



EGYPTIAN ITALIAN ENVIRONMENTAL COOPERATION PROGRAM -PHASE II

Nature Conservation Sector Capacity Building
and Institutional Support Project

Training Needs Assessment

Part I & II

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EGYPTIAN ITALIAN ENVIRONMENTAL COOPERATION PROGRAM-PHASE II

TRAINING NEEDS ASSESSMENT-TNA

EXECUTIVE SUMMARY

1. INTRODUCTION

One of the four components of the *Egyptian-Italian Environmental Cooperation Program*, carried out with the technical support of IUCN, aims at enhancing the institutional capacity of the Nature Conservation Sector (NCS) of the EEAA for planning and implementing nature conservation activities on a sustainable basis. Therefore, the need for capacity building of NCS staff has been considered, and a TNA has been conducted.

The main objectives of this part of the cooperation program have been:

- to analyze the training profiles of NCS staff members and the related training needs, to identify training priorities and target groups and to outline the content of the courses to be carried out;
- to carry out, through a SWOT analysis, an overall evaluation of the NCS Training Centre at Sharm El Sheikh, aimed at reinforcing the activity of the Centre and at promoting its development as a regional training centre of excellence.

The task has been accomplished by a team of experts belonging to an Italian NGO, the *Pangea Institute-European Institute for Environmental Education and Training*¹, supervised and coordinated by a Senior expert, Prof. Maurizio Cipparone, former Chief of the Regional Park Service and former President of the Regional Park Agency of Lazio Region, member of the Executive Committee of the IUCN-WCPA (World Commission on Protected Areas-Europe), leader of the WCPA European Training Task Force, founder and past President of the Pangea Institute. Valuable support has been given by the IUCN program manager, Dr. John Grainger, and by NCS employees.

All the work has been carried bearing in mind the outcomes, the resolutions and the recommendations of the most important events related to nature conservation and Protected Areas at global level, such as the World Park Congress-WPC, the World Conservation Congress-WCC, in particular the ones concerning the Capacity Building, Education and Training issues, and the obligations arising from the most important International Conventions, such as the CBD-Convention on Biological Diversity.

¹ The Pangea Institute, established in 1992, is the first Italian organization specialized in education and training for Protected Areas; it is partner of the Italian Parks and Protected Areas Federation and founding member of the Network of European Environmental Training Centres of Excellence, established under the auspices of IUCN-WCPA.

2. THE SURVEY AND WORK METHODOLOGY

The method of indirect survey, based on distribution of questionnaires, has been applied; the data of questionnaires have been integrated with information collected during two missions in Egypt.

For data analysis and training needs assessment a **5 stages conceptual process** recognized at international level has been applied.

Stage I - Occupational Analysis

Aimed at getting an understanding of the occupational organisation of defined target groups.

Stage II - Functional Analysis

The analysis looks at what workers in the stated occupations should know, and should be able to do, in order to be professional and effective and, in general, at what it is needed to improve the current situation (i.e. organisational needs).

Stage III - Skills Audit

The aim of this stage is to collect data and information on current knowledge, competencies, skills of the target groups analysed, i.e.: education background (formal and non formal), work experiences, individual demand etc...

Stage IV - Training Needs Analysis

This stage analyses what is the difference between stage II and III: the level of matching between current skills and those needed (based on the occupational duties and responsibilities), and the new types of skills and attitudes presently required.

Stage V - Training Programme (TP)

The TP explains how the gap between stage II and III is bridged; guidelines for the design and implementation of the TP are provided.

3. OUTLINE OF TNA RESULTS

197 returned questionnaires, out of 514 NCS staff members (38% of staff), have been analyzed and have been processed per job profile and per Protected Area (PA).

A short summary of the TNA main outcomes are listed below.

- On the whole, NCS employees are aware of their duties and responsibilities, and know which are their needs in terms of requested knowledge and skills: some of them, especially rangers, do perform very different and heterogeneous tasks depending on individual qualification and specificity of each PA.
- The guards seem, at least in some PAs, to have other roles besides guarding and patrolling, which appear underestimated (i.e. in public awareness and visitor management).
- On the whole, training and work experiences of employees are not sufficient for ensuring effective and professional level of work (especially at lower levels).
- In regards to **training needs**, even if in many cases all the topics proposed in the questionnaire have been checked, some trends can be highlighted:

- 1) the most requested topics of training within NCS staff (managers not included) are *Computer skills, Communication skills, Specific technical skills, Safety, Environmental education and sustainable*

development education, International and national conservation strategies and PAs policies and Biodiversity monitoring and management. According to the managers, who were asked to indicate the training needs of their staff, training should be more oriented towards sustainable issues (such as sustainable tourism) and law enforcement;

- 2) environmental researchers (rangers) indicate as a priority *Biodiversity monitoring and management* (56/76 who answered the questionnaire) and *Conservation strategies and PAs policies*; other topics are *Environmental quality monitoring* followed by a big group that gathers *Communication and Computer skills*, but also *Environmental education & Sustainable development education*.
- 3) accountants, clericals and administrative staff are mainly interested in gaining *Computer and Communication skills*;
- 4) employees involved in legal affairs (8 answered the questionnaire) are mainly interested in *Law enforcement* but also in *Environmental and SD education, Communication and Computer*;
- 5) community guards are interested mostly in improving their *Specific technical skills*, but also in *Computer and Safety skills* and in *Law enforcement*;
- 6) managers: the most common training need for managers updating is *Sustainable development planning*, followed by *Financial management, Human resources management and International and national conservation strategies and protected areas policies*;
- 7) concerning the kind of training, preferred there is a clear preference for the *Study tour abroad*, followed by *Intensive training* (short courses away from workplace, in a training centre, full time, full board) followed by the *Extensive* (training developed in several weeks or months, divided in short modules of a few hours per day or a few days per month, not necessarily close to the workplace) and by *Study tour in Egypt*.

Comments have also been collected, pointing out weaknesses and critical matters linked to several aspects of the Egyptian PAs i.e.: general organizational problems, poor information flow, no clear work plans, lack of resources and equipment, overloading of personnel, management centralization, higher positions occupied by unqualified people, need for more sharing of experiences and projects, for more staff and training, for better HR management, for more rigorous criteria for distribution of training opportunities (pointed out by many people and coming from several PAs). Absence of a system of permanent training is also highlighted (need for a prosecution of training also when international funded projects are over or not available).

4. GUIDELINES FOR TRAINING PLAN

Highly qualified and trained staff are recognized as key factor for promoting PAs effective management, but the overall strategy for PAs implementation at national level should be strengthened accordingly, so to face and possibly to *remove not-training related weaknesses* which TNA has highlighted, i.e. the number of employees with a temporary contract, the current organizational problems and others.

The TNA has identified several strengths, facilitating future investments in human resources, like for example the relative young age of staff (in most of PAs average age is between 30 and 35) and the level of formal education that is quite high, particularly among managers, rangers, accountants, lawyers (almost all with an academic degree).

Based on results of TNA, and on the matching of staff requests with evaluation of international consultants, the training plan should schedule a top priority, and two mainstreams of actions (each grouping two categories of courses):

- **Top priority is a training course for trainers, the implementation of which is a prerequisite for putting in practice any further action suggested by the TNA and for carrying out the training plan.**
- **The two mainstreams include, respectively, a group of courses dealing with “cross cutting themes”: i.e. courses aiming at giving a common knowledge and capacities background to all the NCS personnel, and courses dedicated to improve the skills requested by a specific job or rank or position in the NCS functional and hierarchic structure.**

1) Top priority action

- ⇒ “Training for trainers” course (for a selected training unit and training team).
It is an action that, according to the assessment of the Training Centre in Sharm el Sheik (carried out as part of the TNA), and to the need of implementing a training program for NCS staff, must be considered a NCS priority.

2) Training activities for all NCS staff (cultural and technical cross-cutting themes)

- ⇒ Speaking a common language: Protected Areas and the global conservation challenges
- ⇒ Basic communication and public awareness promotion skills
- ⇒ Basic computer skills
- ⇒ Environmental legislation, law enforcement
- ⇒ Reporting skills
- ⇒ Basic knowledge of English language

3) Ranks, positions and job targeted training proposals

PA Managers and other NCS top ranks personnel:

- ⇒ Team building activities
- ⇒ Human resources management
- ⇒ PAs planning and management
- ⇒ PAs management and sustainable development planning

Managers and Rangers (grouped according to TNA results and to duties and responsibilities declared):

- ⇒ Biodiversity conservation principles and techniques
- ⇒ Communication, Public Awareness and Environmental Education: principles and techniques
- ⇒ Environmental Education and Sustainable Development issues
- ⇒ English for environmentalists

Rangers:

- ⇒ Biodiversity monitoring and management
- ⇒ GIS, IT and practical applications
- ⇒ Safety and other specific technical skills
- ⇒ Basic skills of environmental interpretation
- ⇒ Advanced computer skills

Administrative personnel (accountant, clerical, administrative, legal affairs staff, grouped according to TNA results and to duties and responsibilities declared)

⇒ Advanced computer skills

Community guards

⇒ Safety and other accident prevention, first aid. Visitors assistance

⇒ Patrolling and technical skills

5. NCS NATURE CONSERVATION AND MANAGEMENT CENTRE (NCCM) – SWOT ANALYSIS AND PROPOSALS

A detailed report has been produced summing up all the collected information, the evaluation of the Centre and the related proposals for its possible future development.

5.1 The SWOT Analysis and Matrix

Results of the analysis and evaluation of the Centre have been organized in a SWOT table, which has been used to develop a SWOT Matrix and, afterwards, to outline the formulation of a “strategy” that describes objectives, identifies actions to be done for implementing the strategy, identifies all the resources (human, social, legal, political, financial) available, and selects tools to be used.

5.2 Proposals concerning the trainers and the staff

It is strongly recommended that NCS would implement a “special project” aimed to the establishment of a permanent “training unit” (PTU), which should be made by:

-Administrative and managerial staff

-Technical and maintenance staff

-Multidisciplinary Training Team

The creation of the training team is important not only to carry out, with certified qualifications and procedures the future service-wide training courses, but also it is seen as a tool for achieving at least two additional objectives: to increase the visibility of the Centre at regional (WESCANIA) and international level and, therefore, to develop educational and training initiatives and to market them in order to be helpful to self-financing the NCCM running expenses.

5.3 Other proposals

Proposals concerning the methodology for developing the training courses and other proposals for the Centre facilities, equipment, technical tools, and library are included in the report.

5.4 The NCCM as a “knot” of the Network of Environmental Training Centres of Excellence

IUCN-WCPA Europe, in June 2002, has promoted the revitalisation of the IUCN Task Force on Training (ETTF), a group of dedicated individuals committed to promote a European training strategy. The network currently comprises 5 funding institutions in Germany, France, Italy and the UK. The European Training Task Force (ETTF) and the network of training centre (NEETCE), sharing programs and projects, have the role to facilitate the exchange of experiences and to define criteria and standards of quality of training for Protected Area Staff.

- a) The reasons and requisites why the NCS Nature Conservation and Management Centre could join the NEETCE, although non exactly “European”, are presented in the TNA report as well as the steps that may be done to become a “knot” of the Network and to occupy a specific place in this voluntary organization.

5.7 “The Corals and the Deserts”: guidelines for marketing the NCMC at international level and for fund raising activities

Some of the items described in the SWOT analysis under the voices “strengths” and “opportunities” may suggest to propose the development of “non conventional” training initiatives, dedicated to a wide range of possible beneficiaries at international level and with the aim to contribute to the raising of funds for the running of the Centre.

Thanks to its location the NCMC could offer to the large community of environment-enthusiasts the possibility to spend some days (one week, or so, like the “summer or conservation camps” organized by many NGOs) at Sharm El Sheikh, using the lodging facilities of the Centre, being engaged, part time, in practical activities and outdoor educational and interpretive experiences.

Environmental features, well planned activities, comfortable accommodation and full board, paying a reasonable fee, may be the keys to open the doors for exploring a new scenario, probably able to enhance the importance of the Centre worldwide and useful for raising financial resources.

“**The Corals and the Deserts**” may be the “**brand**” image of the “Egyptian interpretation” of such activities, adapting at the Egyptian environmental, historical and cultural context successful initiatives worldwide tested.

The report suggests a feasibility study and identifies in details the contents and steps of the study.

5.8 Further options to promote the Centre at international level.

Further steps could be made to promote the Centre at international level and to gain support and resources to be used also for its “domestic” training initiatives include:

- to promote a memorandum of understanding with the IUCN-WCPA marine task force;
- to advertise the Centre facilities (and its training opportunities) towards Universities and research organizations, to offer hospitality for stages and applied researches in marine ecology;
- to start contacts with FAO and other international institutions such as UNEP, UNESCO, CBD Secretariat etc... so to promote the Centre as possible focal point for regional (Mediterranean and WESCANIA) educational and training initiatives, as well as location for conferences and other events.

In conclusion:

The NCMC has many possibilities to enhance its role and importance at national and international level, both implementing training courses and developing many other initiatives which may be important also for fund raising finalized to self-financing the running costs.

Nevertheless, prerequisites to reach all the proposed objectives are:

the creation of the Training Unit, the training of the Training Team, the participation to the NEETCE and, last but not least, the possibility to keep in the NCNM budget the funds raised with the self promoted activities.

TRAINING NEEDS ASSESSMENT-TNA

1. INTRODUCTION

1.1. The background

Capacity Building and Institutional Support to Nature Conservation Sector is one of the four components of the Egyptian-Italian Environmental Cooperation Program, carried out with the technical support of IUCN.

The program aims at enhancing the institutional capacity of the Nature Conservation Sector (NCS) of the EEAA, for planning and implementing nature conservation activities on a sustainable basis. Specifically, the project will contribute to the process of transforming the NCS into a modern nature conservation institution, capable of properly managing the nation's biodiversity and protected area estate.

A critical aspect of this transformation will be enhancing the capacity of NCS staff through training. Though many NCS staff have received extensive formal and OJ training, training opportunities and programmes have invariably been linked to specific donor funded projects and have generally only benefited those staff associated with the particular project.

The successful transformation of the NCS will necessitate the implementation of a permanent training strategy and new training, service-wide, initiatives.

The present report concerns the activities carried out for helping to implement such initiatives.

1.2. Aims and deliverables

Two were the scopes of this part of the cooperation program.

The first one was to analyze the training profiles of NCS staff members, to identify potentialities and weaknesses amongst the different NCS employees and the related training needs, to draw the guidelines for a training plan, to identify training priorities and target groups, to outline the content of the courses to be carried out.

The second was to carry out, through a SWOT analysis process, an overall evaluation of the NCS Training Centre at Sharm El Sheikh, of its facilities, training modules developed, capacities and

training needs of its trainers: all aimed at reinforcing the activity of the Centre and at promoting its development as a regional centre of training excellence.

1.3. **Profile of the cooperating experts**

The tasks related to this part of the cooperation program have been accomplished with the support and the consultancy of a team of experts belonging to an Italian NGO, the Pangea Institute-European Institute for Environmental Education and Training-, supervised and coordinated by a Senior expert, Prof. Maurilio Cipparone, former Chief of the Regional Park Service and former President of the Regional Park Agency of Lazio Region, member of the Executive Committee of the IUCN-WCPA (World Commission on Protected Areas-Europe), leader of the WCPA European Training Task Force, founder and past President of the Pangea Institute.

The Pangea Institute, established in 1992, is the first Italian organization specialized in education and training for Protected Areas; it is partner of the Italian Parks and Protected Areas Federation and founding member of the Network of European Environmental Training Centres of Excellence, established under the auspices of IUCN-WCPA.

Team members were Dr. Clelia Caprioli and Dr. Filippo Belisario, both highly skilled in training for Protected Areas, having gained experience at national and international level working with the Pangea Institute to build capacities, general and specialized, of National and Regional Parks staff, of Forest Corps Guards, of Park interpreters and environmental educators.

A valuable input on all the phases of the work has been given by the IUCN program manager, Dr. John Grainger, whose help has been extremely important for the effectiveness of the analysis and of the proposals.

Dr. Grainger, in addition to his liaison role and to inputs and advices given, has led the missions in Egypt and facilitated all meetings and surveys, explaining the work in progress, introducing the participating expert and the scope of the mission.

An useful support has also been given by NCS employees, Dr. Ahmed Abd El-Maksoud and Dr. Khaled Hallam Harhash, who have participated to the missions, have facilitated the dissemination of the research forms and have given advice for their interpretation.

2. THE CULTURAL FRAMEWORK OF THE TNA AND OF THE PROPOSALS

All the work has been carried bearing in mind the outcomes, the resolutions and the recommendations of the most important events related to nature conservation and Protected Areas at global level, such as the World Park Congress-WPC, the World Conservation Congress-WCC (both organized by IUCN and attended by NCS and other Egyptian officials), in particular the ones concerning the Capacity Building, Education and Training issues (see Annexes).

The obligations arising from the most important International Conventions, such as the CBD and the 2010 target, have been considered important for outlining both the TNA and the related training plan proposals.

The content of the report presented by NCS at WPC has also been taken into consideration, to have a better picture of the situation and of the potentialities of the Egyptian PAs system.

Moreover, the training courses, whose guidelines have been described in the training plan outline, have been proposed according also to the “Losehill Hall Principles”, concerning the internationally agreed disciplines for Rangers.

The following six elements, agreed in 1997 after a worldwide research project and in cooperation with the International Ranger Federation, have been identified as crucial components of any professional standard or training program.

According to the LHH principles, all rangers should:

- 1 *Have an awareness of international / national designations, and of wider environmental ethics and sustainable resource management, including the history of national parks and other protected areas, and the development of rangers in such areas. A code of ethics for all rangers could be included.*
- 2 *Have good communication skills, including an awareness of the variety of techniques for communicating messages, information and values (field studies, guided walks, role play, earth education, written word).*
- 3 Understand the dynamics of, and relationships between local landscape, biodiversity and culture, and the resulting conflicts of use.
- 4 Have the knowledge and ability to deal with visitor safety and countryside emergencies.
- 5 Have the ability to survey, monitor and report on the natural resource, as the ‘eyes and ears’ of the organization.
- 6 Have knowledge of habitat and facility management techniques, with skills in such techniques as an optional specialism.

Elements 1 and 2 above (in *italics*) would contain universally compatible information, and could thus be taught to a single international curriculum.

Elements 3 - 6 would vary dependent on the local resource.

Furthermore, in proposing some standard forms to be prepared for training courses planning and evaluation (see the report concerning the NCMC and the mentioned annexes) have been taken in account the outcomes of the Training Of Protected Areas Staff (TOPAS) project, carried out with the EU support by 18 partners from PAs of 9 Countries which was aimed at identifying common standards for capacity building initiatives in the field of PAs management.

3. WORK METHODOLOGY

Based on ToR guidelines the work has been organized and implemented in 4 phases.

Phase 1 – Preparatory work.

The experts involved in TNA development have discussed in detail, and agreed the specific objectives of the work, the method to be applied for their achievement, the steps to be undertaken, the tools to be produced, and the organisation of tasks and responsibilities within the team.

Based on ToR input and available resources the method of indirect survey (based on questionnaires) has been identified. A standard questionnaire to be distributed to NCS staff at central and local level has been produced as well as a list of main questions and information to be collected during a first mission in Egypt by the mean of interviews and meetings. Some of these questions/information have also been organized in a second questionnaire, to be distributed at central level.

The forms have been shared with IUCN and relevant NCS staff, both during the preparatory work and during the mission (annex 1 and 2), and target groups have also been identified in detail.

After discussion with relevant partners involved in the Cooperation Program, English has been chosen as main language of work and help in translating in English Arabic materials has been provided.

Phase 2 – Data collection and Training Centre review.

This phase has been undertaken by the Project Leader during the foreseen mission in Egypt. A specific report has been produced aimed at describing in detail the time planning and activities carried out, including data and other relevant information collection, TC review, but also the dissemination of objectives and scope of TNA, the presentation of work methodology and questionnaires to NCS staff etc.

The distribution of questionnaires within NCS staff has been started in this phase.

Phase 3 – Data analysis and assessment.

Phase 3 has been aimed at organizing and record all useful information and data provided by the questionnaires in order to be able to process them for the purposes of TNA. It has been agreed to deliver results of data analysis both per PA and per job profile and data processing has been carried out accordingly.

For the data analysis and training needs assessment a **5 stages conceptual process** was applied, as described below.

Stage I - Occupational Analysis

Aimed at getting an understanding of the occupational organisation of defined target groups. It deals with the recording and study of information such as: number and type of units/sectors at central and PA level; number, position, qualification, job description etc... of permanent and non permanent personnel in charge of environmental issues and protected areas at institutional level.

Stage II - Functional Analysis

The functional analysis looks at what workers in the stated occupations should know, and should be able to do, in order to be professional and effective and, in general, at what it is needed to improve the current situation (i.e. organisational needs).

Stage III - Skills Audit

The aim of this stage is to collect data and information on current knowledge, competencies, skills of the target groups analysed, i.e.: education background (formal and non formal), work experiences, individual demand etc...

Stage IV - Training Needs Analysis

This stage analyses what is the difference between stage II and III: the level of matching between current skills and those needed (based on the occupational duties and responsibilities), and the new types of skills and attitudes presently required.

Stage V - Training Programme (TP)

The TP explains how the gap between stage II and III is bridged; guidelines for the design and implementation of the TP are provided.

Phase 4 – Sharing and disseminating findings.

Final data analysis and assessment, TC review and TP have been delivered and agreed with IUCN and relevant NCS staff; the dissemination of findings has been conducted during a second mission in Egypt.

4. DATA ANALYSIS AND RESULTS

The results from the analysis of data collected through the questionnaire for NCS staff are presented below.

The questionnaire was aimed at getting an overall understanding of the “state of art” of education and training (**training profile**), both within the officers working in the Central Office (CO) of Egyptian Nature Conservation Sector (NCS), and among management and other staff of Protected Areas (PAs), that is:

- education and training background;
- job position and description (current duties and responsibilities);
- training needs (knowledge and skills needed to perform the current job and training topics considered useful for improving the professional effectiveness).

The total number of returned compiled questionnaires is 197, out of a total number of 514 staff members; in table 1 is presented the distribution of the questionnaires within NCS Central Office and the 21 PAs together with the relative percentages as regards the number of staff serving in NCS CO or in each PA (obtained from documents available).

Table 1

	PROTECTED AREA	Number of filled questionnaires	Number of total staff	%
1	CENTRAL OFFICE (CO)	23	42	55
2	AL OMAIED (OM)	7	17	41
3	ASHTUM EL GAMIL (AEG)	11	11	100
4	GEBEL ELBA (E)	4	37	11
5	SALUGA & GAZAL (SG)	8	17	47
6	SIWA (SI)	8	12	67
7	WADI EL ASIOUTY (WE)	4	10	40
8	WADI GEMAL (WG)	2	10	20
9	WADI SANNUR CAVE (WS)	6	6	100
10	WHITE DESERT (WH)	5	6	83
11	GULF OF AQUABA (A)	9	95	9
12	BURULLUS (B)	10	15	67
13	RED SEA ISLANDS (RS)	16	37	43
14	ST KATHERINE (SK)	38	69	55
15	WADI ALAQI (WA)	13	20	65
16	WADI DEGLA (WD)	9	15	60
17	AL ZARANIK (AZ)	5	18	28
18	AL AHRASH (AA)	1	5	20
19	HASSANA DOME (HD)	2	5	40
20	QAROUN (Q)	1	19	5
21	PETRIFIED FOREST (PF)	1	7	14
22	WADI EL RAYAN (WR)	14	41	34
	TOTAL	197	514	38%

Only in 2 PAs (Ashtum El Gamil and Wadi Sannur Cave) the questionnaire was compiled by all the staff; in CO and 6 PAs (Siwa, White Desert, Burullus, St. Katherine, Wadi Alaqi, Wadi Degla) the questionnaire was compiled by more than 50% of the staff and in 5 PAs (Gebel Elba, Wadi Gemal, Gulf of Aquaba, Al Ahrash, Quaroun) by 20% or less; about 40% of the staff returned the questionnaire in 4 PAs (El Omayed, Wadi El Asiuty, Red Sea Islands, and Hassana Dome).

Therefore, **the sample of questionnaires can be considered particularly significant for 8 PAs, and significant for 4**, out of a total number of 22 organizations involved in the survey.

It must be added that often, to an high percentage of returned questionnaires corresponds a small staff, with the exception of the Central Office and St. Katherine (55% of returned questionnaires out of a total number of staff of 42 for the CO and 69 for SK).

The average percentage of returned questionnaires is 38%.

Based on available documents, the distribution of filled questionnaires amongst existing job profiles and PAs has also been analysed, in order to understand which profiles could be considered target groups for the purposes of the TNA and subsequent Training Plan, as well as their absolute and relative importance (see table 2).

The job profiles recorded by official documents are 14: *Consultant, Manager, Accountant, Clerical, IT GIS & RS, Ranger, Legal affairs, Office boy, Diver & Saver, Skipper, Driver, Technician, Guard and Guide, Worker*; some of them are not represented within the group of analysed questionnaires, that is: Consultant, Workers and Technician (only 1 in the whole group).

Moreover, some job titles declared by the staff in the questionnaires are not represented in the list of the 14 official job profiles, but information collected during the mission in Egypt has permitted to process them as shown in the legend of table 2, that is:

- secretary, executive secretary etc... = clerical
- administrative, financial services/affairs etc... = administrative (after that accountant)
- deputy manager, director, and other who compiled section “m” of the questionnaire = manager
- lawyer = legal affairs
- environmental researcher, senior researcher, veterinary, doctor etc... = ranger
(only 2 staff members declare to be “rangers”, most of them declare to be “environmental researchers”)
- security = guard
- head of dept., conservation planner, human resources, store keeper = other.

Table 2

PA	Man	Acc	Admin	Cler	IT	Rang	Leg A	Techn	OB	Div	Driv	Gua	Skip	Other	N° of questionnaire	Total n° of staff	%
CO		3	2	7	1	3			1		3			3 (hr hd cp)	23	42	55
OM	1			1		2	1	1				1			7	17	41
AEG	1					3					2	3	1	1 (st)	11	11	100
E						4									4	37	11
SG	1		1			3						1	1	1 (st)	8	17	47
SI			1			5	1					1			8	12	67
WE	1					2					1				4	10	40
WG						2									2	10	20
WS	1	1									1	3			6	6	100
WH	1		1			2	1								5	6	83
A	2			1		5	1								9	95	9
B	1	1		2		2	1					3			10	15	67
RS	1	1				11	2			1					16	37	43
SK	1	2	1			9	1				3	21			38	69	55
WA	1	1	1			6					1	2		1 (st)	13	20	65
WD	1					5						3			9	15	60
AZ	1					4									5	18	28
AA	1														1	5	20
HD						1						1			2	5	40
Q						1									1	19	5
PF			1												1	7	14
WR	2					6					2	4			14	41	34
N° of questionnaire for profile (A)	17	9	8	11	1	76	8	1	1	1	13	43	2	6	197	514	38
Total n° of staff for each profile (B)	28	-	35	50	4	152	12	30	7	8	39	97	13	39	514	-	-
% A / B	<u>61%</u>	-	<u>49%</u>	<u>22%</u>	<u>25%</u>	<u>50%</u>	<u>67%</u>	<u>3%</u>	<u>14%</u>	<u>13%</u>	<u>33%</u>	<u>44%</u>	<u>15%</u>	<u>15%</u>	<u>38%</u>	-	-
% A / 197	<u>9%</u>	-	<u>4%</u>	<u>6%</u>	<u>1%</u>	<u>39%</u>	<u>4%</u>	<u>1%</u>	<u>1%</u>	<u>1%</u>	<u>7%</u>	<u>22%</u>	<u>1%</u>	<u>3%</u>	<u>100%</u>	-	-

Legend: Man = manager/director/deputy manager/assistant manager; Acc = accountant/senior accountant; Cler = clerical/secretary/executive secretary etc...; IT = information technology specialist; Rang = environmental researcher/ranger/senior researcher/veterinary/doctor etc...; Leg A = legal affairs/lawyer; Admin = administrative/financial services etc...; Techn = technician; OB = office boy; Div = diver; Driv = driver; Gua = guard; Skip = skipper; Oth = other (hr-human resources; cp-conservation planner; st-store keeper; hd-head of animal genetic dept.)

