

**VALUE FOR MONEY AUDIT  
OF PROJECTS  
FINAL REPORT**

*Submitted to*  
**DANIDA**



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## TABLE OF CONTENTS

|  |           |
|--|-----------|
| <b>LIST OF ACRONYMS .....</b>                | <b>3</b>  |
| <b>EXECUTIVE SUMMARY .....</b>               | <b>4</b>  |
| <b>INTRODUCTION .....</b>                    | <b>7</b>  |
| <b>VALUE FOR MONEY AUDIT .....</b>           | <b>10</b> |
| <b>COMMUNITY DEVELOPMENT PROJECTS.....</b>   | <b>11</b> |
| Sample Project 1.....                        | 12        |
| Sample Project 2.....                        | 16        |
| Sample Project 3.....                        | 21        |
| Sample Project 4.....                        | 25        |
| Sample Project 5.....                        | 29        |
| Sample Project 6.....                        | 34        |
| <b>PUBLIC DEMONSTRATION PROJECTS.....</b>    | <b>39</b> |
| Sample Project 7.....                        | 40        |
| Sample project 8.....                        | 45        |
| Sample Project 9.....                        | 50        |
| Sample Project 10.....                       | 54        |
| <b>PRIVATE SECTOR PROJECTS .....</b>         | <b>58</b> |
| Introduction to Private Sector Projects..... | 59        |
| Sample Project 11.....                       | 60        |
| Sample Project 12.....                       | 64        |
| Sample Project 13.....                       | 68        |
| <b>OVERALL CONCLUSIONS.....</b>              | <b>72</b> |
| <b>ANNEX: TERMS OF REFERENCE .....</b>       | <b>75</b> |

## LIST OF ACRONYMS

|        |   |
|--------|---|
| AWWC   | Aswan Water and Wastewater Company                            |
| BWWC   | Beni Suef Water and Wastewater Company                        |
| CDA    | Community Development Association                             |
| CDAA   | Community Development Association in Al Aalaam (Fayium)       |
| CDAN   | Community Development Association in Al Nasreya (Aswan)       |
| CSD    | Central Society for Development (Wadi el Gedeed)              |
| DANIDA | Danish International Development Agency                       |
| DDS    | Desert Daughters Society (Northern Sinai)                     |
| ECO    | Environmental Compliance Office                               |
| EDG    | Environment and Development Group                             |
| EEAA   | Egyptian Environmental Affairs Agency                         |
| EMU    | Environmental Management Unit                                 |
| ESP    | Environmental Sector Programme                                |
| FEI    | Federation of Egyptian Industries                             |
| HIS    | Hamd Islamic Society (Beheira)                                |
| ICC    | International City Cleaning                                   |
| KCDA   | El Kom El Ahmar Community Development Association (Beni Suef) |
| NBE    | National Bank of Egypt  |
| NGO    | Non-Governmental Organisation                                 |
| WLS    | Women Leader Society (Menia)                                  |

**EXECUTIVE SUMMARY**

The Environmental Sector Programme (ESP) was initiated by the Governments of Egypt and Denmark in 2001 as a 6 year framework for improving environmental management in Egypt.

Environment and Development Group (EDG) was commissioned by DANIDA to carry out value for money audits of 13 ESP ongoing projects at the end of 2008. The purpose of these audits is to assess ESP funds utilization by project holders, and to determine whether or not the money is used properly and in accordance with the Grant Agreements.

The 13 sample projects were selected from the 183 projects carried out under the framework of the ESP, and consist of 6 community projects, 4 public demonstration projects, and 3 private sector projects. Four other projects were audited in December 2007, which, in addition to the 13 described in this report, amount to approximately 10% of the total ESP projects. The audited projects were selected to ensure a good cross section of ESP, based on:

- Legal structure of the project holder: non-governmental organisation, governmental agency, and private sector company.
- Target sector: waste, water, sanitation, public awareness, and industry.
- Geographical location of the project: Upper, Middle, and Lower Egypt, Northern Sinai, and the New Valley.

The approach adopted to carry out the audits was two fold. Firstly, background documentation was reviewed, and stakeholders at the central level were interviewed. Secondly, the audit team travelled to the project sites to hold meetings with the project holders' representatives and other stakeholders. Technical and financial documentation was also reviewed on-site, and physical evidence of the work performed was assessed.

The findings of these audits are described in greater detail in this report, and are briefly summarised as follows:

- With regard to the Community Development and Public Demonstration sample projects, it was found that DANIDA's funds were utilized for their intended activities, benefiting all of the projects' targeted communities. All requested equipment, installations, awareness raising campaigns, and designs were appropriately carried out, and cooperation between stakeholders was ensured, with a few minor exceptions. The projects have all been properly implemented, and the systems that are now operated are financially sustainable. Two of the projects were not fully operational due to delays in construction. A third project faced problems because no dumpsite could be identified within close proximity of the targeted village. Success in the other projects' operation and sustainability is due to the dedication of the governmental and non-governmental project holders, the people's willingness to pay for the services provided through the project, and the projects' designs, which keep running costs at a relatively low level.
- Nevertheless, a few discrepancies were noted at the level of the project holders, such as the fact that progress reports were seldom submitted to the ESP or the various governorates' Environmental Management Units (EMUs), and the inadequate tracking of financial transactions. The ESP projects should therefore be designed to include a capacity building component specifically for the project holders, both for the write-up of progress reports, and for the proper filing of financial transactions.
- The three Private Sector sample projects were highly successful. The companies that purchased new equipment through DANIDA loans were all able to improve the occupational health and safety working conditions of their workforce by purchasing

new industrial machines. The new equipment guarantees cleaner and more efficient production, as it generates less waste and/or pollution during production, and is more efficient in terms of energy use.

- Interviews by the audit team at the central level revealed that EEAA was pleased by the way DANIDA administers the funds and assistance it provides to Egypt.

All in all, The Value for Money audit showed that the funds were utilized for their intended activities, benefiting targeted communities through interventions in various sectors and geographical regions. ESP created a successful model for the engagement of civil society, the private sector and government agencies in environmental initiatives. Moreover, DANIDA is particularly appreciated for its efficiency, transparency, and for the authority it delegates to its Egyptian counterparts from the planning to the implementation stages.

## **INTRODUCTION**

The Environment Sector Programme was initiated by the Governments of Egypt and Denmark in 2001 as a 6 year framework for improving environmental management in Egypt. Its goal is to support communities in maintaining a cleaner and healthier environment. The programme financed 183 individual projects.

As the ESP is drawing to a close, DANIDA requested a Value for Money Audit for a sample of 17 projects, representing approximately 10% of the whole projects carried out under the ESP. The purpose of these audits is to assess ESP funds utilization by project holders, and to determine whether or not the money is used properly and in accordance with the Grant Agreements.

Environment and Development Group (EDG) was commissioned by DANIDA to carry out the value for money audit of 13 projects at the end of 2008. Four projects were assessed by the same team of auditors in December 2007.

This report reviews quality of work, procurement, and contract management of the 13 projects audited in December 2008. The sample was selected from project lists provided by DANIDA and consists of 6 community projects, 4 public demonstration projects, and 3 private sector projects. These projects were selected to ensure a good cross section of DANIDA-financed projects. Selection was based on the following criteria:

- Legal/institutional structure: non-governmental organisation, governmental agency, or private sector company.
- Sector: waste, sanitation, water, public awareness, and industry.
- Geographical location: Upper, Middle, and Lower Egypt, Wadi El Gedeed (New Valley), and Northern Sinai.

The following is the list of the sample projects:

***Community projects:***

1. Agricultural and Municipal Waste Collection and Recycling in El Magd, Beheira
2. Water Connections for Poor Households in Nazlet Sabet, El Menia
3. Liquid and Solid Waste Management in Negela, Northern Sinai
4. Recycling Palm Tree Waste in Markaz El Kharga, El Wadi El Gedeed
5. Solid and Liquid Waste Management System for Al-Aalaam, Faiyum
6. Solid and Liquid Waste Management in El Kom El Ahmer, Beni Suef

***Public demonstration projects:***

1. Sanitation System In El Konayesah, Beni Suef
2. Sanitation System for El Genena Wel Shebak, Aswan
3. Potable Water and Wastewater Connections for Poor Households in El Nasreya, Aswan
4. Upgrade of the Solid Waste Management System in El Nasreya, Aswan

***Private sector projects:***

1. Cleaner Production, Energy Efficiency at the Modern Company for New Industries, Borg el Arab, Alexandria
2. Cleaner Production at Abu Qamar, El Gharbiya
3. Cleaner Production at Chloride Egypt, Giza

**Audit Methodology**

The audits were carried out as:

- Literature reviews of ESP manuals for budgeting, accounting, procurement processes (bidding, selection, equipment costs), contract management and supervision of work. In addition, numerous reports and documents pertinent to technical, financial and administrative aspects of the sample projects, were scrutinized by the audit team.
- Interviews with stakeholders for qualitative and quantitative data relevant to the implementation of sample projects.
- Field visits by the audit team to the sites of each sample project to assess whether or not the projects were implemented as planned in the loan or grant agreements. Site visits also assessed the extent of the adherence of project holders to the required financial and administrative procedures and standards.

Technical and financial reviews for each project are presented in the following section.

## **VALUE FOR MONEY AUDIT**

## **COMMUNITY DEVELOPMENT PROJECTS**

## Sample Project 1

|                        |   |
|------------------------|---|
| <b>Project Title:</b>  | Agricultural and Municipal Waste Collection and Recycling in El Magd, Behaira |
| <b>Sector:</b>         | Solid Waste Management  |
| <b>Budget:</b>         | LE 342,000  |
| <b>Project Holder:</b> | Hamd Islamic Society (HIS)  |
| <b>Location:</b>       | El Magd and its vicinity, 2 km from Ruhmania City, Beheira Governorate        |
| <b>Starting Date:</b>  | December, 2007  |
| <b>Ending Date:</b>    | September, 2008   |

### Technical Review

|                            |   |
|----------------------------|---|
| <b>Project Objectives:</b> | Improving environmental conditions by setting up an agricultural and municipal solid waste collection and recycling system.   |
| <b>Project Description</b> | <p>The residents of the village of El Magd traditionally dispose of their agricultural and municipal waste by dumping it in empty lots, agricultural drains, or incineration. The burning of this waste occurs all year around, but since rice is predominantly grown in the area, the burning of rice straw results in particularly high spates of atmospheric pollution during the months of September and October.</p> <p>The project calls for the implementation of an integrated solid waste management system. The local community development association (HIS) funded and conducted an awareness campaign, in cooperation with the Environmental Management Unit (EMU) of the Beni Suef Governorate. The campaign focused on women in particular with the objective, of encouraging local residents to separate household waste as it is generated. Religious leaders were asked to promote the project's objectives. Awareness raising workshops were held on a weekly basis for a whole year before project implementation of the separation at source scheme. Awareness activities also targeted youths at their schools to encourage their relatives to adopt waste separation habits.</p> <p>Based on the integrated solid waste management plan prepared by HIS, the association requested and obtained DANIDA funding for the procurement of the following waste collection and treatment equipment:</p> <ul style="list-style-type: none"><li>- One agricultural tractor (90HP)</li><li>- Two trailers of a capacity of 6 m<sup>3</sup> each</li><li>- One rice straw compactor</li><li>- One agricultural shredder</li><li>- Six hand carts</li><li>- Sweeping tools (shovels, brooms...)</li></ul> |

Community Development Projects, Sample Project 1, continued

**Project description,**  
*continued*

In addition to the above items, HIS provided 800 street litter bins to be fitted on lamp posts in the streets of El Magd and 2 satellite villages using their own resources or contributions from local residents.

