



# COMPETENCE STANDARDS FOR PROTECTED AREA JOBS IN SOUTH EAST ASIA

Compiled by

**Michael R. Appleton, Gregorio I. Texon & Monina T. Uriarte**

(ASEAN Regional Centre for Biodiversity Conservation)

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**Compiled by:** Michael R. Appleton (Training Adviser, ARCBC)  
Gregorio I. Texon (ASEAN Co-Director, ARCBC)  
Monina T. Uriarte (Training Branch Head, ARCBC)

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**Available from** ASEAN Regional Centre for Biodiversity Conservation (ARCBC)  
P.O. Box 35015  
College, Los Baños, Laguna  
Philippines  
Tel: +63-49.536-1659 or 536-4042  
TeleFax: +63-49.536-3173 or 536-2865  
Central e-mail: [contact.us@arcbc.org.ph](mailto:contact.us@arcbc.org.ph)  
Website: [www.arcbc.org.ph](http://www.arcbc.org.ph)

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## The ASEAN Regional Centre for Biodiversity Conservation

The ASEAN Regional Centre for Biodiversity Conservation (ARCBC) is a joint initiative of the Association of South East Asian Nations and the European Union. The goal of ARCBC is to intensify biodiversity conservation in ASEAN Member Countries through improved cooperation in a comprehensive regional context, by setting up a network of institutional links among ASEAN countries and between ASEAN and EU partner organizations.

Specifically ARCBC intends to:

1. Promote regional networks and intra-ASEAN and ASEAN-EU links.
2. Identify needs and assist in training.
3. Identify and help overcome information gaps.
4. Analyze, document and disseminate information.
5. Establish and maintain an appropriate database referral system.
6. Support institutions in analyzing biodiversity legislation and in policy development.
7. Organize workshops, conferences seminars etc.
8. Assist in upgrading curricula.

Further information can be found on the ARCBC website: [www.arcbc.org.ph](http://www.arcbc.org.ph)

### Foreword

**Dr. John MacKinnon**

EU Co-Director, ARCBC

After a lifetime of working in the protected area management business, I finally worked out why the job sometimes seems so complicated...it simply is very complicated. This excellent book just proves it and lays out just exactly how complicated and demanding the full scope of protected area management can be. The book identifies two hundred and fifty different skills that are needed at different levels and at different times by protected areas staff in the ASEAN region. The book also enumerates the knowledge levels and competence needed with each skill. This is the first time in ASEAN and I imagine anywhere in the developing world that such professional competence standards have been so thoroughly identified and agreed upon. The work has involved a detailed evaluation of practices in ten countries and the findings are both revealing and sometimes surprising. For instance, it becomes clear that more skills are needed in the communications area than in biological knowledge. It becomes clear that more skills are needed at intermediate seniority level than at the top! It becomes clear that large apportion of the necessary skills have not been properly recognised and are never taught in current training programmes.

Why does this matter? Well it matters in several important ways. Now for the first time we can design training that exactly matches the job. Now we have some approved international standards that countries can aspire to achieve. Now we can compare job standards between different countries: these standards will allow for more effective staff exchanges and sharing of expertise. Now we can evaluate training courses as to how ASEAN standard compliant

they are and encourage trainers to improve the compliance of the courses they are delivering. Now we can define skills that are expected to go with each job to help avoid unqualified staff being appointed to important posts.

This is an important book. It was developed for the ASEAN countries but has much wider application. It will encourage other countries to evaluate their own competence standards. It will make many departments realise that there are far more skills related to Protected Area management than they ever imagined. It is going to result in improving standards of management and protection. I am particularly pleased therefore that the regional use of these standards was recommended by the Third Southeast Asia Regional Meeting of the IUCN World Commission on Protected Areas held in Manila in April 2003.

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Mr. Laurentius Ambu, Deputy Director, Sabah Wildlife Department.  
Dr. Lee Hua Seng, Deputy Director of Forests, National Parks and Wildlife Division, Forest Department, Sarawak.  
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- Vietnam** Prof. Dr. Pham Nhat, Forestry University of Vietnam, Xuan Mai.  
Mr. Do Quang Tung, Nature Conservation Division, Forestry Protection Department.



## Technical Specialists

Mr. Soren Mark Jensen (Denmark), Chief Technical Adviser, Sabah Wildlife Department – Capacity Building Project.  
Mr. Michael E. Meredith (UK), Programme Coordinator, Sarawak-Lincoln Training Programme,  
Mr. Roger Cox (UK), Human Resources Development Adviser, Wildlife Department, Kota Kinabalu, Sabah, Malaysia.

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## Abbreviations used

ARCBC	ASEAN Regional Centre for Biodiversity Conservation
ASEAN	Association of South East Asian Nations
Asst	Assistant
AMC	ASEAN Member Country
BRN	Brunei Darussalam
BSc	Bachelor of Science
CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CPR	Cardio Pulmonary Resuscitation
DENR	Department of Environment and Natural Resources (Philippines)
EIA	Environmental Impact Assessment
EMS	Environmental Management System
EU	European Union
GEF	Global Environment Facility
GIS	Geographical Information System
GPS	Global Positioning System
HRD	Human Resources Development
HQ	Headquarters
IDN	Indonesia
IUCN	International Union for the Conservation of Nature and Natural Resources
KHM	Cambodia
LAO	Lao Peoples' Democratic Republic
MoE	Ministry of Environment
MMR	Myanmar
MSc	Master of Science
MYS	Malaysia
NBRU	National Biodiversity Reference Unit
NGO	Non-Governmental Organisation
NVQ	National Vocational Qualification
PA	Protected Area
PAA	Protected Area Authority
PDR	Peoples' Democratic Republic (as in Lao PDR)

PhD	Doctor of Philosophy
PHL	Philippines
PR	Public Relations
PRA	Participatory Rural Appraisal
RRA	Rapid Rural Assessment
SGP	Singapore
SQL	Standard Query Language
THA	Thailand
TNA	Training Needs Assessment
ToR	Terms of Reference
UK	United Kingdom
VNM	Vietnam
ZOPP	Ziel Orientierte Projekt Planung



# 1 SUMMARY

The competence standards in this book were developed through a one-year consultative process conducted by the ASEAN Regional Centre for Biodiversity Conservation. They consist of recommendations for the skills and knowledge ideally required for 24 key protected areas jobs, divided into 17 technical categories and five levels. The book contains details of all the standards and guidance as to how to use them.

The standards have been developed as a non-prescriptive tool, to assist protected area management authorities, training and educational organisations and conservation projects to improve human resource development, staff performance and training. They have been developed through a review of best practice in the region and are intended to be adapted as required by those using them to meet specific national requirements and training and development contexts.

A key recommendation of the Third Southeast Asia Regional Meeting of the IUCN World Commission on Protected Areas (held in Manila in April 2003) was the adaptation and adoption of these standards in the region.

Further information about the standards, including a more detailed account of the rationale behind the standards and the process by which they were developed can be found on the ARCBC website [www.arcbc.org.ph](http://www.arcbc.org.ph)

## 2 INTRODUCTION

### 2.1 Origins of the Standard Setting Project.

Between 1999 and 2002 ARCBC supported a set of national training needs assessments for biodiversity conservation in SE Asian Countries, with a view to developing a regional conservation curriculum. The results of these assessments suggested the need for a different approach from producing a single regional curriculum for the following reasons:

- The social, economic, political and cultural diversity in the region would make the development of a universal curriculum impractical both to develop and to implement.
- It would be a difficult and lengthy process for training institutions to adopt a new externally developed curriculum.
- Many of the countries had already developed training curricula and programmes. It would be both insensitive and inefficient to develop new materials before evaluating what was already available and making best use of existing good practice.

Instead therefore of trying to 'push' the countries towards improved capacity by imposing a universal curriculum, ARCBC decided instead to attempt to 'pull' them by developing agreed standards of competence, initially for protected areas jobs, that everyone would be encouraged to achieve, but in their own way. Developing such standards was seen as a means to highlight the need for improved training and development in the workplace and to bridge the gap between education, training and day-to-day work. Such occupational standards are widely used in other sectors and if developed as a non-prescriptive tool, could be used in a wide variety of ways by employers, organisations, trainers and trainees and could be readily adapted to local cultural, political and environmental conditions. Furthermore, standards that were

based on existing good practice in ASEAN countries would be seen to come ‘from the region’ rather than be devised ‘for the region’, increasing the chances of acceptance and adoption. Several potential uses of the standards were initially envisaged:

- They can help to define job descriptions.
- They can help in the assessment of staff performance.
- They can give employees a clear idea of what is required of them in the workplace.
- They can help employers and staff define training and development needs.
- They can help in designing training courses for staff.
- They can help universities and colleges design curricula that fit the needs of the job.
- They can help in comparing organisations and institutions and in deciding where good practice is found and where support is needed.

Table 1 provides definitions of some of the terms commonly used in relation to occupational standards.

**Table 1** Definitions of some key terms used in relation to occupational standards

<b>Sector</b>	A set of related industries, crafts or professions. <i>E.g. Accountancy, steel making, natural resource management.</i>
<b>Occupation</b>	A particular job-type within a sector. <i>E.g. Doctor, sales executive, ranger</i>
<b>Competence</b>	The ability of the individual within an occupation to carry out a defined task
<b>Standard</b>	The level of competence expected for an individual within an occupation
<b>Occupational standard</b>	<i>'...a definition, usually developed and accepted by industry, of the knowledge and competences required to successfully perform work-related functions within an occupation'</i>

## 2.2 How Were the Standards Developed?

The standards were developed as a result of a one-year process aimed at harnessing the accumulated skills, knowledge and experience of the region in biodiversity conservation. The development process involved inputs from all ten countries of ASEAN, reviewing over 100 publications from and about the region and the participation of over 200 individuals. The process followed 5 main stages, (summarised in Figure 1).

### **Stage 1: Review of the current use of occupational standards in protected areas.**

In early 2002 ARCBC conducted a general literature review of the development of occupational standards in industry and of their emerging role, internationally, in conservation and environmental management. This review was published in the magazine of ARCBC.<sup>1</sup>

### **Stage 2: Regional human resource development review**

A regional review of current approaches to human resources management and development for protected areas staff in 10 AMCs was completed between January and July 2002, involv-

<sup>1</sup> Appleton, M.R. (2001) The use of competence based occupational standards for conservation staff. ASEAN Biodiversity. *ASEAN Biodiversity*, **1(4)**, 17-24.

ing meetings in each country (except for Myanmar) and examination of a wide range of published and unpublished materials.

The overriding impression gathered during the regional review was of scattered islands of good practice and imaginative and innovative work in a rising sea of difficulties. The review led to 8 main recommendations:

1. Those responsible for protected areas should be working toward a common and coordinated agenda.
2. The profession of protected area management should be given a higher status and protected area work should be made more attractive and accessible as a career.
3. Investment at the site level should be matched by investment at institutional level.
4. Protected area authorities should be supported to become more performance-focused.
5. National ownership of training programmes should be increased and supported.
6. Increased intra-regional cooperation and collaboration should be encouraged.
7. Established national educational and training institutions should be supported to design and deliver specialised training for conservation.
8. The focus at protected areas should be shifted from short-term training to long-term learning.

ARCBC considered that a good starting point for addressing many of these recommendations would be to develop a common set of occupational standards, that defined the skills and knowledge required for protected area jobs in the region. A more detailed account of this review has been published in ARCBC's magazine, *ASEAN Biodiversity*.<sup>2</sup>

### **Stage 3: Compilation of a skills compendium for the region**

In order to identify the range of skills required in the region, key training documents and publications from SE Asia and beyond were analysed and all the protected area management skills in them listed in a skills compendium, which forms the basis of the occupational standards

Source of these skills included ten ASEAN countries and included:

- National Training Needs Analyses.
- National and Regional Protected Areas Reviews.
- Curricula and support materials for widely used national and regional training programmes.
- Internationally produced training manuals and materials that are widely used in ASEAN.

The resulting compendium included over 350 separate skills for protected area management. However, no individual country was found to have documented more than half of these skills, indicating that although across there is significant regional recognition of the skills required for protected area management, individual countries were not recognising the full range of what is required.

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<sup>2</sup> Appleton, M.R. (2003) Islands of Good Practice: Progress and Problems for Human Resource Development for Protected Area Management in ASEAN Member Countries. *ASEAN Biodiversity*, 2(3).



