gaining cooperation of local communities where appropriate Y N <input type="checkbox"/> 65	
Developing ideas for improving community/protected area relations Y N <input type="checkbox"/> 30	Determining why certain community related initiatives have achieved success Y N <input type="checkbox"/> 40	Presenting information at a level appropriate to target audience Y N <input type="checkbox"/> 50		Having cultural sensitivity Y N <input type="checkbox"/> 66	
Identifying opportunities for the application of research Y N <input type="checkbox"/> 31	Evaluating the results of research and their application Y N <input type="checkbox"/> 41		Ensuring research reports are comprehensible for lay people Y N <input type="checkbox"/> 58	Establishing positive relationships with researchers Y N <input type="checkbox"/> 67	
Developing public relations materials (oral, written, etc.) Y N <input type="checkbox"/> 32	Selecting materials appropriate for each meeting Y N <input type="checkbox"/> 42	Making formal public presentations and respond to questions unambiguously Y N <input type="checkbox"/> 51	Preparing press releases Y N <input type="checkbox"/> 59	Building up and maintaining network of contacts for information on all important/relevant meetings and events Y N <input type="checkbox"/> 68	
Developing methods to achieve management zone objectives Y N <input type="checkbox"/> 33				Working with local communities and other concerned parties during plan development and implementation Y N <input type="checkbox"/> 69	

Main Divisions of the Job	I. Accountability and Responsibilities	ATTITUDES		
		15. Work Ethics	16. Commitment to Conservation	17. Community Attitudes
V. Ensure availability of a competent and well motivated staff	<ul style="list-style-type: none"> <li>Maximizing potential of allocated staff</li> <li>Responsible for identifying training needs</li> <li>Responsible for recommendations and application of disciplinary measures</li> </ul>	Needs objectivity in appraisal and general staff dealings	Needs to demonstrate commitment and instill commitment in others	Needs to demonstrate and instill understanding of need for harmonious relationship
B. Ensure availability of appropriate infrastructure (within budget)	<ul style="list-style-type: none"> <li>Responsible and accountable for maintenance, repair and rehabilitation and construction</li> <li>Recommending additional facilities</li> </ul>	Honours contractual agreements in spirit and letter		
C. Ensure financial and accounting integrity of the protected area	<ul style="list-style-type: none"> <li>Accountable and responsible for all revenue generated and disbursement (received from headquarters and receipts)</li> <li>Responsible for accurate accounting</li> </ul>	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"> <li>Accountable for development of annual plan and budget of protected area</li> <li>Responsible for working within the agreed plan and budget</li> <li>Identify strategic options in the protected area and contribute to strategic planning</li> </ul>			
F. Ensure that all activities within the protected area comply with laws and regulations	<ul style="list-style-type: none"> <li>Accountable for enforcement of law and regulation and ensuring safe practices throughout the protected area</li> </ul>	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
I. Ensure optimum levels of visitor satisfaction	<ul style="list-style-type: none"> <li>Responsible for ensuring that the highest levels of visitors' services and practices under his/her jurisdiction are maintained</li> </ul>		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"> <li>Responsible for design, implementation, and evaluation of intervention programmes to meet conservation objectives in the protected area</li> </ul>			
H. Ensure harmonious relationships with neighbouring communities	<ul style="list-style-type: none"> <li>Responsible and accountable for design and implementation of a programme to achieve harmonious relations</li> <li>Responsible for instilling acceptance by staff of the role of local communities in protected area management</li> </ul>			
I. Be aware of research activities and progress against plan	<ul style="list-style-type: none"> <li>Responsible and accountable for ensuring that research programme is implemented according to the protected area conservation objectives and timetables</li> </ul>	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"> <li>Accountable for ensuring that the protected area is represented in every possible area</li> <li>Responsible for ensuring that the information available about the protected area is up to date</li> </ul>	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"> <li>Responsible and accountable for design and implementation of resource management/protection strategies to meet protected area conservation objectives</li> <li>Responsible and accountable for the preparation, approval, and implementation of a resource conservation management plan for the protected area</li> </ul>	Honours conservation objectives of resource management plan		
L. Training received				

This chart indicates the principal attitudes of the job. All we require is that you answer the following questions:

As a manager how do you instil:

a. work ethics?

b. commitment to conservation?

c. healthy attitudes to adjacent communities?

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

**LANGUAGES**

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

**COMPUTERS**

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

48

**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:

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

Annexe 2.

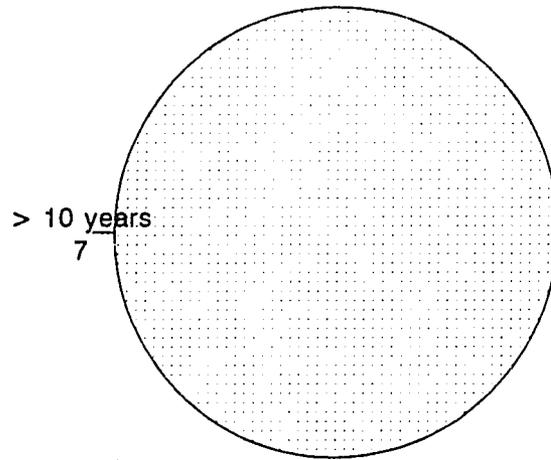
2.3.1 Data Collection Technique: Questionnaires  
Zaire

POSITION	METHOD							Total
	1	2	3	4	5	6	7	
1. Assistant PAM			1					1
2. PAM		1	5					6
3. Regional Manager								
4. FOD (for PAMs)			3					3
5. FOD (for own job)								
6. Trainer								
7. Researcher			5					5
8. Field Associate		1						1
9. Private Sector PAM								
<b>Total</b>		2	14					16

- Methods:
1. Explain Questionnaire and fill out with Regional Manager nearby
  2. Explain Questionnaire and fill out in own time
  3. Explain Questionnaire at workshop and fill out with RM nearby
  4. Consultant explain Questionnaire and fill out with Consultant nearby
  5. Consultant explain Questionnaire and fill out in own time
  6. Consultant explain Questionnaire at workshop and fill out with Consultant nearby
  7. Send out Questionnaire by mail

### 2.3.3a Respondents years in service Zaire

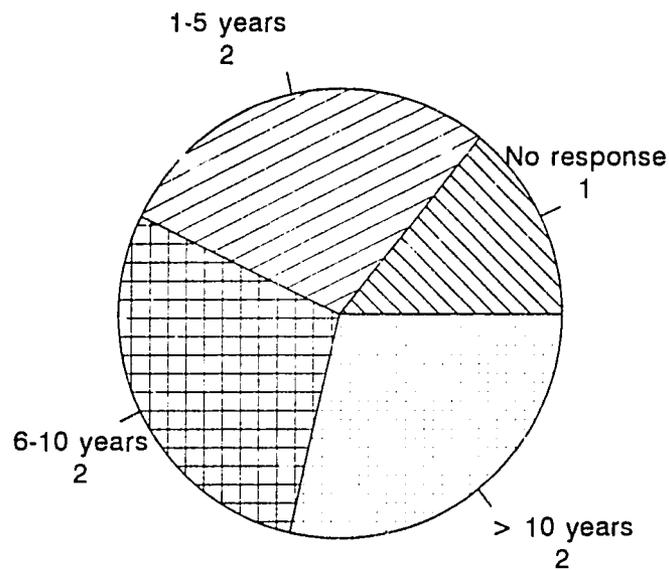
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Total Sample n = 16 (PAMS & Ass. PAMS combined: n=7)

### 2.3.3b Respondents years as a PAM Zaire

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Total Sample n = 16 (PAMS & Ass PAMS combined: n=7)

**2.3.4a Comments added under "Accountability & Responsibilities"  
Zaire: National Parks**

A1-K1	PARCS Ref.No:	Comment added	No added
A1	A01132NPZEB0020S-0	Provide an adequate support system for guards to ensure the proper collection of information and surveillance during patrols.	1
B1	None	None	0
C1	None	None	0
D1	None	None	0
E1	None	None	0
F1 F1	A01834NPZE000---R0 A01834NPZE000---R0	Responsible for all tourism statistics. Responsible for all tourism infrastructure	2
G1 G1	A01132NPZEB0020S-0 A01834NPZE000--R-0	Elaborating different intervention techniques for different areas and animals so as maximise benefits of interventions. Ensuring that an inventory of each animal population exists.	2
H1	None	None	0
I1 I1	A01132NPZEB0020S-0 A01834NPZEC00--R-0	Identify research priorities in order to adapt them to management needs. Responsible for application of research recommendations	2
J1	None	None	0
K1	None	None	0

**2.3.4a Deletions under "Accountability & Responsibilities"**

A1-K1	PARCS Ref.No:	Deletion	No deleted
	None	None	0

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

COMPETENCY	Question No	Total % of combined scores of -1,0,1	
		Question	Competency average
Technical	1	100	95.8
	2	85.7	
	3	100	
	4	100	
	5	100	
	6	85.7	
	7	100	
	8	100	
	9	85.7	
	10	85.7	
	11	100	
	12	100	
	13	100	
	14	85.7	
	15	100	
	16	100	
	17	100	
Management	18	100	95.7
	19	71.4	
	20	100	
	21	100	
	22	100	
	23	100	
	24	100	
	25	100	
	26	100	
	27	85.7	
Planning	28	100	92.9
	29	100	
	30	100	
	31	10	
	32	100	
	33	85.7	
	34	85.7	
	35	100	
	36	57.1	
	37	100	
	38	100	
39	85.7		
Legal	40	57.1	87.3
	41	71.4	
	42	100	
	43	100	
	44	100	
	45	71.4	
	46	100	
	47	100	
48	85.7		
Policy and Procedures	49	85.7	97.1
	50	100	
	51	100	
	52	100	
	53	100	
	54	100	
	55	100	
	56	100	
	57	100	
	58	100	
Financial and Accounting	59	100	100
	60	100	
	61	100	
	62	100	
	63	100	
	64	100	

