

**SUGGESTIONS
TO STRENGTHEN POLICY AND INSTITUTIONAL
DEVELOPMENT
IN NATURE CONSERVATION IN EGYPT**

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Contents

Executive summary	3
Introduction	5
Re-engineering Protected area Management	10
Policy for Nature Conservation in Egypt	12
Structuring an Agency to Implement Policy	13
Functional needs of an Egyptian Nature Conservation Authority ...	16
Schematic organisation of the nature conservation authority's function	18
Creating an Effective Establishment	24
Career Path for Recruits in the Protected area Management Section	36
Literature Cited	38
Acknowledgements	39
Appendix I - Policy for Managing Protected Area	40
Appendix II - Policy for a Public & Private Sector Partnership to Manage the White Desert	43
Appendix III – Policy for Monitoring and Research in protected areas	45
Appendix IV – Organogramme	47

EXECUTIVE SUMMARY

Following recommendations that Egypt should consider emancipating the Nature Conservation Sector (NCS) from the main stream bureaucratic system, in line with the President's call for more innovative Government agencies, this report suggests NCS should become an autonomous parastatal organisation. This is desirable because Egypt's magnificent wild natural resources, which underpin a significant nature based tourism industry worth many millions of dollars annually to the economy, are being badly neglected and are deteriorating under the present administrative arrangement. Protected Areas that were well managed as more or less autonomous entities, to norms determined by the Egyptian Government, under European Union supervision have deteriorated under direct Government control as a result of poor funding and unworkable bureaucratic systems. Together these largely artificial constraints have discouraged staff and inhibited effective management of the areas.

The problems being faced by Egypt are common to many countries that are looking increasingly at some form of quasi-Government arrangement to both solve the problem and meet the special needs for effective nature conservation. This often involves measures designed to make Protected Areas more financially self-sufficient. Many of Egypt's Protected Areas already earn more revenue than it costs to manage them, but much of this money is being diverted to purposes other than nature conservation. This makes the country one of the few, if not the only one world wide, in which revenue from Protected Areas is used to subsidise other Government functions. The only solution appears to lie in Egypt joining the new trend and creating an autonomous parastatal agency to manage Protected Areas by. The country is certainly well placed to play a lead in Africa and much of the world in evolving this new paradigm for effective Protected Area management.

The first step is to decide what nature conservation in Egypt is to achieve and how. This should be enshrined in a Policy Document, which should describe the goals for nature conservation, and the parameters within which they are to be achieved. A policy that should suit the situation in Egypt, and incorporates an appropriate Vision, Mission Statement and Mandate, was approved by a high-powered workshop sponsored by the Egyptian Environmental Affairs administration, the responsible authority, is given in the body of the report.

Having decided what is to be achieved and how, it is necessary to design the executive machinery needed to achieve these objectives. The aim should be to fit form to function in a largely decentralized organization to manage Protected Areas within the parameters determined by policy. This agency should be as financially self-sufficient as possible, and should maximize income generation within the limits imposed by its mandate to protect the natural values and conserve the biological productivity and diversity for which the Protected Areas were created. This implies that all resource uses in the areas must be ecologically and socio-economically sustainable.

It is proposed that this would be achieved best by having a National Council for Nature Conservation supported by Area Management Boards for each Protected Area or cluster of similar Protected Areas. This would be supported by an executive agency, the Nature Conservation Authority, headed by a Director General who should be a member of the Council. The Council should consider and approve policy drafted by the Director General and would then recommend it to the Minister for ratification. It would also ratify work, business and tourism plans for each Protected Area and would monitor their implementation to ensure their effectiveness and promote their efficiency. Council would represent the public's interests, ensure that protected areas and wild resources are used sustainably, and that the natural heritage of Egypt is preserved and used wisely. Within these limits it should ensure maximum economic activity in line with free market forces that local people benefit from their proximity to Protected Areas and the nature conservation in Egypt is projected in a positive way at home and abroad.

Area Management Boards should comprise members from both the central authority and local interests in and around a Protected Area or cluster of similar Protected Areas. The central authority members should ensure that management of the area or areas is in accordance with national policy while local members would be more interested in ensuring that management within these limits is also beneficial to local people and takes account of local circumstances. These local Boards provide a mechanism for developing partnerships to manage Protected Areas between the Council and outside organisations in the private and public sectors.

The Director General should head a nature conservation authority composed of three major components. Firstly an executive unit is needed to manage Protected Areas and wild renewable resources outside these areas. Secondly a performance evaluation and auditing section is needed to ensure that the executive unit is effective and true to its mandate of implementing an agreed work programme based on annual work plans to implement the Council and Board's ecological management, commercial development and tourism servicing and control plans. Thirdly there would also be public relations, nature conservation and awareness sections and an administrative services unit.

The functions of these sections and the relationship between these functions is described in some detail and depicted graphically in the report which also indicates the job content of many of the senior positions in the organisation. The report culminates with a brief description of a career path for junior employees up to the rank of Area or Function Manager.

INTRODUCTION

The present assignment took place between the 19th of March and the 18th of May 2006. It aimed to assist the Egyptian Government with:

- a) “Policy development for nature conservation, Protected Area management, research and planning;” and
- b) the “institutional reform process ... specifically with advising the NCS’s (Nature Conservation Section) with organisational and administrative structures, undertaking a staff audit and developing” guidelines for staff structure and development programmes (Terms of Reference for contract IUCN-Med/76477, contract 05/05, with Dr. Graham Child, dated 15 February, 2006).

The work was undertaken on behalf of IUCN as part of the technical support arising out of Phase II of the Egyptian Italian Environmental Cooperation Programme. It arose from a resolution at the First Egyptian International Conference on Protected Areas in 2002 calling for, “the Nature Conservation Sector (NCS) of the Egyptian Environmental Affairs Agency (EEAA) ... to become ... an autonomous institution under the Ministry of Environmental Affairs”. It is important to note that the above resolution did not call for a new institution. It suggested the restructuring of an existing agency so as to improve its effectiveness in the delivery of its mandate to “manage the nation’s protected area estate”, to help secure “ecological integrity, provide new investment opportunities, underpin (nature based) tourism in Egypt, and contribute to the alleviation of rural poverty”. It is in line with the President’s enlightened election manifesto that, *inter alia*, calls for the innovative restructuring of Government agencies so that they perform their functions better.

This report builds on Egypt’s work plan, called for by the CBD Programme of Work on Protected Areas (Programme Element 3: Enabling Activities) (Anon, 2005), and a report to Government from the European Union, suggesting “Concepts for Modernising the Egyptian Nature Conservation Agency” (prepared by Child, 2000) whose generalities are still valid. The staffing requirements for an autonomous Nature Conservation Agency, outlined in this report, have been framed in parallel with a separate Training Needs assessment being undertaken by an IUCN consultant (Cipparone, 2006). The report itself has been framed in the light of the contemporary position in Egypt, where nature conservation is a State responsibility undertaken by the NCS of the EEAA, but with the NCS expected to attain greater autonomy. There are however indications that this progressive step, being taken by a number of nations wishing to modernise their approach to nature conservation, is being opposed by conservative elements in EEAA.

BACKGROUND

Many authors have extolled the magnificence of the natural resources in Egypt and their potential for supporting nature based tourism. These assets range from the delicate and easily destroyed beauty of the many and varied desert panoramas and important fossil deposits, through the rich alluvium along the Nile and the country’s significance as a flyway for birds migrating between Africa and Eurasia, to the magnificent sea shores with their rich coral reefs in the Red Sea. While delicate, these assets are capable of generating immense long term benefits for Egypt and her people, but only if they are

protected from inappropriate development and improper use and are correctly managed by a competent scientifically orientated authority able to respond quickly to contingencies as they arise.

Egypt is Neglecting its Natural Assets

Unfortunately there is widespread evidence that the quality of the resources is not being maintained and that as a consequence their long term revenue generating properties are in decline. This is because of a combination of factors acting individually or in combination, including present unsustainable use of the resources, their inadequate management to withstand current levels or types of use, and widespread nonconforming development that is undercutting their aesthetic charm.

Neglect of the resources seems to either reflect a lack of conviction of their value and dependence on proper management, or an old fashioned nineteenth Century determination to tame the wilderness at any costs. There is also a propensity to divert revenue generated by Protected Areas to other priorities, which projects the message, at home and abroad, that Egypt's fabulous, but delicate wild resources are not being given the necessary priority for the long term generation of human benefits. Instead Protectorates are being exploited to raise revenue to pay for projects like the building of a botanic garden in Sharm al Sheikh, in which to grow olives and other non-endangered species. In the meantime the protectorates are being starved of the funds needed to ensure they are well managed. Whereas most countries subsidise the management of their protected areas, Egypt is the only nation of which the present writer is aware that uses revenue from its protected areas to subsidise other government activities.

The environmental repercussions of this unhappy situation are starkly obvious on the ground and have both national and international implications by virtue of Egypt's membership of several important international environmental conventions. From a socio-economic point of view, assets that underpin nature based tourism worth millions of dollars to Egypt annually are being put at risk. This is likely to discourage investment in tourism and many tourists from returning to the country or encouraging their friends and acquaintances to come here. The last is serious, as Australian data suggest that every satisfied visitor persuades seven others to go to a country and every dissatisfied client chases about fifty away.

Tawfik (2004) estimated that the recreational value alone to the Egyptian economy of the coral reefs in only Ras Mohammed national park amounted to between US\$142 and 191 million per year. This excludes the value of the many ecological services provided by coral reefs, such as carbon sequestration, protection of the coast against accelerated erosion, or provision of essential habitats for the many sympatric marine organisms that live with corals. Neither does it take account of the employment opportunities arising from tourism, which the Ministry of Tourism estimates creates 200,000 jobs for every million visitors.

The Park earned US\$1.972 million in revenue in FY2004/5, when the allocation for the management of all four Parks on the Gulf of Aqaba, including estimated staff salaries, was about US\$438 000 (El-Sokkari, 2005). Even if 70% of this allocation went to Ras Mohammed, it was only \$306,800 (which included a provision of US\$106,000 for capital

to replace boats). Thus, excluding the capital expenditure, the annual allocation for recurrent expenditure that was reinvested in maintaining the quality of the asset was about 10% of the revenue actually earned by the Park and about 1.3% of the present annual contribution to the Egyptian economy from its deteriorating coral reefs. These small allocations were totally inadequate for the purpose, especially under prevailing bureaucratic arrangements. The rest of the money was dispersed in Cairo, apparently to subsidise activities other than park management or the conservation of Egypt's biological diversity. Six years ago Ras Mohamed National Park was being well managed and progressively developed by a European Union project with an annual expenditure of around US\$900,000, which is less than half of what the park is now earning and much less than it could earn with an innovative business plan to optimise income and minimise the cost of essential management.

In FY 2004/2005 St Katherine's earned over US\$500,000 during only the second half of the year, after a relatively low entrance charge of US\$3 per visitor to this World Heritage Site was introduced. The allocation for the recurrent maintenance of the resources in FY 2004/2005 was less than \$100,000, or about 10% of the annual yield from this declining asset. In 2000 this park was being effectively managed for around US\$490,000 per year by an EU project. Since then fees have been introduced and resource management and tourist services have declined and with them the sanctity of the World Heritage Site. This site, comprising the core area of the park, is also being threatened by local Government developments that have ignored undertakings given by the Egyptian Government when the area was inscribed as a World Heritage Site in 2002.

Most visitors to St Katherine's are pilgrims or visitors to the famous monastery, which raises no charges. The monastery did not object when an entrance charge to the area was introduced about a year ago, as it believed that the money would be used to improve the aesthetics of the area and the services for visitors, but the reverse is true. In discussing the issue with the Archbishop he voiced his concern at the retrogressive situation and indicated he proposed to write to the authorities to make the monastery's unhappiness known.

Egyptian Investment in Protected Areas below World Norms

The level of investment in protected area management in Egypt compared with international norms is also revealing. The global mean annual expenditure was US\$1,300 per km² (Chape *et al* 2003) while in developing countries it was \$157 and in North Africa and the Middle East \$74 per km² (James *et al* 1999). In Egypt it totalled \$19 per km² or 11% of that for developing countries (Fouda *et al* 2006). Comparisons of staffing levels in protected areas are equally depressing. The world mean is 27 workers per 1,000 km² with the figure for Egypt being only 5.75 per 1,000 km² or 21% of the mean. While such comparisons have only broad application, they conform to the impression that nature conservation and the viability of nature based tourism, worth millions of dollars to the Egyptian economy, are not being given sufficient attention by the responsible authorities.