#### **Stage 4: Development of competences, levels and occupational standards**

A participatory workshop was held at Kinabalu National Park in Sabah, Malaysia in July 2002. All the focal countries of ARCBC were represented as well as a range of international organisations with an interest in training in the region. The workshop completed five main activities:

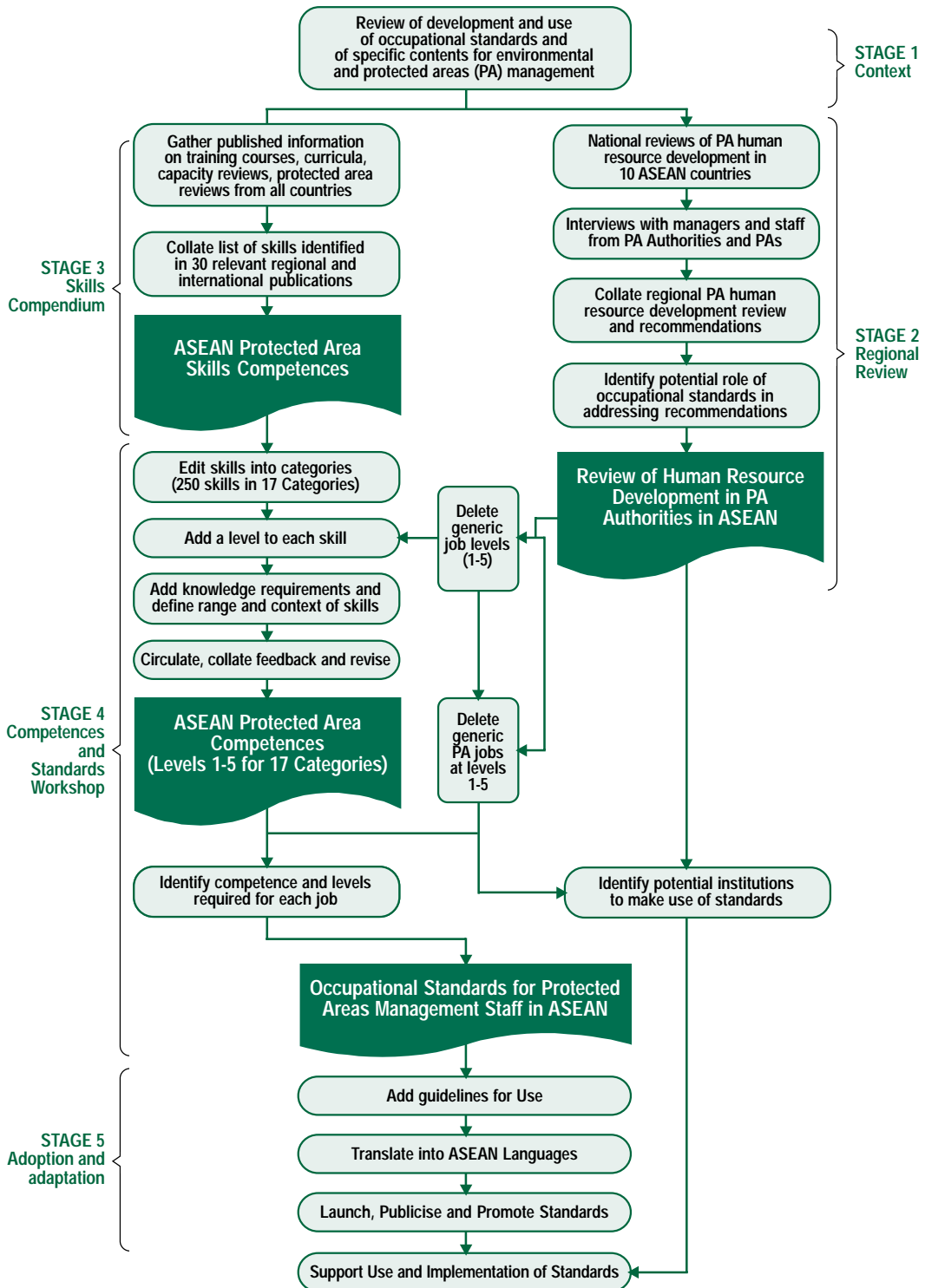
- A review of the completeness and structure of the skills compendium.
- Agreement of a set of generic occupational levels (I-V) for protected areas staff in the region and a suitable minimum level for each skill in the compendium.
- Grouping of skills and addition of knowledge requirements, resulting in a set of competences for up to 5 levels in 17 categories.
- Agreement of a set of generic occupational titles and levels.
- Selection of competence requirements and levels for each occupation resulting in a set of 24 generic occupational standards for the region.

A draft of the workshop outputs was circulated for comment to workshop participants and a final consultation draft circulated more widely in November 2002. The results of this consultation were incorporated into the final version of the standards presented in this book.

#### **Stage 5: Standards adaptation and adoption**

Activities foreseen in the 2003 work plan of ARCBC include translating the standards into regional languages, pilot testing them in ASEAN countries, and working to promote their use among employers, NGOs and training institutions.

Figure 1. Process for developing occupational standards for protected areas in ASEAN



## 2.3 Applications and Uses of the Standards

A key principle throughout the development process has been that the standards are not prescriptive. They are intended to provide a recommended level of competence, but should be adapted and used according to the specific need and context. The standards development process identified eight main ways in which the standards can support capacity development for protected areas in ASEAN Member Countries and elsewhere:

- Providing a clear description of best practice, based on real regional experience.
- Providing a common language of skills, enabling interagency communication and collaboration and improving transboundary and international cooperation.
- Defining functions, job descriptions, terms of reference and forming the basis for appraisals and performance assessments.
- Developing a more performance-based focus for training and development.
- Designing training needs assessments, training strategies and programmes and for developing, delivering and assessing in-service training.
- Revising tertiary education programmes and syllabi and designing new courses at universities and colleges.
- Encouraging institutional ownership of training, enabling Protected Area Authorities to specify more clearly to donors and partners what their training requirements and gaps are.
- Improving recognition of the complexity and importance of 21<sup>st</sup> century PA management, encouraging and demonstrating improved professionalism and helping to secure more resources.
- Providing the basis for potential future accreditation of training institutions, agencies, organisations and individuals which use and/or achieve the standards.

## 3 THE STANDARDS

### 3.1 Summary: Structure of the Standards

The standards, based on the outputs of the standard setting workshop and subsequent feedback and revisions consist of four main components.

#### 3.1.1 Levels (Table 2)

These define five indicative staff levels, from director to labourer, based on job responsibilities and equivalent (but not required) educational attainment. These levels form the basis for defining the skills requirements for the protected area jobs. Increasingly, community members with little formal education are playing an important role in protected area management. The assessment of job levels should be based primarily on the type of work and level of responsibility and on experience and not on educational attainment alone.

#### 3.1.2 Jobs or Occupations (Figure 2)

These are the 24 typical protected area jobs defined by the workshop and presented in an indicative organisational chart, based on the organisational charts for protected area authorities in ASEAN Countries. The chart is not a recommended definitive structure and indeed it is unlikely that any one protected area would have such a large or comprehensive staff, but all the jobs in the chart exist somewhere in ASEAN countries.

#### 3.1.3 Competences (Summary in Table 3; details in Section 4).

These define the ideal requirements of competence for 250 skills in 17 categories of protected area work at up to 5 levels. For each category and level the competence consists of three parts

- **Skills:** The specific activities in which an individual worker should be able to demonstrate competence at work. Some competences at levels 2 and 3 are divided into 'General Skills' for management and supervision of work in the category and 'Specialist Skills' for specialised technical work in the category. Some of the specialist skills may not be relevant to or required for all workers (e.g. skills associated with marine protected areas work).
- **Scope and Context:** Competence in the same skill may be demonstrated in a range of ways, depending on the local conditions. For example the basic skills of animal surveying could be demonstrated through surveying tigers or monkeys. The 'range statements' included here provide guidance for the variety of situations and contexts in which the skills might be demonstrated and the more specific components of the skills.
- **Knowledge:** Competence is not just about skills. There is also a requirement for knowledge and understanding. The knowledge statements suggest what someone would need to know in order to be competent at the relevant level.

#### 3.1.4 Standards (Table 4)

The standards define the competences that should ideally be expected for any job. The table shows the suggested standards for the 24 jobs defined, but additional standards can be readily created for jobs not specifically listed. If some of the jobs listed are in reality combined into one position, then the two sets of competences can also be combined. Wherever a requirement for a level is indicated the assumption is that the position holder will also have at least the general skills of the level below in the same category.

## 3.2 How to Use the Standards

There is no single way to use these standards. They are not blueprints, but a reflection of documented good practice in ASEAN; as such they should be regarded and used as a tool rather than a prescription, to be used and adapted according to need with the aim of improving effectiveness of conservation training and work. While the compilation and development process has made extensive efforts to ensure that they are complete and representative, users are encouraged to edit, adapt and add to them as they wish, to fit specific local needs and circumstances.

The following activities are suggested for interpreting and making best use of the standards:

### 3.2.1 For protected area management authorities and agencies

- Look at the generic organisational structure and levels in Figure 2 and the definitions of the levels in Table 2 and highlight the jobs or combinations of jobs that are relevant to your organisation or training programme. Remember that this is an ideal and comprehensive structure and you may wish to combine or split the jobs listed to meet your needs or modify the levels accordingly.
- Look at the table of recommended standards in Table 4 and note which are recommended for any particular job.
- Look up the specific competences at the levels indicated to identify the recommended skills and knowledge requirements.
- Decide which specialist skills (if included in the competences) are required and which aspects of the range and context are relevant.
- Use the competences to help you to:
  - Write job descriptions.
  - Review staff skills.
  - Appraise staff and review performance.
  - Identify training needs and plan training and development.
  - Write proposals for funding and for securing staff positions.
  - Write organisational components of protected area management plans.

### 3.2.2 For organisations and individuals planning and delivering training and development

- Look at the list of competences and levels and identify which are relevant to your training programme or needs.
- Look at the generic organisational structure and levels in Figure 2 and identify the likely target group for your training.
- Use the relevant competences, ranges and knowledge to help you to:
  - Plan course curricula.
  - Negotiate training course contents and outputs with employers and trainees.
  - Plan specific training activities.
  - Produce training manuals and materials.

- Assess learning by trainees.
- Write exam and test questions.
- Assess effectiveness of training programmes.
- Plan training of trainers.
- Design capacity development components of conservation projects.

### 3.2.3 For individuals

- Look at the list of competences and levels and identify which are relevant to your personal goals.
- Look at the generic organisational structure and levels in Figure 2 and identify the job, or group of jobs, that most closely fits yours.
- Use the competences, levels, ranges and knowledge requirements to help you to:
  - Plan and direct your own learning.
  - Improve your performance at work.
  - Update your CV or résumé.
  - Apply for jobs or promotions.
  - Negotiate training needs with your employer.
  - Train and support those whom you manage and supervise.

## 3.3 Next Steps

The ARCBC standard setting project has revealed significant capacity problems for protected areas authorities across the region, much greater than standards alone can solve. It has also revealed the widespread emergence of good practice for management and human resource development, particularly in the more prosperous countries, but encouragingly, to some extent everywhere. What is worrying is the problem of protected areas systems growing faster (both in physical area and management demands) than capacity to protect and manage them, and the apparent fragility of some of the successes for the past twenty-five years. The standards themselves have revealed the depth and breadth of skills, knowledge and understanding required for modern protected area management and the gap between reality and what would be ideal. They have the potential to make a significant difference.

The standards can seem intimidating and achieving them may seem a long way off. However this is not surprising: they define an ideal level of best practice that may take years to achieve. However it is important to remember that somewhere in SE Asia all of these standards have been achieved and that examples of good practices exist in all ASEAN member countries.

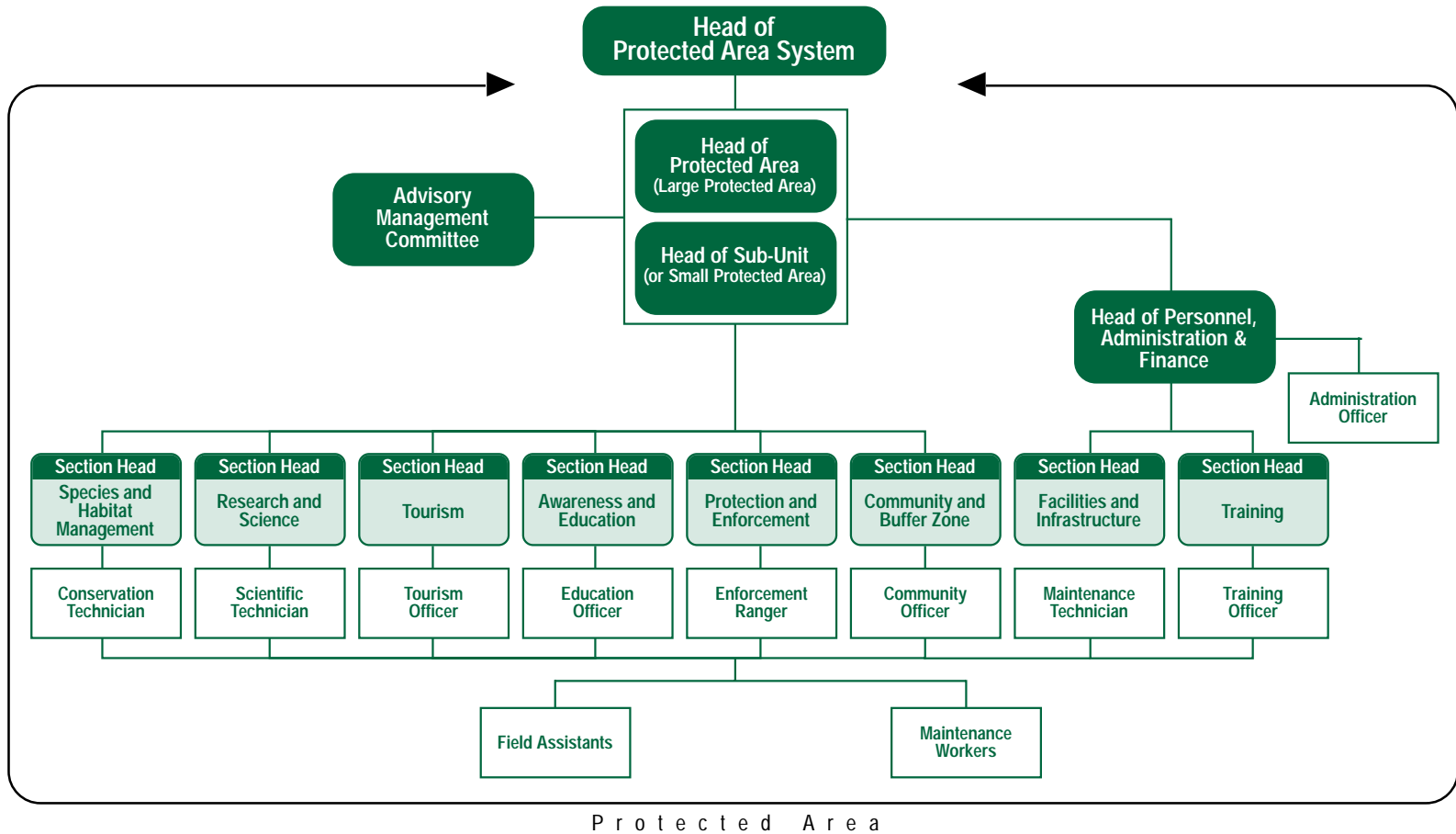
The draft version of these standards has already attracted considerable interest and has been used in Indonesia, Malaysia, the Philippines, Thailand and Vietnam. This book is being translated into all major regional languages in order to make it accessible to as wide an audience as possible. A main focus of ARCBC's work in future will be to promote the adaptation and adoption of the standards in ASEAN Member Countries to meet national needs in the national context and to encourage international organisations to use the standards as the basis for their capacity and human resource development work in the region.