Overall % accuracy score

**94.8**

Total sample: n = 16

Asst PAMs & PAMs combined: n = 7

2.3.4d Own score validation analysis: Knowledge average scores  
Zaire

COMPETENCY	Qs No.	Box No.	PARCS Score	Average Country / Org. Score	POSITION								
					1 n=1	2 n=6	3 n=	4 n=3	5 n=	6 n=	7 n=5	8 n=1	9 n=
Technical	1	B	3	3.1	3	3.2		3.3			3.4	3	
	2	E	4	3.7	2	4		3.7			4	4	
	3	E	4	3.9	3	4		3.5			4	4	
	4	F	4	3.9	3	4		3.7			4	4	
	5	F	4	3.9	4	3.8		4			3.8	4	
	6	F	4	3.4	2	3.7		3.7			4	3	
	7	F	4	3.9	3	4		4			4	4	
	8	H	3	3.1	3	3.2		3.3			3.8	3	
	9	H	2	2.9	3	2.8		3			3	2	
	10	I	3	3	1	3.3		3.3			3.4	3	
	11	I	3	3.3	3	3.3		3.3			3.6	3	
	12	J	3	3.3	3	3.3		3.3			3.4	4	
	13	J	4	3.9	3	4		3.7			4	4	
	14	K	4	3.6	2	3.8		4			4	4	
	15	K	4	3.7	3	3.8		4			4	4	
	16	K	3	3.4	4	3.3		3			3.6	3	
	17	K	3	3.5		3.5		3			3.6	3	
Management	18	A	3	3.3	3	3.3		3			3.4	3	
	19	A	2	2.9	4	2.7		2.7			3.2	2	
	20	A	3	3.3	4	3.2		3			3.4	3	
	21	B	3	3.3	3	3.3		3			3.4	3	
	22	B	3	3.1	3	3.2		3			3.6	3	
	23	B	3	3.3	3	3.3		3			2.8	3	
	24	C	3	3.1	2	3.3		3.3			3.6	3	
	25	H	4	3.7	3	3.8		4			4	4	
	26	J	3	3.4	4	3.3		3			3.6	3	
	27	J	2	2.7	2	2.8		2			2.8	2	
Planning	28	A	3	3.3	2	3.5		3			3.6	3	
	29	B	3	2.9	2	3		3			3.4	3	
	30	B	3	3.6	4	3.5		3			3.6	4	
	31	C	3	3.3	2	3.5		3			3.6	4	
	32	D	4	3.6	3	3.7		4			4	4	
	33	E	4	3.7	2	4		4			4	4	
	34	F	4	3.6	2	3.8		4			4	4	
	35	G	3	3.3	3	3.3		3.3			3.6	3	
	36	H	2	3	2	3.2		3.3			3	2	
	37	I	3	3.3	3	3.3		3			3.6	3	
	38	K	4	3.7	3	3.8		3.7			3.8	4	
	39	K	4	3.6	2	3.8		3.7			3.8	4	
Legal	40	A	2	3.4	3	3.5		3			2.8	2	
	41	B	2	3.3	3	3.3		3			2.8	2	
	42	E	4	3.9	3	4		3.7			4	4	
	43	F	3	3.3	2	3.5		3			3.6	3	
	44	F	4	3.9	3	4		3.7			3.8	4	
	45	G	2	2.9	2	3		3.3			2.8	2	
	46	H	4	3.7	3	3.8		3.7			4	4	
	47	I	4	3.9	3	4		4			3.8	4	
	48	J	2	2.6	2	2.7		3			2	2	
Policy and Procedures	49	A	4	3.4	2	3.7		4			3.6	4	
	50	B	4	3.9	3	4		3.3			4	4	
	51	C	3	3.4	4	3.3		3			3.4	3	
	52	C	3	3.3	3	3.3		3			3.4	3	
	53	D	4	3.6	3	3.7		3.7			4	4	
	54	E	4	3.7	4	3.7		3.7			4	4	
	55	F	4	3.7	3	3.8		3.7			3.8	4	
	56	G	4	3.9	4	3.8		3.7			4	4	
	57	H	3	3	2	3.2		3.3			3.6	3	
	58	I	4	3.7	2	4		3.7			3.6	4	
Financial and Accounting	59	C	3	3.1	2	3.3		3			3.4	3	
	60	C	3	3.3	4	3.3		3			3.4	3	
	61	H	3	2.7	2	2.8		3			3.4	3	
	62	H	4	3.7	4	3.7		4			4	4	
	63	I	3	3	2	3.2		3.3			3.6	3	
	64	K	3	3.3	2	3.5		3.3			3.4	3	