Effective Devolved Systems Abandoned

That these problems are artificial, human induced and arise through lack of bureaucratic understanding is supported by examination of the situations applying in Ras Mohammed National Park, and the St Katherine Protectorate and World Heritage Site. Reliable

financial and economic data are available from these two sites up to the end of FY 2004/5, which the author visited in both 2000 and 2006 to ascertain differences in the level and effectiveness of management under differing conditions. Management effectiveness has declined markedly from what it was six years ago, when both areas were being competently managed under two European Union aid projects. Although the two EU projects were largely autonomous, the policy being applied in the two areas now is virtually the same as it was six years ago and throughout it has been implemented by essentially the same Egyptian staff whose individual capabilities, if anything, have matured and improved during the interim.

Analysis of the situations applicable in 2000 and 2006 suggest that three major sets of factors may have been responsible for the decline in managerial effectiveness. These are:

- A. The loss of the local leadership provided in the two areas by EU Technical Assistance with the termination of the EU projects. While this undoubtedly did have an effect, the effect was less real than apparent. The TA helped formulate and implement policy that is still in place and being applied, and the key TA officer is still advising the Nature Conservation Sector, although no longer specifically at area manager level.

If there is reservation against devolving authority (sometimes seen by bureaucrats incorrectly as giving away their power) from Cairo to the field where the action takes place and can be most effective, this is easily countered by introducing appropriate central government policy and directives. These policy requirements should be limited to describing what is to be achieved and it should be left to the people on the ground that comprehend the local conditions to decide how to achieve the desired goals most effectively and cheaply. This worked well under the EU projects and there seems to be no reason why it should not work as well or better now.

- B. The serious reduction in the annual management budget that coincided with the end of the EU Project and was accompanied by a reduction in staff and essential equipment. For example, there are now effectively only two rangers at a time with one old Land Rover, between them, on duty in the land area of Rus Mohammed at any one time. Such restrictions are often cited as the main cause for the decline in managerial effectiveness in protected areas and there can be little doubt that they have been a major inhibition against maintaining the asset value of protected areas faced with growing challenges. It is also a primary cause of low staff morale and despondency and the difficulty that the Nature Conservation Sector is having in attracting and retaining good personnel. As already noted, the situation has been further exacerbated by the deterioration in resource management and visitor services, since the introduction of entry charges to these and other protected areas.

The solution, however, is likely to be more complex than simply allocating each area a larger annual budget that would meet its needs under prevailing bureaucratic arrangements. It probably lies in an incremental increase in the annual budgets, linked with more rigorous locally driven synchronised

management procedures, designed to encourage local staff initiative, to achieve carefully selected attainable management priorities. This should include making parks, or groups of parks, into independent accounting centres, free from the present inefficient government accounting procedures, and able to control expenditure from their own budgets, using custom designed procedures structured to suit the Nature Conservation Agency's special requirements.

- C. Tighter central bureaucratic control from Cairo. With the closure of the two EU projects, standardised, highly pedantic government bureaucratic procedures were reintroduced. Many of these measures are applied by clerical staff in Cairo with little understanding of the requirements of a technical land use agency that must remain nimble and highly responsive to issues as and when they arise in the field. Here technical effectiveness is, in any case, much more important than bureaucratic correctness.

For example, there are four Ticket Collectors, manning the entrance to St Katherine's 24 hours a day, 365 days a year. To allow for time off, these men work 12 hour shifts alone. With the man on duty collecting the entry fees, there is no one to check on the actual number of passengers in any of an average of 45 buses arriving in the park each day, providing an opportunity for a substantial loss in the revenue collected. An undercount of only two passengers per bus would equate with the present meagre annual management allocation for the Park

Despite numerous requests from senior staff at St Katherine's to Cairo, for an increase in the number of Ticket Collectors to rectify the situation, there has been no response. This, despite the fact that it is patently bad financial management to have a single person, especially one that is lowly paid, responsible for collecting and holding large sums of public money. In this case, the Ticket Collectors are paid only LE300 each a month (slightly above internationally recognised poverty levels of \$1/day), a combined total of LE 14,400 p.a. for the four of them. Between them, they collect something of the order of LE5.3 million per year at a remote outpost, at all hours of the day and night, as many buses arrive between midnight and 02.00 a.m. with visitors wishing to see the sun rise from the top of Mount Sinai. Furthermore, there is no reliable system of communication between the Collectors and their higher authority, should the only man on duty be faced by an emergency.

The government accounting requirements in force at present greatly increase the costs of items purchased for the field by imposing unnecessarily high transaction costs on purchases made by Field Officers. The author was told of several examples where field personnel had had to travel to Cairo and spend three or more days at head office simply to clear a purchase. This greatly increases the cost to the taxpayer of management, that must be attempted in any case with an inadequate budget, and this unnecessary waste of time and effort adds to the frustration of field staff, who have too much to do and too little to do it with. As indicated in the last paragraph of (B, above) the present

pedantic, almost unworkable expenditure control and procurement system needs to be replaced by much more practicable and workable procedures that encourage both efficiency and effectiveness. As the private sector has often found to its cost, elaborate attempts to curtail fraud often reduces productivity without curtailing fraud which they may actually encourage.

Conclusion

It is difficult to see how the Egyptian nature conservation entity can be freed from these stifling constraints, without it being separated from the mainstream of Government bureaucracy. Attempts in many countries are demonstrating just how difficult it is to adapt the needs of modern nature conservation to a conventional bureaucratic system, as the two are not compatible. Many countries are grappling with this problem and are experimenting with new and innovative paradigms for managing wildlife and Protected Areas through parastatal organisations. Egypt is especially well placed to take a lead in this advance that could benefit not only itself, but may also serve as a model for other less developed countries. It has high quality, readily marketable wild resources and well trained people to manage them properly, but only if they can operate in an enabling institutional environment that encourages progress.

RE-ENGINEERING PROTECTED AREA MANAGEMENT IN EGYPT

Accepting that the present situation is unsatisfactory it is appropriate to consider how it might be rectified at minimum cost to the Egyptian taxpayer. The first requirement is to decide key objectives of what has to be accomplished, and reliable objective indicators for judging progress towards achieving these goals. The next requirement is to decide the general form and function of an organisation that can apply national policy effectively.

The First Step

It is important to first determine what nature conservation is expected to achieve and then who should do this and how. This should be encapsulated in a brief Vision Statement that outlines Government's prime goals for nature conservation. A Mission Statement then indicates the products that Government expects to arise from realisation of this Vision, while a Mandate elaborates in more detail of the nature of the products it expects to emerge. Together they are an important enunciation of Government policy and a public pronouncement of its objectives, which in this case, should declare how Government intends to guide nature conservation by establishing an autonomous Nature Conservation Council served by an independent Authority to undertake these tasks on its behalf. It is the first step towards responding to the considerable national and international advice Egypt has received, encouraging the Government to devolve authority to individuals, who can be held publicly accountable, for delivering the products outlined in a way that Government, (represented by the responsible Minister), has approved.

Ancillary policy statements should then elaborate how particular facets of policy such as the protection and management of Protectorates and public involvement in the process (see e.g. Appendix I and II) will be accomplished. Augmented by directives, these subsidiary policy statements dictate how the functions they describe will be further devolved to the executive agency and various operational levels within it, to achieve

specific objectives. The aim is to develop a structured mechanism for delegating accountability to an effective and efficient operational level for achieving the objectives that encourage employees to use their initiative, within laid down parameters, to achieve the goals decided by Government.

This “tight/loose” delegation of authority proved to be an important component in the managerial culture of over 60 of the most effective commercial companies in the USA, and has been highly effective in nature conservation in southern Africa. The operation is “tight” in that the products to be delivered are prescribed by higher authority, but “loose” because the way in which the delivery is achieved is driven by the inherent strengths and weaknesses of individuals and local situations. People on the ground do what they are told, but are left to do it in their own way to suit their temperament and prevailing local circumstances.

POLICY FOR NATURE CONSERVATION IN EGYPT

VISION

To preserve the natural character of the Egyptian environment for future generations of Egyptians, while using it innovatively to enhance sustainable local productivity and alleviate poverty.

MISSION

Egypt has exceptional wild resources (coral reefs, spectacular desert ecosystems, rich fossil deposits, and vast bird migrations) that underpin the economy and offer it a comparative economic advantage in the massive and growing nature based tourism industry. Recognizing the value of this biodiversity and its critical role in maintaining and enhancing the well being of the country Government, in partnership with stakeholders, will maintain a healthy, well managed and ecologically representative system of Protectorates and will make them as financially self supporting as possible. Furthermore, it will manage wild resources outside these areas sustainably for the benefit of the people living on the land with the resources.

MANDATE

Government will fulfil its accountability to the people of Egypt for conserving their wild resources, through the Minister for the Environment approving an autonomous Nature Conservation Council, in consultation with affected local resource use right holders and other stakeholders. This Council will have full responsibility to undertake this task on the Minister's behalf and will report to him and through him to the Nation at least once a year. The Council may appoint specialist sub-committees to perform particular allotted tasks, and it will be serviced by a professional scientifically orientated Nature Conservation Authority, under the command and control of a Director General who shall be responsible for enacting and implementing a policy to:

1. Create and maintain an ecologically representative system of adequate terrestrial and marine areas as Protectorates at national provincial and local levels, to protect the nation's natural values, particularly its biological diversity and areas of natural scenic excellence, in an unspoiled state.
2. Ensure that Protectorates are properly governed (by the Nature Conservation Authority alone or in partnership with one or more private or public sector organizations) and are managed to preserve their asset value and used sustainably in support of the local and national economy, in terms of properly constituted resource management, business and tourism plans, agreed by the Council.
3. Council will endeavour to make Protectorates as financially self supporting as possible by optimizing revenue generation from each area to the extent the market will bear and this can be achieved without threatening natural values. It will ensure that the first call on all revenue earned by a Protectorate is used for its own protection and management in terms of a system of financial controls that promotes the Authority's effectiveness. Where a Protectorate earns revenue surplus to its needs Council may allocate a predetermined proportion of this

surplus to nature conservation elsewhere in Egypt, to rural development in the area adjacent to the Protectorate, and finally to other environmental issues.

4. Promote the better long term conservation of all wild resources outside Protectorates through supportive regulatory mechanisms, services and pricing structures that offer local people incentives to conservation and manage wild resources more sustainably. This will include community based resource management programmes (like locally regulated fee paying hunting, the locally controlled sustainable collecting of wild animals or plants, or the rearing and growing of such organisms) that give the landholders in an area rights to use and trade freely in wild resources, so as to maximize the returns from using them sustainably.
5. Monitor the status and trends in wild resources throughout the country with a view to initiating appropriate action to prevent the dissipation or genetic contamination of valuable species, ecological processes or the despoiling of aesthetically attractive scenery. Where justified by careful investigation, to devise strategies to protect people from invasive species or wild organisms that are harmful to their health or livelihoods.
6. Promote awareness among decision makers and the public at large of the value of truly wild resources and the importance of managing them effectively to this end, without undervaluing them, and to develop a coordinated wildlife industry that conserves the resources and realizes their potential to generate increased national prosperity in the long term.
7. Ensure that the Egyptian Nature Conservation Authority is adequately staffed, equipped and financed to be an effective and efficient organization that the Council can hold accountable for fulfilling this mandate. In doing so the Authority should use internationally recognized best practices (such as those proposed by the World Conservation Union) to achieve the standards of excellence expected by the Convention on Biodiversity.
8. The Authority will ensure that Egypt fulfils its obligations in terms of international conventions and bilateral or regional agreements relating to nature conservation of which it is a signatory.

STRUCTURING AN AGENCY TO IMPLEMENT POLICY

Having decided where to go and why, it is useful to design a vehicle for getting there. The arrangement in place during the European Union projects provides a strong argument for Protected Areas, or clusters of contiguous Protected Areas with comparable features, to be managed as largely autonomous independent entities with control over their own budgets. Each entity or group of entities might be viewed as an independent subsidiary company projecting the common policy and standards of management and services required by a parent company, where both the policy and the standards it embodies would be those laid down by the Egyptian Government.

Financial Independence

The administration of each park should be structured as an independent financial entity collecting its own revenue and responsible, subject to appropriate plan approval and auditing, for controlling its own expenditure, made up from the revenue it generates and any donor or central Government grant in aid it may attract. As and when protected areas become financially self supporting and show a profit, they may be required to contribute a **proportion** of their **gross return** to cross-subsidise other conservation activities in Egypt, or to supporting the overhead costs represented by their Head Office, or “parent company”, in Cairo. Linking payments from the field to Cairo, to a proportion of the gross income earned in the field, builds-in a strong incentive for both to enhance their effectiveness and efficiency.

