

PARCS

PROTECTED AREA CONSERVATION STRATEGY

ASSESSING THE TRAINING NEEDS OF PROTECTED
AREA MANAGERS IN AFRICA



CAMEROON



AFRICAN WILDLIFE FOUNDATION



The WILDLIFE CONSERVATION SOCIETY

**Biodiversity
Support
Program**



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PARCS

Country Report: CAMEROON

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Country Report
CAMEROON

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EXECUTIVE SUMMARY

CAMEROUN

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 (\$30,000) 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.

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Phase I Training Needs and Opportunities Assessment

There are two organizations in Cameroun responsible for protected area management. These include the Department of Fauna and Protected Areas, and the Department of Water and Forests. Within the Direction de la Faune et des Aires Protégées (Department of Fauna and Protected Areas) of the Ministry of Tourism there is no specific training programme for PAMs. There is no such training plan in the Direction des Eaux et Forêts (Department of Water and Forests) of the Ministry of Agriculture either. There is no plan for the development of the careers of protected area staff and to enable the acquisition and continuing improvement of specific skills required for the job. Formal wildlife institutes used for the training of staff are predominantly the Ecole des Spécialistes de la Faune in Garoua, the National Forestry School at M'Balmayo, and the University at Dschang. Trained staff, however, are often assigned to posts at the departmental headquarters, rather than assigned to field-based posts.

The Department of Fauna and Protected Areas recognizes the need for the development of a training plan to better equip protected area managers for their jobs. For the purpose of these discussions, a training plan was 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 of the training programs undertaken.

Three PAMs, one Regional PAM, one Field Operations Director (FOD) and two Trainers at a formal wildlife institute (Garoua) completed questionnaires evaluating the skills levels needed and possessed by PAMs. Interviews were also held with directorate staff at departmental headquarters, as well as Field Associates (FAs) working in protected areas.

Analysis of the questionnaire data provided the backbone of the training needs assessment. In order to ensure that the questionnaire accurately reflected the scope of responsibilities held by PAMs in Cameroon, 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. The Main Divisions of the Job included: 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 (as judged by PAMs and other categories of respondent) with the levels that they considered necessary to satisfactorily do their job.

Major Training Needs Identified in Cameroun

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

Policies & Procedures

Planning

Financial & Accounting

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 (such as personnel, budgets, long-term and short-term projects and infrastructure), as opposed to project planning skills specifically.

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

Evaluation (ability to evaluate problems and situations)

Creativity

Writing skills

Working with Others

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

Resource Conservation

Community Conservation

Research

Interventions

Resource Conservation involves finding the balance between human resource use and protection of natural resources, using technical skills (i.e. inventories and censuses) to determine the possibilities for and limits on resource use.

Interventions includes wildlife management and control, vegetation management, human resource use management in and around protected areas.

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. One of the problems in Cameroun is the concept that wildlife management is part of forestry and management of both wildlife and forestry emphasizes exploitation. In other words, resource use generally predominates over resource conservation. Cameroun's dependance on it's forest resources as a source of income does not make it an easy task to convert people to forest conservation for long term benefits, as opposed to short term benefits. 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.

Training Opportunities Assessment

Most PAMs in Cameroun have attended the Ecole des Spécialistes de la Faune at Garoua. The Ecole de Faune is the only specialized wildlife school which PAMs have attended. A small number of PAMs have also attended the National Forestry School at M'Balmayo. The Ecole de Faune is attended by students from a large number of african countries (22) and in any given year between 5 and 15 countries are represented. On average, between 45 and 60 students are enrolled. There are two cycles offered every two years. Every year there are about 3 field trips organized to protected areas in the vicinity of Garoua, and recently students have also had the opportunity to visit a forest reserve in the southern province of Cameroun, the Dja Wildlife Reserve. Subjects included in the curriculum range from biology, through civil engineering to economics and administration.

Recommendations

Based on discussions with Field Operations Directors and Field Associates, as well as Protected Area Managers, it is obvious that there is much 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, courses given at existing training institutions or courses given at the direction headquarters when field staff come to the capital. The recipients of in-service training programs 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.

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. It should also be repeated as frequently as possible. Training at present is not seen as part of the process of movement throughout a person's career. 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 progress 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 PAM, and people above the position of a PAM, who will need similar skills to the field-based manager, in order to supervise, coordinate and direct protected area managers.

A recent study on forestry education and training in Cameroon (Hardcastle et al, 1992) came to the conclusion that the most effective form of training in the forestry sector in Cameroon would be through in-service training programs. The study recommended an "in-service mobile training unit" based at the National Forestry School of M'Balmayo, but operating as part of the Direction of Forests. In addition, the study also recommended the creation of a professional training officer post in the Direction of Forests in order to help staff career development and to provide an information base as a precursor to effective planning. Discussions with other people living in Cameroon and working with the protected area authorities brought forth similar recommendations (S. Gartlan, pers.comm. and B. Powell, pers.comm.) There is also no in-service training in the Direction of Fauna and Protected Areas. Training outside of pre-recruitment or pre-service training is rare and sporadic. There is no training programme, nor a training officer in the Direction (See Section 2.1.4 on Existing Training Programs).

The World Bank has argued that the new Forestry Law should specify the establishment of a unified forestry service (World Bank Report 7486-CAM, 1989) which brings together the Direction of Forests (Minagri) and the Direction of Fauna and Protected Areas (Mineto). The differences between the two Directions are widening and are an impediment to finding a balance between effective resource protection and resource use. The fragmentation of responsibilities leads to abuse of resources and lack of coordination. If the goal is to enhance coordination and balancing resource use and conservation, the development of skills in both Directions should also be coordinated. Training of staff from both Directions should include similar courses in social skills, as well as planning skills, policy & procedure skills, finance & accounting skills. As the needs of both Directions appear to be very similar, in terms of the form of training most suitable for providing the necessary expertise, it seems that there exists a possibility for coordination and communication through training. Development of in-service, repeated training courses and planning career paths through a training officer post in each Direction are similar needs to both departments. Specific skills can be taught separately for specific functions. Many of the skills needed, however, would be suitable for both Directions.

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 (Hardcastle, et.al.,1992)

The training needs identified by the 1992 ODA study (Hardcastle, et.al.,1992) for the forestry sector included the development of:

1. Sociological skills, such as rapid rural appraisal, participatory management systems, understanding rural social structures and identification of usage of forest resources.
2. Managerial skills
3. Silvicultural skills

The present study recognizes the need in both the forestry and wildlife sectors, as both are included in protected areas in Cameroon, for sociological skills. This came out, in the knowledge skills gap analysis as some of the main divisions of the job in which the greatest training needs occur (Resource Conservation, Community Conservation and Interventions). Planning and Policies & Procedures come out as requiring training more urgently, however, than Management. Silvicultural skills are undoubtedly technical skills required in the forestry sector, which were not assessed specifically in this study. The ODA 1992 study came out with major recommendations which are broadly very similar to the recommendations made by the present study. These include the development of short, in-service courses in Communication, Extension, Social Analysis and Participatory Planning, as well as Rapid Rural Appraisal. The establishment of a mobile short-course training unit would be able to provide much of the training. In addition, institutional support for the development of Community/Non-Governmental Organizations would be recommended (Hardcastle, et.al,1992). One of the crucial first steps would be the training of trainers, in the two Directions, in order to provide the capacity to carry out in-service training. Expertise could come from any number of training institutions in Cameroon, or from technical assistance abroad. A training programme would need to be developed within the Direction in order to plan and give direction to training for people's careers. This would demand the creation of a training officer post.

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 encouraging them to participate in regional training programs, providing opportunities to do so where possible. 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, East and Southern Africa, PARCS could play a vital coordinating and facilitating role to this goal.

PARCS also recommends that the Ecole des Spécialistes de la Faune in Garoua develop a programme for monitoring graduates from the school. At present the school does not monitor whether its students feel the training they received was appropriate and useful for their subsequent posts. Such follow-up would allow the curriculum offered at Garoua to be up-dated according to the needs of people once they

return to and assume their responsibilities in their countries of origin. Although the Ecole de Faune is serving a very useful purpose and is invaluable to the francophone countries of Africa, there are a number of changes that could be made to the curriculum and the mode of teaching employed at the school. Suggested changes, including the different skills and competencies identified in this assessment of training needs, would concentrate on teaching students problem solving skills. The mental and social skills identified as training needs all point to needs in problem solving skills. The traditional french educational system relies to a great extent on memorization of facts. Overall, the skills identified as training needs pointed to the overall tendency towards decentralization and the increase in decision-making power given to PAMs in the field. The skills required in problem solving and decision making should be strongly emphasized in the curriculum at Garoua.

Country Report
CAMEROON

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

Biodiversity, in terms of species abundance, ecosystem diversity and endemism, is very high in Cameroon. A variety of very different ecological zones exist in the country, ranging from sahel to lowland humid evergreen rainforest. About 40% (or 188,000 km²) of the country is covered by evergreen rainforest, and 198,000 km² fall under the Sudanian savanna region (UNDP, 1992). The afro-montane region of Cameroon is of great importance in terms of endemism. Mount Cameroon is the highest peak, and there are other unique montane habitats on a number of extinct volcanoes in Cameroon.

As a result of the Cameroon government giving priority to the establishment of national parks and reserves to preserve the country's natural resources, Cameroon retains a higher proportion of its tropical forest than most African countries. Throughout Cameroon, however, its forests are threatened by the importance of wood as a source of income and of energy for the local population. Wood is the country's fourth most important export, after petrol, coffee and cocoa (IUCN, 1989. *La conservation des écosystèmes forestiers d'Afrique Centrale*. IUCN, Gland, Switzerland). The three former exports, however, have recently suffered dramatic drops in commodity prices and hence put more pressure on wood resources.

The following major types of ecological zones are represented in Cameroon (IUCN, 1992):

1. Sahel savanna (Sudan savanna)
This zone is suffering from human population increase and the resulting degradation of the habitat. Drought and large scale dam projects have also been the cause of major habitat degradation and alterations in the yearly flooding patterns of the waterways.
2. Broad-leaved savanna (Guineo savanna)
This area has a relatively low overall population density, with pockets of high density. Problems in the area also result from a damming project which attracted migrants, a government resettlement scheme and the introduction of monocultural agriculture.
3. River ecosystems
There are three major drainage systems in the north of Cameroon, the Benoué, the Sanaga and the Logone-Chari rivers. The Sanaga is an exceptionally important biogeographical barrier, especially in the south, where it flows through the evergreen forest, and its water catchment covers about 25% of the surface area of Cameroon.
4. Semi-deciduous forest
This zone covers the 75,000 km² that border the Congolese forest further south. The area is very important for timber production and has been seriously affected by the human population entering the area once logging has opened it up.
5. Montane forest and subalpine vegetation
This is the most extensive area of montane forest in western Africa. The montane forests are also one of the most endangered ecosystems of the country. This is largely due to the richness of the volcanic soils, and their value for agriculture. The area includes some of the most densely populated agricultural communities in Cameroon.
6. Dense, humid evergreen forest
This zone covers about 37% of the country and can be subdivided into evergreen Cameroon-Congolese forest and evergreen Atlantic forest. These forests are amongst the most important in terms of biodiversity. They are also amongst the most important in terms of their economic resource for the country, in the form of timber. The entire zone is threatened by intensified logging. The evergreen Atlantic zone is especially threatened due to its coastal, and therefore accessible location for loggers and its proximity to major ports in the country. Furthermore, it is an area of very high population density.
7. Coastal mangrove
The mangroves are of great economic importance, as they nurture and protect the major fishery resources of Cameroon. They are severely threatened by pollution and pesticide use. They are under-represented in the protected area system of Cameroon.

8. Marine ecosystems

Due to the steeply shelving off of the coast and lack of islands, the coastal marine region is relatively impoverished. There is limited coral reef formation, but the growth of coral is slowed by the sedimentary deposits of the river drainage systems.

9. Wetland systems:

Crater lakes: There are numerous, small crater lakes in the montane regions of Cameroun. Some of them have developed high levels of endemism, due to stable tectonic conditions. Their conservation is severely threatened by land-use conflicts, and certain lakes have been used as water reservoirs for town, have been dammed or channeled. Others have been treated with pesticides (molluscicides) to control schistosomiasis.

Lake Chad wetlands: Lake Chad covers a large proportion of the far northern province and under normal flooding conditions, much of the area is flooded up to 2 meters. These areas are extremely important for the wildlife depending on grazing, and for the fish as breeding areas. Climatic changes and the creation of the Logone Dam project have severely reduced the flooded area and the depth of the flood, and agriculture has resulted in clearing much of the area for its rich soils. The Lake Chad wetlands are severely threatened, as well as much of the wildlife dependant on them.

In Cameroon, the ecological coverage of the protected area system is very patchy. Montane, submontane and semi-deciduous forests are barely represented. The coastal forests need much more protection due to the large areas that have already been logged and degraded. The congolese forests are also under-represented.

There are 7 national parks in the country, covering 1,031,800 hectares. Most of the National Parks are in the savanna zones with only 126,000 in the dense forest zone; There are 5 wildlife reserves covering 998,625 ha (mostly in the dense forest zone). The total protected area is about 4% of the national territory. This does not include the forest reserves under the jurisdiction of the Ministry of Agriculture (125 in total), which do not benefit from protection. The government has set a goal, by the law of 1981, to bring the total up to 20% of the countries total area. (Mr. Seme Prosper, DFAP, pers.comm.)

Table 1
Protected Area Categories in Cameroon

	National Category	IUCN Category
1. National Parks		
Benoué	1	II
Boubañjida	2	II
Faro	2	II
Kalamaloué	2	II
Korup	1	II
Mozogo Gokoro	3	II
Waza	1	II
2. Wildlife Reserve		
Campo	2	IV
Dja	2	IV
Douala Edéa	2	IV
Kimbi River	2	IV
Santchou	3	IV
3. Biosphere Reserves		
Benoué		IX
Dja		IX/X
Waza		IX
4. Zoological Garden		
Garoua	3	
Limbé	3	
MoosBetsi	3	

(IUCN,1992)

Table 2
Ecological distribution of Protected Areas in Cameroon

Ecological Zone	National Park	Wildlife Reserve	Other Reserve	Hunting Zone	Zoos
Sudan-Sahel	6	0	1	25	1
Guineo-Congolian	1	4	4	0	2
Afro-montane	0	1	1	0	0
Total	7	5	6	25	3

(Seme,P.,1993)

Table 3
Protected Areas in Cameroon (Seme, P., 1993)
National Parks: 7 in total, 2.2% of the country

National Park	Date of Creation		Surface Area (ha)	Province
	Reserve	Park		
Benoué	1932	1968	180,000	North
Boubañjida	1947	1968	220,000	North
Faro	1947	1980	330,000	North
Kalamaloué	1948	1972	4,500	FarNorth
Korup	1937	1986	125,900	SouthWest
Mozogo-Gokoro	1932	1968	1,400	FarNorth
Waza	1934	1968	170,000	FarNorth
Total			1,031,800	

Wildlife Reserves: 5 in total, 2.1% of the country

Wildlife Reserve	Date of Creation	Surface Area (ha)	Province
Camno	1932	300,000	South
Dja	1950	526,000	East
Douala Edéa	1932	160,000	Coast
Kimbi River	1964	5,625	NorthWest
Santchou	1947('33)	7,000	West
Total		998,625	

Other Reserves:

Reserve	Creation Date	Surface Area	Province
Bafia	1974	42,000	Centre
Kalfou	1923	4,000	FarNorth
Lake Ossa	1948	4,000	Coast
Mbam-Djerem	1948('68)	300,000	Centre
Mbi Crater	1964	370	NorthWest
Nango Ebogo	1953	16,000	Centre
Total		366,370	

NB. Lake Ossa is considered by some to be a Wildlife Reserve (IUCN, 1984), and by others (Mr. Seme, 1993) to be an "Other Reserve", of lesser conservation status.

2.1.2 Protected Area organizations

Protected Area management is the responsibility of the Ministry of Environment and Forests and its Direction de la Faune et des Aires Protégées (DFAP, Department of Fauna and Protected Areas). This ministry was newly created in 1993. Many of the directorates of the former Ministry of Tourism have been moved to the portfolio of the Ministry of Environment.

Both wildlife and forestry are regulated by the same legislation, Law 81/13 of Nov 27, 1981. This law refers to state forests, local council forests, private forests and communal forests. State forests include: strict nature reserves, national parks, sanctuaries, game reserves, production forests, protection forests, recreation forests, forest plantations, zoological and botanical gardens and game ranches belonging to the state. The implementing decree of this law for wildlife regulations is 83/170 of April 12, 1983. Whereas forests are defined in the legislation, wildlife is not. There are Ministerial arrêtés classifying wildlife, and controlling trade in endangered species, but these do not reflect the realities of abundance and national as well as international levels of threat. Animal species living on national territory are divided into three classes, A, B and C with regard to their protection. This list is a result of a ministerial arrêté. Class A means strict protection (on paper), although holders of capture permits or special hunting permits are authorized to capture or kill them. Commercial photography or cinematography are considered as hunting. Class B means partial protection, or they may be hunted, captured or killed by holders of appropriate permits (grand, moyen, petit). Class C is not protected, but their hunting may be regulated. The classification onto these three categories is not governed by any laws reflecting their real abundance.

Organigram Ministry of Environment and Forests (MINEF)

Minister

Sécretaire Général

Forests

Wildlife and Protected Areas

Environment

Protected Areas

Hunting

Until 1975 it was the Ministry of Agriculture (MINAGRI) that was responsible for the gestion de la faune. It then became the Ministry of Tourism (MINITOUR), and on April 9, 1992 it fell under the jurisdiction of the new Ministry of Environment and Forests (MINEF).

2.1.3 National conservation strategy and conservation objectives

2.1.3.1 Major Threats to Conservation

One of the major threats to conservation in Cameroon is the forestry industry. Logging has a potential role, in Cameroon, to generate great economic wealth, especially now that the economy has been affected by the falling commodity prices and the drop in income from petrol, coffee and cocoa. The inherent dangers are from over-exploitation of this resource, and consequent land degradation.

Annual deforestation for agricultural purposes is also one of the greatest dangers to the tropical forest (WorldBank, Rep.No 7486-CAM, 1989). The losses of forest to agriculture exceed the annual regeneration of the remaining forest and result in a large annual net loss of forest resources. The influx of human populations into areas recently logged, and their traditional itinerant agricultural practices are also important. One of the most important contributors to the loss of forest, particularly in areas near major population centres, is the absence of land tenure. Occupancy of land is an important indicator of ownership and this results in extensive agriculture and relatively scattered planting of tree crops to claim ownership of the land.

The pattern of population growth indicates that urban fuelwood will become critical in the near future, and the lower-income bracket of the urban population will have urgent needs for cheap fuel.

For a very large proportion of the population, hunting provides the most important form of animal protein. Consumption of "bush-meat" is for both subsistence and commercial purposes. The use of modern weapons is widespread and there is less use of traditional means of hunting and more use of trapping and guns.

2.1.3.2 Government Strategy

As mentioned above, the Cameroon government has given priority to the establishment of national parks and reserves to preserve the country's natural resources. It has set a goal to progressively increase the country's protected area from 4% to 20% of the total national area (WB Report No. 7486-CAM, 1989). The forestry sector is of great importance to the economy of Cameroon, and the preservation of the country's unique ecosystems has become a matter of both national and international importance. A clear forest policy, however, does not exist. Forest policy is in a state of flux, and the Tropical Forestry Action Plan for Cameroon is under review (Hardcastle, et.al., 1992). Due to the lack of a Forest Policy and Master Plan for Forestry in Cameroon, it is assumed that the Master Plan will propose to divide the forestry sector into five major sub-sectors:(Hardcastle,et.al., 1992)

1. Biological/genetic/environment/soil conservation areas
With the exception of certain areas, access will most probably be permitted to local people and existing life-styles and forest-based activities will be allowed to continue. Once these areas are identified, the main activities will be administration of a protection and controlling role, which could be carried out by either the Forest Service (DF of the Ministry of Agriculture), or the National Parks and Wildlife Service (DFAP of the Ministry of Tourism, or Ministry of Environment and Forests).