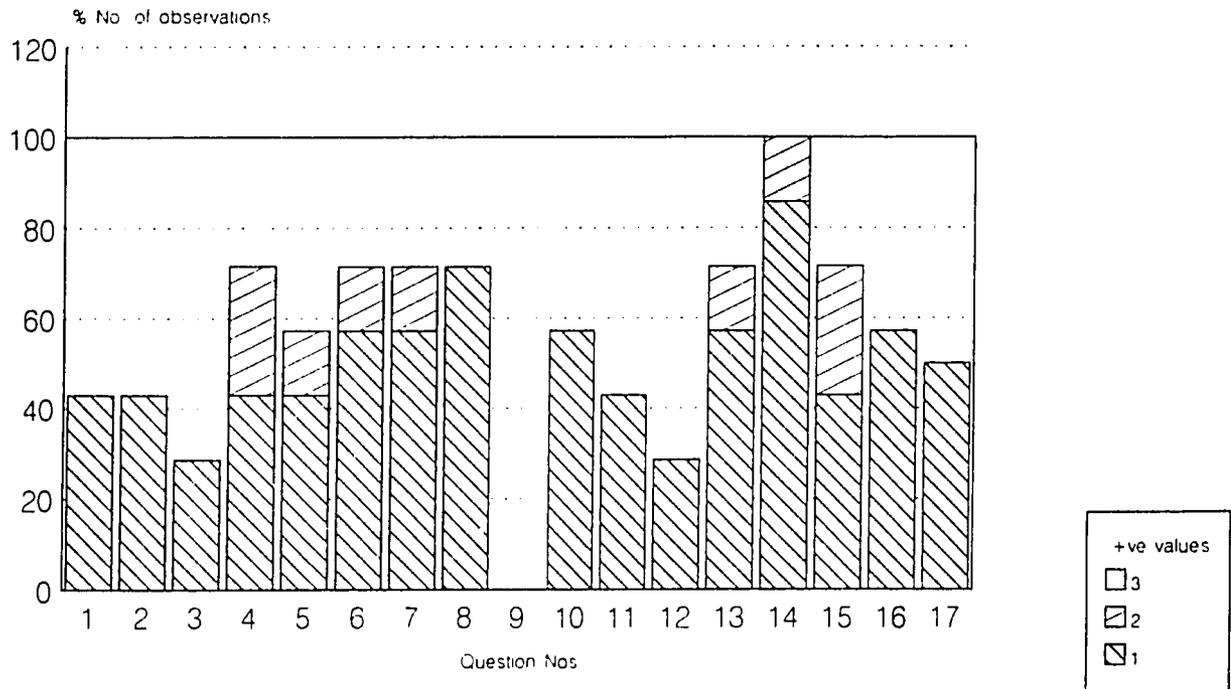
Total Sample n= 16

Ass: PAMs & PAMs combined: n= 7

54

## 2.3.5.a<sub>1</sub> PAMs gap analysis relative to PARCS

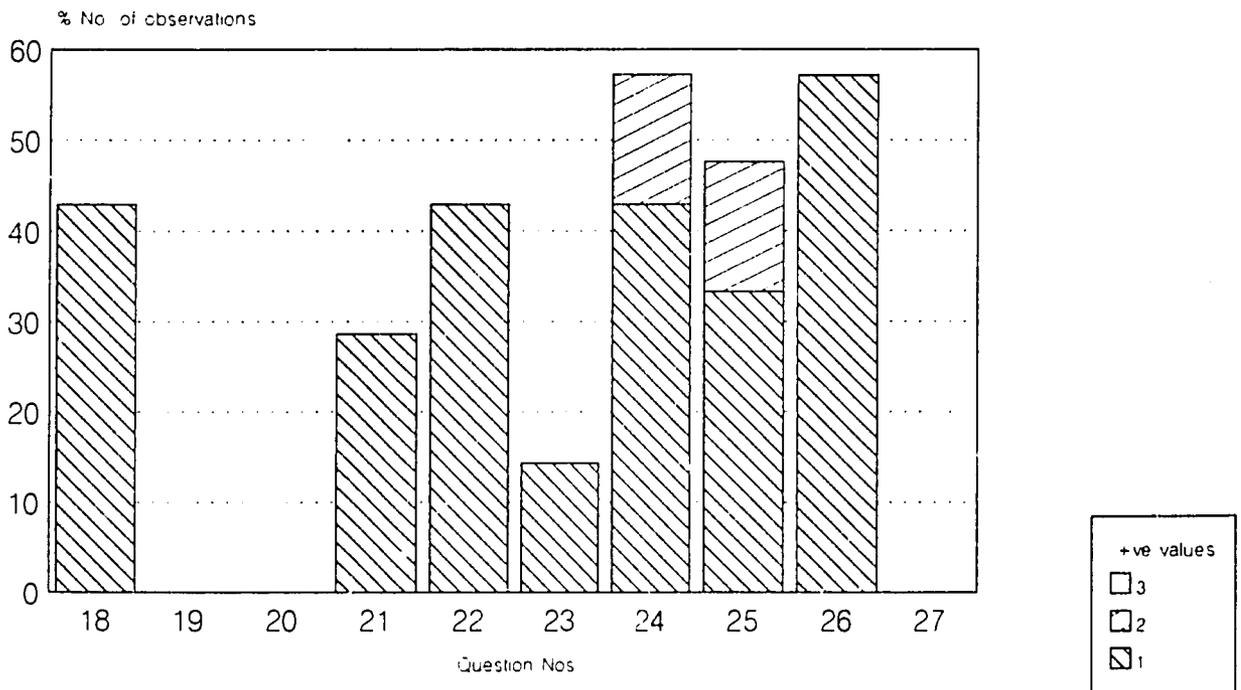
Technical Knowledge: Zaire



Sample n=14

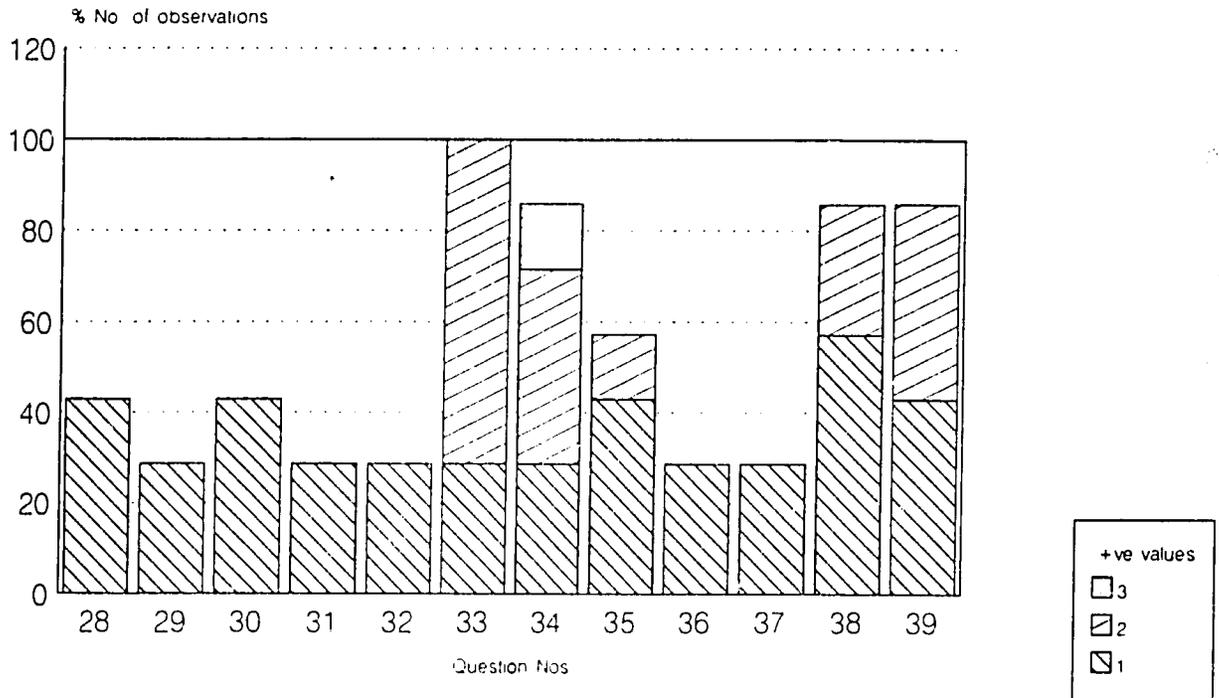
## 2.3.5.a<sub>2</sub> PAMs gap analysis relative to PARCS.

Management Knowledge: Zaire



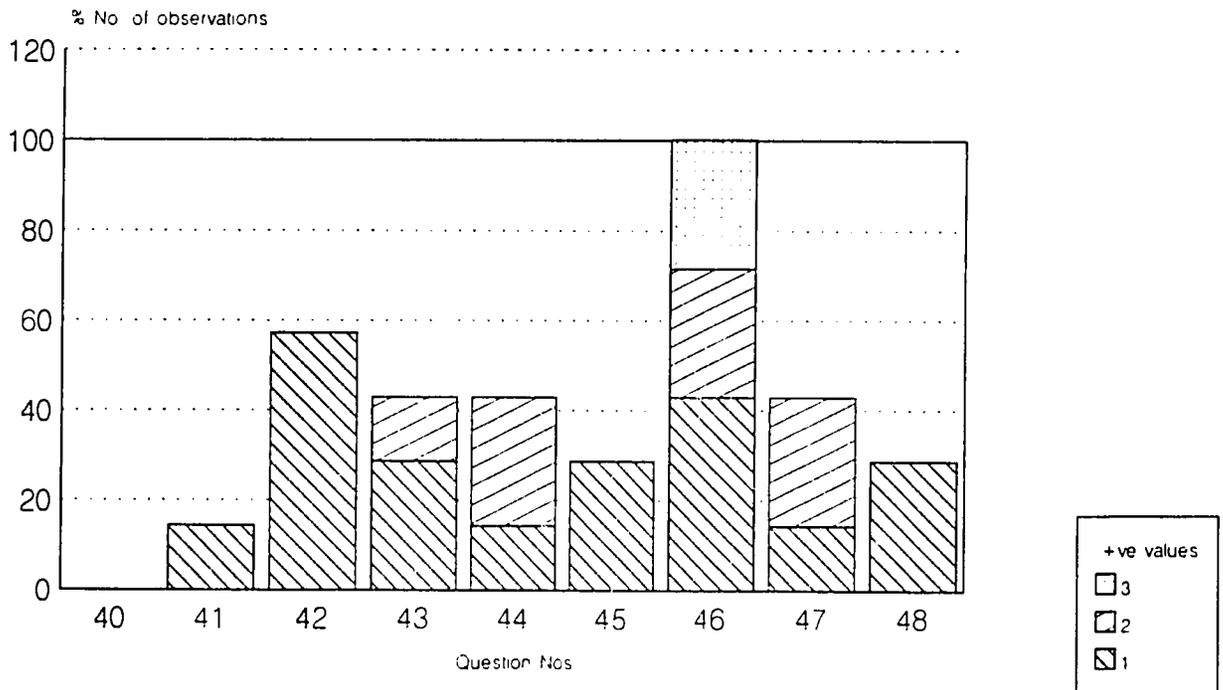
Sample n=14

## 2.3.5.a<sub>3</sub> PAMs gap analysis relative to PARCS. Planning Knowledge: Zaire



Sample n=14

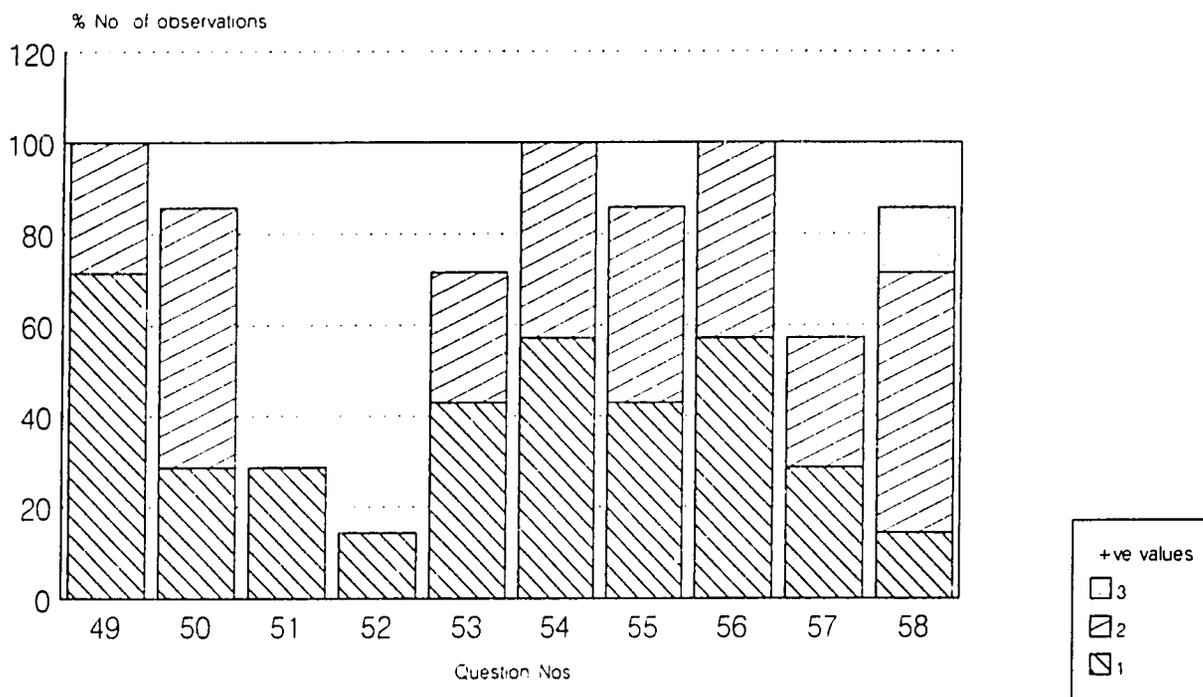
## 2.3.5.a<sub>4</sub> PAMs gap analysis relative to PARCS Legal Knowledge: Zaire