What Should Protected Area Management Cost?

The total revenue collected from all protected areas in 2003/4 and 2004/5 was around LE40 million while the expenditure on management, including salaries and wages, was only LE23 million (El-Sokkari, 2005). Simply doubling the present management expenditure, to absorb the total present annual earnings, is unlikely to be adequate to manage the Protected Area Estate of Egypt properly, as there are already 21 protected areas covering some 98,000 km² and the Estate is projected to grow to 39 Protected Areas extending over double the present area by 2017.

The present level of income being earned by protected areas is probably way below what the Estate could earn with an innovative approach to the issue. Entry charges are not applicable to all protected areas and where they do apply they were determined rather arbitrarily by bureaucrats in Cairo and thus probably bear little relationship to what the market will bear. This is a common failing and arises because bureaucrats are notoriously inefficient at setting tariff levels, as they simply do not have the information available to them to determine market tolerances. It is preferable to use an adaptive approach to determining fee levels, by adjusting the levels and monitoring the market's response until a satisfactory level is achieved.

While we can be sure that the annual sum to manage 98,000 km² will be over LE50 million, probably above LE100 million, and perhaps as much as LE160 million, trying to determine what it should be is difficult. It depends on a number of independent variables, such as the size, topography, substrate and ecology in the different areas in the system, the proximity and frequency of human challenges, physical infrastructure, and what might be loosely termed as managerial efficiency. Provided that responsibility for the proper implementation of policy remains with the management agency, the last may or may not involve a range of mutually beneficial partnerships between the agency and outside public and private sector organisations, to accomplish anything from managing whole areas, to undertaking limited management functions in one or more areas.

Delegating Management Functions

Any delegation of authority should be in terms of clearly defined parameters for action to implement policy that are acceptable to the Minister, or a national council to whom the Minister has delegated this authority. It should be in accordance with binding directives or agreements that lay down how policy will be interpreted and applied. If delegation is in-house to subordinates in the national nature conservation authority it may be in terms

of a binding directive from the Director General, but if it is with an outside organisation it should be in terms of a carefully crafted enforceable agreement with a limited life span and there should be provision for amendments, should these prove necessary. Such amendments should not be introduced frivolously, but may become necessary in the light of, say, national inflation or changing biological circumstances or scientific understanding.

Making Management Effective

Whether management is carried out in-house or by an outside partner, it is more important that it is effective than efficient as there is little advantage in getting to the wrong destination efficiently. But once a management authority is satisfied that management is effective it should try to make it as efficient as possible and to balance income and expenditure, or make a profit. Minimising costs requires a management authority of just the right size, with the right attitude, just the right expertise and equipment, and enough money to deliver its mandate effectively on time, and as efficiently as is practicable.

Shedding Redundant and Superfluous Tasks

Achieving efficient effectiveness requires that the organisation divests itself of all redundancies and unnecessary functions, and stretches the dollar to its elastic limit. This is especially important when considering the value of certain administrative procedures and the desirability of undertaking certain monitoring and research. Bureaucrats will wish to retain bureaucratic activities that were once useful, for nostalgic reasons or as struts for retaining or building their empires. Likewise, in-house technocrats will argue for ever more detailed monitoring and research, because it is nice to have better, more refined information, whether or not the improved data is ever likely to contribute to more refined management in the large areas that protected area managers must usually deal with. A logical response to these two costly demands is to be ruthless and to abolish redundant bureaucratic procedures and delay sponsorship of more detailed monitoring and research until management can demonstrate a real need for it.

This is not to suggest that management should not be based on sound scientific understanding, but that the management and its accompanying monitoring and research should be harmonised to complement each other's needs, using adaptive management and research where possible. With the present rapid growth in knowledge and its availability, the astute manager will be highly selective of the information he seeks, limiting it to the information that actually adds value to his management agenda. Thus, it is usually more important to know the habitat requirements and population trends of key species than their prevailing numerical strength or have a full list of the species that may be associated with them. Again, the efficient manager will set priorities and will move gradually from the general to the particulate, as more detailed information is needed to support his evolving management strategy.

Maximising Permissible Income Generation

The other half of the equation for greater effectiveness is to maximise income, while maintaining the quality and aesthetic attraction of natural resources. It requires keeping the natural resources perceptually wild and unspoiled and using imagination and innovation to package them so they are attractive to the most lucrative market. In

delicate environments, in particular, it may be important to take account of the trade-offs between high fee paying, low density visitor use, and low fee paying mass tourism, especially if management costs per visitor vary little irrespective of the level of the fees they pay.

Egypt Well Placed to Address and Provide International Leadership in these Matters

The problems relating to protected area management and its costs being faced by Egypt are by no means unique to this country. They are, however, accentuated by the fact that Egypt is one of the few countries in which protected areas could earn sufficient revenue for some, at least, to become financially self sufficient. Furthermore, it is also one of the few countries in which there is a substantial core of adequately trained indigenous professional managers.

Experience around the developing world, where problems are similar but less acute, support the conclusion that the best solution lies in separating nature conservation from main stream Government bureaucracy and placing it in an autonomous parastatal entity. This was recommended by the 2002 Egyptian Conference on Protected Areas and revalidated by the National Round Table. Modifying the existing NCS into such an organisation requires a number of deliberate high level actions, including ensuring the legislation is in place, to create the desired organisation and to give it the authority it requires to succeed. This action could quickly project Egypt to the forefront of global progress in the conservation and management of Protected Areas and would bring great credit to the country and to those responsible for taking the decisions and activating them.

FUNCTIONAL NEEDS OF AN EGYPTIAN NATURE CONSERVATION AUTHORITY

The first step is to decide the aims and role of the responsible agency. It must obviously be charged with performing its core responsibilities of conserving biological diversity, protecting natural values and ensuring that their use is always sustainable. While nature conservation is about maintaining the productivity and diversity of natural biological and physiographic systems, it is actually the socio-economic process by which society is endeavouring to conserve and ration natural values so that they continue to generate human benefits in perpetuity. Without biological productivity there can be no life on earth and without biological diversity that life becomes locked into an evolutionary cul-de-sac from where it cannot adapt to the constant ecological and economic changes taking place in the universe.

Factors Limiting the Sustainability of Use

Two factors regulate whether or not the use of biological resources is sustainable. The first is the biological capacity of the system being used to withstand the annual harvest being taken from it. The second is the more sophisticated socio-economic ability of society to regulate the annual harvest to this level. While most primitive cultures understand the biology of plants and animals and know how to exploit them while they are abundant, it requires a culturally mature society to develop the socio-economic institutions to regulate this use to within sustainable levels when resources become scarce. The aim of an effective nature conservation agency is to develop the capacity to

act on behalf of society to ensure that the use of wild natural resources is both ecologically and economically sustainable.

Deciding the Responsibility of a Nature conservation Agency

How this objective is addressed will vary locally and is something only the Egyptian authorities can decide. It is important, however, to be sure that the responsible agency, whatever form it takes, has both the authority and capacity to achieve and maintain this goal. It may undertake all the many functions relating to nature conservation and regulating the use of wild resources itself, or it may outsource some or all of these functions, but should do so only if it is satisfied that they will be performed correctly. For example, a nature conservation agency may have strong powers for enforcing nature conservation and protected areas legislation, or it may delegate this function to the regular police, providing the police are willing and able to apply both the spirit and letter of the legislation to achieve the goals of nature conservation. Likewise, a nature conservation agency may control the safety measures, behaviour and servicing of tourists in protected areas, or it may allow a sympathetic tourist authority to do so, provided the tourism is managed according to its tourist management plan for each area.

Such outsourcing may apply to a wide range of management activities from contracts to protect, maintain and manage an area and its assets, to concessions to use it sustainably. Its extent will depend on a combination of the in-house capabilities and aspirations of the conservation agency, and the availability of reliable local public and private sector partners and their willingness and ability to take on the functions and perform them to acceptable standards. It may also depend on the revenue earned by an area being adequate to pay the providers for their services. Here it is important to take account of an important precautionary principle. If a use like tourist diving over a coral reef can damage the reef, it should not be permitted unless it can be properly managed and regulated. Likewise, if, say, litter collecting services can not cope with the amount of litter left by a given level of tourism, then the throughput of visitors should be reduced to the level at which the services can cope. The aim should always be to ensure the quality of both the asset base and the experience of visitors using it.

Another golden rule should apply to any site accorded national or international recognition for its conservation value. The agency responsible for managing it must remain accountable for ensuring that the natural and aesthetic values that it was created to preserve are maintained and that the site as a whole remains aesthetically pleasing and is used sustainably at all times. Amongst other things, this means that although other development authorities may have responsibilities in a site, the nature conservation authority must be the paramount planning authority and able to prevent any development likely to impact negatively on the long term asset value of the site.

Fitting Form to Function

Having determined what it is an organisation is to achieve and in broad terms how this will be done it is appropriate to provide it with the means for delivering its mandate. The most important requirement in this regard is a carefully designed establishment of staff with the knowledge, skills and experience to perform the functions expected of them effectively and as cost efficiently as circumstances allow. Establishing the strength and deployment across Egypt of such an establishment for the Nature Conservation Authority

is a lengthy process that could not be attempted during the present short consultancy. In any case the initial deployment should be tentative and needs to be refined in the light of ongoing experience, using an adaptive approach to optimise and adjust the deployment as priorities wax and wane across the country.

The next section aims to provide a functional organisational structure to meet the organisation's initial needs. It is based on the staffing organogramme for the Nature Conservation Authority already negotiated with Government, but seeks to streamline communications between the various sub-entities to promote greater efficiency.

SCHEMATIC ORGANISATION OF THE NATURE CONSERVATION AUTHORITY'S FUNCTIONS.

The organogramme given in Appendix IV illustrates the primary relationships between the main functions to be performed by the Nature Conservation Authority. It provides a template for a staffing structure to accomplish the organisation's mandate, as required in policy. The aim is a harmonious entity with coordinated responsibility for different aspects of particular functions shared by personnel from different disciplines, so as to provide the range of skills needed in permanent and *ad hoc* working groups responsible for a wide range of activities.

Once the Directorate has initiated a procedure and it has been tested, it should become normal practice for dealing with similar issues without reference back to the Directorate except to report accomplishments. For example, once a business plan has been developed and perfected for a Protectorate by a working group, comprising the necessary skills such as natural resource management; visitor management; marketing, revenue collection and control; outreach; legal affairs; and effectiveness evaluation, the initiative should rest with key players in the working group to prepare similar plans for the Directorate for all Protectorates requiring these plans.

Structure and Function of Entities

National Council for Nature Conservation

The National Council for Nature Conservation should consist of about 12 Members, a Chairman and 10 members appointed by the Minister on the advice of the Director General, and the Director General in his *ex officio* capacity. It should consist of eminent persons, with established personal track records of commitment to nature conservation, but with a variety of skills and attributes useful to the Authority that they are prepared to use to its advantage. These people should be selected through consultation with stakeholders with a direct interest in the conservation of nature or the industry based on the strictly sustainable use of wild resources. Besides two or three eminent conservationists, the membership might include one or two people from such disciplines as: business, investment banking, landscape architecture, natural resource and socio-economics, law, and the tourist business. The Council should be held accountable for delivery of the national Vision, Mission and Mandate for Nature Conservation and for the progressive implementation of the Nation's Conservation agenda.

The Council should meet quarterly and its main functions should be to:

- Approve and recommend nature conservation policy, prepared by the Director General, to the Minister for ratification as National Policy;

- Approve the Authority's work and business plans (possibly through a small Finance Sub-Committee) and oversee the Authority's management agenda to ensure that public money is correctly managed to in implementing the agency's mandate effectively. This should be accomplished by agreeing the Authority's goals and an agenda for achieving objectively verifiable progress each year, evaluating its ongoing progress, and reporting this progress to the Minister and the nation annually;
- Represent the public interest in ensuring that wild resources in general and Protectorates in particular are managed and used sustainably to safeguard natural values;
- Within these limits to ensure that the income generated by Protectorates is maximized and used for their correct protection and management and the conservation of nature in a natural state in Egypt;
- to create business and employment opportunities for stakeholders investing in the Protectorates and local residents living in or around them; and
- Promote the image and work of the Nature Conservation Authority at home and abroad.

Particular responsibilities such as Financial Management might be delegated to small sub-committees that can meet more frequently than the full Council to transact business.