Within the total number of 197 returned questionnaires, the rangers are the category mostly represented (76 questionnaires, which represent 50% of all rangers in NCS, the group most represented in NCS), followed by the guards (43 questionnaires, that is 44% of all guards, second most represented group in NCS), the managers (17 questionnaires, that is 61% of all managers, third most represented NCS staff group), the accountants and administrative staff altogether (17, that is 49% of total number of these employees) and the drivers (13, that is 33% of all drivers). However, the 8 questionnaires compiled by the personnel in charge of legal affairs (lawyers) represent 67% of the total number serving in the NCS. The less represented category is the one of the office boys (1 questionnaire, that is only 3% of total number of these employees).

If the accountants and the administrative personnel are considered together with the clericals (28 questionnaires, that is 14% of the sample), they become the third group most represented in the sample, just before the managers, representing 33% of these profiles within the whole NCS. Adding to this group also the lawyers the total number of returned questionnaires is 36, that is 46% of the whole staff in NCS.

To resume, for the objectives of the TNA, **the sample of 197 questionnaires can be considered particularly satisfying for the group of the lawyers and the managers (more than 60% represented in the sample), and for the group of the rangers and the accountants (50% and 49% represented)**; satisfying for the group of accountants, clericals, lawyers and administrative staff if considered altogether (46% represented); this group, the rangers and the guards (44% represented), which represent the highest percentages both of the sample and of total NCS staff, are the profiles which affect more the general trends and findings of the TNA.

4.1. Age

Information concerning the age of all personnel have been processed in order to obtain a picture of personal data either on the whole and amongst the various institutions (CO and PAs).

Results are shown in the following table 3.

Table 3

Institution	Number of employees that filled the questionnaire	Average age of employees
CO	23	33,5
OM	7	32,3
AEG	11	45,9
E	4	35,2
SG	8	45,4
SI	8	28,5
WE	4	34,0
WG	2	33,0
WS	6	42,7
WH	5	34,6
A	9	32,2
B	10	32,4
RS	16	32,2
SK	38	34,6
WA	13	42,5
WD	9	34,1
AZ	5	30,4
AA	1	52,0
HD	2	34,5
Q	1	32,0
PF	1	38,0
WR	14	35,1
TOTAL	197	35,5

As it can be seen **average age of the employees of Egyptian PAs system is 35,5.**

Average age among PAs ranges from a minimum of 28,5 (for SI, the only PA where the average age is lower than 30) to a maximum of 52 for AA, but the datum is not significant because it is based only on one questionnaire, and of 45,9 for AEG (it must be said that this datum is complete because all the 11 employees of this PA answered the questionnaire).

Apart from the above mentioned PAs, **almost all average ages range between 30 and 40 except SG (45,4), WS (42,7) and WA (42,5).**

4.2. Position/Type of contract

In order to gather a complete information about the working situation of all the interviewed staff, data from section C1 of the questionnaire (“current job”) have been processed.

All staff people analysed are “employees” and no consultants or other positions have been met.

As regards to the type of contract, results are shown in the following table 4.

Table 4

PA	N° of employees that filled the questionnaire	Permanent contract	Temporary contract	Other kinds of contract	% of permanent	% of temporary
CO	23	13	10	-	57	43
OM	7	4	3	-	57	43
AEG	11	6	4	1	55	36
E	4	1	3	-	25	75
SG	8	8	-	-	100	-
SI	8	1	7	-	13	87
WE	4	2	1	1	50	25
WG	2	-	2	-	-	100
WS	6	2	4	-	33	67
WH	5	2	3	-	40	60
A	9	2	7	-	22	88
B	10	1	9	-	10	90
RS	16	5	11	-	31	69
SK	38	1	35	2	3	92
WA	13	6	3	2	46	23
WD	9	2	7	-	22	78
AZ	5	1	4	-	20	80
AA	1	1	-	-	100	-
HD	2	2	-	-	100	-
Q	1	-	1	-	-	100
PF	1	1	-	-	100	-
WR	14	6	8	-	43	57
TOTAL	197	68	122	6	35%	62%

62% of all staff people have a temporary type of contract, 35% have a permanent contract and 3% have other kinds of contracts (delegated, contracted by other institutions, etc.). This datum is very relevant and will be taken into account in the following chapters, particularly in order to design adequate training strategies and training plans.

As regards the situation in the various PAs, considering only the ones whose data are significant, only in SG all staff who answered the questionnaire (47% of the whole staff) has a permanent kind of contract. In many other areas temporary types of contracts prevail: SI (87% of people who filled the questionnaire), WS (67%), B (90%), RS (69%), SK (92%), WD (78%), AZ (80%).

4.3. Education

Results about education level amongst NCS staff are resumed in table 5 (next page) divided by profiles and kind of specialization. The following 3 levels have been considered: secondary school/college level, academic/university level, and post academic level.

In order to understand the data in table 5 it must be known that the staff who indicated an academic level did not declare which kind of secondary education they have had, and that the staff who indicated the secondary level have not an academic education; it can also be been assumed that the staff who didn't compile the "education" section of the questionnaire have only a primary level education.

Of all interviewed staff, 28 have a secondary level education (14% of 197 returned questionnaires), 117 an academic education (59%) and the remaining 52 (26%) a primary education level. Of the 117 staff members with an university degree 18 (about 15%) are preparing a master or pre-master, 17 (14,5%) have a post graduation diploma and 11 (9%) have already got a master degree.

On the whole, the level of education within NCS staff is quite high: the managers are all graduated, and almost all the rangers (74 graduated out of 76 interviewed), the accountants (8 out of 9), the lawyers (6 out of 8) and the "other" group (4 out of 6). The secondary level is common within the clericals and administrative personnel, while the drivers and the guards have a lower level of education (only 11 guards, out of 43, have a secondary school certificate).

Education on commercial and law topics (both at secondary and academic level) are common within the administrative staff, the clericals, the accountants and the lawyers; amongst the managers and the rangers environmental sciences are the most common degrees (9 managers and 48 rangers). Agriculture degree is also common and, amongst the rangers, the degrees related to human sciences, veterinary and economy.

Table 5

EDUCATION	Man	Acc	Admin	Cler	IT	Rang	Leg A	Techn	OB	Div	Driv	Gua	Skip	Other	TOTAL
1. COLLEGE															
Art						1									1
Preparatory school												4			4
Technical												2			2
Agriculture								1			1	2			4
Social services				1											1
Languages			2												2
Commercial			2	7						1		3		1	14
TOT 1			4	8		1		1		1	1	11		1	28
2. UNIVERSITY															
Environm. Sciences*	9				1	48								2	60
Human studies**						5									5
Agriculture	4					7									11
Tourism						2									2
Commercial/Law	1	8	4	2		3	6							1	25
Arts						1									1
Technology						1									1
Social work/Public service	1					2									3
Medecine/Veterinary						4									4
Engeneering	1														1
Not specified	1					1								1	3
Student				1											1
TOT 2	17	8	4	3	1	74	6							4	117
3. POST ACADEMIC															
Premaster, preparing m.	1	1				16									18
Diploma	1	2			1	10	1							2	17
Master	3	1				6								1	11
TOT 3	5	4			1	32	1							3	46
TOT 1 + TOT 2															145
N° of questionnaires for profile	17	9	8	11	1	75	8	1	1	1	13	43	2	6	197

* Marine biology, zoology, botany, ecology, chemistry, microbiology

** Anthropology, geography etc...

4.4. Languages

The following table 6 shows how foreign languages are known on the whole and among the various PAs.

Table 6

PA	English	b.	int.	fl.	French	b.	int.	fl.	German	b.	int.	fl.	Italian	b.	int.	fl.
CO	16	4	11	1	6	6	-	-	2	2	-	-	-	-	-	-
OM	6	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-
AEG	5	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-
E	4	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
SG	7	1	6	-	1	1	-	-	-	-	-	-	-	-	-	-
SI	6	1	5	-	1	1	-	-	-	-	-	-	-	-	-	-
WE	3	-	1	2	1	-	1	-	-	-	-	-	-	-	-	-
WG	2	-	1	1	1	1	-	-	-	-	-	-	-	-	-	-
WS	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-
WH	5	-	3	2	-	-	-	-	-	-	-	-	-	-	-	-
A	9	1	5	3	2	1	1	-	1	1	-	-	-	-	-	-
B	10	-	10	-	2	1	-	1	-	-	-	-	-	-	-	-
RS	16	3	9	4	1	1	-	-	-	-	-	-	-	-	-	-
SK	38	3	32	3	2	2	-	-	1	1	-	-	-	-	-	-
WA	11	-	8	3	2	2	-	-	-	-	-	-	-	-	-	-
WD	6	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-
AZ	5	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-
AA	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
HD	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Q	1	-	1	-	1	-	1	-	-	-	-	-	-	-	-	-
PF	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
WR	11	3	7	1	-	-	-	-	-	-	-	-	1	1	-	-
TOT	<u>166</u>	18	126	22	<u>20</u>	16	3	1	<u>4</u>	4	-	-	<u>1</u>	1	-	-

Legend: b = basic; int. = intermediate; fl. = fluent.

Knowledge of **English** language is quite widespread throughout the employees of Egyptian PAs system: 166 of them out of 197 that answered the questionnaire, that means **84% of the sample**. They know it: 18 (9%) at a basic level, 126 (64%) at an intermediate level and 22 (11%) at a fluent level.

Distribution of English knowledge throughout the various PAs is unbalanced. In several institutions all the employees that answered the questionnaire know it (E, WG, WH, A, B, RS, SK, AZ, AA, PF, Q). In other PAs people who know English are less than 50%: specifically in AEG, 5/11 employees, and in WS, 2/6 employees (it must be recalled that data for these two PAs are complete because all staff filled the questionnaires). In CO, English language is known by 16/23 employees that answered the questionnaire (70% of the sample).

Other languages known, mainly by employees of CO, are French (10% of the sample) and German (2% of the sample).

4.5. Past work experiences

The answers concerning past work experiences of NCS staff have been summed up in table 7 (next page), divided per job profiles.

Between the most common work experiences are: those in the field of **accounting and legal affairs, mainly carried out by the lawyers and the accountants** (11 recorded experiences against 17 questionnaires analysed) but also by other profiles like the rangers; those in the field of **business** (working with private companies), carried out by several different job profiles; and the experiences in the field of **scientific research declared by the rangers and the managers** (10 and 3 experiences against 76 and 17 questionnaires). The latter had also often an experience **in the field of protected areas and nature conservation**, both as rangers or involved in PA management (5 managers and 8 rangers). 2 experiences in this field are recorded also amongst the group of other profiles (i.e. conservation planner).

Finally, some guards declare to have worked as guide before their current job.

On the whole, **the number of staff members who had working experiences before the current job is very low**, and these experiences cannot always be considered of some utility in the present job (i.e. only 8 rangers in the field of PAs).

Very few staff members had a volunteering experience, working for NGOs or other associations, and these data, not being significant, have not been further analysed.

Table 7

WORK EXPERIENCES	Man	Acc	Admin	Cler	IT	Rang	LegA	Techn	OB	Div	Driv	Gua	Skip	Other	TOTAL
PA management	2	1				2								1	6
Ranger/other job in a park	3					6								1	10
Teacher	1	1			1	4									7
Researcher	3					10								1	14
Geologist	1					4									5
SD	2														2
Organizing meeting etc...			3			2									5
Birds ringing						4									4
Tourism (hotel etc...)		1				3									4
Guide, visitors manag.			1			2	1					8			12
Work in a museum						2									2
Computer		1			1	5									7
Agriculture	2					3									5
Private company	3	3		4		3					1	1			15
Accountant, lawyer, administration		6	1	2		3	5							1	18
Medical representation, work in a medical lab.	1					7									8
Chemist						3									3
Public awareness			1			3									4
Government officer	1					1									2
Food/quality controller						2									2
Conservation project management	2					1									3
Env. Impact Assessment						1								1	2
Driver											6	2			8
Other* (microbiologist, writing a book, guard etc...)	2			1		5				1	1	2		2	14

* With other is indicated any other item which has been mentioned only one time.

4.6. Training

All training activities carried out before and after current job by the interviewed staff have been recorded as shown in the following table 8 using the “topics” of courses and other training experiences mentioned.

In general, training has been carried out mainly during current job position, with the exception of computer and English courses, and a few other training experiences, which have been attended also before current job position. Only within the profiles with an higher level of qualification (rangers and managers) some staff attended other specific training before their current position (i.e. during academic studies).

In regard to the job profiles of which only 1 or 2 interviewed have been recorded (technician, office boy, IT specialist, skipper, diver) some training has been carried out by the diver, the IT specialist and the skippers, in the field of their work (i.e. diving for the diver, computer for the IT specialist etc...).

In regard to the other job profiles: **very few or none training has been carried out by the drivers and the guards**, the average number of training experiences for person amongst these 2 groups is less than 1% (however some guards attended first aid and/or mountain rescue courses and basic English courses); **the managers are the employees with more training experiences (the average number of training experiences per person is 4,6%), followed by the group of “other” profile (average of 4,3%) and by the rangers (average of 3,8%).**

Within the group of the **accountants, lawyers, administrative and clerical** personnel the **average number of training experiences per person is very low (1,4%).**

The **topics** of training experiences of managers and rangers are quite similar. Both for managers and rangers computer training is the most common (10 managers and 32 rangers trained, that is 59% and 42% of interviewed staff), followed by training in the field of PAs (management, planning etc...) (7 managers and 27 rangers, that is 41% and 35% of interviewed staff) and in the field of biodiversity and/or natural resources monitoring and conservation (7 managers and 25 rangers, that is 41% and 33% of the same staff). Within the rangers also technical training in the field of GIS, RS and mapping is quite common (26 recorded experiences).

Table 8

TRAINING EXPERIENCES	Man	Acc	Admin	Cler	IT	Rang	Leg A	Techn	OB	Div	Driv	Gua	Skip	Other	TOTAL
Computer	10	5	4	7	1	32	2							3	64
English	3	3	1	5		18	1				1	9		3	44
Specific driving (boat, off roads)	2					7	2				2	1	1	2	17
Ecosystems conservation (wetlands, coral reef)	5					12				1				2	20
Ecosystem approach	1					1								1	3
Environmental Impact Assessment	4					8								2	14
Sustainable Development		1				5								1	7
Personnel affairs		1	1												2
Public awareness and/or communication	4	1				17	1							1	24
Protected Areas (management, assessment, planning)	7	1	1			27						1		1	38
Ecotourism, visitors management	1					4								1	6
Supervisor skills	2					1									3
Diving	3	1				7				1				1	13
Photography	2									1					3
Biodiversity monitoring and conservation (marine turtle, mangrove etc...)	7					25									32
Training for rangers	2					2									4
NGOs management						6									6
Avian flu						5									5
Environmental sciences (ecology, botany etc...)	7	1				19						1			28
Law enforcement	4					5	3								12
Water/Biochemical analysis	1					6									7
Administration, economy		2	1	1		4								1	9
GIS, RS, mapping	2				1	26									29
Project management						5								1	6
Wooding trees						3									3
Statistics						9									9
Disaster facing, fire fighting			1			3								2	6
Environmental changes	2					2	1							1	6
Medical representation and laboratory						2									2
First aid, mountain rescue	3	1	1			7				1	1	15		1	30
Birds ringing						4									4
Farming, fertilizers						3					1				4
GPS						7									7
Planning, management planning	5														5
Report writing							1								1
Environmental management														2	2
Other* (Italian, rocks analysis, fungi isolation etc...)	1		1			8									10
N° of questionnaires for profile	17	9	8	11	1	76	8	1	1	1	13	43	2	6	197
N° of recorded experiences	78	17	11	13	2	290	11	0	0	4	5	27	1	26	
Average n° of experiences per person	4,6	1,9	1,4	1,2	2	3,8	1,4	-	-	4	0,4	0,6	0,5	4,3	

* With other is indicated any other item which has been mentioned only one time.

However, if the training topic “biodiversity and/or natural resources monitoring and conservation” is considered together with other conceptually related topics, that is ecosystem conservation, ecosystem approach, Environmental Impact Assessment, environmental sciences (botany, ecology etc.), environmental changes, birds ringing, **the area of “environmental training” is absolutely the most common both for rangers and managers;** in this case the total number of training experiences does not correspond exactly to the number of trained staff because one person can have participated to more than one training in the same field (i.e. more than 1 course included in the group of environmental sciences).

Compared to the rangers, a relative higher number of managers has been trained in the field of planning and law enforcement, and an higher number of rangers in the field of GIS, RS and mapping and in that of public awareness and communication.

To resume, a maximum of 41% interviewed managers has been trained in the 2 most common environmental training topics (PAs and biodiversity/natural resources conservation) and a maximum of 33%-35% of rangers in the same topics and in the field of GIS, RS, and mapping; for other less common topics, the number of trained managers and rangers is much lower.

Within the group of “other” profiles are common both computer and English training, but also environmental topics; they have been declared mainly by the job profiles with the highest education level (human resources manager, conservation planner etc...).

The group of accountants etc...have carried out mainly English and computer courses (28 out of 36 employees), and a few other training (i.e. law enforcement in the case of lawyers).

Considering the whole group of NCS staff members, computer and English training are the most common, followed by training in the field of PAs, biodiversity/natural resources monitoring and conservation, first aid and GIS, RS and mapping. Topics of training are also the environmental sciences, driving, EIA, diving and law enforcement.

4.7. Job description/Duties and responsibilities

The answers to these 2 questions are quite various and heterogeneous and it often appears that the interviewed did not really understand the difference between the two. Therefore an attempt to analyse all information about duties and responsibilities has been made; a first and very detailed list of items has been prepared and the number of items mentioned in each questionnaire has been recorded.

For each item/category of activities the distribution of answers for PA and job profile has been processed; it has also been recorded if each answer/item mentioned in the questionnaires was a duty or a responsibility, even when the distinction was not precise (i.e. the same item was mentioned both as a duty and a responsibility; the duty is a responsibility etc...).

To record all the above information, initials have been used: in each group of initials the first number represents the number of times that one item is mentioned, the letter(s) which follow(s) indicate(s) the job profile and the third letter, after the slash mark (/), stands for the kind of activity declared, if a duty (d) or a responsibility (r).

After an evaluation of this first list, a second list has been prepared, which sums up all the collected information in more general categories.

Results of this work are shown in table 10 at end of this paragraph, while the results of duties/responsibilities analysis are resumed in the following table 9.

Table 9

	N° of answers	Job profile					
		Managers	Rangers	Administrative staff* & lawyers	Guards	Drivers	Others
Duties & responsibilities							
Patrolling and/or law enforcement	90	35%	60%	28%	63%		
Financial/Administrative/ Clerical/Legal	66	18%	4%	36%			
Public awareness	59	24%	43%	11%	51%		
Biodiversity/ Natural Resources monitoring/management	54	24%	65%				
Reporting activities	31	12%	33%				
Visitor management, visitor facilities design, guiding	27		19%		5%		
Guarding	26				60%		
Management of the PA	16	76%	4%				
Scientific research	16	12%	20%				
Driving	15					92%	
Planning	14	41%	9%				
Training	14		15%				
Coordination between different subjects	11	41%		8%			
Databases for biodiversity recording	11		13%				
Botany/Plant conservation	10		11%				
GIS and related activities	9	6%	9%				
Participating to training	9		11%				
Management and evaluation of staff	9	41%					
Agriculture activities	9		5%		7%		
Specific responsibilities declared by staff							
Financial/Administrative/ Legal				X°			
Natural resources management, responsible of related working units			X°				
Tourism/Visitors			19%				
Coordination of other specific units			X°				
General management task		X°	X°				

* including accountants, clericals, and administrative personnel

° item mentioned but not particularly significant

The activities mostly carried out by staff deal with *patrolling and/or law enforcement* (mentioned 90 times), followed by *public awareness activity* (59 times) and *biodiversity/natural resources monitoring and/or management* (54 times); *reporting activities* are also quite common (31 times) as well as *financial/administrative* (28 times) and *guarding* (26) activities. However, the

financial duties, together with the *accountant* (7), the *secretarial/office tasks* (15), and the *employee-related work* (8) are mentioned 58 times. If also the *legal affairs* activities are added (9 times), this number is 66.

Between 10 and 20 times are mentioned the following activities: *management/supervision of the PA* and *scientific research* (16 times each), *driving* (15 times), *planning* and *training* (14 times each), *coordination between different subjects* and *development of databases for biodiversity recording* (11 times each), *botany/plant conservation* and *visitor management* (10 each). The latter, together with *visitor facilities design and construction* (8) and *visitor guiding* (9) is mentioned 27 times.

Finally, 9 times are mentioned the *GIS and related activities*, the task of *participating to training* activities and the *management and evaluation of staff*.

It also appears that some of the listed items are strictly linked to a specific role and job position in the park rather than to an activity (i.e. lawyer, environmental researcher) and that, even though the distinction between responsibility and duty has not been understood, in some cases the compiler declares a clear responsibility (i.e. supervision of, management of, responsible of...).

In order to evaluate if these items could be used to get a better description of the jobs and staff organisation in NCS, they have been separated from the others and added at the end of table 10, with the exception of those responsibilities which are mentioned in most of the PAs and mainly by managers and environmental researchers, which are found at the beginning of the same table.

2 of the most common tasks, **patrolling and/or law enforcement and public awareness** are carried out mainly by rangers and guards (the 2 job profiles more represented within the sample of questionnaires and the overall NCS staff) but also involves other profiles such as managers and, in the case of patrolling and/or law enforcement, lawyers (legal affairs tasks) and other administrative profiles.

The task **biodiversity/natural resources monitoring and/or management** is most frequent within the group of environmental researchers but also involves some managers. The same can be said for the **reporting** activities, which are declared only by a few other job profiles.

As we can expect, the **financial/administrative, the accountant, the clerical and the employee-related work** involves mainly the accountants, the administration personnel and the clericals, and some environmental researchers in the case of financial/administrative tasks.

The same can be said for the **legal affairs** which are carried out by the lawyers.

Within the group of less common duties and/or responsibilities: **management/supervision of the PA, coordination between different subjects, management and evaluation of staff** involve, as expected, the managers, but also a few environmental researchers in the first case and a few lawyers in the second; **planning activities** are carried out mainly by managers but also by environmental researchers; **scientific research, training, development of databases for biodiversity recording, plant conservation, GIS and related activities, participating to training tasks** involve the environmental researchers; **visitor management, visitor facilities design and construction and visitor guiding** are tasks mainly carried out by environmental researchers, but also by a few guards; **driving** involves the drivers.

Amongst the other listed tasks (declared very few times), those carried out by the managers are found, as already explained, at the beginning of table 10 while all the others, which appear to involve mainly environmental researchers, are listed in the part of the table from item *biodiversity and natural resources monitoring and management* to item *roads maintenance*. They vary very much and are often specific of one PA, examples are: public relations tasks, cleaning and organizing the visitor centre of the PA, organizing the computers of the office, working with Bedouins, working in a fishery, working in a ringing station, working in training, diving etc...

As far as specific job positions and responsibilities declared by the compilers are concerned (see the final part of table 10) they have been grouped per subject: the financial/administrative/legal responsibilities (declared by job profiles such as administrative staff, lawyer, accountant etc...); the responsibilities linked to natural resources management and/or related working units coordination, those linked to tourism activities, and those which concern the coordination of other specific units/offices (involving mainly environmental researchers); the job positions and responsibilities linked to more general management tasks (declared by environmental researchers and other management figures).

To conclude this picture it must be said that the results of patrolling and public awareness tasks are particularly affected by the answers of the 21 guards of St. Katherine (all of them compiled the questionnaire more or less in the same way).