Sample n=14

# 2.3.5.a<sub>5</sub> PAMs gap analysis relative to PARCS

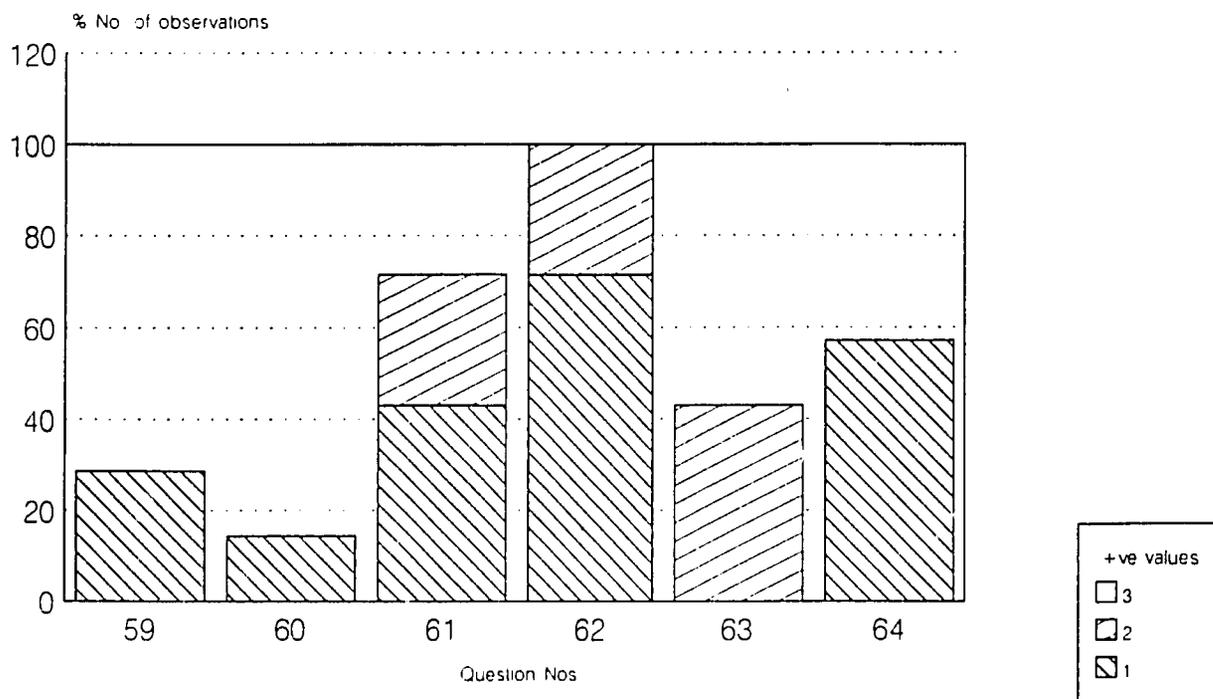
Policies & Procedures Knowledge: Zaire



Sample n=14

# 2.3.5.a<sub>6</sub> PAMs gap analysis relative to PARCS.

Financial Knowledge: Zaire



Sample n=14

51

2.3.5d PARCS score gap analysis: Knowledge average scores  
Zaire

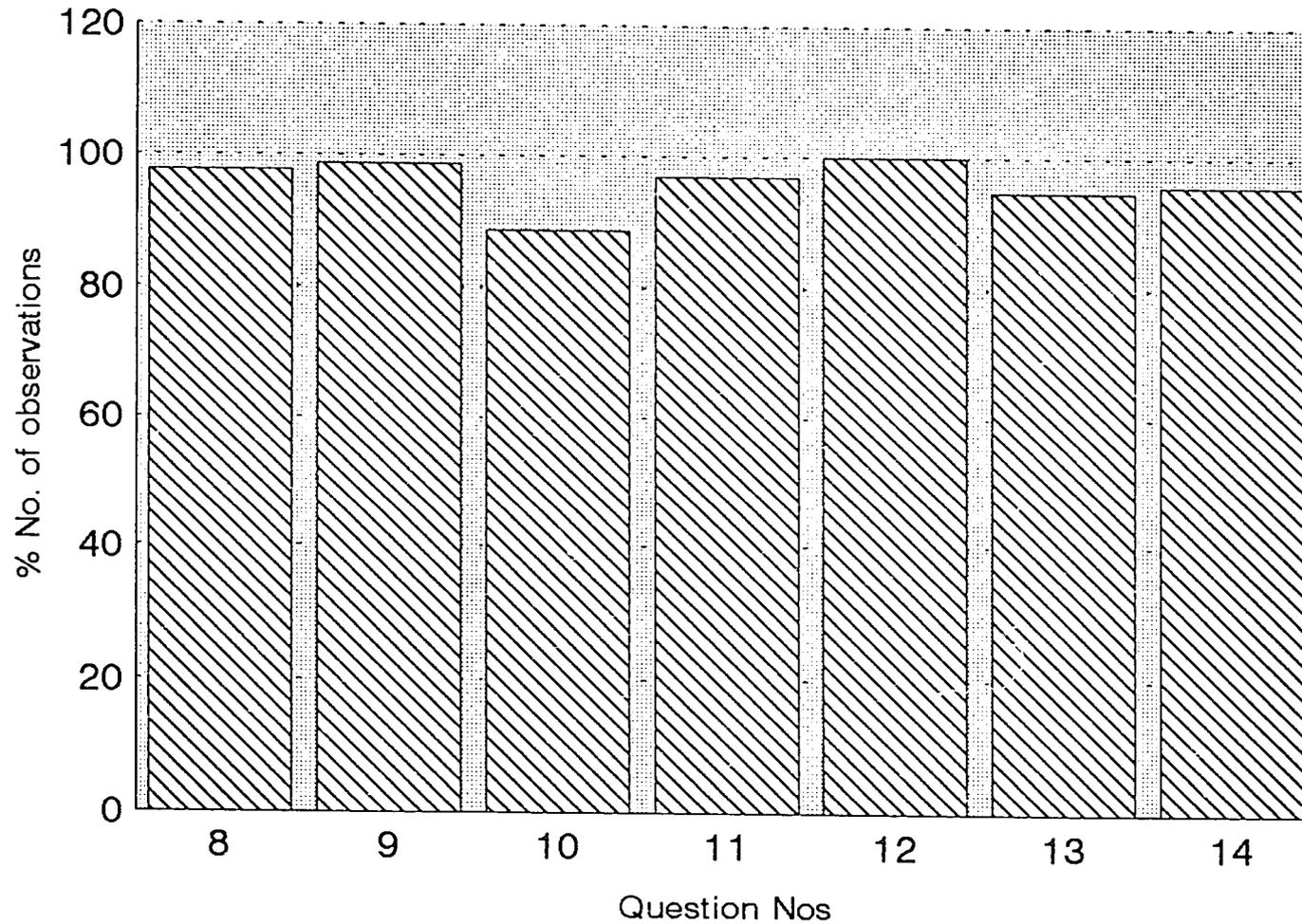
COMPETENCY	Qs No.	Box No.	PARCS Score	Average Country / Org. Score	POSITION								
					1 n=1	2 n=6	3 n=3	4 n=1	5 n=	6 n=	7 n=5	8 n=1	9 n=
Technical	1	B	3	0.43	0	0.5		0.3			0.8	1	
	2	E	4	0.43	0	0.5		1			1.2	2	
	3	E	4	0.29	0	0.3		0.5			1	2	
	4	F	4	1	0	1.2		0.7			1	3	
	5	F	4	0.71	1	0.7		0.7			1.4	2	
	6	F	4	0.86	1	0.8		1.3			1.4	2	
	7	F	4	0.86	2	0.7		1			1.2	2	
	8	G	3	0.71	0	0.8		0.3			0.6	1	
	9	H	2	0	0	0		0			0.2	1	
	10	H	3	0.57	1	0.5		1			0	1	
	11	I	3	0.43	1	0.3		1			0	1	
	12	I	3	0.29	1	0.2		0.7			0.2	0	
	13	J	4	0.86	0	1		1.3			1	2	
	14	J	4	1.14	1	1.2		1.3			1	2	
	15	K	4	1	2	0.8		0.7			0.8	2	
	16	K	3	0.57	0	0.7		0.7			0.4	2	
	17	K	3	0.5	0	0.5		0.3			0	2	
Management	18	A	3	0.43	1	0.3		0.7			0.6	1	
	19	A	2	0	0		0			0.2	0		
	20	A	3	0	0		0.3			0.6	0		
	21	B	3	0.29	0	0.3		0.7		0.6	1		
	22	B	3	0.43	1	0.2		0.7		0.6	1		
	23	F	3	0.14	0	0.8		0		0.4	2		
	24	F	3	0.71	0	0.7		0.7		0.6	1		
	25	H	4	0.57	0	0.7		1		1.4	2		
	26	J	3	0.57	0	0.7		0.7		0.8	2		
	27	J	2	0	0	0		0		0.2	0		
Planning	28	A	3	0.43	1	0.3		0.3			0.8	1	
	29	B	3	0.29	1	0.2		0.7		0.8	1		
	30	C	3	0.43	1	0.3		0.7		0.8	1		
	31	D	3	0.29	0	0.3		0.3		0.8	1		
	32	E	4	0.29	0	0.3		0.7		1.6	1		
	33	F	4	1.71	1	1.8		1		1.8	2		
	34	F	4	1.57	3	1.3		1.3		1.6	2		
	35	H	3	0.71	2	0.5		1		0.8	2		
	36	I	2	0.29	1	0.2		0.3		0	1		
	37	K	3	0.29	0	0.3		0.7		0	2		
	38	K	4	1.14	2	1		1		1.6	2		
Legal	40	A	2	0	0		0			0	0		
	41	B	2	0.14	0	0.2		0.3		0	1		
	42	E	4	0.57	0	0.7		1.3		1.2	1		
	43	F	3	0.57	2	0.7		0.3		0.6	2		
	44	F	4	0.71	1	0.5		0.7		1.2	1		
	45	H	2	0.29	3	0.2		0		0.2	1		
	46	I	4	1.86	2	1.7		0.7		1	1		
	47	I	4	0.71	2	0.5		0.3		1	1		
	48	J	2	0.29	1	0.2		0		0.4	1		
	Policy and Procedures	49	A	4	1.29	1	1.3		1.3		1.6	2	
50		B	4	1.43	0	1.7		1.3		2	2		
51		C	3	0.29	0	0.3		0.7		0.4	1		
52		D	3	0.14	0	0.2		0		0.6	0		
53		E	4	1	0	1.2		0.7		2.2	1		
54		F	4	1.43	1	1.5		1.3		1.6	2		
55		F	4	1.29	2	1.2		1		1.8	2		
56		H	4	1.43	1	1.5		1.3		1.6	3		
57		I	3	0.86	2	0.7		1		0	1		
58	I	4	1.71	3	1.5		1		1.4	2			
Financial and Accounting	59	C	3	0.29	0	0.3		0.7		0.8	1		
	60	C	3	0.14	0	0.2		0.7		0.2	0		
	61	H	3	1	2	0.8		0.3		1	2		
	62	I	4	1.29	1	1.3		0.5		1.8	3		
	63	I	3	0.86	2	0.7		0.7		0.6	1		
	64	K	3	0.57	0	0.7		0.7		0.8	1		