The Council should be responsible on behalf of the Minister for the proper protection, management and sustainable use of Egypt's wild resource base and should report to him and through him to Government and the people of Egypt at least annually, but more frequently should this be desirable. It will perform this corporate function through the Director General of the Nature Conservation Authority and through joint decisions with area Boards on which it is represented. While it should be open to public comment regarding its performance and should encourage public debate of contentious nature conservation issues, it should discourage individual members of the public from bringing complaints to its attention except through the Director General.

Area Management Boards

These Boards should guide the Authority in the day-to-day management of Protectorates or clusters of Protectorates and servicing resource management by communities authorized to manage their own wild resources outside Protectorates. Each Board should meet at least one or twice a year and should be composed of a Council representative, the Director General and a member of the Director General's staff, as Members, besides representation from stakeholders and local communities living in or around a Protectorate or cluster of protectorates, or a community managing its wild resources. The former should be concerned primarily with ensuring that the Boards' decisions conform to policy, while the latter would be interested mainly in ensuring that policy is implemented with local circumstances and interests in mind. Together they should be charged with devising an effective day to day management agenda to preserve the natural values and to optimise the sustainable use of wild resources in support of the local and national economies.

These Boards will report to Council annually or more frequently if so desired. They will also work through the Director General or an alternative member of his staff who the

Director General may nominate to lead the management activities in a given area. Like their parent Council, these Boards should be open to public comment regarding their performance and should encourage public debate of contentious nature conservation issues in their area of responsibility, but should discourage members of the public, particularly those with a vested interest, from bringing complaints to the Board except through the Director General or his nominee in the area,

Director General

The Director General should be akin to the Managing Director of the Authority in that he is the only *ex officio* Counsellor and its Chief Executive Officer. He should be primarily responsible for initiating and implementing policy and ensuring the implementation of Council or Board decisions. He is ultimately accountable for the command and control of the organisation's staff and delivery of its mandate. This should be achieved by devolving as much authority as possible to his subordinates at the level in the administration where particular tasks can be performed most effectively. The authority is a complex and rapidly expanding organisation and it is important that the Director General does not try to keep a pack of dogs and do all the barking, as that is a sure recipe for failure.

The Director General should report through the Council to the Minister at least annually but more frequently through the Council Chairman, should this be desirable, as for example, when the Minister needs to be kept informed as a crisis unfolds. He should be kept informed of all events taking place in or affecting the organization, by the Executive Committee, and should exert his formal authority through this committee so that the whole organization is kept informed of his decisions and directives. In addition he should spend a substantial portion of every year visiting field stations to chat to staff informally, see what is going on and exert his influence on his establishment in person. The last is especially important to evolving a common vision and corporate culture for the organization as a whole.

Where the Director General, or more correctly the Executive Committee, issues a directive, reprimand or commendation to a field station or member of staff on a station, this should be directed through the head of station. While the Director General should encourage a general interest in and debate on his performance and that of the Nature Conservation Authority, he should insist that all representation concerning matters under the jurisdiction of a field station are directed to him through the responsible Head of Station. Likewise, and as a general rule neither he nor the Executive Committee should pronounce on such representation without first consulting the Head of Station and keeping him informed of the substance of the pronouncement.

Executive Committee

The Executive Committee of the Authority should comprise the Director General, his Deputy and the four Directors of Branches. It should keep the Director General informed of issues affecting the organization, progress towards the implementation of its work programme, and should advise him with respect to the preparation of Council and agency Policy and procedures and with important staffing matters. The Executive Committee is also the route through which the Director General should issue directives and devolve responsibility for aspects of the Authority's functions to subordinates in particular posts

(i.e. individual employees) holding them accountable for the delivery of given products within a defined time frame.

The Executive Committee is the Authority's main think tank, executive arm and impartial forum (Staffing Board) on staffing matters, but it must often take immediate action where this is called for to deal with particular issues it has discussed. Its proceedings should largely be informal; to discuss issues and decide how they should be addressed by the Authority, but the general gist of its discussions, all its directives to subordinates, and its decisions on staffing matters should be formally recorded.

Deputy Director General

The Deputy Director General should be the Director General's "right hand man" and his regular understudy. He should be responsible for the day-to-day running of the Authority while the Director General concentrates on policy and representing the agency and should report frequently to the Director General to "keep him in the picture". The Deputy Director General's other main responsibility should be to ensure that the authority's activities are properly planned and co-ordinated at the executive level, through the ***Strategic Planning and Development Unit***, comprising himself and the four Directors of Branches.

Resource Management Branch

The Resource Management Branch should comprise a Director and two Assistant Directors, responsible for implementing the Authority's agenda inside and outside Protectorates through ***Area and Function Management Sections***, each under an ***Area or Function Manager***. Each Area Section (or Protectorate Management Unit) should be headed by an ***Area Manager***. It should be an independent cost centre required to prepare its own work, business (including its own budget) and tourism plans (with help from Head office) in consultation with local Board members, for consideration by the Director General and full Board and approval by Council. It should also control its own finances, within the constraints laid down by the Authority's policy and procedures. It would be accountable through the Director of Resource Management to the Executive Committee for the **effective** and **timely** execution of its agreed agenda and should be subject to periodic performance evaluations and audits by the Performance Inspectorate and Administrative Services Branch. Heads of Area Sections should report through the Deputy Director General to the Director General as and when necessary, but should submit a monthly activity report with all necessary returns, a quarterly progress report relating to all approved work plans, and an annual general performance report.

Function Management Units should be responsible for a variety of functions to protect and manage wild biological resources throughout Egypt in general and outside Protectorates in particular. These may include such programmes as the introduction and development of Community Based Natural (Wild) Resource Management in Egypt; biosafety programmes; the regulation of hunting; and the like. They are primarily Government services and the responsibilities should be funded by the State, but overseen by the National Council for Nature Conservation which may wish to support some of these activities financially, if they benefit a Protectorate by demonstrating its value, locally or nationally, or represent a national initiative of value to conservation. Reporting

by Function Management Units should follow the same pattern as that for Area Management Units.

Performance Evaluation Inspectorate

This Branch's main concern should be to monitor the various aspects of the Authority's performance in managing wild resources and to judge how effective it is being inside and outside Protectorates, in conserving ecological productivity and biological diversity, and protecting the natural values for which Protectorates were created. Its mandate is to perform technical audits of the agency's performance and it has three primary functions:

- To monitor the implementation of area and function management plans, and ensure that proper EIAs are prepared and their recommendations respected in regard to any physical development proposed in Protected Areas. This monitoring should be viewed as extending normal financial auditing to the auditing of the technical performance and output of the organisation's various operational sub-entities;
- To carry out ecological, operational, economic, sociological (including investigations into nature based tourism), or related research whose need is indicated by the results of monitoring or the needs of management; and
- To maintain data bases for these purposes that includes as much objective data as possible relating to the conservation of biological diversity and the agency's performance of its agenda. Periodic objective evaluations of the organisation's effectiveness and efficiency, and the quality of the products it produces should be submitted to the Director General so that he can respond appropriately and quickly to both its strengths and its weaknesses. This reporting may extend to meeting Egypt's obligations arising from the country's membership of international nature conservation conventions.

The requirement for a Performance Evaluation Inspectorate to report back on the agency's performance to the Director General is an Egyptian requirement. It could represent a very innovative advance over the situation pertaining in most countries if the Inspectorate's mandate were extended beyond pronouncing on performance to determining how that performance could be improved. Bringing the Authority's monitoring and research capacity within the purview of the Performance Inspectorate would enable it to set management objectives and evaluate progress towards achieving them using objectively verifiable indicators. This and ancillary information called for as the result of the monitoring or in response to new resource management, tourism and use, or business initiatives, could be thoroughly investigated, using adaptive biological, sociological, economic or operations research techniques, where possible, to yield rapid reliable results. These could then be further refined using the same approach to quickly enhance effective efficiency, including profitability.

It is predictable that developing this capacity would not only benefit nature conservation in Egypt quickly, but would place the authority in the fore front of global progress in the field. By integrating often divergent research and focusing it on improving efficiency in the effective management of protected areas, Egypt would be adding an important new practical ingredient into the paradigm for managing these areas to benefit society.

Public Relations and Outreach Branch

It is suggested that Public relations and Outreach should be grouped in the same Branch under a Director with the aim of disseminate information on nature conservation and how it is achieved in Egypt. This can be done in a number of ways using a variety of disciplines that divide fairly logically into three or four somewhat distinct disciplines, as follows:

- The preparation of publications, radio, T.V. and other programmes to inform the public about nature conservation and the Authority responsible for it in Egypt, through an on-going Public Relations effort;
- The provision of interpretative information and suitable displays for Protectorate Managers;
- Working with Area Managers and local communities or stakeholders to develop partnerships for managing a Protectorate or the use of its resources, especially by local individuals, or working through Function Managers to providing information to landholders of how to use the wildlife on “their” land sustainably to generate maximum benefits for themselves. Besides the dissemination of information, these activities may involve training in capacity building and the planning of appropriate institutional frameworks to achieve the goals required by Council or the Director General; and
- Facilitating the Authority’s servicing of its commitments to international conventions

Administrative Services Branch

The Administrative Services Branch should be headed by a Director with three Assistant Directors responsible for Human Resources (Personnel Management), Legal Affairs and Financial Management. The ***Human Resources Section*** divides into Routine Services to process the large volume of documentation associated with the on-going employment of staff, Training and Development to better equip employees to perform their jobs and Staff Representation to allow for worker representation to higher authority, to suggest improvements to the agency, voice complaints, or whistle-blow (i.e. report improper activities by colleagues to higher authority).

The ***Legal Affairs Section*** should also have three sub-entities, responsible for preparing and administering agreements between the Authority and other organisations, especially in the private sector, such as tourism concessions in Protectorates or contracts for outsourced management functions, like road or building maintenance, research or performance auditing. The Legal Section might also be responsible for developing law to conserve nature and natural values and ensuring that it is effectively implemented to achieve its objectives, for investigating cases of staff indiscipline, and for providing the secretariat to Council and Board meetings.

It is suggested that ***Financial Management*** should be seen as a support function to the Heads of Units and should be divided into four sub-functions: Marketing, Revenue Collection, Investment, and Financial Control. Marketing should be responsible for valuing and marketing all the products generated within Protectorates to best advantage, including recreational opportunities. Revenue collection should cover responsibility for the efficient selling of these products, while the investment function should be responsible for effective and efficient, short and long term investment on the money

market of any of the agency's money which is being held overnight or for longer periods. Financial control refers to the development of the accounting procedures and the implementation of internal financial auditing functions to which units of the Authority should adhere, including the laid down procedures for Procurement that should be applied correctly at all times.

CREATING AN EFFECTIVE ESTABLISHMENT

Restructuring the NCS into an autonomous Nature Conservation Authority will require revision of its establishment so that people in key positions are well qualified and experienced to perform the duties expected of them. This is likely to be much more complicated than reshuffling existing personnel in NCS and placing them in new positions and will probably involve recruiting a number of new staff members with appropriate qualifications and experience, particularly to fill key senior posts. The incumbents of these posts will need vision and imagination to advance the Authority's innovative mandate and may have to come from the private rather than the public sector. They need to be people who fully understand the aims of the country's conservation policy and programmes and are experienced managers who deliver the products expected of them effectively and efficiently.

DIRECTOR GENERAL

The Director General should be a person of status in international nature conservation, with experience at a senior level outside Egypt, who holds an advanced degree, preferably a doctorate, relevant to the conservation and sustainable use of wild resources. Besides being an innovative nature conservationist he/she should have a good understanding of the industry based on the sustainable use of nature, especially tourism based on wildlife and unspoiled natural values. The incumbent of this post should combine these attributes with good interpersonal skills and an ability to develop and maintain an effective nature conservation authority for Egypt.

DEPUTY DIRECTOR GENERAL

The Deputy Director General, as the Director General's understudy should have a sound knowledge of the Authority's policy and nature conservation in general and how to implement them effectively. While the Director General is the prime thinker in the organisation his Deputy is the prime doer and must bring these thoughts to successful fruition. For this he requires strong leadership and interpersonal skills, a strong ability to organize multi disciplinary working groups and a highly developed entrepreneurial inclination that harmonises the natural and biological properties of unspoiled nature with the sustainable use of the resources to maximize human benefits. He/she should have ten years of experience in a managerial capacity and an established track record for having contributed meaningfully to the effectiveness and efficiency of, preferably, a land based organisation.