Staff for implementing waste collection and recycling were recruited:

- Manager
- Accountant (works part time at the HIS)
- Five street sweepers for waste collection from the homes
- Four workers for operating the trailers, compactor and shredder
- One driver
- A foreman

Municipal waste is collected on a daily basis, apart from Fridays, from 9am till 2pm for El Magd; and from 3pm to 7pm for the surrounding villages. Two trailers are used, one for organic and the other for recyclable waste. Sorted waste is then taken to HIS sorting and processing site.

According to the original plan, HIS was to collect and process agricultural waste on behalf of local farmers for a fee. HIS rented a plot of land on the outskirts of the village for that purpose. HIS would then sell the compost to local dealers. While this system successfully operated for one month, it was aborted when the landlord broke his contract with HIS.

Organic municipal waste is used, along with agricultural waste for composting. Recyclable are sold to local dealers. Non-recyclable waste is taken to the Ruhmania dumpsite.

An agreement was signed by the HIS and the local council of El Magd allowing the local council to collect monthly fees of LE 3 from households and LE 5 from shops. The local council keeps 10% of this, and the rest is transferred to the HIS for the financing of the waste management system.

**Population served:**

19,000 in 2470 households and 213 commercial units.

**Project results:**

- The village is clean, and all purchased equipment are in good condition.
- 13 jobs were created.

Despite these good points, the project is facing three main problems:

- The shredder is underutilized as it has only been used one day in the past year. If people start producing their own compost, the shredder will be used more frequently. HIS also recently applied to the Egyptian government for a grant to buy a tractor for greater ease of transport, but it was refused.
- The HIS complained that the local council, which is responsible for collecting the service fees, used to transfer HIS's share with a 2 month delay, resulting in cash flow problems. The Beheira Governor eventually intervened to secure the regular, monthly transfer of money.

Community Development Projects, Sample project 1, continued

|   |   |
|---|---|
| <b>Project Results,</b><br><i>continued</i> | <ul style="list-style-type: none"><li>- The collection system started operating in mid-July 2008, but by December 2008, the owner of the land rented to the HIS for waste treatment told the HIS to leave. The HIS cannot find another suitable plot of land, so now all collected waste is taken for disposal at Ruhmania's dumpsite, 3 km away.</li></ul>   |
| <b>Progress Reports:</b>                    | None submitted  |
| <b>Financial Review</b>                     |   |
| <b>Funding Sources:</b>                     | Project Holder: LE 92,000<br>DANIDA/ESP: LE 250,000<br>Total: LE 342,000  |
| <b>Project Grant Agreement:</b>             | Signed on December 9, 2007 by Mr. Salah Mohamed Ahmed, EMU Component Manager and Mr. Kurt Terpgaard Jensen, ESP Team Leader (First Party); and Mr. Khairy Ahmed Al Kabbash, HIS Chairman, el Magd (Second Party).   |
| <b>Financial Supervision:</b>               | Mr. Khairy Ahmed Al Kabbash, HIS Chairman   |
| <b>Contract Management Procedures:</b>      | Contract management procedures were conducted or supervised by a financial management committee which was also responsible for undertaking tender processes according to the Egyptian Tender Law No. 89 for 1998, and in coordination with the local Governmental Unit.   |
| <b>Tender Procedures:</b>                   | <p>The procurement process of the requested equipment was carried out according to the following procedures:</p> <p>A list of the specifications of the equipment and supplies required for the project was prepared.</p> <p>HIS invited nine local suppliers to submit offers for providing the required items.</p> <p>Offers were submitted by six local suppliers.</p> <p>A tender committee was formed to compare the submitted offers. The committee accepted the best technical and financial offers submitted from two different suppliers.</p> <p>A signed purchase order was then issued to each of the awarded suppliers.</p> <p>The equipment was delivered according to the submitted offers.</p> <p>All equipments and supplies were added to the inventory register according to the Egyptian tender and NGO's law.</p> |
| <b>Contractors:</b>                         | Modern Co. for Agricultural Machines Equipments, and Mabrouk International for Engineering Industries, El Yousr Company for Trading and Supplies, Alexandria.   |

## Community Development Projects, Sample project 1, continued

**Financial Report:**

A Separate bank account was opened for the project (Bank Account No. 234/1/2063 in Misr Bank, Desouk Branch), which is in accordance with Grant Agreement article No. 2.3 "Grant Terms". No bank reconciliation was being carried out as of the date of value for money audit assignment.

**Financial Report, continued**

Deviation from budget is shown as follows:

| Item   | Project Budget |               |                | Actual         | Deviation |
|--|----------------|---------------|----------------|----------------|-----------|
|  | DANIDA         | HIS           | Total          |                |           |
| Tractor                                      | 83,000         |               | 83,000         | 80,000         | (3,000)   |
| Trailer                                      | 20,000         |               | 20,000         | 28,600         | 8,600     |
| Trailer (not included in the project budget) | 0              |               | 0              | 28,600         | 28,600    |
| Automatic rice waste compactor               | 120,000        |               | 120,000        | 99,000         | (21,000)  |
| Shredder Machine                             | 12,000         |               | 12,000         | 11,000         | (1,000)   |
| collection equipment                         | 5,000          |               | 5,000          | 2,800          | (2,200)   |
| Community awareness                          |                | 16,000        | 16,000         | 16,000         | 0         |
| Salaries                                     |                | 54,000        | 54,000         | 54,000         | 0         |
| Operating Expenses                           |                | 22,000        | 22,000         | 22,000         | 0         |
| contingency                                  | 10,000         |               | 10,000         |                | (10,000)  |
| <b>Total</b>                                 | <b>250,000</b> | <b>92,000</b> | <b>342,000</b> | <b>342,000</b> | <b>0</b>  |
| <b>%</b>                                     | <b>71.43%</b>  | <b>28.57%</b> |                |                |           |

Total revenue since the project started operating on July 19<sup>th</sup>, 2008 is as follows

| Project Budget                        |              |
|---------------------------------------|--------------|
| Description                           | Amount in LE |
| No. of Household Served               | 2,470        |
| Fee per Household                     | 3            |
| <b>Revenues from Household</b>        | <b>7,410</b> |
| No. of Commercial Shops Served        | 213          |
| Fee per Commercial shops              | 5            |
| <b>Revenues from Commercial Shops</b> | <b>1,065</b> |
| <b>Total monthly Revenues</b>         | <b>8,475</b> |
| <b>HIS Revenue (90 %)</b>             | <b>7,628</b> |

**Deviations from ESP Procedures**

None

**Conclusions**

The project contributed to the improvement of environmental conditions in the area of El Magd, but the recycling component was interrupted. The recycling component was not fully implemented due to the unfavourable contract drawn between the HIS and the owner of the dumpsite.

The revenue generated from the services rendered to the community would contribute significantly to the sustainability of the waste management scheme.

## Sample Project 2

|                        |   |
|------------------------|---|
| <b>Project Title:</b>  | Water Connections for Poor Households in Nazlet Sabet, El Menia |
| <b>Sector:</b>         | Water   |
| <b>Budget:</b>         | LE 143,000  |
| <b>Project Holder:</b> | Women Leaders Society (WLS)                                     |
| <b>Location:</b>       | Nazlet Sabet village, Matay, Menia Governorate.                 |
| <b>Starting Date:</b>  | April 2008  |
| <b>Ending Date:</b>    | October 2008  |

### Technical Review

|                             |  |
|-----------------------------|--|
| <b>Project Objectives:</b>  | Improving health conditions of the poorest households of Nazlet Sabet by providing them with connections to clean potable water network.   |
| <b>Project Description:</b> | <p>The project calls for the connection of the 100 poorest, particularly, female-headed households in Nazlet Sabet to the potable water network. The village has a population of 45,000 in approximately 5000 households. The local community development association WLS conducted a survey to identify the beneficiary households.</p> <p>The Menia Water and Wastewater Company (MWWC) provided WLS with technical specifications for the following items required for the 100 connections, which were purchased using DANIDA funds:</p> <ul style="list-style-type: none"><li>- PVC pipes</li><li>- Galvanized pipes</li><li>- Connecting parts and joints</li><li>- Water meters</li></ul> <p>WLS contracted a local contractor to dig pipe trenches according to specifications provided by MWWC. The installation of the connections was carried out by MWWC.</p> <p>In addition, an awareness raising campaign was implemented by WLS to inform the local population, and women in particular about the health and hygiene benefits of connecting to the potable water network. WLS thus organised 10 workshops on its premises to engage with the local population. WLS was assisted by the local school director, as well as religious and other community leaders. The aim of these workshops was also to encourage those households who could afford to pay for access to clean water to connect to the network.</p> |
| <b>Population served:</b>   | 100 households   |

Community Development Projects, Sample project 2, continued

|                          |   |
|--------------------------|---|
| <b>Project results:</b>  | <ul style="list-style-type: none"><li>- All targeted households were connected to the potable water network.</li><li>- The workshops were carried out as planned. WLS keeps photographic and information records of these workshops on CDs.</li></ul> |
| <b>Progress Reports:</b> | No progress reports were submitted by the WSL to the governorate's EMU. No follow up field visits to the project site were conducted by the EMU staff.  |

### Financial Review

|  |  |
|--|--|
| <b>Funding Sources:</b>                | Project Holder: LE 33,000<br>DANIDA/ESP: LE 110,000<br>Total: LE143,000  |
| <b>Project Grant Agreement:</b>        | Signed on April 29, 2008 by Mr. Salah Mohamed Ahmed, EMU Component Manager and Mr. Kurt Terpgaard Jensen, ESP Team Leader (First Party) and Mrs. Seham Helmy Mohamed, Chair Person of Women Leaders Society, Nazlet Thabet Village (Second Party).   |
| <b>Financial Supervision:</b>          | Mrs. Seham Helmy Mohamed, Chair Person, WLS  |
| <b>Contract Management Procedures:</b> | Contract management procedures were conducted according to the Egyptian Tender Law No. 89 of the year 1998.  |
| <b>Tender Process</b>                  | Procurement process of equipment and supplies was carried out as follows: <ul style="list-style-type: none"><li>- Technical specifications for equipment and supplies were prepared. (See Attached).</li><li>- WLS contacted local suppliers to obtain price offers.</li><li>- Four offers were received from local suppliers.</li><li>- A tender committee was formed to evaluate the submitted offers.</li><li>- The committee accepted the best technical and financial offers submitted from two different suppliers.</li><li>- A signed purchase order was then issued to each of the awarded suppliers.</li><li>- The supplies were delivered according to the submitted offers.</li><li>- All the supplies were added to the inventory register according to the Egyptian tender and NGO's law.</li></ul> |

Community Development Projects, Sample project 2, continued

**Contractors:**

El Wataniya for Supplies and El Tayseer for Supplies.

**Financial Report:**

Deviation from budget is shown in the following table:

| Item   | Project Budget |               |                | Actual         | Deviation      |
|--|----------------|---------------|----------------|----------------|----------------|
|  | DANIDA         | WLS           | Total          |                |                |
| DANIDA Contribution (Water connections & installation, equipment)                | 100,000        | 0             | 100,000        | 100,000        | 0              |
| WLS Contribution (wages, operating expenses, public awareness and documentation) |                | 33,000        | 33,000         | 0              | -33,000        |
| Contingency  | 10,000         |               | 10,000         | 0              | -10,000        |
| <b>Total</b>   | <b>110,000</b> | <b>33,000</b> | <b>143,000</b> | <b>100,000</b> | <b>-43,000</b> |
| <b>%</b>   | <b>76.92%</b>  | <b>23.08%</b> |                |                |                |

Community Development Projects, Sample project 2, continued

**Financial Report, continued**

- Given the fact that the grant agreement was signed in April 2008. The actual figures shown in the above table represent the total expenses since the grant amount was transferred to the WLS in August 2008.
- The total amount spent was LE 100,000, (See Table 2 Below). The WLS submitted a letter to the EMU on August 25th 2008 requesting to use the contingency amount of LE 10,000 in order to add ten more houses for connection to the main water network.
- No documents were provided to the audit team to support the disbursement of WLS' contribution of LE33,000.

