ASSESSMENT OF CAPACITY DEVELOPMENT NEEDS OF PROTECTED AREA STAFF IN EASTERN EUROPE

CROATIA

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Contents

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ABBREVIATIONS USED IN THE TEXT

BfN	Bundesamt für Naturschutz (German Federal Agency for Nature Conservation).
CBD	Convention on Biological Diversity.
ha	Hectare(s)
GPPPAM	Global Partnership for Professionalising Protected Area Management.
HRV	Croatia
IUCN	International Union for the Conservation of Nature and Natural Resources (IUCN).
IUCN Cat I	IUCN Category I Protected Area (Strict Protected Area).
IUCN Cat II	IUCN Category II Protected Area (National Park).
IUCN Cat III	IUCN Category III Protected Area (Natural Monument).
IUCN Cat IV	IUCN Category IV Protected Area (Nature Reserve).
IUCN Cat V	IUCN Category V Protected Area (Protected Landscape).
mgmt	Management.
PA	Protected Area.
Person/training day	The equivalent of one individual attending a training course for one day.
PMT	Project management team.
PoWPA	Programme of Work on Protected Areas.
TNA	Training needs assessment.
WCPA	World Commission on Protected Areas

1 SUMMARY

This report is one of the outputs from surveys of capacity development needs in 23 countries in Eastern Europe.[1], probably the most comprehensive assessment of competence and capacity development needs for protected areas conducted in the region. A separate General Report describes the entire regional methodology and process, and should be consulted alongside this report.

The component for Croatia included the following elements.

A **General Questionnaire** (Annex 1) was completed by 354 respondents, representing 26 protected areas and managing agencies covering over 536,000 ha, and with 1,564 staff (of which 995 are classified support staff). A detailed **Self-Assessment Questionnaire** (Annexes 2 and 3) was completed by 152 individuals from 18 protected areas and managing entities. The use of three different ways of assessing capacity needs (assessment by managers, self-assessment by individuals and identification by individuals of personal preferences) offers quite different perspectives on needs and priorities. Results presented in this report have been aggregated across the whole region; results for the individual participating countries are published in supplementary reports.

The results of the surveys provide information on staffing profiles (numbers, job levels, gender, age, education and experience), training provided in the past three years and structured assessments of competence in 125 specific protected area skills across 10 categories of protected area work.

1.1 MAIN CONCLUSIONS

OVERALL

- Croatia's protected area system has made tangible progress towards developing capacity of its workforce, which is already well educated and with a good range of experience. The need for training is formally recognised by the existence of budgets for staff development and the elaboration of a set of training modules. There is a need to build on this foundation by institutionalising capacity development for PA personnel in order to improve performance and to establish a clearer professional standard and profile for the sector. The range of capacity development opportunities needs to be broadened to include some topics that have been neglected up to now (such as tourism and working with communities).
- Croatia's recent entry into the European Union will make new demands on PA administrations and personnel, but will also provide good opportunities for improving capacity and management effectiveness in protected areas.

STAFFING

- The protected area workforce in Croatia is mainly male (but with a more equitable gender balance than many other countries), well educated, less than 45 years old and with a good proportion of experienced individuals.
- The gender balance may mean that a significant number of well-qualified and motivated women are choosing or chosen to work in protected areas.
- The youth of the workforce suggests a clear need for capacity development, but the good educational level suggests a good capacity for training and the presence of many more experienced workers indicates a possibility for internal training and skills sharing.
- The staffing density is around the average for the region, but it is probably not possible to correlate staffing density or structure directly with management effectiveness. Effectiveness needs to be measured directly through performance.

TRAINING

- Current availability of training is inadequate amounting to around 10-20% what is considered to be required.
- It is encouraging that most PAs have a budget for training, even if this is quite limited.

[1]Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kosovo, Latvia, Lithuania, Macedonia, Moldova, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia, Turkey and Ukraine.

- The focus of training delivered to date (mainly on PA Planning and Management (PAM)) does not adequately reflect the priorities of managers, the preferences of individuals, or the competence needs identified through the self-assessments.
- It is a concern that despite the focus of training on PAM, this category remains one of the biggest capacity weaknesses and is identified as a priority need. There could be a number of possible explanations for this.
- Training in Croatia is delivered by a range of providers, but internal training is underdeveloped.
- The training that is provided is often inadequately recorded and documented.
- The preferred modes of capacity development are learning visits and short courses. Newer methods of training and learning are not being used in Croatia , but are viewed more positively than in most countries in the region.

SPECIFIC SKILLS CATEGORIES

Management of finance and physical resources

- Although this category is not a major priority, new training would be beneficial in making the most of new funding opportunities presented by membership of the EU (for example agri-environmental schemes).

Management of human resources

- Protected area personnel at Level 3 recognise the need for designing and delivering training and instruction in the workplace. However, the questionnaires have shown that at present little internal delivery of training takes place.
- Field staff may benefit from training in supervision and instruction in the work place, which could provide a low cost, sustainable and effective way of providing training for field staff.

Communication, technology and information

- Investment should only be made in GIS and IT training where there is a high likelihood of sustainability and where the protected area institution has adopted an IT culture. Otherwise, training is likely to benefit individuals far more than it does institutions or management effectiveness. It may be sufficient to make individuals aware of training opportunities rather than provide specific programmes.
- All protected areas staff whose work involves contact with the public, communities and other stakeholders would benefit from training in basic communication and interpersonal skills. This is identified as a particular need by senior staff
- Staff working in protected areas with international visitors may require language training.

Field craft

- All protected areas staff should have at least basic training in first aid, safety and security.
- GPS training, while popular, should only be considered if the equipment is available and an appropriate IT culture exists.

Conservation planning, assessment and management

- Although biodiversity conservation is the prime function of all protected areas (as recognised by IUCN), skills associated with effective biodiversity conservation are lacking at all levels.
- These skills should not be overlooked in future training because they are ‘traditional’ PA skills or because it is assumed that PA staff already have them. Applied conservation biology is a fast moving science and as the threats to species and ecosystems intensify, so these skills become more important.
- Training in biodiversity conservation should focus on management oriented skills rather than academic studies. The focus should be on developing, applying and monitoring the impact of specific measures designed to achieve the defined conservation goals of protected areas.
- There will be a need for training on certain aspects of species and habitat conservation in relation to Croatia’s obligations as an EU Member State..

Sustainable development & communities

- There is a national need for training in working with communities at all levels, and this should be a priority topic in future initiatives.

- Although staff at all levels recognise the importance of training in this category, some may be personally reluctant to undergo such training. It is necessary therefore to 'sell' the benefits of training in this category to protected areas staff and to make sure that training programs offered are relevant and of a high quality.
- The EU agri environmental scheme is likely to be very important for conservation of high conservation value farmland in Croatia. Special attention should be paid to learning the lessons about applying the scheme on other EU Member States.

Protected Area policy, planning and projects

- This category should continue to be a priority for training of senior and middle managers of protected areas in Croatia, but the precise content of the training should be revised in consultation with managers.
- There will be a need for training on certain aspects of PA planning and management in relation to Croatia's obligations as an EU Member State

Law Enforcement

- Protected areas in Croatia would benefit from standardised and compulsory training courses for all newly recruited rangers and other law enforcement personnel. A regular programme of training updates and refresher courses would also be beneficial for both rangers and senior rangers.
- It may be possible and most cost effective to deliver the basic training internally within protected areas

Recreation and tourism

- There is a clear and major requirement for building capacity in tourism and recreation for all PAs that offer tourism opportunities.
- Site managers require high-level training in identifying tourism and recreation opportunities and developing suitable programmes, along with viable business plans.
- Training for middle managers and technical staff should focus on the day-to-day management of tourism, and in particular on visitor management at the site.

Awareness, education and public relations

- While important, specific skills for awareness raising are not at this stage a priority.
- Training in awareness, education and public relations should not be delivered separately, but should be integrated into training in tourism and recreation and in working with local stakeholders.

1.2 RECOMMENDATIONS

Based on these conclusions, the following main recommendations are made. Each recommendation is accompanied by a set of specific recommended measures.

OVERALL RECOMMENDATIONS

1. Promote increased professionalization of protected area Management in Croatia to meet current and future demands on the PA system

    1.1 Croatia should engage with regional efforts to improve the professionalization and profile of PA management.

    1.2 Protected area authorities in Croatia should seek formal national recognition of the occupation of protected area management.

2. Establish a national framework for PA capacity development**.**

    2.1 Croatia should develop a national strategy and plan for capacity developments of PA personnel.

    2.2 All permanent protected area staff should have access to at least five days' relevant, structured training (or equivalent capacity development per year.

    2.3 All PA managing institutions should allocate budgets for capacity development to provide the required amount of training.

3. Build and diversify internal capacity for capacity development

    3.1 Appoint a capacity development/training officer from the existing staff in all major protected areas.

3.2 Establish and train a national capacity development team comprising expert practitioners from within protected area institutions.

3.3 Provide supervisors in protected areas with training in basic instructional techniques for working with teams and workgroups.

3.4. Promote and pilot new, technology-based approaches to learning.

4. Assess the capacity development needs and opportunities associated with membership of the European Union

4.1 Commission a detailed assessment of the implications of EU member State status for protected areas in Croatia, identifying the main requirements for capacity development.

4.2 Ensure that identified new requirements are included in all training provision and/or are the subject of special training programmes.

SPECIFIC CAPACITY DEVELOPMENT RECOMMENDATIONS

5. Develop a common foundation programme for all protected areas staff

5.1 All new protected area staff should complete a two-day induction course within 3 months of employment. For some protected areas, the entire staff should complete the course.

5.2 National curricula and programmes for the course should be developed, and a set of training materials provided.

5.3 The course should be delivered by a national or regional training team or by staff of the protected area.

5.4 Completion of the course should be certificated and documented in the personnel records of staff.

6. Build capacity on tourism and recreation

6.1 Develop and deliver a training programme for PA staff in tourism and recreation for all PAs where tourism is or is likely to be important.

6.2 Engage in regional initiatives to share experience improve standards for tourism and recreation in protected areas.

7. Build capacity for working with communities

7.1 Develop and a training programme for staff from protected areas where collaborative management is an important component.

7.2 Develop specific training in management of high conservation value forests and farmland in collaboration with owners and users

8. Review and upgrade capacity development for modern PA planning, monitoring and reporting

8.1 Conduct a detailed assessment of the need for training in PA management planning and the quality and effectiveness of training delivered so far.

8.2 Develop a new course in PA management and planning, for delivery to both PA managers and central authority staff.

9. Maintain and update skills and knowledge of law enforcement and protection personnel

9.1 All rangers should be required to complete law enforcement training within two years of appointment.

9.2 Senior rangers require regular professional updating on legislation, threats and approaches for reducing illegal activities.

10. Build capacity in applied conservation biology and conservation management

10.1 Develop a national capacity development initiative on applied management oriented conservation management.

10.2 Encourage universities to develop and deliver programmes in applied conservation biology and management.

11. Initiate a series of high level seminars/training events for senior protected area staff on priority topics

11.1 Hold a senior management seminar and learning event on PA funding.

11.2 Hold a senior management seminar and learning event on transboundary protected area management.

11.3 Hold a senior management seminar and learning event on management effectiveness and monitoring.

2 BACKGROUND AND PURPOSE OF THE SURVEY

This report is a component of the project '*Capacity Building Plans for Efficient Protected Area Management in Eastern Europe*', implemented by the ProPark Foundation[2], based in Brașov (Romania) and funded by the German Federal Agency for Nature Protection, the Bundesamt für Naturschutz (BfN). The project's overall objective is to support and coordinate the development of national and regional plans for capacity building for implementation of the Convention on Biological Diversity (CBD) Programme of Work on Protected Areas (PoWPA) in Eastern Europe. The expected project outputs are:

1. Two or three national and one subregional capacity building plans, accepted by the relevant national institutions, committed to take the lead in implementing and further developing them.
2. Protected area capacity development curricula proposal developed, and discussions initiated with countries on possibilities to have it standardized across the region.
3. Steps and resources identified for certification of the protected area training/capacity development programmes initiated through the project.
4. At least two training of trainers workshops (with a focus on didactic skills, resources available and objectives of the entire programme).
5. Active network of protected area specialists involved in the capacity development programmes as trainers/mentors.
6. Centres of good practice for protected area capacity development identified and promoted (if existing).
7. Funding possibilities identified in the region and recommendations developed for national authorities on possibilities to develop sustainable financing for the capacity development programmes.

As a foundation for these outputs, a detailed analysis of capacity development needs was required from all participating countries. A general report has been prepared with information gathered from surveys conducted in 23 countries in Eastern Europe by local consultants employed by the project. This report focuses in detail on the results from Croatia.

3 METHOD

3.1 SELECTION OF PARTICIPATING COUNTRIES

Of the 23 participating countries[3], Croatia was selected as one of nine 'first level countries' where two questionnaires would be used

i. A General Questionnaire to be completed by senior staff members representing protected areas and managing agencies across the country.

ii. A detailed Self-Assessment Questionnaire to be completed by individuals within a selected sample of protected areas.

The other countries in this 'first level' group were Estonia, Latvia, Georgia, Romania, Serbia, Slovakia, Slovenia and Ukraine. See General Report for details.

3.2 DESIGN OF THE QUESTIONNAIRES

[2] ProPark Foundation for Protected Areas is designed as a social business. Its commercial arm is established with the purpose to generate money to support capacity building programmes and protected area management activities.

[3] Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kosovo, Latvia, Lithuania, Macedonia, Moldova, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia, Turkey and Ukraine.

Two questionnaires were used in Croatia.

3.2.1 GENERAL QUESTIONNAIRE

The General Questionnaire was designed to be completed by senior staff members representing protected areas or managing agencies and to provide a national overview of protected areas and capacity development. The questionnaire has three main sections, as shown in Table 1. See Annexe 1 for the full questionnaire.

Table 1 Sections of the General Questionnaire

Main Section	Subsection
A. General information	A1. Country. A2. Full name of protected area or institution. A3. IUCN category of the protected area (if known). A4. Area of the protected area (hectares). A5. Name and position of person completing the questionnaire. A6. Date of completion of questionnaire. A7. Staff numbers.
B. Current situation for training and capacity development	B1. Previous training. Time and resources allocated to formal training and capacity development for staff or local stakeholders in the past 3 years. B2. Resources and budget for training. If the institution has its own special budget for training, total allocations for the past 3 years are indicated. B3. Skills and experience. Competence assessments for each level of staff. B4. Future needs and priorities. Three most important capacity development need(s) of each category of staff (personal preferences).
C. Modes of training and learning	C1. Modes of learning. C2. Allocation of time for training and development.

In the questionnaire, respondents were asked to distinguish between five levels of personnel in their organisations.

- Directors/Deputy Directors/Senior Managers.
- Mid-level Managers/Professional Technical Staff.
- Field Staff/Rangers.
- Support staff (labourers, cleaners, drivers etc.).
- Administrative Staff.

In Section B3 of the questionnaire, respondents were asked to assess the competence of five levels of staff in the protected area(s) he/she represented against each of 11 skills categories shown in Table 2.

Table 2 Skills categories used in the questionnaire

Code	Category	Description
GEN	**GENERAL SKILLS**	General skills require for any job in a protected area. Commitment, motivation, positive attitude, honesty, teamwork etc.
FRM	**FINANCIAL & RESOURCES MANAGEMENT**	Management and organisation of finances, assets and equipment for the protected area.
HUM	**HUMAN RESOURCES MANAGEMENT & DEVELOPMENT**	Directing, managing, organising and capacity building for staff and others working in the PA.
CTI	**COMMUNICATION TECHNOLOGY AND INFORMATION**	Communication skills. Presentations, reports, negotiations, conflict resolutions. Use of computers and technology.
FCR	**FIELD CRAFT AND PRACTICAL SKILLS**	Skills for field work: navigation, health and safety, basic construction and maintenance and good environmental practice in the field.
CMP	**CONSERVATION ASSESSMENT PLANNING & MANAGEMENT**	Identifying, surveying and monitoring species and ecosystems. Identifying the need for and carrying out specific actions for the

		protection and conservation of species, habitats and ecosystems.
SDC	**SUSTAINABLE DEVELOPMENT & COMMUNITIES**	Conducting social and economic assessments in local communities. Working with communities in the Protected Area and Buffer Zone to promote sustainable resource use and development.
PAM	**PROTECTED AREA POLICY, PLANNING AND PROJECTS**	Preparing strategies, master plans and management plans for managing protected areas. Designing and applying for special projects to support the work of Protected Areas.
LAW	**LAW ENFORCEMENT**	Law enforcement: understanding the law and conducting activities to enforce the law in protected areas.
RTO	**RECREATION AND TOURISM**	Planning and managing environmentally sensitive recreation and tourism for visitors to protected areas.
AWA	**AWARENESS, EDUCATION AND PUBLIC RELATIONS**	Planning, designing and carrying out awareness, education and public relations work with visitors and local people. Promoting and publicising the Protected Area through the media.

Competence assessments were carried out using a standard numerical scale, as shown in Table 3.

Table 3 Assessment scale for competence

Scale	Definition
0	Staff at this level do not need these skills
1	Staff at this level need these skills, but have little or no competence in them: extensive training and development are needed.
2	Staff at this level need these skills and have some competence in them: Further training and development are needed.
3	Staff at this level need these skills and have good competence in them: Periodic updating only is needed.
4	Staff at this level need these skills and are highly competent in them. They could train and instruct others in these skills.

The uses, advantages and limitations of this type of questionnaire are discussed in the General Report.

3.2.2 DETAILED SELF-ASSESSMENT QUESTIONNAIRE

This questionnaire was designed to be completed by individuals working for a selected sample of protected areas. This assessment involved the use of 125 standard skills in 10 categories (the same categories as those used for the General Questionnaire except that the Category 'General Skills' was not included; see Table 2). These skills are derived from a set of widely used competence standards developed by the author originally for protected areas in Southeast Asia[4]. A full list of the skills is included in Annexe 2. This assessment distinguished four staff levels as shown in Table 4, although for analysis, Levels 4 and 5 were combined because: a) It was very difficult for respondents to distinguish between Levels 4 and 5; and b) Combining the two levels made the personnel categories analogous to those used in the General Questionnaire.

Table 4 Occupational levels for protected areas staff

Level	General responsibilities	Typical Protected Area Job at this Level
5	**Directorial.** Strategic and programmatic responsibilities	Head of a complex/high profile park, park complex or national/provincial protected areas agency.
4	**Senior Management, Higher Technician.** Project, departmental management and/or high level technical responsibilities	Head of a protected area. Deputy head or section head of a large, complex and/or high profile protected area. Leader of technical section.
3	**Middle Management Supervisor/Technician.** Supervisory/mid-level technical responsibilities	Head of a protected area subunit or section. Head of nature reserve/sanctuary. Senior/supervising member of sections or work teams.

[4]Appleton, M.R., Texon, G.I. and Uriarte, M. (2003) *Competence standards for protected area jobs in SE Asia*. ARCBC, Los Banos, Philippines.

2	**Skilled worker.** Technical practical responsibilities with some team leadership	Ranger. Established and experienced worker/team leader. Experienced local community member.

Each questionnaire included the following.

1 A cover page, requesting general details about the respondent and including information about the time and location of the assessments (See Annexe 2).

2 A list of competences identified as being relevant to the work of the respondent group (see Annexe 3).

Respondents were asked to complete the relevant information on the cover sheet and then to provide a numerical self-assessment for each skill listed as follows:

0 I do not need this skill in my work

1 I need this skill in my work, but I have little or no competence in it. I require extensive training and development.

2 I need this skill in my work, and I have some competence in it. I require advanced training and development.

3 I need this skill in my work, and I have good competence in it. I only require periodic updating.

4 I have high competence in this skill and could train others to do it.

Respondents were then asked to select up to 5 of the competences in which they, as individuals, would particularly like to improve their skills.

The uses, advantages and limitations of this type of questionnaire are discussed in the General Report.