2. Timber concession areas in the High Forest Zone
The responsibility for allocation and control will belong to the Provincial Forest Officer (Conservation des Forêts).
3. Plantation areas
This will be relatively insignificant, due to the amount of natural forest remaining.
4. Natural forest management of the Savanna/Sahel zone
5. Rural development forestry, farm forestry, etc

Both the World Bank (1989) and the Tropical Forestry Action Plan (FAO, 1988) recognized the importance of the continued development of the natural high forest as a major component of forestry development in Cameroon. The importance of environmental conservation and community development (social sensitivity) are important constraints to this. As a result, it will be of utmost importance to allocate priority to the above policy sectors one and two.

2.1.4 Existing training programs

Discussions with Chef de Service des Aires Protégées and a previous Director of Fauna showed that there were no real training programs in existence and that rigorous record-keeping of training is not carried out. There does not appear to be any planning for training. Although there is a level of pre-service training required for recruitment, once someone is hired, no further training is required. No records of training received are kept at the relevant Ministerial department, although the Wildlife College of Garoua does have records of training received by all graduates. All of the PAMs in Cameroon have attended either the Wildlife College of Garoua or the Forestry School at M'Balmayo.

Formal training institutes:

- Ecole des Spécialistes de la Faune at Garoua (EFG):
Students are trained in biology, ecology, conservation and development of protected areas. The School no longer takes people with a pure forestry training background and prefers people with a biology background.
- University Centre of Dschang:
In October 1992, the university was functioning with great difficulty and was effectively inoperative due to lack of funding from the government. Only expatriate staff were receiving salaries.
- National Forestry School at M'balmayo (ENF):
Students are trained in silviculture, forest management and inventory, soils, economics, fauna and flora, and engineering. The school has had no government sponsored students since 1989 and the expatriate teaching staff have all left.

2.1.5 In-country PAM profile

At present, a warden must have attained the french "niveau technicien" with 2 years of specialization at the Ecole des Specialistes de la Faune at Garoua (EFG). To enter into the EFG, students must have either a BEPC (Brevet d'Etudes de Premier Cycle, or Primary school diploma) or a Baccalauréat (secondary school!). At M'balmayo (ENF), the level attained is either BEPC (Technicien des Eaux et Forêts), Technicien Supérieure, or Agent Technique.

An exception to this generalization is the conservateur of the Waza National Park. He only has a CEPE (primary school certificate) followed by 2 years at Garoua (EFG). In the past, the minimum educational requirement for recruitment as a PAM was CEPE (as was the case in the past in Zaire). The level of the other wardens, or other staff, therefore, is quite low.

With one exception, all conservateurs have been to Garoua. The conservateur of Boubanjida National Park is the exception. He graduated from the forestry school at Mbalmayo.

In a northern park, the hierarchy of responsibilities for a PAM is as follows:

- Conservateur (PAM)
- Chef de Secteur (4 to 5 hunting posts)
- Chef de Zone (a hunting post with 2-3 guards per post, one in each peripheral village)
- Guards (about 1/10,000 ha)

Around some of the parks there are peripheral hunting zones. The conservateur is responsible for the management of all activities in his protected area and appended hunting zones. From 1 Dec to 31 May is the hunting season, legal chasse sportif, for tourists. Villagers are recruited as trackers. They are paid by the tourists, at their discretion (about 2500 FCFA/day). They are also porters (1500/day). One guard comes on the hunting trip in order to supervise.

2.2 Methods

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 analyses 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. 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.

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 will show 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).

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). 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.

Overall, the level set by PARCS can be considered the lowest acceptable level, as all validators considered slightly higher levels of knowledge necessary. Overall agreement was high, however, as variation from the PARCS level was slight.

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 present/surveyed

The methods used in Cameroon were dictated in part by the political situation in the country at the time. The assessment was conducted shortly after presidential elections were held and there had been some recent incidents of unrest in the country, specifically in the Northwest province. As a result, USAID-Cameroon limited travel throughout the country. A visit was made to the Wildlife College at Garoua, which was an essential place to visit and evaluate, and a Camreounais consultant hired by PARCS travelled to some of the protected areas in the vicinity of Yaoundé. The areas visited by the consultant were all in the Central and South provinces (humid evergreen forest and semi-deciduous forest belt). The visit to Garoua took the PARCS Regional manager to the Northern Province where contact was made with wardens from the Guinea broad-leaved savanna belt.

The consultant hired by PARCS was the Chef du Bureau des Etudes et Programms, in the Service des Aires Protégées of the DFAP, Mr. Jean Claude Soh. He was recommended by the Directeur de la Faune et des Aires Protégées and proved to be very capable, thorough and motivated. After he had been briefed on the objectives and methodology of the PARCS project, he travelled to 4 protected area managers in the Central and South provinces. Three managers were based in the Reserves (or had been in the past), and one was in a Regional office. In theory, Regional managers spend a large proportion of their time in the protected areas. Due in part to inadequate infrastructure, however, this did not always prove to be the case.

Cameroon People contacted:

- USAID, Mr. John McMahon
- Dr. Steve Gartlan WWF
- Mr. Yadj Belu Chef de Service de la Chasse et CITES, Direction de la Faune et les Aires Protégés
- Mr. Gustin Bokwe, Directeur de la Faune et les Aires Protégées
- Mr. Josef Mengang Mewondo Chef de Service des Aires Protégées, Direction de la Faune et les Aires Protégées
- Mrs. Elzaidia Washington USAID
- Mr. JeanClaude Soh Bureau des Etudes et Programs,Service des Aires Protégées and consultant for PARCS
- Dr. Jean Marc Froment,CEE, Réserve de la Dja
- Mr. Seme, Direction de la Faune et les Aires Protégées
- Mr. Peter Hartman, Université de Dschang, Ecole Agricole
- Mr. Charles Hamilton, British High Commission
- Mr. Sécrétaire Générale Ministère du Tourisme Jacques Tinfa
- Dr. Buddy Powell, WCS
- Mr. Roider, Banque Mondiale
- United Nations Development Programme
- Dr. Louis Tsague Chef de Service des Etudes et der Stages, Ecole de Faune
- Mr. Mayna Besong Directeur Adjoint, Ecole de Faune
- Dr. Hubert Planton, Enseignant à l'Ecole de Faune
- Dr. Floris Deodatus, Enseignant à l'Ecole de Faune
- Dr. Jear Thal, Enseignant à l'Ecole de Faune
- Mr. Etienne Hatungimana, Enseignant à l'Ecole de Faune
- Mr. Délégué du Ministère de Tourisme, Province du Nord à Garoua, Mfou'ou Oyono Jean Pierre
- Mr. Waga Beskreo
- Mr. Waindah Nkemnya Mathias,Conservateur Benoué
- Mr. Ateba, Directeur Administratif
- Mr. Jacob Waslander, Troisième Sécrétaire à l'Ambassade des Pays Bas
- Dr. Victor Balinga
- Mrs. Ndesso Atanga, PVO/NGO/NRMS-Cameroon
- Mr. Geombang,Joseph, Gestionnaire des Zones Banales de Chasse de la region du Dja et Lobo, Gestionnaire Régionale de la Partie Ouest du la Reserve de Faune de Dja
- Mr. Lyombe Muako,John, Conservateur de Douala- Edéa
- Mr. Manga,Ernest, Gestionnaire du Projet Parc National du Mbam et Djerem, et des Zones Banales de Chasse de Mbam
- Mr. Okoudou Maze, Ex-Conservateur de la Réserve de Santchou

Table 4: IUCN Categories Present/Surveyed

IUCN Category	No. Present in Cameroon	No. Surveyed for PARCS
1. Strict Nature Reserve	0	0
2. National Park	7	1
3. Natural Monument/Landmark	0	0
4. Managed Nature Reserve/Wildlife Sanctuary	6	3
5. Protected Landscape/Seascape	0	0
6. Resource Reserve	5	1
7. Natural Biotic Area/Anthropological Reserve	0	0
8. Multiple Use Management Area/Managed Resource Area	0	0
9. Biosphere Reserve	3	2
10. World Heritage Site	1	1
Total	18	5

2.2.3 FODs comments on training needs

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

Mengang Mewondo, DFAP

The questionnaire accurately reflects the tasks of a protected area manager in Cameroon, as well as the levels of skills required. One of the problems in Cameroon is that an official management procedure for protected areas does not exist. This makes the task for PAMs a great deal more difficult.

The most crucial problem in protected area management in Cameroon is the lack of a clear management policy at the administrative level, in order to effectively manage protected areas. The only thing that exists is a series of laws forbidding certain activities. The higher trained staff should go out into the field regularly to monitor and assess the situation, and not just stay in the offices at headquarters.

There is only one management plan for a park in Cameroon, and this is because the conservateur of that park, Kemi Atché, had the educational level of an ingénieur and was capable of writing a management plan. Unfortunately he has died.

One of the problems in Cameroon is that trained staff do not get sent into the field and tend to remain based in offices at headquarters. Two to three years ago, Director Mengang developed a methodology for conservateurs: "Processus de Gestion des Ressources Naturelles et Aires Protégées du Cameroun" in order to define the job of a protected area manager and their responsibilities. It was unfortunately never accepted, nor applied.

**Mr. Mfou'ou Oyono, Jean Pierre, Délégué Provincial of the Northern Province
(Civil Administrator from the Ecole d'Administration Public à Paris)**

1. Lower Cadre: guards should get repeated training. Most only have primary school education. They should learn about regulations and how to behave in the field. All recruitment by the government is suspended, at present, due to the economic crisis.

2. Medium Cadre: (technicien/technicien supérieure = baccalauréat)
This is usually the level held by a protected area manager, or conservateur. In general they receive good training, either at the EFG, or the Ecole des Eaux et Forêts at Mbalmayo. They do need repeated training, however, in their knowledge. "Leur connaissance se sclérose".

3. Higher Cadre: (ingénieurs)
Not much training is needed for this cadre- they have a university education and they are specialized. They could profit, however, from attendance to seminars, conferences or workshops. Even those who aren't specialized in fauna should attend such seminars as many of the people in this cadre are not biologists nor specialized in protected area management.

The EFG does not place sufficient emphasis on "aménagement", or protected area development. Their main emphasis is on conservation. It should be on both. Aménagement includes tourism infrastructure, roads, camping sites, etc.

Mr. Waga Beskreo, Chef de Service, Direction de Faune et Sites Touristiques

There is a great need for repeated training, or "recyclage".

Mr. Waindah Nkemnya (ex-Conservateur Benoué) (Mr. Waindah is not a FOD but was involved in the interview with Mr. Waga Besekreo and provided a great deal of input into the conversation)

Civil administrators are not capable of making management decisions concerning protected area, although they are often the ones in position to make these decisions. Of the 10 provinces in Cameroon, only 3 of the Provincial Delegates for the Ministry of Tourism are spécialistes de la faune: Ngaoundere, Baffoussam and Bamenda. The other 7 are civil administrators. All ten provincial delegates work for the Direction de la Faune and directly represent the ministry. They must have a basis of knowledge about protected area management. This is a priority training need.

**Victor Balinga, Ministry of Scientific and Technical Research
Directeur de Faune for 10 years (1972-82)**

Garoua graduates lack management, planning, programming, etc skills to effectively manage protected areas in Cameroon. Staff of the Direction do not have the skills to draw up management plans and programs. The problem is the french concept that wildlife is part of forestry, and this will have to change before pa's get adequate protection and are properly managed.

Mr. Seme Prosper(Direction de la Faune et des Aires Protégées):

The most important training needs for PAMs are:

1. Administrative: the techniques of "management" are little known
2. Legal: laws are not respected or understood
3. Communication/Education: no education/extension programs exist, although the DFAP is responsible for these activities
4. Technical: insufficient biological/ecological knowledge as background, no knowledge of how to write or use management plans, conservation plans, research plans, etc
5. Education: the educational system in Cameroon is insufficient and inadequate
6. Research: there are only 4 researchers and 6 technicians in total working for the DFAP. Applied research is practically unknown.

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 devised the specific questions with which the computer analysts were to develop the analyses.

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 Cameroun are presented below. A short paragraph follows each set of results and provides a brief interpretation of those results. 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 the results 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

As indicated by the table, the PAMs, Assistant PAMs and Regional Wardens surveyed were contacted through the consultant, Mr. JeanClaude Soh and the managers filled out the questionnaire either with Mr. Soh present, or in their own time, after having the questionnaire explained to them. The other people contacted were interviewed by the Regional Manager and filled in the questionnaire in the presence of the RM. All questionnaires were accompanied by a discussion, either with the RM or with Mr. Soh, to get additional information about the training needs and opportunities as well as their perceived constraints to satisfactorily do their job. A total of 7 people were contacted, although this list does not include the students surveyed at the Ecole de Faune at Garoua (most of whom have already served as PAMs in their respective countries). They will be treated separately.

2.3.2 Background Information Sheets

Listed in Annexe 3

2.3.3 Respondents' Years in Service/Years as a PAM

In Cameroon, PAMs were asked the number of years they had worked in the service. All three of the PAMs and Assistant PAM had worked for the Direction de la Faune et des Aires Protégées for over 6 years. It is impossible to make any generalizations from this as the sample is far too small. It is evident from the discussions, however, that most "conservateurs" have been in the service for many years, and the majority of them are not new recruits.

2.3.4 Validation Analysis for Knowledge

In general, respondents agreed with PARCS with respect to the level of knowledge considered necessary to do the job of a PAM. The overall accuracy score was 87.9% .

2.3.4.a Additions and Deletions to Accountabilities and Responsibilities

Few people added comments under Column 1 of the Questionnaire, "Accountabilities and Responsibilities". Interestingly, one respondent added comments in most categories, and under the main division "F" he added "training of guides". Few people consider training of their subordinate staff as one of their responsibilities. It is usually considered the responsibility of the department to provide them with a fully qualified and trained staff. One of the points the questionnaire highlights is a PAMs' role in training and the responsibility they have in ensuring the competency of their staff. This respondent not only considered training of his staff as his responsibility, but felt that it should be included in a job description for all protected area managers.

None of the listed Accountabilities and Responsibilities were deleted.

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:

There was a very high level of overall agreement, with only one question unanimously requiring a much higher level of knowledge than that set by PARCS. It was felt, by the people surveyed, that it is important for the PAM to know about the cultural and historical context for the location of the protected area and that they need to have more than an awareness of the subject and its general applicability. One person also felt that a PAM does not need to have in-depth knowledge of infrastructure techniques, site design and analysis, but that a lower level of knowledge would suffice. On all questions relating to research activities and other activities within the protected area, the PAMs felt that they needed in-depth knowledge (questions 10,11,12,16,17). In general, any disagreement on the level required resulted in bringing the level up to "in-depth knowledge". Due to the fact that the level set by PARCS was frequently "in-depth knowledge", the level of agreement with PARCS was high.

ii. Management Knowledge:

Again, the overall level of agreement was very high, although most questions had a slightly higher level indicated. On all but three questions, PARCS set the required level at "working knowledge" (#3), and on two questions the level necessary was "some knowledge" (#2). On the latter two questions, the PAMs set the level at in-depth or working. The first question referred to human resources techniques (i.e. job evaluation, salary structuring, training needs analysis, etc.) and the second to the obligatory role of PAMs at meetings and awareness of activities around the protected area expedient to attend. The histogram shows that some level of disagreement was evident on all questions but #25, which refers to protected area vs. people conflict management. The PAMs agreed that in-depth knowledge was required. Again, all disagreement brought the levels up to "in-depth knowledge".

iii. Planning Knowledge:

All three respondents considered that a PAM ought to have more than just some knowledge of the development of research plans for the protected area. Two considered that in-depth knowledge was required, one thought working knowledge would suffice. This ties in with the questions singled out under Technical Knowledge, which also relate to research and research activities. Again, most disagreement was due to a perceived need for a higher level of knowledge. In four questions, however, a lower level than PARCS was considered necessary by one respondent. These related to patrol planning, visitor planning, job planning (with respect to interventions), and developing and maintaining zoning systems.

iv. Legal Knowledge:

Four questions stood out unanimously as requiring a much greater level of knowledge than that set by PARCS. These were also the only questions in which "some knowledge" was considered adequate by PARCS. All respondents considered that "in-depth knowledge" was necessary. On the only question in which PARCS considered "working knowledge" to be adequate, all respondents also considered "in-depth knowledge" necessary. It is evident that the responding PAMs consider it vital to have considerable expertise in legal matters concerning protected areas.

v. Policies & Procedures Knowledge:

As in Legal knowledge above, the responding PAMs considered that in-depth knowledge was necessary in all aspects of Policies and Procedures, and increased the level required accordingly. One PAM considered working knowledge adequate in two questions, regarding interventions in the protected area and public relations.

vi. Financial Knowledge:

The same trend holds for financial knowledge. In general, "in-depth knowledge" was considered necessary and the PARCS level was altered accordingly.

2.3.4.c Measure of Agreement for PARCS Validation Score

As mentioned in the section above, although the general level of agreement is high, and there is an overall Accuracy Score of 87.9%, this is deceptive. The levels set by PARCS were generally high in the Knowledge section, with most levels at "in-depth" or "working". Few questions were set at "some". As the respondents tended to think that "in-depth" knowledge was required throughout, for more or less all questions, it was rare that the difference in scores exceeded -1. This occurred only where PARCS set the level at "some". Whether or not agreement would have been as high if there had been more levels possible is not clear.

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). It 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.

On average, the FOD felt that the required levels of skills were somewhat higher than PARCS, and in-depth knowledge was frequently necessary for a PAM to satisfactorily do his job. The country average tended also to be frequently higher than PARCS. Variance was not often greater than 1, however, and the overall accuracy score set by FODs would be similar to that set by PAMs. It is possible that FODs and PAMs were guided in their evaluation more by an idealized PAM whereas the PARCS team was trying to describe a situation that was realistically attainable for PAMs. In either case, however, the standard of comparison set by PARCS can be used, to measure training needs, as the difference was rarely greater than 1. Trainers

tended to fall between the standard set by FODs and the standard set by PARCS. Of the two trainers responding, the average was usually 3.5, meaning that one felt a level of 3 was required, and the other a level of 4.

For all respondents, the ideal situation, be it realistic or not, was a PAM with working or in-depth knowledge of all aspects of his job.

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. These were: Policies & Procedures, Planning and Financial & Accounting knowledge. The FODs felt that the PAMs level of knowledge was lower, on average, than PAMs did themselves, although they all identified gaps in the same areas.

2.3.5.a/b Relative to PARCS

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.

When determining the skills in which respondents most frequently identified a training need (60% of respondents indicating a training need), it becomes clear from the following table that the two skills in which people consider their training needs the most acute are Policies & Procedures as well as Planning. The least acute are Technical skills where only 53% of questions were identified as having a training need by 2 out of 3 respondents.

Table 5
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	53%
Management knowledge	60%
Planning knowledge	75%
Legal knowledge	67%
Policies & Procedures knowledge	80%
Financial knowledge	67%

i. Technical Knowledge:

Only four questions show a gap of more than 1, although all but three questions indicate some training need. The questions in which the respondent's perceived skill level reflects that which is considered necessary involve research and other activities within the protected area. From the validation analysis above it was clear that respondents did not consider the levels set by PARCS to be high enough, but that compared to

the PARCS level, they could satisfactorily do their job. Looking at the gap analysis relative to the level they considered necessary (2.3.5.b), there is a slight training need (difference of 1) in these activities.