Actual expenditures from August 21 to December 10, 2008 (as of first disbursement up to the audit team field visit), based on documents provided by WLS, and interviews with the Chair Person and the Executive Director:

| Description                              | Amount Spent by WLS | DANIDA Contribution | WLS Contribution |
|--|---------------------|---------------------|------------------|
| Equipment                                | 29,358              | √                   |                  |
| Digging Fees                             | 10,000              | √                   |                  |
| Salaries for supervisors and technicians | 10,000              |                     | √                |
| Fees to MWWC                             | 34,072              | √                   |                  |
| Fees to Engineering Consultant Firm      | 10,000              |                     | √                |
| Awareness campaign                       | 4,200               |                     | √                |
| Fees for opening bank account            | 140                 |                     | √                |
| Files                                    | 1,210               |                     | √                |
| Taxes                                    | 1,020               |                     | √                |
|  | 100,000             | 73,430              | 26,571           |

The audit also revealed the following:

- A separate bank account was opened for the project (Bank Account No. 16465 in BBDAC Bank), which is in accordance with Grant Agreement article No. 2.3 "Grant Terms".
- No bank reconciliation was being carried out at the date of the value for money audit, but based on the bank statements provided to the audit team, the outstanding cash balance in bank that relates to project is LE 10,183.25, which represents the contingency.

The Chair Person and the Executive Director of the WLS are managing and supervising all the financial aspects of the project. Bookkeeping is inadequate.

**Deviations from ESP Procedures:**

*Community Development Projects, Sample project 2, continued*

### **Conclusions**

- DANIDA provided the equipment required to the water connections.
- The community contribution covered the salaries, awareness-raising activities, and operating expenses.
- The awareness raising seminars were an important component of this project. Some of the villagers who could actually afford to pay for the connections were reluctant to do so, because they believed that subscription costs and subsequent water fees would be overwhelming. In such instances, the seminars provided reassurance to some of these households, which eventually installed connections at their own expense.
- The social bonds between the residents are quite strong; many of the WLS's activities are financed by donations from the wealthier residents in the area. This, coupled with a good cooperation between the WLS and the MWWC, ensured a satisfactory and successful outcome for the project.

## Sample Project 3

|                        |  |
|------------------------|--|
| <b>Project Title:</b>  | Liquid and Solid Waste Management in El Negela, Northern Sinai |
| <b>Sector:</b>         | Solid Waste and Sanitation                                     |
| <b>Budget:</b>         | LE 212,000   |
| <b>Project Holder:</b> | Desert Daughters Society (DDS)                                 |
| <b>Location:</b>       | El Negela, Romanah, Northern Sinai                             |
| <b>Starting Date:</b>  | June 2008  |
| <b>Ending Date:</b>    | November 2008  |

### Technical Review

**Project Objectives:** To improve environmental and health conditions by setting up liquid and solid waste management systems in the village of Negela, Romanah, Northern Sinai.

**Project Description:** Wastewater was traditionally disposed of in septic tanks in the village of El Negela. These tanks were infrequently evacuated, due to the lack of proper emptying equipment. Most of the wastewater would leak into the sandy soil, resulting in groundwater contamination.

Solid waste was also poorly managed, as the local council's waste collection equipment is both degraded and insufficient. There was a lot of accumulated waste in the streets. Some residents incinerated their waste in open areas picked at random, resulting in atmospheric pollution.

The DDS thus requested funds from DANIDA to purchase the following items:

- One agricultural tractor (90HP)
- One trailer of a 6m<sup>3</sup> capacity
- One vacuum trailer tank of a 5m<sup>3</sup> capacity

In addition, DDS is currently procuring a plough, a leveller, and a hand cart.

The following staff was hired to implement the waste management system:

- One driver
- Two garbage collectors
- One vacuum tank operator

The driver is from El Negela and is the only full time employee member of the crew. The other 3 workers are migrants from the Nile Valley. None of the local residents agreed to carry out this work, as it is not well looked upon in their society.

The solid waste management crew undertook an initial clean up of the waste accumulated in the streets, which took a whole month. The regular service began as of December 2008. The garbage collection tractor/trailer makes its waste collection rounds in a pre-planned route covering most of the village. Waste is picked from each household into the trailer. Solid waste collection rounds are made only two days a week, since the same tractor is used for septic tanks evacuation rounds during the rest of the week. All waste is brought to the Local Council's designated dumpsite, located two km from El Negela. A household is charged a fee of LE 2 per month to receive this service.

*Community Development Projects, Sample project 3, continued*

**Project Description, continued**

The evacuation of septic tanks is carried out four days a week. Each household is charged LE 20 to LE 30, depending on the distance travelled by the service crew from El Negela. Residents requesting this service simply inform the driver whenever they meet him on one of his rounds. This service is available to 13 villages surrounding El Negela. The wastewater is disposed of in a trench, in a remote area in the desert.

An awareness campaign was carried out by the DDS members. Women were targeted in particular, but because of the conservative and traditional nature of Bedouin society, it was difficult to reach them via workshops or public meetings. The DDS members, who are all women, thus visited each household individually.

**Population Served:**

A population of about 4,000 in 600 households.

**Project Results:**

- The village streets appear fairly clean and free of solid waste.
- The solid waste management scheme is successful, with most of the residents paying their waste collection fees. About 25% of the households are very poor and cannot afford to pay this small fee. DDS provides them with the service free of charge.
- The vacuum tank is in a good working condition and is frequently solicited.
- Both the solid and liquid waste systems seem to be sustainable based on the current fee system.

**Progress Reports:**

Monthly progress reports were submitted to the Northern Sinai EMU

Community Development Projects, Sample project 3, continued

**Financial Review**

|  |   |
|--|---|
| <b>Funding Sources:</b>                | <p>Project Holder: LE 55,000</p> <p>DANIDA/ESP: LE 150,000</p> <p>Others: LE 12,000 (Addendum 1 to the grant agreement was signed on August 6, 2008).</p> <p>Total: LE 212,000</p>  |
| <b>Project Grant Agreement:</b>        | <p>Signed on June 17<sup>th</sup>, 2008 by Mr, Salah Mohamed Ahmed, EMU Component Manager and Mr. Kurt Terpgaard Jensen, ESP Team Leader (First Party), Mrs. Sobha Ebraheim Hasan Ahmed, the Chair Person of DDS (Second Party).</p>  |
| <b>Financial Supervision:</b>          | <p>Eng. Sabha Ibrahim Hasan Ahmed, the Chair Person</p>   |
| <b>Contract Management Procedures:</b> | <p>Contract management procedures were supervised by the financial committee which also implemented tendering processes as required according to the Egyptian Tender Law No. 89 for the year 1998.</p>  |
| <b>Tender Process:</b>                 | <p>The procurement process of the needed equipment and tools have been carried out as follows:</p> <ul style="list-style-type: none"> <li>- Technical specifications for equipment and supplies were prepared.</li> <li>- Technical and financial offers were solicited from several potential suppliers of the required items and offers were subsequently received by three different local suppliers.</li> <li>- A Tender committee of six members headed by the Chairman was formed to evaluate and compare the submitted offers.</li> <li>- The committee decided to accept the offers submitted from two suppliers and signed purchasing orders were issued to the awarded suppliers.</li> <li>- The equipment and supplies were delivered according to the submitted offers on September 8<sup>th</sup>, 2008 for the tractor, and September 21<sup>st</sup>, 2008 for the trailer and vacuum tank.</li> <li>- All the equipment were added in the inventory register according to the Egyptian tender and NGO's law.</li> </ul> |
| <b>Contractors:</b>                    | <p>MM Group Company and Production Cooperative for Industries and Engineering.</p>  |
| <b>Financial report</b>                | <ul style="list-style-type: none"> <li>- Deviation from budget is shown in the table below. The actual figures shown in the table represent the total expenses since inception of the project until December 18<sup>th</sup>, 2008.</li> <li>- Total amount spent to purchase the equipment was LE 161,573. This amount exceeds budgeted figures by 9.40 %, amounting to LE 14,000. This difference was due to price increases and was covered by tapping on the contingency line item, equivalent to LE 10,000.</li> <li>- Addendum 1 to the grant agreement, signed on August 6<sup>th</sup> 2008, provided DDS with an additional LE12,000 to purchase the needed equipment and to the increase of prices of Iron.</li> </ul>  |

## Community Development Projects, Sample project 3, continued

**Financial Report, continued**

| Item                                 | Project Budget |               |                | Actual         | Deviation   | Deviation (%) |
|--------------------------------------|----------------|---------------|----------------|----------------|-------------|---------------|
|                                      | DANIDA         | DDS           | Total          |                |             |               |
| Tractor                              | 85,000         |               | 85,000         | 82,000         | (3,000)     | 96.5%         |
| Trailer                              | 20,000         |               | 20,000         | 35,000         | 15,000      | 175.0%        |
| Vacuum tank/trailer                  | 30,000         |               | 30,000         | 32,000         | 2,000       | 106.7%        |
| Salaries (Per Year)                  |                | 16,800        | 16,800         | 12,000         | (4,800)     | 71.4%         |
| Community awareness                  |                | 10,000        | 10,000         | 10,000         | 0           | 100.0%        |
| Waste collection tools               | 5,000          | 10,000        | 15,000         | 5,000          | (10,000)    | 33.3%         |
| Fuel and maintenance                 |                | 7,200         | 7,200          | 7,200          | 0           | 100.0%        |
| Operating Expenses                   |                | 5,000         | 5,000          | 5,000          | 0           | 100.0%        |
| case study and documentation         |                | 1,000         | 1,000          | 1,000          | 0           | 100.0%        |
| contingency                          | 10,000         | 0             | 10,000         | 10,000         | 0           | 100.0%        |
| <b>Sub Total</b>                     | <b>150,000</b> | <b>50,000</b> | <b>200,000</b> | <b>199,200</b> | <b>-800</b> | <b>99.6%</b>  |
| Addendum for project grant agreement | 12,000         | 0             | 12,000         | 12,000         | 0           |               |
|                                      | 162,000        | 50,000        | 212,000        | 211,200        | -800        |               |
| %                                    | 76%            | 24%           | 100%           |                |             |               |

The audit revealed that;

- The Chair person of DDS is managing and supervising all financial aspects. Transactions are properly documented.
- A separate bank account was opened for the project (Bank Account No. 1/551/6476 in PBDAC. This is in agreement to the Grant Agreement article No. 2.3 “Grant Terms”.
- No bank reconciliation was carried out as of the date of the value for money audit. However, the outstanding cash balance in bank was LE105.5, as per the CDA’s last bank statement.

**Deviations from ESP Procedures:** None

### Conclusions

The project was successfully implemented and project met its target of instituting an operational liquid and solid waste management system in Negela. Furthermore, the septic tank evacuation service was extended to neighbouring communities and contributed to increasing the revenue generated by DDS, hopefully sustaining the project.

The audit team observed that the streets were relatively clean and there was no accumulated waste.

The project funds were fully utilized and the DDS abided to the procedures of the grant agreement.