Table 10

	CO	OM	AEG	E	SG	SI	WE	WG	WS	WH	A	B	RS	SK	WA	WD	AZ	AA	HD	Q	PF	WR	TOT	
Duties & responsibilities																								
Management/Supervision/ Direct the PA, all duties, daily work, technical programs, applying the financial and management assignments		1m/d	1m/d		1m/r		1m/r		1m/dr	1m/dr	1er/r 1m/dr		1m/d (part)	1m/dr	1m/r	1m/d	1m/dr	1m/d					1er/d 1er/dr (part)	16 13 m 3er
Manager/Supervision/Eval uation of the staff of the PA, distribution of tasks					1m/d		1m/r				1hi/ r	1m/r		1m/r		1m/r	1m/r						1am/d 1er/r	9 7m 1er 1ot h
Solve any problem in the PA			1m/d				1m/r																1m/r	3 3m
Coordinating with governmental authorities/NCS/other PAs and official stakeholders		1m/r	1m/d				1m/dr		1m/r			1la/r 1m/r	2l/d 1er/d	1m/r			1m/r							11 7m 3l/l a 1er
Responsible/Write/Imple ment/participate in the action/annual/management /development plan		1m/r					1m/d	1er/d	1m/r	1er/r	1er/d 1er/r	1m/r				1m/r 1er/d	1m/r	1l					1m/r 1er/r 1er/r	14 7m 7er
Financial management							1m/dr							1m/r									1m/r 1er/r	4 3m 1er
Proceeding international agreements, EEAA & PA management board directions			1m/r 1er/r														1m/r							3 2m 1er
Supervising report preparation					1m/r										1m/d									2 2m
Buying all PA required							1m/d																	1m
Selling PA products							1m/d																	1m
Public announcements and interview													1m/d											1m
Supervision of the quarries in the PA														1m/r										1m
Chief of investigation committee, participation in							1m/d 1er/r																	2 1m 1er

Patrolling, law enforcement, environmental law procedures (law 4/1884, 102/1983)		2er/dr 1m/r 1cl/r	1m/r 1er/d 2er/r		1g/d 1sk/r	3er/dr 1er/d 1la/r	1m/d 1er/d 1er/dr	1er/d 1er/dr	1m/r	1er/d 1er/r 1ad/d 1la/r	1er/dr 1la/dr 1er/d	1la/d	3er/dr 7er/r 1la/d 2l/dr	1er/d 21g/dr	2g/dr 1d/r 1er/dr	2er/d 2er/dr 3g/r 1er/d	4er/r 1m/r	1m/r	1er/r	1er/r	1ad/r	1er/dr 2er/r 2er/d	90 6m 45e r 27g 7l/l a 2ad 1cl 1sk 1d
Biodiversity/Natural resources monitoring/management (Egyptian tortoise, birds, mammals, reptiles, coral reef, mangroves, marine sites, plants, trees, insects, grazing, endangered species, water quality)		1er/dr	1er/d	2er/d 1er/dr	3er/dr	1er/dr 3er/dr 1g/d	1er/dr 1er/r	1er/d 1er/dr	1m/r	1er/r	2er/r 1er/dr 1er/d	1er/dr 1m/d	3er/dr 4er/d 2er/r	2er/r 3er/dr	3er/d 1er/dr		2er/dr 1er/d 1m/r	1m/r		1er/r		1er/dr 1er/r 3er/d	54 4m 49e r 1g
Scientific research, studying the PA geologically, chemically, biologically, ecological survey			1er/d			1er/d 2er/dr				2er/d	2er/d		4er/d	1er/d	1m/r		2er/d						16 1m 15e r
Public awareness/education		1er/d	1er/d 1er/r 1m/d		3er/dr	1er/d 2er/dr 1g/d 1la/d	1m/r 1er/d 1er/dr			1er/d 1er/r 1m/r	1er/d	1er/r	3er/d 3er/r 1er/dr	2er/r 1er/dr 1t/d 21g/d	2er/d 1er/r			1m/r		1er/dr		1er/r 1er/dr	59 4m 32e r 22g 1la
Reporting duties/activity	1ad 1e lit/r	1er/dr 1m/r		3er/d 1er/dr	3er/dr	1er/d	1m/dr 1er/dr	1er/d		1er/d	1hi/r 1er/d 1er/d		1er/r	2er/r	2er/d 1er/r	1er/r 1er/d 1r/d					1ad/r	1er/r	31 2m 25e r 2ad lit 1hi
Recording/database of fishes/birds/fauna/plants, development of databases on all nature conservation activities	1er/dr 1it/dr		1er/d 1er/r											2er/r		3er/d 1er/dr	1er/r						11 10e r lit
Training, training the PA new managers/the NCS	1cp/r 1er/dr		1er/d		3er/r		1er/r						1er/r 1cd/r	3er/r 1t/r	1er/r								14 1le

employees/on specific topics																						r 1cp 1cd 1t
Plant conservation strategies (survey, seed banking, databases, threatened species rehabilitation, distribution of seeds to Bedouins, herbarium, plant sample collection, sustainable use of medicinal plants, invasive species)	1er/d				3er/dr 1sk/r			1er/r					1er/dr	1sr/dr 2er/d								10 8er 1sk 1sr
GIS, RS, mapping, field work with the use of GPS	1er lit /dr	1er/dr		1er/dr								1er/d	1er/dr	1er/r 1m/d							1r/d	9 1m 7er lit
Participation in training courses, seminars..., travelling to other PAs	1er/r				3er/r			1m/d 2er/d						2er/r								9 1m 8er
Visitor management, doing questionnaires, recording number, visitor help					1g/r	2er/d 2er/dr 1g/d				1er/r			1er/dr 1er/r								1er/r	10 8er 2g
Accompany and guide visitors/schools			1g/r							1er/d				2er/d 1r/d			1g/r 1er/r	1er/r	1ad/r			9 6er 2g 1ad
Visitor facilities design and building (border signs, tracks, gates, signs system, visitor centre, information and promotional material ...)						1er/r 1ad/d 1la/r		1er/r	1m/r		1er/d		1er/r						1er/r			8 1m 5er 1ad 1la
Protection, conservation, development of the area, present suggestions for its protection, SD								1m/d	1er/r 1f/d		1er/d	2er/d		1er/r							1ad/r	8 1m 5er 2ad
Social work related to local Bedouins, community involvement, studying local problems		1er/r							1m/r				1er/dr	1er/dr 1er/r					1er/r			6 1m 5er
Survey/Implementation of projects, follow up of coastal tourism	1ad/r		1er/r									2er/r									1am/d	5 1m 3er

4.8. Personal satisfaction

A specific part of the questionnaire (section F) was dedicated to a **synthesis of the survey on motivation and personal satisfaction** of all the human resources of Egyptian PAs system (employees and managers).

Motivation

As regards to the following sentence “enthusiasm and motivation are main elements to achieve good job performances”, 70% of staff (139 employees) revealed that they “strongly agreed”, 24% (47 employees) that they “agreed” and 6% (11 employees, 5 of them coming from CO) that they “disagreed”.

These numbers show that almost all personnel is fully conscious, or quite conscious, of the importance of a good and positive attitude towards work environment and work activities in order to achieve quality and rewarding results.

Values

In this section of the questionnaire employees were requested to complete the following sentence “To work for nature conservation and protected areas also means to share core values such as...” (*Please list below the main three according to your opinion*).

Actually, the answers received (mainly applying to skills or personal behaviours rather than to general shared values) show that some kind of misunderstanding took place, so these answers have not been processed.

Personal satisfaction

In the sub section F3 personnel was asked to assign a numerical rating between 1 (low) and 10 (high) to answer the following questions:

F3-1 Do you think you have the right knowledge and qualification to perform your job?

F3-2 Do you think you should improve as regards to some specific matter?

F3-3 Are you satisfied of the way you perform your job?

F3-4 Are you satisfied of your present position?

The results of this part of the survey are synthesized by the following two tables.

In the first one (table 11) is shown the distribution of personal satisfaction (expressed as an average rating between 1 and 10) among the various institutions (PAs and CO), together with an

average rating related to the whole of the four answers for every institution, and with the weighted average rating related to every question.

In the second one (table 12) is shown the distribution of personal satisfaction among the various profiles, together with an average rating related to the whole of the four answers for every profile.

Table 11

PA	F3-1	F3-2	F3-3	F3-4	Average per PA	N° of staff per PA that filled the questionnaire
CO	6,91	7,70	5,96	6,65	6,81	<u>23</u>
OM	7,00	7,43	7,00	8,29	7,43	<u>7</u>
AEG	5,10	7,30	5,20	5,80	5,85	<u>11</u>
E	6,00	6,25	6,50	6,50	6,31	<u>4</u>
SG	7,12	6,87	7,50	7,62	7,28	<u>8</u>
SI	5,37	7,12	5,62	7,25	6,34	<u>8</u>
WE	7,75	6,75	6,25	6,75	6,88	<u>4</u>
WG	6,50	9,00	7,00	8,50	7,75	<u>2</u>
WS	7,33	8,00	6,33	6,67	7,08	<u>6</u>
WH	6,25	6,50	6,00	6,00	6,19	<u>5</u>
A	7,44	7,67	7,33	6,22	7,17	<u>9</u>
B	8,30	8,10	8,50	8,30	8,30	<u>10</u>
RS	6,75	7,40	6,87	6,81	6,96	<u>16</u>
SK	7,63	7,11	7,06	7,63	7,36	<u>38</u>
WA	6,85	7,46	7,25	7,15	7,18	<u>13</u>
WD	4,22	5,00	4,33	4,44	4,50	<u>9</u>
AZ	6,60	7,40	6,80	5,60	6,60	<u>5</u>
AA	9,00	9,00	9,00	9,00	9,00	<u>1</u>
HD	5,00	7,00	3,50	3,00	4,63	<u>2</u>
Q	8,00	5,00	7,00	9,00	7,25	<u>1</u>
PF	8,00	7,00	4,00	3,00	5,50	<u>1</u>
WR	8,00	8,21	7,42	7,21	7,71	<u>14</u>
Weighted average per question	<u>6,91</u>	<u>7,31</u>	<u>6,64</u>	<u>6,91</u>	<u>6,94</u>	

Legend: F3-1 = Right knowledge and qualification to perform the job; F3-2 Improving as regards some specific matters; F3-3 Satisfaction of personal job performance; F3-4 Satisfaction of present position. ratings between 1 (low) and 10 (high) have been considered. In *italic and bold* are shown the average ratings lower than 6.

A brief look at this first table on the whole shows that particular problems with general satisfaction of personnel seem to come out mainly for Ashtoum El Gamil, Wadi Degla and Hassana Dome PAs, and partly for Siwa. It must be taken into account that data for these PAs are significant considering that 11/11 employees of Ashtoum El Gamil answered the questionnaire (100%), 9/15 (60%) for Wadi Degla, 2/5 (40%) for Hassana Dome and 8/12 (67%) for Siwa.

Answers to question F3-1 – The weighted average rating related to these answers (6,91/10) shows that, on the whole, personnel seems to be aware of having a satisfying level of knowledge and qualification to perform the job. If the single datum is split throughout the different protected

areas, problems of lack of knowledge and qualification are met for SI (5,37), AEG (5,1), HD (5) and, more seriously, for WD (4,22). On the other side, a general awareness of having a good knowledge and qualification is met for the staff of WE (7,75), B (8,3), SK (7,63), AA, Q, PF, WR (8 for each of these PAs).

Answers to question F3-2 – It must be pointed out that the high ratings reported by the answers to this question, if compared with answers to other questions, are not contradictory because they mean that employees are willing to improve their knowledge and capacities and, therefore, they might perceive their general level of knowledge, qualification and satisfaction about the way job is performed as not so high. An example can be given by considering the low average ratings obtained in AEG for the answers to other questions (5,1 to F3-1, 5,2 to F3-3 and 5,8 to F3-4), compared with the high average rating obtained in the same PA for the answers to this question (7,3). The same trend can be noticed for CO, WG, WS, WH, AZ, HD and partly for SI. Low ratings related with answers to this question are met only for WD (in a context of general dissatisfaction) and Q (but this datum is not significant because only one employee out of 19 of this PA filled the questionnaire).

In any case, when ratings reported by these two questions are lower than 6 all employees clearly state that their dissatisfaction is mostly due to lack or inadequacy of training (F3-5).

Answers to question F3-3 - Satisfaction of personal job performances obtained the lower average rating among the four questions (6,64), mainly due to the low results of WD (4,33), AEG (5,2), SI (5,62), HD (3,5), but also to the 23/42 employees (55%) of Central Office whose average rating was 5,96. On the other side, employees of SG (7,5), B (8,5) and AA (9) seem to be very satisfied about their job performances.

Answers to question F3-4 - Satisfaction of present position seems to be very low among the employees of WD (4,44), HD and PF (3 for both), and quite low for the employees of AEG (5,8). It is high for personnel of OM (8,29), SG (7,62), WG (8,5), B (8,3), SK (7,63), AA and Q (9 for both).

In any case, when ratings reported by these two questions are lower than 6 almost all employees clearly state that their dissatisfaction is mostly due to problems connected with workplace such as organization problems, lack of resources, etc. (F3-6).

Table 12

Profile	F3-1	F3-2	F3-3	F3-4	Average per profile	N. of filled questionnaires per profile
Man	7,50	7,00	6,89	6,89	7,07	<u>17</u>
Acc	6,78	8,78	4,89	4,56	6,25	<u>9</u>
Cler	6,27	6,64	6,36	7,18	6,61	<u>11</u>
IT Gis	9,00	9,00	2,00	1,00	5,25	<u>1</u>
Env R	6,31	7,24	6,41	6,84	6,70	<u>76</u>
Leg A	8,29	8,00	8,57	8,47	8,33	<u>8</u>
Admin	7,00	7,37	6,50	7,62	7,12	<u>8</u>
Techn	7,00	7,00	8,00	8,00	7,50	<u>1</u>
O B	9,00	9,00	10,00	10,00	9,50	<u>1</u>
Div	10,00	7,00	0,00	5,00	5,50	<u>1</u>
Driv	8,38	7,15	6,85	7,70	7,52	<u>13</u>
Guard	7,09	7,16	7,33	7,07	7,16	<u>43</u>
Skip	6,50	7,50	5,50	5,50	6,25	<u>2</u>
Oth	6,83	7,67	6,17	7,33	7,00	<u>6</u>
Weighted average per question	6,91	7,31	6,64	6,91	6,94	

Legend: **F3-1** = Right knowledge and qualification to perform the job; **F3-2** Improving as regards some specific matters; **F3-3** Satisfaction of personal job performance; **F3-4** Satisfaction of present position. Ratings between 1 (low) and 10 (high). In *italic and bold* are shown the average ratings smaller than 6.

A brief look at this second table on the whole shows that general satisfaction is balanced in a better way if considered among profiles rather than among PAs. This probably means that, in some cases, more significant results can be found by splitting data of the profiles throughout the various PAs and looking in a more detailed way. Particular problems with satisfaction of job performances and of present positions (answers to questions F3-3 and F3-4) are evident only for the “accountant” category (average ratings of 4,89 for F3-3 and 4,56 for F3-4).

It must be said that data related to profiles represented only by one employee (such as IT GIS, Technicians, Office boys, Divers) cannot be considered as significant for these categories.

Managers seem to have good awareness about their personal correct knowledge and qualification to perform the job (except for SI and SK PAs whose managers rated 5 to this question). At the same time averages show that they are satisfied about personal performances on their job and about their present position even though, if data are split throughout PAs, three ratings of 5 (WE, WS and WD) and one of 3 (WH) are found for the F3-3 question as well as five ratings of 5 (WE, WS, A, RS and SK) and one of 2 (WH) for the F3-4 question.

As formerly pointed out, relevant data for Accountants are the quite low averages connected to the answers concerning satisfaction about personal job performances and satisfaction of present position, mainly due to very low ratings given by employees coming from WS, RS and WA.

Not so high average ratings related to Clericals are mainly due to the CO employees. Four of them (out of seven) gave the rating of 5 to the F3-1 question as well as the Aquaba clerical; three of them gave ratings from 5 to 3 to the F3-3 question and two of them gave the rating of 5 to the F3-4 question.

Average ratings for Environmental researchers are included in a 6,3 – 7,3 range. If these data are split throughout the different PAs, the results for the most relevant questions are:

- ⇒ F3-1 – low rating of 5 for all the four Siwa rangers and ratings of 5 or 4 for some others coming from AEG, E, WG, WH, RS, SK, WA and WD (three out of five for this P A); very low ratings (3 or 2) for the HD ranger as well as for one coming from CO and for one from OM.
- ⇒ F3-3 – low rating of 5 for all the five WD rangers (since all the rangers in WD filled the questionnaire, this means that the whole category of rangers in this P A is quite unsatisfied of the way job is performed); ratings of 5 or 4 for some others coming from CO, AEG, SI WE, WG, WH, RS, SK WR; very low ratings (from 3 to 1) for other rangers coming from CO, OM, HD, AZ.
- ⇒ F3-4 – ratings of 5 or 4 for rangers coming from WD (three out of five), CO, WE, WH, A, RS, SK, AZ (three out of four of this P A are unsatisfied of their present position), HD, WR; rating of 3 only for two rangers, one from RS and one from AZ.

Among the most significant groups (groups with 8 or more employees for the specific profile), Legal affairs employees and lawyers seem to be the most satisfied (average ratings of 8 or more for all the questions).

Finally, even though data connected to the profile of Guards (43 employees) look quite homogeneous, they are affected by the great number of people coming from SK PA (21), who gave always the same ratings (mainly 7 and 8) to all the four questions. Lacks of knowledge and dissatisfaction seem to come out for the three guards of AEG (5 for the F3-1, F3-3 and F3-4 answers), and, more seriously, for the three guards of WD (ratings from 5 to 1).

4.9. Training needs/Knowledge and skills

As for duties and responsibilities, an overall table (table 14 at the end of this paragraph) has been created to sum up the very different information given by the interviewed concerning the knowledge and skills that they declare to be “needed” for performing their job.

An effort has been made to organise all the data available in “thematic groups”, as much as possible similar to those used for processing the data about duties and responsibilities. However, the themes identified have been left as much specific as possible. In table 13 are resumed the findings of this analysis.

Table 13

	N° of answers	Job profile					
		Managers (n. 17)	Rangers (n. 76)	Administrative staff & lawyers (n. 36)	Guards (n. 43)	Drivers (n. 13)	Others (n. 6)
Knowledge & skills							
Computer	99	12%	55%	61%	56%		83%
Specific technical skills	60	6%	12%	8%	91%	54%	
Biodiversity/natural resources monitoring and management	57	35%	60%	6%	5%		33%
English	53	6%	27%	36%		15%	17%
Communication	44	53%	25%	31%	5%		33%
Safety/First aid	43		16%		65%	15%	17%
GIS/IT/RS and mapping	41	35%	40%	6%			50%
Knowledge of the own PA	38		4%	8%	70%	8%	17%
Parks, case studies about management worldwide	36	18%	11%	6%	51%		17%
Public awareness/education	36	6%	9%	8%	56%		17%
Driving	28	6%	11%	3%	12%	77%	50%
Patrolling	27	6%	4%	3%	49%		17%
Relational skills	24	41%	12%	17%			33%
Statistics	22	6%	25%	6%			
Laws	22	18%	9%	28%			33%
Administrative/Financial/Legal	21	35%	3%	33%			17%
PA management	20	24%	17%	6%			17%
Other foreign languages	17		15%	17%			
Reporting skills	17	12%	19%				17%
Global conventions/strategies	14	29%	9%	6%			
Reading and writing	11				16%	31%	
Scientific knowl. and activities	35*	29%*	30%*				
Planning/SD Planning	8	35%	9%				
Social policies	5	18%	3%				
EE and interpretation	5	6%	4%				17%
EIA	6		4%	3%			33%
Ecotourism/T. management	6		7%				17%
Photography	5		7%				
Office procedures	7			19%			
Commercial	5			14%			
Natural resources economics	3			8%			
Employment-related knowl.	3			8%			

*This value comes from the sum of several different specific (i.e. geology, zoology, botany) and general (i.e. scientific papers) scientific knowledge mentioned.

The main knowledge and skills needed are: *computer* (mentioned 99 times), *specific technical skills* (guarding, fire fighting, advanced driving, use of equipments etc...) (60 times), *biodiversity/natural resources monitoring/management* (57 times), *English language* (53 times), *communication* (44 times), *safety* (43 times), and *GIS/IT/RS and mapping skills* (41 times).

The 7 main groups above are followed by other 8 groups of knowledge and/or skills, mentioned between 38 to 20 times: *knowledge of the own PA* (mentioned 38 times); *knowledge of parks and case studies about management worldwide and public awareness* and (mentioned 36), *driving and patrolling* (28 and 27 times), the group of *relational skills* (24 times), *statistics and laws* (both 22 times), *administrative/financial* (21 times) and *PA management* (20 times).

Between 10 and 20 times are mentioned: the *knowledge of foreign languages in general* and the skill of *writing reports and scientific documents* (17 times each), the knowledge of *global conventions/strategies* (14 times), *zoology and botany/plant conservation* (12 times each), *taxonomy and reading and writing* (11 times each).

Considering the **distribution of the different thematic groups per job profiles**: **computer skills** are considered important in their work by many job profiles: environmental researchers, guards, the group of administrative staff/accountants/lawyers/clericals and others; the **technical skills** mainly by the guards, but also by drivers and some rangers; **safety** by guards and rangers; the **biodiversity and natural resources monitoring and management** and **GIS/IT/RS and mapping competencies** by rangers and some managers; **English** by rangers, the group of administrative staff (including lawyers) and others; and **communication** by the same groups of English but also by the managers.

Within the second group of knowledge and/or skills: **knowledge of parks & case studies worldwide** and **public awareness** are considered needed in their job mainly by rangers and guards; **knowledge of the own PA** and **patrolling** mainly by guards, the first also by other profiles with no scientific background; **driving**, as expected, by drivers, but also by rangers and some other profiles; **relational skills** by managers and rangers; the **knowledge of statistics and of the different aspects of PA management** by rangers; the **laws** by rangers, lawyers and other administrative profiles; **administrative/financial aspects** mainly by administrative profiles and by the managers.

Finally, the **global conventions/strategies** are important knowledge for rangers and managers; **botany, zoology** and **taxonomy** for rangers and a few managers; **reporting** skills for rangers; the **knowledge of foreign languages** for rangers and the group of administrative staffs; **writing and reading** for guards and drivers.

To conclude this picture it must be said that the items including the answers of the 21 guards of St. Katherine (who more or less compiled the questionnaire all in the same way) are affected by their number, especially the items “knowledge of parks worldwide”, “public awareness” and “patrolling”.

The results concerning the knowledge and skills discussed since now are listed in the first part of table 14; in the second part, following the item “taxonomy”, are listed groups of other knowledge and skills not very common, but specific of some job profiles.

The first group is made of 8 items considered needed in their job by rangers and managers: they vary from the scientific area (i.e. geology) to the area of planning, social policies, environmental education and interpretation.

A few items mentioned only by rangers follow (photography, environmental impact assessment, tourism management etc...), then the competencies mentioned by the group of administrative staff (i.e. commercial, office procedures, natural resources economics, employment).

Table 14

	CO	OM	AEG	E	SG	SI	WE	WG	WS	WH	A	B	RS	SK	WA	WD	AZ	AA	HD	Q	PF	WR	TO T	
Knowledge & skills																								
Computer (advanced, programming, web design, network development, database, software, visual basic programming), MCSE (microsoft certified system engineer)	1it 1ob 1ds 1cl 1s 1es 1cp 1hr 1er 2ad	2er	1st		2er 1st	6er 1ad 1g 1la		1er	1m	1er 1ad 1la	1la 2er 1s	2cl 1ac 2g 1la	9er 2l	6er 1ad 1la 1m 1ac 2d 21g	1er 1d 1st 1ac	5er	4er					1ad	1er	99 1it 1ob 41er 3st 24g 3d 3ac 2m 6ad 7l/la 4s/cl 1ds 1es 2oth
Specific technical skills (security, guarding, responding to emergency, use of weapons/shooting, self defense, use of office machines, equipments, diving, life saving, swimming, fitness, mountain climbing, fire fighting, treatment of camels and ostriches, fixing of irrigation machine, driving on sand dunes and rough roads)	1cl, 1cp 1ds 1s 2d	1g	1er 2g				1d		1d 3g		1er	2g	4er 1dm	2er 21g 2d	2g 1d	3g 1er		1g					4g	60 39g 9er 7d 1m 2s 1cl 1cp
Natural Resources, Biodiversity, Environment,	1cp 1er 1hd	1er 1g	2er	1er	1er	3er 1g	1m 3er	1er		5er	1er	1ac 3er	8er 1dm	3er 1m 1ac	1er	2er 1m	1m 3er	1m	1er				5er	57 45er 6m

Wildlife management/monitoring/conservation (radiotracking, trapping, marine resources, mammals, reptiles monitoring, birds ringing, counting, insects trapping, reproduction in captivity, terrestrial/desert habitat monitoring, mangrove and floristic communities in desert habitat survey, environmental quality, coastal zone, wetlands management, , use of monit. equipments, survey/program design, endangered species rehabilitation, dealing with poisoned species)																							2g 2ac 2oth
English	1ds 1s 1es 1ob 1hr 4cl 1er 2ad 1it				1er 1st	1ad 1g 1er				1er 1la 1ad	1er 1la 1s		3er 2l	3er 1la	1d 1ac 1st 1m 2sr	4er	4er		1g	1er	1ad	1er	53 20er 2ad 2g 4s 1ob 2st 5l/la 1d 1m 1ac 1ad
Communication,	1sa	1er	1er		1er	3er	1m		1m	1er	1er	2g	3er	3er	1m	1m	1m	1m	1er	1er		1d	44

communication with bedouins, community, guards, tourists, other organizations, c. skills, presenting instruction to tourists	1hr 1cp 2ad 1s 1es 1cl					1la				1la 1m	1la		1dm	1ad 1m 1ac			1er					2er	19er 1ac 3ad 1sa 1cl 1s 1es 3la 1d 9m 2g 2oth
Safety, survival techniques, first aid, medical services, emergency, mountain rescue	1cp	1er	1g			2er				1er			2er	21g 1d 4er	2g 1d	1er						1er 4g	43 12er 28g 2d 1cp
GIS, IT, Remote Sensing/GPS, mapping (data collection, use of softwares...)	4er 1it 1hd 1cp 1ad	3er	1er		1er	5er	1m			1er			5er	3er 1ac 1m	1m 2er 2sr	3er 1m	1m	1m					41 30er 1it 6m 1ac 1ad 2oth
Knowledge of the own PA, of Egyptian PAs, of environment in general					1g 1sk				3g			1er 2cl 1la		21g		1er 3g	1er					2g 1d	38 3er 1sk 1d 30g 2cl 1la
Public education/public awareness, educational techniques	1cp					1g						1er 1la	2l 2er	21g	1er 2g 1m					1er		2er	36 24g 7er 3l/1a 1m 1cp
Parks, case studies about management worldwide		1er 1at		1er									2l	21g		3er 1m	3er 1m	1m	1g				36 8er 22g 3m 1at 2l
Driving,	3d		1d		1g	1ad	1d		1d		1er		2er	1er	3g	1er	1er					3d	28

boat/moto/truck driving, boat/car/truck mechanicals and maintenance			1sk 1er		1sk		1g 1sk						1dm		1d						1er	8er 10d 3sk 5g 1m 1ad
Patrolling, enforcement techniques, patrolling and monitoring at high level	1cp						1m			1er 1la			2er	21g								27 21g 3er 1cp 1m 1la
Relational skills (management skills, taking decisions, distribution of tasks, team work, ability to interact effectively with others, PR, leadership, HR management/evaluation, psychology, understanding human behaviour, team building, problem solving)	1hr 1es 1ad 1ds 1cp 1sa			1ad			1m	1er	1m	1m	1er	1la	1dm 1er	1ac 1m 2er	1m	1m					3er	24 7m 9er 3s 1ac 1la 1ad 2oth
Statistics, biostatistics, data analysis	1er 1ac		1er		3er		1er			1m			4er 1ac	3er	1er		4er				1er	22 19er 2ac 1m
Laws (environmental, parks, enforcement, national policies)	1cp 1hr 1ad	1er 1la			1ad		1m		1ac	1la	1la	1ac	2l 1er 1dm	1la 1e		1m 2er					2er	22 7er 6la/1 3m 2ac 2ad 2oth
Accounting,	3ac					1ad	1m		2ac	1m	1di		1ac	2ac	1ac	2er	1m	1m			1ad	21

Administration, Financial (sources, planning, analysis, management) legal affairs	1ad											1dm		1st								6m 3ad 9ac 1st 2er	
PAs management, PA development, administration and organization, management tools, project m., community based (natural resources, tourism, economics) management	1sa 1cp			2er			1m		1m		1er		6er	1m 1er-dm 1ac	2er 1m					1er			20 13er 4m 1sa 1ac 1oth
Foreign languages , Italian/French	1sa	1er			2er						1er	2cl 1ac	1er 1erF	1ad 1er 1ac		2er				1erF		1er	17 11er 2ac 1ad 1sa 2cl
Reporting, preparing scientific reports, writing proposals, projects, conservation programs, action plan	1cp				1er			1er					5er	2er	2er		1m	1m				3er	17 14er 2m 1cp
Global conservation conventions, global strategies/policies		1er		4er			1m			1la				1ac 1m		1er 1m	1m	1m				1er	14 7er 5m 1la 1ac
Zoology, animal ecology and biology, fauna identification (knowledge of animals, insects, plants, birds,					3er	1er	1er	1er			1er			1er	1er	1m	1er					1er	12 11er 1m

geomorphology, fossils classification, karst, geophysics, studying rocks under microscope, rocks identification, sampling and field relations																						3er 3m	
Planning, integrated strategic p., management p., planning for resources protection (goal and priorities setting, implementation of plans), physical and landscape p.	1cp					1m				1er			1m		1m	1m						2er	8 3er 4m 1oth
Social policies, community involvement, conflict resolution, international negotiations, social researches, sociology						1m			1m			1er 1dm		1er									5 3m 2er
SD, policies/planning for SD	1cp					1m				1er			1er	2er									6 4er 1oth 1m
EE, ESD, Interpretation	1cp					1m			1er			2er											5 3er 1cp 1m
Photograph, underwater p., image analysis						1er						3er				1er							5 5er

Environmental Impact Assessment (EIA)	1er 1hd	1at				1la								1er						1er	6 3er 1oth 1at 1la
(Marine) disaster facing techniques, oil pollution mitigation												3er 2l									5 3er 2l
Ecotourism, visitor management	1cp					1er						2er		1er	1er						6 5er 1cp
Commercial, purchasing, marketing	1cl 1es				1st							1ac		1st							5 2st 1cl 1es 1ac
Environment/Natural Resources economics, PA economic benefits...												1ac 1er	1ac								3 2ac 1er
Secretarial services, office management procedures and practises, archive techniques	2s 1ds 3cl												1ad								7 2s 1ds 3cl 1ad
Personnel/employees(training, laws, development, organization)	1hr							1ac	1la												3 1ac 1la 1hr
Travelling, studying, reading						1er						1la									2 1er 1la
Store keeping, management			1st		1st	1ad								1st							4 3st 1ad
Event management	1cp																				1cp
Knowledge of Bedouins														1m							1m

4.10. Training needs/Topics for updating

The following overall table (table 15) shows the **distribution amongst the various profiles of the main 16 topics listed within the questionnaire**, that employees indicated as useful to improve their professional effectiveness. This part of the questionnaire has been filled only by employees but not by the managers, heads of department or other ruling class positions, who were specifically asked to fill another more complete and descriptive one, mainly putting into evidence what, in their opinion, might be useful for themselves but also what they think could be useful to improve performances, competencies and effectiveness of their personnel.