Total sample: n = 16

Asst PAMs & PAMs combined: n = 7

# 2.3.6a Validation analysis of Mental and Social Skills

PAMs Yes responses: Zaire



Overall %  
accuracy score  
**96.00**

▨ % Score

Total Sample n=16 (Ass PAMs & PAMs combined: n=7)

2.3.6b

Validation analysis of Mental and Social Skills  
PAMs Scattergram for 'NO' responses: Zaire

MAIN DIVISIONS	COMPETENCY (% of respondents)						
	8	9	10	11	12	13	14
A							
B			14.3			14.3	14.3
C							
D			14.3				
E	14.3		28.6				28.6
F			28.6				
G			14.3				
H	14.3		14.3				
I		14.3		28.6		14.3	
J						14.3	
K							

Total sample: n=16

Asst PAMs & PAMs combined: n=7

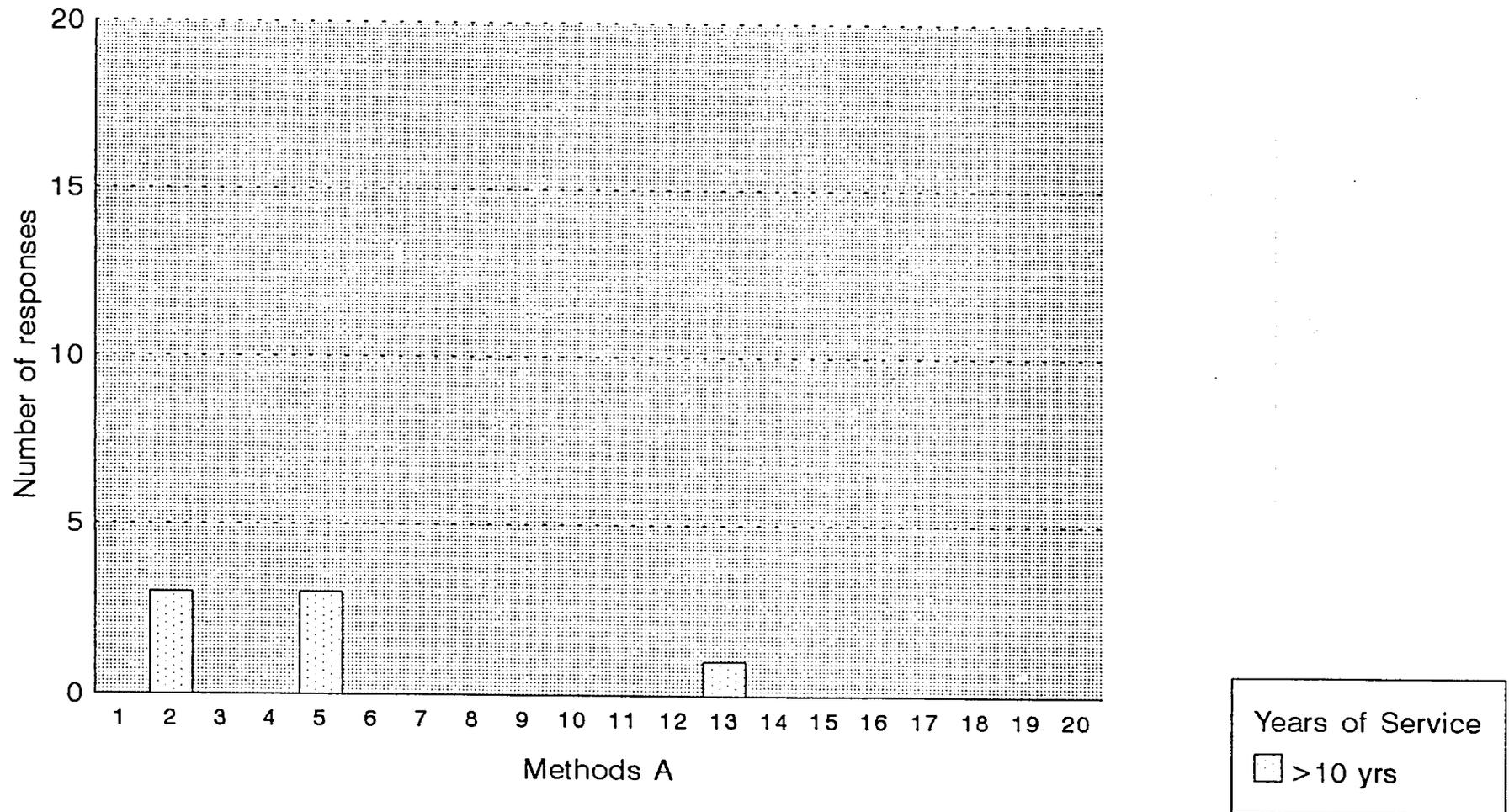
**2.3.7a.1 Current Mental and Social Skill Level of Asst PAMs & PAMs: Low Skill Levels Zaire**

MAIN DIVISIONS	COMPETENCY (cumulative score of all 1&2 responses)							Total
	8	9	10	11	12	13	14	
A	3	1	3	1	1	2	1	12
B	2	3	3	3	1	2	3	17
C	4	1			2			7
D	2	3	2	2	3	2	3	17
E		3		2			4	9
F	2	3	2	3	1	1	1	13
G	2	2	2	3		1	2	12
H	2	2	2	3	2		3	14
I	4	3	4	5		4	2	22
J	3	3	5	4	2	5	3	25
K	3	1	3				4	11
Total	27	25	26	26	12	17	26	159