## Sample Project 4

|                        |  |
|------------------------|--|
| <b>Project Title:</b>  | Recycling Palm Tree Waste in Markaz El Kharga, El Wadi El Gedeed |
| <b>Sector:</b>         | Public Awareness   |
| <b>Budget:</b>         | LE 250,000   |
| <b>Project Holder:</b> | Central Society for Development in El Kharga (CSD)               |
| <b>Location:</b>       | El Kharga City, El Wadi El Gedeed (New Valley) Governorate       |
| <b>Starting Date:</b>  | April 2008   |
| <b>Ending Date:</b>    | Ongoing  |

### Technical Review

|                             |  |
|-----------------------------|--|
| <b>Project Objectives:</b>  | <ul style="list-style-type: none"><li>- Providing new job opportunities for young women and men.</li><li>- Using agricultural waste (especially palm tree fronds) for handicrafts.</li></ul>   |
| <b>Project Description:</b> | <p>The project financed the following activities, which were all managed and implemented by the local community development association (CSD):</p> <ul style="list-style-type: none"><li>- Project promotion was carried out to inform the local population of the project and its benefits. Announcements were held at local mosques and churches. This activity was carried out by the CSD board members, with support from the Governor of Wadi El Gedeed. To ensure participation in the project:<ul style="list-style-type: none"><li>▪ local inhabitants were encouraged to collect wood and agricultural waste (especially from palm trees) for the confection of craftwork. The CSD contributes LE16 per bundle of 40 pieces of palm cuttings.</li><li>▪ local youths were encouraged to sign up for the training courses. Enrolment incentives include a grant ranging from LE75 to LE100, depending on how far trainees live from the premises of the CSD to cover transportation expenses.</li></ul></li><li>- Training of young women and men, aged 18 to 30, for the production of handicrafts using palm wood and fronds. Four different, one-month training courses were administered, which 150 trainees attended in total. Each course focused on a particular type of palm tree product. Attached is an example of trainers and trainees, including the grants they were given for attending the courses. Training took place on the CSD premises, using old equipment. According to the CSD, all of the trainees who signed up for the course completed it. Trainers were experts from the Industrial Modernisation Programme.</li><li>- Construction of a workshop for production of handicrafts and arabesques.</li><li>- Preparation of a showroom for the craftwork produced by the trainees.</li></ul> |
| <b>Population Served:</b>   | 150 beneficiaries, out of a population of 35,000.  |

*Community Development Projects, Sample project 4, continued*

**Project Results:**

- The number of people who were present at the time the project was advertised is unknown, as this component was wholly implemented and funded by the CSD, which kept no attendance records. Nevertheless, the awareness campaign seems to have been a success, since many residents brought palm material to the CSD, and the training courses were well attended.
- The workshop is still under construction, and due to be finished before the end of March 2009. It is being built next to the CSD building. Five machines used in the manufacture of arabesques, and a circular saw, have been purchased and are ready for use. The CSD is also preparing a showroom within the building. The workshop and showroom are beyond the project targets, and this explains why they have not been finished yet. Items produced by the young trainees are currently bought by the CSD. It is unclear how these will be sold.

**Progress Reports:**

Monthly progress reports were submitted to the local Environmental Department of the New Valley Governorate.

Community Development Projects, Sample project 4, continued

**Financial Review**

|  |  |               |                |                |                |
|--|--|---------------|----------------|----------------|----------------|
| <b>Funding Sources:</b>                | Project Holder: LE 75,000<br>DANIDA/ESP: LE 175,000<br>Total: LE 250,000   |               |                |                |                |
| <b>Project Grant Agreement:</b>        | Signed on April 13, 2008 by Mr. Salah Mohamed Ahmed, EMU Component Manager and Mr. Kurt Terpgaard Jensen, ESP Team Leader (First Party) and Mr. Samia Ayoub Mohamed, Chair Person of Central Society for Development in El Kharga (Second Party).  |               |                |                |                |
| <b>Financial Supervision:</b>          | Mr. Mahmoud Mohamed, CSD Treasurer and Project Financial Manager   |               |                |                |                |
| <b>Contract Management Procedures:</b> | Contract management procedures were conducted according to the Egyptian Tender Law No. 89 of the year 1998.  |               |                |                |                |
| <b>Tender Process</b>                  | The procurement process of the needed equipment and tools was carried out as follows: <ul style="list-style-type: none"> <li>- Technical specifications for the required machinery was prepared by a tender committee formed specially for this bid.</li> <li>- The committee consisted of six members: chairman, treasurer, accountant, lawyer, and two technical members.</li> <li>- Tender invitation letters were sent to fourteen suppliers to solicit offers.</li> <li>- Five offers were received.</li> <li>- The committee decided to partially accept the offers submitted by four of the suppliers due to their best technical and financial offer for the requested items.</li> <li>- A signed purchase order was issued to each of the awarded suppliers.</li> <li>- All the equipment was included in the inventory registry according to the Egyptian tender and NGO's law.</li> </ul> |               |                |                |                |
| <b>Contractors:</b>                    | Al Banan company for Trading and supplying, Egypt Star company for Trading and Supplying, Al Mostafa Company for General Supplying, and Al Tayb Company for General Trading.   |               |                |                |                |
| <b>Financial Report:</b>               | Deviation from the budget is shown in the following table:   |               |                |                |                |
| Project Budget (LE)                    |  |               |                |                |                |
| Item                                   | DANIDA   | CSD           | Total          | Actual         | Deviation      |
| Equipments and tools                   | 165,000  |               | 165,000        | 151,660        | 13,340         |
| Community awareness                    |  | 5,000         | 5,000          | 50,000         | -45,000        |
| Salaries                               |  | 15,000        | 15,000         | 0              | 15,000         |
| Operating Expenses                     |  | 55,000        | 55,000         | 0              | 55,000         |
| contingency                            | 10,000   |               | 10,000         | 0              | 10,000         |
| <b>Total</b>                           | <b>175,000</b>   | <b>75,000</b> | <b>250,000</b> | <b>201,660</b> | <b>-48,340</b> |
| <b>%</b>                               | <b>66.00%</b>  | <b>34.00%</b> |                |                |                |

Community Development Projects, Sample project 4, continued

|                                       |  |
|---------------------------------------|--|
| <b>Financial Report, continued</b>    | <p>The Grant Agreement was signed in April 2008. The actual figures shown in the above table represent the total expenses since the fund was transferred to the CSD from August 2008 to December 2008.</p> <p>The CSD submitted a letter to the EMU on August 25<sup>th</sup> 2008 requesting to use the contingency amount of LE 10,000, towards the building of the workshop along with show room for the handicrafts.</p> <p>The audit also revealed that;</p> <ul style="list-style-type: none"><li>- An amount of LE 50,000 was spent on conducting eight training courses for 150 young women and men from the area. The CSD received approval from DANIDA to reallocate funds from operating expenses to cover the training expenses.</li><li>- The Chairman and Executive Director, along with the CSD accountant, are managing and supervising all the financial aspects. Transactions are not properly documented. Transactions are not properly documented due to the poor accounting system.</li><li>- A separate bank account was opened for the project (Bank Account No. 32100100007580 in Misr Bank), in accordance with the Grant Agreement article No. 2.3 “Grant Terms”.</li><li>- No bank reconciliation was being carried out at the time this value for money audit was being made. No bank statements were provided to the audit team for the last two months. It is therefore very difficult to assess the outstanding project’s cash balance at the bank.</li></ul> |
| <b>Deviation from ESP Procedures:</b> | None   |

### Conclusions

The project was popular among the local youths, as many of the city’s younger residents inquired about the possibility of having more training sessions. The objectives of providing job opportunities to the local youth and using agricultural waste material were achieved. However, it appears that these benefits will only be temporary if the CSD does not manage to sell the handicrafts produced. The CSD staff expressed their need for training in the marketing of the products. The CSD presently buys the items produced by the young workers to sell them. Failure to sell these products would undermine the financial sustainability of the project.

## Sample Project 5

|                        |   |
|------------------------|---|
| <b>Project Title:</b>  | Solid and Liquid Waste Management Systems for Al-Aalaam, Faiyum |
| <b>Sectors:</b>        | Solid Waste and Sanitation                                      |
| <b>Budget:</b>         | LE 210.000  |
| <b>Project Holder:</b> | Community Development Association of Al Aalaam                  |
| <b>Location:</b>       | Al Aalaam Village, El Faiyum Governorate                        |
| <b>Starting Date:</b>  | July 2008   |
| <b>Ending Date:</b>    | October 2008  |

### Technical Review

|                             |  |
|-----------------------------|--|
| <b>Project Objectives:</b>  | Improve environmental conditions in the village by setting up a liquid and solid waste collection systems.   |
| <b>Project Description:</b> | <p>The inhabitants of El Aalaam have suffered from a number of health problems due to the accumulation of household waste and overflowing of wastewater from septic tanks. The rising, contaminated water table has resulted in water logging in some areas, which constitutes environmental and health hazards. CDAA decided to address these problems by purchasing equipment for collecting and disposing of solid and liquid waste. Funds for this equipment were provided by DANIDA. Local villagers contribute to maintain the services with a nominal fee. The project also includes an awareness campaign to promote better health and sanitation.</p> <p>The following items were purchased:</p> <ul style="list-style-type: none"><li>- An agricultural tractor (90HP)</li><li>- A tipper trailer</li><li>- A vacuum tank trailer</li></ul> <p>CDAA purchased the following items with its own funds:</p> <ul style="list-style-type: none"><li>- Tractor setup accessories</li><li>- A hand cart</li></ul> <p>The trailer and the vacuum tank towed by the tractor are used for solid waste collection and wastewater evacuation, respectively. For wastewater evacuation services, residents pay LE 12 in advance at the CDAA office. The collected wastewater is transferred to the Kiman Fares wastewater treatment plant. Residents in the satellite villages pay an extra LE 3, since the tractor has to haul the vacuum tank over a longer distance. This service is available four days a week.</p> <p>Solid waste collection services are delivered on Saturdays and Tuesdays and cost residents LE 2 per month. A local resident is selected from a list of candidates to inform the community, via a loudspeaker, of the imminent passage of the garbage collectors. This person is paid LE 20 per day of his work. Collected waste is taken to a transfer station located at Biahmo, 5km away from the village. CDAA was given the permission to use this station by the local government.</p> |

Community Development Projects, Sample project 5, continued

**Project Description, continued**

At the onset of the project, several community level gatherings were held to acquaint the local population, and especially women, with the project, discuss waste collection and its implication on welfare. This awareness component thus included the following activities:

- Two community meetings for male villagers.
- Twelve community meetings over a 3 months period targeting 600 local women.
- Door to door visits by rural women extension officers to educate rural women on the benefits of maintaining a cleaner living environment.
- Information sessions at the CDAA's child care centre and Women's Club.
- The production of printed materials and posters carrying messages on environmental improvement, cleanliness, health measures, etc...to be set up in various parts of the village.

According to the CDAA officials, the campaign reached:

- At least 350 male villagers
- 600 women through community meetings, 100 women at the child care centre, 200 (married, aged 18-40) women at the Women's Club, and all many others visited during the door to door visits of the Women Extension Officers.

**Population Served:**

A total of 500 already serviced, targeting 1500 by the end of 2009

**Project Results:**

- From October 2008 to December 2008, (when this audit was carried out) 394 households regularly paid for the solid waste collection services, although the target of the project is to obtain payment from all 500 serviced households by February 2009. According to CDAA's Chairman, the fees would be adequate to cover all expenses related to the implementation of the system for both liquid and solid waste.
- The project provided 4 permanent jobs: a driver, a foreman (responsible for collecting monthly) fees, and 2 sweepers. The driver is paid LE400, and the other three are paid LE250 per month each.
- CDAA did not design nor produce any posters with health and environmental messages as initially planned. They felt that the activities/events they implemented were sufficient to disseminate awareness on the project and its objectives.

