

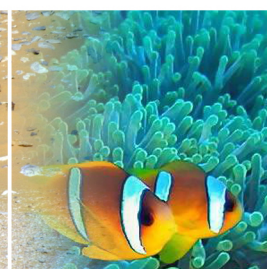
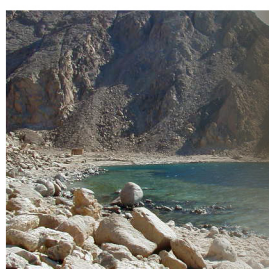
# NATURE CONSERVATION SECTOR

## FINANCIAL ANALYSIS

### 2000 - 2005



**MYRETTE EL-SOKKARI**



**Project Report  
September 2005**

**NCSCB**  
CAPACITY BUILDING PROJECT



## Executive Summary

The Nature Conservation Sector (NCS) of the Egyptian Environmental Affairs Agency plays a crucial role in maintaining and conserving a large estate of Egypt's territory, estimated at around 10% of total area, and is expected to increase as more protected areas are declared.

The need to transform the NCS into a modern and effective institution has been under discussion and study since the First Egyptian International Conference on Protected Areas and Sustainable Development in 2002. The establishment of a self-financing and autonomous body has necessitated the analysis of the financial position of NCS, its sources and uses of funds.

This study conducts an audit of the NCS current and historical budget; the historical expenditures and generated revenue over the period 2000-2005.

The amalgamated figures show that over the period 2000-2005 the NCS budget from the government has been decreasing over the last 3 years, and totaled LE 58.7 Million, and the total earnings by the sector have been increasing over the 5 years, reaching over LE 20 Million in the last year, with a period total of around LE 100 Million, almost double the budget. The study also shows that the sources of funds over the period under study are mainly from fees and penalties. Fees are charged at a small number of protectorates, and the fee collection could be greatly increased through wider and more effective implementation of fees, and reassessment of fee structures.

The revenue generated could be increased through development of other income generating sources. Concessions for example currently contribute only 2% of total earnings; likewise hunting permits contribute negligible income. The concession agreements as well as the hunting permits need to be reassessed.

From this study it is clear that one of the most important assets of the NCS is its staff. Currently the staff are just over 500 persons, though the manpower needs to meet the required conservation efforts based on minimal world standards are five times that number. The salaries and wages bill has been increasing over the period reaching over 50% of the total budget in 2005, leaving little for investment, operating and maintenance costs. The continuation of such a situation will surely have a negative impact on the protected areas and consequently on the national economy, given that some of the protectorates are Egypt's number one tourist attractions.

The implications of the deterioration of the protectorates on national income have not been estimated in this study; however, tourism has a strong multiplier effect on a large number of service sectors in the Egyptian

economy. Tourism is one of Egypt's main sources of income. Thus the conservation of Egypt's protectorates is of great national importance and is not only an end but a means of developing and increasing national income.

The study clarifies the expenditures on the different protectorates and gives details of the revenue generated by each protectorate over the period. The need to develop the revenue generation is clear and the gaps in expenditure on the protectorates are also highlighted. The historical analysis implies a need for financial autonomy, which is in line with the global trend of establishment of autonomous, self-financing bodies, with the government (Ministry) being the overseer and regulator.

# Nature Conservation Sector

## Financial Analysis

|   |           |
|---|-----------|
| <b>Executive Summary .....</b>                              | <b>1</b>  |
| <b>I. Introduction .....</b>                                | <b>3</b>  |
| <b>II. Budgetary Provisions .....</b>                       | <b>4</b>  |
| <b>A. Ministry of State for Environmental Affairs .....</b> | <b>4</b>  |
| <b>B. Ministry of Planning .....</b>                        | <b>4</b>  |
| <b>C. NCS .....</b>   | <b>4</b>  |
| <b>1. Budget Allocations: .....</b>                         | <b>4</b>  |
| <b>2. Expenditures: .....</b>                               | <b>5</b>  |
| <b>3. Salaries and Wages .....</b>                          | <b>6</b>  |
| <b>III. Expenditure .....</b>                               | <b>8</b>  |
| <b>A. Protectorates Expenditure .....</b>                   | <b>8</b>  |
| <b>B. Itemized Expenditure 2004 – 2005 .....</b>            | <b>10</b> |
| <b>C. Per Capita Expenditure on Protectorates .....</b>     | <b>12</b> |
| <b>IV. Revenue .....</b>                                    | <b>13</b> |
| <b>A. Total Revenue .....</b>                               | <b>13</b> |
| <b>B. Sources of Revenue .....</b>                          | <b>14</b> |
| <b>C. Revenue Generated by Each Protectorate .....</b>      | <b>16</b> |
| <b>D. Uses of Revenue .....</b>                             | <b>18</b> |
| <b>V. Revenue vs. Expenditure .....</b>                     | <b>19</b> |
| <b>VI. Budgets vs. Needs .....</b>                          | <b>20</b> |
| <b>A. World Norms .....</b>                                 | <b>20</b> |
| <b>B. St. Katherine Protectorate (Egypt) .....</b>          | <b>20</b> |

|  |           |
|--|-----------|
| <b>VII. Revenue vs. Needs .....</b>                    | <b>22</b> |
| <b>VIII. Environmental Protection Fund (EPF) .....</b> | <b>23</b> |
| <b>A. Objective .....</b>                              | <b>23</b> |
| <b>B. Sources .....</b>                                | <b>23</b> |
| <b>C. Uses of Funds .....</b>                          | <b>24</b> |
| <b>IX. Conclusion .....</b>                            | <b>25</b> |

## **Table of Tables & Graphs**

|                     |  |           |
|---------------------|--|-----------|
| <b>TABLE (I)</b>    | <b>Annual Budget vs. Expenditure of NCS</b>                                | <b>4</b>  |
| <b>TABLE (II)</b>   | <b>Salaries &amp; Wages/Annual Protectorates Expenditure</b>               | <b>5</b>  |
| <b>TABLE (III)</b>  | <b>Detailed Protectorates Expenditures 1/7/2000- 30/6/2005</b>             | <b>7</b>  |
| <b>TABLE (IV)</b>   | <b>Itemized Protectorates Expenditures 1/7/2004- 30/6/2005</b>             | <b>9</b>  |
| <b>TABLE( V)</b>    | <b>Per Capita Expenditure on Protectorates</b>                             | <b>10</b> |
| <b>TABLE (VI)</b>   | <b>Annual Revenue of Protectorates 1/7/2000- 30/6/2005</b>                 | <b>11</b> |
| <b>TABLE (VII)</b>  | <b>Summary Sources of Income (2001 - 2005)</b>                             | <b>13</b> |
| <b>GRAPH (A)</b>    | <b>Revenue Sources 2000 – 2005</b>   | <b>13</b> |
| <b>TABLE (VIII)</b> | <b>Detailed Revenue Generated by Protectorates<br/>1/7/2000- 30/6/2005</b> | <b>15</b> |
| <b>TABLE (IX)</b>   | <b>Summary Revenue vs. Expenditure</b>                                     | <b>17</b> |
| <b>GRAPH (B)</b>    | <b>Summary Revenue vs. Expenditure (LE)</b>                                | <b>17</b> |
| <b>Table (X)</b>    | <b>EPF Sources and uses of funds</b>                                       | <b>21</b> |

## I. Introduction

The First Egyptian International Conference on Protected Areas and Sustainable Development in 2002 recommended that the NCS become an autonomous agency under the Ministry of Environmental Affairs. This recommendation is in line with the international trends of creating financially self-sustaining bodies. The Egyptian government is also following this trend, as it has started in its privatization process a number of years ago, and the government is encouraging governmental organizations to become autonomous, self-sustaining institutions. It is also in line with the growing responsibilities of NCS; in terms of the growing number of protectorates, the increased area; whether land or water, and the evolving responsibilities of nature conservation.