1. HEAD OF ADMINISTRATION

The Head of Administration should be responsible for ensuring that the Authority has an effective and efficient administrative support service. The incumbent should have the skills and ability to lead an ongoing review and revision of all procedures for earning, investing, and spending money; for the control of all movable and immovable assets; for employing and developing an effective staff; and to cover the organisation's legal

requirements, with a view to working with the Chiefs of sections to constantly upgrading efficiency.

1.1. Chief of Finances

Duties and Responsibilities

The Chief of Finances should be responsible for developing effective and efficient systems for packaging and marketing products from Protected Areas, especially those related to nature based tourism, the collection of revenue, the temporary investment of any of the organisations cash that is not required for immediate use, and control over expenditure and movable and immovable assets.

Duties and Responsibilities

- Know how to package and market nature based products, especially through tourism, and able to design and call for the type of research and monitoring needed to maximize sustainable use and income generation from Protected Areas.
- Be able to devise and ensure that efficient systems are in place for collecting revenue from Protected Areas.
- Be sufficiently familiar with the money market to advise the Head of Administration on how best to invest the organisation's spare cash to best advantage in the short, medium and longer term, and able to act on this information.
- Devise and implement efficient systems for controlling the Organisation's expenditure and procuring goods and services and caring for its fixed and movable assets.
- Maintaining an on-going measure of income and expenditure, keeping higher authority informed periodically of the relationship between the two and giving it timely notice of likely problems.
- Ensure economic and financial data are recorded and stored in an accessible form in the Data Base.
- Devising and implementing a programme of internal and external financial audits of the Authority's accounting sub-entities and reporting the results to Head of Administration and Head of Performance Evaluation.

Job requirements

Education: A sound qualification in commercial accounting.

Experience: At least five years experience in a managerial capacity in a commercial company.

Knowledge of: Commercial accounting essential and of Government accounting systems highly desirable.

Ability to: Control the Authority's finances essential and an initiative to introduce progressive commercial activities highly desirable.

Skills: Advanced manual and electronic accounting skills.

1.2. Chief of Legal Affairs

The Chief Legal Officer should be responsible for reviewing and upgrading all nature conservation legislation, as this becomes necessary; for reviewing all court decisions relating to this legislation and initiating further court procedures where this is desirable. He/she should also advise higher authority on legal matters and ensure the preparation of proper legally binding documents to cover all agreements entered into between the

Authority and outside organisations. In addition this officer will ensure an adequate secretarial service for all Council and Board meetings.

Duties & responsibilities

- Review and where needed revise primary and subsidiary nature conservation legislation.
- Provide legal advice to higher authority.
- Prepare contracts and agreements for the Authority and ensure their implementation.
- Draw up legal documents and compose letters and memoranda in response to incoming correspondence of a legal nature or relating to matters discussed at Council and Board meetings.
- Review court cases and institute appeals or other further action needed to ensure the enforcement of nature conservation laws.
- Ensure the preparation of police reports against any violations or forbidden activities inside Protected Areas.
- Brief the Director on the status of violations and forbidden activities inside Protected Areas and advise on the actions being taken against them.
- Ensure a data base is developed and maintained of all relevant legal matters.
- Perform related legal tasks as assigned by the Head of Administration.
- Ensure an adequate secretarial service for all Council and Board meetings

Job requirements

Education: University degree in law.

Experience: At least five years relevant experience and registration in the lawyer's syndicate.

Knowledge of: Environmental laws principles and procedures essential and a working knowledge of international environmental law desirable.

Ability to: Able to work independently and under pressure.

Skills: Fluent in spoken and written Arabic and English, Familiar with electronic clerical aids.

1.3. Chief of Human Resources

As the Chief Personnel officer of the Authority this person should ensure an effective and efficient organisation to recruit, employ, service and develop the organisation's staff establishment.

Duties and responsibilities

- Develop standardized procedures for advertising staff vacancies, short listing applicants, interviewing possible candidates and recruiting those that have been successful into posts in the establishment.
- Ensure every employee has a job description, and whether employed on the permanent establishment or contract is aware of his/her conditions of service and of the position charter relating to his/her grade of employment and to ensure a persons job description and position charter is revised as required by his/her development and progress in the organisation.
- Ensure periodic review of the performance of all employees on probation and the dismissing of those who do not perform to standard.
- Implement a system for the timely payment of all staff salaries, allowances and other dues.

- Maintain a detailed record of employment for each member of staff, including his on-going leave and other entitlements.
- Maintain a record of each person's qualifications, on-going performance, incentives received, disciplinary penalties, and desire and potential for particular staff training and development.

Job requirements

Education: A degree or similar qualification in personnel management, public relations or the like.

Experience: At least five years experience in flexible and progressive personnel management.

Ability: A firm, impartial, but kindly disposition.

Skills: A thoroughly organized person.

2. HEAD OF PUBLIC RELATIONS AND OUTREACH

The Head of Public Relations and Outreach should be a confident person with a broad knowledge of nature conservation and related issues, who can project the national importance of the subject and of having an effective conservation agency, with conviction, to a broad audience at home and abroad. He should be able to develop and lead a well reasoned and focused public relations effort with clear objectives, directed at decision makers, and to craft an outreach programme that benefits those people with resource rights in or near Protected Areas.

2.1. Chief of Public Awareness and Public Relations

Job Summary:

To plan and direct public awareness and public relations programs, particularly at the national level, that engender broader public appreciation and personal responsibility for maintaining the quality of the natural heritage in Egypt.

Duties & responsibilities

- Prepare plans to develop public awareness in nature conservation.
- Develop and produce information and promotional materials of all types to extend public knowledge on nature conservation and the public agency responsible for implementing it, including the preparation of written materials and press, radio and television releases for distribution as appropriate, and to co-operate with other national and international organizations projecting a similar message.
- Coordinate and guide activities in support of nature conservation and the sustainable use and development of Protected Areas by key groups, including stakeholders, supporters, donors, media, and local communities.
- Prepare and make presentation for decision-making and the public.
- Undertake related work assigned by the Head of Public Relations and Outreach.

Job requirements

Education: A university degree or similar qualification in media, public relation, or journalism and a good appreciation of nature conservation and public awareness.

Experience: A track record of relevant experience.

Skills: Fluent in Arabic, with a good knowledge of English.
Familiar with appropriate electronic aids.

2.2. Chief of Interpretation

Job Summary:

The planning and implementation of public displays in Protected Areas.

Duties & responsibilities

- To determine appropriate themes for displays in Protected Areas and to design and implement these displays and the buildings or structures to house them.

Job requirements

Education: A university education in Protected Area interpretation or a related discipline.

Experience and Skills: Knowledge in interpretative display techniques and experience in making such displays. A good knowledge of written Arabic and English

2.3. Chief of International Relations

Job Summary

To project the image of nature conservation in Egypt, including what is being done and by whom, through international press releases, encouraging influential foreign visitors, who may be useful to the Authority, to come to the country. Ensure the timely submission of all reports required from Egypt in terms of its obligations under international conventions.

Duties & responsibilities

- Ensure a steady stream of public relations information relating to nature conservation in Egypt for foreign release.
- Plan and arrange for selected influential foreign nature conservationists to visit the country to promote Egyptian nature conservation and nature based tourism at home and abroad.
- Ensure that Egypt's reporting obligations in terms of international conventions are fully complied with.

Job requirements

Experience and Skills: a mature presence and good knowledge of nature conservation and what is being achieved in Egypt and an ability to persuade foreign outlets and conservationists to cooperate with this country.

3. HEAD OF PERFORMANCE AND EVALUATION

The Chief of Performance Evaluation should be highly experienced in nature conservation and have a deep appreciation of associated monitoring and research needs, including those related to the evaluation of performance and operations research. His function is to co-ordinate the performance evaluation, monitoring and research, and environmental impact evaluation functions of the Authority and to report periodically to the Deputy Director General and the Strategic Planning Unit (Committee) on aspects of the Organisation's effectiveness in delivering its mandate.

3.1. Chief of Monitoring and Research

Job Summary:

Responsible for implementing the Authority's monitoring and research policy within Protected Areas and initiating appropriate monitoring and research strategies in support of the organisation's needs outside protected areas.

Duties & responsibilities

- Develop and manage natural resources monitoring and research programmes, including the development of standardized field-sampling protocols.
- Ensure all monitoring, research and related data are collected and submitted to the Data Base by due date for proper storage.
- Ensure proper control over the quality of data and its synthesis, analysis, storage and distribution.
- Assist with the publication and dissemination of research results.
- Report to the Director General on the effectiveness and efficiency of the Authority's operations.
- Prepare and make presentation for decision-making and the public.
- Perform related work appropriate to the post.

Job requirements:

Education: Advanced university degree in biology, ecology or related field essential with further studies in monitoring and statistics highly desirable.

Experience: At least five years related experience.

Knowledge: Monitoring techniques; field data collection techniques, research, data management and basic statistical analysis.

Ability: Strong qualities of leadership and initiative, and the ability to work effectively with a wide range of individuals, disciplines, communities and agencies in teams; to organize and prioritize work assignments and maintain confidentiality.

Skills: Fluent in written and spoken Arabic and English. Fully familiar with useful electronic research aids.

3.2. Chief of EIA Review Process

Job Summary:

Review and evaluate environmental impact assessments for all developments proposed in Protected Areas or which might impact adversely on biodiversity outside these areas.

Duties & responsibilities:

- Evaluate and review environmental impact assessments of all development projects proposed in or near Protected Areas that are likely to impact directly or indirectly on the natural values of these areas.
- Evaluate and review environmental impact assessment of all development projects that may influence the biodiversity and natural culture of Egypt.
- Evaluate and document past harmful effects of development and accidents on natural resources and natural values, and estimate their cost to the local and Egyptian economy.
- Issue licences approved by Council for development and commercial activities inside Protected Areas.
- Participate in the development of a land use map for the natural resources inside and in close proximity to Protected Areas.

- Follow the implementation of Protected Area management plans and periodically assess the environmental impact of developments that have been completed or are under construction.
- Train and assist the Protected Area Managers to follow-up on EIA procedures and their implementation.
- Make timely clear reports augmented by other correspondence and written material for decision-making and the public.
- Undertake appropriate related work assigned by the Head of Performance Evaluation.

Job requirements

Education: University degree in biology or environmental engineering or a related field, with advanced studies in coastal zone management, and geomorphology an advantage.

Experience: At least five years related experience.

Knowledge: Environmental impact assessment techniques; strong knowledge in and understanding of protected area management.

Ability: Strong interpersonal skills and the ability to effectively work with a wide range of individuals in teams, communities and agencies; to work independently to organize and prioritize work assignments; work under pressure; and maintain strict confidentiality.

Skills: Fluent in Arabic and English and fully familiar with useful electronic aids.

3.3. Chief of Data Bases

Job Summary:

Investigate, design, develop and maintain data and information system for all activities undertaken by the Nature Conservation Authority.

Job duties & Responsibilities

- Analyse, classify and store, in an organized way, all ecological, sociological, economic, commercial and operations data and information important for effective nature conservation in Egypt.
- Develop databases for all major operations undertaken by the Nature Conservation Authority, including developing and implementing Geographic Information System (GIS) and remote sensing applications.
- Maintains the database, including correcting data format, researching data conversions, establish data specifications, updating sources and ensuring data integrity.
- Produce maps, reports and related GIS products and services as needed for research and decision making.
- Design and manage nature conservation web site.
- Install and “troubleshoot” problems with the G.I.S. mapping system, including installing new applications, and upgrades.
- Installs and maintains network systems and related peripheral equipment; performs basic network administration and security functions ensuring system integrity and security.
- Acts as a technical resource in assisting users to resolve problems with specialized and dedicated technology systems; implements solutions or notifies outsource providers as required.

- Makes purchase recommendations, including helping users assess needs and providing justification for equipment and services.
- Assist decision makers and with the preparation of budgets, by providing appropriate data.

Job requirements

Education: University degree in computer science, information technology, software engineering, geography or geology with knowledge of GIS and remote sensing a strong advantage.

Experience: At least three years related experience.

Knowledge: Strong database knowledge with understanding of SQL servers recommended; strong programming concepts and RS (visual basic dot net); GIS mapping applications (CAD, Arc View 9.x , ERCAS Imagine 9.x) Qs and ERSS certificate recommended.

Ability: To manage sophisticated computer programmes and assist otherers with their use.

Skills: Fluent in Arabic and English, a helpful personality, and an aptitude to keep abreast with relevant developments in the computer field.