**Progress Reports:**

Reports on workshop and other community-related activities were submitted to the EMU. No technical progress reports were seen by the audit team

Community Development Projects, Sample project 5, continued

**Financial Review**

|  |  |
|--|--|
| <b>Funding Sources:</b>                | <p>Project Holder: LE 60,000</p> <p>DANIDA/ESP: LE 150,000</p> <p>Total: LE 210,000</p>  |
| <b>Project Grant Agreement:</b>        | <p>Signed on July 13<sup>th</sup> 2008 Mr by, Salah Mohamed Ahmed, EMU Component Manager and Mr. Kurt Terpgaard Jensen, ESP Team Leader (First Party), and Mr. Abul Ghafar Abu El_Qumsan, Chairman of Community Development Association of Al Alaalam (Second Party).</p>  |
| <b>Financial Supervision:</b>          | <p>Mr. Mahmoud Mohamed, Financial Manager</p>  |
| <b>Contract Management Procedures:</b> | <p>Contract management procedures were conducted and supervised according to the Egyptian Tender Law No. 89 for the year 1998.</p>   |
| <b>Tender Process</b>                  | <p>The procurement process of the needed equipment and tools was carried out as follows:</p> <ul style="list-style-type: none"> <li>- Specifications for the tractor, trailer, and vacuum tank trailer were prepared.</li> <li>- A number of suppliers were contacted by CDAA requesting price quotations for the required equipment.</li> <li>- Six offers were submitted from local suppliers.</li> <li>- A tender committee was formed to examine submitted offers. It consisted of six members: a chairman, a treasurer, an accountant, a lawyer, an inventory member, and a technical member.</li> <li>- The committee accepted the offers received from two different suppliers.</li> <li>- A signed purchase order was issued to those suppliers.</li> <li>- The equipment were delivered on August 1<sup>st</sup> 2008.</li> <li>- All the equipment were added in the inventory register as required by the Egyptian tender and NGO's law.</li> </ul> |
| <b>Contractors:</b>                    | <p>Zoraik Co. for Agricultural Equipment and Mabrouk for Trading and Supplies.</p>   |
| <b>Financial Report:</b>               | <p>Deviation from budget is shown as per the table below. The actual figures shown in the table represent the total expenses since the inception of the project in July 2008 till December 25<sup>th</sup> 2008.</p> <p>The total amount spent to purchase the tractor, trailer, and vacuum tank was LE 161,573, while the budget was LE 140,000. This amount exceeds budgeted figures by 15.41% (Amount to LE 21,573) due to price increases. The difference was covered by using the contingency amount to LE 10,000 (Based on a request submitted by DSCA on August 8<sup>th</sup> 2008 to ESP), and DSCA paid the balance from its resources.</p>  |

## Community Development Projects, Sample project 5, continued

| Financial Report, continued  | Project Budget |               |                | Actual         | Deviation      | Deviation (%) |
|------------------------------|----------------|---------------|----------------|----------------|----------------|---------------|
|                              | Item           | DANIDA        | CDAА           |                |                |               |
| Tractor                      | 85,000         |               | 85,000         | 93,573         | 8,573          | 110.09%       |
| Trailer 6 m <sup>3</sup>     | 30,000         |               | 30,000         | 47,000         | 17,000         | 156.67%       |
| Vacuum tank/trailer          | 25,000         |               | 25,000         | 21,000         | -4,000         | 84.00%        |
| Community awareness          |                | 10000         | 10,000         | 513            | -9,487         | 5.13%         |
| Case study and documentation |                | 5000          | 5,000          |                | -5,000         | 0.00%         |
| Wages                        |                | 18000         | 18,000         | 2575           | -15,425        | 14.31%        |
| Tractor set-up & operation   |                | 12000         | 12,000         | 1,719          | -10,281        | 14.33%        |
| Maintenance                  |                | 6,000         | 6,000          | 741            | -5,259         | 12.35%        |
| Waste supplies               |                | 5,000         | 5,000          | 600            | -4,400         | 12.00%        |
| Licenses                     |                | 1000          | 1,000          | 578            | -422           | 57.80%        |
| Operating Expenses           |                | 3000          | 3,000          | 1,809          | -1,191         | 60.30%        |
| Contingency                  | 10,000         |               | 10,000         |                | -10,000        | 0.00%         |
| <b>Total</b>                 | <b>150,000</b> | <b>60,000</b> | <b>210,000</b> | <b>170,108</b> | <b>-39,892</b> | <b>81.00%</b> |
| <b>%</b>                     | <b>71.43%</b>  | <b>28.57%</b> |                |                |                |               |

The audit also revealed that;

- A separate bank account was opened for the project (Bank Account No. 1/0100/214030/1302 in Egyptian Bank for Industrial development) as required by the Grant Agreement article No. 2.3 “Grant Terms”.
- The project expenditures amounted to LE 170,108 for the period between July and December 25<sup>th</sup> 2008. The total revenue “other than depreciation” for liquid waste amounted to LE 6,087 and for solid waste LE 3,360. These expenses are covered by subscriptions collected from the community. Tariffs were set with the approval of the village’s local Popular Council. The profit is used to cover the operating costs.
- The Executive Director of CDAA is managing or supervising all the financial aspects of the project with only a poor accounting system in place. Financial transactions are not properly documented.
- Bank reconciliation had not been carried out at the time of this value for money audit. Latest bank statements were not provided to the audit team. It was therefore very difficult to assess the project’s outstanding cash balance in the bank.

**Deviations from ESP Procedures:**

None

*Community Development Projects, Sample project 5, continued*

**Conclusions**

- According to the CDAA, people have subscribed in increasing numbers to the waste collection services, which indicates that the project is being well received by the population.
- The CDAA has secured funding from the Social Fund for Development for the implementation of a small and micro enterprise (SME) project. The residents are satisfied with the CDAA due to the diverse social activities it has been conducting since its inception. The CDAA has a very good relationship with the local community members. This relationship is built on trust and the people's appreciation of the fact that the CDAA is responsive to their needs. To the point, some of the residents actually pay their solid waste collection fees a few months in advance, as they believe this will help sustain the system.
- The village is clean and there have been no complaints of septic tanks overflowing or garbage in the streets at the time the auditors carried out their field visit. There are no more pools of stagnating water and waste accumulated. The village is clean as a result of project implementation and cooperation between the CDAA and the residents.

## Sample Project 6

|                        |  |
|------------------------|--|
| <b>Project Title:</b>  | Solid and Liquid Waste Management in El Kom El Ahmer, Beni Suef                  |
| <b>Sectors:</b>        | Solid and Liquid Waste Management  |
| <b>Budget:</b>         | LE 189,800   |
| <b>Project Holder:</b> | El Kom El Ahmar Community Development Association (KCDA)                         |
| <b>Location:</b>       | El Kom El Ahmer Village located 7 km from Beni Suef City, Beni Suef Governorate. |
| <b>Starting Date:</b>  | November 2005  |
| <b>Ending Date:</b>    | June 2006  |

### Technical review

**Objectives:** Setting up a liquid and solid waste collection system to improve environmental conditions in the village and the local irrigation and drainage canals.

**Project Description:** The village of El Kom El Ahmar, Beni Suef lacks systems and facilities for the safe collection and disposal of domestic solid or liquid waste. Household wastewater is disposed of in poorly constructed septic tanks that are infrequently evacuated, resulting in contamination of the shallow groundwater. Some households simply discharge their sewage into irrigation or drainage canals, thereby contaminating surface water. Domestic solid waste is usually dumped in the streets or into drainage canals.

DANIDA, through the Environmental Management in the Governorates (ESP) subcomponent provided the El Kom El Ahmar Community Development Association (KCDA) with funds to procure the following equipment and supplies to help operating systems for the collection and disposal of domestic and solid waste:

- One tractor (90 HP)
- One front bucket-loader
- One trailer (6 m<sup>3</sup>) for solid waste collection
- Four hand carts
- One vacuum tank trailer (5 m<sup>3</sup>) for emptying the septic tanks
- Uniforms for the staff.

An initial clean up of the accumulated waste in the streets and canal was undertaken, then the tractor and street team started operating a 6 days a week waste collection scheme 3 days for solid waste collection and transportation to the dumpsite, and 3 days for emptying septic tanks.

Solid waste: Residents place their waste in plastic bags outside their houses. Five sweepers with handcarts collect the waste from the narrow alleys, and transfer it to the main streets for collection by the tractor-trailer, which is operated by a sixth employee. This team works 2 shifts a day, from 9:30am till 5:00pm, collecting a daily total amount of about 10 m<sup>3</sup> to 12m<sup>3</sup>. Both loads are transported to the official dumpsite at Ghiada, 27 km away. Households pay LE 2 and shops LE 3 for this service.

Community Development Projects, Sample project 6, continued

**Project Description, continued**

Liquid waste: Evacuation of septic tanks has to be paid for in advance at the KCDA office. The cost of the emptying operation is L.E. 20 per tank. The sewage is discharged into a wastewater treatment station, Elazhary, located 3 km away from the village. Approximately 7 to 8 tanks are emptied daily.

No street sweeping services are provided through the project or deemed necessary, as the local villagers have taken the habit of keeping the areas in front of their houses clean.

Training was provided to the KCDA staff to strengthen their capacity in project and financial management. KCDA and community surveyors were also trained in community participation, mobilisation, communication and social surveying skills. The waste collection fee staff was also trained. The following training and awareness activities were undertaken:

- Mobilization of local community members to participate in clean-up campaign and program for awareness dissemination.
- Training workshop for KCDA Board Members and KCDA staff on the process of Solid Waste Management.
- Lectures on environmental pollution.

The community was involved in the project from the initial stages onward, and awareness raising activities were integrated to ensure community participation and transparency. The public willingly participated in the social surveys, focus group discussions, house visits, community meetings, and students meetings. Women were targeted in particular, to encourage them to keep their homes, surrounding areas, and canals clean.

**Population served:**

A total of 900 households and 100 shops are now serviced.

**Project Results:**

- The evaluation team did not see waste accumulated in the drainage canals or the streets.
- About 700 of the 900 targeted beneficiary households actually pay their monthly fees for these services. The remaining households are serviced but don't regularly pay.
- The system is sustainable economically.
- 12 jobs were created through the project to community members.
- The street sweepers complained about their low salaries (L.E 150) per month, although they still performed their work. The KCDA cannot get the approval by the local council to increase their salaries.
- The tractor bucket-loader is no longer used and is stored at the KCDA building. It was intensively used in the early phase of the project for the removal of waste accumulated in the streets, but is no longer useful now that most of the streets are clean.

**Progress Reports:**

No progress reports were submitted by the KCDA.