**Table 2** Generic occupational levels for protected areas staff.

Level and general responsibilities	Type of work	Management responsibility (direction, management, supervision, decision making allocation of resources)	Equivalent (but not required) educational level	Typical protected area job at this level
<b>Level 5 Directorial</b> Strategic and programmatic responsibilities.	<ul style="list-style-type: none"> <li>Outward looking, dealing with the organisation in its institutional, financial and policy environments.</li> <li>Strategic application of complex techniques and approaches across a wide, unpredictable range of contexts.</li> </ul>	<ul style="list-style-type: none"> <li>Strategic planning, direction, management, and evaluation of complex programmes and plans.</li> <li>Working with policy and decision makers.</li> <li>Extensive authority for decision-making and direction.</li> <li>Overall responsibility for budgets and resources.</li> </ul>	Masters or Bachelors Degree	<ul style="list-style-type: none"> <li>Head of a complex/high profile park, park complex or national/provincial protected areas agency</li> </ul>
<b>Level 4 Managerial, Higher Technical</b> Project, divisional management and/or high-level technical responsibilities.	<ul style="list-style-type: none"> <li>Integrating flows of activities into projects and programmes.</li> <li>Complex and technical work in a wide and unpredictable range of contexts.</li> </ul>	<ul style="list-style-type: none"> <li>Management of divisions, teams and work groups.</li> <li>Development and management of projects.</li> <li>Decision-making within plan frameworks.</li> <li>Developing and monitoring project or departmental budgets and resources.</li> </ul>	Bachelors Degree or College Diploma.	<ul style="list-style-type: none"> <li>Head of a protected area.</li> <li>Deputy head or section head of a large, complex and/or high profile protected area.</li> <li>Leader of technical section.</li> </ul>
<b>Level 3 Technical/Supervisory</b> Supervisory/ mid-level technical responsibilities.	<ul style="list-style-type: none"> <li>Managing the flow of specific activities.</li> <li>Complex, often technical and non-routine work, performed in a variety of contexts and requiring detailed technical skills.</li> </ul>	<ul style="list-style-type: none"> <li>Supervision and leadership of staff and work teams.</li> <li>Planning and supervision of tasks and assignments.</li> <li>Accountable for resources within clearly defined operational plans.</li> </ul>	College Diploma/ High School.	<ul style="list-style-type: none"> <li>Head of a protected area subunit or section.</li> <li>Head of nature reserve/ sanctuary.</li> <li>Senior/supervising member of sections or work teams.</li> </ul>
<b>Level 2 Skilled Worker</b> Technical responsibilities with some team leadership.	<ul style="list-style-type: none"> <li>Specific but not always predictable, work, sometimes requiring technical and analytical skills.</li> </ul>	<ul style="list-style-type: none"> <li>Completing specific tasks and assignments.</li> <li>Decision making limited to ensuring completion of specified technical tasks.</li> <li>Monitoring and reporting task related resource use.</li> </ul>	High school or Intermediate School.	<ul style="list-style-type: none"> <li>Park Ranger.</li> <li>Established and experienced worker/team leader.</li> <li>Experienced local community member.</li> </ul>
<b>Level 1 Labourer</b> Non-technical responsibilities.	<ul style="list-style-type: none"> <li>Predominantly routine, prescribed and predictable work.</li> </ul>	<ul style="list-style-type: none"> <li>No supervisory responsibilities.</li> <li>Limited decision making and accountability.</li> </ul>	Intermediate / Elementary school.	<ul style="list-style-type: none"> <li>Labourer, member of work team.</li> <li>Community helper.</li> </ul>

**Figure 2** Generic organisational structure for protected areas in SE Asia.

This chart is a compilation of the organisational charts from Protected Area Authorities in SE Asia. It is not a definitive recommended staffing structure, but all the jobs within it exist in at least one country in the region. Use of the standards should be based on the actual staffing structure of the relevant organisation.





**Table 3** Summary of competences, levels and skills for protected area management in ASEAN

Category	Levels applicable and number of skills						
	All levels	1	2	3	4	5	Total
<b>General Work Skills</b>							
General Personal and Work Skills	11						11
Financial and Physical Resources Management			3	7	3		13
Human Resources Management			1	5	6		12
Staff Development and Training			1	4	2		7
Project Development and Management				4	6	2	12
Communication			3	5	3	1	12
Technology and Information		1	2	5			8
<b>Technical and Practical Skills</b>							
Field Craft		3	10	3			16
Natural Resources Assessment		4	5	6	2		17
Conservation Management of Ecosystems, Habitats and Species		4	5	6	6		21
Socio-Economic and Cultural Assessment			1	4	3		8
Sustainable Development and Communities			4	8	5		17
Protected Areas Policy, Planning and Management				2	6	6	14
Site Management		3	7	7	3		20
Enforcement		6	7	8	4		25
Recreation and Tourism			5	7	8		20
Awareness Education and Public Relations		1	4	8	4		17
<b>TOTAL SKILLS</b>	<b>11</b>	<b>22</b>	<b>58</b>	<b>89</b>	<b>61</b>	<b>9</b>	<b>250</b>

**Table 4** Suggested competence levels in 17 categories for 24 generic protected areas jobs in South East Asia.

Technical Competence Categories	Overall Level	General Personal and Work Skills	Financial and Physical Resources Management	Human Resources Management	Staff Development and Training	Project Development and Management	Communication	Technology and Information	Field Craft	Natural Resources Assessment	Conservation Management of Ecosystems, Habitats and Species	Socio-Economic and Cultural Assessment	Sustainable Development and Communities	Protected Areas Policy, Planning and Management	Site Management	Enforcement	Recreation and Tourism	Awareness, Education & Public Relations
Protected Area Jobs																		
MANAGEMENT AND SENIOR JOBS	Recommended levels for each jobs																	
Head of Protected Areas System	5	✓	4	4	-	5	5	2	-	1G	4	-	4	5	4	-	4	4
Head of Large or Complex Protected Area	4-5	✓	4	4	4	4	4	2	3	1G	4	-	4	4	4	4	4	4
Advisory / Management Committee	4-5	✓	4	-	-	5	4	-	-	-	4	-	4	3	4	-	4	1
Head of Small PA or PA Subunit	3-4	✓	3G	3	4	3	4	2	3	1G	3-4	-	3-4	3-4	3	3	3-4	3-4
Head of Personnel, Admin and Finance	3-4	✓	3-4	3-4	3	3	3	2	1	-	-	-	-	3	-	1	-	1
Head of Facilities and Infrastructure	3	✓	3G	3	3	3	3G	2-3	1	-	-	-	-	-	3-4	-	-	1
Head of Protection and Enforcement	3	✓	3G	3	3	3	3G	2	3	1G	-	3G	2	-	1	3	-	1
Section Head: Species and Habitat Management	3-4	✓	3G	3	3	3	3	2	3	4	4	3G	2	-	3G	1	3	1
Section Head: Research and Science	3-4	✓	3G	3	3	3	3	2	3	4	3-4	3-4	2	-	3G	1	-	1
Section Head: Community Development	3-4	✓	3G	3	3	3	3	2	3	1G	-	3-4	3-4	-	3G	1	3G	1
Section Head: Tourism	3-4	✓	3G	3	3	3	3	2	1	1G	-	3G	2	-	3G	1	3-4	3-4
Section Head: Education and Awareness	3-4	✓	3G	3	3	3	3	2	1	2	-	3G	2	-	-	1	3G	3-4
Section Head: Training	3-4	✓	3G	3-4	4	3	3	2	1	2	2G	3G	2	-	-	1	-	3-4

Technical Competence Categories	Some competences are divided into 'General Skills' for management and supervision of work in that category and 'Specialised Skills' for technical work that may not be relevant to all protected areas. The need for general skills only is indicated with a 'G'. Indication of a skill requirement assumes competence at least in general skills at the level immediately below.																	
	Overall Level	General Personal and Work Skills	Financial and Physical Resources Management	Human Resources Management	Staff Development and Training	Project Development and Management	Communication	Technology and Information	Field Craft	Natural Resources Assessment	Conservation Management of Ecosystems, Habitats and Species	Socio-Economic and Cultural Assessment	Sustainable Development and Communities	Protected Areas Policy, Planning and Management	Site Management	Enforcement	Recreation and Tourism	Awareness, Education & Public Relations
<b>Protected Area Jobs</b>																		
<b>TECHNICAL, ADMIN AND FIELD JOBS</b>	<b>Recommended levels for each jobs</b>																	
Administration Officer	2-3	✓	3	2-3	2	3	2G	2	1	-	-	-	-	-	-	-	-	1
Conservation Technician/Wildlife Ranger	2	✓	2	2	2	-	2G	2-3	2-3	3	2-3	-	2	-	2	1G	-	1
Scientific Technician/ Ranger	2	✓	2	2	2	-	2G	2-3	2	3	2-3	2-3	2	-	1	1G	2G	1
Tourism Officer/Guide	2	✓	2	2	2	-	2	2	2	1G	-	2	2	-	-	1G	2	2
Education Officer	2	✓	2	2	2	-	2	2	1	2	-	2	2	-	-	1G	2G	2
Enforcement Ranger	2	✓	2	2	2	-	2	1	2-3	1G	-	2	2	-	1	2-3	-	1
Community Officer/Ranger	2	✓	2	2	2	-	2	2	2	1G	-	2-3	2-3G	-	1	1	2G	2
Maintenance Technician	2	✓	2	2	2	-	1	2	1	1G	-	-	-	-	2	-	-	1
Training Officer	2-3	✓	2	2	3	-	2	2	1	1G	2	2	2	-	2	2	2G	2
Field Assistant	1	✓	-	-	-	-	1	1	2	1	1	-	-	-	1	1	-	1
Maintenance Worker	1	✓	-	-	-	-	1	1	1	-	1	-	-	-	1-2G	-	-	1

# THE COMPETENCES

The following pages contain the details of the ASEAN Protected Area Competences in 17 Categories

General Personal and Work Skills	<b>GEN</b>
Financial and Physical Resources Management	<b>FIN</b>
Human Resources Management	<b>HRM</b>
Staff Development and Training	<b>TRA</b>
Communication	<b>COM</b>
Technology and Information	<b>TEC</b>
Project Development and Management	<b>PRO</b>
Field Craft	<b>FLD</b>
Natural Resources Assessment	<b>NAT</b>
Conservation Management of Ecosystems, Habitats and Species	<b>CON</b>
Socio-Economic and Cultural Assessment	<b>SOC</b>
Sustainable Development and Communities	<b>DEV</b>
Protected Areas Policy, Planning and Management	<b>PAM</b>
Site Management	<b>SIT</b>
Enforcement	<b>ENF</b>
Recreation and Tourism	<b>REC</b>
Awareness Education and Public Relations	<b>AEP</b>

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# General Personal and Work Skills

These are universal skills for work, which apply to all staff whatever the level, and are often referred to as 'soft' skills. They fall into four main categories: attitude to and performance at work, essential communication, standards of behaviour and conduct, personal welfare. Basic first aid skills are also included as they are considered to be important for all protected area staff.

GEN: General Personal and Work Skills			
	UNIVERSAL SKILLS	SCOPE AND CONTEXT	KNOWLEDGE
GEN1	<b>Demonstrate a positive and confident personal attitude to work</b>	Assignments, time management and timekeeping.	<ul style="list-style-type: none"> <li>• Policies, procedures and practices of the organisation.</li> <li>• Structure and staff of the organisation.</li> <li>• Standard first aid and CPR techniques.</li> <li>• Literacy and numeracy.</li> <li>• Cultural and ethnic and gender awareness.</li> <li>• Sources of work place tension and stress.</li> </ul>
GEN2	<b>Maintain good relations with others and work as a team</b>	Collaboration, teamwork, supporting and assisting colleagues, courteous and respectful behaviour with colleagues, co-workers, communities, volunteers, advisers.	
GEN3	<b>Communicate with colleagues simply and effectively</b>	Written activity reports and use of simple forms. Oral reports.	
GEN4	<b>Work in compliance with instructions, briefings, regulations and procedures</b>	In line with financial, administrative and reporting procedures.	
GEN5	<b>Follow good security, safety and environmental practice in the work place</b>	In compliance with legal requirements, organisational regulations and codes of practice and good environmental and social awareness.	
GEN6	<b>Maintain confidentiality of sensitive information</b>	Records and files. Not discussing sensitive information.	
GEN7	<b>Identify and report dishonest practices</b>	Within and outside the organisation.	
GEN8	<b>Demonstrate cultural and ethnic and gender sensitivity</b>	With colleagues, collaborators and stakeholders.	

GEN: General Personal and Work Skills			
UNIVERSAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
GEN09	<b>Maintain good standards of personal appearance</b>	Dress and cleanliness.	
GEN10	<b>Manage and reduce personal stress</b>	Preventing personal issues adversely influencing work and vice versa.	
GEN11	<b>Provide CPR and First Aid using accepted techniques</b>	Skills in basic Red Cross, Red Crescent or equivalent basic first aid training.	
Notes			

# Financial and Physical Resources Management

This category concerns the financial, infrastructure and equipment assets of the protected area. Level 2 covers basic record keeping for any staff entrusted with funds or equipment. General skills at Level 3 cover basic financial planning and management for those in charge of budgets, while the specialised skills concern payroll, bookkeeping, procurement and purchase processes and procedures and are more suited for those with specific financial administrative responsibility. Level 4 relates to oversight and analysis of financial information, financial and resource planning and contractual issues, skills likely to be required by senior management.