It must be pointed out that employees could indicate from 1 to 16 different topics. Actually in several cases all the 16 topics of the questionnaire were checked, even though it was clearly asked to check only the ones related to everyone's own specific professional profile. At the same time amongst the people who filled the questionnaire, some of them did not indicate any topic. Particularly these are: 3/76 (4%) environmental researchers, 2/19 (11%) accountants, 2/11 (18%) clericals, 8/13 (62%) drivers.

A look at the table shows that:

- ⇒ On the total, the most represented topics useful for the improvement of professional effectiveness are *Computer skills* (mentioned 111 times), *Communication skills* (93 times), *Specific technical skills* (86 times), *Safety* (84 times), *Environmental education and sustainable development education* (83 times), *International and national conservation strategies and PAs policies* and *Biodiversity monitoring and management* (82 times for both of the topics)
- ⇒ Accountants, clericals and administrative staff (totally 28 employees that filled the questionnaire) seem to be mainly interested in gaining computer skills (22) and communication skills (16);
- ⇒ Lawyers and employees involved in legal affairs (8 answered the questionnaire) are mainly interested in law enforcement (6), but also in environmental education and sustainable development education, communication and computer (5 for each of these);
- ⇒ Environmental researchers (rangers) indicate as a priority biodiversity monitoring and management (56/76 who answered the questionnaire, that means 74% of answers) and conservation strategies and PAs policies (mentioned 51 times, 67% of answers); other topic is environmental quality monitoring (47 times) followed by a big group that gathers communication skills as well as computer skills, but also environmental education and sustainable development education, on field procedures and techniques, mapping and Geographic Information Systems (all mentioned 45 times);

Table 15

Profile	L En	Cons	Monit	BD	N. Her	On F.	Comm	Interp	EE SD	GIS	Techn	Safety	Social	Tour.	Admin	Comp
Acc	2	5	1	0	0	1	4	2	4	1	4	2	2	3	3	6
Cler	0	1	0	0	0	0	6	2	1	0	2	2	0	0	1	10
IT Gis	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1
Env R	33	51	47	56	27	45	45	34	45	45	30	42	26	32	37	45
Leg A	6	3	2	0	1	0	5	1	5	0	2	4	1	0	3	5
Admin	2	2	2	1	0	2	6	3	2	1	1	4	2	3	3	6
Techn	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
O B	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Div	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Driv	0	1	0	1	0	0	0	0	2	0	5	1	0	0	0	4
Gua	23	14	8	20	4	13	22	10	23	2	38	26	19	16	1	26
Skip	1	0	0	0	0	0	1	0	0	0	2	1	0	0	0	0
Oth	0	2	2	1	0	0	1	1	1	2	1	1	1	0	1	4
TOT	<u>67</u>	<u>82</u>	<u>65</u>	<u>82</u>	<u>33</u>	<u>63</u>	<u>93</u>	<u>54</u>	<u>83</u>	<u>55</u>	<u>86</u>	<u>84</u>	<u>52</u>	<u>55</u>	<u>51</u>	<u>111</u>

Legend. Profiles: **Acc** = accountant/senior accountant; **Cler** = clerical/secretary/executive secretary etc.; **IT Gis** = information technology; **Env R** = environmental researcher/ranger/senior researcher/vet/trainer etc.; **Leg A** = legal affairs/lawyer; **Admin** = administrative/financial services; **Techn** = technician; **O B** = office boy; **Div** = diver; **Driv** = driver; **Gua** = guard; **Skip** = skipper; **Oth** = other –human resources (hr); conservation planner (cp); store keeper (sk); head of animal genetic dept (hd)-.

Topics: **L En** = Law enforcement and patrolling; **Cons** = International and national conservation strategies and protected areas policies; **Monit** = Environmental quality monitoring; **BD** = Biodiversity monitoring and management; **N. Her** = Natural heritage and environmental features monitoring; **On F.** = On field procedures and techniques; **Comm** = Communication skills; **Interp** = Interpretation; **EE SD** = Environmental Education and Sustainable Development Education; **GIS** = Mapping and Geographic Information Systems; **Techn** = Specific technical skills; **Safety** = Safety; **Social** = Social policies, community involvement and conflict resolution; **Tour.** = Sustainable tourism, marketing in protected areas and other sustainable development issues; **Admin** = Administration in protected areas; **Comp** = Computer skills.

⇒ Guards are obviously interested mostly in improving their specific technical skills (mentioned 38 times out of 43 people who answered the questionnaire, that means 88% of answers), but also in achieving computer and safety skills (26 for both of these topics) and in law enforcement (23).

On table 16 is shown the **trend of the choice of training topics among the various institutions** (NCS Central Office or protected areas).

Computer and communication skills seem to be the most requested in CO as well as in SI (in this PA together with environmental quality monitoring, environmental education and sustainable development education and sustainable tourism) and in SK (together with law enforcement and safety). Specific technical skills are the most requested in AEG, WR, WD, B (together with computer); conservation strategies and PAs policies is the most requested topic in RS.

Table 16

PA	L En	Cons	Monit	BD	N. Her	On F.	Comm	Interp	EE SD	GIS	Techn	Safety	Social	Tour.	Admin	Comp
CO	0	6	2	5	0	2	14	1	5	3	0	0	2	1	2	16
OM	4	4	1	2	1	3	1	0	0	2	2	2	1	2	0	2
AEG	1	2	2	3	0	2	1	1	0	1	6	2	0	0	3	3
E	2	4	2	3	1	3	3	3	2	2	0	4	2	2	3	2
SG	5	3	4	3	2	3	4	2	3	4	3	7	3	1	3	2
SI	1	2	7	4	3	5	7	2	7	4	5	5	3	7	3	8
WE	2	2	2	2	2	2	1	2	1	1	1	1	2	1	1	1
WG	1	0	1	2	0	2	1	2	0	1	0	2	0	0	1	0
WS	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0
WH	3	4	4	3	1	2	3	3	2	3	0	3	1	2	5	3
A	1	4	2	4	1	2	2	1	1	2	1	2	3	1	3	4
B	1	2	3	2	2	1	2	6	2	1	8	7	0	1	2	8
RS	6	12	7	6	1	6	8	5	11	4	6	9	4	5	6	6
SK	27	20	14	23	10	16	27	11	26	10	23	27	21	17	4	33
WA	2	5	4	7	1	4	4	4	5	5	7	2	2	3	2	10
WD	4	5	3	5	4	3	5	4	5	4	7	4	2	5	5	5
AZ	4	2	4	4	2	4	4	4	4	4	4	4	4	4	4	4
AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HD	1	0	0	0	0	1	1	0	1	1	2	0	0	0	1	1
Q	0	0	0	0	0	0	1	1	1	0	0	0	0	1	0	0
PF	1	1	0	0	0	0	1	1	1	0	0	1	1	1	1	0
WR	1	4	3	4	2	2	3	1	6	3	7	1	1	1	2	3
TOT	67	82	65	82	33	63	93	54	83	55	86	84	52	55	51	111

Legend. Topics: **L En** = Law enforcement and patrolling; **Cons** = International and national conservation strategies and protected areas policies; **Monit** = Environmental quality monitoring; **BD** = Biodiversity monitoring and management; **N. Her** = Natural heritage and environmental features monitoring; **On F.** = On field procedures and techniques; **Comm** = Communication skills; **Interp** = Interpretation; **EE SD** = Environmental Education and Sustainable Development Education; **GIS** = Mapping and Geographic Information Systems; **Techn** = Specific technical skills; **Safety** = Safety; **Social** = Social policies, community involvement and conflict resolution; **Tour.** = Sustainable tourism, marketing in protected areas and other sustainable development issues; **Admin** = Administration in protected areas; **Comp** = Computer skills.

As regards to **other training topics** (not included in the list of the main 16) pointed out by employees in the questionnaires, the main groupings are the following:

- ⇒ Biostatistics and data analysis (mentioned 5 times)
- ⇒ Environmental economics, environmental accounting and economics of natural resources (3 times)
- ⇒ Management and planning (3 times) but, linked to this topic, other possible subjects have been pointed out (1 time each) such as:
 - Leadership
 - Time management
 - Human resources management
 - Risk management
 - Business planning
 - Project planning
 - Work planning procedures
- ⇒ Reporting and scientific paper writing (3 times), together with Presentation skills (1 time)
- ⇒ Environmental impact assessment (2 times)
- ⇒ English language (2 times)
- ⇒ Public awareness (2 times)

There are then 3 other heterogeneous groupings, all including subjects mentioned one time:

- ⇒ Specific scientific requests (Climatic changes, Seed banking techniques, Plant rehabilitation principles, Oil pollution management, Fishing and sustainable aquaculture, Fish disease and Aquatic biota studies)
- ⇒ Specific requests connected with training, communication and community involvement (Training, Information sharing, Bedouins handicrafts)
- ⇒ Other specific requests (Store management, Specialized information technologies, Foreign languages).

Also the **managers** have been requested to indicate **priority training topics**, among the group of 16 listed in the questionnaire, that according to their opinion could be useful to improve performances and effectiveness of personnel. 15/17 managers (88%) filled this area of the questionnaire and all of them agreed with the fact that training might be very useful for this purpose.

The results are summarized in the following table 17.

Table 17

PA	L.E.	Cons	Monit	BD	N.H.	O.F.	Comm	Interp	E.SD	GIS	Techn	Saf	Soc	Tour	Adm	Comp
OM	1		1	1			1		1	1		1		1	1	
AEG	1	1	1	1		1	1			1	1	1	1			1
SG	1	1	1	1		1	1	1	1	1	1	1	1	1		1
SI	1	1	1	1		1			1	1		1	1	1		1
WE	1	1	1	1		1			1	1		1	1	1		1
WS	1						1		1			1		1		1
WH		1	1						1				1	1		
A	1						1							1	1	1
RS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
SK		1	1			1			1	1				1	1	
WA	1	1	1							1					1	1
WD	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AZ																
AA	1		1	1					1			1	1			1
WR1		1							1					1	1	
WR2		1	1					1		1						
TOT	11	11	12	8	2	7	8	4	11	10	5	9	7	11	7	9

Legend. Topics: **L.E.** = Law enforcement and patrolling; **Cons** = International and national conservation strategies and protected areas policies; **Monit** = Environmental quality monitoring; **BD** = Biodiversity monitoring and management; **N.H.** = Natural heritage and environmental features monitoring; **O.F.** = On field procedures and techniques; **Comm** = Communication skills; **Interp** = Interpretation; **E.SD** = Environmental Education and Sustainable Development Education; **GIS** = Mapping and Geographic Information Systems; **Techn** = Specific technical skills; **Saf** = Safety; **Soc** = Social policies, community involvement and conflict resolution; **Tour** = Sustainable tourism, marketing in protected areas and other sustainable development issues; **Adm** = Administration in protected areas; **Comp** = Computer skills.

It must be pointed out that some managers indicated all or almost all the 16 topics as useful for their staff (WD - 16, RS – 15 and SG – 14), while others indicated none or very few (AZ – 0, WR1 – 3, A – 4 and WH – 5).

A look at the table puts into evidence that training topics considered by managers as most useful for personnel are *Environmental quality monitoring* (mentioned 12 times) followed by a big group including *Law enforcement and patrolling*, *International and national conservation strategies and protected areas policies*, *Environmental education - sustainable development education* and *Sustainable tourism, marketing in protected areas and other sustainable development issues* (all mentioned 11 times). In the same area filled by employees only *Environmental education - sustainable development education* and *International and national conservation strategies and PAs policies* were amongst the most represented topics. This probably means that there is a sort of gap between the vision of management and what in fact employees perceive as useful for their own training.

In the column of other possible training topics for staff, managers indicated Quarrying management (mentioned 2 times), followed by Statistics, English language and Italian language (all mentioned 1 time).

Unfortunately only a few managers (4/15) indicated the **number of people** in their organization **that should be trained for every topic**. Within this extremely partial context, Computer skills sums the highest numbers of employees to be trained (24, but 20 of them have been mentioned by the Aquaba Bay manager), followed by Communication skills (14 people).

As regards to the question about the **usefulness of some kind of updating** for their jobs, all the 15/17 **managers** who filled this area of the questionnaire agreed that updating could be in fact useful for their professional performances. Managers were requested to point out some specific topics of updating out of a short list of 10; their answers are summarized in the following table 18.

Table 18

PA	L En	Cons	Hum Res	Comm	Social	Biodiv	Financial	Phys	SD Plann	Admin
OM	1			1		1	1	1	1	
AEG		1	1						1	1
SG	1	1	1		1	1	1		1	
WE	1		1	1		1	1		1	
WS		1	1	1				1	1	1
WH		1	1		1	1			1	
A		1	1				1		1	
RS					1	1	1	1	1	1
SK		1				1	1	1	1	1
WA	1	1					1			1
WD	1	1	1	1	1	1	1	1	1	1
AZ	1			1		1	1	1	1	
AA	1		1	1	1			1	1	
WR1		1	1				1			1
WR2		1	1	1			1		1	1
TOT	7	10	10	7	5	8	11	7	13	8

Legend. Topics: **L En** = Law enforcement and patrolling; **Cons** = International and national conservation strategies and protected areas policies; **Hum Res** = Human resources management; **Comm** = Communication skills; **Social** = Social policies, community involvement and conflict resolution; **Biodiv** = Biodiversity monitoring and management issues; **Financial** = Financial management; **Phys** = Physical and landscape planning; **SD Plann** = Sustainable development planning; **Admin** = Administration and organization of PAs.

Only one manager (WD) indicated all the 10 topics as useful for his updating, while all the others mentioned a number of topics ranging from 4 to 7, with a strong majority of 6 topics checked (for 9/15 managers who filled this part of the questionnaire).

A look at the table shows that the most represented topic for managers updating is *Sustainable development planning* (mentioned 13 times), followed by *Financial management* (11 times), *Human resources management* (10 times) and *International and national conservation strategies and protected areas policies* (10 times).

These data seem to be consistent with managers awareness of their specific roles and tasks in the network of Egyptian PAs within a modern vision of nature conservation and management. Particularly interesting are, under this point of view, the results obtained by the topics *Sustainable development planning* and *Human resources management*, which show that the managers category is willing to improve skills and knowledge in these fields in order to face new challenges in the best way.

Finally, managers were also requested to declare their possible **organisational needs** in terms of human resources.

To the question “do you think that the staff organisation in your unit/sector/park might be improved?” 11/15 managers (73%) answered “yes”, while 4/15 answered “no” (SG, WE, A, WR2).

Furthermore, 5 managers tried to fill the area “please explain what kind of job profiles should be needed for the best achievement of the tasks you are responsible for”, but only two (SG and A) clearly listed the job profiles needed (6 environmental guides, 2 clerks, 1 geologist, 2 zoologists, 1 mechanical, 1 driver for SG, accountants and financial assistants for A), while the others only mentioned again some possible training topics or skills.

4.11. Training needs/Kind of training

This part of the questionnaire was supposed to be filled by everybody, managers and employees. The choice was amongst six different kinds of training, with the possibility of choosing more than one. Results are summarized in the following table 19.

Table 19

PA	Intensive	Extensive	On the job	On line	St. Tour Eg.	St. Tour ab.
CO	14	14	14	2	11	14
OM	3	0	2	2	1	4
AEG	3	0	8	0	2	0
E	4	4	4	0	1	4
SG	3	4	4	1	4	4
SI	5	1	5	0	5	4
WE	2	0	1	0	0	1
WG	1	0	1	0	0	2
WS	1	5	4	0	2	1
WH	3	2	2	1	1	1
A	5	1	2	0	3	4
B	10	6	6	0	6	1
RS	7	8	5	3	7	14
SK	8	26	5	0	26	30
WA	5	3	3	4	2	3
WD	2	5	1	1	2	4
AZ	5	2	2	2	4	4
AA	0	1	1	0	1	0
HD	2	1	2	0	2	1
Q	1	0	0	0	1	1
PF	1	0	1	0	0	1
WR	8	4	2	1	5	5
TOT	93	87	75	17	87	103

Legend: **Intensive** = training courses developed in one week or more, away from workplace, in a training center, full time, full board; **Extensive** = training programs developed in several weeks or months, divided in short modules of a few hours per day or a few days per month, not necessarily close to the workplace; **On the job** = theory and practice on duty; **On line** = at distance, staying in the workplace (e-learning etc.); **St. Tour Eg.** = study tour in Egypt; **St. Tour ab.** = study tour abroad.

There is a clear preference for the *Study tour abroad* (mentioned 103 times), particularly in RS (14/16 – 88%), AZ (4/5 – 80%), SK (30/38 - 79%). Amongst the possible destinations, the most mentioned is Jordan (21 times), but the datum is conditioned by the fact that it was expressed by the 21 guards of SK who filled the questionnaires all more or less in the same way. Other possible destinations are the U.S.A., South Africa, England (mentioned 15, 13, 10 times), Australia and Italy (7 times each). A particular note must be expressed for Elba PA, whose 4 employees all mentioned many kinds of training, making their choice not so significant. The second most represented choice is the *Intensive* (mentioned 93 times), mainly preferred in B (10/10 that is 100%), followed by the *Extensive* and by *Study tour in Egypt* (both mentioned 87 times). Also the *On the job* performed a good result mainly showing, together with the other preferred kinds of training, that people like to be trained in a non formal way and, hopefully, within operative and practical settings.

4.12. Comments

The final part of sub section F (“Your point of view”) and the final section of the questionnaires (section H for employees and section Im for managers) were dedicated to comments.

Many people felt free to express themselves in these spaces thus pointing out, often in a very effective and detailed way, weaknesses and critical matters linked to several aspects, not only training, of the life of the Egyptian PAs system.

These precious contributions have been gathered and summarized in the following short list. Together with every specific item are indicated, into brackets, the initials of the institutions (PAs or Central Office) within which the item was put into evidence. In *italic* are reported some significant sentences, written in the questionnaires, related to some specific items.

MANAGEMENT AND ORGANIZATION

- ⇒ Organizational problems (CO, WD, WS, HD).
- ⇒ Bad flow of information system (CO).
- ⇒ No clear work plan (CO).
- ⇒ Lack of resources (CO, WE, WG, WS, WH, RS, SK, WD, HD, PF).
- ⇒ Lack of equipments (SG, A, WA, WH)
 - *I do my work according to the available work tools.*
 - *The lack of some equipments affects the performance of work (e. g. digital camera, car for covering big monitoring bird areas, etc).*
 - *We have just one car for patrols and carrying our materials.*
- ⇒ Lack of maintainance (WE).
- ⇒ Unfair treatment (CO).
- ⇒ Overloading of personnel (CO).
- ⇒ Exchange of experiences and sharing in projects between different PAs should be implemented (SG manager).
- ⇒ General objectives: increase the financial support; make the management plan and the action plan for all PAs in Egypt; increase staff; increase training for rangers and managers... (SI manager).
- ⇒ Inadequate number of rangers (WH).
- ⇒ Management centralization and high positions occupied by inadequate and unqualified persons (army officers) (SK).

HUMAN RESOURCES

- ⇒ Not enough attention is given to the HR work; no HR experts or managers even appear in the organization chart (CO).
 - *We need to establish a HR management department to replace the old Personnel one.*
 - *We don't have any specialist in this field.*
- ⇒ Differences between job descriptions and staff skills, particularly in high levels of management (CO).
- ⇒ Importance of team work (SK, A manager).
- ⇒ General unsatisfaction (WG).
 - *Many times I've been filling questionnaires like this but the result is zero!*
- ⇒ Inadequate knowledge of the management of the existing staff and their qualifications leads to many mistakes in the assigned tasks (A).

TRAINING OPPORTUNITIES

- ⇒ Unbalanced and unfair distribution of training chances (CO, SK, SI, WA).
- ⇒ Fair access to capacity building process is needed, based on specific criteria (committee for the selection of the staff for future training) (CO).
- ⇒ Biased criteria and policies of selection of the trainees (SK).
 - *For example there are people getting the same training many times in the same topics and others of the same specialization getting none.*
- ⇒ Right qualification of workers in the field of PAs and conservation (SI).
 - *Training must depend on the needs of the work, not on personal relationships.*
 - *Training programs must be true and not considered as a trip or a funny time.*
- ⇒ End of many training opportunities when the European funded projects were over (SK).
 - *Most of us got training courses in a many fields; but the problem is that we got all the training because of the European funded project and after it finished we lost all the opportunities to get any training from the EEAA, because of the lack of communications between the protected area management units and the top of the management.*
- ⇒ Training for improving conditions of local communities (e.g. training courses for researchers in carpet making so that they may train bedouins in order to improve their production of carpets and to make it reach a marketing level) (WA).

⇒ Empowerment (PF).

- *Management should depend more on the second line employees; they should never be neglected, but trained in a way to trust themselves and to be able to take decisions, as well as encouraged to create and be responsible.*

SCIENTIFIC RESEARCH

⇒ Biodata of all elements in PAs regarding all types of resources and biodiversity features should be studied and documented; PAs should create multidisciplinary groups of scientific persons (biologists, chemists, geologists etc.) and be affiliated with scientific centers or institutions for monitoring biological and non-biological changes (AEG).

LEGAL ASPECTS

⇒ PAs legal framework needs to be improved and developed officially (RS).

⇒ Training for legal staff (*all training goes to environmental researchers*) (RS).

⇒ All protectorates lawyers should have the authority and the power to enforce law (OM).

5. TRAINING NEEDS ASSESSMENT

5.1. STAGE I-OCCUPATIONAL ANALYSIS

Stage I-Occupational Analysis hereby presented is not fully completed, both because the hierarchical structure of CO and PAs is not known in detail and because institutional job descriptions do not seem to exist and/or are not available.

Therefore, occupational duties and responsibilities of NCS staff have been deduced by the analysis of information given by the interviewed staff, together with the assessment of documentation and information collected during the mission in Egypt by the international consultant dr. Maurilio Cipparone. For the main occupations, the job description is completed by the “point of view” of the authors, based on international experience.

NCS general organization

The structure of NCS is based on two main organisational level, that of Central Office in Cairo and that of Protected Areas.

Central Office, under the supervision of EEAA (Egyptian Environmental Affairs Agency) within the Prime Minister’s cabinet, and NCS General Director, is organized in **4 units**. Each unit supervises specific sectors and sub-sectors, as described below:

1. Natural Protectorates Management Unit

Sectors:

4 Regional Protectorates (Southern, Northern, Central, and Sinai Protectorate)

2. Information Technology, GIS and Remote Sensing Unit

3. Financial & Administration (and Human Resources) Unit

4. Biodiversity Unit

Sectors:

-Biodiversity Economics, divided in the 2 sub-sectors: Non-protected Economics and Protected Economics;

-Environments Diversity sector and sub-sector Geology;

-Kinds & Races Diversity, divided in the 3 sub-sectors: Minute Beings Diversity, Animal Diversity, Botany Diversity;

-Genetic Diversity & Gene Banks, divided in the 2 sub-sector: Animal and Botany Genetics

3 new units are to be created: **Planning, Marketing, EIA**.

22 Protected Areas are grouped in 4 general ecological groups (Marine, Wetland, Desert and Geological PAs) and in 4 Regional Protectorates (Southern, Northern, Central, and Sinai Protectorate).

Personnel of NCS consist in 514 staff members, distributed in 14 categories of jobs/occupations (as described in table 20) **and 6 levels**.

As regards to the levels of staffing, according to available information they are:

Level 1: General Director

Level 2: Departments Directors, Advisors and Assistant (7 people)

Level 3: Area Managers (5 seniors)

Level 4: Protectorates Managers (28)

Level 5: Rangers (152 people)

Level 6: Community Guards and Equipments Operators (97 people)

The current staff represent about 50% of the planned force (Biodiversity Conservation in Egypt, Arab Republic of Egypt, UNEP, 2005).

Level 1 and 2 are not included in table 20, and it is not known the level of job occupations such as: Accountant, Clerical, Legal affairs, IT, GIS & RS, Office boy, Diver & Saver, Skipper, Driver, Technician and Worker; however, it can be supposed that administrative staff (accountant, clerical, legal affairs) and IT specialist belong to level 5 and all the other jobs to level 6 or lower.

It must be added that, besides the 14 official job positions, other 2 job occupations have been declared by interviewed staff, that is: store keeper and administrative. Furthermore, very few rangers define so their position, on the contrary they declare to be “environmental researcher”.