4. Head of Resource Management

Head of resource management should be a senior member of the Nature Conservation Authority and its most important executive officer responsible for ensuring the implementation of the agency's policy to conserve and manage biological diversity inside and outside Protected Areas. His main role is to ensure that Protected Areas have the staff, finance and equipment to be managed effectively as autonomous largely financially independent entities for conserving selected samples of Egypt's natural heritage and for ensuring that biological diversity is protected and conserved outside these areas. He will mount programmes to ensure biosafety, the control of invasive organisms, the regulation of hunting and to introduce a innovative community based resource management programme so rural people can use their wild resources sustainably to generate benefits for themselves.

4.1. Chief of Protected Area Management

Job Summary:

This post is responsible for overseeing the management of all protected areas and for liaising with the Chief of Biodiversity Conservation Outside Protected Areas with respect to national programmes.

Duties & responsibilities

- Advise on Protected Area policy, especially at the local level.
- Ensure implementation of approved Protected Area management plans, business plans and tourism plans by Area Managers.
- Ensure implementation of all agreed procedures and the timely submission of monthly, quarterly, annual and special reports and all routine returns by Protected Area Managers.
- Coordinate, supervise and evaluate the national responsibilities of Protected Area Managers and ensure an objective annual evaluation of the ongoing performance of Protected Areas in relation to agreed management, business and tourism plans.

- Encourage and support monitoring and research needed to evaluate and enhance Park performance.
- Liaise with national and international organizations to coordinate ongoing work programmes in Protected Areas and ensure appropriate local participation in the management and benefits generated by Protected Areas.
- Evaluate, arbitrate and, where appropriate, respond to public complaints made against the management of Protected Areas,
- Evaluate the ongoing performance of Protected Area Managers and complete their annual performance reports.
- Report to the Head of Resource Management.

Job requirements

Education: University degree in biology with extensive related practical experience in the management of Protected Areas essential, and further studies in environmental planning, business management or tourism development and management an advantage.

Experience: At least 10 years of relevant experience.

Knowledge: Must have a good knowledge of the rules, regulations, ordinances and statutes pertaining to Protected Areas and natural resource conservation in Egypt, a sound understanding of management principles, strong qualities of leadership and a good understanding of cultural and community mores.

Ability: This post requires strong confident leadership and the ability to organize and prioritize tasks and programmes. The incumbent should be able to work independently and have strong interpersonal skills and initiative, the ability to work effectively with a wide range of individuals, communities and agencies and to build multicultural and multidisciplinary working teams. This extends to a strong ability to identify, analyze, investigate and arbitrate problems.

Skills: High communication skills in both Arabic and English and familiar with useful electronic aids.

4.2. Chief of Biodiversity Conservation Outside Protected Areas

Job Summary:

Responsible for overseeing the conservation and use of wild resources throughout Egypt outside Protected Areas and for liaising with the Chief of Protected Areas in all national programmes affecting the whole country.

Duties & responsibilities

- Advise on biodiversity conservation policy, especially outside Protected Areas. Devise and ensure the implementation of approved management plans, business plans and tourism plans relating to the conservation and sustainable use of biological diversity outside Protected Areas and implement a nation wide Community Based Wild Natural Resource Management Programme in selected priority areas, for later application elsewhere.
- Ensure implementation of all agreed procedures and the timely submission of monthly, quarterly, annual and special reports and all routine returns relating to the management of wild resources outside Protected Areas.
- Coordinate, supervise and evaluate the national responsibilities for management of wild resources outside Protected Areas and ensure the objective annual

evaluation of the ongoing performance of Ecologists working outside Protected Areas.

- Encourage and support monitoring and research needed to evaluate and enhance project and programme performance outside Protected Areas.
- Liaise with national and international organizations to coordinate ongoing work programmes in Protected Areas and ensure appropriate local participation in the management and benefits generated by Protected Areas.
- Evaluate, arbitrate and, where appropriate, respond to public complaints made against the management of wild resources outside Protected Areas,
- Evaluate the ongoing performance of Ecologists working outside Protected Areas and complete their annual performance reports.
- Report to the Head of Resource Management.

Job requirements

Education: University degree in biology with extensive related practical experience in the management of wildlife outside Protected Areas essential. Further studies in sociology, environmental planning, business management or the development of tourism and hunting would be an advantage.

Experience: At least 10 years of relevant experience.

Knowledge: Must have a good knowledge of the rules, regulations, ordinances and statutes pertaining to nature conservation and natural resource management in Egypt, a sound understand of management principles, strong qualities of leadership and a good understanding of cultural and community mores.

Ability: This post requires strong confident leadership and the ability to organize and prioritize tasks and programmes. The incumbent should be able to work independently and have strong interpersonal skills and initiative, the ability to work effectively with a wide range of individuals, communities and agencies and to build multicultural and multidisciplinary working teams. This extends to a strong ability to identify, analyzing, investigate and arbitrate problems.

Skills: High communication skills in both Arabic and English and fully familiar with useful electronic aids.

4.2.1. Officer I/C Hunting

Job Summary:

Plan and coordinate hunting activities.

Duties & responsibilities

- Ensure safe quotas and bag limits are set and that hunters are charged maximized hunting fees to participate in all authorized hunting.
- Enforce hunting laws, regulations and agreed codes of conduct.
- Prepare guidelines and codes of conduct to be followed by hunters.
- Develop comprehensive hunting management plans, including those that allow the earnings from hunting to be used to provide incentives to individual resource use right holders to conserve and use huntable species sustainably.
- Study and analyse the ethos, ethics and practical relationships existing between conservation and hunting with a view to using hunting to promote the conservation of selected species in Egypt.

- Promote cooperation between individuals, communities and governmental and nongovernmental organisations in the development of a quality hunting experience in Egypt.
- Coordinate actions to control illegal hunting.
- Monitor hunting and analyse information relating to hunting.
- Recommend hunting regulations based on the best biological and sociological information available
- Perform related work appropriate to the post.

Job requirements

Education: An advanced university degree in zoology or wildlife management, preferably with a bias to population dynamics.

Experience: At least four years working as a professional hunter or the equivalent.

Knowledge: a good knowledge of hunting and the recreational hunting industry, including how to determine bag limits and prepare and measure trophies. A good knowledge of the Egyptian and foreign hunting laws, the codes and standards of conduct insisted upon in many countries and the taxonomy and global distribution of species that are hunted in Egypt.

Ability: Strong interpersonal skills, ability to work as an independent agent with a wide range of individuals, communities and agencies, and to organize and prioritize a heavy work schedule..

Skills: Fluent in Arabic and English with knowledge of German and Spanish a decided advantage; familiar and able to apply the statistical models used in animal population dynamics.

4.2.2. Invasive Species Specialist

Job Summary:

Identify and organize the control of invasive species, as necessary, throughout Egypt.

Duties & responsibilities

- Develop a data base of the alien species with invasive properties that have been introduced to Egypt and describe their known spread and distribution.
- Establish a network of people working on these and related species to promote scientific and technical cooperation between the relevant stakeholders, including researchers from outside Egypt.
- Devise mechanisms aimed at preventing the introduction and establishment of new alien invasive species.
- Devise and implement a programme for the early detection and rapid elimination of newly introduced invasive species.
- Develop and implement a National Strategy for the control and elimination of existing alien invasive species where this is justified by their impact on a local or the national economy.
- Plan and implement public awareness campaigns to alert the public to the problems and need to control alien invasive species, including the sharing and coordination of information so as to maximize the effectiveness and efficiency of control measures.

- Cooperate with other agencies to develop and disseminate educational materials (publications, posters, videos, World Wide Web, etc.) to the public, interested organizations, and agency employees.
- Develop and implement plans to provide conditions more suitable for native biota.
- Develop a structured legal framework to address issues concerning alien species.
- Identify all funding sources that might be available for invasive species management.
- Sharing experience with other nations, states and organizations through documentation, staff exchanges, and by other means.

Job requirements

Education: University degree in biology, resource management, environmental studies or related field, with advanced studies in related disciplines an advantage.

Experience: At least two years related experience.

Knowledge: Techniques to control invasive species; good knowledge of taxonomy.

Ability: Strong interpersonal skills and the ability to work effectively with a wide range of individuals, communities and agencies; to work independently or in teams and to organize and prioritize work assignments; tolerate work under stress; maintain strict confidentiality; ability to use a GPS and other navigation tools

Skills: Fluent in Arabic and English, and proficient in useful computer skills.

CAREER PATH FOR RECRUITS IN THE PROTECTED AREA MANAGEMENT SECTION

This section considers the career paths for members of the Protected Area Management Section which should include two broad categories of permanent and contract employees, with overlapping pay scales: a Technical Grade and Ecologist Grade.

Technical Grade

Cadet Guards, Guard IIs, Guards, and Senior Guards

The pay scale for the Technical Grade should comprise 42 steps or annual increments to offer maximum flexibility and cater for all contingencies. The first five steps might cater for Cadet Guards from age 18 to 23 who should be recruits with the minimum of a basic schooling or older people with a particular aptitude and useful experience for the post in question. Eighteen year olds should normally be recruited on to Step 1 but older people may be recruited on any step up to Step 3. They would all serve a two to five year probation period and if successful in meeting a laid down level of proficiency would become Guard IIs on Step 6 and permanent employees. Assuming a retirement age at 60 these people could then expect to progress up through the annual increments to Step 42, or a slightly lower step if they are over the age of 23 when they become Guard IIs on the permanent establishment. Scale barriers may, however, be introduced at, say, Step 20 and 32 for people who have not achieved a specified lower level of proficiency appropriate to each barrier. Alternatively, Guard IIs should be awarded one, two or three steps of accelerated advancement for achieving higher levels of proficiency below each scale barrier or promotion to Guard I and Senior Guard.

Members of the Guard Force should be entitled to retire on pension at the end of 20 years service and again at the end of 32 years service. If their services are still of value to the Authority it may consider offering them one or two increments to extend their service by

twelve years in the first instance and until they are 60 years old in the second. An especially effective member of the Guard Force could thus earn up to 16 extra increments in a career spreading over about 30 to 42 years.

Junior Technician, Technician

People with technical qualifications (e.g. a university diploma or junior degree) or a recognized trade appropriate to the Authority's needs may be employed at an advanced position on the scale, depending on the nature of their qualifications and the requirement for them on the Authority's establishment. They should also be subject to a period of probation before being attested on to the permanent staff, and to scale barriers and advancement procedures for proficiency, although in their case proficiency testing may need to be geared to their specializations.

Ecologists' Grade

Ecologists, Senior Ecologists, Principal Ecologists, Chief Ecologists (or Protected Area Managers)

Ecologists should have a minimum qualification of a higher university degree. They may be employed on either the permanent staff or on contract, depending on the nature of the work they are required to perform. Those working on short term projects (of one to 5 years duration) should be employed on contract and should be paid at a rate of around three to five increments higher than their colleagues with similar qualifications and experience on the fixed establishment, in recognition of the limited duration of their employment.

Ecologists should enter the salary scale at around Step16 or above, with due allowance for the number of years appropriate experience or suitable qualifications they have gained after graduating. For example a Masters degree should earn one or two additional increments and a Doctorate (Ph. D.) three or four. Where degrees like veterinary science or medicine take longer than four years to complete at university this should be allowed for in deciding a recruit's starting salary.

Ecologists, whether employed on contract or the permanent establishment should serve a probationary period of one to five years when they can either leave after giving one months notice or can be summarily discharged after a similar period of notice, if their performance is not satisfactory. A person should be attested to the fixed establishment only when he/she has satisfied higher authority that he/she is suitable in all respects for the post he/she is filling and this has been confirmed by the Authority's Staffing Board.

Advancement by one increment per year should be more or less automatic for people performing satisfactorily between scale barriers at Step 26 (after ten years or less service) and Step 36 (after 20 years of service). Promotion past these scale barriers to Senior Ecologist and Principal Ecologist respectively should each earn two additional increments, but would be subject to a rigorous evaluation of a person's performance, initiative, reliability and overall suitability for advancement, by the Staffing Board. The Board may also wish to reward outstanding contributions by staff by awarding them up to three additional increments (singly or together) between scale barriers or by promoting a person across a scale barrier before he/she reaches the barrier. Principal Ecologists should have a short salary scale of only about two incremental steps, before joining the

Chief Ecologists/Area Managers on a super scale where each officer's annual increment should be decided purely on merit by the Staffing Board, after a detailed evaluation. This would allow the Authority to remunerate world class scientists and management specialists in its employment according to their individual worth in the global market place.