3.3 CONDUCT OF THE SURVEYS IN CROATIA

The surveys were supervised and facilitated by national consultants engaged by the project management team. The main tasks of the consultants were:

- To prepare background information and a plan for the implementation of the task in their countries (including a list of protected area by types, a list of their administrations and administrators/custodians, the number of staff and their contact details, the management system, etc.). Based on this a sample of PAs would be identified (where it was not possible or practical to approach all PAs) for completion of the questionnaires.
- To participate in a brief online training session concerning the questionnaires and how they should be applied.
- To translate the questionnaires and the project description in the national language.
- To conduct field visits and/or phone interviews and collect information for the training needs assessment.
- To collect and compile information concerning the previous and existing capacity building initiatives, the actors playing a key role in this field, the overall context and main issues for capacity building for PA staff, etc.
- To collate and submit the collected information to the project management team.

Before starting the fieldwork, consultants were asked to prepare an overview of their national PA system. Based on this, the PAs to be included in the study were selected to constitute a relevant sample, and plans for fieldwork developed. The templates of the questionnaires, result sheets and reports, as well as written instructions on how to conduct and supervise the field phase of the TNA were then provided by the project management team. Training for consultants was conducted via Skype and was designed to clarify how to organize the field activity and how to fill in the questionnaires. The final details of the plan and the costs were discussed and agreed with each expert separately. To support the consultants, official Letters of Introduction were supplied by ProPark, introducing the project and certifying the role of the consultant in the project. During the fieldwork period, the activities of the consultants were monitored through continuous communication and periodic status reviews. Assistance and advice were provided where required. To ensure a common format and a similar content of the reports, a template was provided to the experts, to guide them in structuring the information.

3.4 SELECTION OF SAMPLE PROTECTED AREAS AND PERSONNEL

The protected areas where the survey would be conducted were selected using the background information provided by national consultants concerning the types of PAs, their management and, where available, the number of staff

working in each PA management body. The selection aimed to form a sample that included the most complex types of PAs (those having their own management body), a diversity of PA managing authorities (where relevant), as well as a relevant and representative sample of PA staff.

3.5 COMPLETION AND PROCESSING OF THE QUESTIONNAIRES

The national consultants, with support from the project management team, supervised the completion of the questionnaires. This happened in a number of ways:

- The consultant visited the protected area, directly explained the questionnaires, and supervised their completion.
- Questionnaires were conducted as interviews over the telephone or by Skype (for the General Questionnaire only).
- Personnel in protected areas were trained and supported remotely (by phone, email or Skype) to supervise completion for the questionnaires, which they then returned to the national consultant.
- All questionnaires were collected and the results entered into a pre-prepared Microsoft Excel spreadsheet and forwarded to the ProPark for analysis.

The method used depended on the resources and time available for visiting the protected areas. Throughout the process, the project management team was available to provide support and answer questions.

Once the questionnaires had been completed, they were collected and checked by the national consultants, who then collated and entered the results into pre-prepared Excel spreadsheets provided by the PMT. The overall numbers of questionnaires completed in Croatia are shown in Table 5.

Table 5 Completion of questionnaires in Croatia

Survey	Number of question-naires completed	Number of PAs covered by questionnaires	Number of individuals covered by questionnaire.	Dates of survey
General Questionnaire	26	26	1,564 full time equivalent personnel	April-June 2013
Self-Assessment Questionnaire	152	18	152 individual self - assessments	April/May 2013

4 RESULTS

4.1 OVERVIEW OF PROTECTED AREAS AND CAPACITY DEVELOPMENT IN CROATIA

Information from the report of national consultants Irina Zupan, Zrinka Jakl and Mosor Prvan.

The reports of the national consultants included brief descriptions of the management of the national system of protected areas and of the current situation regarding capacity development.

In Croatia, different categories of PA are managed by various public institutions as follows. Dedicated public institutions are established at the national level for the management of the 19 National and Nature Parks, which are considered PAs of national interest. These report to the Ministry of the Environment and Nature Protection. PAs of local interest are managed by County level institutions (20 cases) or by local/municipal level public institutions (7 examples). Altogether, the 435 PAs are managed by 46 administrations. The State Institute for Nature Protection is the expert body in charge of nature conservation, and is actively involved in the management conducted by the PA level management bodies.

According to the national consultants, nine training modules were developed for Croatia in 2011 by the State Institute for Nature Protection as part of a project, but are not yet included in a structured programme; modules are available separately and work is in progress to develop others.

Module 1: Introduction to conservation biology and technical basis of nature protection. ***Target group:*** employees of nature protection institutions.

Module 2: Biodiversity inventorying and monitoring. ***Target groups:*** expert and supervisory services of nature protection institutions.

Module 3: Management planning. ***Target group***: employees of nature protection institutions that are included in the management planning process.

Module 4: Plan implementation monitoring, management effectiveness and adaptive management. ***Target group***: employees of nature protection institutions whose management plans are under revision.

Module 5: Public participation in management of protected areas. ***Target group:*** expert and supervisory services of nature protection institutions.

Module 6: Basics of interpretation and education in nature protection (protected areas).***Target group***: expert and supervisory services of nature protection institutions.

Module 7: Monitoring and reporting requirements according to EU Habitats Directive. ***Target group***: employees of expert services in nature protection institutions, scientific community and other potential participants in implementation of monitoring.

Module 8: Essential Managerial Competency Development. ***Target group***: management of nature protection institutions.

Module 9: Strategic Planning and Balanced Scorecard (BSC).

4.2 COVERAGE OF THE SURVEYS

4.2.1 COVERAGE OF THE GENERAL QUESTIONNAIRE

The national consultants collected information from respondents representing 26 protected areas and managing agencies responsible for over 536,000 hectares of protected areas in Croatia. See Figure 1 and Table 6.

Figure 1 IUCN Categories of PA included in the survey

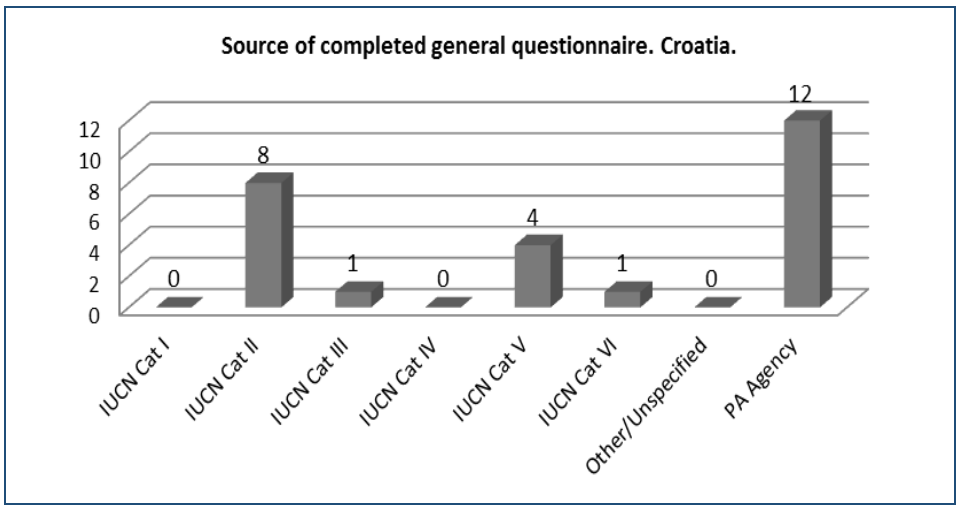


Table 6 Sources of responses to the General Questionnaire in Croatia

	Institution		Institution
1	State Institute for Nature Protection	14	PI “Nature Park Lastovo Archipelago”
2	Public Institution (PI) “National Park Brijuni”	15	Priroda – PI for Managing Protected Nature Areas in Primorje - Gorski Kotar County
3	PI “National Park Krka”	16	PI for Management of Protected Natural Values in Dubrovnik – Neretva County
4	PI "National Park Kornati"	17	PI for Management of Protected Natural Values in Zadar – Knin County "Natura-Jadera"
5	PI “National Park Paklenica”	18	PI for Management of Protected Natural Values in Šibenik - Knin County
6	PI “National Park Plitvice lakes”	19	PI for Management of Protected Natural Values in Split - Dalmatia County
7	PI “National Park Northern Velebit”	20	PI for Management of Protected Natural Values in

			Vukovar – Srijem County
8	PI “National Park Mljet”	21	PI for Management of Protected Natural Values in Požega - Slavonia County
9	PI “National Park Risnjak”	22	PI for Management of Protected Natural Values in Brodsko - Posavska County
10	PI “Nature Park Telašćica”	23	PI for Management of Protected Natural Values in Krapinsko - Zagorska County
11	PI “Nature Park Vransko lake”	24	PI “Forest Park Marjan”, City of Split
12	PI “Nature Park Biokovo”	25	PI “Forest Park Maksimir”, City of Zagreb
13	PI “Nature Park Velebit”	26	PI for management of geomorphologic nature monument “Cave Park Grabovača”, Municipality of Perušić

4.2.2 COVERAGE OF THE SELF-ASSESSMENT QUESTIONNAIRE

Self-assessments were completed by 152 individuals from 18 protected areas and managing entities (see Table 7).

Table 7. Source of the self-assessment questionnaires

	Institution		Institution
1	State Institute for Nature Protection	**10**	PI “Nature Park Vransko lake”
2	Public Institution (PI) “National Park Brijuni”	**11**	PI “Nature Park Biokovo”
3	PI "National Park Kornati"	**12**	PI “Nature Park Velebit”
4	PI “National Park Krka”	**13**	Priroda – PI for Managing Protected Nature Areas in Primorje - Gorski Kotar County
5	PI “National Park Paklenica”	**14**	PI for Management of Protected Natural Values in Dubrovnik – Neretva County
6	PI “National Park Plitvice lakes”	**15**	PI for Management of Protected Natural Values in Zadar – Knin County "Natura-Jadera"
7	PI “National Park Northern Velebit”	**16**	PI for Management of Protected Natural Values in Sibenik - Knin County
8	PI “National Park Mljet”	**17**	PI for Management of Protected Natural Values in Split - Dalmatia County
9	PI “Nature Park Telašćica”	**18**	PI “Forest Park Marjan”, City of Split

4.2.3 STAFF DENSITY

These numbers represent a staffing density of 0.99 personnel (excluding support staff) per thousand hectares of protected area, and 2.92 per thousand hectares including support staff.

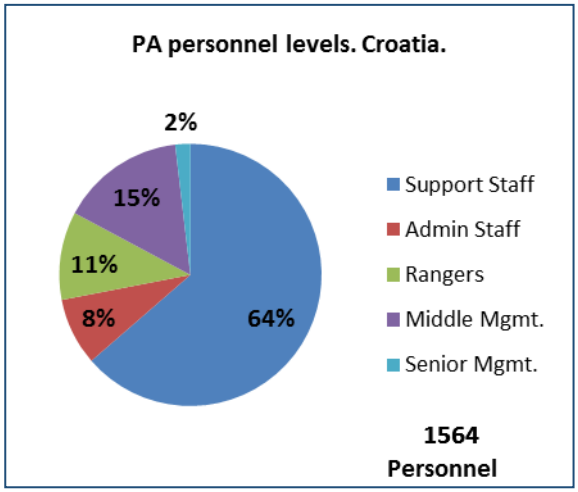
4.2.4 SUMMARY OBSERVATIONS ON COVERAGE

The surveys covered a significant proportion of Croatia’s major protected areas. The calculated staffing density is slightly below the regional average of 1.16 staff per 1,000 hectares and fairly close to global averages. However, the General Report concludes that staffing density in this region is not necessarily a reliable indicator of management capacity or management effectiveness, and that it is quite possible in some cases for a protected area system to be managed by a relatively small number of professional well-supported staff. It is therefore not possible to make meaningful recommendations about ideal numbers of staff or staffing densities in protected areas in the region; the optimum number depends on many factors, such as the system of governance, the size of the area, the terrain, accessibility, staff capacity, the objectives of the site and the severity of the threats it faces.

4.3 PERSONNEL PROFILES

The 26 protected areas covered by the General Questionnaire employ 1,564 personnel. The distribution of personnel between job categories is shown in Figure 2

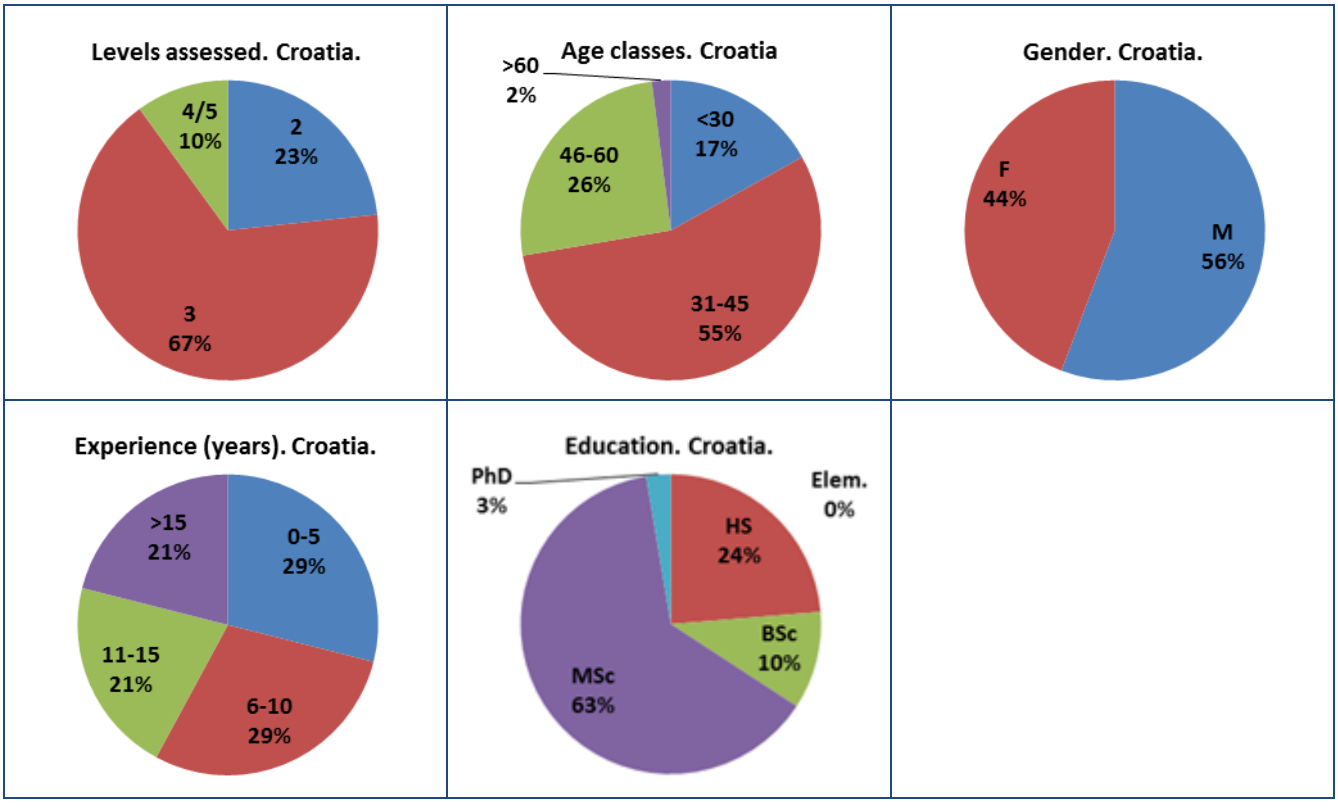
Figure 2. Personnel covered by the survey according to job level



The very high number of support staff listed are almost all employed by one protected area: PI "National Park Plitvice Lakes".

The Self-Assessment Questionnaire provided much more details about individuals in the protected areas covered. Figure 3 shows the aggregated results from the personal information section of the questionnaire.

Figure 3 Summary of personal information from self-assessments in 18 PAs (152 responses)



4.3.1 GENERAL OBSERVATIONS ON PERSONNEL PROFILES

Croatia (56% male/44% female) has one of the best gender balances in the region (regional average: 66% male/34% female). The trend seems to be for more women to be working in protected areas and for those women to be working in roles beyond those conventionally assigned to them (education and administration). However, the gender balance is not consistent across job levels. The majority of rangers are male, while a higher proportion of the technical, administrative and management staff are female.

Protected area personnel in Croatia are generally well educated, with over 75% having a university education. The survey did not record the subject of the degrees awarded to the respondents, so it was not possible to assess the relevance of the education.

The workforce is relatively young, with 72% aged 45 or under. However, there is a good balance of experience in the workforce, which almost evenly distributed between the four experience classes. This is encouraging from the perspective of developing capacity and passing on skills, and suggests that many staff stay in protected area work for a long time (in some countries high staff turnover is a major limiting factor for staff development).

4.4 TRAINING

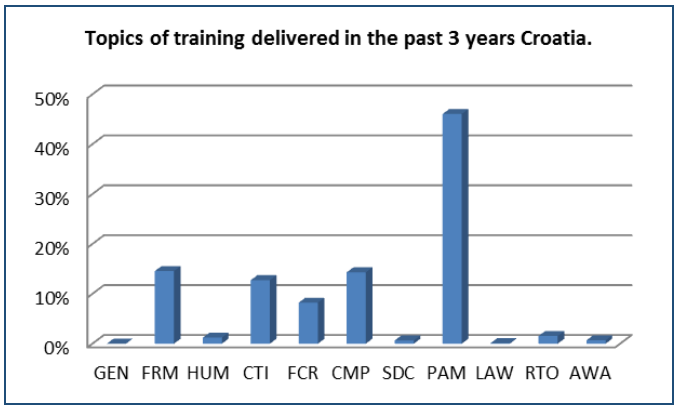
4.4.1 RECENT TRAINING PROVISION

In the General Questionnaire, respondents were asked to provide details of training provided for personnel in their organisation in the past three years. From this, it could be calculated that the personnel in Croatia received 0.57 training days per person per year (when all personnel are counted) and 2.03 days per year excluding support staff (probably a more accurate figure, as support staff receive little if any training). This can be compared with a regional average of 2.04 days per year (with support staff) and 3.29 days per year (without support staff)

4.4.2 TOPICS OF TRAINING

Figure 4 shows the proportions of different training topics reported, classified according to the standard skills categories used in the survey. Clearly, by far the most training concerns protected area management (mainly management planning).Very little or no attention has been paid to other technical and administrative categories. It is particularly surprising how little training is reported on tourism and awareness, given the importance of Croatia's tourism industry.

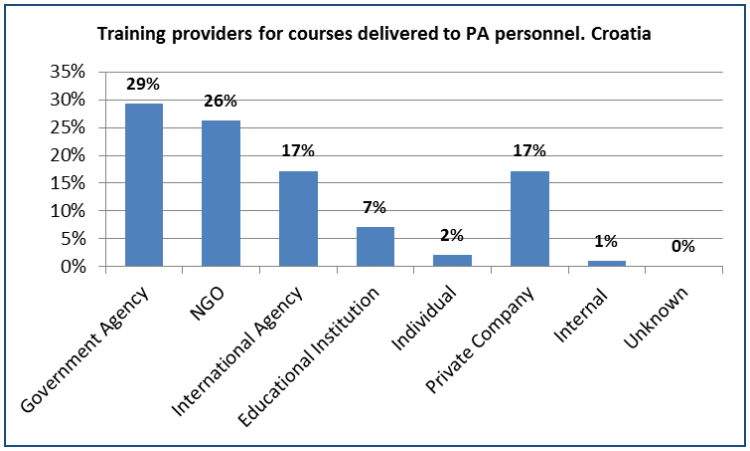
Figure 4 Training topics



4.4.3 TRAINING PROVIDERS

Figure 5 shows the relative proportions of the different training providers reported. These results show quite a balanced range of providers. However very little of the training was delivered internally within protected areas.

Figure 5 Training providers



4.4.4 IDEAL TRAINING PROVISION

Respondents to the General Questionnaire were asked to suggest an ideal number range of annual training days for personnel at different levels. The results are shown according to ranked preferences in Figure 6.

Figure 6 Numbers of training days recommended by respondents to the General Questionnaire

Recommended Annual Number of Training Days. Ranked preferences. Croatia. 1 = Most preferred 6= Least preferred					
Training Days	**Senior Management**	**Middle Managers**	**Rangers/ Field Staff**	**Admin Staff**	**Support Staff**
0 days	6	6	4	4	1
1-5 days	4	4	5	1	2
6-10 days	3	4	1	2	3
11-15 days	2	1	2	2	4
16-20 days	1	1	3	5	4
>20 days	5	3	5	6	4

The results suggest that senior and middle management staff require up to 20 days' training per year, while field staff require up to 10 days. This is in sharp contrast to actual provision for these groups (around 2 days per year).