Community Development Projects, Sample project 6, continued

### Financial Review

|  |  |
|--|--|
| <b>Funding Sources:</b>                | Project Holder: LE 47,200<br>DANIDA/ESP: LE 142,600<br>Total: LE 189,800   |
| <b>Project Grant Agreement:</b>        | Signed on November 29 <sup>th</sup> 2005 by Eng. Medhat Ibrahim Awad, ESP Sub-Component Manager, Beni Suef Governorate, and Mr. Philip Jago, Institutional and Environmental Planning Adviser, ESP Team Leader (First Party), and Dr. Mohamed Atwa Chair Person of KCDA in El Koum Al Ahmar village (Second Party).  |
| <b>Financial Supervision:</b>          | Mr. Ali Hossny, KCDA Executive Director  |
| <b>Contract Management Procedures:</b> | All contract management procedures are the responsibility of KCDA's management committee and according to the Egyptian Tender Law No. 89 for the year of 1998.   |
| <b>Tender Process</b>                  | The procurement process proceeded as follows: <ol style="list-style-type: none"><li>1. Technical specifications of the required equipment and supplies were prepared.</li><li>2. Suppliers were invited to submit their technical and financial offers to supply the required items. Three suppliers responded with offers.</li><li>3. A tender committee was formed to evaluate and compare the submitted offers. The committee consisted of six members.</li><li>4. The committee accepted the offer submitted by one company based on its technical and financial offer.</li><li>5. A signed purchase order was issued to the successful supplier.</li><li>6. The equipment and supplies delivered according to the submitted offer, on February 20<sup>th</sup> 2006.</li><li>7. All the purchased items added to the inventory register according to the NGO's law.</li></ol> |
| <b>Contractor:</b>                     | Raga Egypt Co. for Agricultural Equipments   |
| <b>Financial Report:</b>               | Deviation from budget is shown in the table below. The audit also revealed the following: <ul style="list-style-type: none"><li>- The Executive Director of the KCDA has no accounting background, and is managing, supervising, and approving the KCDA's financial transactions in a way that contradicts the concept of segregation of duties.</li><li>- Transactions are not properly documented. For instance, there were no double-entries for the project's transactions.</li></ul>  |

## Community Development Projects, Sample project 6, continued

**Financial Report, continued**

- No bank reconciliation was conducted throughout the project lifetime. Accordingly, it was very difficult to assess the project's outstanding cash balance in the bank.

| Item  | Project Budget |               |                | Actual         | Deviation       | %            |
|---|----------------|---------------|----------------|----------------|-----------------|--------------|
|   | DANIDA         | KCDA          | Total          |                |                 |              |
| Tractor with front loader                               | 70,000         | 0             | 70,000         | 86,438         | 16,438          | 123.5%       |
| Trailer 6 m3  | 20,000         | 0             | 20,000         | 16,434         | (3,566)         | 82.2%        |
| Vacuum tank/trailer                                     | 25,000         | 0             | 25,000         | 25,470         | 470             | 101.9%       |
| 4 hand carts  | 2,000          | 0             | 2,000          | 405            | (1,595)         | 20.3%        |
| Waste Tools and uniforms                                | 1,000          | 0             | 1,000          | 1,000          | 0               | 100.0%       |
| Community awareness                                     | 600            | 1,900         | 2,500          | 1,539          | (961)           | 61.6%        |
| Community survey (pre & post project)                   | 4,000          | 1,000         | 5,000          | 5,000          | 0               | 100.0%       |
| Accumulated waste removal                               | 5,000          | 0             | 5,000          | 5,000          | 0               | 100.0%       |
| documentation   | 3,000          | 0             | 3,000          | 3,520          | 520             | 117.3%       |
| Operating cost of the first year (covered by community) | 0              | 31,800        | 31,800         | 24,894         | (6,906)         | 78.3%        |
| Storage area for the equipments                         | 0              | 10,000        | 10,000         |                | (10,000)        | 0.0%         |
| Printing materials and documents                        | 0              | 2,500         | 2,500          | 75             | (2,425)         | 3.0%         |
| contingency   | 12,000         | 0             | 12,000         |                | (12,000)        | 0.0%         |
| <b>Total</b>  | <b>142,600</b> | <b>47,200</b> | <b>189,800</b> | <b>169,775</b> | <b>(20,025)</b> | <b>89.4%</b> |
| <b>%</b>  | <b>75.1%</b>   | <b>24.9%</b>  | <b>100.0%</b>  |                |                 |              |

**Deviations from ESP Procedures**

No separate bank account was opened for the project, as the KCDA only has one general bank account for all its activities. This is not in accordance with the Grant Agreement article No. 3.3 "Grant Terms".

*Community Development Projects, Sample project 6, continued*

### **Conclusions**

- DANIDA's fund was fully utilised
- All expenses are covered by the service fees collected from the community. Tariffs were fixed with the approval of the village's local Popular Council. The profit is used to cover equipment maintenance and depreciation costs. The project is financially sustainable because properly designed, and the service is in demand and well managed by the association.
- If possible, the equipment should be selected so that maintenance and repair can be done locally to keep costs at an acceptable level.
- The physical cleanliness, in addition to the residents' willingness to pay, were observed by the audit team.
- It is very important to form a reporting and documentation unit within the project, at the KCDA level, from the onset of the project and up to its completion. Staff should have been hired specifically for this task so that the process is documented. It could then be used as a case study.

## **PUBLIC DEMONSTRATION PROJECTS**

## Sample Project 7

|                        |   |
|------------------------|---|
| <b>Project Title:</b>  | Sanitation System In El Konayesah   |
| <b>Sectors:</b>        | Liquid Waste Management   |
| <b>Budget:</b>         | LE 3,571,315  |
| <b>Project Holder:</b> | Beni Suef Water and Wastewater Company (BWWC)   |
| <b>Location:</b>       | El Konayesah, located in Markaz El Fashn, 55km from Beni Suef City, Southern part of the Beni Suef Governorate. |
| <b>Starting Date:</b>  | November 2006   |
| <b>Ending Date:</b>    | Ongoing   |

### Technical Review

|                             |   |
|-----------------------------|---|
| <b>Objectives:</b>          | To improve environmental conditions in the village by introducing a sewage system.  |
| <b>Project Description:</b> | <p>Prior to the start of the project, El Konayesah depended on septic tanks, which constituted an environmental and health hazard, caused by frequent leakage and groundwater contamination. This project contributes to the objectives of Egypt's National Plan to introduce and extend the sewerage network to all Egyptian villages by 2025.</p> <p>Through this project, the village was provided with a proper sanitation system, divided into two main components:</p> <p>A wastewater collection and disposal system from the houses to a wastewater pump station. It consists of a network of UPVC 6 bar pipes, ranging from 160 mm to 300 mm in diameter, for a total length of approximately 4.5 km.</p> <p>A transportation system from the pump station to a wastewater treatment plant. The pump station is located on the outskirts of the village, where the peripheral road reaches Bahr Youssef Canal. It includes pumps, a standby generator, a transformer, and workshop/storage building. Wastewater will be pumped through a force main pipe (UPVC 10 bar, 250 mm in diameter) to a treatment plant. This treatment plant (still under construction) is located in the village of Aqfahs, 4 km away from El Konayesah</p> <p>The project does not cover either the costs for the individual house connections to the new network nor the construction of the Aqfahs treatment plant. Costs of the house connections are to be borne by the beneficiaries in the village; and construction of the wastewater treatment plant is financed by the Water Utility Authority.</p> <p>The awareness component of the project, which was aimed at promoting knowledge of the project and assess its acceptance by all stakeholders, was planned and implemented by the Beni Suef Water and Wastewater Company (BWWC), and the EMU. They appointed an NGO, El Karma, to train 30 Women Extension Officers (Raedat) to perform surveys and act as coordinators between the villagers and the contractor during construction of the network. Other activities were:</p> |

*Public Demonstration Project, sample project 7, continues*

|                                       |  |
|---------------------------------------|--|
| <b>Project Description, continued</b> | <ul style="list-style-type: none"><li>- A seminar for 25 officials of the El Fashn Branch of the BWWC on dealing with the beneficiaries and explaining to them the water bills, as they may be confused about what they are being asked to pay.</li><li>- Awareness workshops for religious leaders, journalists, and representatives of the Popular and Local Councils.</li><li>- An awareness session for 100 villagers, before the digging of trenches, to obtain full cooperation of the community (residents may object to having excavations in front of their houses).</li><li>- A seminar attended by 60 school children, and the printing of brochures on environmental pollution.</li></ul>  |
| <b>Population served</b>              | 700 households – total population of 4500 (the whole village), to be serviced once the sanitation system is operational.   |
| <b>Project results</b>                | <p>The sewage network, pump station and force-main pipe have been properly installed, but the sewage system is not operational, as the construction work of the Aqfahs wastewater treatment plant has been delayed. This is the responsibility of BWWC (not covered by the project). The sewage system will come into service once the treatment plant is finished.</p> <p>The evaluation team interviewed some of the local women and BWWC officials, and they confirmed being given training for working as social surveyors and to ensure the cooperation of the local residents. A brochure commissioned by El Karma, entitled “Water Pollution”, was printed; the questionnaires and training manuals used were provided to the evaluators, but evidence of the seminar for the children was not available.</p> |
| <b>Progress Reports:</b>              | No evidence was provided by the BWWC concerning monthly or quarterly reports submitted to the ESP, which is not pursuant to what is stated in the project document.  |

Public Demonstration Project, sample project 7, continues

### Financial Review

|  |  |
|--|--|
| <b>Funding Sources:</b>                | Project Holder: LE 1,054,895<br>DANIDA/ESP: LE 2,516,420<br>Total: LE 3,571,315  |
| <b>Project Grant Agreement:</b>        | Signed on November 19th 2006 by Eng Medhat Ibrahim Awad, ESP Sub-Component Manager, Beni Suef Governorate (First Party), and Mr. Philip Jago, Institutional and Environmental Planning Adviser, ESP Team Leader (First Party) , and Chairman of Beni Suef Water and Wastewater Company General, Mohamed Mohamed Abou El Kheir (Second Party).  |
| <b>Financial Supervision:</b>          | Abdel Sattar Hasab El Naby, Technical Support Sector Head, Ismail Ali and Financial and Accounting Sector Head.  |
| <b>Contract Management Procedures:</b> | Contract management procedures were conducted according to the Egyptian Tender Law No. 89 of the year 1998.  |
| <b>Tender Process</b>                  | <p>The procurement process for the needed equipment and supplies was carried out as follows:</p> <ul style="list-style-type: none"><li>- A technical study was conducted by EnviroConsult, including full detailed design calculations, environmental impact assessment, and tender documents.</li><li>- A call for tender was published in two different newspapers</li><li>- Six different bidders submitted their offers</li><li>- Four bidders submitted offers, which were evaluated and compared by a tender committee from BWWC.</li><li>- The committee accepted the best technical and financial offer, from the Ramadan Taha Morad Constructing Company, which amounted to LE 5,703,428.</li><li>- A signed purchase order was issued to Ramadan Taha Morad Constructing Company.</li><li>- A contract was signed between the BWWC and Ramadan Taha Morad Constructing Company on May 22nd 2007.</li></ul> |
| <b>Contractor:</b>                     | Ramadan Taha Morad Constructing Company  |
| <b>Financial Report:</b>               |  |

## Public Demonstration Projects, Sample project 7, continued

**Financial Report, continued**

Deviation from budget is shown in the table below:

| Item                               | Project Budget   |                  |                  | Actual           | Deviation        | %             |
|------------------------------------|------------------|------------------|------------------|------------------|------------------|---------------|
|                                    | ESP              | BWVC             | Total            |                  |                  |               |
| implementing the sanitation system | 2,237,655        | 958,995          | 3,196,650        | 5,956,799        | 2,760,149        | 186.3%        |
| community awareness activities     | 50,000           | 0                | 50,000           | 0                | 0                | 0.0%          |
| Sub Total                          | 2,287,655        | 958,995          | 3,246,650        | 5,956,799        | 2,760,149        | 183.5%        |
| contingency                        | 228,765          | 95,900           | 324,665          | 0                | (324,665)        | 0.0%          |
| <b>Total</b>                       | <b>2,516,420</b> | <b>1,054,895</b> | <b>3,571,315</b> | <b>5,956,799</b> | <b>2,435,484</b> | <b>166.8%</b> |
| <b>%</b>                           | <b>70.5%</b>     | <b>29.5%</b>     | <b>100.0%</b>    |                  |                  |               |

- The table shows that the BWVC has spent the amount of LE 5,956,799 as of July 15th 2008, which exceeds its contribution by almost 40%, whilst the implementation of the sanitation system was not completed at the time this value for money audit was conducted, due to the event of a Force Majeure . The government funded Aqfahs wastewater treatment plant is not finished (A decision was made and approved during Board Members Meeting No. 4 on October 23 2008 to postpone the final acceptance of the wastewater treatment plant).
- Transactions are properly documented using a good accounting system in place.
- No separate bank account was opened for the project, as the BWVC only has one general bank account for all grants received from different donor agencies. This does not correspond with Grant Agreement article No. 3.7 “Implementing Agency Responsibilities and Obligations”.