The vision of institutional reform of the NCS has been developing over the past few years. A number of initiatives and preliminary proposals that have been presented to the Ministry have gained his support.

Towards the development of establishing NCS as a modern and effective institution for nature conservation, studies of the current institutional and financial status of NCS, as well as the legal, institutional and financial feasibility of establishing an independent institution are required by the decision makers as supporting documents to determine the best options for reorganization of the NCS.

This study is to conduct a preliminary audit of the NCS current and historical budget; allocations, and uses of funds. This audit is a step towards the development of a comprehensive business plan leading to financial self sufficiency for the future NCS. The study analyses the budget allocations, and historical expenditures. It also analyses the historical generated revenue from fees as well as other sources, and the proportion of revenues generated by the protectorates that is repatriated to those protectorates.

This study relies on financial data obtained from the NCS financial department, and on interviews of NCS management. This endeavor was very difficult as the accounting department of NCS is not always informed of all revenue (such as concessions and penalties which are processed by the legal department and the funds are deposited in EPF directly, at times without notification of NCS). Other data were obtained from internationally recognized sources and from published statistics. The analysis is based on financial examination of the sources and uses of funds.



## **II. Budgetary Provisions**

### **A. Ministry of State for Environmental Affairs**

The budgetary allocation for the different departments in the Ministry of State for Environment is based on the following process. Every 5 years, a national 5-year plan is prepared. The Ministry of Planning sends out a request to all ministries to prepare a document of requests for budget allocations, for the upcoming 5 years. This request is then prepared by the Ministry's different departments; each specifying the projects the department plans to implement within the next 5 years, the costs to be incurred and the time span for each project. This document also specifies the available donor aid and its allocation in the Ministry's departments. The Ministry's Department of Finance and Administration then compiles all the requests by the different departments, and then the Ministry's needs are sent to the Ministry of Planning, as the Ministry's envisioned 5-year plan and relevant budget needs.

### **B. Ministry of Planning**

The Ministry of Planning compiles all of the ministries budget needs and plans, and produces a National 5 year Plan based on inputs of all of the ministries and expected generated resources of the country. Given the needs requested by each Ministry in their aggregate are greater than the national budget the Ministry of Planning makes allocations to each Ministry according to national priorities, available donor aid and other social and political factors.

### **C. NCS**

#### **1. Budget Allocations:**

Each Ministry is allocated funds, for the coming 5 years. This allocation is earmarked by project. Internally the Ministry allocates the funds to each department according to the approved projects and available funding as specified by the Ministry of Planning. The Ministry of Finance prepares annually an annual budget based on actual needs and national resources and is reviewed by the Parliament, approved and then each Ministry receives its annual budget prior to the financial year. The Ministry of Environment usually receives its budget via the National Investment Bank in installments starting from the month of August or September. Hence each department has its annual budget specified, as part of its annual 5-year budget.

The budgeting process continues during the year, as the progress of projects does not necessarily coincide exactly with the proposed timing. Hence within the Ministry there is some flexibility in the hands of the department managers in

cooperation with the Department of Finance and Administration, and with the approval of the Ministry to maneuver funds between different departments or projects within the same budget lines and according to the progress of projects and activities implemented.

Table I below, gives the historical budget allocations to the NCS over the period 2001-2005. The table shows the budget has been progressively decreasing since 2002 from LE 16.7 Million in 2002-2003, to LE 14.1 Million in 2003/04, and to LE 11.49 Million in 2004/5. A review of the allocated budgets over the period gives some indication of the magnitude and trend of the budget. However what is more relevant to our analysis is the actual expenditure. During the year the budget may be flexible, or additional funding may be allotted to the Ministry and subsequently NCS.

## **2. Expenditures:**

The actual expenditures, as summarized in Table I shows that the actual expenditures varied greatly from the budget. This is clear in 2000-2001 and 2001-2002, where expenditures were more than three times the allocated budget in 2000/2001, and likewise expenditures were around 1.4 times the budget in 2001/2002. These high expenditures are mainly due to the high expenditures in Gulf of Aqaba protectorates, and include the staff housing and training center in Sharm El Sheikh; (LE 13 Million). This high expenditure is a distortion and is mainly due to the enforced expenditure due to the protocol which was signed between the EU and the EEAA, stipulating a certain amount of expenditure be made by EEAA as a condition for the donor funds.

The following period 2002- 2005 witnessed decreasing budgets and expenditures as a percentage of the budget. In 2002/2003 and 2003/2004 the expenditure was around 72% and 82% respectively of the budget. In 2004/05 expenditure as a percentage of the budget was around 87% of the actual budget. Over the period of 2001-2005, however expenditure was over 100% of the allocated budget, again reflecting the distortion due to the enforced expenditure in 2001.

The decreasing expenditure trend over the past three years negatively impacts on the management of the protectorates as the responsibilities and projects require more funds, and inflation deteriorates the real value of the budgets. It is important to note that the protected area estate has been increasing over the period from 80,000 km<sup>2</sup> in 2000 to 98,000 km<sup>2</sup> in 2005, which is an increase of around 22% and is expected to grow further as more areas come under protection; it is projected to reach 40 protectorates by 2017, representing around 17% of Egypt's total area. The increase in PA area of over 20% has been coupled with a decrease in expenditure of around 35% (LE 15.5 Million in 2000 to LE 10 Million in 2005). This decrease in nominal and real budgets adversely impacts on the individual protectorates.



During the period under study a number of international agencies were conducting projects in different parks and with differing objectives. Large sums of money were pledged and expended during this period, estimated at over LE 100 Million, double the NCS budget for the period. Exact total expenditure and the details of expenditure items are not easily accessible and will be analyzed in a future report. This total is also misleading since a part of these expenditures were for technical assistance, training and other types of expenses. However this donor contribution has been significant for a number of PAs.

**TABLE (I)**  
**Annual Budget vs. Expenditure of NCS**  
**(2000 - 2005)**

|                        | 1/7/2000-<br>30/6/2001 | 1/7/2001-<br>30/6/2002 | 1/7/2002-<br>30/6/2003 | 1/7/2003-<br>30/6/2004 | 1/7/2004-<br>30/6/2005 | TOTAL      |
|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------|
|                        |                        |                        |                        |                        |                        | LE Million |
| Budget                 | 4.85                   | 6.919                  | 16.741                 | 14.057                 | 11.488                 | 54.055     |
| Actual<br>Expenditure* | 15.5622                | 9.558                  | 12.029                 | 11.519                 | 10.027                 | 58.695     |
| Actual/budget          | 3.21                   | 1.38                   | 0.72                   | 0.82                   | 0.87                   | 1.09       |

Source: Egyptian Environmental Affairs Agency

### 3. Salaries and Wages:

The expenditures by the protectorates include investments and operating costs (rent, electricity, fuel, oil, maintenance). The salaries and wages of permanent government staff are not considered part of the operating costs of the NCS allocated budget. The salaries and wages are part of the Ministerial bill. However there are a large number of salaried employees, estimated at around 400 persons of a total of 520 persons (75%) that are paid out of the NCS budget. These are personnel that the NCS needs in its operations however the Ministry has not yet approved them on permanent basis. The relevant issue is that this bill has been growing as a percentage of total allocated budgets to the NCS over the last years.