4.4.5 FUTURE TRAINING PRIORITIES

Respondents to the General Questionnaire were asked to identify what they personally considered priorities for future training for staff in their organisations. Figure 7 shows the result for Croatia, compared with the aggregated result for the entire region

Figure 7 Ranked preferences of senior managers for priority future training topics

		CROATIA	OVERALL FOR THE REGION
GEN	**GENERAL SKILLS**	11	3
FRM	**FINANCIAL & RESOURCES MANAGEMENT**	2	10
HUM	**HUMAN RESOURCES MANAGEMENT & DEVELOPMENT**	7	11
CTI	**COMMUNICATION TECHNOLOGY AND INFORMATION**	4	6
FCR	**FIELD CRAFT AND PRACTICAL SKILLS**	5	4
CMP	**CONSERVATION ASSESSMENT PLANNING & MANAGEMENT**	3	2
SDC	**SUSTAINABLE DEVELOPMENT & COMMUNITIES**	9	8
PAM	**PROTECTED AREA POLICY, PLANNING AND PROJECTS**	1	1
LAW	**LAW ENFORCEMENT**	10	7
RTO	**RECREATION AND TOURISM**	6	5
AWA	**AWARENESS, EDUCATION AND PUBLIC RELATIONS**	8	9

4.4.6 MODES OF LEARNING AND TRAINING

Respondents were asked to rank in order of importance eight modes of learning and training for personnel at different levels. The results are shown in Figure 8 and show a clear preference for study visits, exchanges and short formal courses.

Figure 8 Preferred modes of training

Ranked preferences for modes of capacity development. Croatia					
1 = Highest Ranked. 8 = Lowest Ranked	Senior Mgmt.	Middle Managers	Rangers/ Field Staff	Admin Staff	Support Staff
Informal learning in the work place with more experienced colleagues	7	6	3	3	1
Short training sessions provided by supervisors/managers in the work place	8	6	4	2	2
Short Formal Training Courses (<1 week)	2	2	2	1	3
Longer training courses (1-4 weeks)	3	3	6	6	6
Long Term Study for Formal Qualifications (e.g. University Courses)	6	8	8	6	8
Informal individual learning using training manuals and study materials	5	4	5	5	4
Formal individual study through distance learning, internet etc.	3	4	7	4	7
Exchanges and study visits with other Protected Areas	1	1	1	8	5

4.4.7 FUNDING FOR TRAINING

Croatia was one of the few countries in the region that was able to provide detailed figures on expenditure on training. The results are summarised in Table 8. Most respondents reported some annual expenditure, although several did not. One reported major underspending on allocated budgets. The very large increase in expenditure for 2013 is almost entirely attributable to a very large budget for 2013 of HRK 506,000 (Approx. EUR 65,800) for PI 'National Park Plitvice Lakes' (which reported no expenditure in the previous two years).

Table 8 Reported expenditure on training in Croatia

Year	Number of respondents reporting expenditure on training	Croatian Kuna HRK	EUR (approx.)	Indicative expenditure per person (EUR)
2011	18/26	723,980.00	94,117.40	60.18
2012	19/26	659,798.00	85,773.74	54.84
2013	19/26	1,166,250.00	151,612.50	96.94

4.4.8 GENERAL OBSERVATIONS ON TRAINING

1. The overall current average of training delivered (excluding administrative and support staff) of around 2 training days per person per year is inadequate and falls far short of the ideal amounts of annual training identified by managers in the General Questionnaire, which were as follows

- Senior Managers: 16 to 20 days.
- Middle Managers: 11 to 20 days.
- Rangers and Field staff: 6 to 10 days.
- Administrative Staff: 1 to 5 days.
- Support staff: 0 days.

2. Training topics in Croatia have focused almost exclusively on the category 'Protected Area Planning and Management' (PAM), and have neglected many other important aspects of PA management. It is noteworthy and rather concerning that PAM is also the most preferred topic for future training.

3. Training in Croatia is delivered by a wide range of providers. This could be considered ideal if the training provided meets the needs of the protected areas and is in line with the general learning strategy. Alternatively, *ad hoc* and poorly coordinated training delivered inconsistently by a range of providers could be confusing for protected area staff and not relevant to their specific needs.

4. The preferences for capacity development modes indicated in the general survey (Figure 8) reveal a conservative attitude by managers to building the capacity of their staff. The most preferred modes are study tours and short courses, while newer approaches such as distance learning, self-directed learning, and informal workplace learning are considered much less important. In retrospect, it was an oversight that the same question was not asked in the individual self-assessment survey, as it would have been useful to compare these results with the opinions of individuals.

5. There is a marked preference for exchanges, study tours and short courses a modes of training and learning. This is similar to the findings across the region, but in contrast to many other countries, where newer approaches such as distance learning and self-directed learning are almost universally ranked lowest, in Croatia they are considered more positively.

6. Croatia was one of the few countries to report expenditure on training. The fact that allocated budgets exist is very encouraging, although the figures are not entirely consistent. Some PAs do not appear to have any budget, while others state that the figure provided is the allocated budget, but that additional expenditure is made on training using other budgets. On average it appears that around EUR 60-90 per person per year is spent on training.

4.5 RESULTS FROM THE COMPETENCE ASSESSMENTS

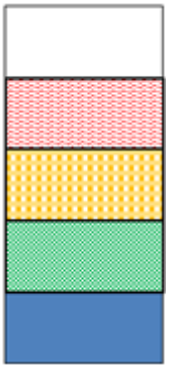
4.5.1 GENERAL ASSESSMENTS OF COMPETENCE BY MANAGERS OF PERSONNEL IN THEIR ORGANISATIONS (GENERAL QUESTIONNAIRE)

These assessments were conducted by one person for each protected area/institution and are therefore based on the opinion and judgment of that person of the average, overall levels of competence in their organisation.

Each set of assessments is summarised in three graphics.

Graphic A shows the proportions of self-assessments for each skills category, according to the numerical scale described in the previous section (see Table 3). Colour coding is used to aid understanding of the results (see Table 9). These graphics exclude assessments of '0' (not relevant), and therefore only represent proportion of responses which considered the skills category to be relevant. The author has found that a rapid assessment of competence can be made by considering the boundary between the two weakest categories (indicated in red and yellow) and the two strongest categories (green and blue). The yellow-green boundary therefore, provides a quick indication of comparative competence of the different categories.

Table 9 Colour coding used for competences

Rating	Definition	Colour code
0	Personnel in my organisation do not need this skill.	
1	Personnel in my organisation need this skill, but overall have little or no competence in it. Extensive training and development are required.	
2	Personnel in my organisation need this skill and overall have some competence in it. Advanced training and development are required.	
3	Personnel in my organisation need this skill and overall have good competence in it. Periodic updating only is required.	
4	I Personnel in my organisation need this skill and overall have high competence in it. They could train others to do it.	

Graphic B shows the average assessment score (1, 2, 3 or 4) of all responses where the skills category is considered relevant. The higher the average therefore, the higher the level of existing competence.

Graphic C shows Capacity Needs Index (CNI), which is intended to provide a standardised indication of the need for capacity development in the different categories. The formula for the CNI is shown in the box below.

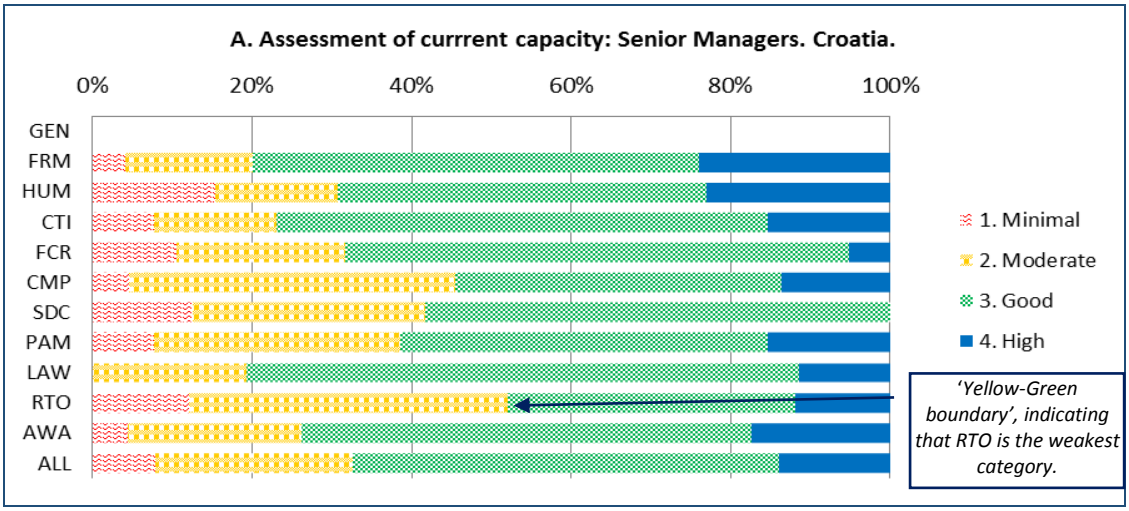
Capacity Needs index (CNI) =

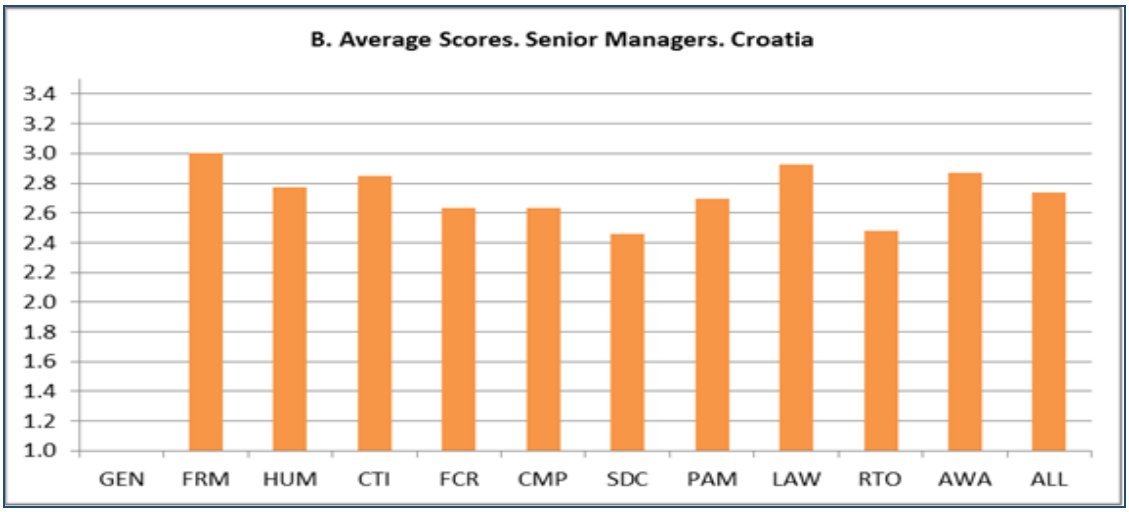
Proportion of responses that assess the skills category as relevant) * Proportion of responses that assess competence in the skills category as either 1(Little or no competence) or 2 (some competence).

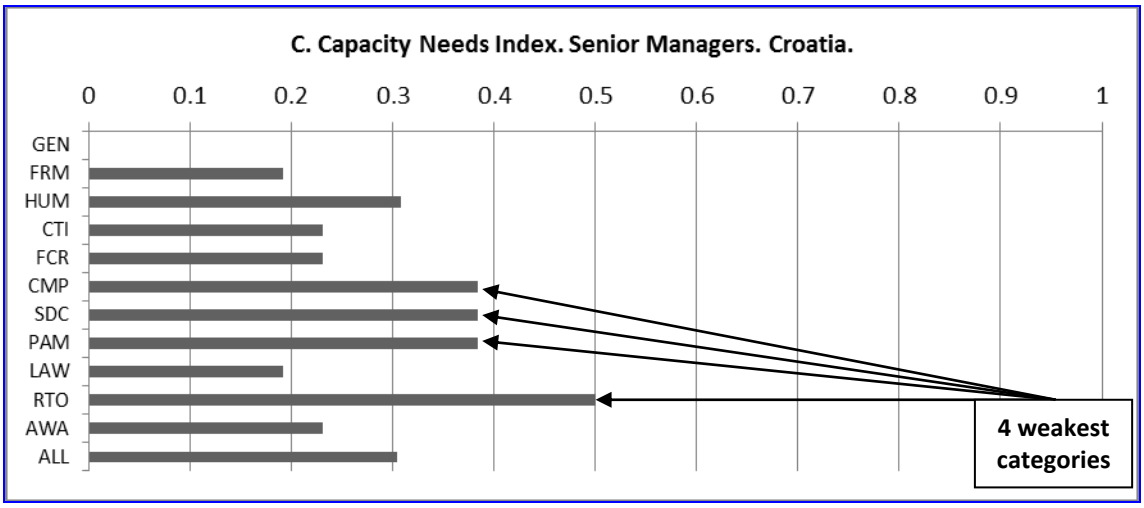
The higher the CNI, the greater the need for capacity development in that category. This formula is intended to take into account how relevant the category is, as well as how weak the overall competence is.

The results are shown for Senior Managers, Middle Managers and Technical Staff, and Field Staff (Rangers) only. The results for administrative and support staff are available separately, but inclusion of the results tends to distort the needs of the 'front line' PA staff. Each set of results is accompanied by brief observations. See Section 5 for more detailed assessment and discussion and Section 6 for recommendations.

GENERAL ASSESSMENTS OF COMPETENCE IN PROTECTED AREAS: SENIOR MANAGERS



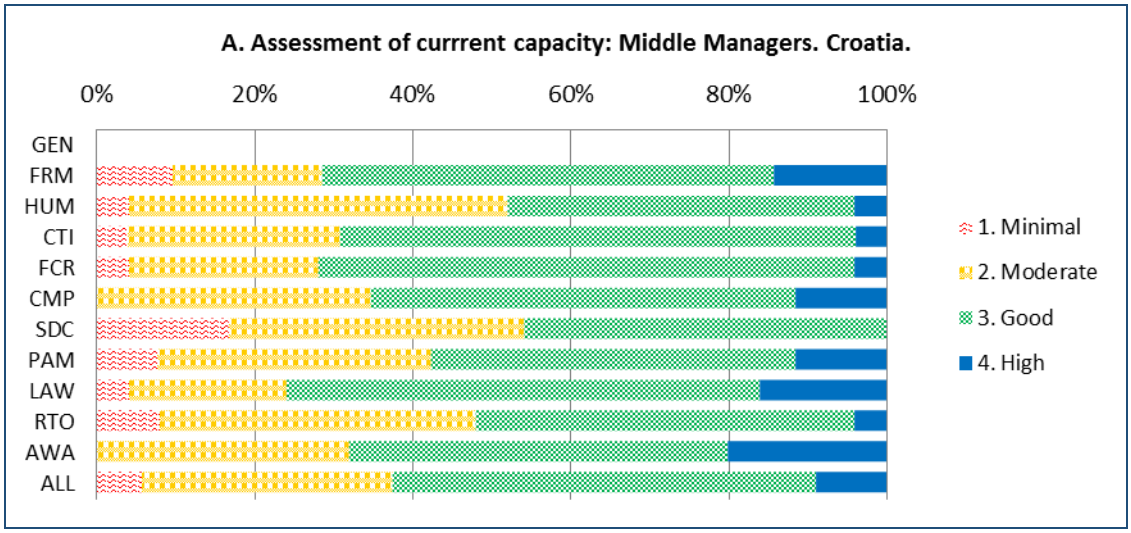


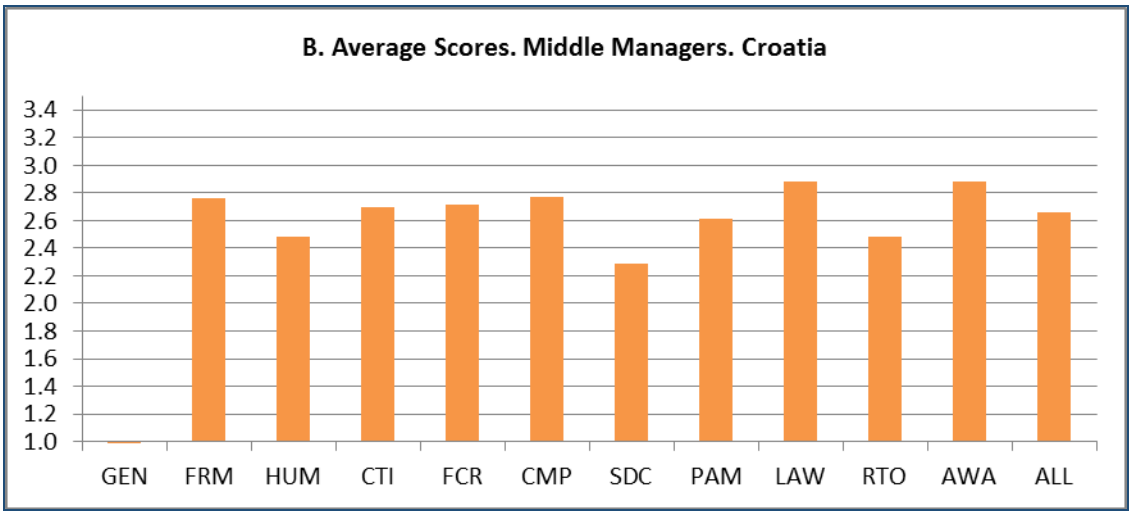


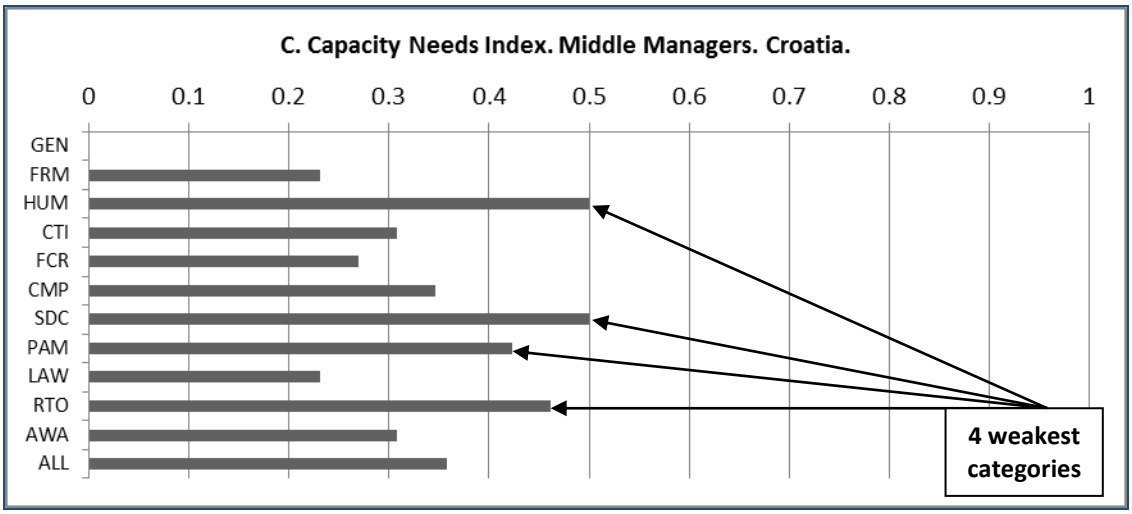
OBSERVATIONS

Overall, confidence in the competence of senior managers is quite high; around 70% of the responses were in the strongest two assessment bands (it should be borne in mind, however that these assessments have been conducted by senior managers). However, there are some clear weaknesses and needs. By far the greatest need is Recreation and Tourism (that this was ranked quite low when senior managers where asked to list their preferences for future training). The technical topics PAM, SDC and CMP are all major needs, suggesting that senior managers are deficient in many of the most important technical skills involved in modern, multifunctional PA management.