The questions in which the greatest gap appears, relative to the PARCS standard, are questions 4,5,6 and 14. These involve visitors' activities and the natural and cultural resources within the protected area. The PAMs that completed the questionnaire are in reserves that do not receive many, if any, tourists (Douala-Edéa, Mbam & Djerem and Santchou). It is therefore not surprising that they perceive a training need in knowledge relating to tourism and the cultural context of their protected area. This would require experience with foreigners and other view points on the protected area.

The questions in which the greatest gap appears relative to their own score are 4,5,6,8,9,14,16 and 17. Questions 8 and 9 refer to the relationship between the protected area and neighbouring communities. Especially with respect to the cultural and historical context for the location of the protected area do they perceive a large gap. Questions 16 and 17 refer to environmental impact techniques and survey/monitoring techniques. Although they did not feel that there was a need for much training in research methodologies or the role of research, the actual techniques are apparently not sufficiently mastered.

ii. Management Knowledge:

When compared to the PARCS standard, three questions showed a training need of greater than 1, and in four questions did at least two of the three respondents consider their level of knowledge satisfactory. Satisfactory levels were in personnel management and human resource techniques (18 & 19), as well as the PAMs role at meetings, etc (27). Surprisingly, levels of knowledge of management, accommodation and catering facilities under protected area jurisdiction were also considered to be satisfactory, despite the rarity of visitors and lack of tourism infrastructure. Perhaps a lack of experience in these matters left respondents with no clear idea of what is necessary. When compared to their own score, this question (23) was still not considered that important. Questions involving the management of casual labour and project or job management (24) were considered important training needs, with gaps of 2 or 3. Also considered important were questions 21 and 26, referring to the principles of stock control and procurement, and the concept of public relations and dealing with the media (both probably not something they are responsible for and therefore have experience in).

iii. Planning Knowledge

The training needs relative to PARCS are quite marked on a number of questions. On these same questions, respondents felt that the level considered necessary by PARCS was higher than the level they considered necessary (2.3.4.b). The greatest training in needs were in developing visitor plans and developing and maintaining zoning systems. In all aspects of planning but the development of research plans was some training perceived as necessary by one or more respondents.

Relative to their own score, all three respondents identified training needs in all aspects of planning. In all but two questions a training need of at least 2 was identified by at least one respondent. In only two questions was there a gap of at least 2 identified by all three respondents. These two questions refer to visitor plans and conservation management planning techniques and methodologies.

iv. Legal Knowledge:

There were no marked gaps in skill levels in the legal section when compared with the PARCS level. Although a training need was perceived in most questions, the gap rarely exceeded a score of 1. When compared to their own score, there were several questions that stood out as having high gap scores. These included questions 41,43,45 and 48. Contract law, laws relating to community development and laws of slander and libel were all legal aspects in which respondents did not feel they could satisfactorily do their job. Yet they did all feel that in-depth knowledge was required of them.

v. Policies and Procedures Knowledge:

Questions 50,53,54 and 58 showed marked gaps, both when the PARCS standard of comparison was used and when respondent's own standard was used. Question 50 deals with maintenance/construction policies and procurement procedures (where they also identified a gap in the Management section above). The other questions deal with policies and procedures in general, with respect to visitors and in public relations. Again, the lack of experience in dealing with visitors or other members of the public may be the cause of their identification of this training need. It is possible that a PAM working in a park receiving regular visitors would feel more qualified in these aspects.

vi. Financial Knowledge:

In four questions was there a perceived training need. When the PARCS score was used as the level of comparison, only questions 62 and 63 showed marked training needs. The first question involves sharing protected area resources with neighboring communities in financial or in-kind distributions, and this is an activity that does not presently occur in protected areas in Cameroon. The second question involves the budget and allocations for research activities, but again, in Cameroon this does not fall under the PAM's jurisdiction. It is therefore not surprising that PAMs feel their experience in these two fields is lacking.

When gap analysis is carried out relative to respondent's own scores, two additional questions stand out as indicating gaps. The first also relates to financial disbursements to local communities (61), and the second relates to estimating costs for implementation of resource conservation management plan recommendations (64).

The above discussion of the gaps and perceived training needs shows that the most frequent gaps occur in the Main Division of the job F, with respect to Ensuring Optimum Levels of Visitor Satisfaction. This could be due to the fact that the PAs surveyed do not get a large number of visitors (i.e. tourists). Their lack of confidence and experience in this field reflects their lack of expertise. Training would be necessary for tourism to be developed in these areas (one of the goals of the department is to promote eco-tourism) or if PAMs switched from one PA to the other (this is often the case). Another key area in which a gap was frequently identified was K, "Ensuring and appropriate balance between resource conservation and use in the protected area". Main Division G was also singled out, involving intervention programs within the protected area.

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.

In general, the FOD was much more critical of PAMs knowledge skills than PAMs. The gap identified by the former was much higher, overall. Trainers, on the other hand, did not frequently identify training needs. This is expected, however, as the trainers were working at the only Wildlife Specialist training institute, the Ecole des Spécialistes de Faune à Garoua. It is not surprising that they consider the training given at this school to be adequate in most areas necessary for PAMs. PAMs tended to consider that training was necessary in all competencies, and rarely did they consider themselves over-qualified, or even sufficiently qualified. But they were perhaps not as objective in their self-evaluation as the FOD, who was the recipient of their reports and frequently evaluated their work. The following table demonstrates this by showing the percentage of questions in which a gap of about 2 or more was identified.

Table 6

Percentage of Questions in which a gap of about 2 or more was identified for each competency

Competency	Percentage	
	PAMs	FOD
Technical	12	59
Management	0	50
Planning	17	67
Legal	0	11
Policy & Procedures	50	70
Financial & Accounting	17	67

The competency in which the greatest training need was identified was Policy & Procedures, followed closely by Planning, Financial & Accounting, and Technical. Legal was considered the lowest by both. Although the extent of the training need was much greater as judged by the FOD, the areas in which training was most needed were the same for both the FOD and the PAMs.

Table 7

Percentage of Questions in which an average gap of about 2 or more was identified for each division of the job

Main Division of the Job	PAM	FOD
A. Staffing	0	17
B. Infrastructure	17	50
C. Finance/Accounts	0	25
D. Tactical Plans	0	50
E. Laws and Regulations	20	20
F. Visitors	57	57
G. Interventions	40	60
H. Community Conservation	13	75
I. Research	0	67
J. Public Relations	0	43
K. Resource Conservation	0	100

From the above table can be seen that FODs felt that the training needs of PAMs covered all main divisions of the job. although PAMs felt that knowing how to deal with visitors was their greatest training need, followed by interventions and laws and regulations (the more traditional roles of a PAM), FODs felt the greatest needs were in resource conservation, community conservation and research (although all areas had relatively large gaps). Resource conservation is covered at the Ecole des Spécialistes de la Faune at Garoua, but community conservation and research are not. The trainers at the EFG never felt that there were any gaps of more than one (which was already rare).

There is evidently a great discrepancy between the expectations of PAMs, in the field, and their Field Operations Directors at headquarters. Although FODs felt that training was most needed in the same competencies as PAMs, they felt that the skill levels were very low, relative to what was needed in order to successfully do the job. In addition, FODs felt that training was needed in all the main divisions of the job, and not just the ones identified by PAMs themselves. The main divisions that most urgently required training were not the same ones as those identified by the PAMs. The latter felt that the more traditional divisions, such as law enforcement, tourism and interventions were requiring the most training, whereas the FODs had slightly broader views of what PAMs ought to be doing. They felt that training should also be included in community conservation and research, as well as resource conservation and the other divisions of the job.

2.3.5.f Average Technical Knowledge Skill Level with Respect to Biome

This table presents the average gap size (or training need) for each question in Technical Knowledge relative to biome. Each column represents a biome and is subdivided into 3 columns for gaps of 1,2 or 3. A gap of 3 represents the greatest training need. Column "R" represents those people who are not in the field or who are not presently in charge of a protected area (ie. hold regional posts).

The data show that there is little difference between responses by people in savanna or moist forest habitats, or regional PAMs. Their identified gaps are usually in the order of magnitude of 1, with a few gaps of 2 or 3. Questions 10,11 (research) and 12 (public relations) never had gaps identified for them, and questions 4,5,6 (tourism),7 (interventions),13 (public relations),14 and 15 (resource conservation) always had gaps identified for them. Savanna-based PAMs identified somewhat smaller gaps in questions about tourism than forest-based PAMs. Only regional PAMs identified training needs in questions dealing with community conservation, as well as anti-poaching. The others felt that they had no training needs in these areas. The small sample size in each biome category makes this analysis somewhat difficult to interpret significantly, however, and the numbers of respondents in each of the 3 categories are not equal either, thus making comparison difficult.

2.3.6 Validation Analysis of Social & Mental Skills

In general, respondents agreed with PARCS with respect to the mental and social skills needed to do the job of a Protected Area Manager.

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.

The overall accuracy score is 91.53%, indicating that PAMs felt that the skills required for a PAM were those listed by PARCS in the questionnaire. Of all the questions listed, 91.5 % were considered to be relevant to the job of a PAM.

2.3.6.b Analysis of "no" responses

This analysis shows where there was disagreement, in those cases where 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.

Disagreement was distributed throughout the questionnaire, and not all in one area. A small number of respondents disagreed with PARCS on some questions, but never more than 33 % (one respondent).

2.3.7 Current Mental & Social Skill Level

2.3.7.a Low Skills Levels

This table 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.

For the three respondents, between 17% and 44% of responses indicated a training need. The competency in which a training need was identified the greatest number of times is Evaluation (44%), followed by Creativity (37%) and Working with Others (30%). The competency in which training was least frequently identified is Comprehension (17%).

Table 8
Percentage of times a score of 1 or 2 was given for each competency

Mental & Social Skills (Competency)	Percentage
Comprehension	17
Problem Analysis	27
Creativity	37
Evaluation	44
Oral	19
Written	29
Working with Others	30

In general, PAMs felt their oral and comprehension skills to be adequate. Their skills in evaluation and creativity required the greatest amount of training. The main divisions of the job in which they felt they needed the greatest amount of training were resource conservation and tactical plans, followed by finance/accounts, community conservation and public relations.

Table 9
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	19
B. Infrastructure	24
C. Finance/Accounts	33
D. Tactical Plans	38
E. Laws and Regulations	19
F. Visitors	29
G. Interventions	24
H. Community Conservation	33
I. Research	28
J. Public Relations	33
K. Resource Conservation	40

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

According to FODs, PAMs frequently overestimate their mental and social skills, whereas trainers at the EFG felt that PAMs were very highly skilled in all mental and social skills. They evidently felt that the training being given at the EFG, which is the only place where PAMs tend to be trained, is adequate.

Both FODs and PAMs agreed on which skills required the least training, although PAMs still felt that their levels were higher than FODs felt they were. These skills were Comprehension and Oral skills. There was no variation, from the FODs evaluation, between the other skills' training needs, as they never were ranked higher than "poor", or level 2. The trainers, on the other hand, evaluating PAMs as they were leaving the EFG, felt that their skill levels were never less than satisfactory. This shows, therefore, that there is a great discrepancy between the expectations of FODs, PAMs and trainers at the EFG on the levels of mental and social skills considered satisfactory in protected area managers. This is due, in part, to the lack of follow-up of students graduating from the EFG, and the lack of evaluation after having attended the school. The school is evidently not getting feedback on what is expected of its graduates.

Table 10
Percentage of times a score of 1 or 2 was identified for each competency

Mental & Social Skills (Competency)	FOD	Tr
Comprehension	75	0
Problem Analysis	100	0
Creativity	100	0
Evaluation	100	0
Oral	78	0
Written	100	0
Working with Others	100	0

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 and 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.

2.3.8a Methods to Instil Work Ethics

As all respondents had been in the service for 6 to 10 years, it was not possible to link attitudes with years of service. Four possible responses were given to the question on how to instil proper work ethics in staff. The responses include showing hard work through example, acknowledging good work and positively criticizing bad work, providing attentive supervision and cultivating good working relationships.

2.3.8b Methods to Instil Commitment to Conservation

Only two responses were given, and they include showing dedication to national, regional and local conservation objectives and teaching protected area management that fully covers the conservation concept.

2.3.8c Methods to Instil Healthy Attitudes to Adjacent Communities

Listening to and demonstrating willingness to understand community problems, taking an active role in conflict resolution were the two methods listed by respondents.

2.3.9 Language Skills of PAMs

Most protected area managers speak the language spoken by the local community (67%), but one answered that he did not. In general, people recognize the need to be able to communicate with the local communities and as a consequence, speak the language required to do so. People are generally multilingual and already speak the local language before being assigned to a certain region. It is unlikely that they would learn the language in order to communicate with neighboring communities as a PAM. This question was asked in order to assess whether it was possible for PAMs to be actively involved in community extension work and whether communication problems could lie at the root of the conflict between protected areas and neighboring communities.

2.3.10 Computer Skills of PAMs

None of the respondents were able to use computers. It is unlikely that a PAM would have the opportunity to use computers unless he was associated with a project in which a computer was made available, or unless he attended a course abroad in which computer use was part of the curriculum.

2.3.11 Training Priorities Identified by Respondents

In general, PAMs still felt that their greatest training needs were in Technical skills, followed by Planning and Management skills. Policies & Procedures and Legal skills were rarely identified.

The following table 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.

Table 11
PAM's Identified Training Priorities
Competencies 2-7 by Main Divisions of the Job A-K

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

From this analysis it is evident that respondents still feel that their greatest training needs are in technical knowledge skills, followed by management and planning. These are not the skills in which their greatest training needs were identified by the gap analysis (section 2.3.5.d). Gap analysis showed that Policies & Procedures had the highest training need, followed by Planning and Financial & Accounting, and to a lesser extent Technical knowledge. Management had one of the lowest training needs, relative to other skills. The most obvious forms of training, and perhaps also the most obvious skills to PAMs are technical and management skills, and it is for this reason that they are always listed as priority training needs. The fact that other 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. The value of the questionnaire as an exercise and a point of discussion (dissemination) is very clear in this instance where PAMs are not fully aware of what their training needs are, despite the fact that they identified them themselves with the aid of the questionnaire.

2.3.12 Training Received

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

The three PAMs that responded to the questionnaire had received only Formal Wildlife training (at Garoua), and considered this to be the only training that had contributed to their skills as a PAM. No other training was thought to have contributed. In-service training, on-the-job training and any other form of training were not felt to have contributed at all. The EFG was felt to have contributed to their knowledge and in part to their mental and social skills, but only with respect to comprehension. They did not feel to have had any training contribute to their other mental and social skills, nor their attitudes. This analysis shows that training is seen as having a very narrow field of possibilities in Cameroon. Due to the fact that formal wildlife training is available and that all PAMs have profited from this form of training, there is less incentive to look elsewhere for training than in countries where it is not available to everyone. It may also have limited, to some extent, the way in which people view training. None of the respondents listed having been trained at any seminars or conferences, although these are available, and none of them felt that anything less than formal training could even be called training. On-the-job training, where many skills are obtained, is not considered training, in part because it is not officially recognized by anyone else as such.

2.3.12.d Years Since Formal Wildlife Training Received

Only two PAMs responded to this question, and both had received their Garoua training more than 5 years ago. One had attended Garoua more than 10 years ago. Since then, no training recognized as such has been received.

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

Protected area managers felt that training had contributed to their skill levels in all knowledge skills, and in comprehension skills. None of the other mental and social skills had been covered by training. It must be remembered that the only kind of training included is formal wildlife training, because respondents did not feel that they had received any other form of training. In other words, the respondents felt that knowledge skills and comprehension skills were covered in the Ecole des Spécialistes de la Faune à Garoua, but that the school did not teach them any of the other mental and social skills.

2.3.12.g Type of Training that has contributed most to job requirements, analyzed by respondents' years of service

Unfortunately, none of the PAMs responded to this question.

2.3.12 h Training Needs Identified by Gap Analysis of Questionnaires for PAMs

This table presents the cumulative total of scores in which a gap of 2 or 3 was identified in Knowledge skills, and a score of 1 or 2 (low skill level) 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 training needs. The total number of times a 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 & Procedures) and 4 (Planning) for knowledge skills, and 11 (Evaluation), 10 (Creativity) and 9 (Problem Analysis). 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.

2.4 Summary and Conclusions

The Protected Area Conservation Strategy (PARCS) was devised in order to address two important questions: 1) what is needed in respect of Protected Area Manager(PAM) training 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 throughout Africa and in the variety of habitats and categories of protected areas that exist over the continent. The questionnaire, which is a job-description for a protected area manager in Africa, 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 of the job of a protected area manager proposed by the PARCS project.

In Cameroon, few changes were made to the description proposed by PARCS, apart from one person including in the responsibilities of a PAM training of his/her subordinate staff. The overall level of agreement to the description, including the level of skill required for each competency and main division of the job, was 87.9%. In other words, few people, of all categories, queried any aspect of the questionnaire and its relevance to a protected area manager in Cameroon. Although not all aspects of the job as described in the questionnaire are put into effect in each protected area in Cameroon (i.e. very little tourism in the southern, forested parks, and very little research throughout), respondents did feel that these were skills required of a PAM.

PAMs did feel that their jobs had changed over the last 20 years, with an increase in population pressure around certain protected areas, and an increase in tourism (certainly in the northern savanna parks). The role of the PAM was no longer a guardian of an area but often more a mediator between the protected area authorities and local people.

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

There are a number of constraints that were mentioned, both by protected area managers and by field operations directors, which make it difficult for protected area authorities to carry out all their responsibilities. One of the major constraints is a budgetary one. This limits not only infrastructure and logistics, but limits the staffing possibility in protected areas and limits the training available to staff. There is also, at present, a moratorium on recruitment by the government in Cameroon, limiting the staffing of protected areas. The financial constraint is of particular importance in Central Africa where protected area management is not a priority and where funding is very limited. Protected areas in the past have often been seen as resource "reservoirs" by the Cameroon government, in which resources (particularly forests) are set aside for possible later exploitation. An example of this is the recent "de-gazetting" of a portion of the Douala-Edéa Reserve in the coastal tropical moist forest for forestry exploitation. This area of forest is particularly suitable for exploitation due to its proximity to coastal ports for transportation, and due to the high population density in the area. It is also of particular importance for its biodiversity, however, and of great national and international value.

The financial constraint, however, is not the only one on protected area management. The lack of an official management procedure for protected areas is also very limiting to the management authorities (Mengang Mewondo, pers.comm.). There are no established guidelines and only one actual management plan for a protected area. The training need in Policy & Procedures is not limited to protected area managers in the field but is a problem at the highest level in protected area management. A lack of interest and initiative, due perhaps to a lack of awareness of this need, has limited any changes made in the past.

According to Dr. V. Balinga, one of the legacies of a french colonial past is the concept that wildlife is part of forestry, and that the emphasis on both is exploitation. In other words, resource use generally predominates over resource conservation. Although some changes in this mode of thinking are slowly being made, there are still many people who remain fixed in previous ideologies. Cameroon's dependance on it's forest resources as a source of income does not make it an easy task to convert people to forest conservation for long term benefits, as opposed to short term benefits.

A 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. Many protected areas in Cameroon have high population densities surrounding them, and in the past the relationship has frequently been one of conflict and law enforcement by protected area authorities. Very little attention has been given to the different ways of involving local communities in conservation. A policy on extension work, and community conservation as well as community involvement in exploitation (i.e. community forestry) needs to be elaborated. At present, there is little training given in these areas at the forestry and wildlife schools. A certain expertise and training capacity, however, does exist in a number of institutions in Cameroon (Hardcastle, et.al. 1992).

One of the major constraints on effective use of human resources is the lack of continued 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 continued. 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 provided as frequently as possible and necessary, so that changing job requirements and responsibilities can be constantly addressed.