Table II, (Salaries & Wages/Annual Protectorates Expenditure), gives insight into the magnitude of the non-permanent staff wages and salaries compared to the total budget/expenditure. It shows that the total salaries and wages expended during the period 2001-2005 totaled LE 23.3 Million which is around 40% of the operating and investment costs. Throughout the period of 2000-2005, the salaries and wages bill has been increasing from LE 2.8 Million in 2000/01 to LE 5.6 Million in 2004/5. At the same time the expenditures on investment and operation has been decreasing from LE 12.76 Million in 2000/01 to LE 4.4 Million in 2004/5. In the last year, 2004/2005,

total expenditures including wages and salaries registered LE 10.027 Million, of which LE 5.6 Million, over 55%, was paid as salaries and wages.

The salaries and wages bill as a proportion of the total budget has been increasing reaching 47% of the total budget in 2004, and 56% in 2005. The increasing proportion is partly due to increasing number of employees, inflation, and the deteriorating budget. The number of staff has been increasing from 225 persons in 2000, reaching around 500 in 2005. This 100% increase in staff has impacted on the salaries and wages expenditure. This bill is currently a heavy burden on the NCS budget, and it is expected to increase as more areas come under protection, requiring more staff, and as salaries and wages of the existing personnel increase, due to the need for reassessment as qualified staff tend to be underpaid and are attracted by other jobs. The projected needs of staff based on international standards of 27-40 persons per one thousand km<sup>2</sup>, translates to a need of around 2700-4000 persons for the current estate, 50% of whom need to have high qualifications, with the rest being support staff.

| TABLE (II)   |                        |                        |                        |                        |                        |                    |
|--|------------------------|------------------------|------------------------|------------------------|------------------------|--------------------|
| Salaries & Wages/Annual Protectorates Expenditure<br>(2000 - 2005) |                        |                        |                        |                        |                        |                    |
|  | 1/7/2000-<br>30/6/2001 | 1/7/2001-<br>30/6/2002 | 1/7/2002-<br>30/6/2003 | 1/7/2003-<br>30/6/2004 | 1/7/2004-<br>30/6/2005 | TOTAL<br>2000-2005 |
|  |                        |                        |                        |                        |                        | LE<br>Million      |
| Actual Fixed Assets &<br>Operating Expenses                        | 12.76                  | 5.46                   | 6.63                   | 6.12                   | 4.43                   | 35.40              |
| Salaries, wages*   | 2.80                   | 4.10                   | 5.40                   | 5.40                   | 5.60                   | 23.30              |
| Total Expenditure  | 15.56                  | 9.56                   | 12.03                  | 11.52                  | 10.03                  | 58.70              |
| Salaries & wages/Total<br>Expenditure                              | 17.99%                 | 42.90%                 | 44.89%                 | 46.88%                 | 55.85%                 | 39.70%             |
| *non-permanent employees   |                        |                        |                        |                        |                        |                    |
| Source: Egyptian Environmental Affairs Agency                      |                        |                        |                        |                        |                        |                    |

### III. Expenditure

#### A. Protectorates Expenditure

The process of budget allocation within the department is flexible at the level of the Central Department Director (Dr. Mostafa Fouda) and the Finance Office, with the approval of the Ministry. The deciding factors are the priorities of expenditures and the activity by the protectorate manager, as well as availability of donor or grant funds. It is not in any way related to the ability of the protectorate to generate funds or the efficient management of the protectorate.

Table III, (Detailed Protectorates Expenditure 1/7/2000 - 30/6/2005) provides details of the budget allocations for the individual protectorates over the period 2000-2005. From the table it is clear that expenditures are intermittent. There is great variation in expenditure between the differing protectorates, as well as during the period. There are not any specific trends or clear expenditure patterns for each individual protectorate. This could be due to higher expenditures on infrastructure during establishment periods as in the case of Gulf of Aqaba (LE 10 Million in 2000/1), or the Red Sea (LE 3.2 Million during 2002-04). It could also be explained by the availability of donor funding, and donor protocols specifying levels of expenditure.

Total expenditure declined from LE 12.75 Million in 2000/1 to LE 4.43 Million in 2005. St. Katherine received high allocations in 2000-2002, reaching LE 1.7 Million. However since then, according to the data provided by the EEAA, it did not receive any funding in 2002/3 and 2003/4, and only LE 7000 in 2004/5. The high expenditures in the 2000/1 and 2001/2 are explained by the existence of donor funding and expenditure sharing protocols.

The Red Sea islands also witnessed high expenditures till 2003/4, which coincides with the USAID funded Red Sea project, and in 2004/5 the Red Sea Islands did not receive any budget, except for LE 200,000 for moorings which were funded from Samadai revenues. The area is also depending on the USAID funded project LIFE to support the needs.

Clearly also the highly visited areas received larger allocations as is the case with Gulf of Aqaba, Red Sea, Saint Katherine, and Wadi Digla. On the other hand, there are a number of protectorates that have very meager, or no budgets over the period, such as Wadi El Gemal and the White Desert each with LE 140,000 over the period, and the Petrified Forest and Hasana Dome, each with no allocations over the period. See Table III below showing actual total expenditure of each protectorate over the period 2000-2005.