GENERAL ASSESSMENTS OF COMPETENCE: MIDDLE MANAGERS



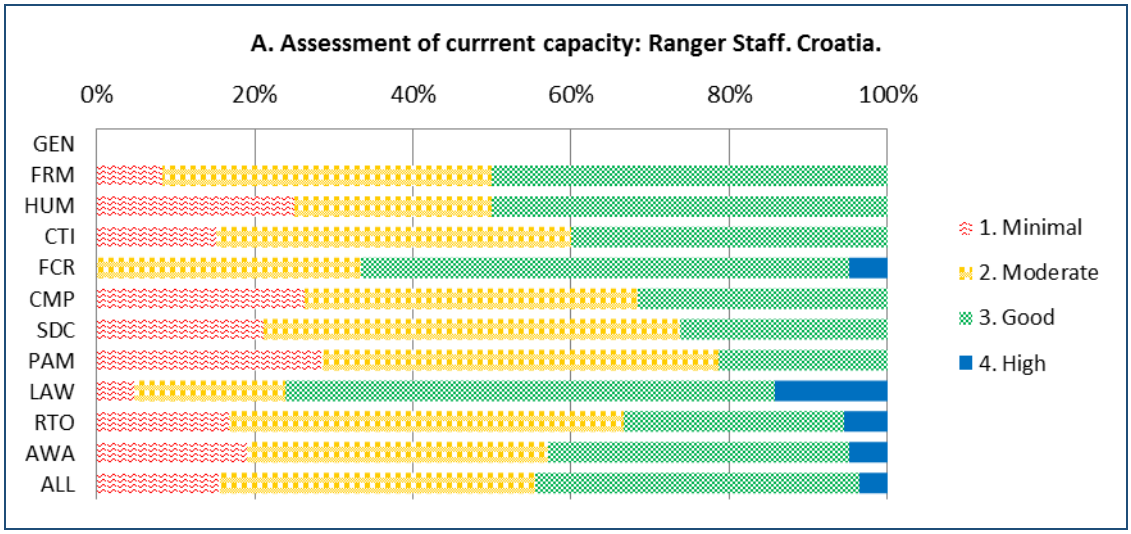


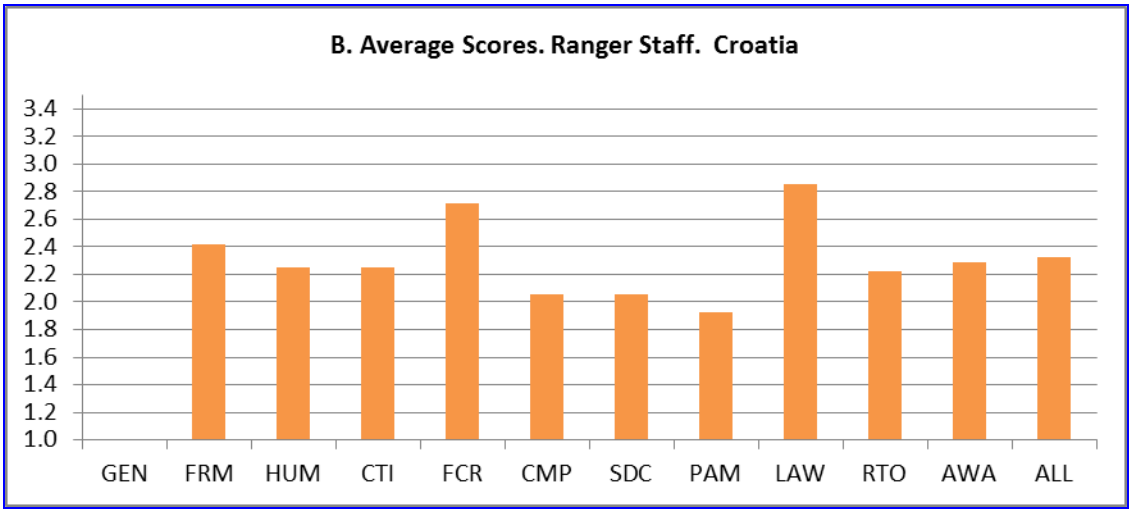


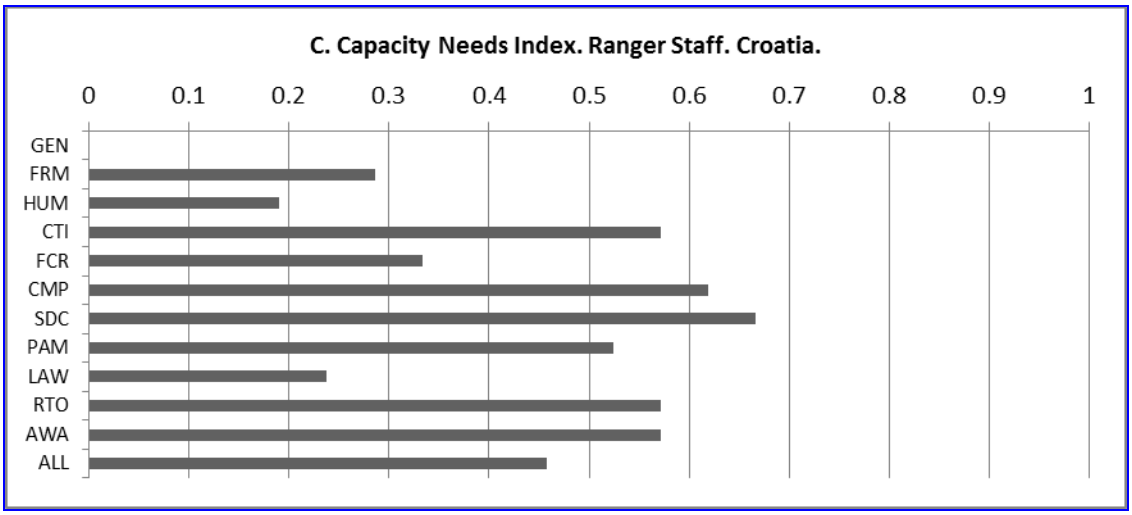
OBSERVATIONS

The overall assessment shows quite good levels of confidence by the assessors in capacity of middle management and technical staff, but there are four clear priority needs. The weakness in Human Resource Management (HRM) relates to skills for training, organising and supervising staff, work teams and partners. Respondents are also clearly aware of the need to improve staff capacity in working with communities (SDC), a common response across the region, which reflects the growing importance of co-management in PAs. As with the senior managers, there is also a clear need for training in tourism, a major industry in Croatia, which has so far been neglected in protected area training.

GENERAL ASSESSMENTS OF COMPETENCE: RANGERS AND FIELD STAFF







OBSERVATIONS

Overall more than 50% of responses were in the two weakest bands (1 and 2), indicating that respondents considered there to be a major overall need for capacity development for rangers. The 'traditional' ranger skills (FCR and LAW) are stronger, but the managers conducting the assessment also recognise the need for a wider range of skills (especially working with communities, communication, tourism and public awareness). The results suggests that the competences of rangers are falling behind the demands that modern protected areas make of them and that the modern ranger needs to be far more than a guard.

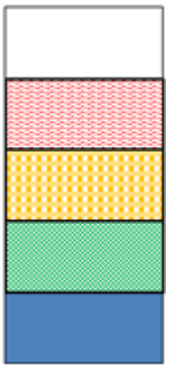
4.5.2 SELF ASSESSMENTS OF COMPETENCE BY INDIVIDUALS

Where the General Questionnaire focused on the judgement and opinion of a representative person from each protected area institution, the Self-Assessment Questionnaire records the opinions of individuals about their own competence.

Each set of assessments is summarised in three graphics.

Graphic A shows the proportions of self-assessments for each skills category, according to the numerical scale described in the previous section. Colour coding is used to aid understanding of the results. These graphics exclude assessments of '0' (not relevant), and therefore only represent proportion of responses which considered the skills category to be relevant. The author has found that a rapid assessment of competence can be made by considering the boundary between the two weakest categories (indicated in red and yellow) and the two strongest categories (green and blue). The yellow-green boundary therefore, provides a quick indication of comparative competence of the different categories.

Table 10 Colour coding used for competences

Rating	Definition	Colour code
0	I do not need this skill in my work	
1	I need this skill in my work, but I have little or no competence in it. I require extensive training and development.	
2	I need this skill in my work, and I have some competence in it. I require advanced training and development.	
3	I need this skill in my work, and I have good competence in it. I only require periodic updating.	
4	I have high competence in this skill and could train others to do it.	

Graphic B shows the average assessment score (1,2,3 or 4) of all responses where the skills category is considered relevant. The higher the average, therefore, the higher the level of existing competence.

Graphic C shows Capacity Needs Index (CNI), which is intended to provide a standardised indication of the need for capacity development in the different categories. The CNI is calculated as follows:

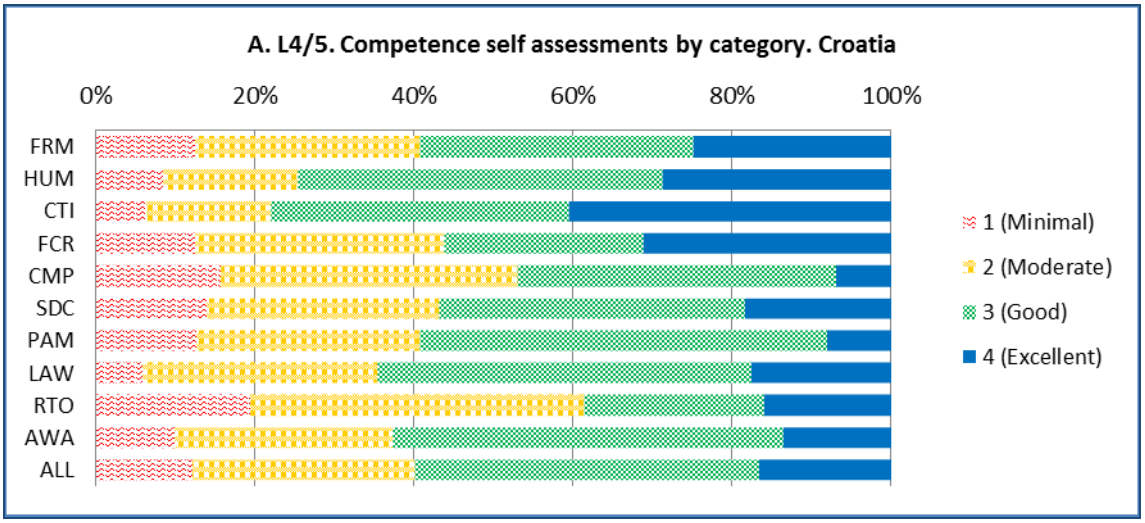
Capacity Needs index (CNI) =
(Proportion of responses that assess the skills category as relevant) * Proportion of responses that assess competence in the skills category as either 1(Little or no competence) or 2 (some competence).

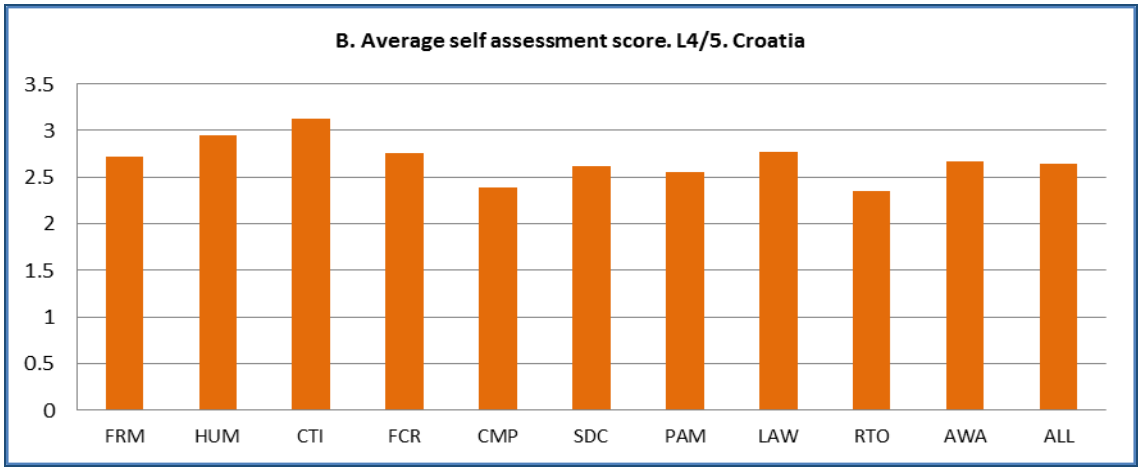
This formula is intended therefore to take into account how relevant the category is as well as how weak the overall competence is. The higher CNI therefore, the greater the need for capacity development in that category.

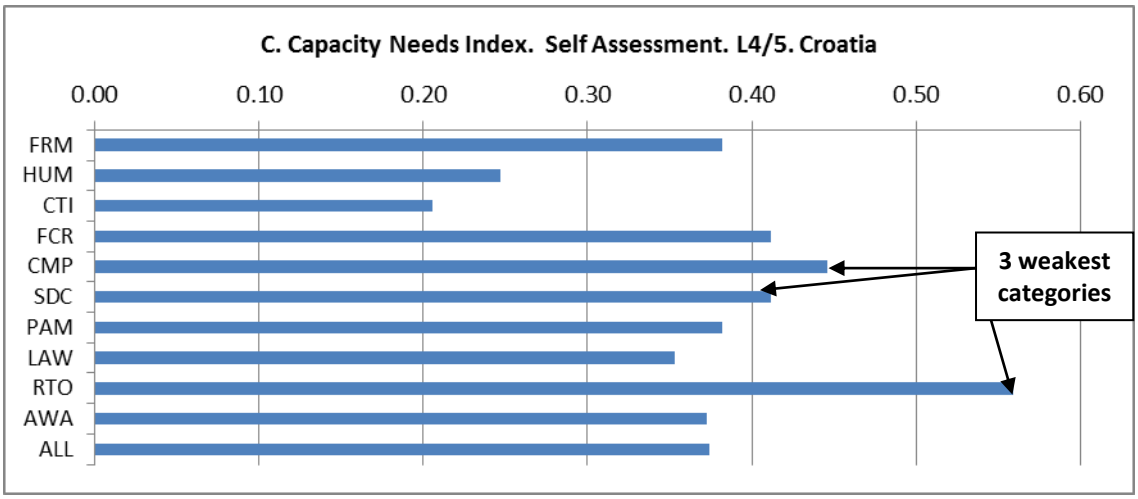
Each set of results is accompanied by brief observations. See Section 5 for more detailed assessment and discussion and Section 6 for recommendations.

AGGREGATED SELF ASSESSMENTS OF LEVEL 4 AND 5 COMPETENCES

Relevant to all senior managers and some middle managers and technical personnel





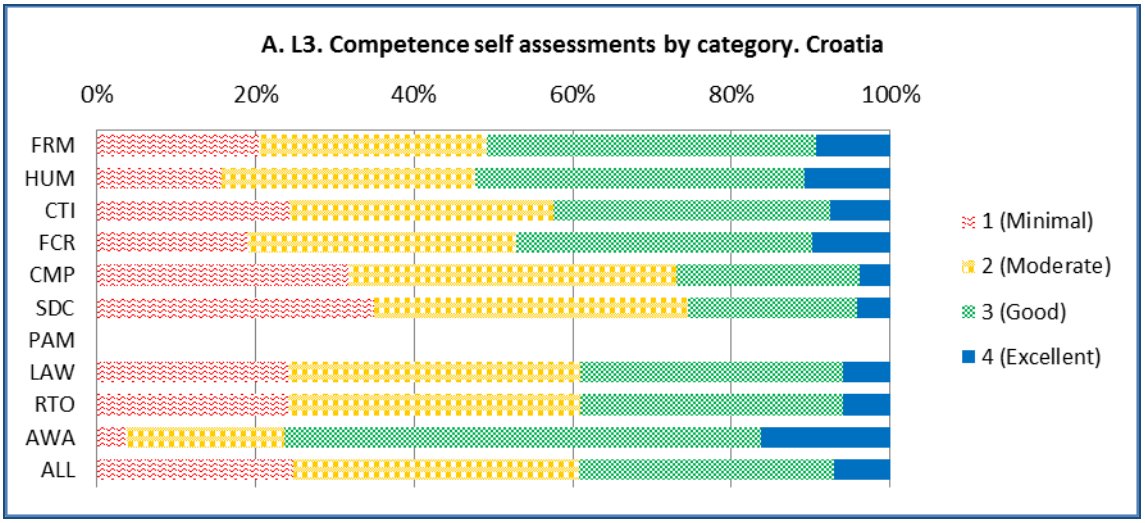


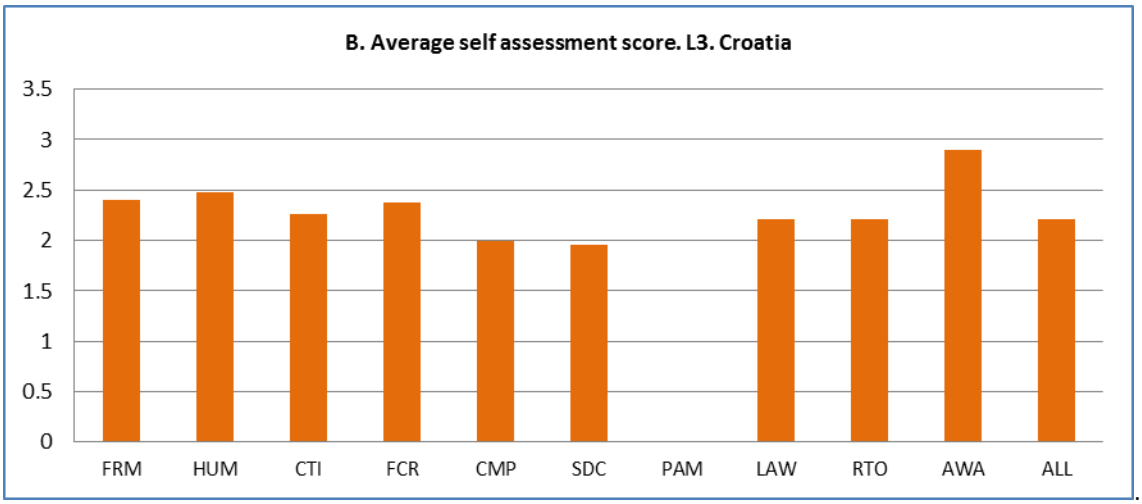
OBSERVATIONS

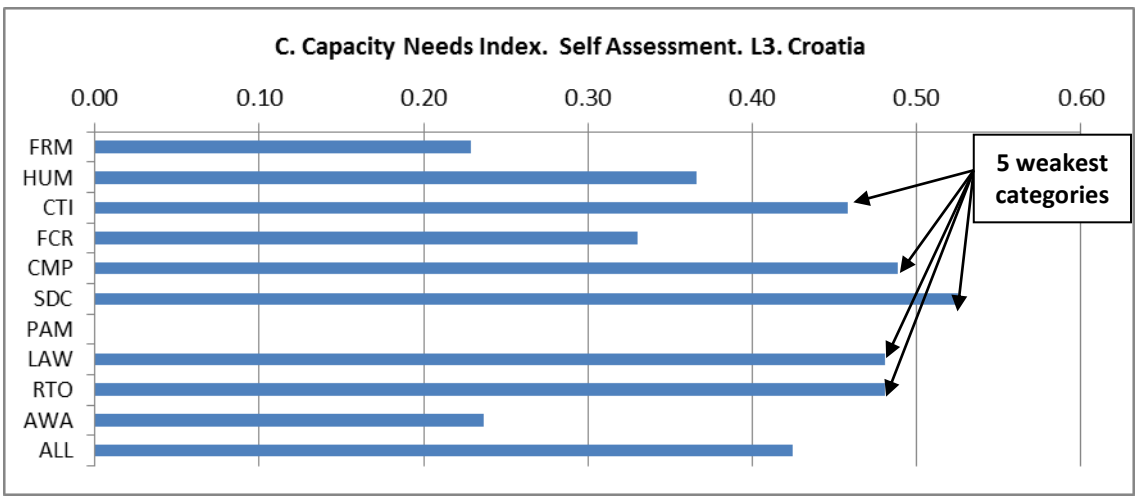
Around 60% of the self- assessments are in the two strongest score bands (3 and 4), indicating a reasonable level of capacity and confidence at this level. The weakest category by far is RTO, which is surprising given the importance of tourism in Croatia. CMP is also weak, suggesting a lack of capacity in the basic conservation principles of PA management. PAM is rather stronger, but this average result masks some major weaknesses in specific skills (monitoring of management effectiveness and contingency planning for disasters). The other weak category is SDC (indicating a need for improved capacity at working with local communities). The weakness in FRM is related to the need for capacity in fund raising.