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 needed for the job. From the discussions it became evident that for a large majority of those skills

PAMs had never received any form of training. After having filled in the questionnaire, however, many of the respondents still listed as their three training priorities, those competencies which were the most obvious and frequently addressed ones. There was a considerable 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 (or in which the greatest training needs were identified by the analysis), from the perspective of protected area managers and field operations directors, were policy and procedures, planning and financial & accounting. The competencies in which training was the least urgent, although a need was also identified, were legal and management skills. Trainers at the Ecole des Spécialistes de la Faune at Garoua felt that the skills of graduates from the school were more or less adequate for all competencies. This may be due, in part, to a difference of perceptions on what skills are required of graduates from the school. Discussions at the EFG showed that students were not specifically trained as managers per se, but more as field staff. The almost total lack of feedback to the school from graduates means that the school had little way of knowing whether the skills taught were adequate for the positions in which graduates found themselves. So although the school thought they were preparing people for field-based positions as staff, many of the graduates actually found themselves as managers of protected areas and although based in the field, often their tasks were less in the field than in offices, managing field staff. In many cases, graduates did not even find themselves in the field, but at head office, as field operations directors, or otherwise. In other words, the EFG is training people for positions they do not often subsequently occupy.

With respect to mental and social skills, the greatest gaps in skill level were identified in "Evaluation", "Creativity", "Written" and "Working with Others". They felt that their best skills were "Oral" and "Comprehension". FODs felt that the overall skill level of mental and social skills was very low, but that relatively speaking, the "Oral" and "Comprehension" skills of PAMs were the best. Again, trainers from the EFG felt that skill levels were generally high, and there were very few gaps identified.

There did not appear to be a link between training needs and biome. Most PAMs identified gaps in skill level of 1, irrespective of which biome they were working in. There was a very slight difference between savanna and forest-based PAMs with respect to tourism. Savanna parks receive tourists more frequently than forested parks. The gaps identified by the latter in questions relating to tourism were usually in the order of 2, whereas the gaps identified by the former were in the order of 1. This is based, however, on a very small sample size.

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 listed as having been received is formal wildlife training at a wildlife institute or at university. Conferences, seminars or workshops were not listed, although some of the respondents had attended them in the past, they were not perceived as training. On-the-job training was not perceived as such either. Nobody identified this form of training as having occurred. One of the problems of training other than formal training is that recipients do not get a certificate, or any other official form of recognition for it. As this means that they do not see it as being useful for their career development, any development of training programs other than formal training must include some formal recognition. In other words, to make other forms of training more effective, it would be important to address this issue and to officially recognize participation on courses. Some form of assessment or evaluation would also be desirable so that mere attendance would not be sufficient.

Most protected area managers have received their formal training more than 6 years ago, and many more than 10 years ago. Since that time, they have received little or no additional training, nor any form of refresher courses. This is due to the lack of an in-service training programme, and the expense of sending people to training institutes/universities. Continued 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. Furthermore, due to the moratorium on recruitment by the government, any alterations to pre-recruitment training are going to have little effect on skill levels in the near future. In-service training programs would have a much

greater impact. 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 that the scale of responsibilities is much larger for a 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 department's activities.

One of the great problems in Cameroon is the lack of a management policy for protected area management. FODs have little or no field experience and often are unaware of the problems and constraints facing PAMs in the field. In addition, FODs often do not come from a wildlife or natural resources background. They can be civil administrators who have been appointed to the Direction of Fauna and Protected Areas (DFAP, MINETO). If PAMs were trained to successfully meet the requirements of the job, it would not be so important that the FOD have a wildlife background, as long as they could draw on the necessary expertise elsewhere. The PAMs could even 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 expertise of PAMs, FODs have to maintain a strong supervisory position, and they are often not fully qualified to do so.

f. What further training is required?

Further training is required in a large number of areas. The most important gap in knowledge skills was in Policies & Procedures, followed by Planning and Financial & Accounting. The most important gaps in Mental and Social skills were in Evaluation, Creativity and Working with Others.

Although the questionnaire did make respondents think differently about the job of a Protected Area Manager, and made them more aware of the 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 priority was Technical knowledge, followed by Planning and then Management. Although Planning was also identified by the gap analysis as a training priority, the technical and management skills of PAMs did not require training as much as some other skills. Management even figured the lowest in training priority, after Legal training. These are the skills, however, that PAMs most frequently think about, when training is mentioned. Training in these skills is also obvious and easy to imagine for the PAM. Training in other skills was far less obvious. This is due, in part, to respondent's lack of experience with any form of training other than formal wildlife training. Given the lack of any in-service training programs, most PAMs had never given thought to short courses as part of such a programme. Discussions held after completion of the questionnaire, however, brought out the idea of in-service training, in the form of short-term refresher courses. Participants generally felt that this was a possibility which offered an ideal solution to the problems often encountered with more formal forms of training. The need to take people from their jobs for prolonged periods of time, the expense of sending people to formal training institutions all made formal training an option which was not realistic, once a person had 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.

The main divisions of the job that required training the most frequently were Ensuring an appropriate balance between resource conservation and use in the protected area, Community Conservation, Research, Interventions and Ensuring optimum levels of visitor satisfaction.

This would indicate a need for training in sociological skills as well as the other skills mentioned above. Skills in dealing with the community and involving them in protected area management 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 also being met. Given that the new Forest law will include, in all likelihood, changes intending to promote local participation in forest management through the strengthening of community rights, social skills should be developed in the government services for forestry

and protected areas.

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

Based on assessments made by other studies on training opportunities in Cameroon, and by this study, there is a rich variety of opportunities which could be restructured or enlarged, in order to include training for PAMs. There appears to be ample infrastructure in existing, under-used training institutions for forestry training in Cameroon (Hardcastle, et.al. 1992), and there appears to be no hindrance to using these facilities for the development of in-service, short courses. The institutions could be used to conduct courses in each of the ecological zones.

There are a number of agricultural training institutions, including three Regional Agricultural Colleges developed and only recently opened with financial support from Canada. The National Forestry School at M'Balmayo would also be an ideal resource for training and could provide much of the expertise and resources required. The Ecole des Spécialistes de la Faune at Garoua was also open to the idea of developing short, specific courses for in-service training. The facilities at the school are under-used, at present, due to lack of adequate funding. The number of different training institutions will be able to provide the training of trainer expertise required, and help in the development of a training officer post in the ministries, in order to plan the training and career development of staff.

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

At present, none of the abovementioned training institutions are being used for any purpose other than pre-service training, preparing students for their job. Rarely do people get refresher courses or any form of repeated training. In some instances people are sent for courses abroad, or they attend seminars or conferences, but this is not part of a training programme and not all people get the same opportunities.

It is possible that there are many more training opportunities not assessed by this study, nor the ODA 1992 study on forestry training in Cameroon. Opportunities for training such as courses offered by banks, Management schools, Consulting firms, Accounting bureaus, etc, on planning, management, administration, accounting, etc, were not assessed. It is likely that there would be several such opportunities in Cameroon. Assessment of other training opportunities should continue in order to provide a more exhaustive list.

i. What kinds of training should be recommended?

Based on discussions with Field Operations Directors and Field Associates, as well as Protected Area Managers, it is obvious that there is much 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, courses given at existing training institutions or courses given at the direction headquarters when field staff come to the capital. The recipients of in-service training programs 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.

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. It should also be repeated as frequently as possible. Training at present is not seen as part of the process of movement throughout a person's career. 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 progress 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 PAM, and people above the position of a PAM, who will need similar skills to the field-based manager, in order to supervise, coordinate and direct protected area managers.

A recent study on forestry education and training in Cameroon (Hardcastle et al, 1992) came to the conclusion that the most effective form of training in the forestry sector in Cameroon would be through in-service training programs. The study recommended an "in-service mobile training unit" based at the National Forestry School of M'Balmayo, but operating as part of the Direction of Forests. In addition, the study also recommended the creation of a professional training officer post in the Direction of Forests in order to help staff career development and to provide an information base as a precursor to effective planning. Discussions with other people living in Cameroon and working with the protected area authorities brought forth similar recommendations (S. Gartlan, pers.comm. and B. Powell, pers.comm.) There is also no in-service training in the Direction of Fauna and Protected Areas. Training outside of pre-recruitment or pre-service training is rare and sporadic. There is no training programme, nor a training officer in the Direction (See Section 2.1.4 on Existing Training Programs).

The World Bank has argued that the new Forestry Law should specify the establishment of a unified forestry service (World Bank Report 7486-CAM, 1989) which brings together the Direction of Forests (Minagri) and the Direction of Fauna and Protected Areas (Mineto). The differences between the two Directions are widening and are an impediment to finding a balance between effective resource protection and resource use. The fragmentation of responsibilities leads to abuse of resources and lack of coordination. If the goal is to enhance coordination and balancing resource use and conservation, the development of skills in both Directions should also be coordinated. Training of staff from both Directions should include similar courses in social skills, as well as planning skills, policy & procedure skills, finance & accounting skills. As the needs of both Directions appear to be very similar, in terms of the form of training most suitable for providing the necessary expertise, it seems that there exists a possibility for coordination and communication through training. Development of in-service, repeated training courses and planning career paths through a training officer post in each Direction are similar needs to both departments. Specific skills can be taught separately for specific functions. Many of the skills needed, however, would be suitable for both Directions.

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 (Hardcastle, et.al., 1992)

The training needs identified by the 1992 ODA study (Hardcastle, et.al., 1992) for the forestry sector included the development of:

1. Sociological skills, such as rapid rural appraisal, participatory management systems, understanding rural social structures and identification of usage of forest resources,
2. Managerial skills
3. Silvicultural skills

The present study recognizes the need in both the forestry and wildlife sectors, as both are included in protected areas in Cameroon, for sociological skills. This came out, in the knowledge skills gap analysis as some of the main divisions of the job in which the greatest training needs occur (Resource Conservation, Community Conservation and Interventions). Planning and Policies & Procedures come out as requiring training more urgently, however, than Management. Silvicultural skills are undoubtedly technical skills required in the forestry sector, which were not assessed specifically in this study. The ODA 1992 study

came out with major recommendations which are broadly very similar to the recommendations made by the present study. These include the development of short, in-service courses in Communication, Extension, Social Analysis and Participatory Planning, as well as Rapid Rural Appraisal. The establishment of a mobile short-course training unit would be able to provide much of the training. In addition, institutional support for the development of Community/Non-Governmental Organizations would be recommended (Hardcastle, et.al,1992). One of the crucial first steps would be the training of trainers, in the two Directions, in order to provide the capacity to carry out in-service training. Expertise could come from any number of training institutions in Cameroon, or from technical assistance abroad. A training programme would need to be developed within the Direction in order to plan and give direction to training for people's careers. This would demand the creation of a training officer post.

For a more detailed description of the In-service training unit (ISTU) as described for the Forestry Department, including terms of reference, readers are asked to refer to the ODA 1992 report on Forestry Education and Training in Cameroon, by Hardcastle, et.al.(1992).

Section 3. Training Opportunities Assessment

3.1 Introduction

In addition to assessing the training needs for protected area managers in Cameroon, an attempt was made to assess the training opportunities in the country as well. This involved visiting existing training institutions and trying to identify opportunities which are not being utilized at present. Data collected on forestry education and training in Cameroon in an study conducted for the Overseas Development Administration by Hardcastle, et.al. in 1992 was used to supplement this assessment.

3.2 Methods

Based on responses given by PAMs and other people contacted during the assessment, the training opportunities mentioned were visited by the regional manager, where possible. Many of the training opportunities, however, were out of the country, and in general fell under the category of formal training institutions. Institutions that were mentioned in Cameroon included the Ecole des Spécialistes de la Faune in Garoua, and the Ecole National des Eaux et des Forêts at M'Balmayo. Both have trained people who have then moved into the Ministry of Tourism, Direction of Fauna and Protected Areas. The regional manager visited the Ecole pour la Formation des Spécialistes de la Faune in Garoua, but was unable to visit the school at M'Balmayo, or the University at Dschang because they were closed and travel was restricted due to political unrest. Information on these two training institutions is presented in the study by Hardcastle et.al. in 1992.

At the Ecole de Faune at Garoua, contact was made with the administrative personnel as well as with professors and trainers. A tour was made of the facilities, including dormitories, kitchens, classrooms, workshops, library, laboratories and garage. Information was provided on all the questions listed in the methodology and a number of reports and booklets on the school were provided for further information.

3.3 Results

The Ecole pour la Formation de Spécialistes de la Faune, or Ecole de Faune, at Garoua was started in 1970, and is under the jurisdiction of the Ministry of Tourism.

The stated objectives for the school are threefold:

- training personnel (higher, middle and lower level) in natural resource conservation as well as organizing short courses and seminars for training or "recyclage" in conservation of natural resources.
- promoting conservation education.
- for the training staff of the school, conducting research on fauna or any other relevant subjects at the demand of government or non-government organizations, including the preparation of management plans for protected areas. Although the school is aimed primarily at students from francophone Africa, french-speaking students from non-francophone countries will also be admitted, as well as non-african students.

At present, the school is training middle-level students with a secondary school background. Students who have a baccalauréat are admitted into the "B" cycle, and students with a BEPC (Brevet d'Etudes de Premier Cycle, or primary school + 4 years of secondary school) are admitted into the "C" cycle. Graduates from the "B" cycle receive a Technicien supérieure diploma, and graduates from the "C" cycle receive a Technicien diploma.

The Ecole de Faune receives funding from a wide variety of sources. Multilateral aid comes from: UNDP, FAO/UNESCO, EEC/European Development Fund in the form of scholarships for students, participation in seminars for teachers, etc.

Bilateral aid comes from: Fonds d'Aide et de Coopération de la République Française (FAC, the French government) for construction, professors and didactic material; Germany from 1969 to 1978 for 6 technical assistants, vehicles and other material, as well as scholarships; Netherlands for 2 professors, vehicles and scholarships; U.K. for camping material; USAID for camping and laboratory equipment, as well as 3 Peace Corps volunteers.

Private donations come from: Rockefeller Brothers Foundation for construction material and scholarships; African Wildlife Foundation for scholarships and educational material; Frankfurt Zoological Society for construction materials; Worldwide Fund for Nature (WWF) for construction material, scholarships and educational material, as well as financing of seminars; Office National de la Chasse and Conseil International de la Chasse (France) for meetings and seminars, field equipment and documents; International Union for the Conservation of Nature for scholarships, seminars and documents.

The Cameroon government subsidizes the school by about 60 million CFA francs per year, and pays the salaries of the national personnel and the lodgings for all personnel. The total annual cost per student, and the price of a scholarship, is about 3.5 million CFA francs, and this includes:

- school fee:.....700,000 CFA
- travel costs:.....dependant on the country of origin
- monthly allowance:.....60-80,000 CFA/month
- equipment allowance:.....70,000 CFA/year
- field trip cost:.....70,000 CFA/year
- medical costs:.....40,000 CFA/year

A large number of countries have been represented at the Ecole de Faune over the years, from western, central and northern Africa, and some from eastern Africa.

Table 12
Number of Countries from Which Pupils Have Attended EFG

Country	Number of Students per Cycle		Total
	B	C	
Benin	14	22	36
Burkina Faso	21	18	39
Burundi	4	--	4
Cameroon	71	55	126
Centrafrique	17	16	33
Congo	13	19	32
Côte d'Ivoire	13	19	32
Gabon	20	6	26
Guinée Bissau	--	3	3
Guinée Conakry	6	--	6
Madagascar	4	6	10
Mali	17	5	22
Mauritania	3	2	5
Morocco	4	--	4
Niger	1	11	12
Nigeria	1	--	1
Rwanda	6	8	14
Sénégal	34	40	74
Tchad	20	12	32
Togo	17	18	35
Tunesie	2	2	4
Zaire	46	23	69
Total (22)	334	285	619

Source Dr. J. Ngog Nje, Ecole de Faune, BP 271, Garoua, Cameroon

In any given year, between 5 and 15 countries are represented, and between 18 and 62 students are enrolled.

Table 13
Regional Representation at EFG

Year	No. Students	No. Countries
70/71	18	5
71/72	22	10
72/73	36	10
73/74	42	13
74/75	39	12
75/76	45	11
76/77	50	13
77/79	54	12
79/81	51	14
81/83	52	13
83/85	50	12
85/87	46	12
87/89	52	12
89/91	62	15
91/93	45	13

Table 14
Students in the 1992/93 Course

Country	Students per Cycle		Total
	"B"	"C"	
1. Togo	1	2	3
2. Cameroun	7	13	20
3. Congo	3	1	4
4. Guinée Conakry	1	0	1
5. Sénégal	3	1	4
6. Rwanda	1	3	4
7. Tchad	1	0	1
8. Gabon	1	0	1
9. Mauritania	1	0	1
10. Madagascar	1	0	1
11. Burkina Faso	1	1	2
12. Mali	1	0	1
13. Zaire	0	2	2
Total	22	23	45

Of the 619 students that have enrolled between 1970 and 1991, 96% have graduated. Students need an average of 60% on their assessment to qualify for the diploma upon graduation.

Educational materials include a library with about 2,000 books and a number of periodicals, although subscriptions have expired for most periodicals. Most textbooks are in English, and some in German. There is also a herbarium in the school, with about 7,000 samples of mostly forested savanna species. There is also a museum with a number of mounted animals, skeletons and skulls. Professors often use slides and overhead projections during their lectures. There is no video machine for the projection of films during classes. There are no textbooks or workbooks available to students taking the courses and they must rely on their notes and the occasional stencilled hand-outs.

The course includes about 3 or 4 field trips per year (1 per trimester). Most field trips are to protected areas in the vicinity of Garoua, and as a consequence fall in the sahel savanna or broad-leaved savanna zones. In recent years, the school has made two field trips to the Dja Reserve in the tropical moist forest of the southern province. Each field trip involves 1 week in the field. The protected areas that have been visited include:

- Waza National Park
- Benoué National Park
- Dja Wildlife Reserve
- Lake Chad (when security permits)
- Bouba Ndjida National Park
- Faro National Park

The subjects covered in the curriculum include :

- Biology and Natural History
- Ornithology and Taxidermy
- Veterinary Techniques
- Animal Ecology
- Botany and Habitat (i.e. interventions, animal-plant interactions, measurement of habitat succession, etc)
- Management techniques (i.e. censusing techniques, age determination, management of partially and totally protected areas, cartography and photography)
- Categories of Protected Areas
- Zoological Gardens
- Civil Engineering and Mechanics
- Firearms
- Economics
- Administration and Law
- Sports/Safety, including Rural Health
- Training course in country of origin (45 field days + essay)

Most courses involve both theoretical material and practical work, although the emphasis is on the former for all courses but Taxidermy, Firearms and Sports/Safety.

Both cycles "B" and "C" include the same courses and have a 2 year duration. The level taught at in cycle "C" is somewhat lower. Both cycles include about 35 hours total per week, and about 1,300 hours per year. Classes of the same cycle do not run concurrently, and every second year a new class of students begins.

In general, the trainers at the Ecole de Faune have a university degree, and must have a minimum of a Baccalauréat. Some of the trainers have a Doctorate. In the past, a large majority of the trainers were not from Cameroun but from a variety of countries, including France, the Netherlands, Germany and Burundi. In October 1992, the school had two French, one Dutch and one Burundais trainer. The Camerounais and Burundais trainers are supported by the Cameroun government.

One of the goals of the Ecole de Faune is to develop a third cycle, or Cycle "A", which would have the level of a university graduate degree. The "A" cycle would recruit students with a university degree in Natural Sciences.

3.4 Discussion

Not unexpectedly, the Ecole pour la Formation de Spécialistes de la Faune is suffering from a variety of problems. Lack of adequate funding, and lack of permanent sources of funding are some of the more obvious problems facing the school. Although the school has received aid from a wide variety of sources in the past, none apart from governmental funding is permanent and continuous support cannot be guaranteed. In addition, the funding by the Cameroun government has decreased and Garoua has had significant budget cuts in the past few years.