| TABLE (III)   |                |              |               |               |               |                |
|---|----------------|--------------|---------------|---------------|---------------|----------------|
| Detailed Protectorates Expenditures 1/7/2000- 30/6/2005 |                |              |               |               |               |                |
| Protectorate  | 2000/1         | 2001/2       | 2002/3        | 2003/4        | 2004/5        | TOTAL          |
|   |                |              |               |               |               | LE Million     |
| Gulf of Aqaba*  | 10             | 1.59         | 1.6           | 0.75          | 0.605         | 14.545         |
| Red Sea   | 1.16           | 0.387        | 0.848         | 2.41          |               | 4.805          |
| Saint Katherine's                                       | 0.44           | 1.3          |               |               | 0.007         | 1.747          |
| Wadi Degla  |                |              | 1.59          |               | 0.219         | 1.809          |
| Boroulos  |                |              | 0.65          | 0.65          | 0.006         | 1.306          |
| Wadi El Rayan   | 0.15           | 0.4          |               | 0.11          | 0.049         | 0.709          |
| Salouga & Ghazal  | 0.0062         | 0.021        | 0.029         | 0.425         | 0.006         | 0.4872         |
| Siwa (2002)   |                |              | 0.14          | 0.186         | 0.034         | 0.36           |
| Elba  |                | 0.14         | 0.165         |               |               | 0.305          |
| Wadi El Alaqi   |                | 0.218        | 0.022         | 0.033         |               | 0.273          |
| Qarun   | 0.096          | 0.14         |               |               | 0.166         | 0.402          |
| Wadi Senour Cave  | 0.1            | 0.06         | 0.003         | 0.013         |               | 0.176          |
| Al Omayed   |                | 0.14         |               |               |               | 0.14           |
| Ashtoom El Gameel (2003)                                |                |              |               | 0.14          |               | 0.14           |
| Wadi El Gemal (2003)                                    |                |              | 0.14          |               |               | 0.14           |
| White Dessert (2002)                                    |                |              | 0.14          |               | 0.034         | 0.174          |
| Al Zaraniq  |                | 0.14         |               |               |               | 0.14           |
| Petrified Forest  |                |              |               |               |               | 0              |
| Hasana Dome   |                |              |               |               |               | 0              |
| Al Ahrash   |                |              |               |               |               | 0              |
| EEAA Share in UN Project: Boroulos, Zaraniq, Omayad     |                |              |               |               | 1.851         | 1.851          |
| <b>Total Fixed Asstes</b>                               | <b>11.9522</b> | <b>4.536</b> | <b>5.327</b>  | <b>4.717</b>  | <b>2.977</b>  | <b>29.5092</b> |
| Total Operating Expenditures**                          | 0.8            | 0.9          | 1.3           | 1.4           | 1.45          | 5.85           |
| <b>Total FA &amp; Operating Expenditures</b>            | <b>12.7522</b> | <b>5.436</b> | <b>6.627</b>  | <b>6.117</b>  | <b>4.427</b>  | <b>35.3592</b> |
| Salaries, wages   | 2.8            | 4.1          | 5.4           | 5.4           | 5.6           | 23.3           |
| <b>Total PA Expenditures</b>                            | <b>15.5522</b> | <b>9.536</b> | <b>12.027</b> | <b>11.517</b> | <b>10.027</b> | <b>58.6592</b> |
| Salaries/Total  | 18.00%         | 42.99%       | 44.90%        | 46.89%        | 55.85%        | 39.72%         |
| * 4 protectorates                                       |                |              |               |               |               |                |
| **Maintenance, fuel.                                    |                |              |               |               |               |                |
| Source: Egyptian Environmental Affairs Agency           |                |              |               |               |               |                |

## **B. Itemized Expenditure 2004-2005**

Table IV (Itemized Protectorates Expenditure) below, gives details of the expenditure avenues for 2004/2005. This is useful for better analysis and understanding of the expenditure patterns. This table gives insight into the magnitude of the financial difficulties facing the majority of the parks. Investments in buildings for all of the parks totaled LE 254,000 for the year. Likewise machinery and equipment (boats, etc.) totaled LE 728,000.

St Katherine spent only LE 7000 on furniture and office equipment, and LE 250,000 for fuel, maintenance etc. Other parks were even less fortunate, with no expenditures other than operating costs.

Clearly, as discussed above a large portion of the budget is spent on wages and salaries, LE 5.6 Million, which reflects on the available budget for investments operating and maintenance needs. It is important to note here that the salaries and wages bill is actually higher since around 100 persons working for NCS are actually paid as Ministry salaried employees whose salaries are a different line item from NCS budget. The estimated cost of this bill is LE 1.5 Million based on 2004/2005 wage bill. Thus in actuality the salaries and wages bill is around LE 7 Million and investment and operations bill is around LE 5 Million.

| TABLE (IV)  |              |                       |          |                           |                     |               |
|---|--------------|-----------------------|----------|---------------------------|---------------------|---------------|
| Itemized Protectorates Expenditures 1/7/2004- 30/6/2005   |              |                       |          |                           |                     |               |
| Protectorate  | Buildings    | Machinery & Equipment | Vehicles | Furniture & office Equip. | Operating expenses* | LE Million    |
|   |              |                       |          |                           |                     | <b>TOTAL</b>  |
| Al Aqaba *  |              | 0.605                 |          |                           | 0.5                 | 1.105         |
| Red Sea   |              |                       |          |                           |                     | 0.2           |
| Saint Katherine's   |              |                       |          | 0.007                     | 0.25                | 0.257         |
| Wadi Degla  | 0.082        |                       |          | 0.137                     | 0.01                | 0.229         |
| Al Boroulos   | 0.006        |                       |          |                           |                     | 0.006         |
| Wadi El Rayan   |              | 0.049                 |          |                           | 0.1                 | 0.149         |
| Salouga & Ghazal  |              | 0.006                 |          |                           | 0.065               | 0.071         |
| Siwa  |              | 0.034                 |          |                           | 0.015               | 0.049         |
| Elba  |              |                       |          |                           | 0.16                | 0.16          |
| Wadi El Alaqi   |              |                       |          |                           | 0.07                | 0.07          |
| Qarun   | 0.166        |                       |          |                           | 0.04                | 0.206         |
| Wadi Senour Cave  |              |                       |          |                           | 0.01                | 0.01          |
| Al Omayed   |              |                       |          |                           |                     | 0             |
| Ashtoom El Gameel   |              |                       |          |                           | 0.085               | 0.085         |
| Wadi El Gemal   |              |                       |          |                           |                     | 0             |
| White Dessert   |              | 0.034                 |          |                           | 0.015               | 0.049         |
| Al Zaraniq  |              |                       |          |                           | 0.025               | 0.025         |
| Wadi El Assuti  |              |                       |          |                           | 0.05                | 0.05          |
| Petrified Forest  |              |                       |          |                           | 0.015               | 0.015         |
| Hasana Dome   |              |                       |          |                           | 0.015               | 0.015         |
| Al Ahrash   |              |                       |          |                           | 0.025               | 0.025         |
| EEAA Share in UN Project:<br>Borolous, Zaraniq,<br>Omayad |              |                       |          |                           |                     | 1.851         |
| <b>Total**</b>  | <b>0.254</b> | <b>0.728</b>          | <b>0</b> | <b>0.144</b>              | <b>1.65</b>         | <b>4.627</b>  |
| Salaries, wages   |              |                       |          |                           |                     | 5.6           |
| <b>Total</b>  | <b>0.254</b> | <b>0.728</b>          | <b>0</b> | <b>0.144</b>              | <b>1.65</b>         | <b>10.227</b> |
| * 4 protectorates   |              |                       |          |                           |                     |               |
| *Maintenance, fuel, rent, elect., etc.                    |              |                       |          |                           |                     |               |
| Source: Egyptian Environmental Affairs Agency             |              |                       |          |                           |                     |               |



## C. Per Capita Expenditure on Protectorates

The following exercise gives an indication of the expenditure levels on the protectorates. Table V relates the expenditure on the protectorates, to the population, over the period 2000-2005. The annual per capita expenditure on all of the protectorates is less than LE 1; in fact it is around 23 piasters in 2000 and drops over the period registering less than 13 piasters in 2004/5 or less than 3 cents. This indicator is very striking, showing the dire need for clarifying the budget shortfalls. This is especially important since the parks are potentially a major source of national income; being important tourism attractions. The indirect generated revenue is huge with multiplier effects, and implications on numerous tourism and service sectors. Clearly the extensive visits and use of these parks requires comparable budget allocations.