AGGREGATED SELF ASSESSMENTS OF LEVEL 3 COMPETENCES

Relevant mainly to middle managers and technical personnel[5]







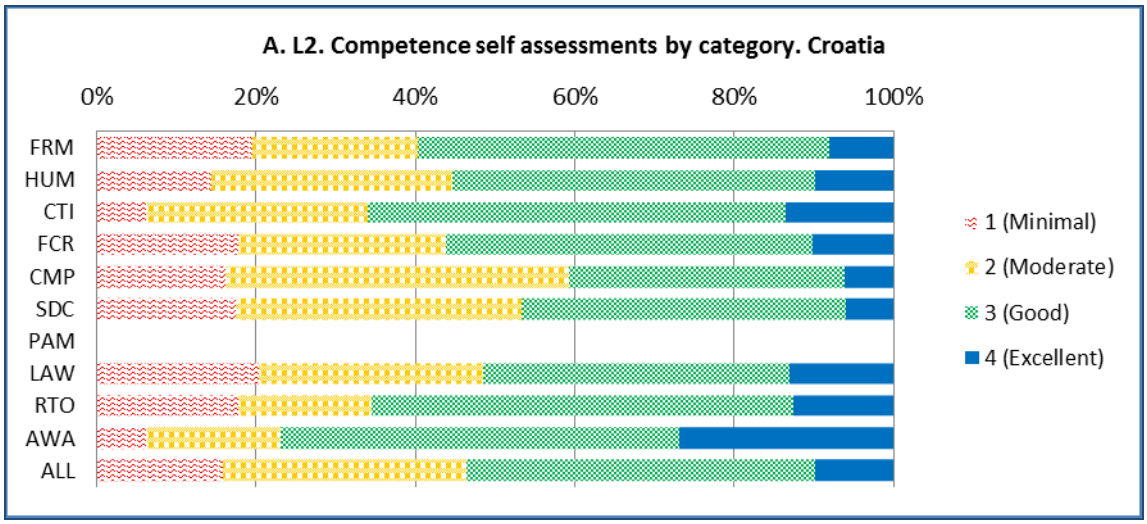
OBSERVATIONS

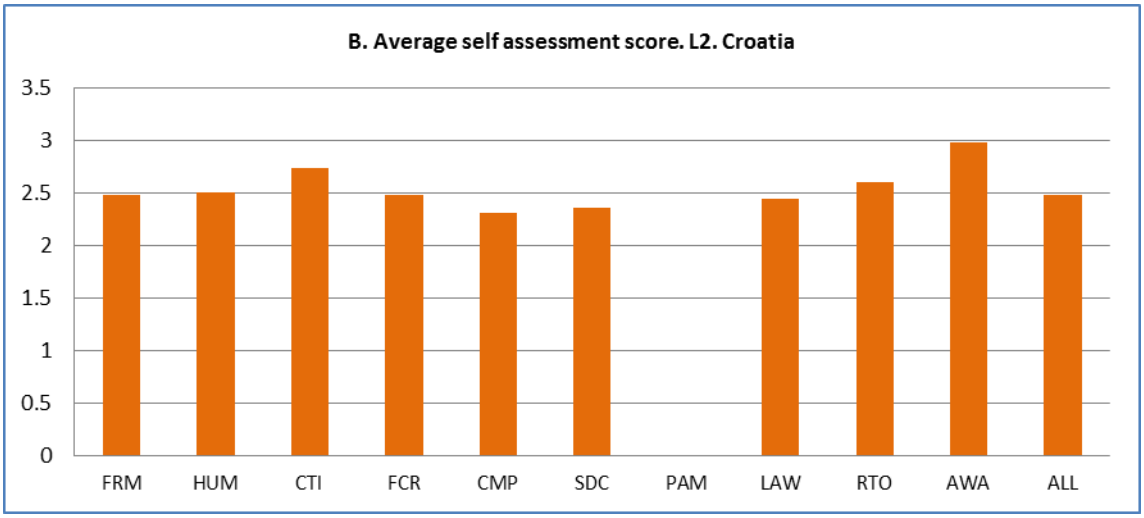
Over 60% of the assessments are in the two weakest score bands (1 and 2), indicating a major overall lack of capacity at this level, which tends to be the most technical and therefore the most demanding in applied PA management. As at The greatest need is SDC, followed by CMP, LAW, RTO and CTI.. This suggests the need for wide ranging technical training programme for personnel at this level.

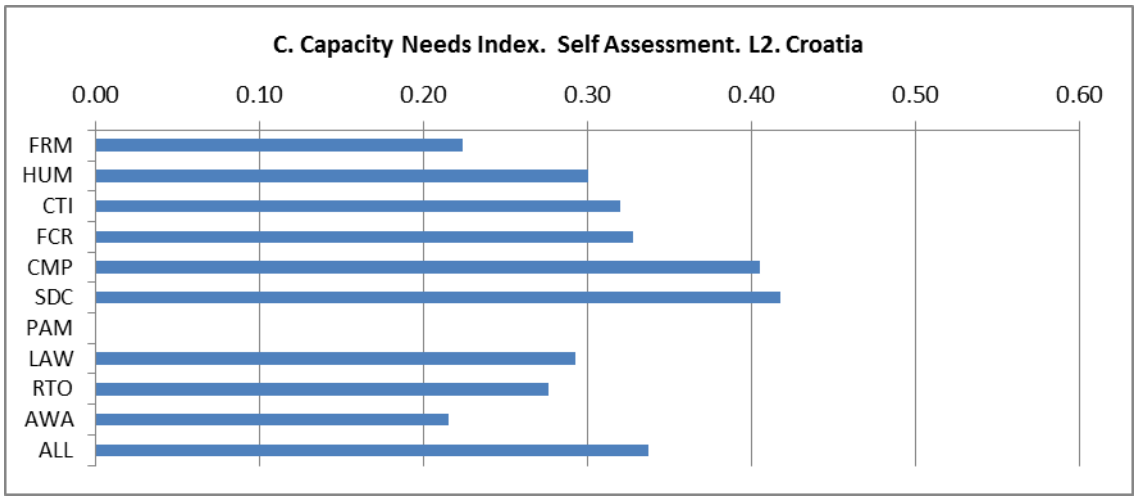
[5] The category PAM is not registered in this assessment as it only includes Level 4/5 competences.

SELF ASSESSMENTS OF LEVEL 2 COMPETENCES

Relevant to rangers and field based middle managers and technical personnel[6]







OBSERVATIONS

Overall capacity is much better than for Level 3 and Level 4/5 competences. Respondents identify that their greatest needs are for capacity development in working with communities (SDC) and basic conservation (CMP). Rangers and field based staff are clearly recognising the need to diversify their skills beyond the 'traditional' roles of guarding and protection.

[6] The category PAM is not registered in this assessment as it only includes Level 4/5 competences.

4.5.3 RANKING OF INDIVIDUAL COMPETENCES AND PERSONAL PREFERENCES FROM THE SELF ASSESSMENT

The previous section aggregated the results according to the ten general skills categories. However, it was also possible to analyse self-assessed competence in the specific skills within each category, providing a more detailed picture of specific capacity development requirements. This information can be used to help identify the specific components of training courses and to contrast the results of self-assessments with personal preferences. The results are presented below.

RANKING OF INDIVIDUAL COMPETENCES AND PERSONAL PREFERENCES: LEVEL 4/5 (15 SENIOR MANAGERS)

Figure 9 Comparison of ranked capacity development priorities of senior managers according to the self-assessment (left) and ranked personal preferences for capacity development (right)

PRIORITIES BASED ON SELF-ASSESSMENTS OF COMPETENCE. GREATEST CAPACITY DEVELOPMENT NEED FIRST.			PRIORITIES BASED ON PERSONAL SELECTION OF SKILLS. MOST PREFERRED FIRST.		
CODE	**SKILL**	**CNI SCORE**	**CODE**	**SKILL**	**Prefer-ences**
PAM 4.8	Monitor management effectiveness of the protected area using standard tools and methods (e.g. IUCN Management Effectiveness Tracking Tool (METT))	0.65	PAM 4.5	Develop protected area project plans, proposals and budgets using nationally or internationally recognised formats and processes.	13
PAM 4.3	Lead development of contingency plans for potential disasters.	0.63	PAM 4.8	Monitor management effectiveness of the protected area using standard tools and methods (e.g. IUCN Management Effectiveness Tracking Tool (METT))	12
RTO 4.1	Lead development of detailed recreation and tourism strategies and plans for the protected area and local communities	0.59	CMP 4.1	Plan, manage and evaluate , scientifically based programmes for ecosystem and habitat research, conservation and monitoring ecosystems	10
CMP 4.5	Determine the value of ecological/environmental services.	0.59	RTO 4.1	Lead development of detailed recreation and tourism strategies and plans for the protected area and local communities	10
CMP 4.4	Plan, manage and evaluate ex-situ plant conservation and breeding projects	0.56	AWA 4.2	Research and plan interpretive/tourist/visitor centres and other major infrastructure	10
SDC 4.4	Design and implement long socio economic and cultural research and monitoring programmes.	0.53	AWA 4.3	Plan and manage marketing, media and public relations activities.	10
RTO 4.2	Develop business and financial plans and forecasts for tourism and recreation in the protected area	0.53	CMP 4.5	Determine the value of ecological/environmental services.	9
AWA 4.1	Lead the development of interpretation, awareness and education strategies and action plans and evaluate their impacts	0.47	AWA 4.1	Lead the development of interpretation, awareness and education strategies and action plans and evaluate their impacts	8
AWA 4.3	Plan and manage marketing, media and public relations activities.	0.47	CTI 4.1	Negotiate agreements and resolve disputes and conflicts.	7
PAM 5.3	Plan and negotiate trans boundary protected area and conservation initiatives.	0.47	SDC 4.2	Resolve conflicts concerning protected areas, communities and other stakeholders (Disputes, complaints over settlements, resource use, land claims, decisions. Disputes between different stakeholder groups)	7
PAM 5.4	Direct the process of protected area boundary formalisation, rationalisation, gazettement.	0.47	PAM 4.4	Plan and negotiate trans boundary protected area and conservation initiatives.	7
CMP 4.3	Plan, manage and evaluate ex-situ animal conservation and breeding projects (rescue centres, captive breeding etc.)	0.44	FRM 4.2	Develop detailed business plans, fund raising and revenue generating schemes.	6
FRM	Develop and monitor annual financial plans and	0.41	FCR	Contribute to specification and design of	6

4.1	prepare financial reports		4.1	major infrastructure projects.	
HUM 4.4	Lead training and development needs analysis.	0.41	CMP 4.2	Plan, manage and evaluate , scientifically based programmes for species research, conservation and monitoring	6
FCR 4.1	Contribute to specification and design of major infrastructure projects.	0.41	PAM 4.1	Understand and interpret relevant legislation for the planning and management of protected areas	6
SDC 4.3	Identify and mobilise external sources of assistance, support and finance for local communities.	0.41	RTO 4.2	Develop business and financial plans and forecasts for tourism and recreation in the protected area	6
PAM 4.4	Plan and negotiate trans boundary protected area and conservation initiatives.	0.41	PAM 4.6	Develop and negotiate collaborative partnerships, plans and programmes	5
LAW 4.2	Coordinate protected area law enforcement activities with law enforcement and regulating agencies	0.41	PAM 4.7	Direct, review and evaluate implementation of special projects (with national or international funding)	5
PAM 5.1	Direct and evaluate policy and strategy development for biodiversity conservation and protected area management.	0.41	SDC 4.3	Identify and mobilise external sources of assistance, support and finance for local communities.	4
SDC 4.2	Resolve conflicts concerning protected areas, communities and other stakeholders (Disputes, complaints over settlements, resource use, land claims, decisions. Disputes between different stakeholder groups)	0.35	SDC 4.4	Design and implement long socio economic and cultural research and monitoring programmes.	4
PAM 4.5	Develop protected area project plans, proposals and budgets using nationally or internationally recognised formats and processes.	0.35	PAM 4.2	Lead the development of protected area conservation zoning systems and management plans using an appropriate national or international format and process	4
PAM 4.6	Develop and negotiate collaborative partnerships, plans and programmes	0.35	LAW 4.1	Identify legal requirements and instruments for improving or extending protection and contribute to the development of protected area regulations.	4
PAM 4.7	Direct, review and evaluate implementation of special projects (with national or international funding)	0.35	PAM 5.2	Direct the design of protected areas, networks, systems and strategies.	4
FRM 4.2	Develop detailed business plans, fund raising and revenue generating schemes.	0.35	HUM 4.5	Plan, design, supervise and evaluate staff training and capacity development programmes	3
CMP 4.2	Plan, manage and evaluate , scientifically based programmes for species research, conservation and monitoring	0.35	CMP 4.4	Plan, manage and evaluate ex-situ plant conservation and breeding projects (botanic gardens, plant breeding for reintroduction and restoration etc.)	3
SDC 4.1	Develop agreements with communities for resource access and use.	0.35	SDC 4.1	Develop agreements with communities for resource access and use.	3
PAM 5.2	Direct the design of protected areas, networks, systems and strategies.	0.35	RTO 4.3	Establish safety standards and codes of conduct for protected area users.	3
RTO 4.3	Establish safety standards and codes of conduct for protected area users.	0.31	HUM 4.3	Plan for and ensure the welfare, health and safety of staff, visitors and other users	2
CMP 4.1	Plan, manage and evaluate , scientifically based programmes for ecosystem and habitat research, conservation and monitoring ecosystems	0.29	CMP 4.3	Plan, manage and evaluate ex-situ animal conservation and breeding projects (rescue centres, captive breeding etc.)	2
LAW	Identify legal requirements and instruments for	0.29	LAW 4.2	Coordinate protected area law enforcement activities with law	2

4.1	improving or extending protection and contribute to the development of protected area regulations.			enforcement and regulating agencies	
PAM 5.5	Contribute to updating of policies and legislation related to protected areas and biodiversity conservation	0.29	FRM 4.1	Develop and monitor annual financial plans and prepare financial reports	1
HUM 4.3	Plan for and ensure the welfare, health and safety of staff, visitors and other users	0.24	HUM 4.4	Lead training and development needs analysis.	1
HUM 4.5	Plan, design, supervise and evaluate staff training and capacity development programmes	0.24	PAM 4.3	Lead development of contingency plans for potential disasters.	1
CTI 4.1	Negotiate agreements and resolve disputes and conflicts.	0.24	PAM 5.1	Direct and evaluate policy and strategy development for biodiversity conservation and protected area management.	1
HUM 4.1	Identify staffing needs and structures, assign roles and responsibilities and set performance standards	0.18	PAM 5.4	Direct the process of protected area boundary formalisation, rationalisation, gazettement.	1
HUM 4.2	Manage staff recruitment and contracting.	0.18	HUM 4.1	Identify staffing needs and structures, assign roles and responsibilities and set performance standards	0
AWA 4.2	Research and plan interpretive/tourist/visitor centres and other major infrastructure	0.18	HUM 4.2	Manage staff recruitment and contracting.	0
CTI 4.2	Institute mechanisms for public consultations, communication and participation over decisions, policies & plans.	0.18	CTI 4.2	Institute mechanisms for public consultations, communication and participation over decisions, policies & plans.	0
PAM 4.2	Lead the development of protected area conservation zoning systems and management plans using an appropriate national or international format and process	0.18	PAM 5.3	Plan and negotiate trans boundary protected area and conservation initiatives.	0
PAM 4.1	Understand and interpret relevant legislation for the planning and management of protected areas	0.06	PAM 5.5	Contribute to updating of policies and legislation related to protected areas and biodiversity conservation	0

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RANKING OF INDIVIDUAL COMPETENCES AND PERSONAL PREFERENCES: LEVEL 3 (100 MIDDLE MANAGERS AND TECHNICAL SPECIALISTS)

Figure 10 Comparison of ranked capacity development priorities of middle managers according to the self-assessment (left) and ranked personal preferences for capacity development (right)

PRIORITIES BASED ON SELF-ASSESSMENTS OF COMPETENCE. GREATEST CAPACITY DEVELOPMENT NEED FIRST.			**PRIORITIES BASED ON PERSONAL SELECTION OF SKILLS. MOST PREFERRED FIRST.**		
CODE	**SKILL**	**CNI SCORE**	**CODE**	**SKILL**	**Number of pre-ferences**
SDC 3.4	Plan, coordinate and facilitate community capacity development activities.	0.60	CTI 3.4	Operate GIS systems	28
CTI 3.4	Operate GIS systems	0.59	CMP 3.1	Specify management requirements for conservation of habitats and ecosystems	19
SDC 3.3	Develop and negotiate participatory community conservation and management agreements.	0.59	AWA 3.2	Research, plan, and design awareness and educational publications, exhibits and signs	16
CMP	Specify, and evaluate sustainable quotas for	0.56	AWA 3.3	Research, plan and design special education programmes for schools.	16

3.2	natural resource use using scientific methods				
CMP 3.4	Plan evaluate and supervise management of invasive and problem animals and human wildlife conflict.	0.56	AWA 3.1	Plan and design awareness and education activities and events for visitors, educational groups and local people (talks, presentations, guided walks etc.)	14
CMP 3.3	Specify site based special measures for assisting protection, survival or recovery of key species.	0.55	CMP 3.3	Specify site based special measures for assisting protection, survival or recovery of key species.	11
RTO 3.3	Identify potential recreation impacts and design impact monitoring and mitigation systems.	0.54	CMP 3.6	Lead specialised, scientifically based, taxonomic, habitat and ecosystem surveys and monitoring	10
SDC 3.5	Promote development of local networks and organizations.	0.53	CMP 3.2	Specify, and evaluate sustainable quotas for natural resource use using scientific methods	9
SDC 3.1	Plan and conduct scientifically based social and economic surveys	0.52	CMP 3.7	Analyse, and present interpret survey and monitoring data.	9
CMP 3.5	Plan and supervise animal capture, transport, care and management.	0.51	SDC 3.4	Plan, coordinate and facilitate community capacity development activities.	8
SDC 3.6	Provide advice on sustainable community based natural resource use and management.	0.50	HUM 3.4	Plan, prepare and deliver formal vocational and skills training for staff	6
CMP 3.6	Lead specialised, scientifically based, taxonomic, habitat and ecosystem surveys and monitoring	0.48	HUM 3.5	Plan, prepare and deliver formal lectures and presentations	6
CTI 3.3	Operate and maintain computers for advanced functions	0.48	CTI 3.3	Operate and maintain computers for advanced functions	6
CTI 3.5	Manage library, archives and other information resources.	0.48	RTO 3.1	Identify recreation opportunities and design appropriate recreation activities for a protected area.	6
RTO 3.2	Plan and implement recreation surveys to gather information about visitors and the use of the site	0.47	HUM 3.1	Brief, supervise, motivate and evaluate performance of individuals and teams.	5
CMP 3.7	Analyse, and present interpret survey and monitoring data.	0.47	SDC 3.2	Plan and conduct scientifically based historical and archaeological assessments	5
RTO 3.1	Identify recreation opportunities and design appropriate recreation activities for a protected area.	0.46	SDC 3.3	Develop and negotiate participatory community conservation and management agreements.	5
AWA 3.4	Deliver formal and informal interpretive/ awareness/ educational presentations for visitors, local people and educational groups	0.45	AWA 3.4	Deliver formal and informal interpretive/ awareness/ educational presentations for visitors, local people and educational groups	5
RTO 3.4	Supervise safety and security of visitors and other users.	0.45	FRM 3.1	Prepare budgets and keep books and accounts	4
HUM 3.4	Plan, prepare and deliver formal vocational and skills training for staff	0.44	FRM 3.3	Manage official documentation and reporting on finances, assets, equipment, infrastructure etc.	4
FCR 3.1	Plan and organise logistics for field trips, surveys and patrols.	0.42	HUM 3.3	Determine causes of poor performance and workplace conflicts and take appropriate action	4
CMP 3.1	Specify management requirements for conservation of habitats and ecosystems	0.42	FCR 3.2	Organise and lead search and rescue operations in the field.	4
HUM	Plan, prepare and deliver formal lectures and	0.42	RTO	Plan and implement recreation surveys	4