A number of other trends have also been identified in the school which pose certain problems. These include the gradual decrease in international attendance, as well as decrease of expatriate teaching staff. From 1973, with 10 teachers, of which 2 were from Cameroun, to 1991/2 with 13 teachers, of which 10 are from Cameroun, the input from abroad has decreased. The number of Camerounian students has also increased, leaving fewer openings available for expatriate students. As a consequence of both of these trends, the school is gradually losing its regional flavour and becoming increasingly national. With the 15 nationalities represented each year, the contingent of Camerounais students should not exceed, in theory, 4 to 5 students. In reality, however, they often amount to about 20 students (1992/93).

The Ecole de Faune is demonstrating a tendency to move from a technical school with an emphasis on field work and practical experience, to a more academic, theoretical school. The proposed "A" cycle, which will be a university level course, will make the school even more academic. One of the reasons the school moves to a more theoretical emphasis is due to the budget cuts and lack of funds. Field work is expensive, and

lectures given in classrooms are relatively much cheaper. There is also a certain status involved, however, in being more academic. The University of Dschang is also starting a new course at the campus at Maroua, with funding from the Dutch government and University of Leiden in the Netherlands. This would be a university level course in Natural Sciences, which could easily fulfill the need for such a higher university level course in Cameroun. The Ecole de Faune at Garoua could, if necessary, provide the possibility for field work and practicals for the course. It would be redundant to have two similar courses given both in Maroua and in Garoua.

The Ecole de Faune does not select its students, it has to accept what it is sent. As a result the levels of the different students are often varied (students are heterogenous, or "hétéroclite") and proportion of them are below the minimum level. Although most of them are very motivated, due to the tremendous opportunity that the EFG often represents for them, some of them tend to be phlegmatic due to the fact that they rarely fail. Many of the students have been selected to attend for reasons other than their obvious suitability as candidates and they are often lacking in motivation. In some countries, attendance to the school guarantees them a job in an air-conditioned office at the capital, rather than a post in the field, and it is this goal which is motivating them. The trainers as well sometimes lack in motivation, and very rarely change and update their course material. To modify the training that the teachers give is very difficult. It is up to each trainer to decide whether their course needs changing, or updating. Some evaluation of the coursework would help and would keep the teachers working to their best capability.

One of the greatest problems in the school is the lack of evaluation and contact with graduates, once they have returned to their own countries. The school is training people for a particular position, or level of expertise, but has no idea whether graduates are eventually placed in positions where this expertise is used, or even useful. Many times it is not. The school is used by the participants as a preparation for a very different position than that for which the school is aiming. Due to the fact that there is no follow-up after graduation, the school is left in the dark as to where graduates are going, what they are doing and whether the skills learned at the school are adequate preparation for their jobs. In Zaire, most protected area wardens, or conservateurs, have been to Garoua. In Congo, most graduates from Garoua are not in the field, but are posted at headquarters. In other words, the school is not always used as the resource that it was intended as. Without such evaluation and follow-up, the school will never be able to up-date its curriculum and method of teaching in order to best prepare its students for the positions they will subsequently occupy. And without evaluation and follow-up, the school will never know how the job of a protected area manager has changed over the years, and how the skills they require have changed.

Although the infrastructure and materials available in the school are in relatively good condition, they could profit from renovation and repair. The library is in urgent need of funds, for the renewal of subscriptions to periodicals, and for the purchase of new texts. Relatively few texts are in French, although all the students are francophone. New books, in French, and new subscriptions would not only help students in their learning and teachers in their teaching, it would motivate and stimulate both groups.

In summary, the Ecole pour la Formation des Spécialistes de la Faune is a resource unparalleled in francophone Africa, and of incalculable value. For many countries it is the only source of protected area management training. As such a resource, it is in a position to influence protected area management throughout an enormous region. Although there are many problems facing the school, and many potential areas of improvement, it must be said that in general, it is doing a very valuable job. It is inevitable that there is room for improvement, but on the whole its work is positive and laudable.

Some of the areas for improvement have been mentioned above. Certain very important subjects are not being covered satisfactorily in the curriculum at present, and efforts must be made to maintain the regional, and even international emphasis of the school, as well as to maintain contact with students after they have graduated, to be able to fit the skills taught with the needs of the jobs that graduates fulfill. Certain curriculum changes have been proposed by the Netherlands government aid to the school, through the University of Leiden. Such curriculum changes should define the goal of the school in terms of the specific position it is aiming to prepare people for, and then define the needs of that position. As the position the school is aiming for is a field-based protected area manager, the school should change its curriculum according to how the position of protected area manager has changed over the past 20 years. Much more emphasis should be given to community conservation and resource conservation, balancing protection and

use of resources. Eco-tourism, a growing industry throughout Africa should be seen as an industry to be managed and controlled effectively by protected area authorities. The highly specialized skills required should be developed at the school. The techniques required in the development of management plans for protected areas, and the development of long- and short-term tactical plans and strategies for protected areas should also be included at the school. And one of the greatest training needs that arose in the present assessment is the need for knowledge skills in policy making, and procedures. These needs are not specific to Cameroun, but are similar throughout Central Africa and even other parts of Africa. The skills required for a protected area manager are not just technical and management skills, they cover a very wide variety of skills and areas of responsibility.

Section 4: Recommendations

Based on discussions with Field Operations Directors and Field Associates, as well as Protected Area Managers, it is obvious that there is much 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, courses given at existing training institutions or courses given at the direction headquarters when field staff come to the capital. The recipients of in-service training programs 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.

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. It should also be repeated as frequently as possible. Training at present is not seen as part of the process of movement throughout a person's career. 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 progress 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 PAM, and people above the position of a PAM, who will need similar skills to the field-based manager, in order to supervise, coordinate and direct protected area managers.

A recent study on forestry education and training in Cameroon (Hardcastle et al, 1992) came to the conclusion that the most effective form of training in the forestry sector in Cameroon would be through in-service training programs. The study recommended an "in-service mobile training unit" based at the National Forestry School of M'Balmayo, but operating as part of the Direction of Forests. In addition, the study also recommended the creation of a professional training officer post in the Direction of Forests in order to help staff career development and to provide an information base as a precursor to effective planning. Discussions with other people living in Cameroon and working with the protected area authorities brought forth similar recommendations (S. Gartlan, pers.comm. and B. Powell, pers.comm.) There is also no in-service training in the Direction of Fauna and Protected Areas. Training outside of pre-recruitment or pre-service training is rare and sporadic. There is no training programme, nor a training officer in the Direction (See Section 2.1.4 on Existing Training Programs).

The World Bank has argued that the new Forestry Law should specify the establishment of a unified forestry service (World Bank Report 7486-CAM, 1989) which brings together the Direction of Forests (Minagri) and the Direction of Fauna and Protected Areas (Mineto). The differences between the two Directions are widening and are an impediment to finding a balance between effective resource protection and resource use. The fragmentation of responsibilities leads to abuse of resources and lack of coordination. If the goal is to enhance coordination and balancing resource use and conservation, the development of skills in both Directions should also be coordinated. Training of staff from both Directions should include similar courses in social skills, as well as planning skills, policy & procedure skills, finance & accounting skills. As the needs of both Directions appear to be very similar, in terms of the form of training most suitable for providing the necessary expertise, it seems that there exists a possibility for coordination and communication through training. Development of in-service, repeated training courses and planning career paths through a training officer post in each Direction are similar needs to both departments. Specific skills can be taught separately for specific functions. Many of the skills needed, however, would be suitable for both Directions.

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 (Hardcastle, et.al.,1992)

The training needs identified by the 1992 ODA study (Hardcastle, et.al.,1992) for the forestry sector included the development of:

1. Sociological skills, such as rapid rural appraisal, participatory management systems, understanding rural social structures and identification of usage of forest resources,
2. Managerial skills
3. Silvicultural skills

The present study recognizes the need in both the forestry and wildlife sectors, as both are included in protected areas in Cameroon, for sociological skills. This came out, in the knowledge skills gap analysis as some of the main divisions of the job in which the greatest training needs occur (Resource Conservation, Community Conservation and Interventions). Planning and Policies & Procedures come out as requiring training more urgently, however, than Management. Silvicultural skills are undoubtedly technical skills required in the forestry sector, which were not assessed specifically in this study. The ODA 1992 study came out with major recommendations which are broadly very similar to the recommendations made by the present study. These include the development of short, in-service courses in Communication, Extension, Social Analysis and Participatory Planning, as well as Rapid Rural Appraisal. The establishment of a mobile short-course training unit would be able to provide much of the training. In addition, institutional support for the development of Community/Non-Governmental Organizations would be recommended (Hardcastle, et.al,1992). One of the crucial first steps would be the training of trainers, in the two Directions, in order to provide the capacity to carry out in-service training. Expertise could come from any number of training institutions in Cameroon, or from technical assistance abroad. A training programme would need to be developed within the Direction in order to plan and give direction to training for people's careers. This would demand the creation of a training officer post.

For a more detailed description of the In-service training unit (ISTU) as described for the Forestry Department, including terms of reference, readers are asked to refer to the ODA 1992 report on Forestry Education and Training in Cameroon, by Hardcastle, Leefe, Norton and Vernon.

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Bibliography

- Biswas, K. Environment and Sustainable Development for Cameroon: Environmental Research, UNDP Draft Report, Oct. 1992
- Cameroon Agricultural Sector Report, Vol. 1: Main Report, Nov. 1989, Document of the World Bank, Report No. 7486-CAM, Occidental and Central Africa Department
- Centre d'Etude de l'Environnement et du Développement au Cameroun (CEDC), Project proposal and document for support to CEDC, Leiden/Maroua, Sept. 1991
- Cleaver, K., Munasinghe, M., Dyson, M., Egli, N., Peuker, A., Wencélius, F., 1992. Conservation of West and Central African Rainforests, World Bank Environment Paper Number 1, World Bank/IUCN, Washington D.C.
- Decoux, J.P., Fotso, R.C., Njoya, I.S., 1991, Pour la Sauvegarde des Oiseaux Forestiers du Cameroun, Laboratoire de Zoologie, Université de Yaoundé, CIAG, Yaoundé
- Ehlhardt, A.J., 1991, Report: Cooperation Possibilities between the "Praktijkschool Arnhem" and the "Ecole de Faune", Arnhem
- Environment and Sustainable Development for Cameroon: Analyses of Critical Natural Resources and Environmental Issues in Terms of Economic Development, Chapter III, Biodiversity and Wildlife, UNDP Draft Report, October 1992
- Gartlan, 1992. Comparison of existing forestry law and draft legislation, Memo.
- GEF Cameroun, Aide Mémoire, Feb. 1992, Projets "Protection Ecologique" et "Forêts", CAMEROUN, Mission de Préparation/Pré-évaluation
- Hardcastle, P.D., Leefe, J.D., Norton, A.P., Vernon, P.E., 1992, Forestry Education and Training in Cameroon, Overseas Development Administration, London.
- Harthoorn, J., Texte pour l'Ecole de Faune à Garoua, Centrum voor Milieukunde, Leiden Univ. (also on the two-week course on wetland ecology at EFG, especially for Cycle B)
- IUCN, 1992, Protected Areas of the World: A review of national systems. volume 3: Afrotropical. IUCN, Gland, Switzerland and Cambridge, U.K.
- Programme d'Enseignement du Cycle "B" et "C" de Formation des Techniciens de l'Ecole pour la Formation de Spécialistes de la Faune de Garoua, Sept. 1989
- Rapport de Tournée, Parc National de Waza, Ecole pour la Formation de Spécialistes de la Faune de Garoua, Service des Etudes et des Stages, Dec. 1991
- Seme, Prosper M., 1993, Conservation du Capital Faune au Cameroun, Draft Report, Service des Aires Protégées, Direction de la Faune et des Aires Protégées, Cameroun.
- Wetlands Seminar, "Seminaire International sur les Zones Humides de l'Afrique de l'Ouest", Nov. 2-14, 1987, WWF.
(coordinated by Ton van der Zon. Originally intended to be a course offered at the EFG, but turned into a two week seminar attended by, amongst others, students of EFG. Will be repeated)
- Wit, P., 1991, Formation des Cadres de l'Afrique Francophone en Conservation de la Nature, Rapport de Mission, Arnhem.

Annexures

Annexe 1. Questionnaire and Methodology

Annexe 2. Background Information Sheets

Annexe 3
Data Sheets, 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
---	---	---

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	<input checked="" type="radio"/> Y <input type="radio"/> N	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4
--	--	---

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

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

ATTITUDES (columns 15-17)

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

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

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

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



**Biodiversity
Support
Program**

Main Divisions of the Job	1. Accountability and Responsibilities	KNOWLEDGE	
		2. Technical (Wildlife/Tourism)	
A Ensure availability of a competent and well-motivated staff	<ul style="list-style-type: none"> Maximizing potential of allocated staff Responsible for identifying training needs Responsible for recommendations and application of disciplinary measures 		
B Ensure appropriate infrastructure within budget	<ul style="list-style-type: none"> Responsible and accountable for maintenance, repair, rehabilitation and construction Recommending additional facilities 	Working knowledge of infrastructure, construction, sitings, materials etc. <input type="checkbox"/> <input type="checkbox"/>	1
C Ensure financial and accounting integrity of the protected area	<ul style="list-style-type: none"> Accountable and responsible for all revenue generated and disbursement (received from headquarters and receipts) Responsible for accurate accounting 		
D Ensure development and achievement of tactical plans and budgets and contribute to protected area strategic planning	<ul style="list-style-type: none"> Accountable for development of annual plan and budget of protected area Responsible for working within the agreed plan and budget Identify strategic options in the protected area and contribute to strategic planning 		
E Ensure that all activities within the protected area comply with laws and regulations	<ul style="list-style-type: none"> Accountable for enforcement of law and regulation and ensuring safe practices throughout the protected area 	In-depth knowledge of safe practices with respect to wildlife <input type="checkbox"/> <input type="checkbox"/> In-depth knowledge of techniques of anti-poaching <input type="checkbox"/> <input type="checkbox"/>	2 3
F Ensure optimum levels of visitor satisfaction	<ul style="list-style-type: none"> Responsible for ensuring that the highest levels of visitors' services and practices under his/her jurisdiction are maintained 	In-depth knowledge of visitors' expectations <input type="checkbox"/> <input type="checkbox"/> In-depth knowledge of protected area infrastructure techniques, site design and analysis <input type="checkbox"/> <input type="checkbox"/> In-depth knowledge of interaction between tourist and local areas <input type="checkbox"/> <input type="checkbox"/>	4 5 6
G Ensure agreed intervention (eg. early burning, problem animal control) programmes are completed to budget and timetables	<ul style="list-style-type: none"> Responsible for design, implementation, and evaluation of intervention programmes to meet conservation objectives in the protected area 	In-depth knowledge of intervention needs, techniques and implications <input type="checkbox"/> <input type="checkbox"/>	7
H Ensure harmonious relationships with neighbouring communities	<ul style="list-style-type: none"> Responsible and accountable for design and implementation of a programme to achieve harmonious relations Responsible for instilling acceptance by staff of the role of local communities in protected area management 	Working knowledge of extension methodology <input type="checkbox"/> <input type="checkbox"/> Some knowledge of cultural and historical context for the location of protected area <input type="checkbox"/> <input type="checkbox"/>	8 9
I Be aware of research activities and progress against plan	<ul style="list-style-type: none"> Responsible and accountable for ensuring that research programme is implemented according to the protected area conservation objectives and timetables 	Working knowledge of research methodologies <input type="checkbox"/> <input type="checkbox"/> Working knowledge of the role of research in meeting conservation objectives <input type="checkbox"/> <input type="checkbox"/>	10 11
J Represent the protected area and its interests in public meetings	<ul style="list-style-type: none"> Accountable for ensuring that the protected area is represented in every possible area Responsible for ensuring that the information available about the protected area is up to date 	Up-to-date working knowledge of all activities within the protected area <input type="checkbox"/> <input type="checkbox"/> In-depth knowledge of the context of the protected area in the regional/national/global arena <input type="checkbox"/> <input type="checkbox"/>	12 13
K Ensure an appropriate balance between resource conservation and use in the protected area	<ul style="list-style-type: none"> Responsible and accountable for design and implementation of resource management / protection strategies to meet protected area conservation objectives Responsible and accountable for the preparation, approval, and implementation of a resource conservation management plan for the protected area 	In-depth knowledge of types, locations, trends and requirements of important natural and cultural resources in the protected area <input type="checkbox"/> <input type="checkbox"/> In-depth knowledge of types, locations, trends and requirements of threatened and endemic fauna and flora and the key species of the ecosystem <input type="checkbox"/> <input type="checkbox"/> Working knowledge of environmental impact analysis techniques <input type="checkbox"/> <input type="checkbox"/> Working knowledge of surveys and monitoring techniques (field data collection/analysis) <input type="checkbox"/> <input type="checkbox"/>	14 15 16 17
L Training received			