Total sample: n=16

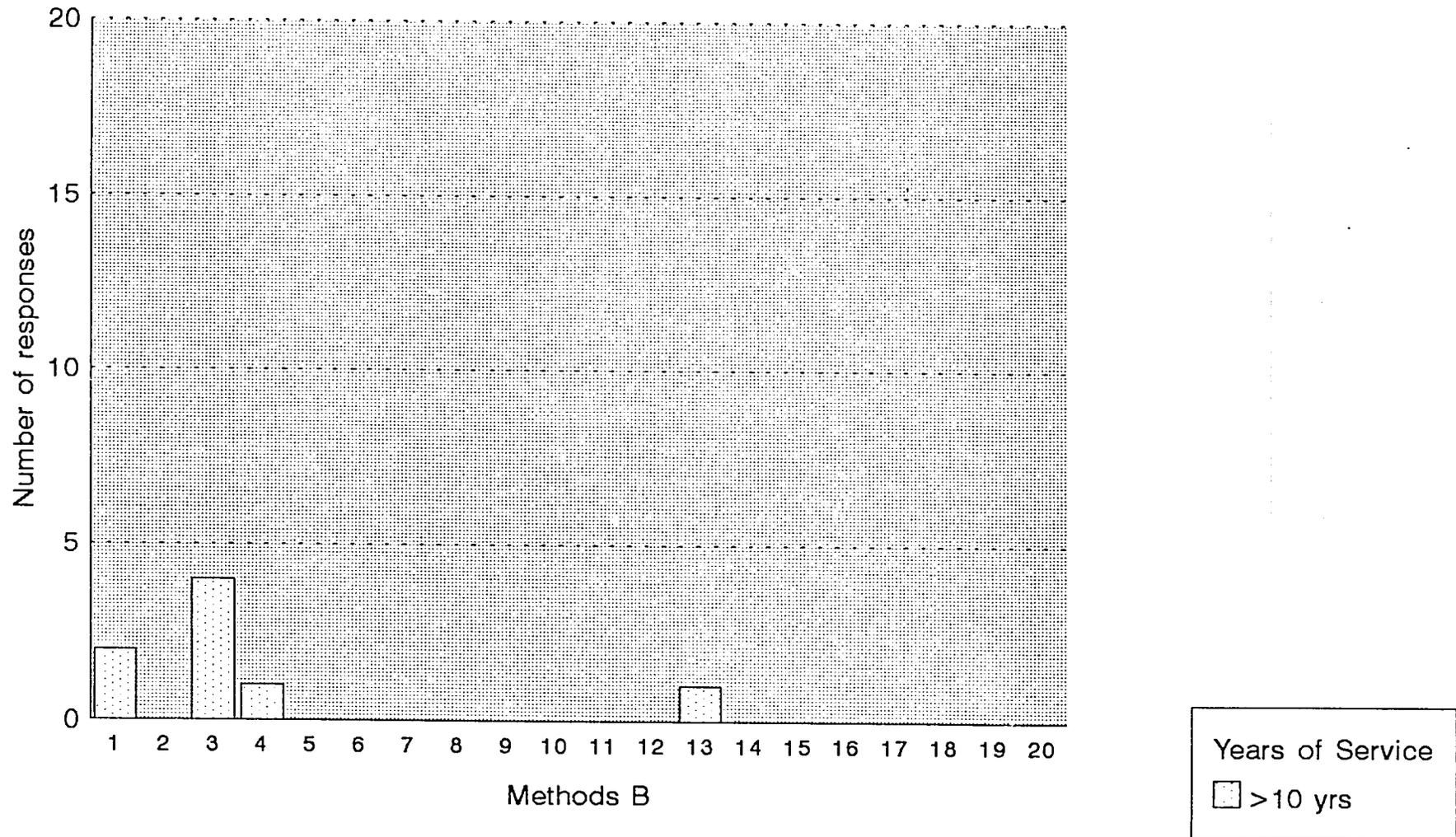
Asst PAMs & PAMs combined: n=7

## 2.3.8a PAMs Methods To Instill Work Ethics Zaire



Total Sample:n=16 (Ass PAMs & PAMs:n=7)

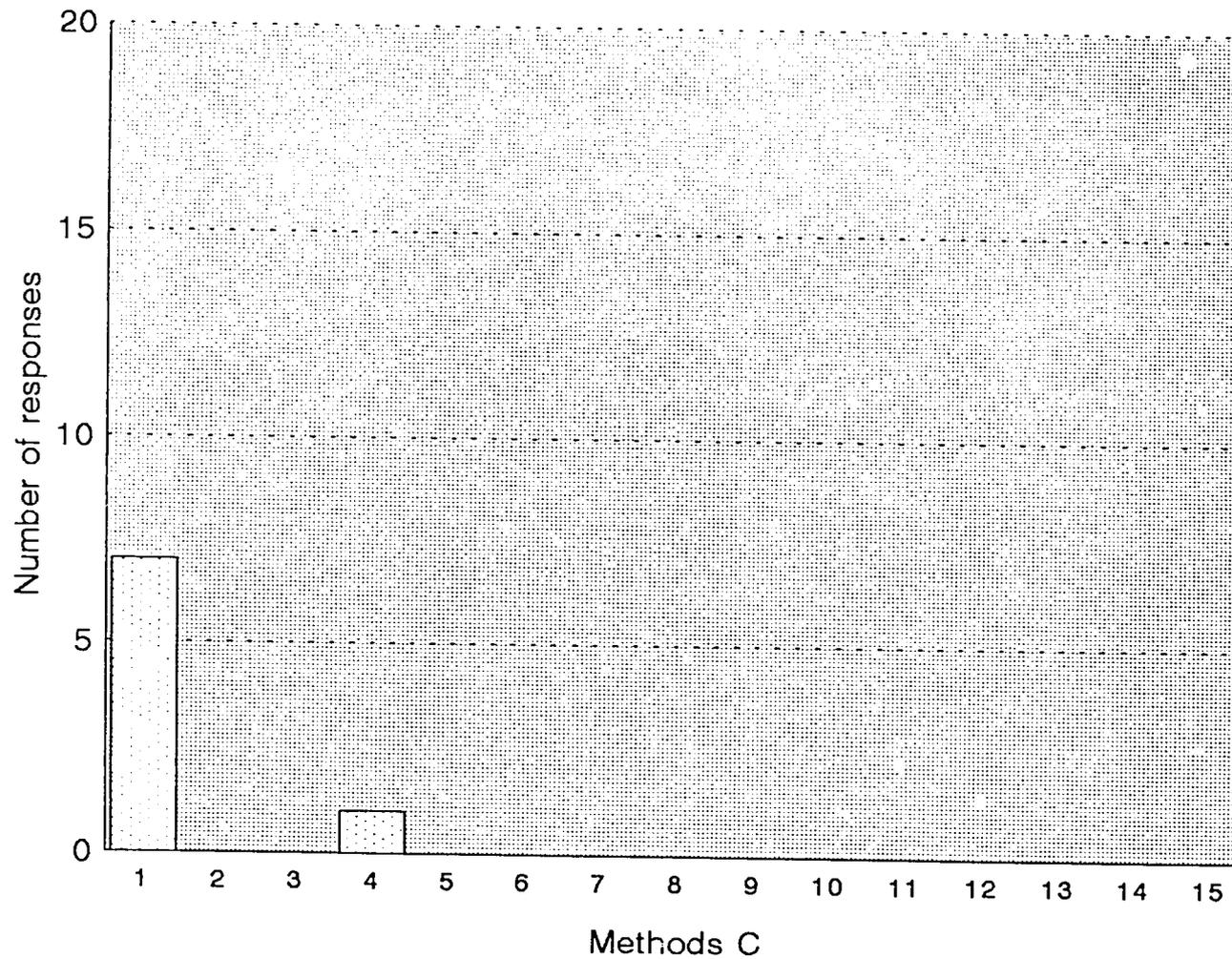
## 2.3.8b PAMs Methods To Instill Commitment to Conservation Zaire



Total Sample:n=16 (Ass PAMs & PAMs:n=7)

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

Zaire



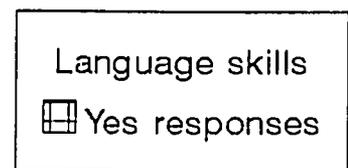
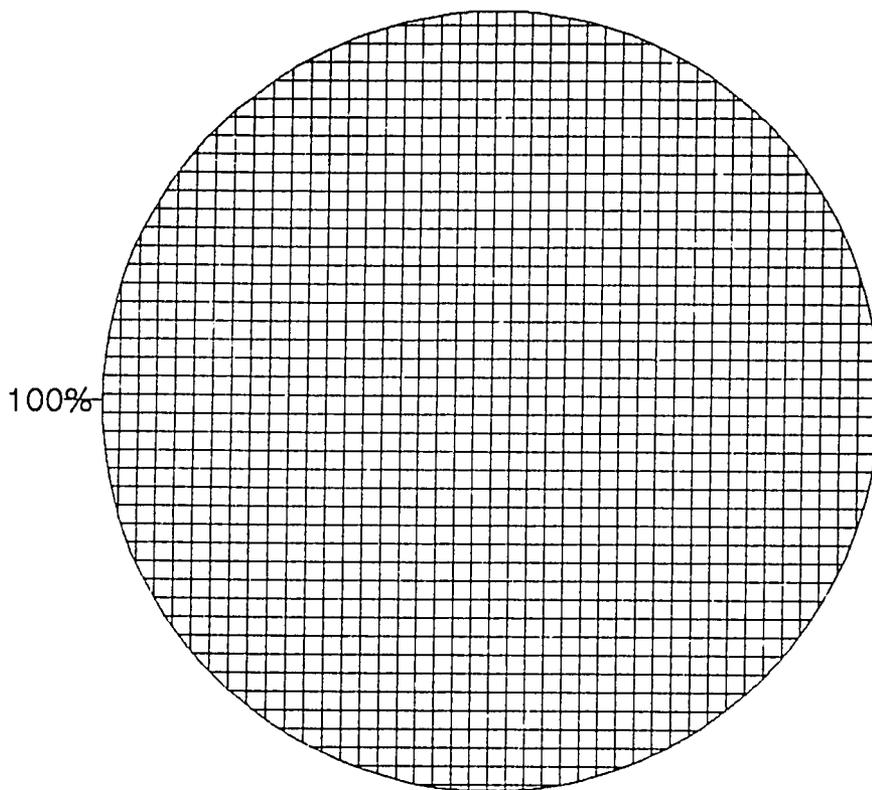
Years of Service  
☐ >10 yrs

Total Sample:n=16 (Ass PAMs & PAMs:n=7)