Compensation at Separation

A person who leaves the employment of the Authority or who is discharged from its service during his/her period of probation should receive no compensation. Thereafter they should be compensated according to a scale of pay calculated as the proportion of their final salary multiplied by a factor determined from their last salary Step less the Step on which they were first recruited. Thus a person on a final salary of EL10 000 p.m. who was recruited on Step 16 and resigned or retired on Step 36 would after, say, 12 years service receive $EL10\ 000 \times 20$ divided by 42 x a factor (which may vary depending on whether a person retires or resigns), to be decided by the Authority.

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**Graham Child,
Fish Hoek
Cape Town
Thursday, 18 May 2006**

Appendix I

Draft POLICY FOR MANAGING PROTECTED AREAS OR CLUSTER OF PROTECTED AREAS

1. Governance.

National Protected Areas or clusters of Protected Areas will each be managed by a Board appointed by the Minister on the advice of the Nature Conservation Council which shall have representation on every such Board. The Director General of the Nature Conservation Authority and a senior member of his staff will also be members of these boards on which the remaining four Members will be drawn from local communities in the area where a Protectorate or cluster of Protectorates is located. Local members will be selected to represent Local Government and local communities, with emphasis on stakeholders who have invested in services in the Protectorate, or who have traditional resource rights in the area it covers.

Protected Area Boards will meet at least once a year to guide management and ensure the ongoing protection of the natural values and sustainable use of Protected Areas. They will objectively evaluate past progress and guide future management, in terms of the resource management, business and tourism plans for the area, setting clear objectives to be accomplished by the annual work plan applicable to the Board's area of responsibility. This information will be reported to the National Council for Nature Conservation.

The representatives from the Nature Conservation Council and Nature Conservation Authority on a Protectorate Board will ensure that all management actions in the Protectorate are undertaken in accordance with laid down national and area policy, and will veto any Board decision that threatens to transgress this policy.

2. Planning

2.1. Natural Resource Protection and Management, Tourism and Business Plans will be prepared by the Nature Conservation Service for each Protectorate under the general supervision of the Director General and in consultation with the local Members of a Protectorate Board. These Members should consult with their local constituencies to promote the generation of local benefits from the proper management of a Protectorate so as to promote public acceptance of the area and its use.

2.2. These plans and any amendments to them will be submitted to the National Council for Nature Conservation for consideration and approval. Where development is desirable for any reason in a Protected Area, it will be subject to an environmental impact assessment to be considered first by the responsible local Board. If the Board agrees to the development it will submit its recommendation to Council and the Council's decision will be binding on the local Board and the Nature Conservation Authority.

3. Management

- 3.1. The physical management of a Protected Area will be undertaken by the Nature Conservation Authority, by the Area Manager and his staff with broad supervision from the Director General. It will be in terms of Natural Resource Protection and Management, Tourism, and Business Plans, recommended by the Protected Area Board and approved by the Nature Conservation Council.
- 3.2. Management of a Protected Areas (or clusters of Protected Areas) will be supported by a grant in aid from Government, or a donor, augmented by revenue the area generates from entry charges, concession, licenses fees or the like, with the aim of using free market forces to first make it financially self supporting and then profitable. Sporadic, unpredictable windfall earnings, such as those from fines for infractions or physical damage to the natural assets in a Protectorate shall not be treated as part of the regular income of a Protected Area or group of Protected Areas. It will be credited to a special fund and used by Council to rehabilitate the natural resources in the Protected Areas or to further develop their use.
- 3.3. Any or all management activities in a Protected Area may be outsourced to public and private sector providers, on condition the local Board and the Director General are both satisfied that the provider can offer a service of sufficient quality at a competitive price. All contracts to undertake a management function and all concessions to offer visitors to a Protected Area a public service will be in terms of a well crafted agreement of fixed duration, varying from one to twenty years, depending on the magnitude of the investment and the costs involved in undertaking the function or providing the service in question. These agreements will specify the standards to be achieved, the payments to be made by either party to the agreement, the conditions under which it may be terminated, and will include a provision for the management authority to revise the terms and conditions of the agreement for sound technical or economic reasons.
- 3.4. Where it is possible to generate a flow of benefits from a Protected Area or cluster of Protected Areas for the benefit of members of the public, especially for neighbours of a Protected Area who can benefit, this will be in terms of ancillary Policy Documents that spell out the nature of the benefits, how they will be realized sustainably and who may benefit. This Policy will also describe the terms and conditions of fixed term agreements to be entered into between a Protected Area and registered individuals, associations or companies permitted to realize such benefits and the fees, if any, that they may be required to pay annually to do so. Provision will also exist to cancel or suspend any such agreement where the holder is in breach of the conditions of his agreement.
- 3.5. No further land in national Protectorates will be sold to the private sector but, suitable sites identified in the management plans may be leased, subject to an environmental impact assessment, for the development of important management activities or the provision of appropriate visitor services.

4. Monitoring Management Performance

- 4.1. The biological diversity and general health of wild populations of plants and animals in the various easily recognisable ecosystems in Protected Areas will be monitored annually, using indicator species, to ensure that resource management is achieving the aims of the management programme and is sustainable. Likewise, all developments, public services and authorised uses of an area or its recognisable ecological and physiognomic sub-divisions will be monitored to ensure that the uses permitted are sustainable and not detracting from the area's long term aesthetic attractiveness.
- 4.2. Monitoring of management performance will be based on objectively verifiable criteria for ascertaining the effectiveness of the management and whether it is accomplishing its stated objectives. It will be undertaken in terms of work plans that will require the data to be evaluated to determine the cost effectiveness of management actions and permissible uses of the area. This will be on an annual basis and the results will be fully reported, through higher authority, for consideration by the Director General and Council.
- 4.3. The data and analysis of the data from monitoring effectiveness of management and cost effectiveness of the use of an area shall be lodged with the Data Base and shall become part of the permanent records of the Nature Conservation Authority.

Appendix II

Draft

POLICY FOR A PUBLIC AND PRIVATE SECTOR PARTNERSHIP TO MANAGE THE WHITE DESERT NATIONAL PARK

It is visualised that a number of Protectorates may be managed by the Nature Conservation Authority in partnership with local stakeholders living in the areas in which Protectorates are located. This topic was especially prominent with regard to the White Dessert Protectorate at the time of the present consultancy and the opportunity was taken to visit the area. The arrangement outlined below is a suggestion as to how this most desirable development between the public and private sector may be implemented in this case.

The concept is desirable as it introduces a measure of proprietorship and local pride for the people who must bear the opportunity costs of having a Protectorate declared in their area.

JOINT PUBLIC AND PRIVATE SECTOR MANAGEMENT OF THE WHITE DESERT NATIONAL PARK

1. The White Desert National Park will be managed jointly by the National Nature Conservation Council (NNCC) and the local communities living in the area, through an organisation to be known as the White Desert Management Board. This Board will have three voting members from the NNCC (a Member of the NNCC, the Director General of the Nature Conservation Authority and the Area Manager) and four voting members from an organisation to be constituted locally among people living in the Farafra and Bahariya areas, to be known as the White Desert Management Association (the Association). The prime concern of the NNCC members will be to ensure that the area is managed in accordance with National Policy for the Protection and Proper Sustainable Management of National Protectorates in a Natural State, and to this end, these members will each have the power of veto over any of the Board's decisions, so as to protect the State's interest and investment in proclaiming the area. The Association's Members' prime concern will be the long term conservation and sustainable use of the area and its resources, in order to safeguard Members livelihoods and their investment in carrying the opportunity costs of having a Protectorate in their area and developing tourism services to it.
2. The National Park Area will be managed by the Nature Conservation Authority (NCA) with assistance from the Board, in terms of a management plan drafted by NCA in collaboration with local Board Members (who should consult their constituencies) and recommended by the Board for endorsement by NNCC. Once NNCC has agreed the plan it will be binding on the Board until such time as it is amended by NNCC. This management will be paid for by a grant in aid from NNCC, augmented by a large proportion of the revenue generated by the

National Park, with the aim of making the Park and its correct management as financially self supporting as possible.

3. Revenue will be derived from three sources:

- a) entrance charges,
- b) concession fees and
- c) guiding license fees.

All visitors will pay an entrance fee and will be accompanied by a Member of the association who is a guide licensed by the Board, or will pay a premium entrance charge to visit the area without a guide.

4. All Members wishing to accompany visitors into the National Park will pay a joining fee and an annual license fee, will comply with the law in all matters relating to their level of participation in the tourism business, and may be required by the Association to pass an annual proficiency test. The latter will ensure they are fully aware of and willing to comply with the regulations applying in the National Park, and will be an assurance that they are willing to conform to the Association's codes of conduct in the area and while conducting visitors to it.
5. All guides should be affiliated to one or more Corporate Members of the Association from whom they can expect to derive guiding opportunities. The Corporate Members will be Hoteliers, Camp Owners, Tour Operators and the like, licensed annually to operate in the National Park. Their function will be to package and market different safari packages, to be undertaken by the licensed guides and to offer support services for these safaris outside the Protectorate. A Corporate Member may also be an ordinary Member and undertake his own safaris.
6. Benefits from using the White Desert National Park as a tourism destination will be focused towards local people from the area. This will be achieved through differential Membership and Corporate Membership dues that are cheaper for local residents of the Farafra and Bahariya areas than for residents outside these areas.

Appendix III

Draft POLICY FOR MONITORING AND RESEARCH IN PROTECTED AREAS IN EGYPT

Background

Monitoring and research should be integral components of the management and use programmes in Protected Areas, but these areas should not be viewed as convenient venues for research that is not strictly relevant to their prime purpose. Monitoring provides the means for determining just how effective the protection of natural landscapes and the conservation of biological resources in the area are, or just how sustainable permitted use in it is proving to be. It should also be used to determine the ability of the area to continue to add value to society over time, through the on-going generation of income and other human benefits, and whether the human and financial resources available to manage it are sufficient for the purpose and, if so, whether they are being used efficiently. It should also be the main driver of research, by highlighting where more social, ecological, economic, commercial or operational information and knowledge is desirable and in what form, in order to enhance the effectiveness or efficiency of the management agenda.

Experience has taught that the only practical way of integrating management and use of anything other than a very small Protected Area with the necessary monitoring and research is to make extensive use of adaptive management techniques. This implies employing the best available data to take action or allowing only very conservative use of the area and then monitoring them to ensure the actions is achieving its objective or the use is not causing any abuse of the area. By carefully monitoring the outcome the action or use can be refined in the light of the ongoing experience.

An inventory or “biomap” of the species and their numbers that occur or should occur in a given area is important to protected area management when selecting protected areas. Once sites have been chosen, information relating to the current status of organisms is much less significant to judging the effectiveness of the coverage or how well it is being managed than good data on trends in the numbers of populations of key species or trends in key ecological processes. For example, in a savannah it is usually more important to understanding the soil/plant/animal relationships to know whether perennial grasses are spreading or receding than to know which species of grass are involved. This is because many species of grass behave in a similar way under similar ecological circumstances with the actual species being determined by historical chance and the prevailing nature of a site.

In designing the monitoring and research programme for a Protected Area or system of such areas it is important to proceed from the general to the particulate. This implies setting strict priorities for using the available in-house monitoring and research capacity, including the amount of sponsorship that can be offered to outside researchers undertaking strictly non intrusive research projects. In this regard, the current numerical status of a minor species in a natural ecosystem is important only if the information can be used practically to alter the strength of the species to a more satisfactory level, bearing

in mind that Protected Area managers must often deal with hundreds of square kilometres of habitat with only crude tools.

Policy

1.1. The Chief of Monitoring and Research will prepare a programme to monitor the effectiveness of the Nature Conservation Authority's management agenda in Protected Areas, on an annual basis and will report his findings through his higher authority to the Council by June 30th each year. Using objectively verifiable indicators this report will describe how well natural landscapes and natural values are being protected in each area, how well key species are being conserved, how sustainable the use of the area is, its revenue generation, and the cost effectiveness of the management programme in it. Council will include an accurate synopsis of this account in its annual report to the Minister and the people of Egypt.