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 principles of stock control and procurement 21 <input type="checkbox"/> <input type="checkbox"/> Working knowledge of how to apply preventative maintenance <input type="checkbox"/> <input type="checkbox"/> 22	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 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 accounting policy and procedures 51 <input type="checkbox"/> <input type="checkbox"/>	
	Working knowledge of planning, budgeting and control 31 <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"/>	
	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 policies and procedures 53 <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 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 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 intervention 55 <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 <input type="checkbox"/> <input type="checkbox"/> 45	In-depth knowledge of policies and procedures related to community conservation <input type="checkbox"/> <input type="checkbox"/> 56	Working knowledge of record keeping for financial disbursements to local communities <input type="checkbox"/> <input type="checkbox"/> In depth knowledge of records of resource use or resources shared -- both financial and in-kind distributions <input type="checkbox"/> <input type="checkbox"/> 61 62
	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"/>	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"/>
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"/>	In-depth knowledge of the public relations policies, procedures and practices 58 <input type="checkbox"/> <input type="checkbox"/>	
	Working knowledge of resource conservation management planning techniques and methodologies <input type="checkbox"/> <input type="checkbox"/> In-depth knowledge of how to develop and implement protected area management objectives <input type="checkbox"/> <input type="checkbox"/> In-depth knowledge of how to develop and maintain a protected area management zoning system <input type="checkbox"/> <input type="checkbox"/> 37 38 39			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"> Maximizing potential of allocated staff Responsible for identifying training needs Responsible for recommendations and application of disciplinary measures 	Recognising staff potential advancement Y N <input type="checkbox"/> ↓ 1	Determining causes of poor performance and behaviour Y N <input type="checkbox"/> ↓ 13
B. Ensure availability of appropriate infrastructure (within budget)	<ul style="list-style-type: none"> Responsible and accountable for maintenance, repair and rehabilitation and construction Recommending additional facilities 	Spotting malpractices and potential hazards Y N <input type="checkbox"/> 2	Determining causes of specific and trends on equipment and infrastructure failures Y N <input type="checkbox"/> 14
C. Ensure financial and accounting integrity of the protected area	<ul style="list-style-type: none"> Accountable and responsible for all revenue generated and disbursement (received from headquarters and receipts) Responsible for accurate accounting 	Understanding financial implications of information Y N <input type="checkbox"/> 3	Determining causes of figures not reflecting the true situation Y N <input type="checkbox"/> 15
D. Ensure development and achievement of tactical plans and budgets and contribute to protected area strategic planning	<ul style="list-style-type: none"> Accountable for development of annual plan and budget of protected area Responsible for working within the agreed plan and budget Identify strategic options in the protected area and contribute to strategic planning 	Understanding implications of set objectives including their feasibility Y N <input type="checkbox"/> 4	Determining true causes of failure to achieve plan and budget Y N <input type="checkbox"/> 16
E. Ensure that all activities within the protected area comply with laws and regulations	<ul style="list-style-type: none"> Accountable for enforcement of law and regulation and ensuring safe practices throughout the protected area 	Understanding applicability of laws and regulations in protected areas Y N <input type="checkbox"/> 5	Determining true causes of incidences and trends in incidences Y N <input type="checkbox"/> 17
F. Ensure optimum levels of visitor satisfaction	<ul style="list-style-type: none"> Responsible for ensuring that the highest levels of visitors services and practices under his/her jurisdiction are maintained 	Recognising the significance of physical and statistical information regarding visitor impact Y N <input type="checkbox"/> 6	Determining true causes of visitor dissatisfaction and behaviour Y N <input type="checkbox"/> 18
G. Ensure agreed intervention programmes are completed to budget and timetables	<ul style="list-style-type: none"> Responsible for design, implementation, and evaluation of intervention programmes to meet conservation objectives in the protected area 	Understanding information that may lead to interventions Y N <input type="checkbox"/> 7	Determining causes of deviation from intended results of interventions Y N <input type="checkbox"/> 19
H. Ensure harmonious relationships with neighbouring communities	<ul style="list-style-type: none"> Responsible and accountable for design and implementation of a programme to achieve harmonious relations Responsible for instilling acceptance by staff of the role of local communities in protected area management 	Understanding the significance of statistical, physical, written and oral information relating to community-protected area links Y N <input type="checkbox"/> 8	Understanding underlying causes of conflict both in the long and short term Y N <input type="checkbox"/> 20
I. Be aware of research activities and progress against plan	<ul style="list-style-type: none"> Responsible and accountable for ensuring that research programme is implemented according to the protected area conservation objectives and timetables 	Understanding the significance of research findings and the function of research Y N <input type="checkbox"/> 9	Determining causes of why research programme is not to timetable Y N <input type="checkbox"/> 21
J. Represent the protected area and its interests in public meetings	<ul style="list-style-type: none"> Accountable for ensuring that the protected area is represented in every possible area Responsible for ensuring that the information available about the protected area is up to date 	Understanding the significance of points raised during press and other meetings Y N <input type="checkbox"/> 10	Determining the causes of adverse comments in press Y N <input type="checkbox"/> 22
K. Ensure an appropriate balance between resource conservation and use in the protected area	<ul style="list-style-type: none"> Responsible and accountable for design and implementation of resource management/protection strategies to meet protected area conservation objectives Responsible and accountable for the preparation, approval, and implementation of a resource conservation management plan for the protected area 	Understanding of day-to-day and long term implications of the protected area's management objectives Y N <input type="checkbox"/> 11 Recognising and understanding the implications of potential environmental impacts of different activities Y N <input type="checkbox"/> 12	Identifying and determining the causes of conflicts between protected area resource conservation and use Y N <input type="checkbox"/> 23
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
A. Ensure availability of a competent and well motivated staff	<ul style="list-style-type: none"> Monitoring personnel allocated staff Responsible for identifying training needs Responsible for recommendations and application of disciplinary measures 	Needs objectivity in appraisal and general staff dealings	Needs to demonstrate commitment and instil commitment in others	Needs to demonstrate and instil understanding of need for harmonious relationship
B. Ensure availability of appropriate infrastructure (within budget)	<ul style="list-style-type: none"> Responsible and accountable for maintenance, repair and rehabilitation and construction Recommending additional facilities 	Honours contractual agreements in spirit and letter		
C. Ensure financial and accounting integrity of the protected area	<ul style="list-style-type: none"> Accountable and responsible for all revenue generated and disbursement (received from headquarters and receipts) Responsible for accurate accounting 	Instils honesty		
D. Ensure development and achievement of factual plans and budgets and contribute to protected area strategic planning	<ul style="list-style-type: none"> Accountable for development of annual plan and budget of protected area Responsible for working within the agreed plan and budget Identify strategic options in the protected area and contribute to strategic planning 			
E. Ensure that all activities within the protected area comply with laws and regulations	<ul style="list-style-type: none"> Accountable for enforcement of law and regulation and ensuring safe practices throughout the protected area 	Honesty, tolerant to others' points of view	Finding balance and understanding the needs of both conservation and the involved parties	Tolerance to others' points of view to minimize conflict between protected area and others
F. Ensure optimum levels of visitor satisfaction	<ul style="list-style-type: none"> Responsible for ensuring that the highest levels of visitors services and practices under his/her jurisdiction, are maintained 		Needs to demonstrate commitment to conservation	Needs to demonstrate belief in validity of including local communities in protected area management and enterprises linked to tourism
G. Ensure agreed intervention programmes are completed to budget and timetables	<ul style="list-style-type: none"> Responsible for design, implementation, and evaluation of intervention programmes to meet conservation objectives in the protected area 			
H. Ensure harmonious relationships with neighbouring communities	<ul style="list-style-type: none"> Responsible and accountable for design and implementation of a programme to achieve harmonious relations Responsible for instilling acceptance by staff of the role of local communities in protected area management 			
I. Be aware of research activities and progress against plan	<ul style="list-style-type: none"> Responsible and accountable for ensuring that research programme is implemented according to the protected area conservation objectives and timetables 	<p>Must have an open mind to research findings</p> <p>Must support role of research as a component of protected area management</p>		
J. Represent the protected area and its interests in public meetings	<ul style="list-style-type: none"> Accountable for ensuring that the protected area is represented in every possible area Responsible for ensuring that the information available about the protected area is up to date 	<p>Honesty, Integrity</p> <p>Must make clear when representing the protected area or a personal view</p> <p>Must never criticize the organisation openly</p>	Demonstrated as absolute	Demonstrated as absolute
K. Ensure an appropriate balance between resource conservation and use in the protected area	<ul style="list-style-type: none"> Responsible and accountable for design and implementation of resource management/protection strategies to meet protected area conservation objectives Responsible and accountable for the preparation, approval, and implementation of a resource conservation management plan for the protected area 	Honours conservation objectives of resource management plan		
L. Training received				

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

As a manager how do you instill:

a. work ethics?

b. commitment to conservation?

c. healthy attitudes to adjacent communities?

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

LANGUAGES

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

COMPUTERS

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

TRAINING PRIORITIES

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

1.

2.

3.

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

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

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

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

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

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

PARCS REF NO:

Date received:

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UNREPRODUCIBLE DOCUMENT

65

Annexe 2

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.

Annexe 3:

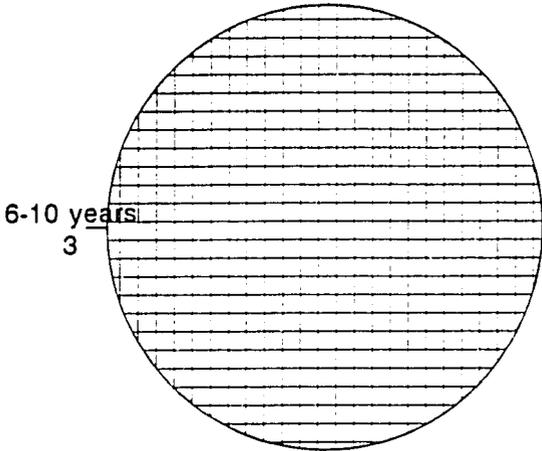
2.3.1 Data Collection Table: Questionnaires
Cameroun

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

- 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

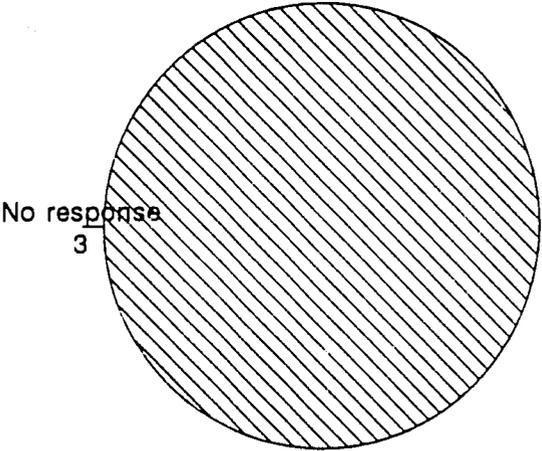
Cameroun



Total Sample n = 7 (PAMS & Ass. PAMS combined: n=3)

2.3.3b Respondents years as a PAM

Cameroun



Total Sample n = 7 (PAMS & Ass PAMS combined: n=3)

**2.3.4a Comments added under "Accountability & Responsibilities"
For Cameroun:**

A1-K1	PARCS Ref.No:	Comment added	No added
A1	A07452FFCMB0028S-0	Ensure the protection, promotion of personnel (administrative, social, judicial)	1
B1	A07452FFCMB002BS-0	Recommend punishment in the case of irresponsibility.	1
C1	A07452FFCMB0028S-0	Organize the registration(administration)of all fees and receipts.	1
D1	None	None	0
E1	A07452FFCMB0028S-0	Responsible for the creation of 'controls' within the p.a (positions of responsibility with a controlling function).	1
F1	A074522FFCMB0028S0	Training of guides	1
G1	A07452FFCMB0028S-0	Responsible for developing policies & intervention programmes.	2
G1	A07652FFCMB-...R-0	Ensure that all elephants are accounted for.	
H1	A074522FFCMB028S-0	Responsible for the integration of neighbouring communities in the management of the p.a	1
I1	A07452FFCMB0028S-0	Responsible for planning research programmes.	1
J1	None	None	0
K1	None	None	0

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

A1-K1	PARCS Ref.No:	Deletion	No added
		There were no deletions.	0

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

COMPETENCY	Question No	Total % of combined scores of -1,0,1	
		Question	Competency average
Technical	1	100	94.1
	2	100	
	3	100	
	4	100	
	5	100	
	6	100	
	7	100	
	8	100	
	9	0	
	10	100	
	11	100	
	12	100	
	13	100	
	14	100	
	15	100	
	16	100	
	17	100	
Management	18	100	83.3
	19	0	
	20	100	
	21	100	
	22	100	
	23	100	
	24	100	
	25	100	
	26	100	
	27	33.3	
Planning	28	100	94.4
	29	100	
	30	100	
	31	100	
	32	100	
	33	100	
	34	100	
	35	100	
	36	33.3	
	37	100	
	38	100	
	39	100	
Legal	40	0	55.6
	41	0	
	42	100	
	43	100	
	44	100	
	45	0	
	46	100	
	47	100	
48	0		
Policy and Procedures	49	100	100
	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

87.9

Total sample: n = 7

Asst PAMs & PAMs combined: n = 3

2.3.4d Own score validation analysis: Knowledge average scores
Cameroun

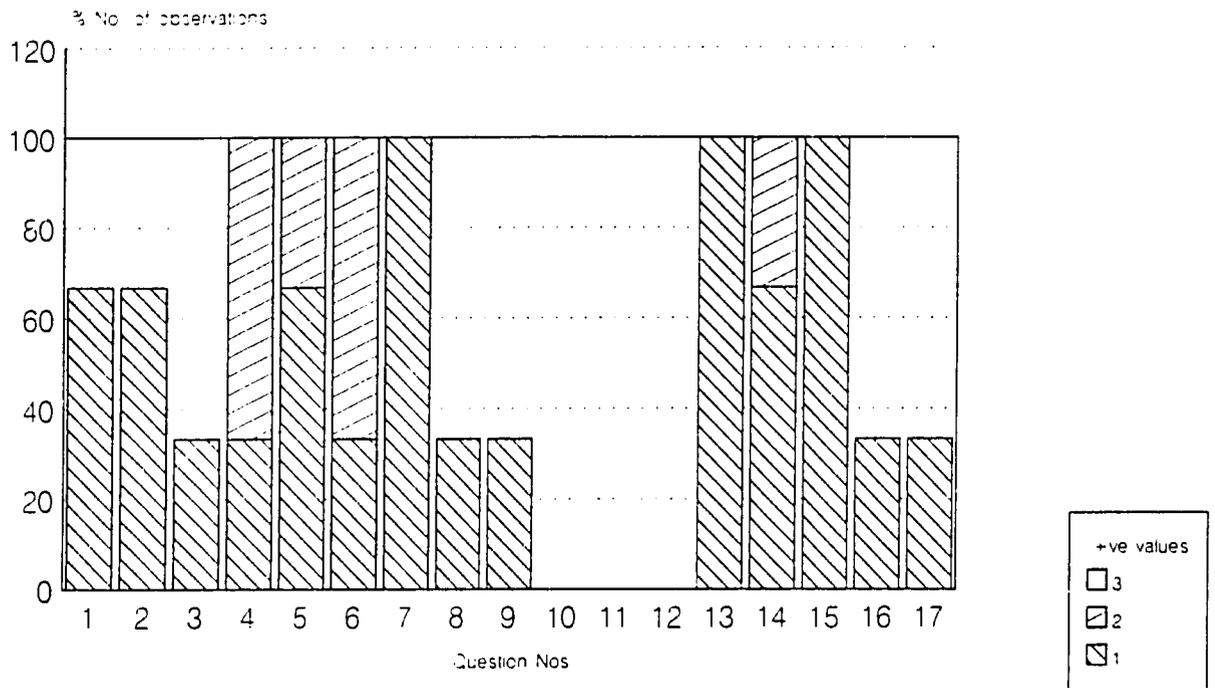
COMPETENCY	Qs No.	Box No.	PARCS Score	Average Country / Org. Score	POSITION								
					1 n=	2 n=3	3 n=1	4 n=1	5 n=	6 n=2	7 n=	8 n=	9 n=
Technical	1	B	3	3.7		3.7	4	4		3.5			
	2	E	4	4		4	4	4		3.5			
	3	E	4	4		4	3	4		3.5			
	4	F	4	4		4	4	4		3.5			
	5	F	4	3.7		3.7	3	4		4			
	6	F	4	4		4	4	4		4			
	7	F	4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

Total Sample n=7

Ass PAMs & PAMs combined: n= 3

2.3.5.a₁ PAMs gap analysis relative to PARCS

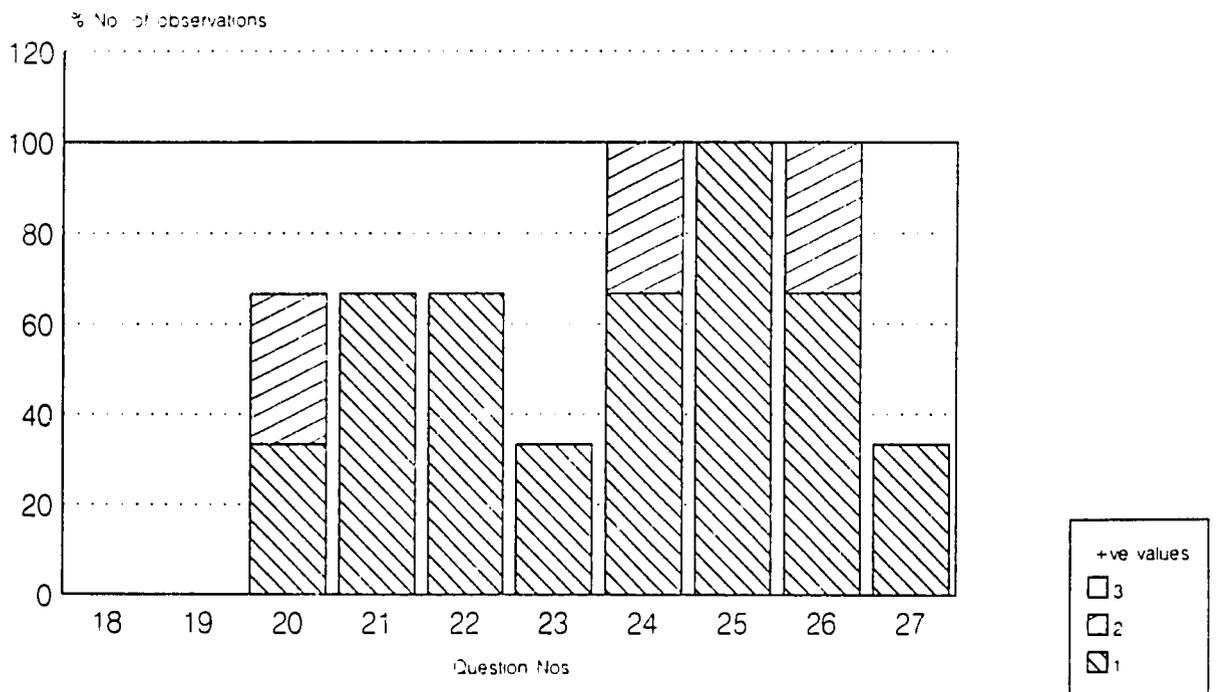
Technical Knowledge: Cameroun



Sample n=7

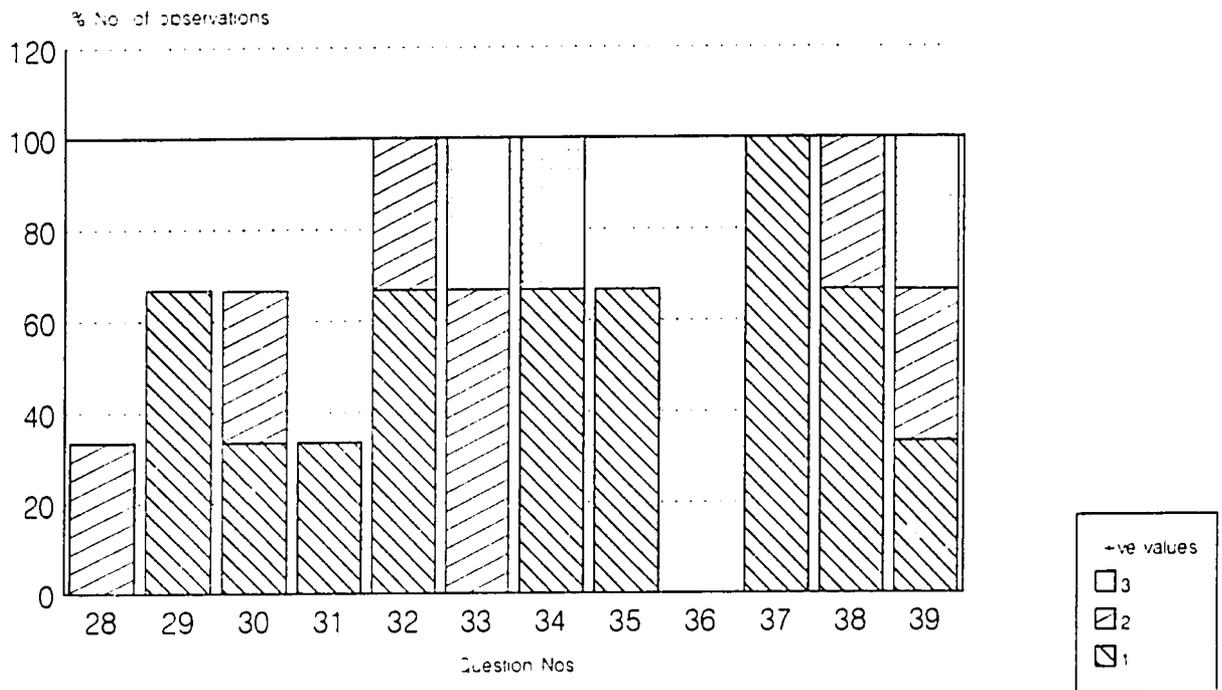
2.3.5.a₂ PAMs gap analysis relative to PARCS.