| <p><b>TABLE( V)</b></p> <p><b>Per Capita Expenditure on Protectorates</b></p> <p><b>(2000 - 2005)</b></p> |        |        |        |        |        |
|---|--------|--------|--------|--------|--------|
|   | 2000/1 | 2001/2 | 2002/3 | 2003/4 | 2004/5 |
| Population*<br>(Million)  | 68     | 71     | 74     | 76     | 78     |
| Expenditure (LE<br>Million)   | 15.56  | 9.558  | 12.02  | 11.519 | 10.027 |
| Per capita expenditure<br>in Piaster (PT)   | 22.9   | 13.5   | 16.2   | 15.2   | 12.9   |
| *Source: U.S. Census Bureau Demographic Data for Egypt.   |        |        |        |        |        |

## IV. Revenue

### A. Total Revenue:

There are 24 protectorates, covering an area of 100,000 km<sup>2</sup>, of which only a few are currently generating revenues. There are six protectorates that have visitor fees. A number have fishing and hunting fees, and some generate income from concessions. Although not all of the protectorates have a fee structure, still the revenues generated from the protectorates over the period 2000-2005 reached LE 67 Million and \$7.3 Million, over LE 100 Million. The revenue is mainly denominated in Egyptian Pounds since many of the visitor tickets are purchased in LE equivalent to U.S. Dollars. The revenue generated is mainly from entrance fees (63%), and fines (35%).

The following table, (Table VI: Annual Revenue of Protectorates 1/7/2000-30/6/2005) gives a summary of the revenue generated by the protectorates over the period 2000 -2005. It is clear from the table that over the past 5 years the revenue generated by the protectorates has been increasing, from around 15 Million in 2000/2001, reaching around LE 23 Million in 2005 (up to May). The years 2000/1 and 2001/2 are exceptional to the trend since a big component of the revenue was from penalties. In 2001/2, the revenue generated in dollars of \$6.206 Million includes \$6 Million fine for coral damages in the Red Sea. The following 3 years; 2002/3-2004/5 shows a steadily increasing trend, from LE 9.8 Million to LE 22.76 Million. This is a reflection of the increase in numbers of tourists and improved fee collection.

| TABLE (VI)  |                    |                    |                    |                    |                    |               |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|
| Annual Revenue of Protectorates 1/7/2000- 30/6/2005                             |                    |                    |                    |                    |                    |               |
|   | 1/7/2000-30/6/2001 | 1/7/2001-30/6/2002 | 1/7/2002-30/6/2003 | 1/7/2003-30/6/2004 | 1/7/2004-30/5/2005 | Total         |
| LE Million  | 12.903             | 7.721              | 9.379              | 17.259             | 20.084             | 67.346        |
| \$ Million  | 0.512              | 6.206              | 0.0749             | 0.058              | 0.458              | 7.3089        |
|   |                    |                    |                    |                    |                    |               |
| \$ =LE*   | 3.86               | 4.51               | 6.03               | 6.22               | 5.85               |               |
| <b>TOTAL Revenue</b>  | <b>14.88</b>       | <b>35.71</b>       | <b>9.83</b>        | <b>17.62</b>       | <b>22.76</b>       | <b>100.80</b> |
| Source: Egyptian Environmental Affairs Agency                                   |                    |                    |                    |                    |                    |               |
| *End of period exchange rate. Source: Ministry of Foreign Trade, Monthly Digest |                    |                    |                    |                    |                    |               |

The revenue generated from the protectorates could greatly increase with the wider implementation of entrance fees and the development of concessions and other

sources of income. It is important to note that as stated above, the number of protectorates that have an entrance fee is very small. Also there is loss of income due to some fee evasion especially in the Red Sea area, which has been estimated to be as much as 66%.<sup>1</sup>

The revenue generated from the protectorates could greatly increase with the expansion of fees to more areas, the enforcement of these fees and the structuring of the fees to be more realistic and in line with the value and cost of protection. Also revenue from concessions can be increased and developed and based on value of the concession. Likewise revenue from other sources needs to be developed. These include souvenirs, filming rights, hunting permits, research permits, etc.

## **B. Sources of Revenue**

The following table, (Table VII) gives details of the main sources of revenue over the period 1/7/2000 - 30/6/2005. From the table it is clear that the main source of income is from entrance fees. Over the period 2000-2005, entrance fees made up 63% with penalties making up almost the remainder, 35%; however this is misleading since penalties are not recurrent. Entrance fees for 2004/2005, registered LE 22.1 Million of a total income of LE 22.8.Million; around 97%.

The second main source of income, for the 5 year period, is penalties which generated LE 7.3 Million in 2000/01 and \$6 Million in 2002/3; a total of LE 27.9 Million. This income however is windfall income and should not be relied upon as a main source of income given that damage to the environment/protectorates is a requisite for the generation of this income. Revenue from penalties reached LE 35 Million; 35 % of total income over the period. A more indicative assessment of income would exclude the penalties income since we should be seeking to reduce the number of violations and thus penalties should decline. Thus total earnings would be around LE 67 Million.

Other type of income generated is concessions and other activities such as photography, filming, and hunting, etc. which carry small fees and are not considered income generators. This income represents around 2% of total income generated over the period. This type of income needs to be better established and developed.

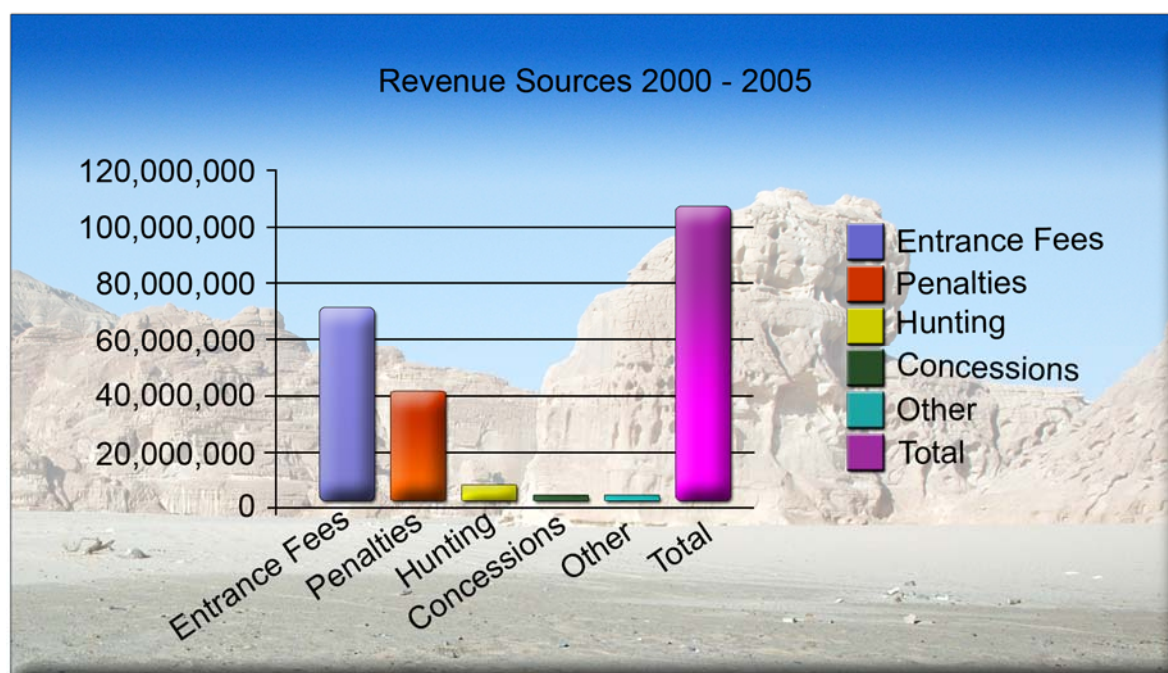
---

<sup>1</sup>Ahmed Shehata and Myrette El-Sokkari. Integrated Revenue Generation and Expenditure Plan for the Red Sea Marine Environment. Egyptian Environmental Policy Project, April 2004.