Table 20

N°		Consultant	Manager	Accountant	Clerical	IT GIS & RS	Ranger	Legal affairs	Office boy	Diver & Saver	Skipper	Driver	Technician	Guards & Guides	Workers	TOT
1	Central office	4	5	6	6	2	12		2			5				42
2	Gulf of Aquaba (Ras Mohamed – Nabq – Abou Galum – Taba)		5	9	16		26	2	3	4	1	1	20	3		95
3	St. Katherine		1	4	7		9	1				4	1	22	20	69
4	Qaroun			5			6	2				2	2	2		19
5	Wadi El Rayan		1	1	4		9	1	2	3	1	8	3	6	2	41
6	Al Zaranik		1	2	5		5					2		3		18
7	Al Ahrash		1	1			1							2		5
8	Al Omayed		1		1		2	1				2	1	2	7	17
9	Ashtum El Gamil		1		1		3					3		3		11
10	Wadi Alaqi		1	1	1		7					2		8		20
11	Saluga & Gazal		1		2		4				2	1	1	4	2	17
12	Wadi Sannur Cave		1	1									1	3		6
13	Burullus		1	1	3		4	1				1		4		15
14	Gebel Elba		1	1	1		15					2		17		37
15	Red Sea Islands		1	1		1	26	1		1	4			2		37
16	Wadi Gemal		1			1	7	1								10
17	Wadi Degla						5					2		8		15
18	Petrified Forest		1		1		1							4		7
19	Hassana Dome		1		1		1							2		5
20	Wadi El Asiouty		1		1		2					1	1		4	10
21	Siwa		1	1			5	1				2		2		12
22	White Desert		1	1			2	1				1				6
23	River Nile Island															0
24	TOTAL	4	28	35	50	4	152	12	7	8	13	39	30	97	35	514

Job description of NCS staff

A brief job description (tasks and responsibilities) of occupations within NCS is presented below. The main roles and functions listed for each job are based on information collected during the mission in Egypt and derived from national legislation concerning natural protectorates and environment; the description is completed by the point of view of employees about their work (as it comes out from the questionnaires analysis, section “duties and responsibilities”) and, when considered necessary, by comments of the international consultants.

These job descriptions must be considered as point of reference for further assessment of training needs.

Central Office Level

- **General Director Assistant & Projects Technical Coordinator (level 2, n° of staff:7)**

Based on specific assignments, the General Director Assistant helps with the management of Protectorates, especially for what it concerns St. Katherine Protected Area, and the Projects Coordinator is responsible of attending the meetings and preparing the reports related to project implementation.

Duties and tasks are:

Reacting against the problems of PAs with recommendations, communications and/or taking actions

Reacting, as above, to the problems concerning St. Katherine PA

Initiating all suitable programs for the best of every PAs

Attending the projects steering, executing and progress meetings, collecting projects reports and preparing NCS project reports

Preparing the NCS periodic projects meeting, for cooperation, progress and directions

Attending the presentation of projects to the Minister, and reporting the minutes to the General Director

- **Biodiversity General Manager (level not known, n° of staff: 1)**

Amongst the duties and responsibilities are:

Biodiversity monitoring in cooperation with Protectorates

Natural habitats monitoring

Invasive species monitoring and development of related plans in cooperation with other agencies

Preparing a taxonomy database to be linked with the international taxonomy database

- **Biodiversity International Convention (level not known, n° of staff: 2)**

Amongst the duties and responsibilities are:

The follow up of implementation of Conventions commitments

Creating and maintaining databases for national and international agreements

Preparing national reports for the different secretaries

- **Biosafety (level not known, n° of staff: 1)**

Amongst the duties and responsibilities are:

Development, maintenance and follow up of data systems for the use of biohazardous materials

Creating and maintaining databases for biological safety

- **Hunting regulation (level not known, n° of staff: 1)**

Amongst the duties and responsibilities are:

Receiving hunting requests and recommending actions

Determining species allowed for hunting

Determining places and seasons for hunting

- **Geographic Information Systems (level not known, n° of staff: 4)**

Amongst the duties and responsibilities are:

To develop databases on all activities about biodiversity in the form of GIS and RS

Producing maps, reports and related GIS products and services, to be used for decision-making

Protected Areas Level

- **PA Manager (level 4)**

Responsible of overall administration and PA management

Staff coordinator (monthly and daily tasks distribution, evaluation of performances etc...)

Responsible of management plan implementation and achievement of PA objectives

Responsible of EEAA policies and directives in liaison with other agencies and institutions
Training, especially of new staff
Receiving information and reports from field staff and transmitting relevant information to appropriate institutions
Responsible of finances (disbursement and accounting)
Responsible of all area property and facilities (care, cleanliness)
Participate in field patrolling if necessary

The profile which comes out of the analysis of the questionnaire (Job Description section, Current Duties and Current Responsibilities sub sections) does not differ substantially from that above, amongst the listed tasks declared by managers are also: public awareness (24% of managers), and biodiversity and natural resources monitoring and management (24%). The role of Assistant Manager, or Deputy Manager has also been recorded.

- **Ranger (level 5)**

The ranger is the public face of the Protected Area and the foundation of the whole staff. General responsibilities of rangers are:

Management of the PA
Awareness and education of the public (visitors, local community)
Application of the regulation (upholding the laws and initiating actions against transgressions)

Based on manager instructions duties of rangers may include:

Foot and vehicle patrolling (included collecting information to be passed to superiors)
Resource monitoring and data collection
Search and rescue
Visitor management
Equipment and infrastructure maintenance
EIA
Development planning etc...

Rangers are expected to be loyal and committed to the ideals of the EEAA and its mandate; to wear a full uniform when on duty; and to communicate and interact with the public in a polite, mature and controlled manner.

In addition to the tasks described, interviewed rangers have listed other specific activities such as: administrative/financial/clerical work, scientific research, training, GIS and related activities, participating to training as a duty, agriculture activities, and also specific management tasks. Specific responsibilities have also been recorded like: the coordination and supervision of monitoring unit and other working units, the responsibility of tourism activities and visitor management, the management of health and veterinary programmes.

A **progression system** is foreseen for the career of rangers:

Ranger (Researcher Ranger), after 8 years:

Senior Ranger, after 6 years:

Park Manager.

A **Senior ranger** is a competent and experienced Ranger to whom some of the Manager's responsibilities are delegated. The tasks (responsibilities) of a Senior ranger include:

Patrolling and related reporting activities

Resources management

Specific projects/interventions management

Human resources management

The profile which comes out is that of a very versatile professional, who applies his specific knowledge and skills to the very different tasks requested by the work in a PA.

- **Administrative staff¹ and legal affairs**

(1 including accountants, clericals and other administrative personnel)

Depending on the individual role and qualification, tasks carried out by staff in charge of administrative, financial, legal affairs may be:

Accounting

Financial planning

Reporting activities

Inventories

Payment schedules

Secretarial duties

Assisting the manager

Other office work and administrative duties

Reporting on violations and follow up prosecutions (legal affairs)

In some cases, not only tasks but also specific responsibilities in the listed functions have been declared by this group of employees in the returned questionnaires.

- **Community guards (level 6)**

The main role of a guard is to assist the rangers in the execution of their duties, specific tasks are:

Reporting on general conservation and monitoring activities

Reporting on regulatory activities and violations

Guiding and assisting rangers on patrol

Assisting visitors, and with emergency situations

Reporting on the status, cleaning and maintenance of facilities

Promoting conservation in local communities/Public Awareness

Guarding of PA properties (buildings, facilities etc...)

Assisting in monitoring tourism activities within the area

Other specific tasks, as recorded in the questionnaires, may be: guiding visitors, work in agriculture activities of the area.

5.2. STAGE II-FUNCTIONAL ANALYSIS

Results of **Stage II-Functional Analysis** (aimed at understanding what employees in the stated occupations should know, and should be able to do, in order to be professional and effective) have been deduced from the evaluation of the “knowledge and skills” section of the returned questionnaires, in comparison with the role and functions (duties and responsibilities) which compete to each job profile.

A first evaluation of the current situation made by the international consultants is also part of this analysis. The analysis has been conducted for the main jobs involved in Egyptian PAs management, as shown in the following tables.

Table 21

JOB PROFILE	Main tasks and responsibilities	Related knowledge and skills declared to be needed by the staff	Remarks/Notes about professional effectiveness of staff and other related general needs for improving the current situation
PA Manager	<i>Administration and PA management</i>	Biodiversity and natural resources monitoring and management GIS/IT/RS & mapping PAs management Administration Global conventions Scientific knowledge and EIA Tourism management, EE and Interpretation	Team building actions should be promoted at top levels (CO and PAs managers and other ruling positions) in the framework of a shared vision of the future of Egyptian PAs The flow of decisions from central institutions should consider specific needs and characteristics of peripheral institutions Resources are not sufficient neither for daily management of PAs nor for development needs
	<i>Staff management</i>	Communication Relational skills	Quality of leadership must be improved Staff is often overloaded due to insufficient number of employees: motivation and team work abilities should be promoted No approved ToR for employees
	<i>Management planning</i>	Planning GIS/IT/RS & mapping	Management plans of all PAs should be implemented
	<i>EEAA policies and directives implementation in liaison with other agencies</i>	Communication Global conventions and strategies	Communication between all levels of management should be organized on a periodic basis The requirements of EEAA and Ministry are very much time consuming (bureaucracy)
	<i>Training</i>	Communication	Training of trainers is necessary
	<i>Responsible of finances</i>	Financial knowledge and skills	Governmental expenditure process is very much complicated (bureaucracy)

Table 22

JOB PROFILE	Main tasks and responsibilities	Related knowledge and skills declared to be needed by the staff	Remarks/Notes about professional effectiveness of staff and other related general needs for improving the current situation
Ranger	<i>Management of the PA</i>	PAs management Global conventions and strategies Knowledge of PAs worldwide Reporting skills Relational skills Computer	Staff highly educated and relatively young represent an important strength of PAs system if well trained in order to face future challenges Resources are not sufficient neither for daily management of PAs nor for development needs; motivation and team work abilities should be promoted
	<i>Awareness and education of the public (visitors, local community)</i>	Communication Public awareness Relational skills	All staff with a specific role in this field should have an adequate training in information/awareness objectives and techniques and should have at least basic knowledge of EE and Interpretation principles (the latter for visitor targeted actions)
	<i>Application of the regulation</i> <i>Foot and vehicle patrolling</i>	Laws Reporting skills Driving	Lack of resources and equipments is very often a limiting factor Specific driving skills are needed depending on PAs features
	<i>Resource monitoring and data collection</i> <i>EIA</i>	Biodiversity and natural resources monitoring and management GIS/IT/RS & mapping Scientific knowledge Statistics Reporting skills Computer	Advanced computer skills are often necessary and requested by the staff Very few staff consider EIA as a knowledge needed by their job, but specific training should be promoted for staff involved in EIA on a periodic basis Training about “biodiversity and natural resources monitoring and management” as well as about other “scientific topics” must be organised in one or more introductory modules, followed by modules specific for the different techniques and PAs to be taught
	<i>Search and rescue</i>	Safety and other specific technical skills	Training priority must be given to staff working in PAs where the number of visitors is relevant
	<i>Visitor management</i>	English Other foreign languages Communication Ecotourism/Tourism management	The learning of Interpretation principles and techniques should be part of <i>ad hoc</i> training Training priority must be given to staff working in PAs where the number of visitors is relevant

	<i>Development planning</i>	Planning/Sustainable Development Planning	Training in this field must be conducted for the staff with specific planning responsibilities; training of rangers together with managers should be considered for better coordination of planning operations (about 50% of rangers declared to be involved in planning activities)
	<i>Other (as declared by interviewed staff): equipment and infrastructure maintenance, administration tasks, training, participating to training, agriculture, management tasks, working in ringing station, fishery work, management of specific programmes, photography...</i>	No approved ToR for the employees Training on “other” specific matters (i.e. training skills, administration procedures) must be developed if the number of possible trainees makes it effective as they often are specific of one or few PAs Staff number not enough to face daily work at a good standard level Staff training not satisfactory International Ranger Foundation recommendations agreed at international level should be taken in account for any training proposals	

Table 23

JOB PROFILE	Main tasks and responsibilities	Related knowledge and skills declared to be needed by the staff	Remarks/Notes about professional effectiveness of staff and other related general needs for improving the current situation
Administration staff & legal affairs	<i>Accounting</i> <i>Inventories</i> <i>Payment schedules</i> <i>Secretarial duties</i> <i>Other office work and administrative duties</i>	Computer English and other foreign languages Knowledge of PAs Relational skills Laws Administrative/Secretarial skills Office procedures	Basic computer skills and knowledge of specific programs for accounting/administrative tasks are needed
	<i>Financial planning</i>	Laws Financial knowledge and skills	Financial planning is carried out in cooperation with the manager, and assisting the manager is a required task: usefulness of common training activities could be evaluated
	<i>Reporting activities</i>	Reporting skills Communication	
	<i>Assisting the manager</i>	Communication English and other foreign languages Relational skills	
	<i>Reporting on violations and follow up prosecutions (legal affairs)</i>	Laws Legal competencies	
	<i>Other (as declared by interviewed staff): specific responsibilities in some of the listed task</i>		

Table 24

JOB PROFILE	Main tasks and responsibilities	Related knowledge and skills declared to be needed by the staff	Remarks/Notes about professional effectiveness of staff and other related general needs for improving the current situation
Community guard	<i>Reporting on general conservation and monitoring activities</i>	Reporting skills Knowledge of the own PA Computer	Resources are not sufficient neither for daily management of PAs nor for development needs; motivation and team work abilities should be promoted ???
	<i>Reporting on regulatory activities and violations</i>	Reporting skills	Basic knowledge about existing regulations in the area should be needed but it is not mentioned among the knowledge required by interviewed guards
	<i>Guiding and assisting rangers on patrol</i> <i>Guarding of PA properties (buildings, facilities etc...)</i>	Patrolling	Lack of resources and equipments is often a limiting factor Specific driving skills might be needed depending on PAs features
	<i>Assisting visitors, and dealing with emergency situations</i> <i>Assisting in monitoring tourism activities within the area</i>	Safety and other specific technical skills English and other foreign languages Knowledge of the own PA, of national PAs and parks in general	Training priority must be given to staff working in PAs where the number of visitors is relevant
	<i>Promoting conservation in local communities/Public Awareness</i>	Public awareness Communication	All staff with a specific role in this field should have an adequate training in information/awareness objectives and techniques and should have <u>at least</u> basic knowledge of Communication, EE and Public awareness principles
	<i>Reporting on the status, cleaning and maintenance of facilities</i>	Reporting skills	
	<i>Other (as declared b interviewed staff): guiding, agriculture work</i>		Depending on number of staff with specific needs, training on other topics can be considered

5.3. STAGE III-SKILLS AUDIT & STAGE IV-TRAINING NEEDS ANALYSIS

The main contents of **Skills Audit** (aimed at understanding the status of current competencies of staff analysed) have already been discussed in detail, so that at this step of TNA is presented an **evaluation of the level** of current knowledge and skills (education, training, work experiences) of each NCS job profile. This evaluation is used in the framework of following stages IV and V of TNA, that is the assessment of possible gaps existing between current situation/skills and future needs, as well as the assessment of new types of competencies required and the necessary interventions.

Stage IV-Training Needs Analysis has been conducted for the most relevant job positions within NCS (considered so both for their role in PAs management and for the amount of data and information available), and has been based on the evaluation of the individual training demand in comparison with: (1) the tasks (duties and/or responsibilities) carried out within each occupation; (2) the main knowledge and skills required by each occupation; (3) the current level of education/training of staff as it comes out from stage III.

First guidelines for Training Plan development and priority training activities are part of this stage of TNA.

In regards to Skills Audit, the evaluation of the level of current knowledge and skills of NCS job profiles is resumed in the following table 25 from which it appears that the **high level of formal education in many groups has not been followed, during the current job, by training, or other experiences** which might contribute to creating an adequate level of professional qualification within the parks' staff and an adequate level of competence for each job position/role.

When some experiences are recorded, they **rarely interest 50% or more of the staff in each job** profile and in this case the experiences mentioned consist **mainly in computer and English** training, rather than in more specific training.

One exception is given by the accountants and clericals, amongst them more than 60% had already some professional experiences before the current position.

Some specific training is recorded amongst the managers (41%) the rangers (30-35%), and the lawyers (37%).

Table 25

	FORMAL EDUCATION	TRAINING	WORK EXPERIENCES
JOB PROFILE/ OCCUPATION			
Manager	100% graduated 53% (9/17) with an academic degree in environmental sciences 4 degrees in agriculture	Computer: 59% of staff trained PAs management: 41% Biodiversity and natural resources monitoring and management: 41% Environmental sciences: 41% Ecosystem conservation, planning: 29% Few other training	29% in PAs
Accountant	89% (8/9) with an academic –commercial or law –degree	Computer: 55,5% of staff trained English: 33%	Accounting experiences: 67% of staff (6/9)
Administrative staff	50% (4/8) with a commercial degree 50% with secondary school level	Computer: 50% of staff trained	Not relevant
Clerical	27% (3/11) with a commercial degree 73% (8/11) with secondary school level	Computer: 64% of staff trained English: 45%	36% in private companies
IT specialist*	Academic degree	Training in computer and GIS/RS and mapping	Not relevant
Ranger	97% (74/76) graduated 63% (48/76) with a degree in environmental sciences	Computer: 42% of staff trained PAs management: 35% GIS, RS & mapping: 34% Biodiversity and natural resources monitoring and conservation: 33% English: 24% Public awareness and/or communication: 22% Ecosystems conservation: 16% Few other training	10,5 % in PAs
Legal affairs	75% (6/8) graduated in law	Computer: 37,5% of staff trained Law enforcement: 37,5%	Legal affairs experiences: 62%
Technician*	Secondary school	None	None
Office boy*	-	None	None
Diver*	Secondary school	4 training experiences	Not relevant
Driver	1 with secondary school	5 recorded experiences out of 33 people	Driving: 18%
Guard	25% (11/43) with secondary school level	First aid/Mountain rescue: 35% of staff trained	Guiding: 19%
Skipper*	-	Not relevant	None
Other	67% (4/6) graduated, 2 in environmental sciences	Computer: 50% of staff trained Some other training recorded	2 people worked in PAs

* Job profiles of which only 1 or 2 (skipper) people have been recorded

In regards to Training Needs Analysis, in order to obtain an easy visual comparison of data analysed and possible gaps the following **matching tables** (tables 26 to 30) have been processed.

For every analysed profile the tables show the matching between different outputs (expressed in average %) derived from several sections or sub sections of the questionnaires; particularly from the:

- ⇒ **a. duties/responsibilities** section (% of people that declared to deal with the specific task during their everyday work);
- ⇒ **b. former training** section (% of staff that somehow already attended training courses about the specific matter);
- ⇒ **c. knowledge/skills** section (% of people that indicated the specific topic as required to perform their job at an adequate level);
- ⇒ **d. topics/training needs** section (% of people that indicated the specific topic as training need, useful to improve their professional effectiveness).

In the first column of the tables are listed the main topics/matters mentioned by staff, that can be related both to a task and to a knowledge and/or skill required by the job, and in the second column the training needs (as in point d. above). If more than one training topic/need is listed in this second column, the related percentage in the last column is the one obtained by the first of the list; to be considered is also that managers' training needs may not be the same as the ones of employees because they are derived from a specific short list of 10 topics that the managers have been asked to check for their personal updating).

Managers (n. 17)

Table 26

Skills/Tasks	Related training topics/needs (amongst the main 10 listed in the questionnaire)	a. duties and/or responsibilities	b. former training	c. knowledge and/or skills	d. topics/training needs
Computer		-	59%	12%	-
Specific technical skills		-	24%	6%	-
Biodiversity/natural resources monitoring and management	<ul style="list-style-type: none"> Biodiversity monitoring and management issues 	24%	41%	35%	53%
English		-	18%	6%	-
Communication	<ul style="list-style-type: none"> Communication skills 	-	24%	53%	47%
GIS/IT/RS and mapping	<ul style="list-style-type: none"> Physical and landscape planning 	6%	12%	35%	41%
PAs management / Parks and case studies worldwide	<ul style="list-style-type: none"> Administration and organization of PAs Human resources management 	76%	41%	18%	47%
Public awareness / education	<ul style="list-style-type: none"> Social policies, community involvement and conflict resolution Communication skills 	24%	24%	6%	29%
Driving		-	18%	6%	-
Patrolling	<ul style="list-style-type: none"> Law enforcement and patrolling 	35%	-	6%	47%
Relational skills	<ul style="list-style-type: none"> Human resources management Communication skills Social policies, community involvement and conflict resolution 	41%	12% (supervisor skills)	41%	65%
Statistics	<ul style="list-style-type: none"> Financial management BD monitoring and management issues Administration and organization of PAs 	-	-	6%	71%
Laws	<ul style="list-style-type: none"> Law enforcement and patrolling 	35%	24%	18%	47%
Administration / Financial / Legal	<ul style="list-style-type: none"> Administration and organization of PAs Financial management 	18%	12% (supervisor skills)	35%	47%
Reporting skills	<ul style="list-style-type: none"> Communication skills 	12%	-	12%	47%
Global conventions / strategies	<ul style="list-style-type: none"> International and national conservation strategies and PAs policies 	-	-	29%	59%
Scientific knowledge and activities	<ul style="list-style-type: none"> Biodiversity monitoring and management issues 	29%	41%	29%	53%
Planning / SD planning	<ul style="list-style-type: none"> Sust. Dev. Planning Physical and landscape planning 	24%	29%	35%	82%
Social policies	<ul style="list-style-type: none"> Social policies, community involvement and conflict resolution 	-	-	18%	29%
EE and interpretation	<ul style="list-style-type: none"> SD planning 	6%	24%	4%	82%
EIA	<ul style="list-style-type: none"> Biodiversity monitoring and management Physical and landscape planning 	-	24%	-	53%

At a first glance, information given by the table above seems quite consistent with roles and tasks formerly listed for PAs Managers (level 4). There are, anyhow, some significant points that may be developed in order to design an adequate training strategy whose main purposes should seriously take into account priority roles and positions covered by managers' profile on the territory:

- Biodiversity and natural resources monitoring and management together with Scientific knowledge and activities as possible training items should be considered mainly for all the aspects dealing with management. Some PAs managers declare that these items are part of their duties/responsibilities (24% – 29%), related knowledge/skills are needed for their job (35% - 29%), and a little more of them (41%) have somehow already attended relevant training courses. “Biodiversity monitoring and management issues” are perceived as a training need by 53% of the managers group.
- Even though Communication skills obtained the highest score in the knowledge/skills section (53%) and is perceived as a training need by 47% of the managers group, only 24% of managers attended some relevant former training courses. It must be said that communication is an important cross-cutting component for managers' job, partly dealing or overlapping with several other specific matters such as, for example, “Human resources management” and “Public awareness”.
- According to what official documents state for managers' main roles and functions, Protected areas management obtained the maximum score in the duties/responsibilities section (76%), showing that this is the main task these professionals deal with during their everyday work. Even though only 18% included this matter in the knowledge/skills section (maybe because most people thought that it was, somehow, obvious), staff seems to be quite aware of its importance as a training need (47%). Rather than initial training, it could be suggested some kind of updating, tailored on specific needs and characteristics of the various PAs and aimed at enhancing networking and share of experiences within the system.
- Dealing with Law enforcement and patrolling is not managers' main occupation (35% of the duties responsibilities section) but it's important for them to have a good knowledge of laws and to be able to participate to field patrolling if necessary. Only 24% declared to have received specific relevant training while 47% think it may be an important topic for professional updating.
- Relational skills (such as leadership, ability of taking decisions, team work) are mainly linked to communication skills and are felt as important duties/responsibilities as well as knowledge/skills (41% for both) needed for managers' job. Former training is very few

(12%) but the item is significant, particularly considering the many consequences that an adequate relational attitude may have on “**Human resources management**” (**perceived as priority training topic by 65% of people**). It must be recalled that roles and functions of managers include staff coordination (tasks distribution, evaluation of performances, etc.). In order to enhance quality and effectiveness of management it would so be suitable to design some appropriate training activity.

- Administration / financial / legal activities are also very frequent for managers, even though the topic is mentioned as a duty/responsibility only by 18% of them (maybe because all others consider it “too obvious”). 35% think that knowledge and skills in this field are needed in their job although, since amongst various tasks, managers are also responsible of finances (disbursement and accounting); what really seems to interest the group is to obtain some **specific training in “Financial management” (71%)**.
- Cultural and framework knowledge about Global conventions and strategies is considered useful by 29% of managers and perceived as a **training need by 59%**.
- Finally, Planning and Sustainable Development planning are also part of managers’ duties. It is not mainly a matter of “Physical and landscape planning” (pointed out as a training need only by 41%), but rather a matter of “**SD planning**” (**declared as a priority training topic by 82% of the group**, the highest score in this section).

Rangers (environmental researchers) n. 76

Table 27

Skills/Tasks	Related training topics/needs (amongst the main 10 listed in the questionnaire)	a. duties and/or responsibilities	b. former training	c. knowledge and/or skills	d. topics/training needs
Computer	<ul style="list-style-type: none"> • Computer skills 	4%	42%	55%	60%
Specific technical skills	<ul style="list-style-type: none"> • Specific technical skills 	-	22%	12%	40%
Biodiversity/natural resources monitoring and management	<ul style="list-style-type: none"> • Biodiversity monitoring and management • Environmental quality monitoring • Natural heritage and environmental features monitoring • On field procedures and techniques 	65%	33%	60%	74%
English		-	24%	27%	-
Communication	<ul style="list-style-type: none"> • Communication skills 	-	22%	25%	60%
Safety/First aid	<ul style="list-style-type: none"> • Safety 	-	9%	16%	56%
GIS/IT/RS and mapping	<ul style="list-style-type: none"> • Mapping and GIS 	9%	34%	40%	60%
PAs management / Parks and case studies worldwide		4%	35%	21%	-
Public awareness / education	<ul style="list-style-type: none"> • Environmental Education and SDE • Communication skills 	43%	22%	9%	60%
Driving	<ul style="list-style-type: none"> • Specific technical skills 	-	11%	-	40%
Patrolling	<ul style="list-style-type: none"> • Law enforcement and patrolling 	60%	-	4%	44%
Relational skills	<ul style="list-style-type: none"> • Communication skills • Interpretation • Social policies, community involvement and conflict resolution 	-	33%	12%	60%
Statistics	<ul style="list-style-type: none"> • Environmental quality monitoring • On field procedures and techniques • BD monitoring and management 	13% (databases for biodiversity recording)	12%	25%	63%
Laws	<ul style="list-style-type: none"> • Law enforcement and patrolling 	60%	7%	9%	44%
Administration / Financial / Legal	<ul style="list-style-type: none"> • Administration in P As 	8%	5%	3%	49%
Other foreign languages		-	-	15%	-
Reporting skills	<ul style="list-style-type: none"> • Communication skills 	33%	-	19%	60%
Global conventions / strategies	<ul style="list-style-type: none"> • International and national conservation strategies and P As policies 	-	-	9%	68%
Scientific knowledge and activities	<ul style="list-style-type: none"> • Environmental quality monitoring • BD monitoring and management • On field procedures and techniques 	20%	25%	30%	63%

Planning / SD planning	<ul style="list-style-type: none"> • Mapping and GIS • Interpretation • Sustainable tourism, marketing in P As and other SD issues 	9%	-	9%	60%
Social policies	<ul style="list-style-type: none"> • Social policies, community involvement and conflict resolution 	-	-	3%	35%
EE and interpretation	<ul style="list-style-type: none"> • EE and SD education • Interpretation 	19%	22%	4%	60%
EIA	<ul style="list-style-type: none"> • Environmental quality monitoring • BD monitoring and management • Nat. heritage and env. features monitoring 	-	11%	4%	63%
Tourism management, ecotourism	<ul style="list-style-type: none"> • Interpretation • Sustainable tourism, marketing in P As and other SD issues 	19%	-	7%	45%
Training		15%	-	1%	-

As formerly pointed out, the rangers’ (or “environmental researchers”) profile is that of a very versatile professional who applies his specific knowledge and skills to the many different tasks requested by the work in a Protected Area. The most significant results of the matching tables for this category are:

- Biodiversity and natural resources monitoring and management is mentioned by most of the staff both as a duty/responsibility (65%) and as a knowledge/skill (60%). Only 33% of staff somehow attended training courses about some specific matter while **74% think it is a priority training topic (highest score for this section)** as well as a training need. Since the rangers’ profile is the most involved in daily “on field” activities concerning nature and BD conservation it may be suggested to give priority to relevant training courses within the general training plan.
- Communication skills are quite important for the group of rangers, also because these professionals are “the public face” of Egyptian PAs system and are expected to communicate and interact with the public in an effective way. **60% of them mentioned communication as a training need but only 25% as a relevant knowledge/skill.** This topic is cross-cutting and partly overlaps with others like Public awareness/education (practised in everyday life by 43% of rangers) and Reporting skills (both topics are perceived as training needs by 60% of the group). Some kind of specific and practical training activity based on fundamentals and principles of effective communication could be very useful.