Financial and Physical Resources Management Level 2			
	GENERAL SKILLS	SCOPE AND CONTEXT	KNOWLEDGE
FIN2.1	<b>Collate and present evidence of expenditure</b>	Acquittals, claims, requests for payment, receipts.	<ul style="list-style-type: none"> <li>• Basic financial record keeping.</li> </ul>
FIN2.2	<b>Keep accurate and orderly records</b>	Filing and record keeping according to procedures.	<ul style="list-style-type: none"> <li>• Systems for record keeping and filing.</li> </ul>
FIN2.3	<b>Manage stores of equipment and supplies</b>	Inventory and stock control.	<ul style="list-style-type: none"> <li>• Stock and inventory systems.</li> </ul>
Notes			



Financial and Physical Resources Management Level 3			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
FIN3.1	Prepare budgets and plan and monitor resource use	Goods, services, labour.	<ul style="list-style-type: none"> <li>• Policies and procedures on accounting, budgeting, procurement, supplies, equipment, auditing.</li> <li>• Computer based accounting systems.</li> </ul>
FIN3.2	Apply high environmental standards to use of resources	Reducing consumption, reusing and/or recycling, minimizing waste, saving energy.	
SPECIALISED SKILLS		SCOPE AND CONTEXT	<ul style="list-style-type: none"> <li>• Contractual procedures.</li> <li>• Inventory and maintenance systems.</li> </ul>
FIN3.3	Keep books and accounts	Paper-based and/or computer-based.	
FIN3.4	Manage equipment, supplies and property	Assets, equipment, office, workshop, field stations, vehicles. Inventory, stock control, maintenance, insurance.	
FIN3.5	Oversee payments.	Payroll, welfare, per diem, bonuses. Invoices, claims, income, receipts.	
FIN3.6	Manage procurement of goods and services	According to procedures of organisation/donors.	
FIN3.7	Issue and supervise contracts and agreements	According to procedures and law.	
FIN3.8	Manage official documentation and reporting	Regular required financial and activity reports.	
Notes			

Financial and Physical Resources Management Level 4			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
FIN4.1	<b>Develop and monitor financial plans</b>	Budget plans, business plans forecasts, cash flows.	<ul style="list-style-type: none"> <li>• Laws and rules on contracts, tenders and agreements.</li> <li>• Financial management and accounting.</li> <li>• Negotiation skills.</li> </ul>
FIN4.2	<b>Negotiate formal contracts</b>	Contracts, tenders and agreements for supplies of goods and services and/or for franchises and concessions.	
FIN4.3	<b>Analyse management accounts and plan budget and resource control</b>	Financial analysis and use of a range of measures to monitor and control expenditure and income.	
Notes			



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# Human Resources Management

This category concerns supervising and managing people. Level 2 addresses basic supervisory skills required for all leaders of small teams. Level 3 includes more specific aspects of managing personnel and would typically be applicable to junior managers or section heads. Level 4 skills are those required by senior managers and include establishing policies and procedures, staffing structures, recruitment, development and welfare.

HRM: Human Resources Management Level 2			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
HRM2.1	<b>Lead and motivate work teams</b>	Team building, supervision, on-the-job instruction and advice, providing feedback.	<ul style="list-style-type: none"> <li>• Team building skills.</li> <li>• Technical knowledge of required tasks.</li> </ul>
Notes			

HRM: Human Resources Management Level 3			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
HRM3.1	<b>Brief, supervise and motivate individuals and teams</b>	Staff teams, contractors and volunteers who may be working without direct supervision.	<ul style="list-style-type: none"> <li>• Vision, mission, mandate, objectives, programmes and projects of the organisation.</li> <li>• Organisational structure and staffing arrangements.</li> <li>• Organisational HRD and personnel policies and procedures.</li> <li>• Awareness of relevant training and staff development opportunities.</li> <li>• Communication techniques.</li> <li>• Personnel interview techniques.</li> <li>• Conflict resolution/ alternative dispute resolution techniques.</li> </ul>
HRM3.2	<b>Monitor and evaluate staff performance and provide feedback</b>	Informal monitoring and formal appraisals. Identification of potential for advancement and, needs for training and development.	
HRM3.3	<b>Determine causes of poor performance and counsel staff on performance related issues</b>	Interviews and assessments with individuals/work groups. Personal interviews and work and performance related advice and mentoring.	
HRM3.4	<b>Initiate formal disciplinary and grievance procedures</b>	According to institutional policies.	
HRM3.5	<b>Resolve workplace conflicts</b>	Negotiation, mediation and arbitration.	
Notes			

## HRM: Human Resources Management Level 4

GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
HRM4.1	<b>Identify staffing needs and structures and assign roles and responsibilities</b>	Organisational structure, functional terms of reference and individual job descriptions.	<ul style="list-style-type: none"> <li>• Vision, mission and mandate, objectives, programmes and projects of the organisation.</li> <li>• Organisational structure and staffing arrangements.</li> <li>• Organisational HRD and personnel policies and procedures.</li> <li>• Interview techniques (Recruitment, appraisal, exit, disciplinary, grievance).</li> </ul>
HRM4.2	<b>Recruit and promote staff using fair and transparent processes</b>	Defining ToRs, advertising, interviewing and recruiting.	
HRM4.3	<b>Plan for and ensure the welfare of staff</b>	Health, welfare and insurance with special attention paid to field workers and rangers.	
HRM4.4	<b>Design and implement incentive and reward schemes for staff</b>	Pay rises, bonuses, incentives, top-ups.	
HRM4.5	<b>Set staff performance standards</b>	Use of occupational standards.	
HRM4.6	<b>Implement formal grievance and disciplinary procedures</b>	According to established procedures.	
Notes			

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# Staff Development and Training

Some protected areas have special training sections, but all protected areas work includes staff development through formal and informal means. Level 2 deals with basic instruction of supervised staff and is relevant to most staff. Level 3 covers the specific skills of a trainer or training manager and could be applicable for internal and external training. Level 4 skills are relevant to all senior managers concerned with staff development.

TRA: Staff Development and Training Level 2			
SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
TRA2.1	<b>Instruct in and assess work skills</b>	Basic instructions to work colleagues under supervision	<ul style="list-style-type: none"> <li>Basic instructional techniques.</li> </ul>
Notes			

TRA: Staff Development and Training Level 3			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
TRA3.1	<b>Prepare, deliver and assess vocational training</b>	Lectures, demonstrations, exercises, practical learning activities, assessments. Production of manuals, work books and instructional aids.	<ul style="list-style-type: none"> <li>Understanding of theory and practices of adult education and learning.</li> </ul>
TRA3.2	<b>Prepare and deliver formal lectures</b>	At graduate and postgraduate levels and according to specialist areas of expertise. Production of manuals, work books and instructional aids.	<ul style="list-style-type: none"> <li>Training design and delivery techniques.</li> <li>Writing and creative skills.</li> </ul>
TRA3.3	<b>Promote and enable workplace learning</b>	Self study, skills sharing, distance learning etc.	<ul style="list-style-type: none"> <li>Communication skills and presentation techniques.</li> </ul>
TRA3.4	<b>Plan and facilitate training events</b>	Courses and workshops. Use of a range of facilitation techniques that ensure and learning.	<ul style="list-style-type: none"> <li>Techniques for facilitation</li> </ul>
Notes			



TRA: Staff Development and Training Level 4			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
TRA4.1	<b>Lead training and development needs analysis</b>	Functional analysis, skills analysis, needs analysis, training and development policies and plans.	<ul style="list-style-type: none"> <li>Principles and practice of structured training needs assessment and analysis.</li> </ul>
TRA4.2	<b>Plan, design, supervise and evaluate in-service training programmes</b>	Definition of objectives, outputs, schedules. Identifying trainees, trainers, providers, resource persons. Evaluation of training outputs and impacts.	<ul style="list-style-type: none"> <li>Good knowledge of training design and specification.</li> <li>Good understanding of range of local academic and vocational training and education provider.</li> <li>Principles and practice of capacity development.</li> </ul>
Notes			

# Communication

This category deals with skills for informal and formal communication of information at work. Universal and essential communication skills are included in General Personal and Work Skills. Level 2 includes more formal communication skills as well as language skills. International languages are increasingly important, particularly in areas of work that involve use of publications, international networking and working with international tourists. For sites where this is relevant at least some staff should be able to communicate in local languages. Recruiting native speakers is the best way to achieve this. At level 3 more structured and formal communication skills are included as well as analytical skills. Level 4 focuses on enabling communication as a means for improved decision-making and conflict resolution and Level 5 deals with the formalised types of communication required for international negotiations.

COM: Communication Level 2			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
COM2.1	<b>Make effective oral presentations</b>	Basic instructional or and explanatory presentations.	<ul style="list-style-type: none"> <li>• Simple presentation techniques.</li> </ul>
COM2.2	<b>Prepare written accounts of work activities</b>	Activity reports and formal reports as required.	<ul style="list-style-type: none"> <li>• Instructional techniques.</li> </ul>
SPECIALISED SKILLS		SCOPE AND CONTEXT	<ul style="list-style-type: none"> <li>• Report writing formats.</li> </ul>
COM2.3	<b>Communicate in other languages and/or dialects</b>	As and if required: Local languages and dialects Internationally used languages (e.g. English).	<ul style="list-style-type: none"> <li>• Negotiation techniques.</li> <li>• English language.</li> <li>• Local languages.</li> </ul>
Notes			

COM: Communication Level 3			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
COM3.1	<b>Organize and chair formal meetings</b>	Preparing agenda, chairing meeting, agreeing actions, approving minutes.	<ul style="list-style-type: none"> <li>• Meeting protocols.</li> <li>• Presentation techniques (public speaking and use of presentation aids).</li> <li>• Conversant with all basic aspects of the PA and its management.</li> <li>• Technical report structures.</li> </ul>
COM3.2	<b>Give formal technical lectures and presentations</b>	At workshops, seminars, conferences etc.	
COM3.3	<b>Write technical reports/papers</b>	Based on work activities.	
COM3.4	<b>Analyse and communicate complex issues</b>	Critical analysis of issues based on research, experience and literature. Inclusion of analysis, conclusions and justified recommendations in reports and presentations.	
COM3.5	<b>Represent the protected area at public events</b>	Conferences, seminars, meetings, events, media interviews etc.	
Notes			

COM: Communication Level 4			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
COM4.1	<b>Negotiate agreements and resolve disputes and conflicts</b>	Conflict resolution approaches: negotiation mediation, arbitration and adjudication.	<ul style="list-style-type: none"> <li>• Conflict resolution techniques.</li> <li>• Negotiation procedures and techniques.</li> </ul>
COM4.2	<b>Enabling staff feedback on and input to activities, decisions, and planning</b>	Formal and informal consultation procedures.	<ul style="list-style-type: none"> <li>• High level of technical knowledge.</li> </ul>
COM4.3	<b>Institute mechanisms for public consultations and communication over decisions, policies &amp; plans</b>	With stakeholders and collaborators.	<ul style="list-style-type: none"> <li>• Contractual formats.</li> <li>• Legislation and issues involved.</li> <li>• Awareness of protocols of international conferences.</li> </ul>
Notes			

COM: Communication Level 5			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
COM5.1	<b>Represent the country at formal negotiations and conferences</b>	CBD, WCPA, CITES etc. within limits of authority	<ul style="list-style-type: none"> <li>• Relevant technical knowledge</li> <li>• National positions on all major issues</li> </ul>
Notes			



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# Technology and Information

This competence covers mainly the use of information technology, electrical and electronic equipment. Emphasis is placed on computer use. A special section at Level 3 deals with library management.

TEC: Technology and Information Level 1			
	GENERAL SKILLS	SCOPE AND CONTEXT	KNOWLEDGE
TEC1.1	<b>Operate basic office equipment</b>	Phone, fax, photocopier.	<ul style="list-style-type: none"> <li>• Basic functions of equipment.</li> </ul>
Notes			

TEC: Technology and Information Level 2			
	GENERAL SKILLS	SCOPE AND CONTEXT	KNOWLEDGE
TEC2.1	<b>Operate and maintain computer for basic functions</b>	MS Office, Internet and Email. Basic maintenance of hardware and software.	<ul style="list-style-type: none"> <li>• Basic computer functions and common software packages.</li> </ul>
TEC2.2	<b>Operate audiovisual equipment</b>	Cameras, recorders, video equipment, projectors, visual aids.	<ul style="list-style-type: none"> <li>• Manuals of equipment.</li> </ul>
Notes			

TEC: Technology and Information Level 3			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
TEC3.1	<b>Create and administer web pages and sites</b>	Use of relevant web design, maintenance languages and applications. SQL programming, use of on-line databases.	<ul style="list-style-type: none"> <li>• Computer hardware and software operation and maintenance.</li> <li>• Local Area Network operation and maintenance.</li> <li>• Development and maintenance of on-line databases and information systems.</li> <li>• GIS use.</li> <li>• Design knowledge.</li> <li>• Library and Archive catalogue and management techniques.</li> </ul>
TEC3.2	<b>Maintain computers</b>	Repair, replacement of components, fixing software and hardware problems. Backup and anti-virus procedures.	
TEC3.3	<b>Operate and maintain computer for advanced functions</b>	Local Area Network, use of specialised applications. (e.g. design imaging, desk top publishing, databases).	
TEC3.4	<b>Operate GIS systems</b>	Digitising maps and using relevant GIS programmes.	
GENERAL SKILLS		SCOPE AND CONTEXT	
TEC3.5	<b>Manage library, archives and other information resources</b>	Book, documents, maps and images, records of PA activities.	
Notes			

# Project Development and Management

This category covers the planning, management and supervision of structured programmes, projects and work plans, including those receiving external funding. The skills can be applied to specific tasks such as site management planning, but can be used for any activities that fall within a planned structure. Level 3 deals with basic operational planning and management of existing projects. Level 4 covers development, planning and management of larger and more complex projects according to international donor standards. Level 5 skills relate to strategic and policy planning.