| TABLE (VII)  |                   |                   |                  |                   |                   |                    |                |
|--|-------------------|-------------------|------------------|-------------------|-------------------|--------------------|----------------|
| Summary Sources of Income<br>(2001 - 2005)                       |                   |                   |                  |                   |                   |                    |                |
| Year   | 2000/1            | 2001/2            | 2002/3           | 2003/4            | 2004/5            | Total<br>2000-2005 |                |
|  |                   |                   |                  |                   |                   | (LE)               | % of<br>Total  |
| Entrance Fees  | 7,329,823         | 7,438,269         | 9,505,144        | 17,073,916        | 22,074,188        | 63,421,339         | 62.89%         |
| Penalties  | 7,322,580         | 27,901,980        | 0                | 0                 | 0                 | 35,224,560         | 34.93%         |
| Concessions  | 177,700           | 338,077           | 303,062          | 462,617           | 635,333           | 1,916,789          | 1.90%          |
| Hunting  | 19,812            | 3,750             | 0                | 2,878             | 1,820             | 28,260             | 0.03%          |
| Other  | 30,363            | 62,188            | 22,000           | 80,000            | 54,176            | 248,727            | 0.25%          |
| <b>TOTAL Income</b>  | <b>14,880,277</b> | <b>35,744,264</b> | <b>9,830,206</b> | <b>17,619,411</b> | <b>22,765,517</b> | <b>100,839,675</b> | <b>100.00%</b> |
| Source: Compiled from Egyptian Environmental Affairs Agency data |                   |                   |                  |                   |                   |                    |                |

The following diagram graphically illustrates the relative importance of sources of revenue.

GRAPH A



### **C. Revenue Generated by Each Protectorate**

A further analysis of the sources of income is important in understanding which parks are the main contributors to revenue. Table VIII below gives details of the income generated by park and source. From the table it is evident that the main contributors of income are Ras Mohamed, around 40% of total income over the period, and Red Sea, around 20%, and St. Katherine, which contributed 3%. The contribution of St. Katherine is misleading since entrance fees have only been imposed recently; (January 2005) at a rate of LE 3 for Egyptians and \$3 for foreigners. The income of St. Katherine if estimated for a full year will increase to around LE 6 Million; (projected to reach LE 8-10 Million prior to incidence of terrorism in Sharm El Sheikh in July 2005). These percentages based on the entire 5 - year period however are misleading, since the large penalties collected in 2000 and 2001, heavily impact on the total income.

For more relevant conclusions of revenue contributions, analysis of the last year (2004/2005) is more useful. Ras Mohamed, contributed around 49% to income, mainly from entrance fees, and Red Sea Islands contributed 32%, also mainly from fees. Likewise the newly implemented St. Katherine fee has contributed 3% to the total income and 13 % to the fees income; although it is only for 5 months. The projected annual income has been estimated to reach LE 6-8 Million.

TABLE (VIII)

## Detailed Revenue Generated by Protectorates 1/7/2000- 30/6/2005

|   |               | 2000/1     |           | 2001/2     |            | 2002/3    |         | 2003/4     |         | 2004/5     |           | TOTAL       |            |
|---|---------------|------------|-----------|------------|------------|-----------|---------|------------|---------|------------|-----------|-------------|------------|
|   | Visitor Fee** | LE         | \$        | LE         | \$         | LE        | \$      | LE         | \$      | LE         | \$        | 2000-2005   |            |
| Protectorate  |               |            |           |            |            |           |         |            |         |            |           | LE          | \$         |
| Entrance Fees   |               |            |           |            |            |           |         |            |         |            |           |             |            |
| Ras Mohamed   | \$5/LE5       | 3,903,048  | 240,916   | 4,147,416  | 166,563    | 6,452,853 | 62,631  | 11,555,000 | 42,080  | 10,153,929 | 200,223   | 36,212,246  | 712,413    |
| Nabaq   | \$5/LE5       | 390,220    | 15,714    | 307,785    | 9,438      | 386,519   | 3,775   | 476,000    | 3,546   | 382,443    | 3,520     | 1,942,967   | 35,993     |
| St. Katherine's   | \$3/LE3       |            |           |            |            |           |         |            |         | 2,113,843  | 139,821   | 2,113,843   | 139,821    |
| Wadi El Rayan   | LE5/LE1       | 99,250     |           | 108,250    |            | 96,450    |         | 125,000    |         | 99,750     |           | 528,700     |            |
| Al Zaranig  | \$3/LE3       | 2,563      | 32        | 1,869      | 10         | 289       | 9       |            |         | 2,581      |           | 7,302       | 51         |
| Red Sea   | \$2/LE2       | 974,764    | 251,104   | 1,945,837  | 29,557     | 2,117,398 | 8,483   | 4,557,716  | 12,284  | 6,640,043  | 114,829   | 16,235,758  | 416,257    |
| Total   |               | 5,369,846  | 507,766   | 6,511,157  | 205,568    | 9,053,509 | 74,898  | 16,713,716 | 57,910  | 19,392,589 | 458,393   | 57,040,817  | 1,304,535  |
|   |               |            |           |            |            |           |         |            |         |            |           |             |            |
| Concessions   |               |            |           |            |            |           |         |            |         |            |           |             |            |
| Nabaq   |               |            |           |            |            | 29,620    |         | 136,787    |         | 59,240     |           | 225,647     |            |
| Wadi El Rayan   |               | 49,600     |           | 191,600    |            | 24,116    |         | 110,777    |         | 201,335    |           | 577,428     |            |
| Red Sea   |               | 94,500     |           | 84,700     |            | 155,670   |         | 147,487    |         | 246,172    |           | 728,529     |            |
| St. Katherine's   |               | 33,600     |           |            |            |           |         |            |         | 5,808      |           | 39,408      |            |
| Other   |               |            |           | 61,777     |            | 93,656    |         | 67,566     |         | 122,778    |           | 345,777     |            |
| Total   |               | 177,700    |           | 338,077    |            | 303,062   |         | 462,617    |         | 635,333    |           | 1,916,789   |            |
|   |               |            |           |            |            |           |         |            |         |            |           |             |            |
| Hunting   |               | 19,812     |           | 3,750      |            |           |         | 2,878      |         | 1,820      |           | 28,260      |            |
| Penalties   |               | 7,307,140  | 4,000     | 841,980    | 6,000,000  |           |         |            |         |            |           | 8,149,120   | 6,004,000  |
| Other   |               | 28,433     | 500       | 62,188     |            | 22,000    |         | 80,000     |         | 54,176     |           | 246,797     | 500        |
| TOTAL Revenue   |               | 12,902,931 | 512,266   | 7,757,152  | 6,205,568  | 9,378,571 | 74,898  | 17,259,211 | 57,910  | 20,083,918 | 458,393   | 67,381,783  | 7,309,035  |
|   |               |            |           |            |            |           |         |            |         |            |           |             |            |
| 1 \$ =LE*   |               |            | 3.86      |            | 4.51       |           | 6.03    |            | 6.22    |            | 5.85      |             |            |
| LE equivalent   |               | 12,902,931 | 1,977,347 | 7,757,152  | 27,987,112 | 9,378,571 | 451,635 | 17,259,211 | 360,200 | 20,083,918 | 2,681,599 | 67,381,783  | 33,457,893 |
| **Plus variable vehicle entry fees  |               |            |           |            |            |           |         |            |         |            |           |             |            |
| TOTAL LE & \$   |               | 14,880,277 |           | 35,744,264 |            | 9,830,206 |         | 17,619,411 |         | 22,765,517 |           | 100,839,675 |            |
| Source: Egyptian Environmental Affairs Agency                                   |               |            |           |            |            |           |         |            |         |            |           |             |            |
| *End of period exchange rate .Source :Ministry of Foreign Trade, Monthly Digest |               |            |           |            |            |           |         |            |         |            |           |             |            |