3.5	presentations		3.2	to gather information about visitors and the use of the site	
SDC 3.2	Plan and conduct scientifically based historical and archaeological assessments	0.41	CMP 3.4	Plan evaluate and supervise management of invasive and problem animals and human wildlife conflict.	3
FCR 3.3	Operate and use base station radio and communication equipment.	0.40	LAW 3.1	Plan law enforcement activities and programmes.	3
LAW 3.3	Liaise with local communities to resist and prevent illegal activities.	0.38	CTI 3.1	Organize and chair formal meetings.	2
CTI 3.2	Give technical presentations and write technical reports/papers.	0.38	CTI 3.5	Manage library, archives and other information resources.	2
CTI 3.1	Organize and chair formal meetings.	0.37	FCR 3.1	Plan and organise logistics for field trips, surveys and patrols.	2
AWA 3.3	Research, plan and design special education programmes for schools.	0.36	CMP 3.8	Curate collections and manage museums	2
LAW 3.1	Plan law enforcement activities and programmes.	0.36	SDC 3.1	Plan and conduct scientifically based social and economic surveys	2
HUM 3.2	Prepare detailed work plans for staff and direct, monitor and report on work plan implementation	0.36	LAW 3.3	Liaise with local communities to resist and prevent illegal activities.	2
CMP 3.8	Curate collections and manage museums	0.36	RTO 3.3	Identify potential recreation impacts and design impact monitoring and mitigation systems.	2
FCR 3.2	Organise and lead search and rescue operations in the field.	0.35	CTI 3.2	Give technical presentations and write technical reports/papers.	1
HUM 3.3	Determine causes of poor performance and workplace conflicts and take appropriate action	0.35	FCR 3.3	Operate and use base station radio and communication equipment.	1
FCR 3.7	Identify and assess fire risks and hazards and plan fire prevention and control.	0.35	FCR 3.5	Inspect and specify maintenance and repair requirements and schedules.	1
FCR 3.4	Draw up plans and specifications for small works and basic site infrastructure and supervise construction work	0.29	FCR 3.7	Identify and assess fire risks and hazards and plan fire prevention and control.	1
FCR 3.5	Inspect and specify maintenance and repair requirements and schedules.	0.27	SDC 3.5	Promote development of local networks and organizations.	1
FRM 3.3	Manage official documentation and reporting on finances, assets, equipment, infrastructure etc.	0.26	SDC 3.6	Provide advice on sustainable community based natural resource use and management.	1
HUM 3.1	Brief, supervise, motivate and evaluate performance of individuals and teams.	0.26	LAW 3.4	Follow correct procedure for dealing with violations, suspects, crime scenes and seized or confiscated evidence.	1
LAW 3.2	Lead patrol and law enforcement activities in the field.	0.24	RTO 3.4	Supervise safety and security of visitors and other users.	1
FCR 3.6	Locate, mark and inspect boundaries in the field.	0.23	AWA 3.5	Provide information for the media	1
FRM 3.1	Prepare budgets and keep books and accounts	0.22	FRM 3.2	Manage purchasing and inventory.	0
FRM 3.2	Manage purchasing and inventory.	0.21	HUM 3.2	Prepare detailed work plans for staff and direct, monitor and report on work plan implementation	0
LAW	Follow correct procedure for dealing with	0.21	FCR	Draw up plans and specifications for	0

3.4	violations, suspects, crime scenes and seized or confiscated evidence.		3.4	small works and basic site infrastructure and supervise construction work	
AWA 3.1	Plan and design awareness and education activities and events for visitors, educational groups and local people (talks, presentations, guided walks etc.)	0.18	FCR 3.6	Locate, mark and inspect boundaries in the field.	0
AWA 3.2	Research, plan, and design awareness and educational publications, exhibits and signs	0.09	CMP 3.5	Plan and supervise animal capture, transport, care and management.	0
AWA 3.5	Provide information for the media	0.09	LAW 3.2	Lead patrol and law enforcement activities in the field.	0

RANKING OF INDIVIDUAL COMPETENCES AND PERSONAL PREFERENCES: LEVEL 2 (35 RANGERS AND FIELD STAFF)

Figure 11 Comparison of ranked capacity development priorities of middle managers according to the self-assessment (left) and ranked personal preferences for capacity development (right)

PRIORITIES BASED ON SELF-ASSESSMENTS OF COMPETENCE. GREATEST CAPACITY DEVELOPMENT NEED FIRST.			**PRIORITIES BASED ON PERSONAL SELECTION OF SKILLS. MOST PREFERRED FIRST.**		
CODE	**SKILL**	**CNI SCORE**	**CODE**	**SKILL**	**Number of pre-ferences**
FCR 2.4	Identify, prevent and/or provide primary treatment in the field for illness, diseases and bites (First Aid in the workplace)	**0.53**	CMP 2.1	Recognise common and typical vegetation and habitat types, plant and animal species and their signs	28
CMP 2.6	Conduct practical habitat creation, restoration, management and manipulation work	**0.53**	CMP 2.2	Accurately record and report wildlife observations using standard forms (where available)	17
SDC 2.1	Under supervision, gather and record information about communities and livelihoods and provide basic reports to supervisors	**0.49**	CMP 2.3	Conduct supervised surveys of wildlife, habitats, natural resources and physical landscape features (under guidance of specialists)	16
FCR 2.6	Use GPS for georeferencing locations and for navigation and orientation.	**0.47**	FCR 2.6	Use GPS for georeferencing locations and for navigation and orientation.	15
CMP 2.4	Use identification aids to identify plants and animals.	**0.47**	CMP 2.4	Use identification aids to identify plants and animals.	14
CMP 2.2	Accurately record and report wildlife observations using standard forms (where available)	**0.44**	CMP 2.6	Conduct practical habitat creation, restoration, management and manipulation work	14
CMP 2.7	Assist in the capture / immobilisation, handling and transportation of animals.	**0.44**	FCR 2.3	Fight fires.	13
LAW 2.1	Recognise and identify signs and evidence of illegal or restricted activities in the field.	**0.43**	CTI 2.4	Operate and maintain computer for basic functions (word processing, internet, email)	11
CMP 2.5	Use and care for basic scientific instruments used in surveying	**0.42**	CTI 2.3	Communicate in other languages and/or dialects.	10
FCR 2.10	Use and maintain radio handset for field communication.	**0.41**	FCR 2.4	Identify, prevent and/or provide primary treatment in the field for illness, diseases and bites (First Aid in the workplace)	10
CMP 2.3	Conduct supervised surveys of wildlife, habitats, natural resources and physical landscape features (under guidance of specialists)	**0.40**	LAW 2.5	Deal effectively with hostile situations and defend oneself against physical attack.	8
CTI 2.3	Communicate in other languages and/or dialects.	**0.39**	CMP 2.7	Assist in the capture / immobilisation, handling and transportation of animals.	7

SDC 2.2	Provide basic information, guidance and assistance for community-based conservation and sustainable use.	**0.39**	FCR 2.5	Use compass and chart or map for navigation and orientation.	5
SDC 2.3	Monitor compliance by local communities with agreements and laws affecting them and the protected area.	**0.38**	CMP 2.5	Use and care for basic scientific instruments used in surveying	5
FCR 2.5	Use compass and chart or map for navigation and orientation.	**0.37**	FRM 2.1	Collect and present evidence of expenditure and other financial transactions	4
CMP 2.1	Recognise common and typical vegetation and habitat types, plant and animal species and their signs	**0.37**	HUM 2.1	Supervise and motivate work teams under direct supervision	4
LAW 2.4	Report correctly on law enforcement activities	**0.37**	CMP 2.9	Care for captive animals	4
CTI 2.1	Make basic oral presentations to colleagues, local people and visitors	**0.35**	SDC 2.2	Provide basic information, guidance and assistance for community-based conservation and sustainable use.	4
CTI 2.2	Prepare written reports of work activities using standard formats	**0.35**	FCR 2.2	Follow good safety and environmental practice in the field.	3
LAW 2.5	Deal effectively with hostile situations and defend oneself against physical attack.	**0.34**	FCR 2.8	Drive and provide basic maintenance for motor vehicles and small engines	3
FCR 2.3	Fight fires.	**0.32**	CMP 2.8	Check and replenish feeding stations for wild animals.	3
RTO 2.2	Respond to emergencies and accidents to visitors.	**0.32**	LAW 2.2	Conduct enforcement activities legally and safely	3
HUM 2.2	Provide training and instruction in the workplace for supervised staff	**0.32**	RTO 2.2	Respond to emergencies and accidents to visitors.	3
LAW 2.2	Conduct enforcement activities legally and safely	**0.31**	AWA 2.1	Provide basic information about the protected area to visitors, community members and the public.	3
CMP 2.9	Care for captive animals	**0.30**	HUM 2.2	Provide training and instruction in the workplace for supervised staff	2
HUM 2.1	Supervise and motivate work teams under direct supervision	**0.28**	CTI 2.1	Make basic oral presentations to colleagues, local people and visitors	2
FCR 2.7	Construct and repair outdoor structures, paths and trails.	**0.28**	CTI 2.5	Operate office and audio visual equipment	2
CMP 2.8	Check and replenish feeding stations for wild animals.	**0.28**	FCR 2.1	Care for, check and maintain basic field equipment.	2
CTI 2.5	Operate office and audio visual equipment	**0.27**	FCR 2.9	Safely operate and maintain small boats and their engines	2
FCR 2.1	Care for, check and maintain basic field equipment.	**0.24**	SDC 2.1	Under supervision, gather and record information about communities and livelihoods and provide basic reports to supervisors	2
CTI 2.4	Operate and maintain computer for basic functions (word processing, internet, email)	**0.24**	SDC 2.3	Monitor compliance by local communities with agreements and laws affecting them and the protected area.	2
FCR 2.2	Follow good safety and environmental practice in the field.	**0.24**	LAW 2.1	Recognise and identify signs and evidence of illegal or restricted activities in the field.	2
LAW 2.3	Treat suspects and members of the public correctly and legally during patrol and	**0.23**	FRM 2.2	Manage stores of equipment and supplies.	1

	enforcement activities.				
RTO 2.1	Guide, assist and regulate visitors on site.	**0.23**	FCR 2.7	Construct and repair outdoor structures, paths and trails.	1
FRM 2.1	Collect and present evidence of expenditure and other financial transactions	**0.22**	LAW 2.3	Treat suspects and members of the public correctly and legally during patrol and enforcement activities.	1
FRM 2.2	Manage stores of equipment and supplies.	**0.22**	LAW 2.6	Care for and use firearms correctly and safely (if relevant)	1
FCR 2.9	Safely operate and maintain small boats and their engines	**0.22**	RTO 2.1	Guide, assist and regulate visitors on site.	1
AWA 2.1	Provide basic information about the protected area to visitors, community members and the public.	**0.21**	CTI 2.2	Prepare written reports of work activities using standard formats	0
FCR 2.8	Drive and provide basic maintenance for motor vehicles and small engines	**0.20**	FCR 2.10	Use and maintain radio handset for field communication.	0
LAW 2.6	Care for and use firearms correctly and safely (if relevant)	**0.07**	LAW 2.4	Report correctly on law enforcement activities	0

4.5.4 OVERALL RANKED NEEDS

Figure 12 shows the overall ranked priorities for capacity development in the ten competence categories for Croatia. The top two needs are consistent across all three levels, the third highest need is REC and Levels 3 and 4/5 and LAW at Level 2.

Figure 12 Ranked country capacity development needs. Croatia

Country capacity development needs ranked by category and level 1 = Highest need 10 = Lowest need. Top 4 priorities highlighted				
		LEVEL 4/5	LEVEL 3	LEVEL 2
FRM	FINANCIAL & RESOURCES MANAGEMENT	**6**	**9**	**8**
HUM	HUMAN RESOURCES MANAGEMENT & DEVELOPMENT	**9**	**6**	**5**
CTI	COMMUNICATION TECHNOLOGY AND INFORMATION	**10**	**5**	**4**
FCR	FIELD CRAFT AND PRACTICAL SKILLS	**4**	**7**	**3**
CMP	CONSERVATION ASSESSMENT PLANNING & MANAGEMENT	**2**	**2**	**2**
SDC	SUSTAINABLE DEVELOPMENT & COMMUNITIES	**3**	**1**	**1**
PAM	PROTECTED AREA POLICY, PLANNING AND PROJECTS	**5**	**n/a**	**n/a**
LAW	LAW ENFORCEMENT	**8**	**3**	**6**
RTO	RECREATION AND TOURISM	**1**	**3**	**7**
AWA	AWARENESS, EDUCATION AND PUBLIC RELATIONS	**7**	**8**	**9**

5 SUMMARY CONCLUSIONS

The following sections discuss the conclusions from the results of the two questionnaires for Croatia. See the General Report for discussion of the entire regional survey, for comparisons between countries and for an assessment of the limitations and possible inaccuracies in the survey.

5.1 OVERALL CONCLUSION

- Croatia's protected area system has made tangible progress towards developing capacity of its workforce, which is already well educated and with a good range of experience. The need for training is formally recognised by the existence of budgets for staff development and the elaboration of a set of training modules. There is a need to build on this foundation by institutionalising capacity development for PA personnel in order to improve performance and to establish a clearer professional standard and profile for the sector. The range of capacity development opportunities needs to be broadened to include some topics that have been neglected up to now (such as tourism and working with communities).
- Croatia's recent entry into the European Union will make new demands on PA administrations and personnel, but will also provide good opportunities for improving capacity and management effectiveness in protected areas.

5.2 STAFFING OF PROTECTED AREAS IN CROATIA

One peculiarity of the results from Croatia is the very large number of support staff listed by some PAs; these seem to be related to those areas with very large numbers of tourists. For the most part the results do not consider these support staff as the numbers tend to distort the results.

- The protected area workforce in Croatia is mainly male (but with a more equitable gender balance than many other countries), well educated, less than 45 years old and with a good proportion of experienced individuals.
- The gender balance may mean that a significant number of well-qualified and motivated women are choosing or chosen to work in protected areas.
- The youth of the workforce suggests a clear need for capacity development, but the good educational level suggests a good capacity for training and the presence of many more experienced workers indicates a possibility for internal training and skills sharing.
- The staffing density is around the average for the region, but it is probably not possible to correlate staffing density or structure directly with management effectiveness. Effectiveness needs to be measured directly through performance.

5.3 TRAINING

- Current availability of training is inadequate amounting to around 10-20% what is considered to be required.
- It is encouraging that most PAs have a budget for training, even if this is quite limited.
- The focus of training delivered to date (mainly on PA Planning and Management (PAM)) does not adequately reflect the priorities of managers, the preferences of individuals, or the competence needs identified through the self-assessments.
- It is a concern that despite the focus of training on PAM, this category remains one of the biggest capacity weaknesses and is identified as a priority need. There could be a number of possible explanations for this.
    - The training curriculum and content may not have been relevant
    - The quality of the training may not have been adequate.
    - The training may have been attended by the wrong people
    - There may be a high staff turnover at Levels 3, 4 and 5, leading to a continuous need for training of new entrants.
- Training in Croatia is delivered by a range of providers, but internal training is underdeveloped.

- The training that is provided is often inadequately recorded and documented.
- The preferred modes of capacity development are learning visits and short courses. Newer methods of training and learning are not being used in Croatia , but are viewed more positively than in most countries in the region.

5.4 THE COMPETENCE ASSESSMENTS

The following sections discuss each of the competence categories, taking into account the results of both the General Questionnaire and the Self-Assessment Questionnaire.

5.4.1 MANAGEMENT OF FINANCE AND PHYSICAL RESOURCES (FRM)

This category is not seen as a major priority in either questionnaire , but in the self-assessments, it is a significant priority for Senior Managers, mainly in relation to fund raising and business planning. At other levels many respondents do not see this category as being particularly relevant to their work.

CONCLUSIONS

- **Although this category is not a major priority, new training would be beneficial in making the most of new funding opportunities presented by membership of the EU (for example agri-environmental schemes).**

5.4.2 MANAGEMENT OF HUMAN RESOURCES (HUM)

For senior managers this does not appear to be a priority in either questionnaire. However, it is identified as an major need for Level 3 personnel in the self-assessments, specifically related to skills for developing and delivering training for others and for work planning and supervision. Level 2 staff in the Self-Assessment Questionnaire identify this category as a priority; they appear to recognise their need for skills in workplace supervision.

CONCLUSIONS

- **Protected area personnel at Level 3 recognise the need for designing and delivering training and instruction in the workplace. However, the questionnaires have shown that at present little internal delivery of training takes place.**
- **Field staff may benefit from training in supervision and instruction in the work place, which could provide a low cost, sustainable and effective way of providing training for field staff.**

5.4.3 COMMUNICATION, TECHNOLOGY AND INFORMATION (CTI)

Results from this category require careful scrutiny, because the skills within it mix personal communication skills with skills associated with using information technology. With the benefit of hindsight, it would have been better to split this into two separate categories.

Overall the category is low ranking at Level 4/5. At Level 3 y, but at Level 2 this is more of a priority (mainly relating to the GIS and IT elements). Some respondents at Level 2 assign a high priority to learning a foreign language and to supervisory skills

With respect to the information technology skills, the use of GIS ranks very highly at Level 3, but this result should be treated with caution. In the experience of the lead author, a very large amount of the investment in training and equipment for GIS in individual protected areas (normally through internationally funded projects) brings little long-term benefit. Highly trained individuals tend to leave (for better paid work in the private sector), equipment is not maintained or replaced, and parent protected area agencies have not developed an' IT culture' to institutionalise what has been taught/learned.

CONCLUSIONS

- **Investment should only be made in GIS and IT training where there is a high likelihood of sustainability and where the protected area institution has adopted an IT culture. Otherwise, training is likely to benefit individuals far more than it does institutions or management effectiveness. It may be sufficient to make individuals aware of training opportunities rather than provide specific programmes.**

- **All protected areas staff whose work involves contact with the public, communities and other stakeholders would benefit from training in basic communication and interpersonal skills. This is identified as a particular need by senior staff.**
- **Staff working in protected areas with international visitors may require language training.**

5.4.4 FIELD CRAFT (FCR)

These are quite 'traditional' protected area skills. At Level 2, two skills have a very high priority.

FCR 2.4. Identify, prevent and/or provide primary treatment in the field for illness, diseases and bites (First Aid in the workplace). This is the top priority for Level 2 staff.

FCR 2.6. Use GPS for georeferencing locations and for navigation and orientation.

CONCLUSIONS

- **All protected areas staff should have at least basic training in first aid, safety and security.**
- **GPS training, while popular, should only be considered if the equipment is available and an appropriate IT culture exists.**

5.4.5 CONSERVATION PLANNING, ASSESSMENT AND MANAGEMENT (CMP)

Although it might be assumed that competence in this category would be strong among PA staff, it is in fact among the weaker categories at all levels and a priority training need particularly at Level 3 and Level 4.

The author has found a similar lack of capacity in this category in most other surveys of this type that he has conducted, suggesting that among all the other demands on protected area managers and staff, the primary skills connected with conserving and managing diversity are being neglected. However, this category is also one of the four that has dominated previous training in Croatia . One explanation for this is that a lot of the training that has taken place tends to be research-oriented biological training, rather than management oriented conservation training. The skills used in the assessment focus on the latter rather than the former.

Croatia's recent entry into the European Union will make some new demands on protected area administrations and personnel, in relation to establishing a Natura 2000 network and implementing the Birds and Habitats Directives. This will create some new capacity building priorities.

CONCLUSIONS

- **Although biodiversity conservation is the prime function of all protected areas (as recognised by IUCN), skills associated with effective biodiversity conservation are lacking at all levels.**
- **These skills should not be overlooked in future training because they are 'traditional' PA skills or because it is assumed that PA staff already have them. Applied conservation biology is a fast moving science and as the threats to species and ecosystems intensify, so these skills become more important.**
- **Training in biodiversity conservation should focus on management oriented skills rather than academic studies. The focus should be on developing, applying and monitoring the impact of specific measures designed to achieve the defined conservation goals of protected areas.**
- **There will be a need for training on certain aspects of species and habitat conservation in relation to Croatia's obligations as an EU Member State.**

5.4.6 SUSTAINABLE DEVELOPMENT & COMMUNITIES (SDC)

In both questionnaires, this category was among the highest capacity development needs for all levels of staff, showing a widespread recognition of the importance of working with local communities, and of the current lack of skills in this type of work. However, this category ranks much lower in the personal preferences identified in the Self-Assessment Questionnaire and in the priorities for future training identified by managers in the General Questionnaire. This finding is particularly interesting, and probably requires further investigation. It is possible that individuals find this category quite new and challenging and therefore would not choose training in it, even though they recognise its importance.