Management Knowledge: Cameroun



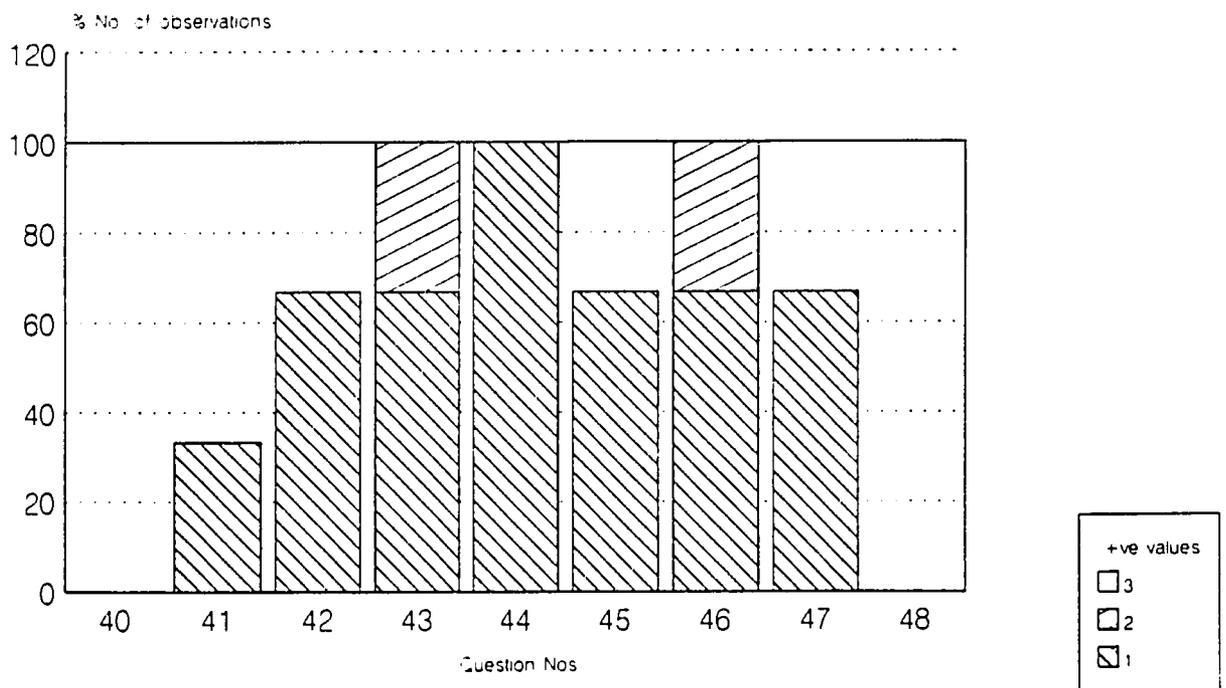
Sample n=7

2.3.5.a₃ PAMs gap analysis relative to PARCS. Planning Knowledge: Cameroun



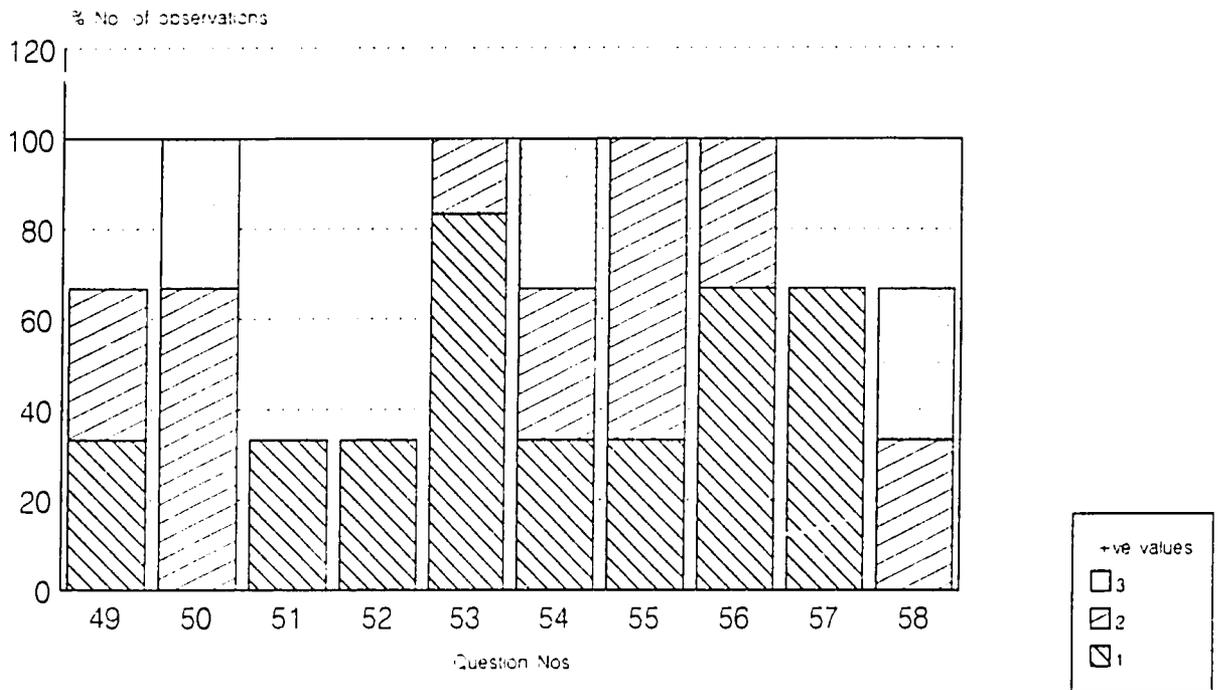
Sample n=7

2.3.5.a₄ PAMs gap analysis relative to PARCS Legal Knowledge: Cameroun



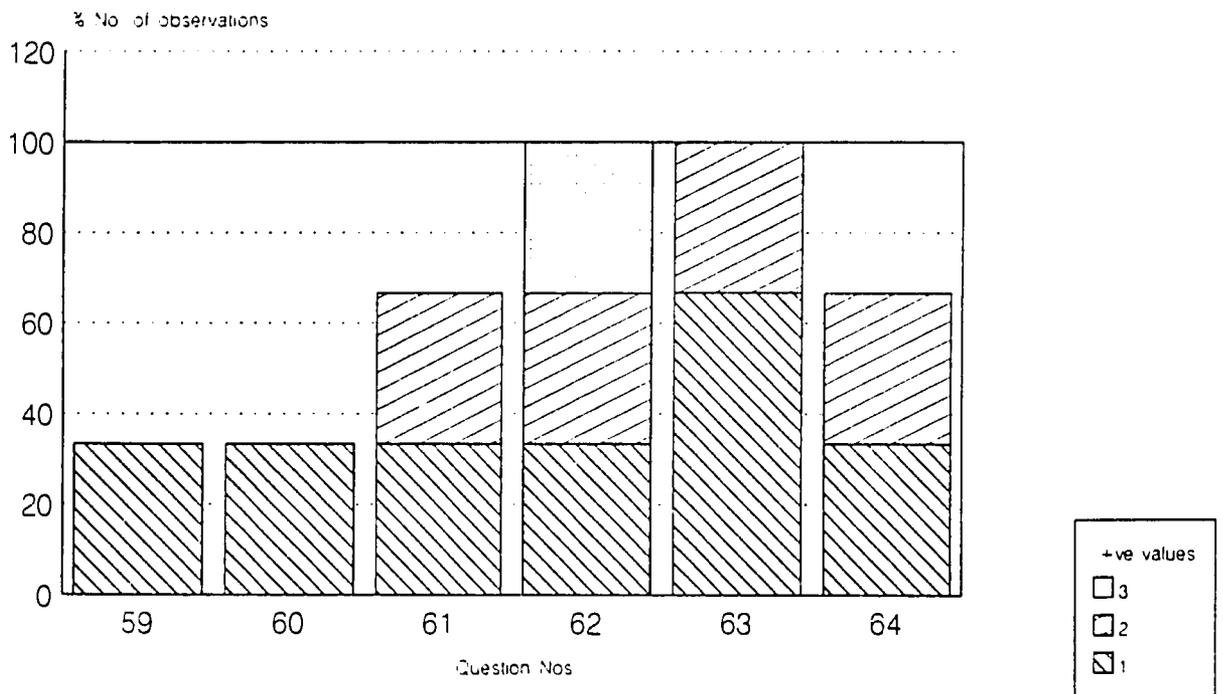
Sample n=7

2.3.5.a₅ PAMs gap analysis relative to PARCS Policies & Procedures Knowledge: Cameroun



Sample n=7

2.3.5.a₆ PAMs gap analysis relative to PARCS. Financial Knowledge: Cameroun



Sample n=7

2.3.5d Parcs score gap analysis: Knowledge average scores
Cameroon

COMPETENCY	Qs No.	Box No.	PARCS Score	Average Country / Org. Score	POSITION									
					1 n=	2 n=3	3 n=1	4 n=1	5 n=	6 n=2	7 n=	8 n=	9 n=	
Technical	1	B	3	0.67		0.7	1	1		0				
	2	E	4	0.67		0.7	2	1		0				
	3	E	4	0.33		0.3	2	1		0				
	4	F	4	1.67		1.7	2	2		0				
	5	F	4	1.33		1.3	1	1		0				
	6	F	4	1.67		1.7	1	2		0.5				
	7	C	4	1		1	0	2		0				
	8	H	3	0.33		0.3	0	2		0				
	9	H	2	0.33		0.3	0	1		0				
	10	I	3	0		0	2	2		0				
	11	I	3	0		0	0	1		0				
	12	J	3	0		0	1	1		0				
	13	J	4	1		1	1	2		0				
	14	K	4	1.33		1.3	2	2		0				
	15	K	4	1		1	3	2		0				
	16	K	3	0.33		0.3	2	2		0				
	17	K	3	0.33		0.3	1	2		0				
Management	18	A	3	0		0	2	1		0				
	19	A	2	0		0	1	1		0				
	20	A	3	1		1	2	1		0				
	21	B	3	0.67		0.7	2	2		0.5				
	22	B	3	0.67		0.7	2	1		0.5				
	23	F	3	0.33		0.3	2	2		0				
	24	F	3	1.33		1.3	2	2		0				
	25	C	4	1		1	1	3		0.5				
	26	H	3	1.33		1.3	2	2		0				
	27	J	2	0.33		0.3	0	0		0				
Planning	28	A	3	0.67		0.7	0	1		0				
	29	B	3	0.67		0.7	1	2		0				
	30	C	3	1		1	1	2		0				
	31	D	3	0.33		0.3	1	1		0				
	32	E	4	1.33		1.3	2	1		0.5				
	33	F	4	2.33		2.3	2	2		0.5				
	34	F	4	1.67		1.7	2	3		0.5				
	35	C	3	0.67		0.7	1	2		0				
	36	H	2	0		0	1	0		0				
	37	K	3	1		1	1	2		0				
	38	K	4	1.33		1.3	2	2		0.5				
	39	K	4	2		2	3	2		0				
Legal	40	A	2	0		0	1	0		0				
	41	B	1	0.33		0.3	1	1		0				
	42	E	4	0.67		0.7	0	1		0				
	43	F	3	1.33		1.3	1	1		0				
	44	F	4	1		1	2	1		0.5				
	45	C	2	0.67		0.7	0	1		0				
	46	H	4	1.33		1.3	3	2		0				
	47	I	4	0.67		0.7	0	1		0				
48	I	2	0		0	0	1		0					
Policy and Procedures	49	A	4	1		1	2	2		0.5				
	50	B	4	2.33		2.3	2	3		0.5				
	51	C	3	0.33		0.3	2	1		0				
	52	D	3	0.33		0.3	1	2		0				
	53	E	4	1.67		1.7	2	2		0.5				
	54	F	4	2		2	3	1		0				
	55	F	4	1.67		1.7	2	1		0.5				
	56	C	4	1.33		1.3	2	2		1				
	57	H	3	0.67		0.7	2	2		0				
	58	I	4	1.67		1.7	1	3		0.5				
Financial and Accounting	59	C	3	0.33		0.3	1	1		0				
	60	C	3	0.33		0.3	0	1		0				
	61	H	3	1		1	2	2		0				
	62	H	4	2		2	1	3		0.5				
	63	I	3	1.33		1.3	2	2		0.5				
64	K	3	1		1	1	2		0					

Total sample: n=7

Asst PAMs & PAMs combined: n=3

2.3.5.f Frequency of which a Gap of 1,2 or 3 for Technical Knowledge was Identified with respect to Biome

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

Total sample: n=7

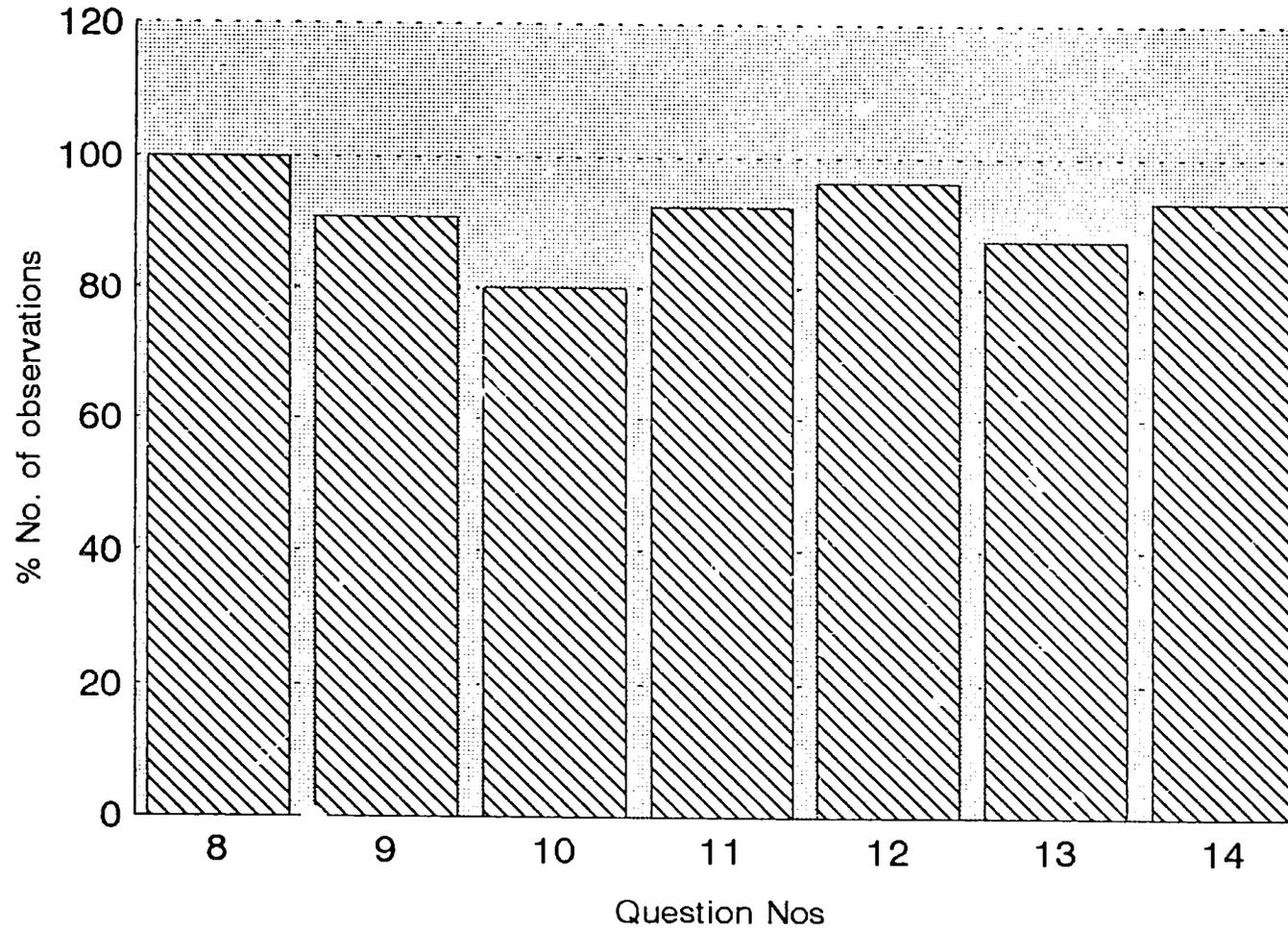
Asst PAMs & PAMs combined: n=3

A=Aquatic F=Dry Forest M=Montane O=Marine R=Regional/National D=Desert
 S=Savanna W=Moist Forest X=Trainer

1.6

2.3.6a Validation analysis of Mental and Social Skills

PAMs Yes responses: Cameroun



Overall %
accuracy score

91.53

 % Score

Total Sample n=7 (Ass PAMs & PAMs combined: n=3)

AC

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

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

Total sample: n=7

Asst PAMs & PAMs combined: n=3

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

MAIN DIVISIONS	COMPETENCY (cumulative score of all 1&2 responses)							Total
	8	9	10	11	12	13	14	
A		1	1	1		1		4
B		1	1	1		1	1	5
C	2	1						3
D	1			1	2	2	2	8
E		1		1		1	1	4
F		1	1	2		1	1	6
G			2	2	1			5
H	1	1	1	1	1		1	6
I	1	1	1	2				5
J		1	2	1	1	1	1	7
K	1	1	2				2	6
Total	6	9	11	12	5	7	9	59

Total sample: n=7

Asst PAMs & PAMs combined: n=3

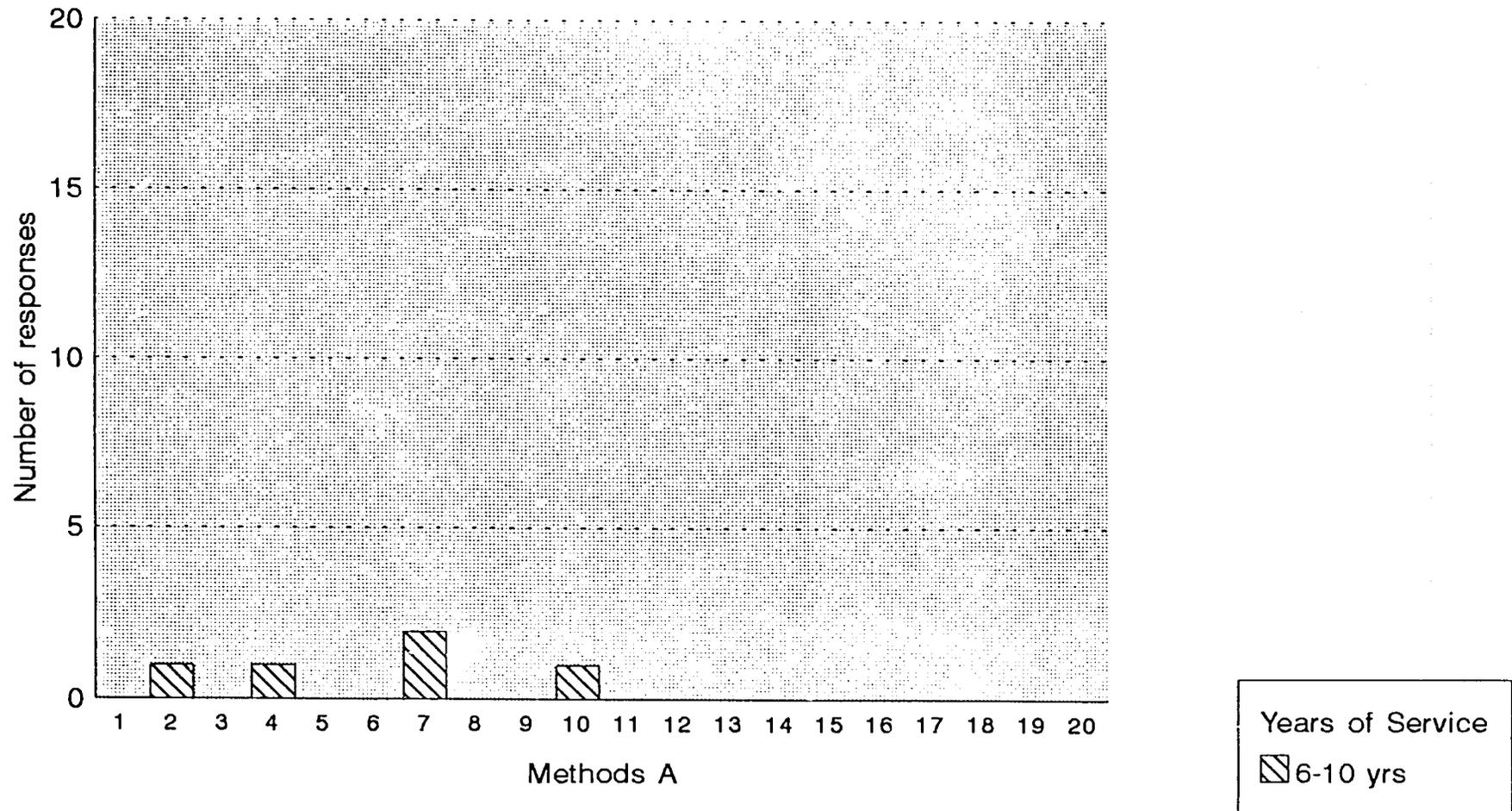
2.3.7b PAMs vs Validators Mental and Social Skills :Average scores
Cameroon