**Deviations from ESP Procedures:**

*Public Demonstration Projects, Sample project 7, continued*

### **Conclusions**

- The value for money audit revealed that the BWWC has completely covered its contribution of the project's capital, and exceeded the mentioned agreed amount by LE 1,380,589 as of July 15<sup>th</sup> 2008.
- Installation of the sanitation system (collection, transportation and pumps) was achieved in the village, but the network is not operational, as the construction of the government funded wastewater treatment plant is still in progress.
- Raising all stakeholders' and specially women's interest in environmental issues was facilitated by their involvement from the start of the project. The dissemination of information on the project at different community levels garnered among the stakeholders a sense of ownership, which should ensure project sustainability.
- Implementing agencies should maintain technical records of events, training sessions, and seminars undertaken during the project. Lists of participants, their feedback and its integration into a monitoring system to measure the impact of the project on the community would also be valuable. Much of this information was unfortunately not available. Documentation of the overall project cycle from the design to the execution stage was not available, so it is very difficult to assess the overall impact of the project.

## Sample project 8

|                        |  |
|------------------------|--|
| <b>Project Title:</b>  | Sanitation System for El Genena Wel Shebak   |
| <b>Sectors:</b>        | Sanitation   |
| <b>Budget:</b>         | LE 4,680,775   |
| <b>Project Holder:</b> | Aswan Water and Wastewater Company (AWWC)  |
| <b>Location:</b>       | El-Genena Wel Shebak village, Markaz Nasr El Nuba, 70 km North from Aswan City, Aswan Governarate. |
| <b>Starting Date:</b>  | November 2006  |
| <b>Ending Date:</b>    | October 2008   |

### Technical Review

**Project Objectives:** Improving safety, health, and environmental conditions in the village of El Genena Wel Shebak.

**Project Description:**

- The project calls for the removal of all existing septic tanks, and the establishment of a sewerage network, including house connections for more than 600 households and 1000 future houses. This is necessary since the seepage of effluent from the village's leaking septic tanks into the subsoil has caused the walls and foundations of many buildings to fracture. The soil in the vicinity of the village is highly absorbent silty clay loam, which expands substantially when moisturised. The pressure exerted by the swelling soil on the walls is such that they eventually break. Some residents have had to leave their houses, even after having repaired them several times.

The first task of the project was the filling in and removal of all present septic tanks and cess pits by the residents, under the supervision of the Aswan Water and Wastewater Company (AWWC) and EMU.

Secondly, in order to establish a new sewer system, the following items were installed:

- A main gravity sewer line of 250 mm diameter, and a total length of 1600 m.
- Lateral sewer lines of 200 mm in diameter, and a total length of 6200 m.
- 257 manholes of various depths.
- 600 inspection chambers.
- 1600 house connection sewer lines of 150 mm in diameter.
- Pumps to increase the capacity of the El Malky Wastewater Treatment Plant to accommodate the sewage from El Genena Wal Shebak.

All sewer pipes are PVC/4 bar, running at a depth of 1 to 5 m below the ground.

The new local sewer network was connected to a main collector pipeline about 1 km away from the village; this collector pipeline is connected to an existing gravity line, of a diameter of 12 inches in diameter, leading to the El Malky Wastewater Treatment Plant, another 1.2 km away.

Public Demonstration Projects, Sample project 8, continued

|                                       |   |
|---------------------------------------|---|
| <b>Project Description, continued</b> | <p>In addition, a community mobilization awareness campaign was conducted under the supervision of EMU and AWWC, to inform the residents about the project, and to encourage them to pay for the sanitation service. It included:</p> <ul style="list-style-type: none"><li>- community surveys</li><li>- focus group discussions</li><li>- the monitoring of project impacts at community level</li><li>- health and hygiene education</li><li>- questionnaires on the residents' willingness to pay for a connection to the wastewater network</li></ul>  |
| <b>Population Served:</b>             | 3224 inhabitants in 624 houses  |
| <b>Project Results:</b>               | <ul style="list-style-type: none"><li>- The cess pits and septic tanks were removed and demolished. The walls of buildings have not fractured since the completion of the project, despite the fact that fractures can still clearly be seen on the outer and inner walls of some of the villages' buildings.</li><li>- The newly established sewer system is a combined system. Sewer lines have been installed in the roads and streets. The main sewer is designed to accommodate the connection of the planned new areas west and north of the village. Manholes, inspection chambers, and all the required house connections have also been prepared and installed. The wastewater runs by gravity to an existing pipeline and network connected to the El Malky Wastewater Treatment Plant.</li><li>- The sewage system is in operation, and the wastewater stream can be seen 5 m down through a manhole in the main road. The lateral sewer lines are also working well, and the main collector line is connected to the existing network leading to the El Malky Wastewater Treatment Plant.</li></ul> |
| <b>Progress Reports:</b>              | Progress reports were prepared and sent by AWWC to EMU on a monthly basis.  |

Public Demonstration Projects, Sample project 8, continued

### Financial Review

|  |   |
|--|---|
| <b>Funding Sources:</b>                | Project Holder: LE 1,930,775<br>DANIDA/ESP: LE 2,750,000<br>Total: LE 4,680,775   |
| <b>Project Grant Agreement:</b>        | Signed on November 20th 2006 by Eng. Soad Thabet Karmi, EMU / ESP Sub-Component Manager, Aswan, and Mr. Philip Jago Institutional and Environmental Planning Adviser, ESP Team Leader (First Party), and Eng. Ahmed Ramadan Chairman of Aswan Water and Wastewater Company (Second Party).  |
| <b>Financial Supervision:</b>          | Mr. Gaber El Darrab, Accounting and Administrative Sector Head, AWWC.   |
| <b>Tender Process</b>                  | <p>The procurement process for the needed equipment and supplies was carried out as follows:</p> <ul style="list-style-type: none"><li>- A technical study was conducted by Darwish Consulting Engineers, which included full detailed design calculations, an environmental impact assessment, tender documents, detailed drawings, and documents required for bidding. The total budget amounted to LE 4,680,775.</li><li>- The call for tender was published in two different newspapers.</li><li>- Four bidders submitted their offers, three of which were evaluated and compared by the tender committee.</li><li>- The committee accepted the offer submitted by Eng. Abdel Naser Mohamed Abou Ellyl Construction Company, which amounted to LE 3,205,250.</li><li>- A signed Letter of Assignment was issued to the awarded Company.</li><li>- The contract was signed between AWWC and the designated company.</li></ul> |
| <b>Contract Management Procedures:</b> | All contract management procedures were conducted by the above mentioned tender committee from AWWC and reviewed by the AWWC Sector Heads, according to the Egyptian Tender Law No. 89 for the year 1998.   |
| <b>Contractor:</b>                     | Eng Abdel Naser Mohamed Abou Ellyl Constructing Company   |
| <b>Financial Report:</b>               | <ul style="list-style-type: none"><li>- Transactions are properly documented</li><li>- The actual expenditures and pre-operating expenses as of November 2008 are shown in the table below.</li><li>-</li></ul>   |

## Public Demonstration Projects, Sample project 8, continued

| Financial Report, continued | Description                 | Amount in LE        |                | Total            |
|-----------------------------|-----------------------------|---------------------|----------------|------------------|
|                             |                             | El-Genena Wel Shbak | El Malky       |                  |
|                             | AD in Al Ahram Newspaper    | 5,790               |                | 5,790            |
|                             | Ad in Al Gomhoria Newspaper | 12,652              |                | 12,652           |
|                             | Printing                    | 1,533               |                | 1,533            |
|                             | Meters                      | 50,000              |                | 50,000           |
|                             | Experiments                 | 56,903              |                | 56,903           |
|                             | Invoice No. 1               | 464,274             |                | 464,274          |
|                             | Invoice No. 2               | 210,062             |                | 210,062          |
|                             | Invoice No. 3               | 198,433             |                | 198,433          |
|                             | Invoice No. 4               | 290,650             |                | 290,650          |
|                             | Invoice No. 5               | 365,288             |                | 365,288          |
|                             | Invoice No. 6               | 206,672             |                | 206,672          |
|                             | Invoice No. 7 "Final"       | 280,583             |                | 280,583          |
|                             | Pumps for El Malky Plant    |                     | 130,000        | 130,000          |
|                             | <b>Total</b>                | <b>2,142,840</b>    | <b>130,000</b> | <b>2,272,840</b> |

The total amount transferred to AWWC by DANIDA was LE 2,282,987 whereas the total expenses as shown in the above table are LE 2,272,840, accordingly the remaining balance is LE 10,206.

Deviations from budget are shown as follows:

| Description           | Project Budget   |                  |                  | Actual           | Deviation        |
|-----------------------|------------------|------------------|------------------|------------------|------------------|
|                       | DANIDA           | AWWC             | Total            |                  |                  |
| El-Genena Wel Shebak  | 1 750 000        | 1 351 543        | 3 101 543        | 2 142 780        | 958 763          |
| El Malky              | 750 000          | 579 233          | 1 329 233        | 130 000          | 1 199 233        |
| Contingency           | 250 000          |                  | 250 000          |                  |                  |
| <b>Total</b>          | <b>2 750 000</b> | <b>1 930 775</b> | <b>4 680 775</b> | <b>2 272 780</b> | <b>2 157 995</b> |
| DANIDA Contribution % | 59%              | 41%              |                  |                  |                  |

Total contract amount was LE 3,205,205, accordingly the remaining amount to be paid to the contractor after the final acceptance of the project is LE 932,470

- AWWC has spent a total amount of LE 2,272,780 as of November 2nd, 2008.
- The sum of LE 2,142,780 relates to the sanitation system.
- The amount of LE 130,000 is for increasing the capacity/efficiency of El-Malky wastewater treatment plant.

The value for money audit revealed that:

- Financial reports were irregularly (i.e. not monthly) submitted by AWWC to DANIDA and EMU/ESP, which is not pursuant to what is stated in the Grant Agreement.

*Public Demonstration Projects, Sample project 8, continued*

**Financial Report, continued**

- At the same time, funds were transferred to AWWC based on requests sent from the Environmental Protection Fund Director, EEAA, to the ESP Sub-Component National Advisor, according to the payment schedule attached to the grant agreement. AWWC also submitted letters to ESP in Aswan. A copy of the invoices and supporting documentation were attached to the mentioned letters.

**Deviations from ESP Procedures:**

- No separate bank account was opened for the project, as AWWC only has one general bank account for all grants that are received from different donors. This is not in accordance with the Grant Agreement article No. 2.3 “Implementing Agency Responsibilities and Obligations”.

**Conclusions**

- AWWC managed to reduce the total cost of the project, from LE 4,680,775 to LE 3,205,205. This came about as a result of strong competition between the suppliers during tender process
- The good cooperation between the DANIDA, AWWC, and the implementing contractor has ensured the project was successfully implemented.