- Rangers are somehow involved in their everyday work with Law enforcement and patrolling (mentioned by 60% as a duty/responsibility). Very few consider this topic as needed for their job (patrolling is mentioned by 4% and law enforcement by 9% in the knowledge/skills section) and it is perceived as a training need by 44% of the group. The task is included in the list of duties that rangers should be able to perform but it is likely that they don't consider it as a priority.
- Statistics (or biostatistics) is practised by 13% of rangers (*databases for biodiversity recording*) and is connected to “Environmental quality monitoring” (mentioned by 63% as a training need) as well as to “Biodiversity monitoring and management”. Many rangers are attending or have just attended university postgraduate courses (pre-master or master), mainly in environmental sciences, and several others (about at least 20%) are involved in Scientific research, or in EIA (11%). So it is likely that the ability of collecting, organizing, analyzing and interpreting environmental data is perceived as a need, particularly if compared with a general technical background that is mainly theoretical (formal education) or built only through “on field” job. After further investigation and deepening, some *ad hoc* training courses should be developed.
- Mapping, GIS, IT and their applications are other important matters connected with rangers' work on the territory. 34% of staff somehow already attended relevant training activities, 40% mention these items as knowledge/skills useful for their job and 60% perceive them as a training need.
- 19% of rangers indicated Environmental Education and Interpretation as well as Tourism management/ecotourism as duties/responsibilities carried out within their occupation. The former is a training need for 60% (with 22% of people that already attended some kind of relevant training course) while the latter for 45%. Since rangers are the “public face” of PAs, their capacity to deal in an effective way with various kinds of audiences, as well as to carry out education and interpretation activities, is of strategic importance and, at least, some training courses aimed at gaining basic skills should be developed. These specific knowledge and skills are also partly connected with cross-cutting themes like the knowledge of English language (perceived as needed by 27% of rangers) and of Other foreign languages (15%).
- As regards to Training of other staff, it must be pointed out that 15% of rangers (11 people) mentioned it as a duty/responsibility, but only 1% (1 person) already participated to some kind of specific training. This fact should be taken into account within the training plan in order to provide some adequate “training of trainers” course for these professionals that,

maybe, in the future may work in connection with the staff of the Sharm El Sheikh Nature Conservation and Management Centre.

Administrative staff & lawyers n. 36

Table 28

Skills/Tasks	Related training topics/needs (amongst the main 10 listed in the questionnaire)	a. duties and/or responsibilities	b. former training	c. knowledge and/or skills	d. topics/training needs
Computer	• Computer skills	3%	50%	61%	75%
Specific technical skills	• Specific technical skills	8%	22%	8%	25% %
Biodiversity/natural resources monitoring and management	• Biodiversity monitoring and management • Environmental quality monitoring • Natural heritage and environmental features monitoring • On field procedures and techniques	-	-	6%	3%
English		-	28%	36%	-
Communication	• Communication skills	-	6%	31%	58%
Safety, first aid	• Safety	-	6%	-	33%
GIS/IT/RS and mapping	• Mapping and GIS	-	-	6%	6%
PAs management / Parks and case studies worldwide		-	6%	6%	-
Public awareness / education	• Environmental Education and SDE • Communication skills	11%	6%	8%	33%
Relational skills	• Communication skills • Interpretation • Social policies, community involvement and conflict resolution	-	6%	28% %	58%
Laws	• Law enforcement and patrolling	28% <i>88% of lawyers and legal affairs</i>	8% <i>38% of lawyers and legal affairs</i>	28% <i>75% of lawyers and legal affairs</i>	28% <i>75% of lawyers and legal affairs</i>
Administration / Financial / Legal	• Administration in P As	36% <i>88% of account. and admin.</i>	14% <i>24% of account. and admin.</i>	33% <i>71% of account. and admin.</i>	28% <i>35% of account. and admin.</i>
Other foreign languages		-	-	17%	-
Global conventions / strategies	• International and national conservation strategies and P As policies	-	-	6%	31%
Office procedures	• Administration in P As	33%	11%	19%	28% <i>35% of account. and admin.</i>
Commercial	• Sustainable tourism, marketing in P As and other SD issues	17%	-	14%	17%
Natural resources economics		-	-	8%	-
Employment related knowledge and activities	• Administration in P As	17%	6%	8%	28% <i>35% of</i>

					<i>account. and admin.</i>
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The “administrative staff” is a big and heterogeneous group of employees, mainly dedicated to “office work” and administrative duties, that comprises profiles of: accountants, clericals (secretaries), administration staff and lawyers (or other employees involved in legal affairs). In the analysis they have been put together because many of their tasks and duties are quite similar, even though some differences may occur for the lawyers/legal affairs profile. This broad category shows good levels of formal education, training experiences (mainly in computer and English language fields) and former working experiences.

The most significant results of the matching tables for the category are:

- Computer skills are perceived as the most important for the whole group. They have been mentioned by 75% of people as a training need and by 61% as a needed knowledge/skill to perform job at good levels; 50% of the employees have already had relevant training. In general computer knowledge is one of the most important competencies related to office work but, apart from a basic knowledge for everybody, when designing training some specific (“advanced”) courses related to specific programs targeted to the various profiles should be foreseen (e. g. word processing, spreadsheets, databases, etc.).
- With 58% for both Communication skills and Relational skills, these topics obtained the second score in terms of training needs for the whole group. 31% of people for the former and 28% for the latter think that these are important knowledge/skills needed for performing the job but only 6% somehow already attended some specific training.
- Law enforcement and in general knowledge of laws is of course very important for the lawyer/legal affairs sub-group. It is part of everyday work for 88% of them and 75% mentioned it both as a training need and as a knowledge/skill.
- Items related to Administrative, financial and legal matters are a duty/responsibility for 88% of the sub-group made of accountants and administratives, and a knowledge/skill needed for the job for 71% of them, even though only 35% mentioned “Administration in PAs” as a training topic (maybe because too generic).
- Finally other possible, but not priority, fields for training could be Office procedures, Commercial and Employment related knowledge and activities. It must be put into evidence that even though “reporting activities” is one of the tasks carried out by administrative staff, no mention for “reporting skills” was recorded in the knowledge/skills section of the questionnaire.

Guards n. 43

Table 29

Skills/Tasks	Related training topics/needs (amongst the main 10 listed in the questionnaire)	<i>a. duties and/or responsibilities</i>	<i>b. former training</i>	<i>c. knowledge and/or skills</i>	<i>d. topics/training needs</i>
Computer	• Computer skills	-	-	56%	60%
Specific technical skills	• Specific technical skills	14%	21%	91%	88%
Biodiversity/natural resources monitoring and management	• Biodiversity monitoring and management • Environmental quality monitoring • Natural heritage and environmental features monitoring • On field procedures and techniques	2%	-	5%	47%
English		-	21%	5%	-
Communication	• Communication skills	-	-	5%	51%
Safety/First aid	• Safety	2%	35%	65%	60%
Knowledge of own P A		-	-	70%	-
PAs management / Parks and case studies worldwide		-	2%	51%	-
Public awareness / education	• Environmental Education and SDE • Communication skills	51%	-	56%	53%
Driving	• Specific technical skills	-	2%	12%	88%
Patrolling	• Law enforcement and patrolling	63%	-	49%	53%
Reading and writing		-	-	16%	-
Scientific knowledge and activities	• Environmental quality monitoring • BD monitoring and management • On field procedures and techniques	-	2%	5%	19%
EE and interpretation	• EE and SD education • Interpretation	5%	-	-	53%
Tourism management, ecotourism	• Interpretation • Sustainable tourism, marketing in PAs and other SD issues	5%	-	-	23%

As formerly pointed out, results of questionnaire processing for the group of guards are strongly influenced by the fact that almost 50% of them (the 21 community guards of St. Katherine) gave more or less the same answers in all the sections of the questionnaire.

The most significant results of the matching tables for this category are:

- Computer skills are perceived as useful for job by 56% of staff (knowledge/skills section), and as a training need/topic by 60%. Probably for guards this is related to a basic knowledge of the use of word processing programs in order to prepare adequate and regular reports on their activities.

- The voice Specific technical skills (including, for example, very specific activities such as driving, fire fighting, survival techniques, etc.) obtained the highest scores both in the knowledge/skills section (91%) and in the topics/training needs section (88%). This voice may be partly connected or overlapped to the Safety/First aid topic, that respectively obtained 65% and 60% in the former sections. So it seems that this category expresses a strong demand for some practical and targeted training activities.
- The many requests for Knowledge about PAs and PAs management and Knowledge of own PA (respectively 51% and 70% in the knowledge/skills section) show that community guards are willing to improve their cultural background as regards to the knowledge of PAs context. Some basic relevant cross-cutting courses should be designed and developed.
- More than 50% of guards are involved in Public awareness/education and are willing to improve their skills in order to reach adequate job performances when promoting conservation in local communities or when guiding and assisting visitors. Connected topics, even if less mentioned, may be EE and Interpretation and Tourism management / Ecotourism. No former training has ever been achieved in all of these fields.
- Finally, Patrolling is the topic that obtained the highest score (63%) in the duties/responsibilities section (49% in the knowledge/skills section and 53% in the training needs section). Some kind of basic updating about laws and patrolling techniques for community guards should be foreseen and included as a priority in the training plan.

Drivers n. 13

Table 30

Skills/Tasks	Related training topics/needs (amongst the main 10 listed in the questionnaire)	a. duties and/or responsibilities	b. former training	c. knowledge and/or skills	d. topics/training needs
Specific technical skills	• Specific technical skills	92%	15%	54%	38%
English		-	8%	15%	-
Safety/First aid	• Safety	-	8%	15%	8%
Knowledge of own PA		-	-	8%	-
Driving	• Specific technical skills	92%	15%	77%	38%
Reading and writing		-	-	31%	-

5.4. STAGE V-GUIDELINES FOR TRAINING PLAN

For what it concerns the *training strategy approach*, it must be recalled that, in the light of global issues and future conservation challenges, should be considered as a starting point for all decisions aimed at enhancing the Egyptian PAs system and the level of management the international framework concerning PAs mission and role, and the related recommendations developed in world events.

As a matter of facts, high qualified and trained staff is recognized as key factor for promoting PAs effective management, but the overall strategy for PAs implementation at national level, should be strengthened accordingly, so to face and possibly to **remove not-training related weaknesses** which TNA has highlighted, i.e. the number of employees with a temporary contract, the current organizational problems and others.

However, TNA has also identified **several strengths**, facilitating future investments in human resources, like for example, the relative young age of staff (in most of PAs average age is between 30 and 40) and the level of formal education that is quite high, particularly among managers, rangers, accountants, lawyers (almost all with an academic degree).

Training needs, as they come out from the survey and data assessment, the proposed program -seen as an important part of a wider intervention- is based on the matching of staff requests with the evaluation and experience of international consultants, which has brought to share a common “vision” of the role of PAs within international strategies and policies for nature conservation and sustainable development, and of the needs for their effective development.

More in detail, **the training plan should schedule a top priority, and two mainstreams of actions (each grouping two categories of courses):**

- **Top priority is considered a training course the implementation of which is a pre-requisite for putting in practice any further action suggested by the TNA and for carrying out the training plan.**
- **The two mainstreams include, respectively, a group of courses dealing with “cross cutting themes”: i.e. courses aiming at giving a common knowledge and capacities background to all the NCS personnel, and courses dedicated to improve the skills requested by a specific job or rank or position in the NCS functional and hierarchic structure.**

1) Top priority action

⇒ “Training for trainers” course (for a selected training unit and training team).

It is an action that, according to the assessment of the Training Centre in Sharm el Sheik (as presented in Chapter 6 “NCS Nature Conservation and Management Centre – SWOT analysis and proposals”), and to the need of implementing a training program for NCS staff, **must be considered a NCS priority.**

As explained in detail in Chapter 6, the course is aimed at improving and reinforcing training and operational skills needed for developing NCS training strategies and running training courses, dedicated to NCS staff but also to other Egyptian Agencies and to International institutions. The action will also increase the visibility of the Centre at regional (WESCAN) and international level and will help the development of educational and training initiatives to be marketed in order to be helpful to self-financing the NCMC running expenses.

2) Training activities for all NCS staff (cultural and technical cross-cutting themes)

- ⇒ Speaking a common language: Protected Areas and the global conservation challenges
- ⇒ Basic communication and public awareness promotion skills
- ⇒ Basic computer skills
- ⇒ Environmental legislation, law enforcement
- ⇒ Reporting skills
- ⇒ Basic knowledge of English language

3) Ranks, positions and job targeted training proposals

PA Managers and other NCS top ranks personnel:

- ⇒ Team building activities
- ⇒ Human resources management
- ⇒ PAs planning and management
- ⇒ PAs management and sustainable development planning

Managers and Rangers (grouped according to TNA results and to duties and responsibilities declared):

- ⇒ Biodiversity conservation principles and techniques
- ⇒ Communication, Public Awareness and Environmental Education: principles and techniques
- ⇒ Environmental Education and Sustainable Development issues
- ⇒ English for environmentalists

Rangers:

- ⇒ Biodiversity monitoring and management
- ⇒ GIS, IT and practical applications
- ⇒ Safety and other specific technical skills
- ⇒ Basic skills of environmental interpretation
- ⇒ Advanced computer skills

Administrative personnel (accountant, clerical, administrative, legal affairs staff, grouped according to TNA results and to duties and responsibilities declared)

- ⇒ Advanced computer skills

Community guards

- ⇒ Safety and other accident prevention, first aid. Visitors assistance
- ⇒ Patrolling and technical skills

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In the following paragraphs (5.4.1 and 5.4.2) are presented the guidelines for the development of the training proposals considered fundamental for all NCS staff and the proposals for specific target groups/job profiles within NCS.

For each proposal the general aims and main educational objectives are described, together with the modules and/or topics, which should be part of the training programme. Indications about the kind of training and the training method are also presented.

For a better understanding of overall presentation of training proposals it must be clarified that at this phase of the work, the course aims and training objectives have been grouped, but they must be separated and more specific objectives selected when the courses, modules and lessons, will be planned in detail.

It must also be added that most of the staff has requested study tours abroad as a kind of training, but such activities should be finalized for responding to specific management needs, (i.e. to experience case studies of excellence) and should be considered further on.

NOTE: it is assumed that the proposed training courses should be carried out at the Nature Conservation and Management Centre, not only to strengthen the relationship among the trainees coming from different Protected Areas and to facilitate desirable exchanges and contacts between the PAs, but also to reinforce the role of the Centre within the Egyptians PAs system.

Some of the courses, however, may be carried out in other locations, both in Egypt and in foreign countries, to reach the objectives of starting relationship and cooperation programs and to give, to the participants, a view of what is going on in other places or PAs, enriching their vision and experience. This opportunity may be pursued if funds are made available also by other project or Organizations working in Egypt, or somehow cooperating with NCS and EEAA.

5.4.1 Training activities for all NCS staff (cultural and technical cross-cutting themes)
(listed by proposed priority, according to TNA results and declared expectations)

Priority 1

Subject	Aims/Objectives	Target groups	Kind of training and suggested duration
Speaking a common language: Protected Areas and the global conservation challenges	<p>To create a common cultural background within NCS staff about PAs and conservation issues</p> <p>To share a common vision about PAs mission and functions</p> <p>To know the main features and values of Egyptian PAs</p> <p>To discuss the role and functions of NCS staff</p> <p>To strengthen the “sense of belonging” of participants to the park system and to enhance motivation to work</p>	All NCS staff, included CO officers	<p>Intensive, developed in 2 weeks (10 days full time) or in two courses of 5 days.</p> <p>Field trip, classroom exercises, case studies, as well as a final project work should be planned to actively involve the audience in each training module</p> <p>International experts and testimonials (i.e. representatives from IUCN and from WCPA*) could be invited to participate; the outcomes of Durban World Park Congress should be presented and discussed as key contents</p>
Suggested modules/topics and guidelines	<ul style="list-style-type: none"> • Introductory activity for starting group dynamics: the perception of participants about conservation issues. • International strategies and policies for environmental protection and biodiversity conservation: main events, organizations, recommendations and agreements. • The glossary of conservation: understanding principles and concepts. • The Convention on Biological Diversity and the PAs: general overview, objectives, contents, implementation. • PAs as a tool for environmental conservation: sharing a common history and vision. • Evolution of PAs concept, the categories, the new challenges. • The Egyptian system of Protectorates and Parks: legislation, policies, ecological and biological values, functional organization, potentialities and weaknesses; the role of staff. 		

* IUCN-World Commission on Protected Areas

Priority 2

Subject	Aims/Objectives	Target groups	Kind of training and suggested duration
Basic communication and public awareness promotion skills	<p>To know the fundamentals of communication</p> <p>To understand the dynamics of communication within a group</p> <p>To be able to apply the principles and basic techniques of effective communication</p> <p>To know and be able to put in practice the main principles, steps, and tools for environmental awareness strategy and related actions development</p>	All NCS staff	<p>Intensive, 3-5 days full time</p> <p>Project work: guidelines for developing CEPA actions at local level.</p> <p>IUCN-CEC experts should be involved</p>
Suggested modules/topics	<ul style="list-style-type: none"> • Communication: theory and practice. • The process of perception and the principles of communication; levels and limits of communication; how to improve communication effectiveness. • Communication and group dynamics. Role play and other exercises. • Implementing environmental CEPA (communication, education and public awareness) strategy: principles and methods. 		

Priority 3

Subject	Aims/Objectives	Target groups	Kind of training and suggested duration
Basic computer skills	<p>To spread basic computer literacy and know-how within NCS personnel</p> <p>To give everybody opportunity to handle and practice elementary knowledge and skills about the most common computer programs</p> <p>To introduce benefits and opportunities connected with the Web environment and the use of email</p>	All NCS staff, according to specific needs	<p>Extensive, developed in 2 or 3 months and divided in short modules of 2-3 hours for a total of 4-6 hours per week</p> <p>Computer classroom, software licences and broad band Internet connection needed</p>
Suggested modules/topics (ICDL –International Computer Driving License- standards, simplified)	<ul style="list-style-type: none"> • Concepts of Information Technology (main components of a PC, peripheral units, software and hardware, applications, etc.). • Using the computer and managing files (operating system, tools, virus protection, file and folder management). • Basic “Office” application. • Word processing (creating and formatting documents, use of cut and paste, copy and moving, generating tables). • Spreadsheets (“Excel”). • Databases (“Access”). • Presentations (“Power Point”). • Information and communication (ability to use the World Wide Web, basic concepts of the Internet, search engine tools, ability to use email, etc.). 		

Priority 4

Subject	Aims/Objectives	Target groups	Kind of training and suggested duration
Environmental legislation, law enforcement	<p>To reinforce the knowledge about Egyptian legislation on public administration</p> <p>To improve and update the knowledge of national and international environmental legislation</p>	All NCS staff	<p>Extensive, divided in modules of 2-3 days</p> <p>Each module will be dedicated to the study of specific environmental regulations and will be attended by staff involved in the related fields</p> <p>Integration of theory and practice, case studies evaluation must be part of each module</p>
Suggested modules/topics	<ul style="list-style-type: none"> • Egyptian national environmental legislation, general and sectorial. • International legislation, conventions, obligations. • Public administration regulations and procedures. • Violations, regulations, procedures for law enforcement. 		

Priority 5

Subject	Aims/Objectives	Target groups	Kind of training and suggested duration
Reporting skills	<p>To ensure effectiveness to all the reporting activities within the Egyptian PAs system</p> <p>To know the fundamentals of communication</p> <p>To understand the main differences between oral and written communication</p> <p>To be able to write a clear and complete report according to NCS standards and forms</p> <p>To be able to get ready documents, projects etc according to requested formats</p>	All NCS staff (except managers), according to specific needs	<p>Intensive, developed in 3-5 days</p> <p>Exercises and simulations</p>
Suggested modules/topics	<ul style="list-style-type: none"> • Fundamentals of communication: theory and practice. • Main principles of written communication. • Writing and reading: how to develop synthesizing and describing abilities. • Reporting skills. • Kinds of reports and NCS system standards and forms. 		

Priority 6

Subject	Aims/Objectives	Target groups	Kind of training and suggested duration
Basic knowledge of English language	To spread or enhance knowledge of English language within NCS personnel To make sure that all NCS staff may reach at least the A2 level of knowledge (according to the levels described by the Council of Europe - “Common European Framework” for English language learning, teaching, assessment) To give everybody opportunity to communicate (speak, write, listen, read) in the most widespread and known language around the world	All NCS staff, according to specific needs	Extensive, developed in 4-6 months and divided in short modules of 2-3 hours for a total of 4-6 hours per week Audiovisual equipments needed
Suggested modules/topics	<ul style="list-style-type: none">• Introduction and main concepts.• Verbs, nouns, adjectives, articles.• Vocabulary and sentences.• Speaking (overall oral production, overall spoken interaction).• Listening (overall listening comprehension).• Reading (reading for information and argument, processing text).• Writing (overall written interaction, correspondence, creative writing).		

5.4.2. Ranks, positions and job targeted training proposals

(listed by proposed priority, according to TNA results and declared expectations)

A) PA Managers and other NCS top ranks personnel

Priority 1

Subject	Aims	Target groups	Kind of training and suggested duration
Team building activities	To build and strengthen relationships and to facilitate communication between the participants To improve relational skills of participants To promote networking and collaborative approach of participants in their work	PAs managers and other top ranks personnel at central and regional level	Intensive, developed in 2-3 days Training method must be based on participatory approach and sessions must be led by qualified facilitator(s) Simulations and project works for planning networking initiatives
Suggested modules/topics and guidelines	<ul style="list-style-type: none"> • Ice-breaking and team building introductory activities. • Group activities aimed at sharing problems and role of management staff and to identify possible improvements (i.e. how to improve networking and communication within the system, and/or other outputs) • Participatory planning principles • Networking and exchanging experiences • Protected Areas Learning Network 		

Priority 2

Subject	Aims/Objectives	Target groups	Kind of training and suggested duration
Human resources management	To improve human resources management skills To understand the role and importance of staff coordination, motivation and training in PAs management To enhance participants ability to organize work in team and to solve problems To promote the quality of leadership and related competencies of participants To improve the performances evaluation capacities	PAs managers and all other NCS personnel with coordination responsibilities	Intensive, developed in 3-5 days Training method must be based on participatory approach Short traditional training sessions (lectures) must be followed by individual and group exercises, i.e. role play and others Attending the course “Basic communication skills” is highly recommended before the HRM training
Suggested modules/topics and guidelines	<ul style="list-style-type: none"> • Human resources as “key” factor of effective PAs management. • Fundamentals of communication. • Group dynamics and the role of leader. • Leadership and facilitation (directive and participative approach). • Promoting group work; group conflicts and how to face them. • Conflicts resolutions, problem solving, evaluation of staff performances 		

Priority 3

Subject	Aims/Objectives	Target groups	Kind of training and suggested duration
P As planning and management	<p>To spread or enhance knowledge of principles and techniques of PAs planning, including planning for specific issues</p> <p>To update managers' knowledge and background about planning and management</p> <p>To ensure an effective management to Egyptian PAs according to the main international conventions and strategies for biodiversity and landscape diversity conservation (e. g. Durban Action Plan)</p>	<p>PAs managers and other NCS top ranks personnel at central and regional level</p>	<p>Intensive, developed in 2 weeks (full time), in sequence</p> <p>Case studies evaluation must be important method of training</p> <p>Project work aimed at putting into practice the "lesson learnt" must be part of the final module</p>
Suggested modules/topics	<ul style="list-style-type: none"> • Egyptian legal framework concerning planning and management in PAs. • NCS standards and recommendations. • Physical and landscape planning. • Financial planning. • Action Plan and Management Plan. • Principles of strategic planning. • Planning for objectives. • PAs management. 		

Priority 4

Subject	Aims/Objectives	Target groups	Kind of training and suggested duration
PAs management and sustainable development planning	<p>To update managers' knowledge and background, about Protected Areas management and the connections with the local sustainable development issues</p> <p>To improve managers' capacities to promote stakeholders involvement for participatory sustainable development planning and co-management</p>	<p>P A managers and other NCS top ranks personnel at central and regional level</p>	<p>Intensive, developed in 1 week (full time)</p> <p>Case studies and best practices evaluation as part of training</p> <p>Final project work aimed at identifying guidelines for designing local development plans</p>
Suggested modules/topics	<ul style="list-style-type: none"> • Development and Sustainability: definitions, concepts, indicators. • Sustainable development planning (main actors and stakeholders). • Stakeholders involvement and participatory planning. • Strategic planning principles. • Local Agenda XXI implementation. • Role of PAs in economic development. • Tools and opportunities for local stakeholders. • Participatory management principles. 		

B) Managers and Rangers (grouped according to TNA results and to duties and responsibilities declared).

Priority 1

Subject	Aims/Objectives	Target groups	Kind of training and suggested duration
Biodiversity conservation principles and techniques	<p>To create a common cultural background about Biodiversity conservation issues and actions undertaken at international and national level (CBD etc...)</p> <p>To know the definition and “state of art” of biodiversity at genetic, species, ecosystem level in Egypt, in comparison with global trends</p> <p>To have an overview of main monitoring and management techniques for plant and animal biodiversity in terrestrial and marine habitats</p> <p>To understand the role of environmental communication and education for successful biodiversity conservation</p> <p>To be able to set up guidelines for biodiversity conservation strategies and actions</p>	PAs managers and rangers, CO employees with specific role in the matter	<p>Intensive course developed in two weeks, in sequence.</p> <p>Final project work: -planning the main steps of a Biodiversity Conservation Strategy at local level -planning the main steps for CEPA activities on biodiversity</p>
Suggested modules/topics and guidelines	<ul style="list-style-type: none"> • Opening session aimed at sharing views and perceptions of participants about the concept of biodiversity. • Biodiversity: definitions, values, treats and conservation issues. • The CBD and other international agreements as legal framework for action. • Visit(s) to area(s) significant for existing problems and/or actions undertaken for biodiversity conservation. • Conservation biology principles. • Biodiversity monitoring and management principles; analysis of case studies; classroom and field activities. • The role of communication, information and public awareness strategies for biodiversity conservation. 		