## **D. Uses of Revenue**

The revenues generated by the different protectorates are deposited in the Protectorates Fund which was established in 1983 by law 102. In 1994 Law 4 which established the Environmental Protection Fund (EPF) stipulated that one of the sources of EPF is the Protectorates Fund and hence all the revenue generated by the protectorates is deposited in the Environmental Protection Fund since 1994. The revenue is composed of entrance fees, concessions, penalties, and other sources such as filming inside protectorates. Access to these funds is not related to the revenue generated by the protectorates. During the period under discussion, (2000-2005), the EPF contributed to the NCS budget a total of LE 3 Million, in 2005. This amount is around 3 % of the total revenue generated. This policy of amalgamation of all generated revenue, and its deposit in EPF with little control of NCS or the protectorates over the funds generated is a disincentive for the park managers to improve fees collection, be more creative in generating income, (through numerous methods; sale of memorabilia to tourists, more efficient fee collection, more efficient penalty application, etc.) and general park management.

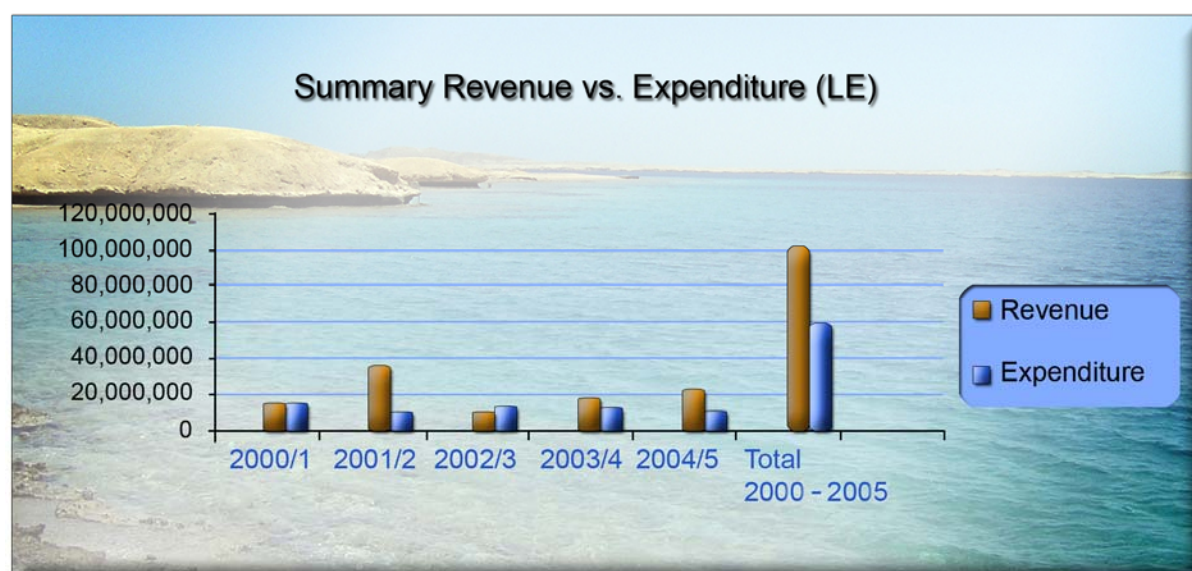
Understandably some parks' revenue generating capacities are much higher than others, or than those newly established, and it is acceptable that cross-subsidies are expected, however still some of the revenue generated by the specific parks should be spent in that park. This repatriation of funds ensures the care of the park and the continuity of the fee generation. Tourists are also more willing to pay fees, or increased fees for the parks they are visiting, if the fees are identified as being used for conservation of the parks.

## V. Revenue vs. Expenditure

From the above discussion it is clear that the revenue generated by the parks over the past 5 years is around LE 100 Million and the allocated budget reached around LE 59 Million. Including salaries paid by the Ministry. Even if income from penalties is set aside, the earnings for the period are LE 65 Million, while expenditures are LE 59 Million. The protectorates, while suffering from lack of funds, are subsidizing other departments in the Ministry, while ideally the income earned by the parks should be supplemented by the allocated budget from the Ministry. Table IX; (Summary Revenue vs. Expenditure 2000-2005) and Graph (B) show clearly the revenues generated against the expenditure over the period 2000-2005. Earnings were almost double the allocated budgets.

| TABLE (IX)                                    |            |            |            |            |            |                 |
|---|------------|------------|------------|------------|------------|-----------------|
| Summary Revenue vs. Expenditure               |            |            |            |            |            |                 |
|   | 2000/1     | 2001/2     | 2002/3     | 2003/4     | 2004/5     | Total 2000-2005 |
| Revenue (LE)                                  | 14,880,277 | 35,744,264 | 9,830,206  | 17,619,411 | 22,765,517 | 100,839,675     |
| Expenditure (LE)                              | 15,562,200 | 9,558,000  | 12,029,000 | 11,519,000 | 10,027,000 | 58,659,200      |
| Source: Egyptian Environmental Affairs Agency |            |            |            |            |            |                 |

GRAPH B



## **VI. Budgets vs. Needs**

The current budgets have been discussed extensively in the above sections. It is clear that the budgets are limited and that developing the revenue generating capacities of the parks, as well as retaining larger portions of the generated budgets to be spent on the parks is crucial.

The needs of each protectorate can be estimated very roughly based on historical needs and interviews with the rangers and managers of the parks. This study is to be conducted in depth following completion of this study; however indications of the gap between needs and expenditures are clarified relying on regional norms, and also by analyzing the actual expenditures in Egypt.

### **A. World Norms**

The regional norms as given in the UNEP World Conservation Monitoring Centre survey conducted in 1999 estimated average expenditure to be on average as high as \$2058/ km<sup>2</sup> in developed countries, and \$157/km in developing countries.<sup>2</sup> The actual expenditures in Egypt is around \$ 17/ km<sup>2</sup>; based on average annual expenditure of LE 10 Million and an area of 100,000 km<sup>2</sup> and an exchange rate of 1US = LE 5.8. Even given the different income level and costs between Egypt and other developing countries still this average expenditure is around 10% of the developing country norm which in itself may be inadequate given it is an average of expenditures in developing countries; many of which suffer from under funding; and reflects the inadequacy of the funds.