These results for Croatia are very similar to those for most other countries in the region.

CONCLUSIONS

- **There is a national need for training in working with communities at all levels, and this should be a priority topic in future initiatives.**
- **Although staff at all levels recognise the importance of training in this category, some may be personally reluctant to undergo such training. It is necessary therefore to 'sell' the benefits of training in this category to protected areas staff and to make sure that training programs offered are relevant and of a high quality.**
- **The EU agri environmental scheme is likely to be very important for conservation of high conservation value farmland in Croatia. Special attention should be paid to learning the lessons about applying the scheme on other EU Member States.**

5.4.7 PROTECTED AREA POLICY, PLANNING AND PROJECTS (PAM)

Although this category is at the very core of protected area work and has accounted for nearly 50% of all PA training in Croatia in the past three years, the self assessment questionnaire reveals some major weaknesses in certain specific skills, in particular:

PAM 4.8 Monitor management effectiveness of the protected area using standard tools and methods (e.g. IUCN Management Effectiveness Tracking Tool (METT))

PAM 4.3 Lead development of contingency plans for potential disasters.

PAM5.3 Plan and negotiate trans boundary protected area and conservation initiatives.

PAM5.4 Direct the process of protected area boundary formalisation, rationalisation, gazettement.

In the personal preferences, the two two needs are from this category

PAM 4.5 Develop protected area project plans, proposals and budgets using nationally or internationally recognised formats and processes.

PAM 4.8 Monitor management effectiveness of the protected area using standard tools and methods (e.g. IUCN Management Effectiveness Tracking Tool (METT)).

It appears that the existing training may not be well designed and may not be reaching all of the people who need it most. High staff turnover may also be leading to a continuous leakage of this skills, generating a continuous need for training.

Croatia's recent entry into the European Union will make some new demands on protected area administrations and personnel, in relation to establishing a Natura 2000 network and implementing the Birds and Habitats Directives. This will create some new capacity building priorities.

CONCLUSIONS

- **This category should continue to be a priority for training of senior and middle managers of protected areas in Croatia, but the precise content of the training should be revised in consultation with managers.**
- **There will be a need for training on certain aspects of PA planning and management in relation to Croatia's obligations as an EU Member State**

5.4.8 LAW ENFORCEMENT (LAW)

This is a traditional aspect of protected area management and one of the stronger categories in most of the assessments, but is a significant need at Level 3. There is a need for continuous capacity development in this category at Level 2 and Level 3, and this is particularly recognised by managers in the General Questionnaire. There are probably several reasons for this:

1. Pressures and threats on protected areas and, natural resources are increasing and therefore there is a greater need for law enforcement activities.
2. There is a high turnover of staff at this level and consequently few experienced rangers who can pass on their skills to new recruits. Therefore, regular training is required for new recruits.

3. Laws, regulations, norms and standard operating procedures may change, leading to a requirement for refresher courses for existing staff.

Improved crime prevention law enforcement and compliance is not dependent on training alone, however, it also depends on investment in adequate personnel and resources to counter the increasing threats.

CONCLUSIONS

- **Protected areas in Croatia would benefit from standardised and compulsory training courses for all newly recruited rangers and other law enforcement personnel. A regular programme of training updates and refresher courses would also be beneficial for both rangers and senior rangers.**
- **It may be possible and most cost effective to deliver the basic training internally within protected areas**

5.4.9 RECREATION AND TOURISM (RTO)

Capacity development in this category is by far the highest needs at Level 4/5 and is also a priority at Level 3. It should be considered a major priority for future training. Surprisingly, very little training has been offered in tourism in the past three years, although tourism is an important component of Croatia's economy and several protected areas have existing or potential major tourism values.

CONCLUSIONS

- **There is a clear and major requirement for building capacity in tourism and recreation for all PAs that offer tourism opportunities.**
- **Site managers require high-level training in identifying tourism and recreation opportunities and developing suitable programmes, along with viable business plans.**
- **Training for middle managers and technical staff should focus on the day-to-day management of tourism, and in particular on visitor management at the site.**

5.4.10 AWARENESS, EDUCATION AND PUBLIC RELATIONS (AWA)

The need for capacity development in awareness raising is quite variable, but is not seem as a priority. The category is a low priority for senior managers or for rangers, but in the self-assessment Level 3 personnel it is slightly more important.

This category should probably be considered alongside the communication element of the CTI category, where the needs are much greater; it is likely that the need is greater for learning how to communicate than for what to communicate. The result may also be affected by differing views of what constitutes awareness raising. In many countries, the understanding of awareness is limited to the provision of information and educational material to visitors and schoolchildren. In the experience of the author, awareness raising that targets adult stakeholders and decision-makers, or that is issue-based (as opposed to fact based) is neglected. It is possible that this view would change if protected areas identified rational communication strategies (as identified as a priority need in the CTI category).

CONCLUSIONS

- **While important, specific skills for awareness raising are not at this stage a priority.**
- **Training in awareness, education and public relations should not be delivered separately, but should be integrated into training in tourism and recreation and in working with local stakeholders.**

6 RECOMMENDATIONS

6.1 OVERALL RECOMMENDATIONS

1. PROMOTE INCREASED PROFESSIONALIZATION OF PROTECTED AREA MANAGEMENT IN CROATIA TO MEET CURRENT AND FUTURE DEMANDS ON THE PA SYSTEM

There is a clear and widely recognised need (not only in Croatia) for protected area work to be better recognised as a distinct profession. This will improve the career path for staff, increase opportunities for officially supported education and training, increase motivation of individuals and institutions and, ultimately, increase the effectiveness of protected area management.

Specific measures should be as follows

1.1 Croatia should engage with regional efforts to improve the professionalization and profile of PA management.

There is a general movement to improve the profile of PA management across Europe, as recognised in the resolution of the workshop held on the isle of Vilm/Germany from 3- 5 June 2013. Croatia should continue to be an active partner in regional initiatives through Europarc, Eurosite, IUCN etc.

1.2 Protected area authorities in Croatia should seek formal national recognition of the occupation of protected area management.

This has been successfully achieved in Romania, from where advice and support should be sought.

2. ESTABLISH A NATIONAL FRAMEWORK FOR PA CAPACITY DEVELOPMENT

It would be beneficial to establish some basic norms for how much capacity development should be made available to protected area staff in a year. For example

2.1 Croatia should develop a national strategy and plan for capacity developments of PA personnel.

This strategy should be based in part on the results and recommendations arising from this survey.

2.2 All permanent protected area staff should have access to at least five days' relevant, structured training (or equivalent capacity development per year.

This would more than double the existing provision.

2.3 All PA managing institutions should allocate budgets for capacity development to provide the required amount of training.

It appears at present that some PAs have training budgets and some do not. Some sort of official policy/requirement would be useful. It should be stressed here that budgeting for capacity development does not have to be based on provision of (expensive) formal training courses and study tours: there are many other much cheaper options for providing good quality training and capacity development.

3. BUILD AND DIVERSIFY INTERNAL CAPACITY FOR CAPACITY DEVELOPMENT

The comparatively high number of experienced staff in Croatia's protected areas indicates that it may be possible to develop a programme that focuses on transfer of skills among existing staff, rather than using external (and much more expensive) training providers. Furthermore, there are many low-cost, easy to organise activities which can help build staff capacity within institutions, without reliance on external investment.

The following specific actions should be considered.

3.1 Appoint a capacity development/training officer from the existing staff in all major protected areas.

This person should be more than a trainer. He/she should be responsible for identifying and mobilising a wide range of ways in which staff can improve their skills and knowledge The role should include

- Organising and coordinating formal training events.
- Providing and sharing information about training opportunities.

- Ensuring that basic learning resources are available in protected areas. Ideally, it should be possible to provide computers and Internet access, but even access to basic library of wildlife identification materials and copies of manuals and textbooks can make a difference.
- Establishing mentoring systems within protected areas, where more experienced staff are required to mentor and guide newer, less experienced staff.
- Identifying expertise within the protected area (and the protected area network) and making use of those with high levels of skills to train newer, less experienced staff.
- Organising regular informal training and learning sessions where staff can discuss and share their skills, provide updates on new policies, laws, regulations, technical advances etc.
- Ensuring that all visiting experts and researchers to the protected area are required to deliver a training session or seminar as part of the conditions of their permission to work there.
- Ensuring that good records are kept of training and capacity development.

3.2 Establish and train a national capacity development team comprising expert practitioners from within protected area institutions.

This team should be trained to provide standard training courses on priority topics across the PA system.

3.3 Provide supervisors in protected areas with training in basic instructional techniques for working with teams and workgroups.

This arises from a need specifically identified at Levels 2 and 3 in the survey.

3.4. Promote and pilot new, technology-based approaches to learning.

The assessments revealed that managers have some interest in newer, technology-based forms of learning. The usefulness and applicability of e-learning is bound to increase, and it has the potential to be a very low cost and effective means of building capacity.

4. ASSESS THE CAPACITY DEVELOPMENT NEEDS AND OPPORTUNITIES ASSOCIATED WITH MEMBERSHIP OF THE EUROPEAN UNION

Two specific measures are recommended

4.1 Commission a detailed assessment of the implications of EU member State status for protected areas in Croatia, identifying the main requirements for capacity development.

4.2 Ensure that identified new requirements are included in all training provision and/or are the subject of special training programmes.

6.2 SPECIFIC PRIORITY CAPACITY DEVELOPMENT RECOMMENDATIONS

5. DEVELOP A COMMON FOUNDATION PROGRAMME FOR ALL PROTECTED AREAS STAFF

Rather than develop many small courses, it would be more effective and efficient to establish a basic standard foundation course covering essential skills, knowledge and approach to work for all PA staff in Croatia. Suggested basic principles of the programme are that:

5.1 All new protected area staff should complete a two-day induction course within 3 months of employment. For some protected areas, the entire staff should complete the course.

5.2 National curricula and programmes for the course should be developed, and a set of training materials provided.

5.3 The course should be delivered by a national or regional training team or by staff of the protected area.

5.4 Completion of the course should be certificated and documented in the personnel records of staff.

Table 11 shows a possible curriculum for the course.

Table 11 Possible curriculum for a general staff induction course

Course Title	Protected Area Staff Induction	
Duration	2 days	
Target group	All new ranger, scientific and technical staff of protected areas. All staff who have been employed in the past 3 years.	
Purpose	To ensure that all staff working in protected area have a good understanding of the area, its functions and of basic standards of good and safe practice.	
Assessment	Required attendance for the entire course . Written and practical tests.	
Topic		**Mode of Delivery**
INTRODUCTION Purpose and values of the protected area. Threats to the protected area. Administrative and legal basis for the protected area. Main conservation and management strategies of the protected area. Functions and duties of protected area staff and partners. Essentials of good personal conduct and environmental practice in the work place.		Lectures, presentations.
OBSERVATION AND COMMUNICATION SKILLS Record keeping and note taking. Basic leadership, team building and motivation. Communicating with stakeholders and visitors.		Presentations with examples. Site based instruction. Practical exercises. Follow up by supervisors.
BASIC FIELD WORK SKILLS First aid. Good environmental practice in the workplace and the field. Emergency response procedures. Fire prevention and fire fighting. Safe use, care and maintenance of tools and equipment. Maps, navigation and GPS. Basic boat handling and safety (if necessary). Basic vehicle use and safety (if necessary).		Presentations with examples. Site Based instruction. Follow up by supervisors.

6. BUILD CAPACITY ON TOURISM AND RECREATION PLANNING AND MANAGEMENT

This topic has been neglected in previous training and was identified as one of the biggest needs for Level 3 and Level 4/5 staff. The following specific actions are recommended.

6.1 Develop and deliver a training programme for PA staff in tourism and recreation for all PAs where tourism is or is likely to be important.

The programme should be developed in collaboration with the tourism sector and with local service providers around protected areas. An outline curriculum is shown in Table 12.

Table 12 Possible curriculum for a tourism and recreation course

Course	PLANNING AND MANAGEMENT OF TOURISM AND RECREATION IN PROTECTED AREAS
Duration	5 days or 2 x 3 day modules.
Target group	Level 3 and 4 personnel.
Purpose	To enable staff to develop, manage and monitor appropriate programmes of tourism and recreation.
Assessment	Completion of full attendance at all components. Completion of a practical assignment.

Possible written examination.	
Topic	**Mode of Delivery**
Background • Fundamentals of the tourism industry in Croatia. • Legal and administrative basis for tourism and recreation in protected areas. • Key concepts in tourism and recreation provision and management. **Planning and design of recreation activities** • Identifying recreation opportunities and design appropriate recreation activities for a protected area. • Planning and implementation of recreation surveys to gather information about visitors and the use of the site. • Identifying potential recreation impacts and design impact monitoring and mitigation systems. • Leading the participatory development of plans and programmes for PA based tourism (Eco-tourism, Nature based tourism etc.) • Developing business and financial plans and forecasts for tourism and recreation (costs, incomes, fees, ticketing, permits, concessions, franchises etc.). **Visitor management** • Establishing safety standards and codes of conduct for protected area users. • Supervising safety and security of visitors and other users. • Responding to emergencies and accidents to visitors. **Awareness and interpretation for visitors** • Planning and designing awareness and education activities and events for visitors, educational groups and local people (talks, presentations, guided walks etc.). • Researching and planning interpretive/tourist/visitor centres and other major infrastructure. • Researching, planning, and designing awareness and educational publications, exhibits and signs • Researching, planning, and designing special education programmes for schools. • Delivering interpretive/ awareness/ educational presentations for visitors, local people and educational groups (talks, guided walks, lectures, audio visual presentations etc.)	Formal lectures Seminars and discussions Presentations by tour operators Group work and exercises Study visit to other protected areas

6.2 Engage in regional initiatives to share experience improve standards for tourism and recreation in protected areas.

In particular, Croatia should consider engaging with the European Charter for Sustainable Tourism in Protected Areas (led by the Federation of Regional Nature Parks in France under the umbrella of the Europarc Federation).

7. BUILD CAPACITY FOR WORKING WITH COMMUNITIES

The results of the assessments clearly show that there is a need for improved capacity for staff at all levels in working with communities. The demand for these skills is likely to increase as the Natura 2000 network is established, and as protected areas adopt more multifunctional roles that take into account community needs.

The training that is offered should not just deal with the underlying principles and theory, it should include training in practical, personal skills associated with working with communities, for example interpersonal communication, conflict resolution or development of awareness strategies.

7.1 Develop and a training programme for staff from protected areas where collaborative management is an important component.

An outline of a possible basic curriculum is shown in Table 13.

Table 13 Possible curriculum for a community outreach course

Course	Planning and management of community outreach programmes and activities in protected areas
Duration	5 days or 2 x 3 day modules

Target group	Staff of the Sustainable Use and Community Outreach Department. Director, Deputy Director and other Department Heads.
Purpose	To enable staff to work in a participatory way with protected area and surrounding communities to combine sustainable development with achieving the conservation objectives of the protected area.
Assessment	Completion of full attendance at all components. Completion of a practical assignment. Possible written examination.

Topic	**Mode of Delivery**
Background • Communities living in protected areas, corridors and buffer zones. • Key concepts and principles relating to communities and sustainable rural development. **Survey and Assessment** • Techniques for gathering and recording information about communities and livelihoods. • Planning and conducting basic social and economic surveys. **Working with communities** • Basic communication skills for working with local communities; the participatory approach. • Promoting development of local networks and organizations. • Providing advice on sustainable community based natural resource use and management. • Developing agreements with communities for resource access and use. • Specifying, and evaluating sustainable quotas for natural resource use using scientific methods • Resolving conflicts concerning protected areas, communities and other stakeholders (Disputes, complaints over settlements, resource use, land claims, decisions) • Identifying and mobilising sources of assistance, support and finance for local communities.	Formal lectures Seminars and discussions Village visits with expert facilitation Group work and exercises Study visit to protected areas

7.2 Develop specific training in management of high conservation value forests and farmland in collaboration with owners and users.

This should include the application of EU agri environmental schemes.

8. REVIEW AND UPGRADE CAPACITY DEVELOPMENT FOR MODERN PA PLANNING, MONITORING AND REPORTING

One of the anomalies from the assessments in Croatia is that although around 50% of the training in the past three years has been related to protected area management and planning, several skills within this category are among the highest capacity development needs. Before any further investment is made, this issue should be investigated.

8.1 Conduct a detailed assessment of the need for training in PA management planning and the quality and effectiveness of training delivered so far.

This review should in particular identify what the needs are of the national authorities and what the priorities are for PA management units. The review should also examine the implications for PA planning and management of membership of the European Union.

Once this assessment has been completed, a more focused programme should be developed and delivered. It is important however to recognise that new approaches to systematic planning, monitoring and reporting for protected areas needs to be embedded at the institutional level, as well as being taught and promoted at the site level. Therefore, although it is important that training in management planning, monitoring etc. continues, the focus should also be on providing an institutional platform for improved management. It is specifically recommended therefore that

8.2 Develop a new course in PA management and planning, for delivery to both PA managers and central authority staff.

9. MAINTAIN AND UPDATE SKILLS AND KNOWLEDGE OF LAW ENFORCEMENT AND PROTECTION PERSONNEL

The General Report recommends that, on a regional basis, there is a need to .'Develop, pilot and promote a model regional foundation programme for law enforcement and compliance training for rangers (Including senior rangers)'. Croatia should consider opting into this programme.

Specific recommendations for Croatia are that (at minimum).

9.1 All rangers should be required to complete law enforcement training within two years of appointment.

9.2 Senior rangers require regular professional updating on legislation, threats and approaches for reducing illegal activities.

10. BUILD CAPACITY IN APPLIED CONSERVATION BIOLOGY AND CONSERVATION MANAGEMENT

As discussed in the general conclusions, the basic foundations of biodiversity conservation appear to be quite weak and should not be overlooked. The focus of capacity development in this category should be on applied conservation biology and management oriented research and monitoring, rather than more traditional academic approaches.

10.1 Develop a national capacity development initiative on applied management oriented conservation management.

This could be developed in association with universities, but it must take have a strong focus on management oriented rather than research based approaches. A possible curriculum is shown in Table 14.

Table 14 Possible curriculum for a conservation biology course

Course	**Conservation biology(biodiversity survey, assessment, monitoring and management of species of conservation concern)**	
Duration	5 days or 2 x 3 day modules	
Target group	Scientific Staff. Deputy Directors and other Department Heads.	
Purpose	To enable staff to develop and implement scientifically based programmes for active survey, assessment, conservation and monitoring of key species, habitats and ecosystems	
Assessment	Completion of full attendance at all components Completion of a practical assignment Possible written examination	
Topic		**Mode of Delivery**
Background • Understand key concepts and principles of conservation biology: species, populations, communities, ecosystems. • Understand key measures required for the conservation of rare and fragile species and ecosystems. • Understand the legal and policy basis for biodiversity conservation nationally and internationally. **Survey and assessment** • Recognise common and typical vegetation and habitat types, plant and animal species and their signs. • Use identification aids and equipment to identify plants and animals. • Accurately record and report wildlife observations using standard forms (where available). • Conduct and lead scientifically based, taxonomic, habitat and ecosystem surveys and monitoring activities. • Analyse, and present interpret survey and monitoring data. **Conservation management and planning** • Specify management requirements for conservation of habitats and ecosystems • Specify special measures for assisting protection, survival or recovery of key species. • Plan, evaluate and supervise management of invasive and problem animals and human		Formal lectures Seminars and discussions Field survey exercises Group work and exercises Study visit to protected areas

wildlife conflict.
- Specify, and evaluate sustainable quotas for natural resource use using scientific methods
- Plan, manage and evaluate, long term programmes for scientifically based programmes for species, ecosystem and habitat research, conservation and monitoring.
- Understand the principles of determining the value of ecological/environmental services.
- Understand the principles, roles and functions of ex-situ conservation measures

10.2 Encourage universities to develop and deliver programmes in applied conservation biology and management.

It would be useful to shift the emphasis of some university programmes from field biology and research to active measures for conserving and monitoring biodiversity.