## PRO: Development and Management Level 3

	GENERAL SKILLS	SCOPE AND CONTEXT	KNOWLEDGE
PRO3.1	<b>Develop operational plans</b>	Activities, work plans, timetables, logistics.	<ul style="list-style-type: none"> <li>• Requirements and formats for proposals to relevant donors.</li> </ul>
PRO3.2	<b>Manage team leaders, contractors and collaborators in the implementation of work plans</b>	Agreeing work schedules, managing logistics, providing technical oversight, monitoring progress.	<ul style="list-style-type: none"> <li>• Relevant technical knowledge.</li> </ul>
PRO3.3	<b>Record and monitor project results</b>	Inputs, outputs, impacts.	<ul style="list-style-type: none"> <li>• Delegation, decision-making and other management techniques.</li> </ul>
PRO3.4	<b>Prepare plans for technical projects</b>	Non-complex projects with measurable objectives.	<ul style="list-style-type: none"> <li>• Monitoring techniques.</li> </ul>
Notes			



PRO: Development and Management Level 4			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
PRO4.1	Prepare and negotiate proposals for resources and support	Bids for departmental or government resources. Proposals for donor projects.	<ul style="list-style-type: none"> <li>• Use of problem analysis, alternatives analysis, ZOPP (or similar) approaches, development of logical frameworks.</li> <li>• Positions and policies of other relevant agencies/organizations.</li> <li>• Range of donors and their priorities and requirements.</li> <li>• Design and use of adaptive management techniques.</li> <li>• Wide range of PA funding options.</li> <li>• Wide range of management techniques.</li> </ul>
PRO4.2	Develop structured plans and proposals	Use of 'logical framework' approaches and other formats as required.	
PRO4.3	Develop business plans, fund raising and revenue generating schemes	Income generation, fee systems, charges for goods and services, concessions etc.	
PRO4.4	Develop collaborative partnerships, plans and programmes with other agencies	National and international agencies and NGOs.	
PRO4.5	Direct managers and team leaders in the implementation of work programmes	Overall oversight of project activities.	
PRO4.6	Lead formal project reviews and evaluations	Performance, impact and inputs and outputs. Compliance with project plans.	
Notes			

PRO: Development and Management Level 5			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
PRO5.1	Lead the development of strategic and policy plans and reviews	Policies and strategies relating to conservation and protected area management.	<ul style="list-style-type: none"> <li>• Strategic planning.</li> <li>• Understanding of relevant national and international initiatives.</li> </ul>
PRO5.2	Lead development and implementation of national and international level programmes and plans	Contributions to regional or global projects and plans for protected areas, CITES, etc.	
Notes			

# Field Craft

Field craft covers the practical skills required for working safely and effectively in remote or challenging areas away from normal amenities. Field craft skills are important for anyone working in such situations from researchers to rangers. Level 1 skills concern primary safety and good practice. Level 2 covers navigation and moving across and camping in the field. In some protected areas this may involve the use of special equipment and techniques and these are included under 'Specialised Skills'. A special section is also included on watercraft. Level 3 covers the organisation and logistics of field expeditions, field communications and emergency response and search and rescue techniques.

## FLD: Field Craft Level 1

GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
FLD1.1	<b>Follow good environmental practice in the field</b>	Not smoking, avoiding alcohol, safe management of camp fires, quiet behaviour, avoiding environmental damage, not hunting, appropriate disposal of human waste and garbage.	<ul style="list-style-type: none"> <li>• The likely impacts and effects of poor environmental practice in the field.</li> <li>• Specific details of locally applicable hazards, illnesses and diseases.</li> </ul>
FLD1.2	<b>Identify, prevent and/or provide primary treatment in the field for illness, diseases and bites</b>	e.g. Sickness, diarrhea, fatigue, heat exhaustion, exposure, early symptoms of serious diseases (e.g. malaria, dengue), snake and other animal bites, effects of decompression in divers.	<ul style="list-style-type: none"> <li>• Basic first aid.</li> <li>• Maintenance of personal fitness and hygiene.</li> <li>• Awareness of the hazards associated with field work.</li> </ul>
FLD1.3	<b>Undertake field work safely and effectively</b>	Fitness and endurance, ability to swim (where relevant) Showing consideration of safety and welfare of self and others in the field.	<ul style="list-style-type: none"> <li>• Procedures to follow and contact details for emergencies.</li> <li>• Basic safety procedures for diving (for marine protected areas).</li> </ul>
Notes			

FLD: Field Craft Level 2			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
FLD2.1	<b>Care for, check and maintain basic field and camping equipment</b>	Tents, shelters, cooking and kitchen equipment, lamps, sleeping bags, mats and hammocks, camp tools.	<ul style="list-style-type: none"> <li>Principles of navigation and orientation, map creation and reading (scale, orientation, keys).</li> <li>How GPS works and the accuracy and limitations of GPS.</li> <li>Specifications, uses, limits and hazards of relevant equipment.</li> <li>Knowledge of specific characteristics and hazards of the local terrain.</li> <li>Functioning of the PA radio system and of radio protocols.</li> <li>Knowledge of climbing, mountaineering and caving techniques.</li> <li>Knowledge associated with a recognised sub aqua certificate.</li> </ul>
FLD2.2	<b>Organise camp sites</b>	Selecting suitable site, organising safe and appropriate fire, water, and waste disposal and latrine facilities. Ensuring sites are left clean and safe.	
FLD2.3	<b>Use compass and chart or map for navigation and orientation</b>	Use and interpretation of topographic maps, using map references, identifying and locating compass bearings, identifying locations by use of features on map and by triangulation.	
FLD2.4	<b>Use and care for basic field equipment</b>	Binoculars, measuring equipment, compass, altimeter.	
FLD2.5	<b>Use GPS for georeferencing locations and for navigation and orientation</b>	Care and maintenance of GPS, setting up GPS for use, georeferencing a location and identifying it on a map, use of locally appropriate coordinate systems, entering basic way points.	
FLD2.6	<b>Draw sketch maps from field data</b>	Producing simple maps for communicating information about features and locations.	
FLD2.7	<b>Move safely across the terrain</b>	Travelling across difficult or hazardous terrain including cutting paths, ascending and descending steep slopes, crossing rivers, moving across difficult substrates (e.g. snow, ice, wetlands, scree), use of ropes, safety lines and other devices	

FLD: Field Craft Level 2			
	SPECIALISED SKILLS	SCOPE AND CONTEXT	KNOWLEDGE
FLD2.8	<b>Use and maintain radio handset for field communication</b>	Care of equipment, maintaining batteries, use of basic protocols for communicating with base station and handset to hand set.	
FLD2.9	<b>Use specialised equipment for mountain and/or cave sites</b>	Specific climbing and mountaineering techniques: use of ropes, harnesses, belays, use of crampons and ice axes and other equipment	
FLD2.10	<b>Watercraft.</b>	Water based safety and navigation. Swimming, snorkelling and diving. Use of SCUBA equipment for diving to internationally recognised standards. Boat handling.	
Notes			

- AEP
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- CON
- NAT
- FLD**
- PRO
- TEC
- COM
- TRA
- HRM
- FIN
- GEN

### FLD: Field Craft Level 3

GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
FLD3.1	<b>Plan and organise logistics for field trips, surveys and patrols</b>	Ensuring that transport, food, camping, field equipment and safety arrangements are suitable for the number of participants and the duration and purpose of the field trip.	<ul style="list-style-type: none"> <li>• Range of equipment available and its uses.</li> <li>• First hand knowledge of the terrain and topography of the protected area and familiarity with available maps.</li> </ul>
FLD3.2	<b>Organise and lead search and rescue operations in the field</b>	Coordination with emergency services, organising search parties and patterns, organising communications, collating reports, organising evacuation of casualties. Special techniques may be required for aquatic search and rescue.	<ul style="list-style-type: none"> <li>• Locally accepted radio protocols.</li> <li>• Range of options for securing assistance in search and rescue operations, including contacts with emergency services.</li> </ul>
FLD3.3	<b>Operate and use base station radio and communication equipment</b>	Care and operation of equipment, use of locally accepted radio protocols, logging calls and communications, responding to SOS calls.	<ul style="list-style-type: none"> <li>• Standard procedures for emergencies.</li> </ul>
Notes			

# Natural Resources Assessment

This category deals with skills related to surveying, evaluating assessing and monitoring the natural resources (biological and physical) of a protected area. The standards are designed to recognise the important role that semi-skilled workers (level 1) with good local knowledge can play in surveys. Level 2 skills focus on supervised gathering of field data using established methodologies. Because of the very wide range of potential survey requirements and techniques the skill the skills at level 3 include very wide scope and context descriptions and several specialised skills areas. No one person is likely to possess all of these skills for all ranges. However a protected area biologist or field scientist at level 3 would be expected to competent in at least some aspects of these specialist skills. Level 4 skills concern the scientific design of survey and monitoring schemes and advanced aspects of conservation biology and valuation.

## NAT: Natural Resources Assessment Level 1

GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
NAT1.1	<b>Recognise common and typical vegetation and habitat types, plants and animal species</b>	According to local conditions. Including common important, useful and invasive species.	<ul style="list-style-type: none"> <li>• Purpose and objectives of surveys.</li> <li>• Local language and culture.</li> </ul>
NAT1.2	<b>Accurately record and report wildlife observations</b>	Verbal reports, use of basic forms.	<ul style="list-style-type: none"> <li>• Local terrain.</li> </ul>
NAT1.3	<b>Assist in census, monitoring and other field survey work</b>	As directed by survey leaders.	<ul style="list-style-type: none"> <li>• Local flora and fauna including key and protected species.</li> </ul>
SPECIALISED SKILLS		SCOPE AND CONTEXT	
NAT1.4	<b>Recognise tracks and signs of key animals</b>	Common, important, useful and invasive species.	<ul style="list-style-type: none"> <li>• Field craft (see skills under FLD).</li> <li>• Use of basic equipment.</li> </ul>

Notes

NAT: Natural Resources Assessment Level 2			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
NAT2.1	<b>Conduct supervised surveys of wildlife, habitats, natural resources and physical landscape features.</b>	Applying tasks and techniques learned during training. E.g. walking transects, counting nests, measuring footprints. Locating, identifying, mapping and measuring common habitats and features (e.g. watercourses, caves, hills). Use of local knowledge and skills in conducting surveys	<ul style="list-style-type: none"> <li>Local fauna flora and natural history.</li> <li>Local terrain and topography.</li> <li>Local language and culture.</li> <li>Field craft (see FLD).</li> <li>Preparation of field specimens.</li> </ul>
NAT2.2	<b>Collect, prepare and care for field specimens of flora and fauna.</b>	Trapping, collection and field preservation and storage of plant and found animal specimens and remains.	<ul style="list-style-type: none"> <li>Purpose and objectives of survey and monitoring.</li> </ul>
NAT2.3	<b>Record and report survey and monitoring data.</b>	Use of standard forms and reporting systems for recording survey information.	<ul style="list-style-type: none"> <li>Familiarity with field equipment.</li> <li>Basic survey, census and inventory methods and fundamentals of the scientific approach.</li> </ul>
NAT2.4	<b>Use identification aids to identify plants and animals.</b>	Field guides, simple keys or specimens.	<ul style="list-style-type: none"> <li>Techniques for humane capture of animals.</li> </ul>
NAT2.5	<b>Use and care for scientific instruments.</b>	Cameras, data readers, altimeters, traps, capture equipment, etc.	
Notes			

## NAT: Natural Resources Assessment Level 3

NAT: Natural Resources Assessment Level 3		
GENERAL SKILLS	SCOPE AND CONTEXT	KNOWLEDGE
NAT3.1	<b>Organize and lead biophysical survey and monitoring activities</b>	Identifying objectives, specifying and applying methods, supervising surveys: Field based biological surveys, physical and landscape surveys, natural resource use surveys. Secondary data collection from libraries, agency offices, databases, internet. Interviews with community members, hunters and others.
NAT3.2	<b>Operate specialised survey equipment</b>	Photo trapping, radio tracking/telemetry equipment fixed point photography, measuring equipment etc.
NAT3.3	<b>Analyse, interpret and present survey and monitoring data</b>	Statistical analysis, interpretation and presentation.
SPECIALISED SKILLS		SCOPE AND CONTEXT
NAT3.4	<b>Lead specialised taxonomic, habitat and ecosystem surveys (according to individual expertise and experience)</b>	Habitats relevant to the PA. Faunal groups based on need. Higher/lower plants, fungi vegetation/plant communities. Hydrology, soils, geology and other physical features.
NAT3.5	<b>Curate collections</b>	Herbaria and zoological collections.
NAT3.6	<b>Interpret air photographs and remote sensing information</b>	Photographs and common satellite image formats.
Notes		





## NAT: Natural Resources Assessment Level 4

GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
NAT4.1	<b>Design biophysical research, survey, research and monitoring methods and programmes</b>	Based on protected area management priorities. Identification of methods to meet particular needs and objectives. Identification of indicators, methods of monitoring and schedules for monitoring. Design of autecological studies, behavioural studies, population and community studies.	<ul style="list-style-type: none"> <li>• Research approaches and techniques.</li> <li>• Advanced conservation biology.</li> <li>• Valuation techniques.</li> <li>• Data analysis techniques.</li> <li>• Specialist technical knowledge.</li> </ul>
NAT4.2	<b>Determine the value of ecological/environmental services</b>	Use of different forms of valuation. e.g Total Economic Valuation, Market Based Approaches, Preference Approaches, Benefits Transfer.	
Notes			

# Conservation Management of Ecosystems, Habitats and Species

This category covers the practical and technical aspects of conservation management for plants, animals, ecosystems, habitats and landscapes. Given the range of species and habitats in the region the scope and context statements are broad and the knowledge requirements extensive. Each level also includes specialised skills concerning management of animal species (wildlife management), which are important in some protected areas.