Priority 2

Subject	Aims/Objectives	Target groups	Kind of training and suggested duration
Communication, Public Awareness and Environmental Education: principles and techniques	<p>To be able to apply the principles and basic techniques of effective communication for different objectives and target groups</p> <p>To be able to deal in an effective way with local communities stakeholders</p> <p>To create a common cultural background about EE</p> <p>To know and be able to put in practice the main principles, steps, and tools for awareness strategy and related actions development</p>	PAs managers and rangers	<p>Intensive, 5 days full time</p> <p>Project work: -guidelines for developing CEPA actions at local level.</p>
Suggested modules/topics	<ul style="list-style-type: none"> • How to improve communication effectiveness. • Communication and group dynamics. Role play and other exercises. • How to face and manage conflicts (fundamentals and techniques). • Working with local communities: opportunities and communication strategies. • Towards a common vision of Environmental Education: brief history of the discipline; EE and Education for Sustainable Development • The role of EE in PAs development; international and national case studies • Implementing environmental CEPA (communication, education and public awareness) strategy: principles and methods. 		

Priority 3

Subject	Aims/Objectives	Target groups	Kind of training and suggested duration
Environmental Education and Sustainable Development issues	<p>To create a common cultural background about EE and SD principles and issues</p> <p>To focus on the relationships existing between Education and Sustainability, and to understand the role of EE in PAs management</p> <p>To be able to apply the main principles and methods of EE and ESD design and development</p>	PAs managers and rangers, CO employees with specific role in the matter	<p>Intensive, 1 week (full time)</p> <p>Project work: -guidelines for an EE project in an Egyptian PA --guidelines for a “junior ranger” program for Egyptian PAs</p> <p>IUCN CEC experts should be involved</p>
Suggested modules/topics and guidelines	<ul style="list-style-type: none"> • Ice-breaking exercise aimed at introducing the subject matter of the course. • Development and Sustainability: definition and concepts. • Towards a common vision of Environmental Education: brief history of the discipline; EE and Education for Sustainable Development. • Fundamentals of EE planning and evaluation. • “Think globally, act locally”: from international strategies to national and local policies for Sustainability and CEPA implementation. • The role of EE in PAs development; case studies analysis. 		

Priority 4

Subject	Aims/Objectives	Target groups	Kind of training and suggested duration
English for environmentalists	To improve and reinforce English language skills in particular concerning the correct use of technical terms and environmental vocabulary To improve reporting capacities in English	PAs managers and rangers	Intensive, 1 week (full time) Provided by an experienced specialised training unit from NEETCE (Network of European Environmental Training Centre of Excellence) Before course start, training unit will be engaged in assessing the level of language knowledge of participants
Suggested modules/topics and guidelines	<ul style="list-style-type: none">• Training modules will be decided according to individual language knowledge, which will be previously assessed by the specialized training unit		

C) Rangers

Priority 1

Subject	Aims/Objectives	Target groups	Kind of training and suggested duration
Biodiversity monitoring and management	To be able to carry out biodiversity surveys and monitoring activities based on participants' qualification and role in PAs biodiversity management	PAs rangers	Several technical modules (3-5 days) held in different locations suitable for the monitoring techniques to be learnt Availability of necessary instruments and tools Project work: biodiversity mapping and/or species catalogues and data registration
Suggested modules/topics and guidelines	<ul style="list-style-type: none">• Presentation of scientific principles and methods for the monitoring and management of specific "groups" of plants and animals in different habitats.• Training on-field about related techniques (species identification, conducting surveys and inventories, dealing with particular species, trapping techniques, radio-tracking, etc...).• I.T. applied to biodiversity monitoring and management.		

Priority 2

Subject	Aims/Objectives	Target groups	Kind of training and suggested duration
GIS, IT and practical applications	<p>To spread specialised GIS knowledge and know-how within the category of rangers, in order to facilitate their everyday work on the territory</p> <p>To foster the versatile use of GIS technology for all the mapping-related matters in Egyptian PAs system</p> <p>To give rangers and other personnel involved in patrolling a further instrument to investigate the territory</p> <p>To enhance the development of scientific papers and thematic maps</p>	Rangers (environmental researchers)	<p>Extensive, developed in 6 months and divided in short modules of 3 hours per week</p> <p>Possibility of some kind of “on the job” follow up</p> <p>All the technical equipment must be available</p>
Suggested modules/topics	<ul style="list-style-type: none"> • Fundamentals of GIS software, raster and vectorial data, database, queries. • Projects. File management (shapefiles). • Mapping. Basic and thematic maps. Projections. • Raster and vectorial mapping. • Database design. Fields creation. Kinds of data. • Printing of maps. • Application of achieved capacities to realistic case studies. • Use of GPS and connected opportunities. Transfer of data in a GIS environment. 		

Priority 3

Subject	Aims/Objectives	Target groups	Kind of training and suggested duration
Safety and other specific technical skills	<p>To promote the prevention of accidents and emergency situations in PAs, by the implementation of “safety oriented” procedures and behaviours</p> <p>To know and be able to apply first aids techniques</p> <p>To be able to lead rescue operations</p> <p>To be able to use most important tools and instruments necessary in prevention, search and rescue activities</p>	Rangers	<p>1 week of intensive training</p> <p>Very practical experiences to be done outdoor with the use of specific equipments</p>
Suggested modules/topics and guidelines	<ul style="list-style-type: none"> • Preventing accidents and emergencies: the role of staff. • First aids and emergency operations. • Injured people rescue. • Planning, organizing and coordinating rescue activities (use of radios and satellite equipments, etc...). 		
Other specific technical skills	<p>Other technical skills such as: fire fighting, off roads driving, survival techniques etc. could be the subject of specific modules, once assessed their feasibility based on the number of parks and staff with the specific need.</p>		<p>Very practical training to be done outdoor with the use of specific equipments</p>

Priority 4 (see note at the end of the chapter)

Subject	Aims/Objectives	Target groups	Kind of training and suggested duration
Basic skills of environmental interpretation	<p>To know the history, aims and principles of EI</p> <p>To be able to apply basic techniques for informing visitors and communicating in a creative and effective way the values of parks and the needs of conservation</p> <p>To know the several media of EI and their role in PA management</p> <p>To understand the main principles of nature trails planning and design</p> <p>To be able to design a guided visit targeted to different audiences</p>	Rangers and other staff dealing with visitors or schools	<p>1 week (5/6 days) full time, many outdoor training sessions</p> <p>Project work aimed at preparing an interpretive trail or a guided visitor interpretive leaflets</p> <p>Attendance to the course “Basic communication skills” should be a pre-requisite for taking this course</p>
Suggested modules/topics and guidelines	<ul style="list-style-type: none"> • Ice-breaking activity and presentation of participants. • Fundamentals of interpretation: history, evolution, aims, role. • Role of interpretation for park and visitor management. • Recall of basic principles of communication and groups dynamics. • The “key words” of interpretation: theory and practice. • Designing and conducting interpretive sessions: principles and techniques. • Project work: selecting the area, objectives, themes, tools for planning an interpretive guided visit. 		

Priority 5

Subject	Aims	Target groups	Kind of training and suggested duration
Advanced computer skills	<p>To provide advanced training to fulfil specific needs for carrying out different duties</p> <p>To provide advanced training for using special equipments and software programs, needed for implementing IT in biodiversity monitoring, or environmental quality monitoring, natural resources management etc...</p>	Rangers	<p>Theory and practice, computer classrooms and technical equipment needed for practicing</p> <p>Duration depending on capacities to be developed</p>
Suggested modules/topics and guidelines	<ul style="list-style-type: none"> • Topics and modules to be further indicated, after in depth assessment aimed at identifying more specific requests. 		

D) Administrative personnel (accountant, clerical, administrative, legal affairs staff)

Priority 1

Subject	Aims	Target groups	Kind of training and suggested duration
Advanced computer skills	To provide advanced training to fulfil specific needs for carrying out office work, according to administrative personnel different tasks	Administrative personnel	Theory and practice, computer classrooms, software and technical equipment needed for practicing Duration depending on capacities to be developed
Suggested modules/topics and guidelines	<ul style="list-style-type: none">• Filing, accounting, data bases design and implementation, etc...•• Topics and modules to be further indicated, after an in depth assessment, aimed at identifying more specific requests.		

E) Community Guards

Priority 1

Subject	Aims/objectives	Target groups	Kind of training and suggested duration
Safety and accident prevention, first aid. Visitors assistance	<p>To promote the prevention of accidents and emergency situations in PAs, by the implementation of “safety oriented” procedures and behaviours</p> <p>To increase the possibilities to respond to emergencies in PAs, improving first aid and search and rescue skills</p> <p>To improve information and orientation services for visitors.</p>	Guards	<p>Extensive, in modules of 2-3 days for each topic, or 1 week of intensive training</p> <p>Very practical experiences and simulations, to be done outdoor with the use of specific equipments</p>
Suggested modules/topics and guidelines	<ul style="list-style-type: none"> • Preventing accidents and emergencies: the role of staff. • First aids and emergency operations. • Cooperation to search and rescue operations. • Basic use of technical equipments (radio,GPS etc...) • Principles and methods of communications with visitors. 		

Priority 2

Subject	Aims/objectives	Target groups	Kind of training and suggested duration
Patrolling and technical skills	<p>To improve environmental patrolling effectiveness in PAs for preventing violations, accidents, emergencies</p> <p>To improve the reporting skills of guards and to integrate patrolling with other environmental monitoring activities in PAs territories</p>	Guards	<p>2-3 days of intensive training for each module</p> <p>Very practical training to be carried out outdoor with the use of specific equipments</p>
Suggested modules/topics and guidelines	<ul style="list-style-type: none"> • Environmental violations : what, where, how, who • How to interpret, detect and how to prevent violations • Basic monitoring techniques and reporting skills • <i>Other technical modules (fire fighting, off roads driving ,rock climbing, survival techniques etc.) to be decided according to specific requests of Protected Areas and to duties/tasks assigned to Guards</i> 		

NOTE: Environmental interpretation was not perceived as an important activity for Rangers or other staff. Nevertheless, it is considered here a training course to carry out if NCS management policies shift to assure more attention towards educational and visitors services, as desirable and as implemented in all PAs systems.



EGYPTIAN ITALIAN ENVIRONMENTAL COOPERATION PROGRAM -PHASE II

**Nature Conservation Sector Capacity Building
and Institutional Support Project**

Training Needs Assessment-part II

NCMC swot analysis and proposals

Prepared by:
Istituto Pangea- European Institute for
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NCS Nature Conservation and Management Centre (NCCMC)

Swot Analysis and proposals

Foreword

This report on the Nature Conservation and Management Centre (NCCMC), located in Sharm El Sheikh, is part of the Training Needs Assessment included in the component “Capacity Building and Institutional Support to the Nature Conservation Sector (NCS)”, of the Egyptian Italian Environmental Cooperation Program, Phase II.

The Program considers the Training Centre as an important tool for the training activities that should be implemented for enhancing the capacities of the NCS staff over the next years; therefore, an evaluation of its past activities, of its facilities and equipments, possibly based on a SWOT analysis, was requested, with the aims of identifying and proposing improvements to be implemented to fulfill the Program objectives.

An additional aim of the analysis was the feasibility evaluation of initiatives for enhancing Centre at international level and, possibly, for identifying opportunities for increasing its self-financing capacity.

To respond to the TOR’s requests, a survey of the Centre was carried out, with an in depth screening of the existing structures, facilities and equipments available.

Previous training experiences carried out have been checked and documents concerning possible future developments have been collected for an accurate evaluation.

NCCMC officials have been interviewed and an informal brainstorming and workshop, for a shared vision of possible future enhancing initiatives, was also carried out.

The results and the related proposals are described here below.

1. SWOT Analysis

(Based on survey, study of available documents and interviews)

1.1. Introductory remarks A): the Centre

The Nature Conservation and Management Centre (NCCM) was established in 2000, through an international cooperation program between the Egyptian Government and the European Union.

The main mission of the Centre is the improvement of management skills of Protected Areas personnel, but it operates also as a facility available for conferences, seminars and research at national and international level.

The building is located in Sharm El Sheikh, in South Sinai, close to Ras Mohammed National Park and in a barycentric position in respect of other important Protected Areas, as well as in respect of several Middle East countries where a high number of Protected Areas do exist.

The Centre has been operative for training courses, seminars and has hosted several groups of students from Egyptian and foreign Universities: but, generally, activities in favor of the NCS personnel have been carried out according to occasional needs and on request of other users.

The training facilities offered by the Centre are numerous and range from conference and lecture halls to open air amphitheatre, all equipped with technical teaching tools; a small library is also available and a classroom for computer and GIS training is at disposal too. Accommodation and lodging is in separate buildings, with a dining hall, a well-equipped kitchen; double or single rooms, air-conditioned and with en suite toilets, are available for a maximum of 50 persons.

The overall evaluation of the Centre and its facilities is summarized in the SWOT table.

1.2. Introductory remarks B: The SWOT Analysis

SWOT is an abbreviation for Strengths, Weaknesses, Opportunities, and Threats.

A SWOT analysis is usually considered a useful tool for auditing the overall position of a given business and its environment and should be seen as an important part of the strategic planning process.

Factors evaluated when developing a SWOT analysis are internal and external.

Factors internal to the examined institution are usually classified as:

- Strengths (example: a number of individuals adequate for the work to be done), or
- Weaknesses (example: an insufficient technical preparation of the staff).

Factor external to the considered institution are classified as:

- Opportunities (example: a new law for the implementation of new programs), or
- Threats (example: the emergence of other institutions competing in the same activity).

Some “key” areas considered when developing a SWOT analysis and when identifying and evaluating the single items, may be exemplified as follows:

Strength may be a strong brand name, or a good reputation among customers, or competitive costs of services delivered, access to high quality of natural resources, motivation of staff, etc...

Weaknesses are the lack of certain strengths, i.e. poor reputation among customers, high costs of services, obsolete facilities, difficult travel connections, etc...

It may be considered an Opportunity, a new demand by customers, the availability of new technologies, the facilitation of international exchanges, etc...

Threats are, for example, new stricter regulations and barriers for exchanges, shifts in customers’ preferences, competition by other institutions offering the same services, etc...

Often strength may be “mirrored” by weakness and, when this happens, the evaluation of the situation should lead to the identification of related opportunities.

For example, in the Sharm El Sheikh Training Centre case, its location in a well internationally known area may be a strength, faced by the weakness of a surrounding example of unsustainable development, that could somehow offer an opportunity to develop educational and training initiatives for sustainable tourism management.

1.3 Introductory remarks C: The SWOT matrix

The analysis should lead to strategies that take in account the picture arising from the described process. In the “business world”, the step usually done is the construction of a specific “matrix”, which is illustrated in the following table.

	Strengths	Weaknesses
Opportunities	S-O strategies	W-O strategies
Threats	S-T strategies	W-T strategies

The matrix, after all, it is a hint to look at the situation considering problems with a positive attitude and a constructive approach.

More in detail, the S-O strategies should pursue opportunities that are a good fit to the considered institution strengths; W-O strategies are aimed to overcome weaknesses to pursue the opportunities.

S-T strategies should identify ways to put in practice the institution’s strengths to reduce or eliminate its vulnerability to external threats, while W-T ones should develop plans and methods to prevent the institution’s weaknesses from making it susceptible to external threats.

1.4. The methods and the background

As previously mentioned, the NCMC was visited by the international consultant in charge for the Training Need Assessment in order to evaluate its general conditions and the possibility to improve its role, functions and activities, as well as its potential to be used as a “regional training centre of excellence”, also opened to new initiatives not necessarily dedicated only to PAs personnel.

For accomplishing this task, an accurate survey that has involved all the facilities and equipments of the Centre has been carried out and in depth interviews have been made to testimonials.

The existing reports on courses developed in the past have been examined and also the evaluations made by trainees have been taken into consideration.

It has been organized also a specific meeting with training experts and personnel of the Centre, for identifying, discussing and evaluating possible new actions for the development of the structure also at international level.

A “brainstorming” session has been promoted and facilitated by the visiting expert, so to share a common vision and to design a “draft” project in a participatory approach, to be further developed according to NCS evaluations and decisions.

Moreover, an in depth interview with the former manager of the Centre has given the opportunity to gather a more complete picture of the situation and useful hints for proposing its the possible future development.

It is important to point out that a SWOT analysis can be subjective, being influenced by the experience of the author(s) in the specific field and by his (their) vision.

For this reason, it may happen that a SWOT could have different versions even when given to different analyzers the same information about the institution and its environment.

In this case, it is important to clarify that the evaluation of the Sharm El Sheikh Centre has been based also on the experience of the international consultant, who has promoted, established and managed training centers and training initiatives for PAs at governmental and non-governmental level. The recalled experience includes –acting as leader of a specific IUCN WCPA Europe task force- the creation of a Network of European Environmental Training Centers of Excellence, under the auspices of IUCN WCPA-World Commission on Protected Areas.

1.5. The SWOT Analysis table

Strengths	Weaknesses
<p>Training Centre established by an EU international cooperation project: therefore it may be considered “accredited” for obtaining support for future initiatives.</p> <p>Facility located close to Ras Mohammed National Park, so to facilitate on field experiences and practical activities for trainees.</p> <p>Many important protected areas in the Sinai and Aquaba region relatively close to the Centre.</p> <p>Outstanding and attractive environmental features and training resources (desert, sea, coral reefs) close to the Centre.</p> <p>Lodging facilities recently built, in good maintenance status.</p> <p>Complete equipment for full board accommodation, with separate areas for teachers, VIPs and trainees.</p> <p>High number of accommodations (for 50) available.</p> <p>Complete set of equipments and multimedia training tools.</p> <p>Classroom for computer and GIS training.</p> <p>Library.</p> <p>Separate spaces for plenary lessons, group works.</p> <p>Amphitheater available for open-air lectures and other activities.</p> <p>Training courses, also of international level, already managed and good experience gathered.</p> <p>Good relationship with Universities, also at international level.</p> <p>Staff in service motivated and skilled.</p> <p>Good travel connections, ferry boat (RS coast) and close to an international airport.</p> <p>TC located in a world renown and attractive tourist area.</p>	<p>TC located in a highly exploited tourist area, in an overall “unsustainable” setting.</p> <p>Scarce or inadequate “marketing” of the TC in the local context.</p> <p>Scarce educational activities for tourists.</p> <p>Scarce educational and training initiatives for resident citizens.</p> <p>Promiscuity of the accommodation: too few single rooms, 4 beds rooms with only one bathroom/toilet shared.</p> <p>Classrooms furniture needs some upgrading.</p> <p>Poor or missing resources for the continuous maintenance of the whole facility.</p> <p>No double or triple sets of teaching tools (beamers, projectors etc...) available.</p> <p>Insufficient permanent training staff.</p> <p>Training activities more “occasional” than scheduled in a NCS Service-wide yearly plan.</p> <p>Few or no trainers specifically trained in the field of adult education and in teaching methods.</p> <p>Scarce training initiatives aimed to respond adequately to the obligations arising from the enforcement of International Conventions.</p> <p>Small library, not organized with multimedia equipment.</p>

Opportunities	Threats
<p>To develop further cooperation with EU.</p> <p>To become a Training Centre of Excellence for Protected Areas personnel at regional (Middle East-WESCAN) level.</p> <p>To become partner of the NEETCE, the Network of European Environmental Training Centers of Excellence, under the auspices of IUCN-WCPA Europe.</p> <p>To develop a NCS Service wide, strategic training plan for Protected Areas staff.</p> <p>To offer training courses on environmental topics for other Egyptian Agencies or Institutions.</p> <p>To establish a new, well trained, multi disciplinary and staffed enough, training team.</p> <p>To respond to the present and future conservation challenges arising from the enforcement of International Conventions.</p> <p>To develop educational and “training” initiatives aimed to the visitors to the neighboring National Park (s).</p> <p>Possibility to develop educational and training initiatives in the field of sustainable tourism for resident citizens involved in resorts management.</p> <p>Possibility to develop more effective cooperation with Universities, for applied research.</p> <p>Possibility to develop and market educational and training initiatives at international level, for contributing to the self financing of the Centre and to the increase of the budget available for training in favor of NCS staff.</p> <p>To promote cooperation with international Organizations operating in Egypt, acting as “training provider” for implementing ongoing projects. or as facility that may be leased.</p>	<p>Progressive decay of the buildings if not maintained for lack of financial resources.</p> <p>Undervaluation and insufficient use of a resource that may be vital for the NCS development strategies.</p> <p>Unbalanced costs-benefits ratio.</p> <p>Demotivation of staff .</p> <p>“Survival”, Vs. liveliness of the Centre.</p>

1.6. A possible SWOT matrix

A SWOT analysis, as above cited, may lead to outline a SWOT Matrix and, afterwards, to the formulation of a “strategy” that describes objectives, identifies actions to be done for implementing the strategy, identifies all the resources (human, social, legal, political, financial) available, selects tools and to be used and describes the pertinent time planning. The formulation and the implementation of any strategy is, of course, a privilege/responsibility belonging only to the authority responsible of the considered institution. Therefore, the following Matrix, and its treatment, must be seen only as a suggested methodology for outlining possible solutions to the problems highlighted by the SWOT and for planning and developing, later on, a possible strategy.

	Strengths	Weaknesses
Opportunities	<p>S-O strategies:</p> <ul style="list-style-type: none"> -To strengthen relationships with EU, single European Countries and other Countries and Institutions worldwide, in order to promote a permanent international cooperation. -To look for, and to negotiate access to EU resources available for Mediterranean environmental cooperation programs. Ditto, with UNPE; UNESCO, FAO, US AID etc... -To negotiate agreements with the NEETCE network, for joining the network, sharing experiences, implementing exchanges of staff, developing training courses. -To promote an agreement with IUCN, to be considered a point of reference for training and education at WESCANA region level. -To develop a specific program aimed to involve universities in the development of the Centre. -To carry on a specific training course aimed to establish a permanent, “training team”. <p><i>(continues)</i></p>	<p>W-O strategies:</p> <ul style="list-style-type: none"> -To reinforce the staff of the TC, establishing a permanent Training Team, supported by administrative and technical staff. -To establish a “marketing and a fund raising” unit within the Centre, capable to explore and pursue existing funding lines at international level. -To develop initiatives for “making friends” with foreign tourists. -To establish a “school” for sustainable tourism in Protected Areas, involving stakeholders, and to develop training programs for S.E.S. citizens and entrepreneurs. -To reinforce cooperation with Agencies and International organizations working in Egypt. -To improve number and types of training aids and technical equipment, updating software and hardware. -To acquire spare parts enough to respond to emergencies or failures. -To refurbish part of the accommodation facilities, creating more single and double rooms.

continued

	Strengths	Weaknesses
Opportunities	S-O strategies: <ul style="list-style-type: none">-To develop a training strategy for the implementation of the international conventions at Regional (WESCANNA) level.-To create a catalog of the experiences existing within the NCS organization, at central and local level, to be valorized as “case studies”, or transformed in training opportunities to be marketed at wider levels.-To select NCS staff members, working at central and local level, to be involved, after a specific updating, as trainers.-To design and market educational initiatives aimed to the tourists and to visitors of the protected areas existing nearby.-To “market” the TC, offering its facilities as a “Campus” for Universities and Institutions, at international level.-To “specialize” in training for Marine Protected Areas management.-To organize cultural, educational and interpretive activities in the Centre (amphitheater) for S.E.S. tourists.-To design and “market” at international level non-conventional training and educational initiatives (summer institutes, outdoor recreation and learning etc...).-To promote cooperation agreements with leading NGOs worldwide. <p><i>Continues</i></p>	W-O strategies: <ul style="list-style-type: none">-To improve number and types of texts and other goods for the library.-To set up a wide-band, high speed, satellite internet connection.-To “market” at international level non-conventional training and educational initiatives, for fund raising.-To offer training opportunities to NGOs, worldwide, for fund raising.

Continued

	Strengths	Weaknesses
Threats	S-T strategies: -To “use” the image of the centre to collect resources enough for the maintenance and the upgrading of the building and the equipments. -To highlight the importance to the Centre towards the whole NCS organization, and towards other Egyptian Agencies or Institutions. -To keep the Centre “alive”, promoting and supporting conventional and non-conventional training and educational opportunities. -To create special “events”, on regular time scale, to promote and keep alive the image of the Centre.	W-T strategies: -To “market” the Centre at national and international level, so to achieve a leading position at Regional WESCANA area. -To implement “team building” actions for keeping pride and motivation high. -To adopt methods for an objective evaluation of the training staff performances. -To highlight the Centre as an “incubator” of the NCS staff’s skills, increasing the “sense of belonging” among all the personnel on duty. -To adopt transparent methods for application and admittance of NCS staff to training courses.

As previously stated, the evaluation of both SWOT and Swot Matrix is subjective, reflecting the experience and the vision of the author.

However, the results ad suggestions that have been described are considered acceptable and accurate enough to be used as starting point for designing and developing an overall strategy, for improving the significance, the role and the possibilities of the Centre at national and international level.

Some proposals and specific actions will be described in the following chapters.

2. Evaluations and proposals concerning the training courses

(Based on SWOT analysis and matrix, on interviews and on available documents)

No training courses were in progress at the time of the visit: therefore it has not been possible to interview trainees, nor examine the course materials provided, the methods implemented, the training plan designed.

The results from the interviews and the reading of available documents have shown that:

-training courses **have been provided successfully** until now, but apart from a “training calendar” planned or organized on yearly basis, and apparently more responding to occasional needs than according to a service-wide training program;

-specific evaluation forms filled up by trainees show **that the courses’ quality has been widely appreciated and that, more in general, trainees have been highly satisfied both by training methods and contents and by lodging and accommodation.**

-a catalog of available training courses has been produced by the Centre, showing **a good potential concerning the capacity both to design and to market training course.** The catalog, however, is a “proposal” and no capacity building initiative according to its contents has been actually developed.

For what it concerns the future offering of training courses, it is considered important to adopt (or reinforce and update, if existing) a methodology for:

- compiling a preliminary document which summarizes and clarifies the aims, the objectives, the duration and all the other technical and logistic issues related to a course to be provided;
- defining and describing the training objectives, specific for any kind of course;
- drawing up a complete and detailed course program form;

- preparing a detailed single lesson/activity plan, stating objectives and describing methods and tools to be used, in a form to be compiled by the teacher/trainer before providing the performance;
- assessing continuously training quality, by daily evaluation to be done by trainees, using a daily evaluation form;
- assessing training results and quality by a final evaluation from the trainees, using a final evaluation form.

A series of draft models for the mentioned standards and forms is proposed in Annexes 2.1; 2.2; 2.3; 2.4; 2.5; 2.6. All these documents have been adapted from the results of various international experiences, aimed to establish common training standards for Protected Areas Staff, carried out with the support of IUCN World Commission on Protected Areas.