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

Total sample: n=7

Asst PAMs & PAMs combined: n=3

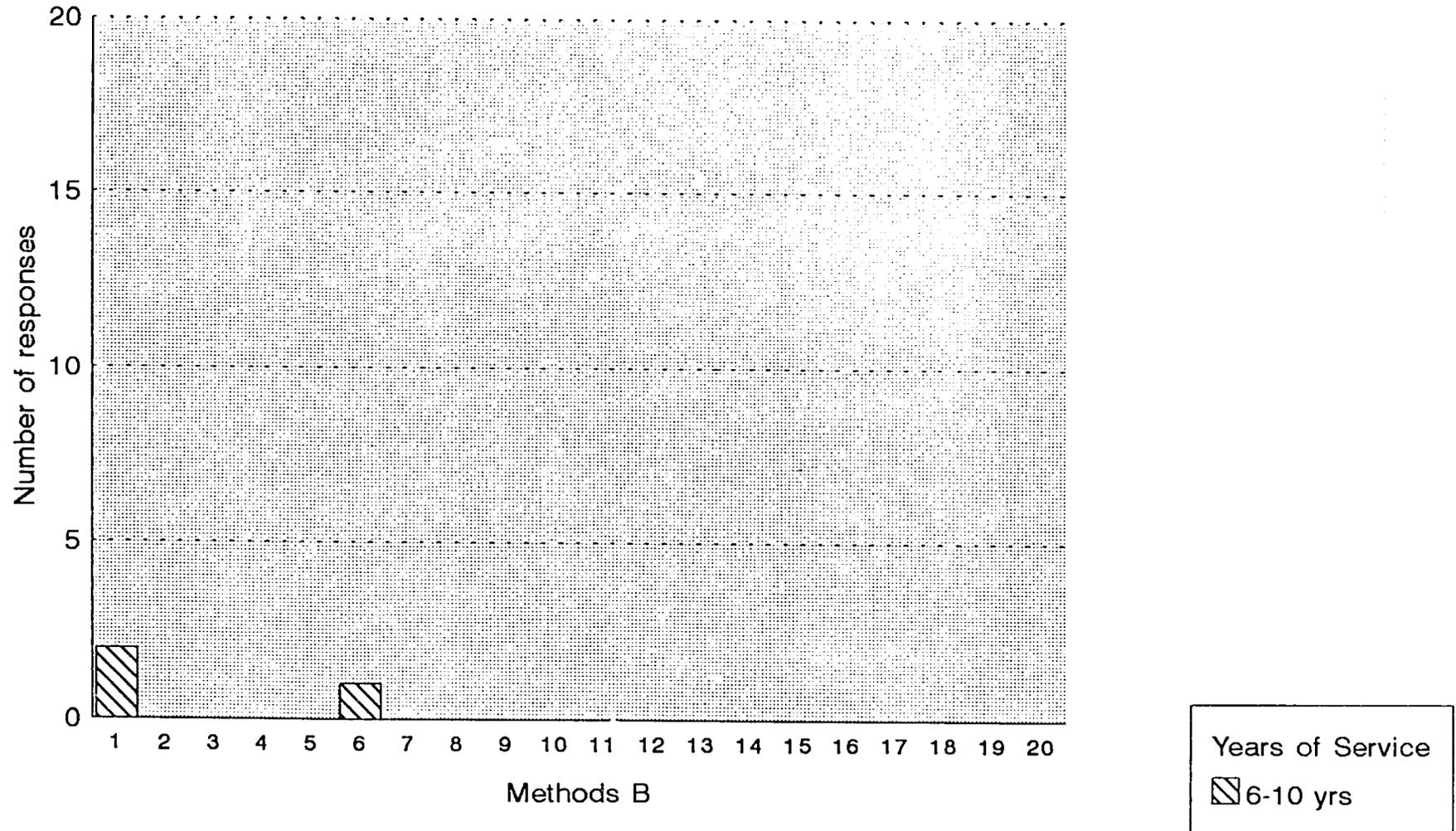
2.3.8a PAMs Methods To Instill Work Ethics Cameroun



Total Sample: n = 7 (Ass PAMs & PAMs: n = 3)

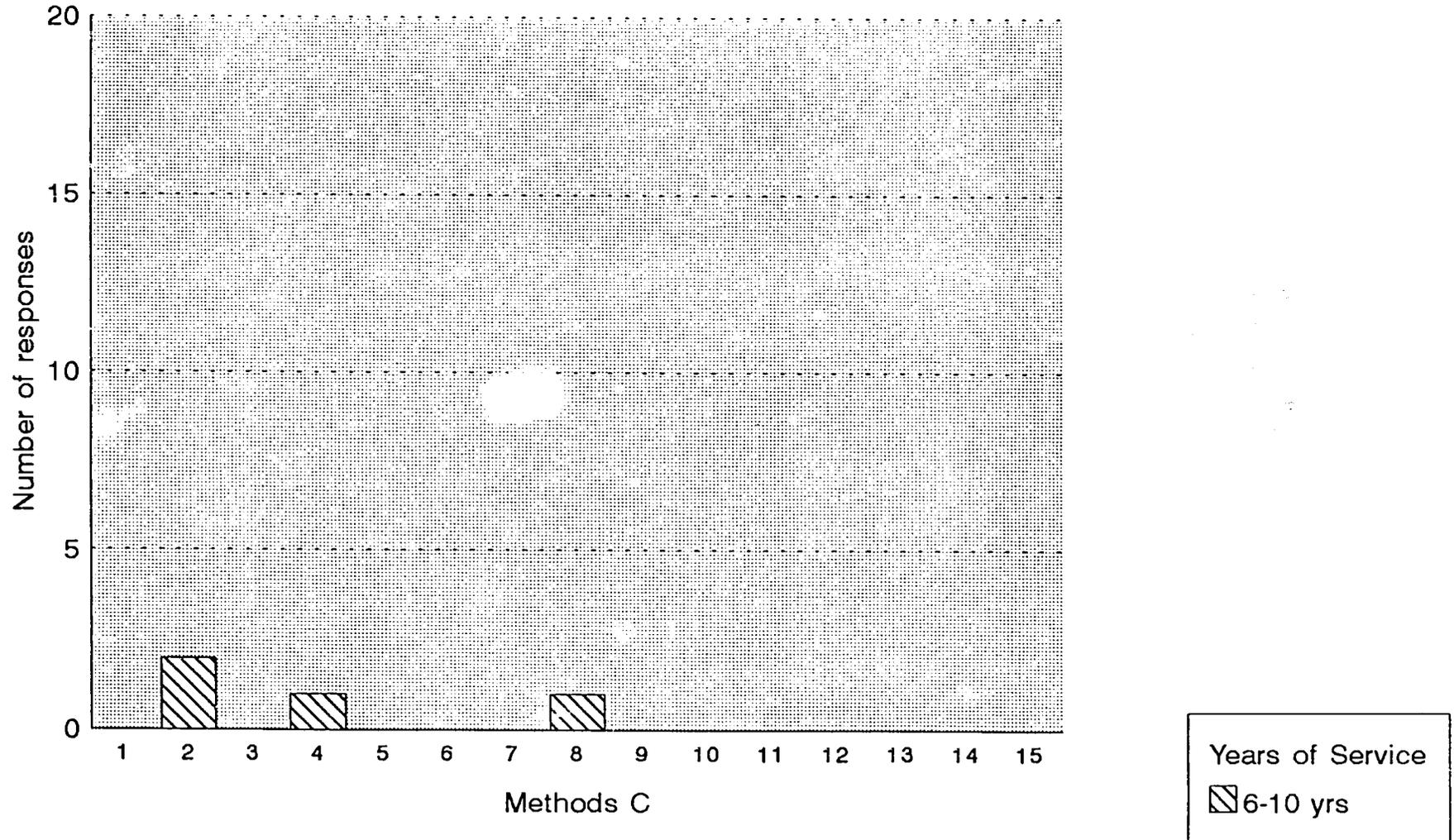
6)

2.3.8b PAMs Methods To Instill Commitment to Conservation Cameroun



Total Sample: n= 7 (Ass PAMs & PAMs: n=3)

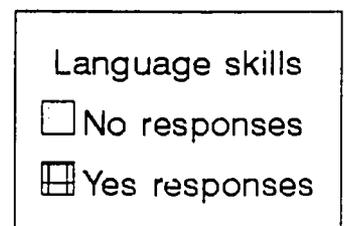
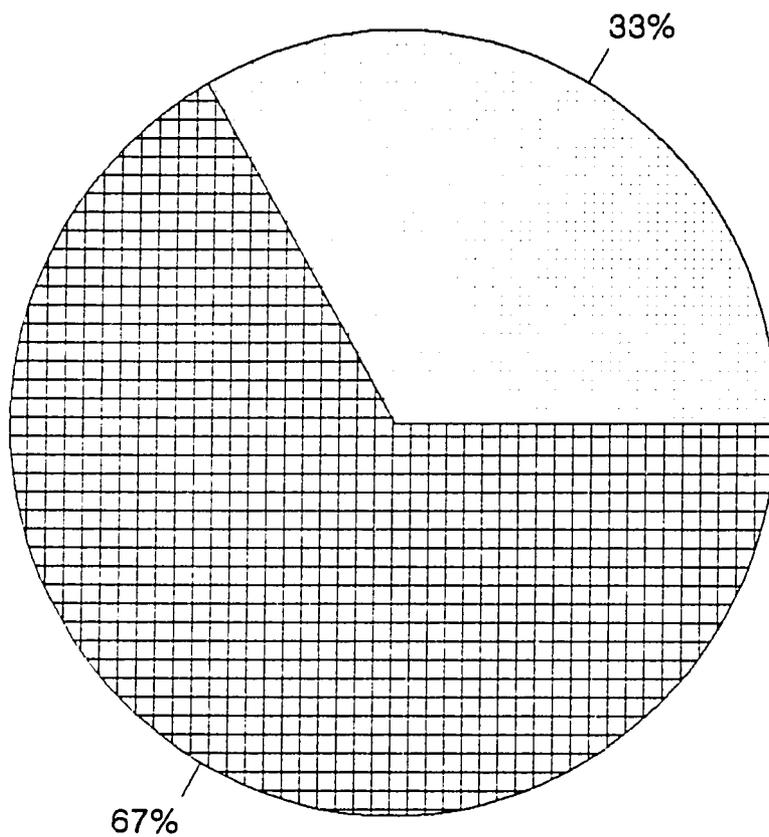
2.3.8c PAMs Methods To Instill Healthy Attitudes to Adjacent Communities Cameroun



fs Total Sample: n= 7 (Ass PAMs & PAMs: n=3)

2.3.9. PAMs Language Skills

Cameroun



Total Sample:n=7 (Ass PAMs & PAMs:n=3)

2.3.12 PAMs training received:
Cameroun

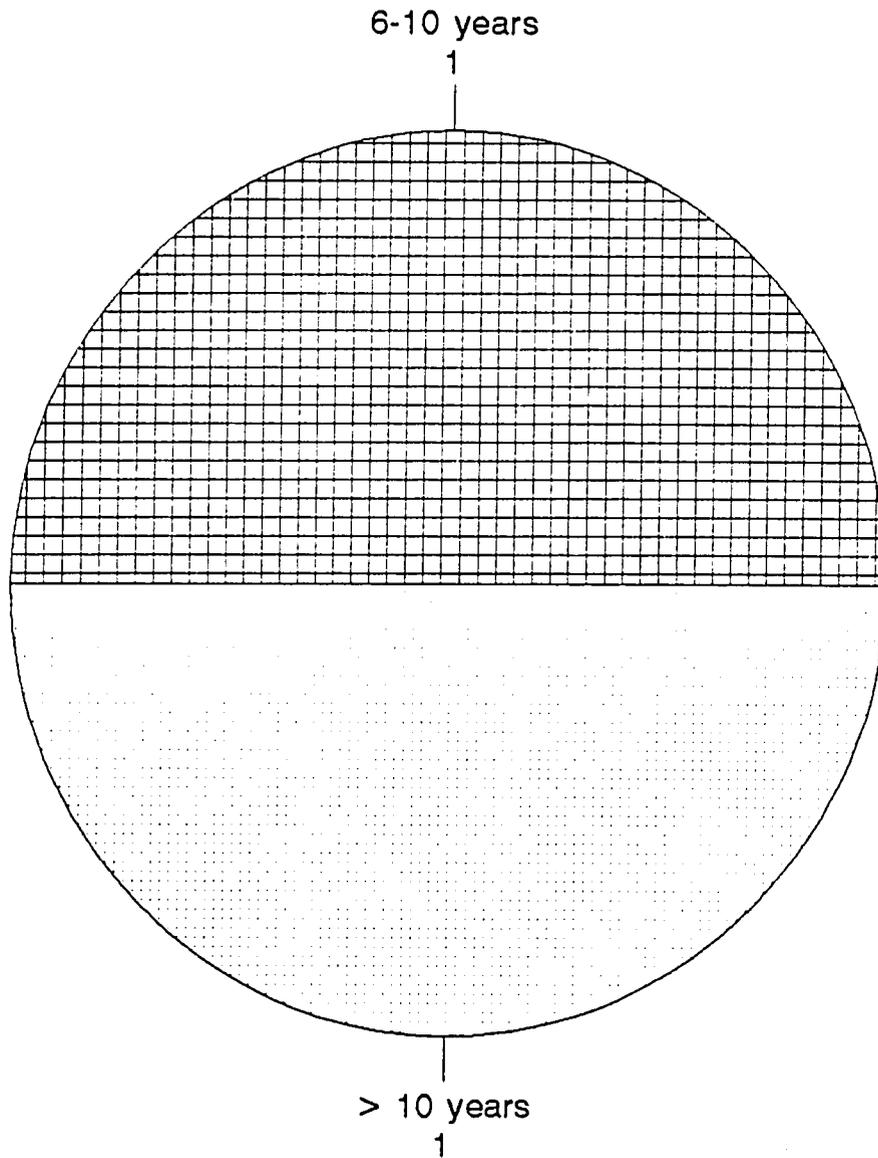
	Competencies	TYPES OF TRAINING (Dot if training has occurred)				
		Formal wildlife	Formal Other	In Service	On-the-job	Other
(a) Knowledge	2	■				
	3	■				
	4	■				
	5	■				
	6	■				
	7	■				
(b) Mental and Social Skills	8	■				
	9					
	10					
	11					
	12					
	13					
	14					
(c) Attitudes	15		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

Total sample: n=7

Asst PAMs & PAMs combined: n=3

28

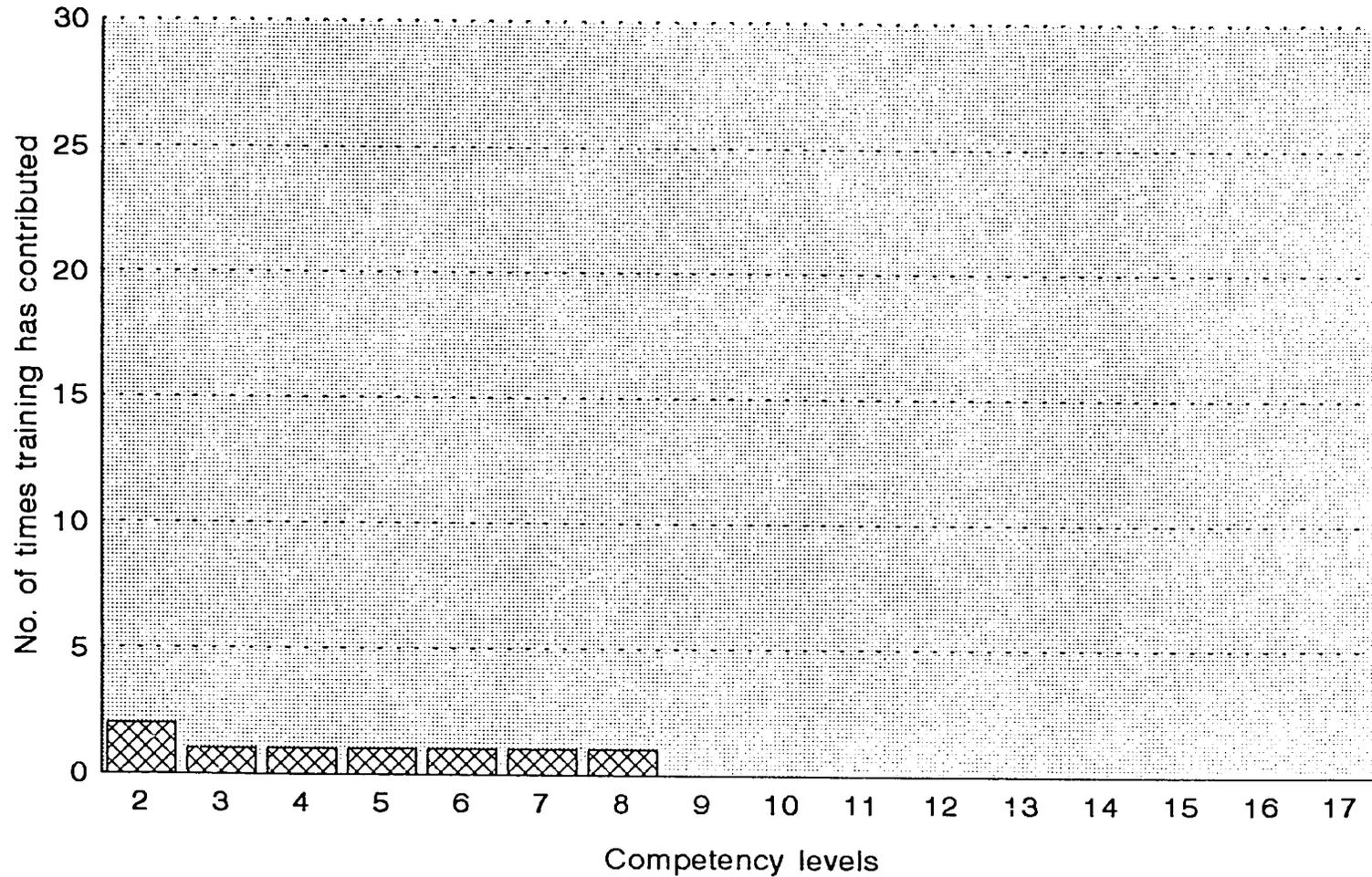
2.3.12d PAMs years since wildlife training recieved Cameroun



Total Sample n = 7 (PAMS & Ass. PAMS combined: n=3)

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

Cameroun



Total Sample: n=7 (Ass PAMs & PAMs: n=3)

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

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		.	.		○			
F	○		○	.	○			.		○		.	.	
G		.	.		○				○	○				
H					
I				.		○	.	.	.	○				
J		.			○			.	○	
K	○				○	

. ≤ 1
 ○ 1-2
 ○ > 2

Total sample: n=7

Asst PAMs & PAMs combined: n=3

68

2.3.12i Training priorities for PAMs & Asst PAMs
Cameroun.

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														
F	1/*													
G														
H				1	1/*									
I														
J														
K			1/*											

Total sample: n=7

Asst PAMs & PAMs combined: n=3

* Indicates areas of overlap with gap analysis