Level 1 covers basic practical skills and if required the specialist skills and knowledge required for basic care of captive animals. Level 2 covers field supervision of habitat management and nursery work and includes specialist animal capture, control and management skills that may not be required for most PAs. Level 3 covers planning and leadership of specific management activities and includes more advanced wildlife management skills. Level 4 skills cover the scientific basis for planning, conducting and evaluating conservation management

## CON: Conservation Management Level 1

GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
CON1.1	<b>Control/remove vegetation</b>	Cutting, pulling, clearing and suitable disposal of material (including invasive plants).	<ul style="list-style-type: none"> <li>• Recognition of species for planting and understanding of the benefits of tree planting.</li> </ul>
CON1.2	<b>Propagate, plant and care for trees and shrubs</b>	Ground preparation, basic propagation, planting, protection, watering.	<ul style="list-style-type: none"> <li>• Recognition of target species for removal.</li> </ul>
SPECIALISED SKILLS		SCOPE AND CONTEXT	
CON1.3	<b>Check and replenish feeding stations for wild animals</b>	Feeding stations, drinking places, salt licks.	<ul style="list-style-type: none"> <li>• Care and feeding requirements of relevant species.</li> </ul>
CON1.4	<b>Care for captured / captive animals</b>	Supervised feeding, recognition of health and welfare problems, maintaining cleanliness and hygiene etc. Safe disposal of animal carcasses.	<ul style="list-style-type: none"> <li>• Common diseases, problems for relevant species.</li> <li>• Carcass disposal techniques.</li> </ul>
Notes			

CON: Conservation Management Level 2			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
CON2.1	<b>Supervise practical habitat creation, restoration, management or manipulation work</b>	Propagating, planting, cutting, clearing, managed burning in line with plans and guidelines.	<ul style="list-style-type: none"> <li>• Basic species and ecosystem ecology.</li> <li>• Plant propagation and nursery techniques.</li> </ul>
SPECIALISED SKILLS		SCOPE AND CONTEXT	<ul style="list-style-type: none"> <li>• Field recognition and understanding of needs and behaviour of relevant species.</li> <li>• Safe use, handling and storage of baits and poisons and procedures for dealing with accidents.</li> <li>• Animal capture, transportation, housing and care procedures/regulations</li> <li>• Recognition of diseases and signs of and animal welfare problems.</li> <li>• Safe use, storage, handling and application of tranquillisers and procedures for dealing with accidents.</li> <li>• Safe use and care of firearms.</li> </ul>
CON2.2	<b>Control invasive animals (excluding shooting)</b>	Safe supervised use of traps, baits, poisons.	
CON2.3	<b>Assist in the capture/immobilisation, handling and transportation of animals</b>	Stalking and safe approach, setting and safe and humane use of traps, safe and humane restraining, Supervised loading of darts and use of tranquilliser gun, blowpipe and pole.	
CON2.4	<b>Maintain and operate containment equipment and infrastructure</b>	Cages and enclosures (permanent and mobile), netting, gating systems, permanent and temporary electric fencing.	
CON2.5	<b>Cull animals using firearms</b>	Shooting animals following prescribed quotas and specifications. Relevant for invasive species and populations that require limiting.	
Notes			

CON: Conservation Management Level 3			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
CON3.1	<b>Specify management requirements for and direct the management of habitats and ecosystems</b>	Forest, mountain, grassland, dryland, freshwater, caves, reefs, mangroves etc as required. Habitat management, manipulation, creation, restoration and recovery	<ul style="list-style-type: none"> <li>• Knowledge of relevant habitats</li> <li>• Purpose, impact and uses of relevant habitat management, recovery and restoration techniques.</li> </ul>

CON: Conservation Management Level 3			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
CON3.2	<b>Specify, and evaluate sustainable quotas for natural resource use</b>	Hunting, gathering, harvesting of relevant species at sustainable levels. Methods for regulation and monitoring.	<ul style="list-style-type: none"> <li>Ecology, food and habitat requirements of key species</li> <li>Impacts and control methods for invasive species</li> </ul>
CON3.3	<b>Specify special measures for assisting protection, survival or recovery of key species</b>	e.g. Salt licks, wallows, water supply, nest boxes.	<ul style="list-style-type: none"> <li>Animal keeping and husbandry including basic veterinary procedures.</li> </ul>
SPECIALISED SKILLS		SCOPE AND CONTEXT	
CON3.4	<b>Plan evaluate and supervise management of invasive and problem animals and human wildlife conflict</b>	Measure for mitigating impact of crop raiding animals, animal pests, artificially high populations, dangerous animals, alien invasive animals Shooting, trapping, poison baiting as required for relevant pest/invasive species.	<ul style="list-style-type: none"> <li>Techniques for capture of relevant species including calculation of doses for tranquillising.</li> <li>Laws, regulations and conventions relating to capture, transport, keeping, export etc.</li> </ul>
CON3.5	<b>Plan and supervise animal capture, transport, care and management</b>	Darting, trapping, provision of adequate cages and enclosures, welfare during transport of relevant species. Feeding, housing and welfare of relevant species, initial treatment for diseases and disorders. Working with vets and specialists	<ul style="list-style-type: none"> <li>Local natural resources collection practices and uses (living and non-living resources).</li> <li>Techniques for natural resource assessment and monitoring (see Competence for RES).</li> <li>Maximum sustainable yields and the use of quotas and other catch limits.</li> </ul>
CON3.6	<b>Plan, specify, and evaluate sustainable quotas for sport hunting/fishing</b>	Species surveys, review of hunting/fishing records, determination of quotas based on scientific principles.	<ul style="list-style-type: none"> <li>Causes, impacts and potential solutions to human wildlife conflict.</li> <li>Laws and regulations concerning quarry species, protected species.</li> </ul>
Notes			

CON: Conservation Management Level 4			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
CON4.1	<b>Plan, manage and evaluate species and habitat conservation and recovery projects</b>	Viability assessments, recovery plans, management plans for relevant species and habitats.	<ul style="list-style-type: none"> <li>Ecology and conservation biology of relevant species, ecosystems and habitats.</li> </ul>
CON4.2	<b>Design indicator based biophysical monitoring programmes</b>	Identification of indicators, methods of monitoring and schedules for monitoring.	<ul style="list-style-type: none"> <li>Ecology of species for reintroduction and reintroduction methods and protocols (IUCN Guidelines).</li> </ul>
CON4.3	<b>Plan, manage and evaluate species reestablishment or reintroductions</b>	Reintroduction proposals and plans following IUCN guidelines, pre release, release, monitoring.	<ul style="list-style-type: none"> <li>Laws, regulations and conventions relating to capture, transport, keeping, export etc.</li> </ul>
CON4.4	<b>Plan, manage and evaluate animal translocation, eradication and control projects</b>	Culling of large populations, invasive or pest species control.	<ul style="list-style-type: none"> <li>Ecology of species to be controlled/culled/eradicate and eradication/control techniques and protocols.</li> </ul>
SPECIALISED SKILLS		SCOPE AND CONTEXT	
CON4.5	<b>Plan, manage and evaluate ex-situ animal conservation and breeding projects</b>	Welfare and care of captive animals, studbook keeping, planned breeding programmes.	<ul style="list-style-type: none"> <li>Care, maintenance and genetic management of captive populations of animals.</li> </ul>
CON4.6	<b>Plan, manage and evaluate ex-situ plant conservation projects</b>	Plant breeding, maintenance of collections, specialised horticultural techniques.	<ul style="list-style-type: none"> <li>Maintenance and genetic management of plant collections and storage of seeds/germplasm.</li> </ul>
Notes			

# Socio-Economic and Cultural Assessment

This category concerns skills related to gathering information about the societies, cultures, livelihoods and economics of communities that interact with the protected area. Level 2 covers basic informal and formal information gathering. Level 3 deals with more complex and participatory survey and assessment approaches and techniques. Level 4 skills concern the specification and design of research, survey and monitoring methods and techniques for evaluating results.

SOC: Socio-Economic and Cultural Assessment Level 2			
	GENERAL SKILLS	SCOPE AND CONTEXT	KNOWLEDGE
SOC2.1	Conduct supervised community based socio economic, cultural and resource use and surveys in the field using basic techniques.	Questionnaires, household interviews, observation-based surveys, Rapid Rural Assessments. Field based assessments of locations, methods, patterns and quantities of locally derived natural resources used by communities.	<ul style="list-style-type: none"> <li>• Basic interview, record gathering and data recording.</li> <li>• Cultural and gender awareness.</li> </ul>
Notes			

### SOC: Socio-Economic and Cultural Assessment Level 3

GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
SOC3.1	<b>Conduct stakeholder analysis</b>	Use of formal stakeholder analysis frameworks.	<ul style="list-style-type: none"> <li>• Local communities, leaders, customs, and traditional knowledge.</li> </ul>
SOC3.2	<b>Plan and supervise and facilitate socio economic and livelihood information gathering activities.</b>	Information: Demography, livelihoods and incomes, education, welfare. Wildlife records, hunting and gathering yields, ethnobotanical data. Techniques: Secondary data collection, questionnaires, household interviews, observation-based surveys, Rapid Rural Assessments. Participatory techniques such as Participatory Rural Appraisal (PRA), community mapping and modelling	<ul style="list-style-type: none"> <li>• Local community livelihoods.</li> <li>• Stake holder analysis techniques.</li> <li>• Research techniques and methodologies.</li> <li>• Participatory techniques (PRA, RRA).</li> <li>• Techniques to gather information from communities (e.g. participatory mapping, 3D modelling)</li> </ul>
SOC3.3	<b>Analyse and present survey data.</b>	Statistical analysis, interpretation and presentation.	<ul style="list-style-type: none"> <li>• Communication and public relations techniques.</li> </ul>
SPECIALISED SKILLS		SCOPE AND CONTEXT	
SOC3.4	<b>Lead ethnographic and cultural heritage assessments and monitoring programmes.</b>	Ethnography, archaeology, architecture, traditional practices.	<ul style="list-style-type: none"> <li>• Relevant technical knowledge</li> <li>• Awareness of and sensitivity to ethnic, cultural and gender issues.</li> <li>• Statistical and presentation techniques.</li> </ul>
Notes			

## SOC: Socio-Economic and Cultural Assessment Level 4

SPECIALISED SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
SOC4.1	<b>Develop socio economic and cultural research and monitoring programmes</b>	Based on protected area management and community priorities.	<ul style="list-style-type: none"> <li>• Research approaches and techniques.</li> </ul>
SOC4.2	<b>Develop socio economic and cultural survey methodologies</b>	Identification of methodologies to meet particular objectives.	<ul style="list-style-type: none"> <li>• Advanced knowledge of social &amp; rural development.</li> <li>• Economics.</li> </ul>
SOC4.3	<b>Carry out economic analyses</b>	Calculation of incomes, expenditures, costs and values.	<ul style="list-style-type: none"> <li>• Data analysis techniques.</li> <li>• Specialist technical knowledge.</li> </ul>
Notes			



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# Sustainable Development and Communities

This category contains skills for working with and supporting local communities whose lives and livelihoods interact with the protected area. The category does not cover general rural development skills, but focuses on activities that would normally take place within the context of the management plan and conservation objectives of a protected area, often in the buffer or sustainable development zones. Level 2 concerns practical and grass roots community work and could apply to any staff whose work includes working with communities. Level 3 covers community empowerment and participation and the organisation of community work. Specialised skills include a broad spectrum of technical advisory skills. No one worker is likely to have all of these, but a community officer in a protected area would be expected to have at least some of these technical competences. Level 4 concerns the overall management and resourcing of community projects and resolution of conflicts, disputes and land tenure issues.

## DEV: Sustainable Development and Communities Level 2

DEV: Sustainable Development and Communities Level 2			
	GENERAL SKILLS	SCOPE AND CONTEXT	KNOWLEDGE
DEV2.1	<b>Liase with community groups</b>	Regular meetings with community leaders and regular schedule of visits to all communities.	<ul style="list-style-type: none"> <li>Local communities, leaders, customs, and traditional knowledge.</li> </ul>
DEV2.2	<b>Arrange local meetings, events and presentations</b>	Logistics and invitations for PA/Community meetings and events.	<ul style="list-style-type: none"> <li>Problems and issues affecting communities.</li> <li>Communication techniques.</li> </ul>
DEV2.3	<b>Provide information, guidance and assistance for community-based conservation and sustainable use</b>	Practical project such as tree planting, nursery establishment, boundary marking, repairs to community infrastructure.	<ul style="list-style-type: none"> <li>Training and extension techniques.</li> <li>Purpose and functions of park programmes.</li> </ul>
DEV2.4	<b>Monitor compliance with agreements in the field</b>	Management agreements, community conservation contracts etc.	<ul style="list-style-type: none"> <li>Practical site management.</li> <li>Relevant community-park agreements.</li> <li>PA regulations for protection and enforcement.</li> </ul>
Notes			

## DEV: Sustainable Development and Communities Level 3

GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
DEV3.1	<b>Enable community inputs to planning, decision-making and management.</b>	Establishing community representation on working groups and committees, use of participatory techniques to ensure effective contributions, providing feedback and information to communities.	<ul style="list-style-type: none"> <li>Local communities, livelihoods, leaders, customs, beliefs and traditional knowledge.</li> <li>Problems and issues affecting communities.</li> <li>Details of Protected area community policies and programmes.</li> </ul>
DEV3.2	<b>Negotiate community conservation and management agreements.</b>	Management and resource use rights, boundaries and use zones, limits and quotas, revenue generation and benefit sharing and other approaches.	<ul style="list-style-type: none"> <li>Sources of external finance and advice</li> <li>Training and extension</li> </ul>
DEV3.3	<b>Plan, coordinate and facilitate community capacity development activities.</b>	Training events, study tours, exchanges.	<ul style="list-style-type: none"> <li>Communication techniques.</li> </ul>
DEV3.4	<b>Promote development of local networks and organizations.</b>	Establishment of local NGOs, people's organizations, cooperative and other groups.	<ul style="list-style-type: none"> <li>Participatory techniques.</li> <li>Local natural resources collection practices and uses</li> </ul>
DEV3.5	<b>Provide advice on sustainable community based natural resource use and management.</b>	Collection, harvesting, hunting.	<ul style="list-style-type: none"> <li>Techniques for natural resource assessment and monitoring.</li> </ul>
DEV3.6	<b>Provide advice/guidance on community funding.</b>	Small grants, loans, revenue sharing, revolving funds, applying for external grants and support.	<ul style="list-style-type: none"> <li>Techniques to gather information from communities (e.g. participatory mapping, Participatory 3D Modelling)</li> </ul>
DEV3.7	<b>Work with religious/cultural leaders to promote conservation and sustainable use.</b>	Leaders, religious institutions and schools. Providing information, attending events, stimulating discussion and participation.	<ul style="list-style-type: none"> <li>Specialist technical knowledge as required on cultural and heritage management and conservation, enterprise development, likely income generating activities, health and welfare issues.</li> </ul>

## DEV: Sustainable Development and Communities Level 3

	SPECIALISED SKILLS	SCOPE AND CONTEXT	KNOWLEDGE
DEV3.8	<p><b>Provide specialised advice/guidance to communities (according to individual expertise and experience).</b></p>	<p><b>Cultural and heritage conservation:</b> Maintenance of traditions, protection of important artefacts, structures, sites and locations.</p> <p><b>Economic development:</b> Enterprise development, sustainable agriculture, horticulture and forestry, tourism, handicrafts, wildlife ranching, manufacturing.</p> <p><b>Community welfare:</b> Health, sanitation, safety, security, access to welfare services.</p>	<ul style="list-style-type: none"> <li>• Financial management and budgeting.</li> <li>• PA regulations for protection and enforcement.</li> </ul>
Notes			

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## DEV: Sustainable Development and Communities Level 4

GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
DEV4.1	<b>Design and negotiate community components of integrated conservation and development projects</b>	ICDP approaches. Programme and project planning.	<ul style="list-style-type: none"> <li>• Legislation concerning, land tenure, customary rights.</li> </ul>
DEV4.2	<b>Develop agreements, for resource access and use</b>	Formal and informal agreements, permit and licensing schemes.	<ul style="list-style-type: none"> <li>• Conflict resolution, mediation and negotiation techniques.</li> </ul>
DEV4.3	<b>Resolve land claims and formalise land allocations</b>	Reviewing land tenure records and claims. Negotiating and legally processing agreed claims.	<ul style="list-style-type: none"> <li>• Policies and laws affecting local communities.</li> <li>• Local leaders, customs, and traditional knowledge.</li> </ul>
DEV4.4	<b>Resolve conflicts concerning protected areas, communities and other stakeholders</b>	Protected area-community conflicts; community – community conflicts; other conflicts. Use of negotiation, mediation and resolution techniques.	<ul style="list-style-type: none"> <li>• Integrated Conservation and Development Project approaches and techniques.</li> </ul>
DEV4.5	<b>Identify and mobilise external sources of assistance, support and finance for local communities</b>	Government, NGO and donor advice, technical assistance extension and funding.	<ul style="list-style-type: none"> <li>• Conservation priorities, programmes and activities of the PA.</li> <li>• Local livelihood and land use requirements.</li> <li>• Sources of support and finance.</li> <li>• Communication techniques.</li> </ul>
Notes			

# Protected Areas Policy, Planning and Management

This category covers the higher-level specific skills required for modern protected area management. Level 3 deals mainly with implementation of management plans. Level 4 covers management planning and related legal and administrative knowledge and skills for planning, management and monitoring. Level 5 skills address policy issues and skills and knowledge associate with managing protected area networks.