3. Evaluations and proposals concerning the trainers and the TC staff

(Based on SWOT analysis and matrix, on interviews and on available documents)

According to the results of the interviews and to the interpretation of available evaluation forms, concerning former training courses, it can be assumed that the “trainers” which have been involved in the activities of the Centre were:

- competent and well prepared in their different/specific fields of activity,**
- able to work as an interdisciplinary team,**
- motivated and willing to contribute effectively.**

In the same time, it is evident that the “trainers”, although expert in their own discipline, lack of specific preparation in training methods, in teaching and adult education principles. *Therefore, if the NCMC role and activities must be upgraded, improved and enhanced, it is strongly recommended that NCS would implement a “special project” aimed to the establishment of a permanent “training unit”, which should be made by:*

- Administrative and managerial staff
- Technical and maintenance staff
- Multidisciplinary Training Team

Moreover, it is also recommended that a service-wide survey would be implemented, in order to identify those NCS staff member who, according to their qualifications, could be involved as skilled “practitioners” in training course, seminars and so on, making available to trainees their experience.

The selected people, if they want to be involved in training activities, should attend to short seminars or courses on basic adult education principles and basic teaching methods.

It is also recommended that NCS would promote memorandums of understanding with leading Egyptian Universities, or other educational institutions, so to have the possibility to involve as lecturers university professors, graduated specialists and researchers from scientific departments.

3.1. Proposals for the establishment of a permanent “training unit”

It is suggested that the existing structure would be increased and completed with staff having various skills, adequate to carry on the different duties.

In the following table are outlined some proposals, mainly concerning the higher levels of responsibility, i.e. General Manager and Deputy Managers.

Trainers are also indicated, with the outline of their responsibilities and duties.

Their selection should assure the presence in the “training team” of a wide range of environmental and technical disciplines, but also administrative and legal.

Selected trainers must have remarkable communication and organization skills, capacity to work in groups and to keep good interpersonal relations.

Their number is to be further evaluated.

PTU Table

Job title/Role	Responsibilities	Duties	Number
NCMN Manager/principal	To supervise, as principal, the overall NCMC management.	To agree with NCS central office the annual training plan, according to NCS training strategies. To develop the yearly training courses calendar. To prepare the annual budget. To superintend all the administrative and training activities. To lead the training team. To manage relations with all possible actors involved in training and educational initiatives developed by the NCMC. To contribute to the development of the Centre. To superintend Public Relations, front office and fund raising activities. To give lectures.	1
Deputy manager- Administrative	To organize and supervise all the administration.	Accounting, budget administration, human resources administration, P.R., promotion, marketing of the Centre, fund raising, lodging and accommodation management supervision.	1
Deputy manager- Technical	To organize and supervise all technical matters related to the life and running of the Centre.	Maintenance and upgrading of the facility and of all the equipments.	1
Deputy manager- Education	To assist in planning managing and supervising training initiatives.	Course yearly plan design, course management, training team coordination, courses planning and evaluation, annual reporting and all what concern training issues and the development of the Centre as training institution of excellence.	1

Trainer-educator	To assist and cooperate to the practical management, the planning and the development of all educational and training initiatives.	To give lessons and lectures, to carry on practical and on field activities, to assist teachers in preparing and giving lessons, to assist trainers in their learning process being present in classroom and coordinating team work, to prepare teaching materials, publications, presentations, handouts, props etc. To prepare reports.	
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The functional/operational organization should obviously be completed, with an adequate number of assistants and other staff, selected according to existing NCS ranking regulations, for all other duties concerning the running of the Centre:

Administration and general affairs

Accounting

Lodging, accommodation, house keeping

General maintenance of the facility

Technical maintenance of the equipments and teaching aids

Drivers

Office boys

....

....

It is also important to stress that the personnel involved in the NCMC must have an excellent command of English language, at least at B1 level (according to levels described by the Council of Europe-“Common European Framework” for English language learning, teaching, assessment).

A command of a second language (Spanish, French, German, Italian, Russian) is highly recommended too.

3.2. A priority project: “training for trainers” course

According to the results of the TNA, and taking in account the Swot analysis and matrix, it is possible to assert that actions for establishing a permanent training unit must be considered, for NCS, a priority.

Accordingly, decisions to set up a training team as previously described must be taken and a specific training course for its selected members must be designed and implemented.

It may be useful to remind that the creation of the training team is important not only to carry out, with certified qualifications and procedures as well as with a highly favourable costs-benefits ratio, the future service-wide training courses, but also it is seen as a tool for achieving at least two additional objectives:

- to increase the visibility of the Centre at regional (WESCANA) and international level and, therefore
- to develop educational and training initiatives and to market them in order to be helpful to self-financing the NCMC running expenses.

3.3. Course aims, objectives and structure

3.3.1. Aims (to contribute to NCS and NCMC strategies)

To establish and consolidate a permanent NCS training unit

To improve and reinforce training and operational skills needed for developing NCS training strategies and to run training courses, dedicated to NCS staff, to other Egyptian Agencies, to International institutions.

3.3.2. Objectives (to update and to reinforce staff capacities and specific skills)

To enable trainers to design and develop effective training courses (theory, practice)

To reinforce the basic principles and the dynamics of adult education

To enable trainers to give interactive lessons and to use multi medial training tools

3.3.3 Structure (how the course should be developed, modules, length)

- Module 1 Introduction, ice breaking activities, course objectives, logistics, NCS training strategies and role of the NCMC and of the training unit/team
- Module 2 Perception, communication, group dynamics, team building principles and activities, creativity. Theory and practice.
- Module 3 Training needs assessments. Training programs and training courses design. Selecting the objectives, evaluating the results.
- Module 4 Training principles and methods. Lesson plans, exercises, classroom, outdoor and on field activities. Adult learning. Teaching techniques and tools. Theory and practice.
- Module 5 Background knowledge concerning Protected Areas and Biodiversity issues. Protected areas “new paradigms”, international conventions and PAs, Egyptian PAs, regional PAs situation and views.
- Module 6 Guidelines for designing and planning environmental education activities. Formal and non-formal education: role of PAs. PAs as a tool for sustainable development. stakeholders involvement. Theory and practice.
- Module 7 Environmental training in practice: project work for preparing a complete (project, structure, objectives, lessons etc) training course on...(to be decided, but possibly related to biodiversity communication, education, management topics).
- Module 8 At distance project work.
- Module 9 Presentation and discussion of the project work. Course testing, lessons, exercises etc... given by the trainees as final assignment.
Course evaluation: possible adjustments and re-design according to the new skills acquired.

Length: The length of the “training trainers” course should be five weeks, of which:
From module 1 to Module 7 two weeks, full time campus at NCMC.
Module 8, two weeks, project work, not necessarily at NCMC.
Module 9, one week, full time campus, at NCMC.

NOTE:

Seen the particular importance of this course, it is suggested that NCS involves an expert organization for having assistance in planning and delivering the training activities.

The selected organization could be one of the NEETCE partners (see para.5), which may involve in some steps experts from all the Network, so to promote an immediate call for the foreign partners to “enroll” the NCMC in the Network and in the development of the envisaged, shared, national and international activities.

The course may be carried out at the NCMC facilities following the proposed training schedule or, if funds are going to be available, in one of the NEETCE locations in Europe (*at least for the first two modules, carrying out the last one at Sharm El Sheikh, so the foreign expert can gather a clearer picture of the Centre, of its facilities and potentialities*).

This option may be useful:

- for starting relationship with NEETCE partners,
- for increasing the training team experience, giving a picture of how a training institution works, what is “behind the scenery” of a successful training course, of what are the most common problems and how they are addressed etc...

All the NEETCE current partners are able to carry out this important assignment (although some steps to be done for assessing actual feasibility in terms of dates, scheduled activities and accommodation availability) but it is suggested that a choice oriented to Italy would be preferred.

The Italian cooperation is deeply involved in the Nature Conservation Sector Capacity Building and Institutional Support Project, and may be pleased of such a decision (and helpful too); the Italian Protected Areas Federation would undoubtedly support the initiative, also in the framework of the planned creation of a Mediterranean Federation of Protected Areas.

4. Evaluations and proposals concerning facilities and equipment

(As suggested by the survey and how arising from the SWOT analysis and matrix)

4.1. Housing facilities-guests accommodation

As previously stated, the Centre is in generally good maintenance conditions and roomy enough to put up about 50 guests. However, the room accommodation may be, for some circumstances, uncomfortable because many rooms are communicating and, being

furnished for a double occupancy, actually they have only one toilet/bathroom for 4 occupants and therefore may result too crowded or too “promiscuous”.

Reconditioning works, to create more en suite toilet arrangements, should be planned if, or when, resources may be available.

In the meantime, if marketing strategies will be implemented and courses offered to fee paying trainees, it is suggested to reduce the number of people hosted for each set of rooms.

4.2. Training equipment and technical tools

The teaching tools and technical equipment actually available are considered appropriate and in good maintenance status.

It is recommended, however, to increase the number of the single items, so to allow multiple training sessions at the same time and to replace some device in case of need or of failure. A considerable amount and selection of spare parts should be available as well, also considering the relative difficulty to find in the proximity of the Centre spare parts for sophisticated equipments.

It is also suggested to increase the number of PCs, of portable/laptops, so to allow their use to groups working at the same time.

A broad band internet connection should be provided, with routers and LAN fitted in each training room, using the satellite technologies that are currently available.

Some very special instruments, such as a telescope, night vision binoculars, waterproof cases for cameras, digital SLR cameras with objectives, semi-professional video cameras and DVD recorders and computer programs for image processing and editing should be purchased. It is suggested also to dedicate a specific workstation to the image processing, provided with a computer equipped with multi-media hardware and software.

4.3. Library

It is desirable that the library would be enriched, with more textbooks, magazines, audiovisuals and multimedia learning tools, covering the largest amount as possible of

subjects related to protected areas and other “regional-geographical” environmental matters.

It is recommended to implement a specific section dedicated to environmental education and training, to desert and arid Protected Areas management, as well as to marine biology, marine protected areas, coastal reefs topics.

The library should be equipped with a PC multimedia workstation, broadband connected and with software suitable for processing data and images.

A “heavy duty” photocopier, with spare parts, should be available, a bookbinder tool and at least two laser printers, one of them heavy duty and color, with an adequate supply of toners and “first aid” spare parts should be provided too.

It is recommended that staff members serving as librarians would be trained on how to classify, manage, develop a multimedia library and on how to get ready flyers, leaflets, booklets, teaching aids and other printed material.

5. The NCMC as a “knot” of the international Network of Environmental Training Centres of Excellence (NEETCE)

Joining the European Network for becoming a Training Centre for Protected Areas, under IUCN-WCPA auspices (*see also the note at paragraph 3*).

5.1. The background

IUCN-WCPA Europe, in June 2002, has promoted the revitalisation of the IUCN Task Force on Training (ETTF), a group of dedicated individuals committed to promote a European training strategy.

ETTF Objectives were: a) to promote a European training strategy; b) to coordinate and cooperate with existing PAs training initiatives; c) to promote the establishment of a network of Training Centres; d) to seek funding for a research project to consult PAs staff and identify training needs at European level; e) to organise specific training courses for training centres staff.

A result of the ETTF work, a Network of European Environmental Training Centres of Excellence (NEETCE) has recently been established to build the capacity of people involved in protected areas.

The network currently comprises 5 funding institutions:

Alfred Toepfer Akademie fur Naturschutz-NNA (Germany); Atelier Technique des Espaces Naturels –ATEN (France); Istituto Pangea – onlus, European Institute for Environmental Education and Training (Italy); Losehill Hall, Peak District National Park Study Centre (UK); Station Biologique de la Tour du Valat (France).

The NEETCE vision is the development of “ *coherent network of European environmental training centres of excellence with international recognition and a common programme of activities, that build the capacity of protected area people*”

Its aims are to:

- Support national and international policies by providing people with knowledge and skills to enhance nature conservation and sustainable development especially in protected areas
- Develop the knowledge and skills of Network members by sharing experiences, tools and methods, and developing and running common projects and activities
- Seek to develop European recognition through funding, promotion and marketing of the Network and endorsement of its activities
- Promote and facilitate pan-European experience of protected area staff
- Develop links with relevant international training networks

The five founding members of the Network have an agreed action plan in the short to medium term to develop the ‘brand’ of the Network and a web presence, to create opportunities to ‘swap’ staff to share experiences and training techniques and to develop a funding bid for a project to train the trainers of protected area staff.

The Network will offer its competencies and capabilities as a Europe-wide platform for training activities to key agencies and organizations involved in protected areas across Europe.

The European Training Task Force (ETTF) and the network of training centre (NEETCE), sharing programs and projects, have the role to facilitate the exchange of experiences and to define criteria and standards of quality of training for Protected Area Staff.

5.2. Proposals and recommendations

There are several reasons why the NCS Nature Conservation and Management Centre could join the NEETCE, although non exactly “European”.

In fact, in addition to the strengths listed in the Swot analysis and matrix:

- it is the only training institution in Egypt specialized in Protected Areas matters;
- it is located in a strategic area where conservation issues are crucial (WESCANA);
- it may become a promoting and coordinating institution of the development of training opportunities for Protected Areas staff of the WESCANA region;
- it has been established in the framework of an international cooperation project and it has, *per se*, international role and significance.

Moreover, the NCMC, fulfills the “requisites” requested for joining the NEETCE because:

- it is a Centre that provides participative learning to meet the needs of protected areas’ people, based on exchanges between trainees and trainers, on learning by doing, on wide range of activities and tools;
- it has a willingness and capacity to work internationally;
- it has a good reputations and proven track record of high quality training;
- it is a learning organization itself, being able to improve continuously the quality of the training provided, following standardized evaluation procedures.

Furthermore, the NCMC may “complete” the range of the experiences of the NEETCE playing a role of “specialist” in topics such as the management of arid zones, the management of Marine Protected Areas, the implementation of conservation measures derived from applied researches on migratory birds populations etc...

The steps that may be done to become a “knot” of the Network and to occupy a specific place in this voluntary organization are:

- a) to call on, and to host an international meeting of NEETCE representatives, in order to present the Centre, its experiences and its potential (enhancement of the network, diversification of training courses, development of joint training

- initiatives at Mediterranean level etc...): Participants should pay their travel expenses, but the accommodation should be offered by the NCMC;
- b) to carry out an intensive workshop to explore possible ways of cooperation, courses to be offered, promotional initiatives to be implemented and to agree any possible detail for a fruitful and effective collaboration;
 - c) to sign an agreement/memorandum of understanding with the NEETCE representatives;
 - d) to agree exchange of trainers and to agree “stages” for NCMC personnel in order to gain more experience in international affairs and in the field of management of a training centre of excellence.

6. “The Corals and the Deserts”

Guidelines for marketing the NCMC at international level and for fund raising activities

Some of the items described in the SWOT analysis under the voices “strengths” and “opportunities” may suggest to propose the development of “non conventional” training initiatives, dedicated to a wide range of possible beneficiaries at international level and with the aim to contribute to the raising of funds for the running of the Centre.

The location of the Centre in a world renown area, close to outstanding protected areas and to the world famous coral reefs, visited by thousands of tourists from many Countries, may be seen as an extraordinary opportunity to design and market educational opportunities linked to the Gulf of Aqaba environmental features.

The NCMC could offer to the large community of environment-enthusiasts the possibility to spend some days (one week, or so, like the “summer or conservation camps” organized by many NGOs)) at Sharm El Sheikh, using the lodging facilities of the Centre, being engaged, part time, in practical activities and outdoor educational and interpretive experiences.

Environmental features, well planned activities, comfortable accommodation and full board, paying a reasonable fee, may be the keys to open the doors for exploring a new scenario, probably able to enhance the importance of the Centre worldwide and useful for raising financial resources.

Many examples of such activities are available at international level. Just to mention a few:

- Eartwach international
- Raleigh International
- Sierra Club
- International Cooperation-Civil Service
- WWF-World Wide Fund for Nature
- Europe Conservation
- CTS Centro Turistico Studentesco
- Conservation International-Ecotour
-
-

“The Corals and the Deserts” may be the “brand” image of the “Egyptian interpretation” of such activities, adapting at the Egyptian environmental, historical and cultural context successful initiatives worldwide tested.

According to this vision, it is suggested to start a feasibility study aimed to:

- identify the appealing environmental features and the characteristics to highlight and use as educational-intepretive resource in Sharm and Gulf of Aqaba protected areas ;
- identify educational, interpretive, outdoor “working” activities to be carried out by visitors during their “camp”;
- identify possible forms of cooperation with the Protected Areas, in terms of practical activities useful to their management, selecting sites, objectives etc...
- evaluate the costs of full board accommodation for visitors and for all linked outdoor experiences;
- prepare a team of interpreters-educators to carry on the “camps”;
- design and get ready a corporate brand image;
- explore possible agreements with air-carriers or low cost airways for special rates;

- start exploring contacts with NGOs to be involved in the “conservation camps” for their members, and, accordingly, sign the necessary agreements;
- carry out a “pilot” camp at very special rates, evaluate and perfect the format to be further marketed;
- design and implement the advertising-recruiting campaign;
- manage the initiative.

The management options for carrying out such a project may be several:

1. Each step managed “in house”, by the NCMC training unit and administrative personnel;
2. Educational activities managed by “external” (foreign or Egyptian) experts and by the training unit, accommodation managed by the NCMC staff;
3. NCMC training unit supervising the educational activities, lodging managed by the NCMC;
4. NCMC training unit supervising educational activities, lodging managed by a private concessionaire (Egyptian or foreign, with Egyptian workers);
5. private concessionaire managing all the program, paying royalties (such as for the three previous points) to NCMC/NCS

Another possibility may be explored, and it is linked to the promotion of job opportunities for young people from the local community.

Something like a “cooperative” could be promoted (of course according to existing rules and local habits) whose members would attend to a specific training course in environmental interpretation and guiding, paying a tuition to the NCMC.

The cooperative could become the concessionaire of “The Corals and the Deserts” educational adventures enterprise, in cooperation with NCS.

This path, if practicable, may lead to the achievement of several significant objectives:

- to promote job opportunities in sustainable activities;
- to enhance the image and the role of the Centre (and NCS) at international level;
- to create a “best practice” in the field of community involvement in PAs life;
- to contribute collecting financial resources (royalties) for the running of the Centre.

7. Further options to promote the Centre at international level

Initiatives for marketing the NCMC towards IUCN-WCPA Marine Protected Areas theme and towards Universities working in marine ecology

It has already been highlighted the “ecoregional strength” of the Centre, represented by its location, by the characteristics of the Aqaba Bay Protected Areas neighboring network and by the experience gained by NCS in the field of Marine Protected Areas management.

Further steps, based on these strengths, could be made to promote the Centre at international level and to gain support and resources to be used also for its “domestic” training initiatives.

Some may be:

- to promote a memorandum of understanding with the IUCN-WCPA marine task force;
- to advertise the Centre facilities (and its training opportunities) towards Universities and research organizations, to offer hospitality for stages and applied researches in marine ecology;
- to start contacts with FAO and other international institutions such as UNEP, UNESCO, CBD Secretariat etc... so to promote the Centre as possible focal point for regional (Mediterranean and WESCANA) educational and training initiatives, as well as location for conferences and other events.

In conclusion:

The NCMC has many possibilities to enhance its role and importance at national and international level, both implementing training courses and developing many other initiatives which may be important also for fund raising finalized to self-financing the running costs.

Nevertheless, prerequisites to reach all the proposed objectives are:

the creation of the Training Unit, the training of the Training Team, the participation to the NEETCE and, last but not least, the possibility to keep in the NCNM budget the funds raised with the self promoted activities.



EGYPTIAN ITALIAN ENVIRONMENTAL COOPERATION PROGRAM -PHASE II

Nature Conservation Sector Capacity Building
and Institutional Support Project

Training Needs Assessment

(Annexes to the reports)

Prepared by:
Istituto Pangea- European Institute for
Environmental Education and Training

May 2006



Annex 3.1.

Course Outline Form

Name of the Course

Date of the course:

Length:

Location:

Course Director:

Course trainers/tutors:

Preamble with subject matters: *fill in text up to ten lines*

Target groups: *protected area staff and others concerned with protected areas*

Aim: *describe aim of the course up to ten lines beginning with:*

Aim of this course is...

Objectives/outcomes: *describe what the participants should have learnt regarding the following three aspects:*

a) Understanding/ knowledge

b) Attitude

c) Competence/skills

a) Understanding/knowledge

By the end of this course the participants should:

-
-
-

b) Attitude

By the end of this course the participants should:

-
-
-

c) Competence/skills

By the end of this course the participants should be able to:

-
-
-



Programme/contents per day: *divide in morning and afternoon sessions, use key words only*

Day 1

Day 2

Day 3

Day 4

Day 5

Excursions and on field activities: *describe excursions destinations and activities, and on-field practical experiences to be done*

Supplied texts/extracts: *list supplied textbooks, magazines etc., diagrams to be used as handouts*

Special equipments/tools needed: *describe if special equipments are needed (scuba, 4x4 vehicles, boats, GPS, radio-tracking etc...)*

Bibliography/background readings: *list key literature (books, magazine articles etc..)*

Evaluation: *see course evaluation form (if a special method will be used, please mention here)*





Annex 3.2.

STANDARDS FOR OBJECTIVES
Guidelines and recommendations on how to formulate objectives
in all training courses' documents.

A “training” course (TC) is different from “formal” education : generally dedicated to adults, a TC must take in account the dynamics typical of the adult’s learning and, mainly, must lead to obtain some changes related to the future performances of the trainees on their job.

For correctly planning and developing any course, and to obtain the expected results, it is necessary to formulate objectives, taking in mind that, in the field of training:
 an *OBJECTIVE* is a description *PERFORMANCE* the training provider wants learners (trainees) to be able to exhibit, before they are considered *COMPETENT*.

The correct formulation of the objectives is useful:

- in providing a sound basis for the selection or designing of instructional content and procedures of the course (course planning, course material, logistics etc...);
- for evaluating or assessing the success of instruction;
- for organizing the students’ efforts and activities for the accomplishment of the instructional intents;
- for improving the preparation of the training centre and the trainers;

Required wording:

The wording of the verbs being used in describing objectives should stress the following criteria. Objectives shall be formulated “SMART” that means:

- Specific
- Measurable
- Achievable
- Realistic
- Time scaled

Normally, “active verbs” like: *to name, to describe, to explain, to draw up, to build, to construct, to prepare, to develop* etc. are used, in addition with *adverbial expressions* which describe the learning **results**, as clearly as possible.

Examples:

Objectives non correctly formulated	Well formulated objectives
To appreciate the unique beauty of the coral reefs in the Egyptian seas	To describe the unique characteristics of the Red Sea coral reefs and to compare with others
To be aware of the importance of sound habitat management in Protected Areas	To explain some habitat management techniques successfully used in parks
To know the Convention on Biodiversity	To list at least 5 key-words considered important to explain the CBD to citizens
To understand the importance of environmental education and to know some case studies	To be able to design an environmental education program, aimed to...(further objectives or target groups)





Training Course Program

Name of course:

Time	Min	Subjects/Topics	Methods	Learning points	Resources
			What will be done and by whom	The important points that will be focused to achieve the training objectives	The technical equipment, the training and teaching tools to be used



Annex 3.3.

example

Time	Min	Subjects/Topics	Methods	Learning points	Resources
until 14.00		Arrival and registration of participants			List of trainees Accommodation scheme
14.00- 14.30	30	Official welcome by Training Centre Manager and by trainers Introduction of Training Centre Manager Other introduction (s) of NCS representatives Explanation of house rules etc...	Lecture (speakers and trainers)	Knowledge of the Centre, of trainers, of accommodation	Overhead Transparencies (OHT) Power Point Presentation (PPT) or OHT on house rules Lecture notes on house rules and other logistics
14.30 15.00	30	Course introduction Aims and positioning of the course in the context of NCS training policy and programs Objectives of the course Detailed description of the course scheduling	Lecture (trainers) Questions, discussion (participants)	Knowledge of NCS training policy Knowledge of the course program Knowledge of the course schedule and its objectives	OHT or PPT NCS policies and strategies course schedule course objectives
15.00 17.00	120	Introduction of each participant "Ice breaking" activities Participants' expectations	Short presentations (participants) Interactive games or activities Visualization of participants' expectations	Implementation of positive group dynamics Balancing the expectations and the objectives; possible little course modification Comparing the participant's own experiences to other participants' experiences	Blackboard/ flipchart/ pinboard Pens/ chalk Other materials for specific ice breaking activities
17.00 17.15	15	Coffee / tea break			Goodies
17.15 18.00	45	Wrap-up of the activities	Résumé of the first day Interactive discussion (trainers and participants)	Appreciation of the new links established Appreciation of the atmosphere of the course Comments	Blackboard/flipchart





Course daily evaluation form

Annex 3.4.

Course Title		
Date	Course-day Nr.	Place where course is held

About this course day

Considering this day's programme, please answer all the questions and be as specific as possible with your comments

1. Which aspects of this course day did you find the most useful and why?

2. Which aspects of this course day did you find least useful and why?

3. What changes to this course day would you suggest?

4. Was the content of this course day:
TOO ADVANCED ABOUT RIGHT TOO BASIC

5. Was the pace of this course day:
TOO RUSHED ABOUT RIGHT TOO SLOW

Thank you.



Course Final Evaluation Form

Course Title	
Dates	Place where course held

About the training

Please answer all the questions and be as specific as possible with your comments

1. Which aspects of the course did you find the most useful and why?

2. Which aspects of the course did you find least useful and why?

3. What changes to the course would you suggest?

4. About the course objectives:

a) Were they made clear at the beginning of the course?
 YES MOSTLY SOME NO

b) Were they the right objectives for your needs?
 YES MOSTLY SOME NO

c) Were they achieved?
 YES MOSTLY SOME NO

Please add comments:

5. Was the content of the course:

a) TOO ADVANCED ABOUT RIGHT TOO BASIC

b) TOO THEORETICAL ABOUT RIGHT TOO PRACTICAL



Annex 3.5

6. Was the pace of the course:

TOO RUSHED

ABOUT RIGHT

TOO SLOW

7. What did you think of the quality of the training?

	EXCELLENT	GOOD	OK	POOR
a) Course trainer(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Course tutor(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Group work/ indoor exercises	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Field visits/ outdoor exercises	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Support material (handouts, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please add comments:

8. What did you think of the place where the course was held?

	EXCELLENT	GOOD	OK	POOR
a) Training room(s) and equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Accommodation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Catering	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Location (suitability for this course)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please add comments:

9. Could the timing of the course be improved (time of year, length of course, start/ finish times each day, etc.)? If so how?

10. Overall, will the training be beneficial to you in your job or professional development?

YES VERY

YES

PARTLY

NOT AT ALL

Thank you very much for your cooperation



Annex 3.5.

LESSON PLAN FORM

Guidelines and recommendations on how to design and prepare structure, sequence, timelines, teaching aids for giving a lesson or leading a practical experience

This form should be filled for every lesson or lecture or other training activities given by NCMC trainers. Other cooperating teachers/experts must be asked to fill up the form well in advance their lesson is given, so to check the correct formulation of the training objectives and have the time to prepare handouts, props, tools and to fulfil logistic needs.

Course title:		Session title:	
Date:	Session length:	Prepared by:	
Objectives -at the end of this session, each participant will be able to:			
1.			
2.			
3.			
4.			
5.			
Training aids:			
Handouts:			
Special equipments for practical experiences			
Content		Method	Time
Continues on page...			
<i>Copy of papers delivered to trainees must be attached to the Lesson Plan form.</i>			