# 2.3.9. PAMs Language Skills

## Zaire

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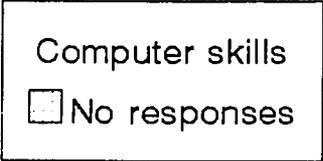
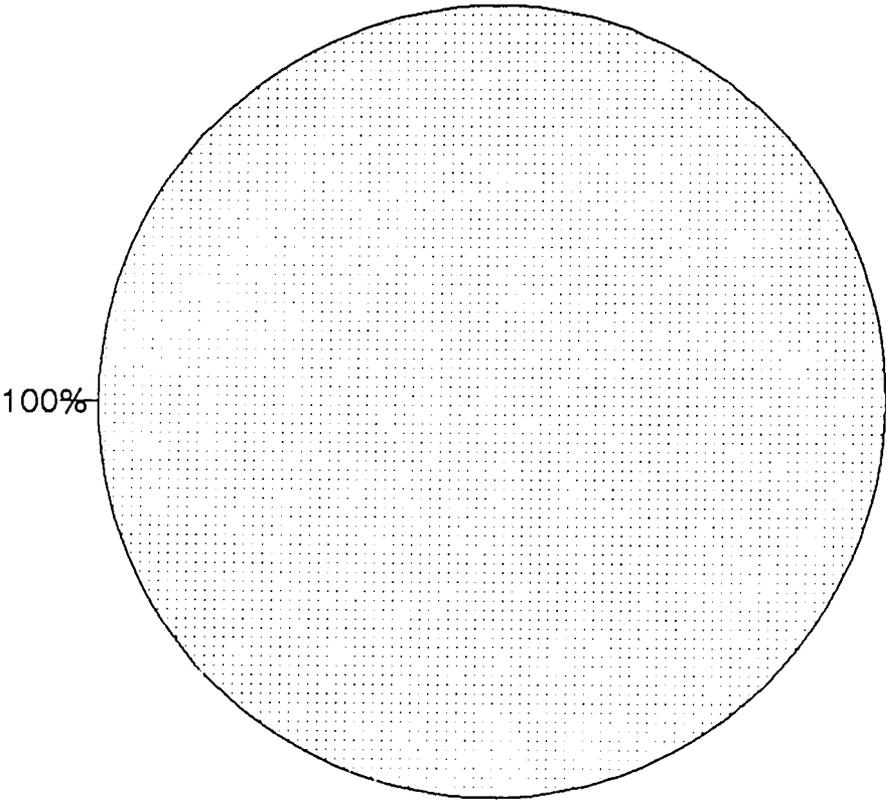


Total Sample: n = 16 (Ass PAMs & PAMs: n = 7)

# 2.3.10a PAMs Computer Skills

Zaire

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Total Sample:n= 16 (Ass PAMs & PAMs:n=7)

2.3.12 PAMs training received:  
Zaire

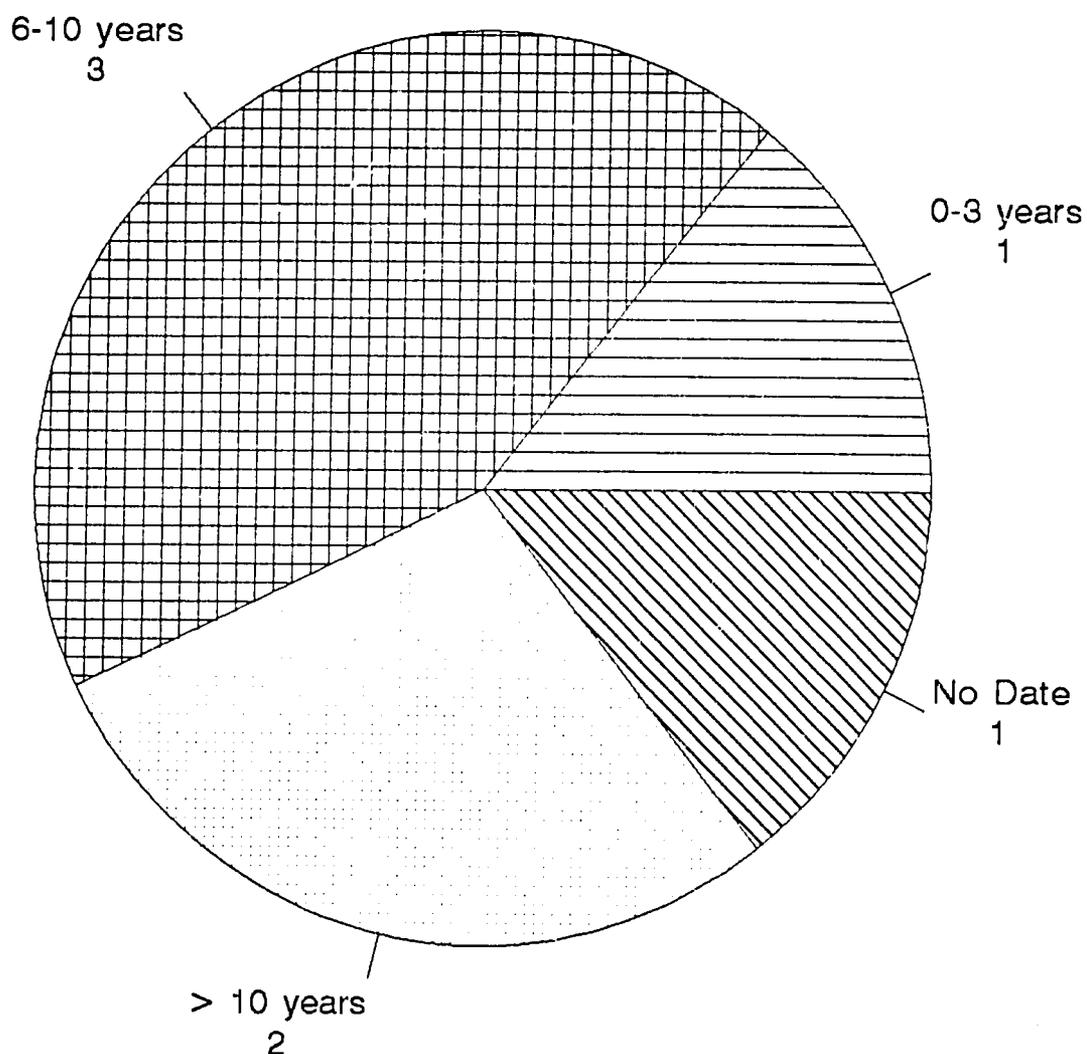
	Competencies	TYPES OF TRAINING (Dot if training has occurred)				
		Formal wildlife	Formal Other	In Service	On- the-job	Other
(a) Knowledge	2	•	•		•	•
	3	•			•	
	4	•	•		•	•
	5	•	•		•	•
	6	•			•	
	7	•			•	•
(b) Mental and Social Skills	8	•	•		•	•
	9	•	•		•	
	10	•	•		•	
	11	•	•		•	
	12	•			•	•
	13	•		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

Total sample: n=16

Asst PAMs & PAMs combined: n=7

## 2.3.12d PAMs years since formal wildlife training Zaire

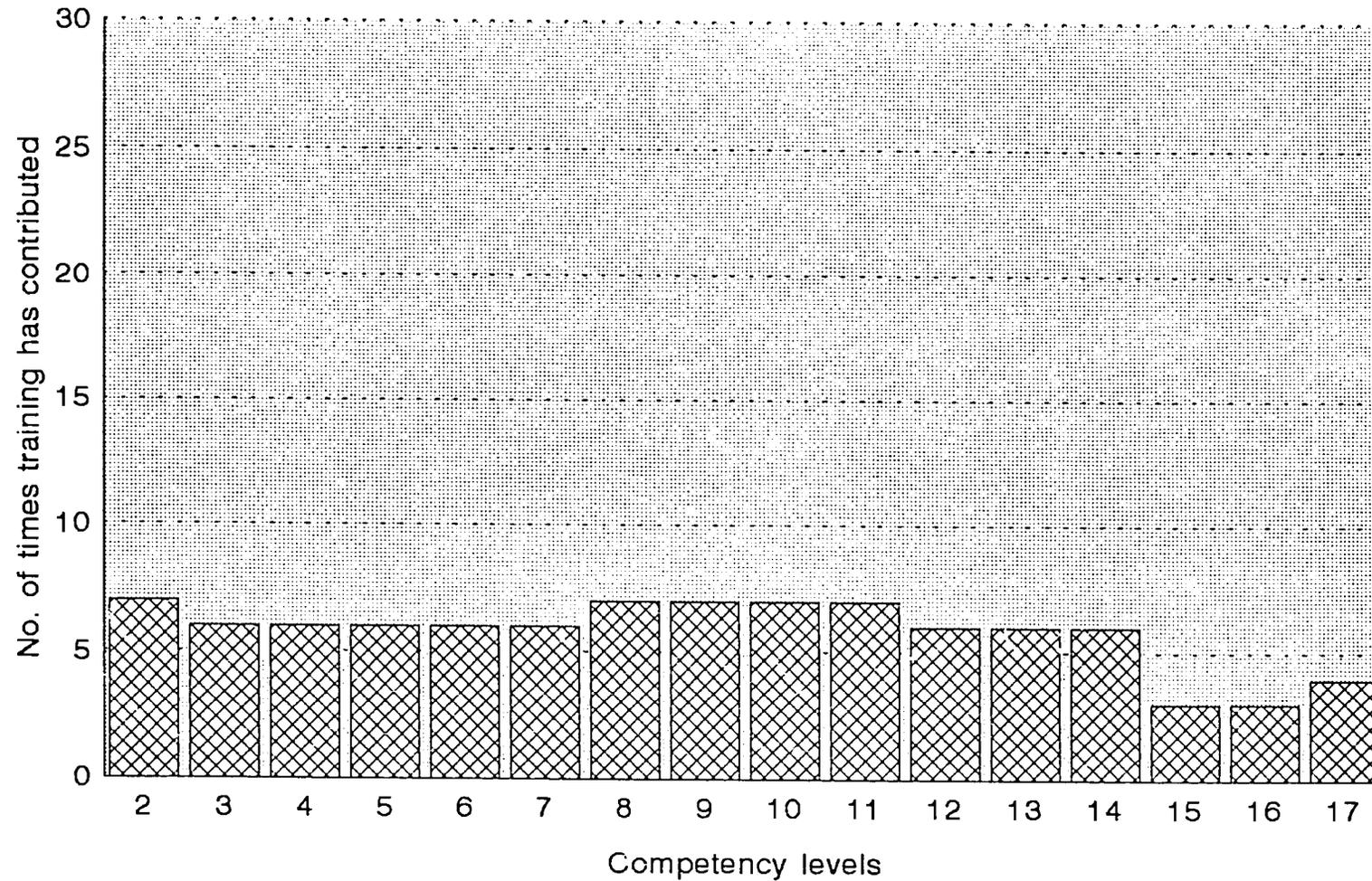
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Total Sample n = 16 (PAMS & Ass. PAMS combined: n=7)