11. INITIATE A SERIES OF HIGH LEVEL SEMINARS/TRAINING EVENTS FOR SENIOR PROTECTED AREA STAFF ON PRIORITY TOPICS

Special training courses for senior staff tend to be poorly supported. A better approach may be to hold occasional high level seminars focusing on specific issues, enabling managers to meet and exchange ideas, ideally with the support of some expert facilitation. Specific recommendations are for

11.1 Hold a senior management seminar and learning event on PA funding.

11.2 Hold a senior management seminar and learning event on transboundary protected area management.

11.3 Hold a senior management seminar and learning event on management effectiveness and monitoring.

7 ANNEXES

1. GENERAL QUESTIONNAIRE

Protected Area Questionnaire

TRAINING AND DEVELOPMENT NEEDS ASSESSMENT

To be completed for.

- Protected Area Administrations.
- Departments at regional or national level responsible for protected areas

A. GENERAL INFORMATION

A1 Country	
A2. Full Name of Protected Area or Institution	
A3. IUCN Category of the Protected Area (if known)	
A4 Area of the Protected Area (hectares)	
A5 Name and Position of Person completing the questionnaire	
A6. Date of completion of questionnaire	

A7. STAFF NUMBERS. Please indicate the numbers of staff in the institution at the levels indicated

Total Number of Staff of the Protected Area or Institution or Department	

STAFF LEVELS	**Support staff (Labourers, cleaners, drivers etc.)**	**Administrative Staff**	**Rangers/ Field Staff**	**Mid-level Managers/ Professional Staff/Head Rangers**	**Directors/ Deputy Directors**
PLEASE RECORD NUMBERS OF STAFF IN THE PA OR INSTITUTION					

A. CURRENT SITUATION FOR TRAINING AND CAPACITY DEVELOPMENT

B1. PREVIOUS TRAINING. Please indicate how much time and resources have been allocated to formal training and capacity development for staff or local stakeholders in the past 3 years

Year	**Title and topic of training**	**Training provider**	**Number of days**	**Number of participants**	**Notes**

B2. RESOURCES AND BUDGET FOR TRAINING. If the institution has its own special budget for training, please state how much it has been for the past 3 years

The institution has a training budget	YES		NO	

Year	Amount of budget	Main uses of budget
2011		
2012		
2013		

B3. SKILLS AND EXPERIENCE. COMPETENCE ASSESSMENTS FOR EACH LEVEL OF STAFF					
Please complete the following table, which is an assessment of the current skills and experience of personnel conducting protected areas work at different levels. For each skills category and staff level please enter a rating of 0-4 as follows					
0 = Staff at this level do not need these skills. **1** = Staff at this level need these skills, but have little or no competence in them: extensive training and development are needed. **2** =Staff at this level need these skills and have some competence in them: Further training and development are needed			**3** = Staff at this level need these skills and have good competence in them: Periodic updating only is needed. **4** = Staff at this level need these skills and are highly competent in them. They could train and instruct others in these skills.		
STAFF CATEGORY.	**Support staff (Labourers, cleaners, drivers etc.)**	**Administrative Staff**	**Rangers/. Field Staff**	**Mid-level Managers/. Professional Staff/Head Rangers**	**Directors/. Deputy Directors**
SKILLS CATEGORY	***Assessment 0,1,2,3 or 4***				
GENERAL SKILLS (GEN). General skills require for any job. Commitment, motivation, positive attitude, honesty, teamwork etc.					
FINANCIAL & RESOURCES MANAGEMENT (FRM). Management and organisation of finances, assets and equipment for the protected area.					
HUMAN RESOURCES MANAGEMENT & DEVELOPMENT. (HUM). Directing, managing, organising and capacity building for staff and others working in the PA					
COMMUNICATION TECHNOLOGY AND INFORMATION (CTI). Communication skills. Presentations, reports, negotiations, conflict resolutions. Use of computers and technology.					
FIELD CRAFT AND PRACTICAL SKILLS (FCR). Skills for field work: navigation, health and safety, basic construction and maintenance and good environmental practice in the field.					
CONSERVATION ASSESSMENT PLANNING & MANAGEMENT (CMP). Identifying, surveying and monitoring species and ecosystems. Identifying the need for and carrying out specific actions for the protection and conservation of species, habitats and ecosystems.,					
SUSTAINABLE DEVELOPMENT & COMMUNITIES (SDC). Conducting social and economic assessments in local communities. Working with communities in the Protected Area and Buffer Zone to promote sustainable					

resource use and development					
PROTECTED AREA POLICY, PLANNING AND PROJECTS (PAM). Preparing strategies, master plans and management plans for managing protected areas. Designing and applying for special projects to support the work of Protected Areas					
LAW ENFORCEMENT (LAW). Law enforcement: understanding the law and conducting activities to enforce the law in protected areas.					
RECREATION AND TOURISM (RTO). Planning and managing environmentally sensitive recreation and tourism for visitors to protected areas					
AWARENESS, EDUCATION AND PUBLIC RELATIONS (AWA). Planning and carrying out awareness, education and public relations work with visitors and local people. Presentations, signboards, educational materials, guiding visitors, working with schools groups. Promoting and publicising the Protected Area through the media.					

B4. FUTURE NEEDS AND PRIORITIES. Please indicate what you consider to be the three most important capacity development need(s)of each category of staff

Support staff (Labourers, cleaners, drivers etc.)	Administrative Staff	Rangers/. Field Staff	Mid-level Managers/. Professional Staff/Head Rangers	Directors/Deputy Directors
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3

B. MODES OF TRAINING AND LEARNING

C1. MODES OF LEARNING. Staff capacity can be developed in many ways. Please answer the following questions about different methods of staff development

Please assess how effective and suitable each type of learning would be for each level of staff at the protected area or institution.

0: Not all effective or suitable; 1: -Marginally effective and suitable; Effective and suitable.

3: Highly effective and suitable

MODE OF LEARNING	Support staff (Labourers, cleaners, drivers etc.)	Administrative Staff	Rangers/. Field Staff	Mid-level Managers/. Professional Staff/Head Rangers	Directors/. Deputy Directors
Informal learning in the work place with more experienced colleagues					
Short training sessions provided by supervisors and managers in the work place					
Short Formal Training Courses (<1 week)					
Longer training courses (1-4					

weeks)					
Long Term Study for Formal Qualifications (e.g. University Courses)					
Informal individual learning using training manuals and study materials					
Formal individual study through distance learning . Following courses using internet and correspondence					
Exchanges and study visits with other Protected Areas					
Others (please list)					

C2. ALLOCATION OF TIME FOR TRAINING AND DEVELOPMENT

Please indicate what you consider to be the ideal amount of time to be devoted each year to formal training of staff at different levels Indicate one choice for each staff category

	Support staff (Labourers, cleaners, drivers etc.)	**Administrative Staff**	**Rangers/. Field Staff**	**Mid-level Managers/. Professional Staff/Head Rangers**	**Directors/. Deputy Directors**
0 days					
1-5 days					
6-10 days					
11-15 days					
16-20 days					
>20 days					

C. OTHER COMMENTS

Please add any further comments or suggestions

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COVER PAGE	
COUNTRY	
NAME (Optional)	
GENDER	**M F**
AGE (Circle one answer)	**1: <30 2: 31-45 3: 46-60 4: >60**
Official JOB TITLE AND GRADE	
PLACE OF WORK (NAME AND LOCATION OF PROTECTED AREA OR PA MANAGING INSTITUTION)	
NUMBER OF YEARS' EXPERIENCE IN PROTECTED AREA WORK (Circle one answer)	**1: 0-5 years ; 2: 5-10 years: 3: 10-15 years. 4: 15+ years**
HIGHEST QUALIFICATION LEVEL (Underline ONE answer)	**1. Elementary School 2. High School 3. Bachelors Degree/Higher vocational qualification 4. Masters Degree 5. PhD**
Training received in the past 3 years	
Training Event and provider 1 2 3 4 5	**Dates and duration**
TO BE COMPLETED BY CAPACITY ASSESSMENT SUPERVISOR	
COMPETENCE LEVELS ASSESSED	
GENERAL WORK SKILLS	✓
Circle which levels are assessed in this questionnaire	**1 2 3 4 5**
NAME OF CAPACITY ASSESSOR	
DATE OF ASSESSMENT	
LOCATION OF ASSESSMENT	
UNIQUE ASSESSMENT NUMBER PROTECTED AREA CODE AND NUMBER (e.g. CCR 07)	

3. FULL LIST OF COMPETENCES USED IN THE SELF ASSESSMENT QUESTIONNAIRE

FRM	**FINANCIAL AND RESOURCES MANAGEMENT**
FRM	**LEVEL 2**
FRM 2.1	Collect and present evidence of expenditure and other financial transactions
FRM 2.2	Manage stores of equipment and supplies.
FRM	LEVEL 3
FRM 3.1	Prepare budgets and keep books and accounts
FRM 3.2	Manage purchasing and inventory.
FRM 3.3	Manage official documentation and reporting on finances, assets, equipment, infrastructure etc.
FRM	LEVEL 4
FRM 4.1	Develop and monitor annual financial plans and prepare financial reports
FRM 4.2	Develop detailed business plans, fund raising and revenue generating schemes.
HUM	HUMAN RESOURCES MANAGEMENT AND DEVELOPMENT
HUM	LEVEL 2
HUM 2.1	Supervise and motivate work teams under direct supervision
HUM 2.2	Provide training and instruction in the workplace for supervised staff
HUM	LEVEL 3
HUM 3.1	Brief, supervise, motivate and evaluate performance of individuals and teams.
HUM 3.2	Prepare detailed work plans for staff and direct, monitor and report on work plan implementation
HUM 3.3	Determine causes of poor performance and workplace conflicts and take appropriate action
HUM 3.4	Plan, prepare and deliver formal vocational and skills training for staff
HUM 3.5	Plan, prepare and deliver formal lectures and presentations
HUM	LEVEL 4
HUM4.1	Identify staffing needs and structures, assign roles and responsibilities and set performance standards
HUM4.2	Manage staff recruitment and contracting.
HUM4.3	Plan for and ensure the welfare, health and safety of staff, visitors and other users
HUM4.4	Lead training and development needs analysis.
HUM4.5	Plan, design, supervise and evaluate staff training and capacity development programmes
CTI	COMMUNICATION, TECHNOLOGY AND INFORMATION
CTI	LEVEL 2
CTI 2.1	Make basic oral presentations to colleagues, local people and visitors
CTI 2.2	Prepare written reports of work activities using standard formats
CTI 2.3	Communicate in other languages and/or dialects.
CTI 2.4	Operate and maintain computer for basic functions (word processing, internet, email)
CTI 2.5	Operate office and audio visual equipment
CTI	LEVEL 3
CTI 3.1	Organize and chair formal meetings.
CTI 3.2	Give technical presentations and write technical reports/papers.
CTI 3.3	Operate and maintain computers for advanced functions
CTI 3.4	Operate GIS systems
CTI 3.5	Manage library, archives and other information resources.
CTI	LEVEL 4
CTI 4.1	Negotiate agreements and resolve disputes and conflicts.
CTI 4.2	Institute mechanisms for public consultations, communication and participation over decisions, policies & plans.
FCR	FIELD CRAFT AND PRACTICAL SKILLS

FCR	LEVEL 2
FCR 2.1	Care for, check and maintain basic field equipment.
FCR 2.2	Follow good safety and environmental practice in the field.
FCR 2.3	Fight fires.
FCR 2.4	Identify, prevent and/or provide primary treatment in the field for illness, diseases and bites (First Aid)
FCR 2.5	Use compass and chart or map for navigation and orientation.
FCR 2.6	Use GPS for georeferencing locations and for navigation and orientation.
FCR 2.7	Construct and repair outdoor structures, paths and trails.
FCR 2.8	Drive and provide basic maintenance for motor vehicles and small engines
FCR 2.9	Safely operate and maintain small boats and their engines
FCR 2.10	Use and maintain radio handset for field communication.
FCR	LEVEL 3
FCR3.1	Plan and organise logistics for field trips, surveys and patrols.
FCR3.2	Organise and lead search and rescue operations in the field.
FCR3.3	Operate and use base station radio and communication equipment.
FCR3.4	Draw up plans and specifications for small works and basic site infrastructure and supervise construction work
FCR3.5	Inspect and specify maintenance and repair requirements and schedules.
FCR3.6	Locate, mark and inspect boundaries in the field.
FCR3.7	Identify and assess fire risks and hazards and plan fire prevention and control.
FCR	LEVEL 4
FCR 4.1	Contribute to specification and design of major infrastructure projects.
CMP	CONSERVATION ASSESSMENT, PLANNING AND MANAGEMENT
CMP	LEVEL 2
CMP2.1	Recognise common and typical vegetation and habitat types, plant and animal species and their signs
CMP2.2	Accurately record and report wildlife observations using standard forms (where available)
CMP2.3	Conduct supervised surveys of wildlife, habitats, natural resources and physical landscape features
CMP2.4	Use identification aids to identify plants and animals.
CMP2.5	Use and care for basic scientific instruments used in surveying
CMP2.6	Conduct practical habitat creation, restoration, management and manipulation work
CMP2.7	Assist in the capture / immobilisation, handling and transportation of animals.
CMP2.8	Check and replenish feeding stations for wild animals.
CMP2.9	Care for captive animals
CMP	LEVEL 3
CMP 3.1	Specify management requirements for conservation of habitats and ecosystems
CMP 3.2	Specify, and evaluate sustainable quotas for natural resource use using scientific methods
CMP 3.3	Specify site based special measures for assisting protection, survival or recovery of key species.
CMP 3.4	Plan evaluate and supervise management of invasive and problem animals and human wildlife conflict.
CMP 3.5	Plan and supervise animal capture, transport, care and management.
CMP 3.6	Lead specialised, scientifically based, taxonomic, habitat and ecosystem surveys and monitoring
CMP 3.7	Analyse, and present interpret survey and monitoring data.
CMP 3.8	Curate collections and manage museums
CMP	LEVEL 4
CMP 4.1	Plan, manage and evaluate , scientifically based programmes for ecosystem and habitat research, conservation and monitoring ecosystems)
CMP 4.2	Plan, manage and evaluate , scientifically based programmes for species research, conservation and monitoring (survey, monitoring, control, reintroduction, special protection measures etc.))
CMP 4.3	Plan, manage and evaluate ex-situ animal conservation and projects (rescue centres, captive breeding etc.)

CMP 4.4	Plan, manage and evaluate ex-situ plant conservation and breeding projects (botanic gardens, plant breeding for reintroduction and restoration etc.)
CMP 4.5	Determine the value of ecological/environmental services.
SDC	**SUSTAINABLE DEVELOPMENT AND COMMUNITIES**
SDC	**LEVEL 2**
SDC 2.1	Under supervision, gather and record information about communities and livelihoods and provide basic reports to supervisors
SDC 2.2	Provide basic information, guidance and assistance for community-based conservation and sustainable use.
SDC 2.3	Monitor compliance by local communities with agreements and laws affecting them and the protected area.
SDC	LEVEL 3
SDC 3.1	Plan and conduct scientifically based social and economic surveys (populations, communities, social conditions, livelihoods, resource use, culture etc.)
SDC 3.2	Plan and conduct scientifically based historical and archaeological assessments (site history, historical and archaeological sites, historic and cultural landscapes etc.)
SDC 3.3	Develop and negotiate participatory community conservation and management agreements.
SDC 3.4	Plan, coordinate and facilitate community capacity development activities.
SDC 3.5	Promote development of local networks and organizations.
SDC 3.6	Provide advice on sustainable community based natural resource use and management.
SDC	LEVEL 4
SDC4.1	Develop agreements with communities for resource access and use.
SDC4.2	Resolve conflicts concerning protected areas, communities and other stakeholders (Disputes, complaints over settlements, resource use, land claims, decisions. Disputes between different stakeholder groups)
SDC4.3	Identify and mobilise external sources of assistance, support and finance for local communities.
SDC4.4	Design and implement long socio economic and cultural research and monitoring programmes.
PAM	PROTECTED AREA POLICY, PLANNING AND PROJECTS
PAM	**LEVEL 4**
PAM 4.1	Understand and interpret relevant legislation for the planning and management of protected areas
PAM 4.2	Lead the development of protected area conservation zoning systems and management plans using an appropriate national or international format and process
PAM 4.3	Lead development of contingency plans for potential disasters.
PAM 4.4	Plan and negotiate trans boundary protected area and conservation initiatives.
PAM 4.5	Develop protected area project plans, proposals and budgets using nationally or internationally recognised formats and processes.
PAM 4.6	Develop and negotiate collaborative partnerships, plans and programmes
PAM 4.7	Direct, review and evaluate implementation of special projects (with national or international funding)
PAM 4.8	Monitor management effectiveness of the protected area using standard tools and methods (e.g. IUCN Management Effectiveness Tracking Tool (METT))
PAM	**LEVEL 5**
PAM5.1	Direct and evaluate policy and strategy development for biodiversity conservation and protected area management.
PAM5.2	Direct the design of protected areas, networks, systems and strategies.
PAM5.3	Plan and negotiate trans boundary protected area and conservation initiatives.
PAM5.4	Direct the process of protected area boundary formalisation, rationalisation, gazettement.
PAM5.5	Contribute to updating of policies and legislation related to protected areas and biodiversity conservation
LAW	**LAW ENFORCEMENT**
LAW	**LEVEL 2**
LAW 2.1	Recognise and identify signs and evidence of illegal or restricted activities in the field.
LAW 2.2	Conduct enforcement activities legally and safely
LAW 2.3	Treat suspects and members of the public correctly and legally during patrol and enforcement activities.
LAW 2.4	Report correctly on law enforcement activities

LAW 2.5	Deal effectively with hostile situations and defend oneself against physical attack.
LAW 2.6	Care for and use firearms correctly and safely (if relevant)
LAW	LEVEL 3
LAW 3.1	Plan law enforcement activities and programmes.
LAW 3.2	Lead patrol and law enforcement activities in the field.
LAW 3.3	Liaise with local communities to resist and prevent illegal activities.
LAW 3.4	Follow correct procedure for dealing with violations, suspects, crime scenes and evidence.
LAW	LEVEL 4
LAW4.1	Identify legal requirements and instruments for improving or extending protection and contribute to the development of protected area regulations.
LAW4.2	Coordinate protected area law enforcement activities with law enforcement and regulating agencies
RTO	RECREATION AND TOURISM
RTO	LEVEL 2
RTO 2.1	Guide, assist and regulate visitors on site.
RTO 2.2	Respond to emergencies and accidents to visitors.
RTO	LEVEL 3
RTO 3.1	Identify recreation opportunities and design appropriate recreation activities for a protected area.
RTO 3.2	Plan and implement recreation surveys to gather information about visitors and the use of the site
RTO 3.3	Identify potential recreation impacts and design impact monitoring and mitigation systems.
RTO 3.4	Supervise safety and security of visitors and other users.
RTO	LEVEL 4
RTO4.1	Lead development of detailed recreation and tourism strategies and plans for the protected area and local communities
RTO4.2	Develop business and financial plans and forecasts for tourism and recreation in the protected area
RTO4.3	Establish safety standards and codes of conduct for protected area users.
AWA	AWARENESS, EDUCATION AND PUBLIC RELATIONS
AWA	LEVEL 2
AWA 2.1	Provide basic information about the protected area to visitors, community members and the public.
AWA	LEVEL 3
AWA 3.1	Plan and design awareness and education activities and events for visitors, educational groups and local people (talks, presentations, guided walks etc.)
AWA 3.2	Research, plan, and design awareness and educational publications, exhibits and signs
AWA 3.3	Research, plan and design special education programmes for schools.
AWA 3.4	Deliver formal and informal interpretive/ awareness/ educational presentations for visitors, local people and educational groups
AWA 3.5	Provide information for the media
AWA	LEVEL 4
AWA 4.1	Lead the development of interpretation, awareness and education strategies and action plans and evaluate their impacts
AWA 4.2	Research and plan interpretive/tourist/visitor centres and other major infrastructure
AWA 4.3	Plan and manage marketing, media and public relations activities.