PAM: Protected Areas Policy, Planning and Management Level 3			
	GENERAL SKILLS	SCOPE AND CONTEXT	KNOWLEDGE
PAM3.1	<b>Understand and interpret relevant legislation</b>	Laws, Enactments, Ordinances, Decrees, Regulations etc.	<ul style="list-style-type: none"> <li>• Adaptive management approaches.</li> </ul>
PAM3.2	<b>Implement, monitor, review and update PA management plan objectives and actions.</b>	Based on existing management plans.	<ul style="list-style-type: none"> <li>• Relevant legislation and legal procedures.</li> <li>• Details of the PA and its management plan.</li> </ul>
Notes			

## PAM: Protected Areas Policy, Planning and Management Level 4

GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
PAM4.1	<b>Coordinate design of protected area zoning systems to meet conservation and other objectives</b>	Zones for: total protection, special use, non-intervention, sustainable use, recreation, sustainable development and others.	<ul style="list-style-type: none"> <li>Detailed knowledge of the PA, its values, objectives, cultures, current and future threats, problems, and opportunities.</li> </ul>
PAM4.2	<b>Lead the development of a protected area conservation management plan.</b>	<ul style="list-style-type: none"> <li>Identify values, threats and priorities.</li> <li>Define goals and evaluate options.</li> <li>Define objectives and prescribe actions.</li> <li>Identify resource requirements.</li> </ul>	<ul style="list-style-type: none"> <li>Role and responsibility of authorities, agencies and other relevant organisations.</li> <li>Relevant national laws.</li> <li>Environmental Management Systems (EMS).</li> </ul>
PAM4.3	<b>Negotiate local agreements to support management of the protected area</b>	Local landowners, users, occupiers, managers, local communities, local authorities.	<ul style="list-style-type: none"> <li>Methods for assessing management effectiveness.</li> </ul>
PAM4.4	<b>Lead development of contingency plans for potential disasters</b>	Natural disasters (fire, flood earthquake) and man made disasters such as armed conflict, humanitarian crises.	<ul style="list-style-type: none"> <li>Options for protected area management based on best practice examples and publications.</li> </ul>
PAM4.5	<b>Contribute information and recommendations to plans, policies and assessments</b>	Environmental impact assessments, regional land use plans, development plans etc. Likely impact of proposed developments on the PA, recommended mitigation measures.	<ul style="list-style-type: none"> <li>Management planning processes and formats.</li> </ul>
PAM4.6	<b>Monitor management effectiveness of the protected area</b>	Use of IUCN/WWF Management Effectiveness evaluation schemes.	
Notes			

PAM: Protected Areas Policy, Planning and Management Level 5			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
PAM5.1	<b>Lead national and international policy development for biodiversity conservation and protected area management</b>	National laws and policies, relevant conventions such as CBD, CITES, RAMSAR.	<ul style="list-style-type: none"> <li>National and international policies, conventions and laws concerning biodiversity conservation and protected area management.</li> <li>Protected areas system and network planning.</li> <li>National laws and procedure relating to boundary gazettelement and modifications.</li> <li>Participatory processes for boundary delineation.</li> </ul>
PAM5.2	<b>Lead the design of protected areas networks, systems and strategies</b>	National and regional system plans.	
PAM5.3	<b>Plan and negotiate trans boundary protected area and conservation initiatives</b>	With equivalent authorities and park management in neighbouring countries.	
PAM5.4	<b>Develop and implement alternative protected area management systems</b>	Community management, NGO and business partnerships etc.	
PAM5.5	<b>Manage the process of protected area boundary formalisation, rationalisation, gazettelement</b>	Boundaries, zones, boundary adjustments and extensions.	
PAM5.6	<b>Contribute to the development and updating of legislation related to the protected area.</b>	Protected areas, wildlife and land use law.	
Notes			



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# Site Management

Site management entails the practical management of the infrastructure and landscaper of the protected area. Level 1 covers routine site maintenance tasks, Level 2 skills mainly concern construction, repair and maintenance work. Driving motor vehicles and motorboats are considered specialised level 2 skills. Level 3 focuses on design and supervision of practical management projects, while Level 4 covers design and management of larger, more extensive and complex projects.

SIT: Site Management Level 1			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
SIT1.1	<b>Fight fires</b>	In buildings and in the field.	<ul style="list-style-type: none"> <li>• Operation of fire fighting equipment.</li> </ul>
SIT1.2	<b>Safely use and care for tools and equipment</b>	Hand tools. Powered tools (electric and petrol driven) such as mowers, brush cutters and drills.	<ul style="list-style-type: none"> <li>• Relevant health and safety regulations and precautions.</li> </ul>
SIT1.3	<b>Maintain site tidiness and cleanliness</b>	Cleaning, sweeping, grass cutting, storing equipment, garbage collection/disposal.	<ul style="list-style-type: none"> <li>• Operational procedures for equipment (refer to operators manuals).</li> </ul>
Notes			

SIT: Site Management Level 2			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
SIT2.1	<b>Inspect and report on condition of site infrastructure</b>	Trails, boardwalks, bridges, signs, electrical, plumbing and waste water systems.	<ul style="list-style-type: none"> <li>• Interpretation of plans and specifications.</li> <li>• Characteristics of construction materials.</li> <li>• Standards that infrastructure and utilities should meet (for inspections).</li> <li>• Operational procedures for equipment (refer to operators manuals).</li> <li>• Administration procedures involved.</li> <li>• Safety precautions/regulations</li> <li>• Use of repair manuals, spares catalogues.</li> <li>• Terminology of parts and features.</li> </ul>
SIT2.2	<b>Construct and repair structures, paths and trails</b>	Structures: Basic carpentry and masonry for fences, barriers, foot bridges, signs and simple structures. Paths and trails: Sealed/unsealed surfaces, steps, cut-offs, drainage.	
SIT2.3	<b>Maintain and operate waste disposal systems</b>	Basic repairs to and maintenance of toilets, drains, waste water systems, septic tanks.	
SIT2.4	<b>Maintain and repair utility supply (electrical and water)</b>	Changing fuses, plugs, sockets etc. Checking batteries. Basic repairs to/maintenance of taps, plumbing, storage tanks, wells, pumped water systems, filters etc.	
SIT2.5	<b>Maintain motor vehicles and engines</b>	Basic operations only (oil, fuel, filters, tyres, etc). Not major maintenance.	
SPECIALISED SKILLS		SCOPE AND CONTEXT	
SIT2.6	<b>Drive motor vehicles</b>	Cars, tractors, motorcycles.	
SIT2.7	<b>Safely operate and maintain small boats</b>	Outboard and inboard motors.	
Notes			

SIT: Site Management Level 3			
SPECIALISED SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
SIT3.1	<b>Draw up plans and specifications for small works and basic site infrastructure for staff and contractors</b>	Paths, trails, rest areas, picnic sites, garbage disposal and associated structures. Drawings, materials, estimates of quantities, estimates of labour and time requirements.	<ul style="list-style-type: none"> <li>• Basic scale drawing.</li> <li>• Range of uses of materials.</li> <li>• Range of designs and structures for use in different situations.</li> </ul>
SIT3.2	<b>Supervise work by contractors and external maintenance workers</b>	Checking quality and standards against specifications and contracts. Reporting to management and contractors.	<ul style="list-style-type: none"> <li>• Technical drawing and mapping.</li> <li>• Estimating and calculating quantities and prices.</li> </ul>
SIT3.3	<b>Inspect and specify maintenance and repair requirements and schedules</b>	For installations and infrastructure.	<ul style="list-style-type: none"> <li>• Relevant building regulations.</li> </ul>
SIT3.4	<b>Locate, mark and inspect boundaries in the field</b>	Identifying boundaries from maps using compass and/or GPS. Use of suitable and accepted boundary marking procedures.	<ul style="list-style-type: none"> <li>• Environmental and landscape impact of structures in the landscape.</li> </ul>
SIT3.5	<b>Identify and assess fire risks and hazards and plan fire prevention and control</b>	For wildfires and fires in buildings.	
SIT3.6	<b>Plan, supervise and evaluate management of physical landscape</b>	Drainage management, erosion control on water-courses, trails and slopes. Engineered solutions (barriers, walls, drainage, terracing) and 'natural' methods (establishment of vegetation, modifying land use techniques).	
<b>SPECIALISED SKILLS</b>		<b>SCOPE AND CONTEXT</b>	
SIT3.7	<b>Produce technical drawings and maps</b>	Designs and drawings for structures, scale maps.	
Notes			

## SIT: Site Management Level 4

GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
SIT4.1	<b>Contribute to specification and design of major infrastructure projects</b>	Utilities, landscaping, architect designed and/or engineered structures and installations such as roads, bridges, airstrips, jetties and associated installations, human waste disposal systems.	<ul style="list-style-type: none"> <li>• Range of design options for infrastructure.</li> <li>• Expected levels and types of use of infrastructure.</li> <li>• Regulations and requirements for visitor accommodation.</li> </ul>
SIT4.2	<b>Plan and produce specifications for appropriate on-site accommodation</b>	Campsites and lodges.	<ul style="list-style-type: none"> <li>• Know policies on accommodations and other visitor facilities.</li> </ul>
SIT4.3	<b>Plan and produce specifications for parking and traffic flow facilities</b>	Local roads, pull offs, vehicle parks, bicycle trails.	<ul style="list-style-type: none"> <li>• Understand visitor expectations (e.g. recreational opportunity spectrum).</li> </ul>
Notes			

# Enforcement

These are the skills most often associated with rangers. Level 1 includes general skills for all staff the field concerning recognition of illegal activities. As any member of staff may be called to testify in court this is included at this level as well as for personal safety. Level 1 specialised skills are for supervised patrol rangers. Level 2 covers more proactive enforcement activities leading to the arrest and detention of suspects and the collection of evidence. Level 2 includes use of firearms as a specialism, depending on national and PA level policy on firearms use. Level 3 skills focus on leadership and on processing cases against violators and on the relationships with police, judiciary and communities that are essential for effective enforcement. Level 4 concerns the legal and regulatory framework for enforcement and the wider national and international contexts of wildlife crime.

ENF: Enforcement Level 1			
	GENERAL SKILLS	SCOPE AND CONTEXT	KNOWLEDGE
ENF1.1	<b>Recognise and identify signs and evidence of illegal or restricted activities in the field</b>	Traps, snares, animal and plant remains, poaching and logging signs, trails, camps. Pollution or hazardous materials. Illegal occupation and clearance. Recognition of protected species and key target species of poachers and hunters	<ul style="list-style-type: none"> <li>Protected and target species (recognition. Identification of signs and remains).</li> <li>Basic knowledge of laws and regulations and courtroom procedures.</li> </ul>
ENF1.2	<b>Issue informal warnings and guidance for future conduct to minor offenders</b>	To staff, visitors, local community members committing minor infringements or violations.	<ul style="list-style-type: none"> <li>Basic understanding of local communities and their needs and problems.</li> </ul>
ENF1.3	<b>Provide testimony in court</b>	Provision of clear and truthful answers under questioning.	<ul style="list-style-type: none"> <li>Good knowledge of field craft (see FLD).</li> </ul>
ENF1.4	<b>Treat members of the public with respect and understanding during patrol and enforcement activities</b>	Community members and visitors.	<ul style="list-style-type: none"> <li>Good knowledge of local terrain and geography, local flora and fauna.</li> <li>Good understanding of institutional procedures and rules for dealing with confrontation and violence</li> </ul>

ENF: Enforcement Level 1			
SPECIALISED SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
ENF1.5	<b>Participate in patrol activities safely, effectively and with discipline</b>	Maintaining discipline, following instructions, observing good field craft.	
ENF1.6	<b>Deal effectively with hostile situations and defend oneself against physical attack</b>	Maintaining calm when confronted with threats, verbal abuse and intimidation. Basic self-defence techniques for disabling and/or disarming attackers.	
Notes			