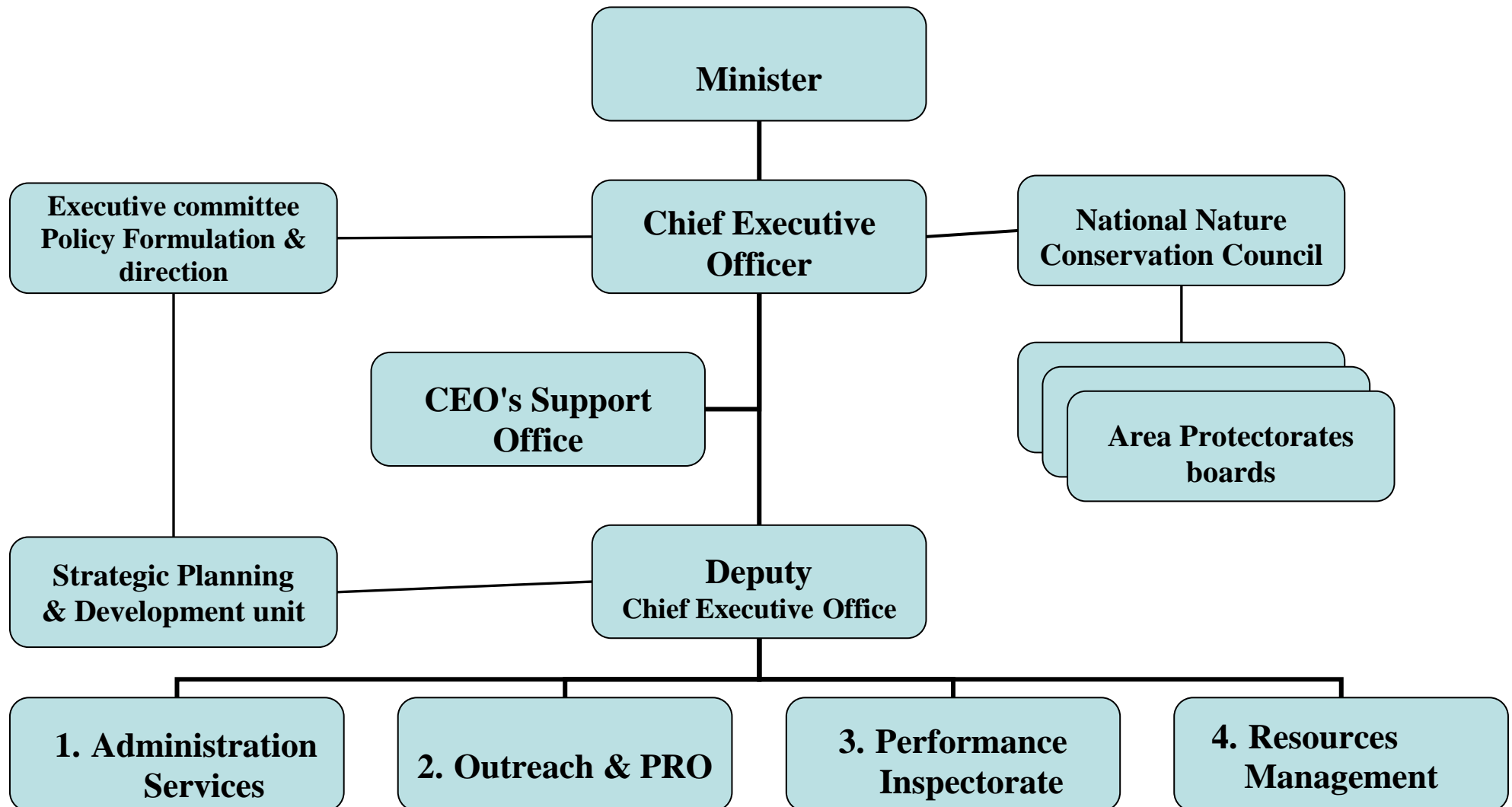
1.2. Non-intrusive research, for which the Nature Conservation Authority has a priority need will be undertaken by the Authority's staff in terms of Work Plans approved by the Chief of Monitoring and Research. These Work Plans will describe the object of the study; the nature of the work; how, when and by whom it will be done; the number of plant or animal specimens it is intended to collect (with full justifications) and where they will be permanently housed, what it will cost and, particularly, its anticipated value to the organisation.

1.3. Similarly, non-intrusive research may be undertaken by non-staff members of the Authority with the approval of the Chief of Monitoring and Research, upon submission of a project memorandum indicating the nature of the work proposed and, if this is approved, the submission of a detailed work plan along the lines required from staff members. Outside research workers will be required to keep their work confidential, except where exempted from this provision by the Director General in writing. They will also be expected to house a copy of all their data in the Authority's Data Base and to provide it with a copy of any publication or report resulting from their work.

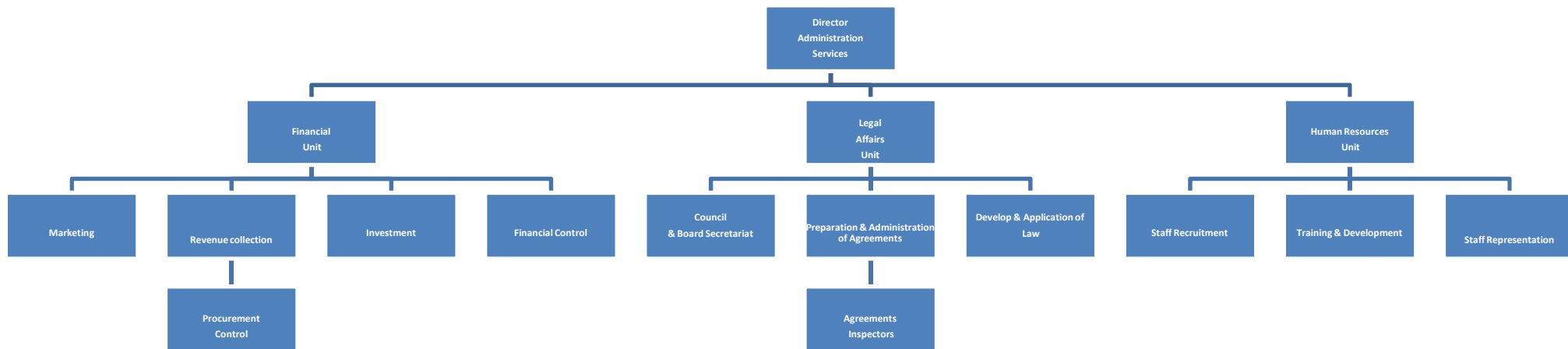
1.4. Intrusive research will not normally be permitted in a Protected Area, but where it is required it may be undertaken on similar terms to non-intrusive research on the recommendation of the Director General in terms of a permit endorsed by the Chairman of Council.

1.5. Progress of all research undertaken in the Protected Area estate will be reported to the Chief of Monitoring and Research quarterly, giving a full analysis of all data. Changes may be submitted at this time to approved Work Plans for consideration by the Chief of Monitoring and Research.

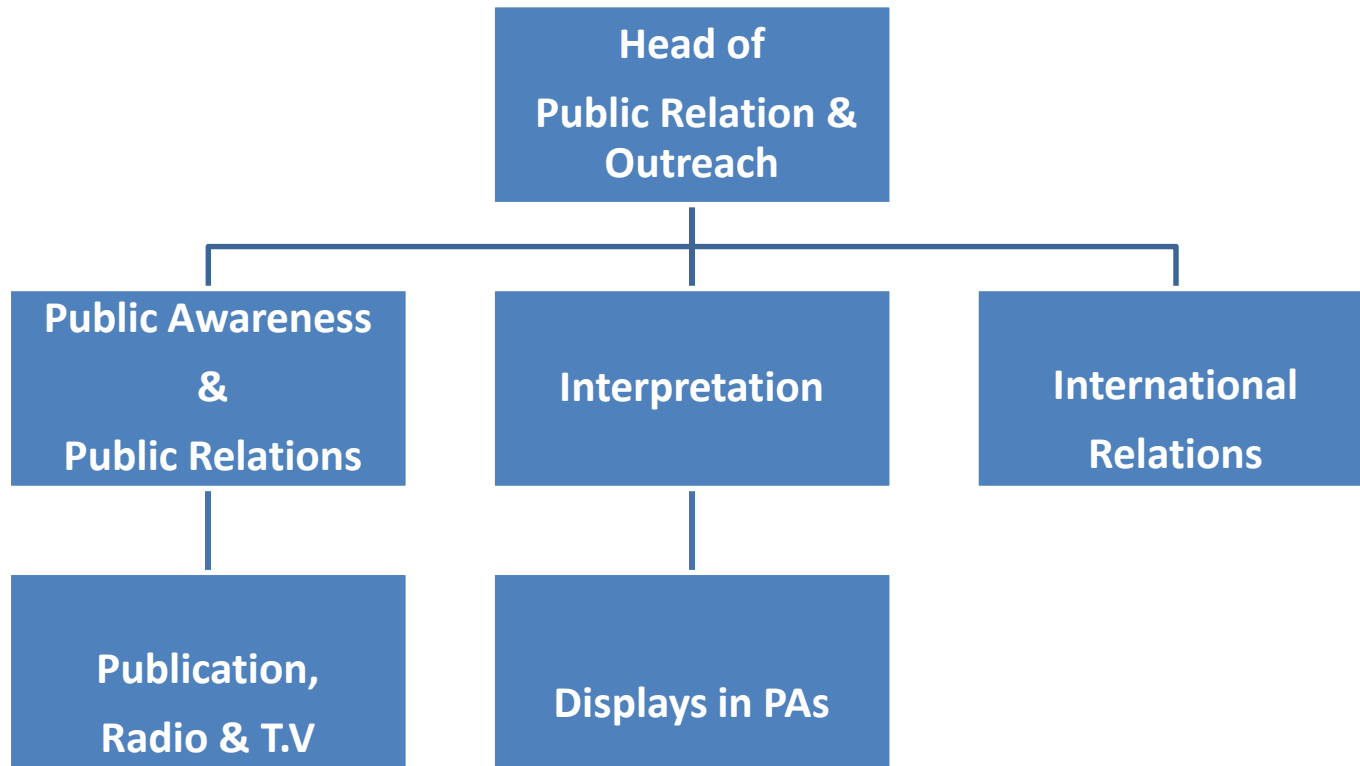
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ORGANIZATION OF NATURE CONSERVATION AUTHORITY'S FUNCTION**



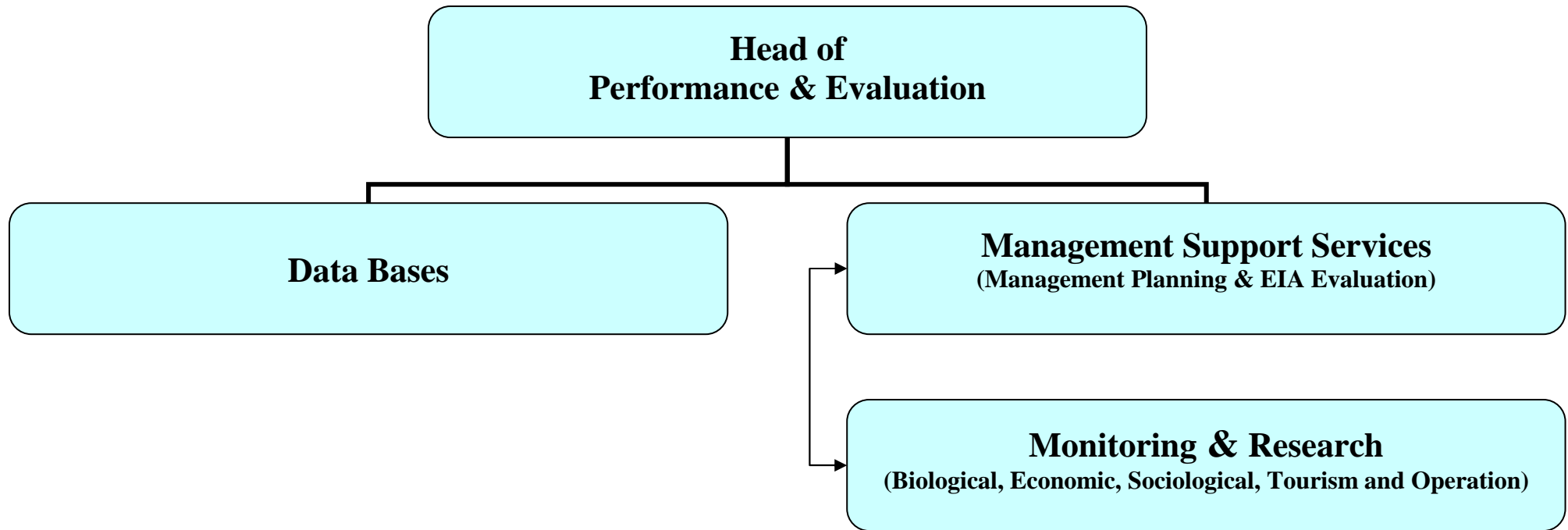
1. Administration Services Branch



2. Public Relation and Outreach Branch



3. Performance & Evaluation Branch



4. Resources Management Branch