### **B. St. Katherine Protectorate (Egypt)**

Another estimate of the shortfall is to analyze the actual expenditure levels in St. Katherine Protectorate during the period of 1996-2002, which can be used as a guideline of needs, since this period was supported by the St. Katherine Protectorate Development project funding, assuming that the expenditures during that period more likely represent the needs. This analysis is for guidance as to how much is needed in investment and operating costs.

The investment in St. Katherine Protectorate, exclusive of technical assistance and capital expenditures, (infrastructure) amounted to around € 3,500,000. Protected area management expenditure therefore averaged € 580,000/year or LE 24 Million (€1 = LE 4.8). This included all Protected Areas Management Unit (PAMU) operational and maintenance costs as well replacement costs for vehicles etc. Thus, on average annual needs would be around €450,000 per year; around LE 2.5 Million at 2002 prices. Given the inflation and the increased conservation needs this figure would at least have to be maintained or increased.

---

<sup>2</sup>World Commission on Protected Areas (WCPA) of IUCN-The World Conservation Union. Parks. Protected Area Programme, Management Effectiveness of Protected Areas. Vol. 9, No. 2. June 1999, pg. 17.

## VII. Revenue vs. Needs

From the above analysis it is clear that the estimated earnings over the period is around LE 100 Million and the budget expenditures reached LE 58.6 Million, LE 60 Million taking into account all salaries and wages. Thus at the current expenditure levels the NCS can be self sustaining. In fact it would have around 40% more funds to expend on the parks.

An analysis of 2003/2004 and 2004/2005 shows that revenue reached LE 18 and LE 23 Million, while expenditures were LE 12 Million and LE 11 Million respectively. This clearly shows the gap between earnings and expenditures.

It is important to note that the revenue potential is greater and can be developed to reach much higher levels, through reassessment of fees, penalties, concessions and more effective implementation. Additionally the NCS budget should continue to be supported by the state budget. From this very preliminary analysis and given the revenue generating potential, the NCS could be self sustaining at the current levels of expenditure and even at higher levels of expenditure. In order to assess NCS potential earnings and when it can reach world norms of expenditure more in depth analysis needs to be conducted.

## VIII. Environmental Protection Fund (EPF)

### A. Objective

The EPF is a financial vehicle established in 1995 within the Ministry of Environmental Affairs, organizationally under the EEAA; to support private, public and non-governmental organizations that engage in investments that benefit the environment. Its mandate is to invest and promote investments that conserve, clean, or restore the environment through equity participation, grants, loan interest subsidies, loan guarantees and soft loans.

The following table (X) provides an insight to the size of the fund, and sources and uses of funds.

| Table (X)                     |        |         |         |         |
|-------------------------------|--------|---------|---------|---------|
| EPF Sources and uses of funds |        |         |         |         |
|                               | 2000/1 | 2001/02 | 2002/03 | 2003/04 |
| <b>Million L.E.</b>           |        |         |         |         |
| <b>Revenue</b>                | 11.6   | 9.2     | 11.5    | 16.2    |
| <b>Expenditure</b>            | 2      | 6.2     | 7.8     | 16.6    |
| <b>Cash Balance</b>           | 42.5   | N/A     | 16.3    | 22.6    |
|                               |        |         |         |         |
| <b>Million US \$</b>          |        |         |         |         |
| <b>Revenue</b>                | 0      | 6.5     | 0.3     | 0.2     |
| <b>Cash Balance</b>           | 0      | 14.6    | 14.9    | 15.1    |

### B. Sources

Article 7 of Law 4 specifies the sources. The EPF's sources of funds are through allocation from the state budgets,, grants and aid from national and international donors, penalties and compensations resulting from damage to the environment, sources of funds of the Protectorates Fund, the Ministry of Environment's share (not less than 12.5% of the total collected fees) of the 25% tax on air tickets, earnings from projects of the Ministry of Environment, income from services rendered by the EEAA, license fees imposed by EEAA.

The EPF maintains both Egyptian Pound and U.S. dollar accounts. Revenue that is in foreign currency is maintained in the US Dollar account.

### **C. Uses of Funds**

Article 8 of Law 4 specifies the uses of funds. The uses of funds by the EPF are by definition to meet environmental disasters, invest in experimental environmental projects, finance of production of machinery and equipment serving to protect the environment, establishment and management of Protected Areas, financing of studies for environmental protection programs, investment in environmental protection projects promoted by NGOs, local governments, compensations for exceptional efforts in environmental protection, and other uses related to environmental protection as approved by its board of directors.

It is not clear how much of the park fees are repatriated to the parks, however over the period 2000-2005 the EPF has contributed to the NCS LE 3 Million, while the protectorates Fund has contributed over 80% of the EPF's funds over the period in the form of entrance fees, concessions, fines and penalties. An analysis of the Fund's historical sources and uses of funds is required.



## IX. Conclusion

Funding is central for protectorate management. Without adequate funding and financial planning conservation and sustainable management is challenging. A problem that has become evident from the analysis of the expenditure patterns is the intermittence in expenditures in different areas according to political, financial or other reasons.

The annual budget over the past period has been on average LE 10 Million, while earnings on average have been double that amount. This however is due to the high penalties which occurred during the period but which cannot be depended upon or expected to continue. The actual earnings from entrance fees are around 65 Million which is still more than the budget received by NCS.

There is a very wide gap between the world regional norms of expenditures of \$160/ km<sup>2</sup>/annum and the average in Egypt of \$17/ km<sup>2</sup>/annum. This gap has led to irregular expenditure and concentration on protectorates and negligence of others. The problem is exacerbated as some protectorates are annually visited by Millions of tourists and hence require large expenditures, at the expense of other areas. In all cases the protectorates suffer from under funding. The lack of funds as well as the intermittent expenditures needs to be addressed on longer term basis. There is a need for stability in spending for each protectorate.

The protectorates' generated revenue should have a positive relation to the funds budgeted to each protectorate. There should be an incentive system for the Park managers as well as the park rangers.

The NCS objective is to sustain and conserve the protectorates. This protectorates management and sustainability needs financial sustainability. NCS's revenue generating efforts need to be developed in order to meet the costs of sustainability. This preliminary analysis shows that at the current levels of income the NCS budget would be higher than the current expenditures (budget from Ministry). It is also expected and imperative that other revenue potentials be explored.

The study shows that there is not any relationship between individual protected area revenue generation and the expenditure allocations. There is also no relationship between total protected area revenue, deposited in the EPF and the funds repatriated to NCS. NCS needs to have more control over its generated revenue, and hence alternative institutional structures that meet these needs and provide flexibility in financial management need to be considered.

In conclusion, the NCS can be maintained at the current levels of revenue and expenditure. However in order to more efficiently manage the protectorates and meet the increasing costs, as the estate of protected areas grows, and target sustainability, the NCS needs to make higher expenditures, in investments, in

infrastructure and in operating costs. NCS also needs to develop its revenue, which can be achieved through more effective management and development of revenue generation. This increase in revenue and expenditures will reflect on the sustainability and management of the parks, and positively reflect on the quality of the protectorates, thus ensuring maintenance of these parks as national and international tourist attractions and an important source of national income.