ENF: Enforcement Level 2			
	GENERAL SKILLS	SCOPE AND CONTEXT	KNOWLEDGE
ENF2.1	<b>Apprehend and detain suspects correctly and legally</b>	Based on established local legally procedures.	<ul style="list-style-type: none"> <li>• Good knowledge of local communities and of key individuals within them.</li> </ul>
ENF2.2	<b>Conduct covert surveillance, track violators and conduct searches, spot checks and inspections</b>	Following signs, trails etc. Use of fixed observation points and mobile surveillance. Searches of vehicles, property, baggage. Operation of checkpoints on roads and trails.	<ul style="list-style-type: none"> <li>• The law and the rights of park staff to arrest and/or detain suspects.</li> <li>• Contacts within local law enforcement agencies.</li> </ul>
ENF2.3	<b>Correctly secure, manage and process a crime scene</b>	Preserving evidence <i>in situ</i> , noting and collecting evidence	<ul style="list-style-type: none"> <li>• Range of common and likely places of concealment.</li> </ul>
ENF2.4	<b>Report on patrol activities and observations</b>	Using standard formats and procedures.	<ul style="list-style-type: none"> <li>• Functioning of firearms.</li> </ul>
ENF2.5	<b>Care for and use firearms correctly and safely</b>	Check, maintain, safely handle and securely store firearms according to established procedures. Use of firearms for self defence against attack. Clearly understand the rules of engagement (RoE) as issued by the competent authority.	<ul style="list-style-type: none"> <li>• General safe practice and protocols for firearms use. Reference and basic guidelines can be taken from "<i>Basic Principles on the Use of Firearms by law Enforcement Officials</i>" adopted by the Eighth United Nations Congress on the Prevention of Crime and the Treatment of Offenders, Havana, Cuba, 27 August- 7 September 1990.</li> </ul>
ENF2.6	<b>Participate in tactical enforcement operations</b>	Use different patrol formations; participate in raids, ambushes, take downs of hostile/non hostile violators, disengagement from hostile violators	
ENF2.7	<b>Provide enforcement security</b>	Identification of threats to security. Provide security at crime scenes, patrol/base camp and other locations. Provide security for witnesses and suspects.	
Notes			



### ENF: Enforcement Level 3

GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
ENF3.1	<b>Conduct tactical and operational planning for enforcement operations</b>	<p>Identification of poachers and violators, their tactics, infiltration and extraction routes.</p> <p>Identification of potential threats to the environment, personnel and the public.</p> <p>Plan and implement a patrol plan to counter threats</p> <p>Planning, issuing and implementing orders to subordinates for field operations</p>	<ul style="list-style-type: none"> <li>• Relevant laws and procedures.</li> <li>• Applicable 'rules of evidence' (Types and formats of evidence that are legally admissible).</li> <li>• Legal and court procedures.</li> <li>• Interview techniques.</li> <li>• Conditions and livelihoods of local communities and threats to these.</li> <li>• Key community leaders and members.</li> </ul>
ENF3.2	<b>Lead patrol and enforcement activities in the field</b>	<p>Leadership, organisation, discipline, teamwork, performance.</p> <p>General patrol and special operations (e.g. raids and seizures)</p>	
ENF3.3	<b>Liaise with local communities to resist and prevent illegal activities</b>	By community members and outside agents.	
ENF3.4	<b>Follow correct procedure for dealing with violations seized or confiscated evidence</b>	<p>Evidence: Recording, labelling, storage, retrieval and disposition following correct procedures.</p> <p>Witnesses: secure testimonies from suspects and witnesses correctly and effectively</p> <p>Reporting: Prepare formal reports of offences and violations and prepare a case for court</p>	
ENF3.5	<b>Coordinate activities with law enforcement and regulating agencies</b>	Police, military, judiciary. CITES Authority.	

ENF: Enforcement Level 3			
SPECIALISED SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
SIT3.6	<b>Lead an investigation</b>	Following correct procedures for an investigation into a violation	
SIT3.7	<b>Develop and manage informant networks</b>	Identifying informants, interviewing and collecting information, maintaining confidentiality, offering where required rewards and incentives.	
Notes			

ENF: Enforcement Level 4			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
ENF4.1	<b>Plan patrol and enforcement activities and programmes.</b>	According to established procedures.	<ul style="list-style-type: none"> <li>• Detailed knowledge of relevant conventions, acts, decrees, laws and regulations.</li> <li>• Understanding of legal processes and procedures.</li> <li>• Good contacts among communities, police and judiciary.</li> <li>• Detailed knowledge and understanding of wildlife trade links and markets.</li> <li>• Good contacts with national and international enforcement and investigation agencies.</li> </ul>
ENF4.2	<b>Identify legal requirements and instruments for improving or extending protection and contribute to the development of protected area regulations.</b>	National laws and relevant international conventions. Formal PA regulations based on national legal frameworks.	
ENF4.3	<b>Liase with other agencies to investigate wildlife trade links and other illegal activities and markets affecting the protected area.</b>	CITES, police, international NGOs and wildlife trade investigation and monitoring projects.	
ENF4.4	<b>Organize amnesties and collection of illegal equipment and materials.</b>	Arrangements for handing in, collection, recording and disposal.	
Notes			

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# Recreation and Tourism

Recreation and tourism cover the provision and management of recreation opportunities and infrastructure for protected areas. While basic guiding and visitor care are covered here, specific techniques and skills for informing and education visitors are covered under the category Awareness, Information and Interpretation (AEI). Level 2 concerns basic work with visitors (meeting and greeting, guiding and information collection). Level 3 concerns planning and managing specific recreation activities and addressing their impacts. Level 4 is concerned mainly with planning and regulating and with recreation and tourism as a business.

REC: Recreation and Tourism Level 2			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
REC2.1	<b>Guide, assist and regulate visitors on site</b>	Give directions, offer basic advice about safety, permitted and prohibited activities. Respond to complaints and questions.	<ul style="list-style-type: none"> <li>• Knowledge of the layout and facilities of the PA.</li> <li>• Communication techniques.</li> </ul>
REC2.2	<b>Respond to emergencies and accidents to visitors</b>	First aid and emergency procedures.	<ul style="list-style-type: none"> <li>• Goods and services on offer at the protected area.</li> </ul>
REC2.3	<b>Operate ticketing and sales points</b>	Receiving cash, issuing tickets and receipts, maintaining records and inventories.	<ul style="list-style-type: none"> <li>• Specialised guiding techniques.</li> </ul>
REC2.4	<b>Collect information about visitors and activities</b>	Counting visitors, vehicles and , participants in activities. Use of questionnaires.	<ul style="list-style-type: none"> <li>• Recreation provisions of the protected area.</li> <li>• Procedures for emergencies and accidents.</li> </ul>
SPECIALISED SKILLS		SCOPE AND CONTEXT	
REC2.5	<b>Guide visitors safely on specialised/hazardous activities</b>	Wildlife viewing, mountaineering. caving, fishing, hunting, diving.	<ul style="list-style-type: none"> <li>• Cash handling.</li> <li>• First aid.</li> </ul>
Notes			

REC: Recreation and Tourism Level 3			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
REC3.1	<b>Identify recreation opportunities and appropriate recreation activities</b>	Trails, guided activities, wildlife viewing, adventure activities, outdoor pursuits.	<ul style="list-style-type: none"> <li>• Range of typical PA recreation activities and their requirements.</li> </ul>
REC3.2	<b>Identify information needs about visitors and plan recreation surveys</b>	Quantitative and qualitative data. Counts, observation interviews, questionnaires.	<ul style="list-style-type: none"> <li>• Visitor survey approaches and techniques.</li> </ul>
REC3.3	<b>Identify potential recreation impacts and design impact monitoring systems</b>	Killing and disturbance of wildlife, habitat damage, erosion, garbage and waste, vandalism, pest species.	<ul style="list-style-type: none"> <li>• Visitor safety policies and procedures.</li> <li>• Communication techniques.</li> </ul>
REC3.4	<b>Specify measures for prevention/ reduction/ mitigation of visitor impact</b>	Activity restrictions and bans, upgrade of facilities, awareness, limits of use, zoning etc. Use of carrying capacities: Physical, ecological, social, perceptual capacities. Limits of acceptable change.	<ul style="list-style-type: none"> <li>• Interpretation, education and awareness skills</li> <li>• Public relations.</li> <li>• Legislation and enforcement.</li> </ul>
REC3.5	<b>Supervise safety and security of visitors and other users</b>	Monitoring infrastructure, equipment and safe practice of guides and staff.	<ul style="list-style-type: none"> <li>• Range of likely visitor impacts.</li> </ul>
REC3.6	<b>Monitor and supervise concessionaires, traders and commercial operations</b>	Refreshments, food, accommodation, souvenirs.	<ul style="list-style-type: none"> <li>• Uses and limitations of carrying capacities.</li> </ul>
<b>SPECIALISED SKILLS</b>		<b>SCOPE AND CONTEXT</b>	
REC3.7	<b>Monitor and supervise sport hunting/fishing activities</b>	Checking permits, quotas, bags, catches, compliance.	
Notes			

REC: Recreation and Tourism Level 4			
	GENERAL SKILLS	SCOPE AND CONTEXT	KNOWLEDGE
REC4.1	Lead development of recreation and tourism strategies and plans.	Including recreation components of the PA management plan.	<ul style="list-style-type: none"> <li>• Strategic and operational planning.</li> <li>• Functioning of tourism business.</li> <li>• Good contacts in tourism sector (private and government).</li> <li>• A range of approaches and models for commercial activities at protected areas.</li> <li>• Health and safety obligations, policies and procedures.</li> </ul>
REC4.2	Analyse tourism information and trends and identify implications of recreation at the protected area.	Markets, trends, demand and supply.	
REC4.3	Identify potential tourism and recreation 'products' for the protected area.	Defining what the attractions of the site are and should be.	
REC4.4	Define recreation zones and locations based on appropriateness and compatibility of activities.	Including intensive use zones, commercial zones, special activity zones, restricted areas.	
REC4.5	Design ticketing, permit and fee systems for recreation services and activities.	Entry fee systems, user fees, concessions, issuing of tickets and permits, points of sale.	
REC4.6	Establish safety standards and codes of conduct for protected area users.	Protected area rules, rules for special activities.	
REC4.7	Define contractual terms and conditions for tourism and recreation franchises, concessions and partnerships.	With companies, individuals and community groups.	
REC4.8	Develop tourism packages with partners.	Tour operators/companies/ community groups.	
Notes			

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# Awareness, Education and Public Relations

This category covers the communication of information about the protected area to a wide range of audiences, from visitors, to communities to the media. Level 1 requires that all staff can explain the basic role and purpose of the protected area. Level 2 covers basic 'face-to-face' interpretive and educational skills. Planning and designing interpretation, education and awareness form the main focus of level 3, which includes specialised skills on media and PR work. Level 4 concerns the strategic planning and evaluation of awareness and public communication programmes.

AEP: Awareness, Education and Public Relations Level 1			
	GENERAL SKILLS	SCOPE AND CONTEXT	KNOWLEDGE
AEP1.1	<b>Provide basic information to stakeholders and visitors</b>	Basic verbal explanations of the functions of the PA and of current and relevant laws for protection and enforcement.	<ul style="list-style-type: none"> <li>Basic factual information about the extent, purpose and values of the PA.</li> </ul>
Notes			



AEP: Awareness, Education and Public Relations Level 2			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
AEP2.1	<b>Inform visitors, community members and the public</b>	Function and purpose of the PA, statistics about the PA, general information on wildlife, culture, features and locations of interest. Recreation opportunities.	<ul style="list-style-type: none"> <li>• Relevant PA interpretive plans, programmes and materials.</li> <li>• Presentation, communication and guiding techniques. Paths, routes and trails.</li> <li>• General park information; facts and figures, flora and fauna; features of interest</li> <li>• Health and safety procedures.</li> </ul>
AEP 2.2	<b>Deliver formal and informal interpretive/ awareness/ educational presentations</b>	Talks, orientations, informal lectures to visitor groups, schools and communities. Participatory activities.	
AEP 2.3	<b>Deliver structured adult/ community awareness programmes.</b>	In communities and on site.	
AEP 2.4	<b>Lead guided interpretive activities.</b>	Walks and trails.	
Notes			

## AEP: Awareness, Education and Public Relations Level 3

GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
AEP 3.1	<b>Plan awareness and education activities</b>	Define goals and objectives, messages and themes. Identify target groups, specify appropriate media.	<ul style="list-style-type: none"> <li>Principles of graphic design and print production.</li> </ul>
AEP 3.2	<b>Research, plan, write and design awareness/education publications</b>	Leaflets, posters, guide books, newsletters, web pages	<ul style="list-style-type: none"> <li>PA tourism and recreation data, strategy and plans.</li> </ul>
AEP 3.3	<b>Research, plan and design interpretive trails</b>	Self guided with leaflet or panels; guided trails.	<ul style="list-style-type: none"> <li>Principles of thematic interpretation.</li> </ul>
AEP 3.4	<b>Organize special events for the public</b>	Open days, nature camps and associated activities.	<ul style="list-style-type: none"> <li>Use and application of a wide range of interpretive media/ materials/ techniques.</li> </ul>
AEP 3.5	<b>Research, plan and design interpretive or information exhibits/signs</b>	Panels, educational and interactive displays.	<ul style="list-style-type: none"> <li>Creative and interpretive writing.</li> </ul>
AEP 3.6	<b>Research, plan and design curriculum based schools programmes</b>	Programmes, lesson plans, teaching materials.	<ul style="list-style-type: none"> <li>Research, information gathering and awareness survey techniques.</li> </ul>
AEP 3.7	<b>Collate, verify and distribute news information</b>	Press cuttings library, collecting news stories from the PA, producing press releases.	<ul style="list-style-type: none"> <li>National school curriculum.</li> </ul>
AEP 3.8	<b>Provide information for the media</b>	Press, radio and TV interviews, press releases and conferences.	<ul style="list-style-type: none"> <li>Culture, gender, ethnic relations.</li> <li>Knowledge of media and mass communication techniques.</li> <li>Good knowledge of and contacts with local press and news media.</li> <li>Adaptation of programmes to local gender, cultural and ethnic contexts</li> </ul>
Notes			

AEP: Awareness, Education and Public Relations Level 4			
GENERAL SKILLS		SCOPE AND CONTEXT	KNOWLEDGE
AEP 4.1	<b>Lead the development of awareness and education strategies and action plans</b>	Key target groups, objectives, themes, messages and approaches to be taken.	<ul style="list-style-type: none"> <li>• Mass communication techniques.</li> <li>• Public opinion survey techniques.</li> <li>• Recreation and tourism plans and strategies of the protected area.</li> <li>• Public relations management.</li> <li>• Details of the current protected area management plan.</li> </ul>
AEP 4.2	<b>Research and plan an interpretive/tourist centre</b>	Functions, design, layout..	
AEP 4.3	<b>Evaluate impact of education and awareness plans and programmes</b>	Baseline AEI surveys, use of indicators to assess impact and effectiveness.	
AEP 4.4	<b>Plan and manage media/PR/marketing activities</b>	Promotional and/or issue based. Press conferences, releases, interviews, advertising and promotion.	
Notes			

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