### 2.3.12.f. Frequency at which training has contributed to PAMs skill level.

Zaire

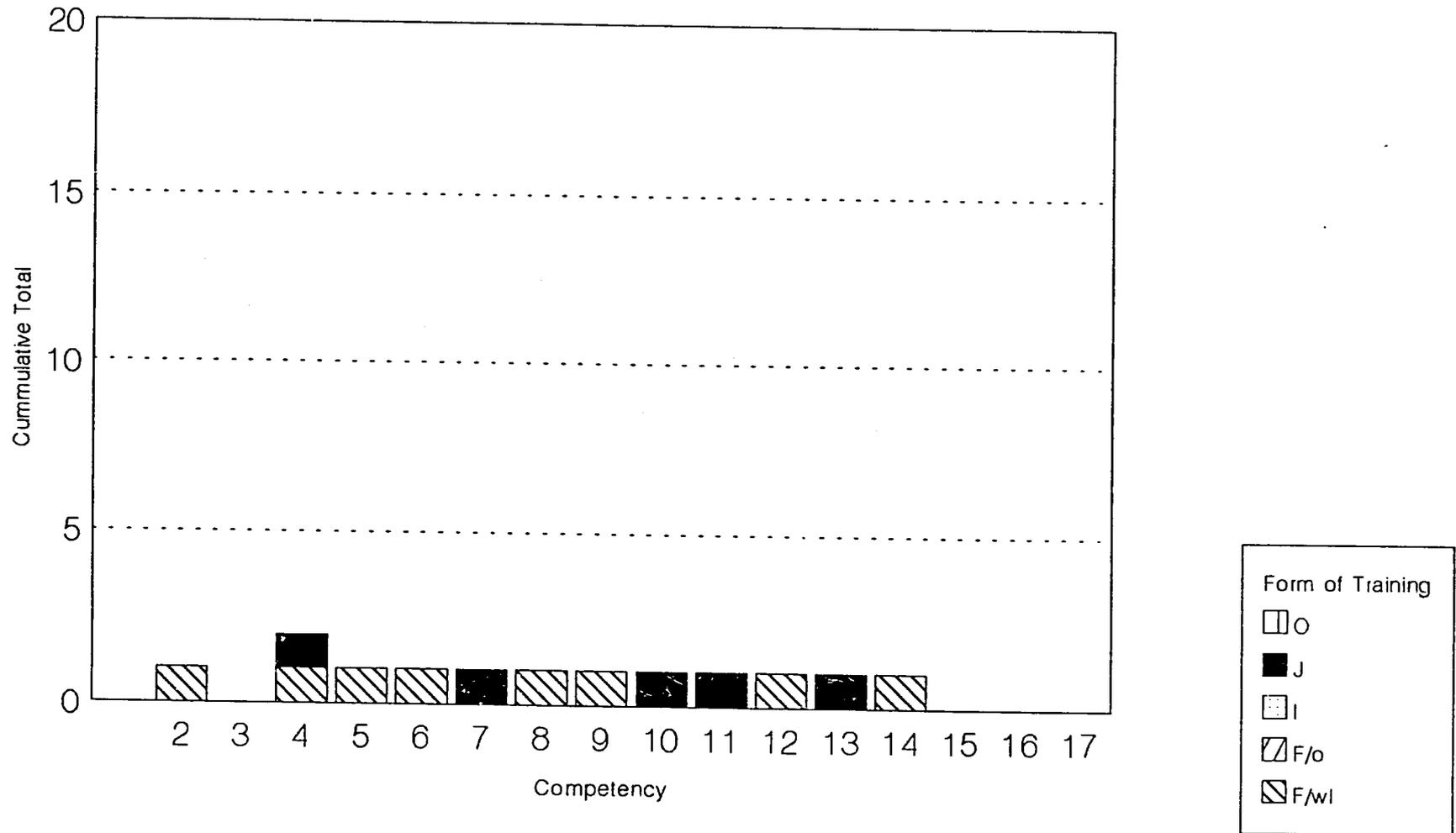


Total Sample: n=16 (Ass PAMs & PAMs: n=7)

14

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

Zaire



Total Sample n=16 (PAMs & Ass PAMs n=7)

20

2.3.12h Greatest training needs identified by gap analysis for PAMs & asst PAMs  
Zaire.

MAIN DIVISIONS	COMPETENCIES													
	Knowledge (Gaps 2 or 3)						Mental & Social skills (Scores 1 or 2)							
	2	3	4	5	6	7	8	9	10	11	12	13	14	
A Staffing	•				○	•	○	•	○	•	•	○	•	
B Infrastructure					○	•	○	○	○	•	○	○		
C Accounts	•	•					○	•	•	•	○	•		
D Tactical Plans	•	•					○	○	○	○	○	○		
E Laws & Regulations		•			○	•		○	○			○		
F Visitors	○		○	•	○		○	○	○	○	•	•		
G Interventions	•	•	○	○	○	•	○	○	○	○	•	○		
H Comm Conservation		•	•		○	○	○	○	○	•	•	○		
I Research		•		○	○	○	○	○	○	•	○	○		
J Public Relations	•		•	•	○	•	○	○	○	○	○	○		
K Resource Conservation	•	•	○	•	•		○	•	○	•	•	○		

Key:

- ≤ 1
- 1-3-2
- 2-4
- 5

Total sample: n=16

Asst PAMs & PAMs combined: n=7

2.3.12i Identified training priorities for PAMs & Asst PAMs  
Zaire.

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

Total sample: n=16

Asst PAMs & PAMs combined: n=7

\* Indicates areas of overlap with gap analysis

## Annexe 3

### Background Information Sheets

Discussions were held with as many protected area managers as possible, in addition to the assessment of training needs with the questionnaire. In many cases, one-on-one discussions took place during the workshops and interviews. These discussions helped the PARCS Regional Manager (RM) understand how well the participants grasped the issues in the questionnaire, and helped place the responses into a context. A number of questions about the reserve were listed and handed out to respondents. These questions were discussed, and in some cases written out by the PAMs. Responses to the questions gave an indication of the PAMs' familiarity with the protected area and its wildlife, as well as its status and management. The following questions were used as guidelines for these discussions.

#### For each reserve:

Name of reserve

Size

Years in existence

Last change in protected status

Predominant habitat types

Governing institution/department (Ministry)

Funding sources

Source/type/amount of technical assistance

Does the reserve have: protection force? No. of employees

Biological monitoring programme? No. of monitors

Community liaison programme? No. of employees

Tourism programme? No. of employees

Safari Hunting programme? No. of employees

Research programme? No. of researchers

Reserve-level training programme? No. of trainers

Funding?

Other? (specify)

Are any of the above services provided by institutions or individuals not formally part of the reserve's organization? Describe

Describe infrastructure present in Reserve

#### Personnel information at Reserve level:

Describe personnel structure (with organigramme if possible)

For each staff position, give number of persons, responsibilities and minimum requirements for hiring

Actual qualifications for each staff person in position

Need for more/different personnel and describe why

Need for more training, whom and why

#### Indicative information

Technical:

1. Are there endangered species in the reserve? What and where are they? By whom are they threatened?
2. Does tourism have any impact on wildlife?
3. Are there species present in the reserve that are important ecologically? Describe.

Management:

1. What do you look for in hiring a good guard?  
What procedure is followed if an employee is not working satisfactorily?

2. What kind of contact do you have with the public?
3. Do you personally write annual reports/program reports/budget reports/accounting/personnel supervision reports?

**Strategic Planning:**

1. Does the reserve have a management plan? How is it used? Is it effective?
2. What plans/reports are regularly produced?

**Legal:**

1. What is the legal status of the reserve?
2. What activities are illegal within?
3. Is any extraction legal? Which?

**Financial:**

1. Are regular reports compiled?
2. Are procurement and accounting done by the same or different people?
3. Who must sign for disbursement/payments? How is it recorded?

These discussions and written responses confirmed the results from the questionnaire assessment. Although there are deficiencies in the skill levels, and lack of knowledge of key questions, in many of the areas covered by the discussions, the respondents felt the least confident of their knowledge in Planning, Legal, and Technical questions. They knew little about the specifics of the funding sources for the protected area, or the technical assistance. Yet their knowledge of the personnel structure and general management questions within the reserve was quite good.

The discussions enabled many of the respondents to see why the questionnaire had such a strong emphasis on skills/competencies other than technical and management skills. They realized that as a protected area manager, they required skills/competencies in a large number of fields, and that they had received insufficient training in many of them.