## Sample Project 9

|                        |  |
|------------------------|--|
| <b>Project Title:</b>  | Potable Water and Wastewater Connections for Poor Households in El Nasreya |
| <b>Sectors:</b>        | Water  |
| <b>Budget:</b>         | LE 281,150   |
| <b>Project Holder:</b> | Community Development Association in El Nasreya (CDAN)                     |
| <b>Location:</b>       | The upper area of the El Nasreya District, Aswan Governorate.              |
| <b>Starting Date:</b>  | June 2007  |
| <b>Ending Date:</b>    | December 2008  |

### Technical Review

|                             |  |
|-----------------------------|--|
| <b>Project Objectives:</b>  | Improve overall health and environmental conditions in the area, by providing its poorest residents with access to water and sanitation within their homes.  |
| <b>Project Description:</b> | <p>This project is a sub-component of the larger “Integrated project for improving environmental conditions in El Nasreya District”.</p> <p>A survey of the poorest area of El Nasreya was conducted by CDAN, under supervision of ESP Aswan in 2006. It showed that:</p> <ul style="list-style-type: none"><li>- 91 houses needed to be connected to the potable water network;</li><li>- 61 houses needed to be connected to the sanitation network;</li><li>- 41 houses needed to be connected to both networks.</li></ul> <p>The ESP agreed to subsidize the connection of 110 households for both potable water and wastewater. CDAN worked with the Aswan Water and Wastewater Company (AWWC) for the implementation of the project, giving priority to the poorest female headed households. Thus:</p> <ul style="list-style-type: none"><li>- All wastewater connection work was carried out by the residents themselves. The reason for this is that there already is a sewer pipeline network in the streets and it is very easy to install an outlet to connect to it. There was no need to obtain official permits to install these connections. Residents purchased pipes themselves, but these were affordable.</li><li>- The drinking water connections had to be installed by AWWC, which also provided (sold) water meters to monitor water supply and calculate monthly fees. All trenching was done by the residents themselves.</li><li>- Each household now has its own file kept on CDAN premises, which includes a contract between the AWWC and the beneficiary, a receipt for the cost of the installation, and the complete pricelist of all the equipment used.</li></ul> |

*Public Demonstration Projects, Sample project 9, continued*

|                           |  |
|---------------------------|--|
| <b>Population Served:</b> | 110 households targeted<br>243 households served   |
| <b>Project Results:</b>   | <ul style="list-style-type: none"><li>- The efficient management of the CDAN allowed 243 households to gain access to water and sanitation, instead of the 110 originally planned.</li><li>- This good achievement was possible because the staff of the AWWC were assigned the more technical part of the construction work only, whereas most of the trenching, digging and wastewater connections were done by the residents themselves. This resulted in better time management and reduced costs allowing more people to benefit.</li></ul> |
| <b>Progress Reports:</b>  | None submitted.  |

### Financial Review

**Funding Sources:**

Project Holder: LE 63,200  
 DANIDA/ESP: LE 217,950  
 Total: LE 281,150

**Project Grant Agreement:**

Signed on June 26<sup>th</sup> 2007 by Mrs. Soad Thabet Karmy, ESP Manager in Aswan, and Mr. Philip Jago, Institutional and Environmental Planning Adviser, ESP Team Leader (First Party), and Mr. Mahmoud Sabry, Chairman of the Community Development Association in Al Nasreya (CDAN) (Second Party).

**Financial Supervision:**

Mr. Saad Gazar, Financial Manager, CDAN

**Contract Management Procedures:**

All contract management procedures were conducted and supervised by the above mentioned tender committee and according to the Egyptian Tender Law No. 89 for the year 1998.

**Tender Process**

The procurement process of the requested equipment and supplies was carried out as follows:

- Preparing a list of the specifications for the needed equipment and supplies.
- CDAN directly contacted local suppliers in order to obtain their price offers.
- Three local suppliers submitted their offers.
- A tender committee was formed to evaluate and compare offers, both technically and financially.
- Signed purchase orders were issued to the three suppliers for different items.
- The equipment was delivered, according to the approved specifications, on August 1st 2008.
- All the equipment received was added to the inventory register, according to the Egyptian tender and NGO's law.

**Contractor:**

Mekka for Trading, Sayed Mansour Ahmed, and El Haremein Compan

**Financial Report**

Monthly financial reports were prepared and submitted by the to DANIDA, along with supporting documentation.

Deviation from budget is shown as follows:

| Description  | Project Budget |               | Total          | Actual         | Deviation       |
|--------------|----------------|---------------|----------------|----------------|-----------------|
|              | DANIDA         | CDAN          |                |                |                 |
| DANIDA       | 217,950        | 0             | 217,950        | 187,895        | (30,055)        |
| CDAN         | 0              | 63,200        | 63,200         | 0              | 0               |
| <b>Total</b> | <b>217,950</b> | <b>63,200</b> | <b>281,150</b> | <b>187,895</b> | <b>(30,055)</b> |

Public Demonstration Projects, Sample project 9, continued

**Financial Report, continued**

The Grant Agreement was signed in June 26<sup>th</sup> 2007. The actual disbursed amount shown in the above table represent the total expenses during the period from February 1<sup>st</sup> 2008 to December 18<sup>th</sup> 2008.

Total amount spent for water and wastewater connections for the households was LE 187,985, this amount is represented as shown in the following table:

| Description     | Q 1           | Q2            | Q3            | Q4            | Total          |
|-----------------|---------------|---------------|---------------|---------------|----------------|
| Awareness       | 0             |               | 3,000         | 0             | 3,000          |
| Bank Fees       | 0             | 220           | 0             | 130           | 350            |
| supplies        | 0             | 19,088        | 1,220         | 20,695        | 41,003         |
| Salaries        | 425           | 450           | 1,050         | 725           | 2,650          |
| Stationary      | 175           | 352           | 58            | 405           | 990            |
| Transportation  | 735           | 995           | 145           | 367           | 2,242          |
| Courier         | 300           | 400           | 40            | 700           | 1,440          |
| Connection Fees | 10,157        | 41,034        | 12,607        | 55,973        | 119,771        |
| Insulation Fees |               | 4,550         | 3,920         | 7,980         | 16,450         |
| <b>Total</b>    | <b>11,792</b> | <b>67,089</b> | <b>22,040</b> | <b>86,975</b> | <b>187,896</b> |

The audit revealed that:

- Financial Transactions are not properly documented.
- Expenses were covered by DANIDA's contributions. The remaining fund allocated to CDAN, LE 30,055, has to be transferred back to DANIDA.
- No bank reconciliation was being carried out at the time of this value for money audit.
- No bank statements were provided to the audit team; it was therefore very difficult to assess the outstanding cash balance related to the project in the bank.
- No separate bank account was opened for the project; which is not in accordance with the Grant Agreement article No. 2.3 (Grant Disbursement Terms).

**Deviations from ESP Procedures:**

**Conclusions**

- Public participation and involvement during the construction work of the project resulted in a dramatically reduced cost per house, and it was possible to include an extra 133 more houses to the 110 included in the scheme.
- This was a very successful project; the living conditions in the poor, low income areas of Nasreya were improved. Most of the residents now have access to potable water and sanitation within their homes.

## Sample Project 10

|                        |  |
|------------------------|--|
| <b>Project Title:</b>  | Upgrade of the Solid Waste Management System in El Nasreya                                       |
| <b>Sectors:</b>        | Solid waste  |
| <b>Budget:</b>         | LE 814,044   |
| <b>Project Holder:</b> | Aswan Governorate  |
| <b>Location:</b>       | The low-lying part of the El Nasreya District, along El Sail drainage canal, east of Aswan City. |
| <b>Starting Date:</b>  | June 2007  |
| <b>Ending Date:</b>    | Ongoing  |

### Technical Review

**Project Objectives:** Improve the environmental and health conditions in the area of El Nasreya surrounding El Sail drainage canal, which is used by some of the residents as a dump for municipal waste.

**Project Description:** This project is a sub-component of the larger “Integrated project for improving environmental conditions in El Nasreya District”.

It calls for the development of an efficient solid waste management system in the informal area of El Nasreya, which has one of the highest population densities in the Aswan governorate.

International City Cleaning (ICC), a private sector company, was contracted by the Aswan governorate in May 2002 to collect solid waste from the city of Aswan. The general area of El Nasreya was not covered, because ICC’s vehicles were too large to penetrate its narrow, unpaved and winding streets. Waste collection containers within the area were too few and distant for many of the residents who would have to walk 700 m or more to dispose of their garbage. These containers were, moreover, infrequently emptied. Some of El Nasreya’s residents ended up dumping their waste in the El Sail drainage canal, leading to water contamination, waste accumulation, and obstruction of the canal.

The solid waste management project consists of the provision of appropriate vehicles and equipment for waste collection, and the design of efficient collection routes and regimes to be implemented after an initial clean up of accumulated waste by ICC. Thus:

- Four metal containers of a 15m<sup>3</sup> capacity each were placed along the canal.
- The inner area surrounding the canal was divided into 9 geographical sectors, and collection routes were determined to facilitate garbage collection.
- Four appropriately small pick-up trucks (2m<sup>3</sup> carrying capacity) were purchased to serve these smaller sectors within the whole area. Since these trucks have a small carrying capacity, they use the metal containers at the canal to unload the waste they have collected before going back into the inner area to continue their rounds. A large truck from ICC passes to empty the containers regularly and to dispose of the waste at the Aswan dumpsite.

Public Demonstration Projects, Sample project 10, continued

|                                       |   |
|---------------------------------------|---|
| <b>Project Description, continued</b> | <ul style="list-style-type: none"><li>- Collection services start at 8:00 am and end by 2:00 pm, daily.</li><li>- Residents pay LE 2 per month, and shops LE 10 to 50 per month for the provision of the collection services. Fees are collected by the governorate.</li></ul> <p>An awareness campaign consisting of meetings with the residents on proper waste management was carried out by the local community development association, Community Development Association of El Nasserya (CDAN). CDAN supervised this campaign free of charge, as part of its role in the community. The campaign focused on:</p> <ul style="list-style-type: none"><li>- Proper disposal of waste.</li><li>- Payment for waste collection to sustain the system.</li><li>- Discouraging the residents from disposing of their waste in the canal.</li></ul> |
| <b>Population Served:</b>             | 65% served out of a population of 75,000. This data is based on a quick survey carried out by the audit team and discussions with the CDAN management and community leaders.  |
| <b>Project Results:</b>               | <ul style="list-style-type: none"><li>- The project has been completed and components are operational.</li><li>- Residents living close to the canal now dispose of their waste in the containers. That way, they avoid paying any fees, although the governorate is trying to obtain payment from them.</li><li>- The residents of the houses located at the end of very narrow streets that cannot be accessed by the small collection vehicles bring their garbage to the end of their streets where they dump it. They also refuse to pay the monthly collection fees.</li></ul>  |
| <b>Progress Reports:</b>              | N/A   |

## Public Demonstration Projects, Sample project 10, continued

**Financial Review****Funding Sources:**

Project Holder: LE 226,644  
 DANIDA/ESP: LE 587,400  
 Total: LE 814,044

**Project Grant Agreement:**

A Grant Agreement was signed on June 26th 2007 between Philip Jago, ESP Aswan (First Party), General Samir Youssef, Aswan Governor (Second Party), and Osama Zaki, Deputy Chairman, ICC (Third Party) to improve the solid waste management through the purchase of four pick-up trucks and four metal containers. The agreement includes a grant of LE 587,400.

**Financial Supervision:**

Aswan Governorate

**Tender Process**

The procurement process of the requested equipment was carried out as follows:

- Preparing a list of specifications for the needed equipment.
- The Aswan governorate directly contacted three local suppliers in order to obtain their price offers.
- Three local suppliers submitted their offers.
- A tender committee was formed to evaluate and compare offers, both technically and financially.
- Based on the above mentioned contract purchase orders were issued to the three suppliers for the trucks and containers.
- The equipment was delivered, according to the approved specifications, on August 1st 2008.

**Contract Management Procedures:**

All contract management procedures were conducted and supervised by the above mentioned tender committee and according to the Egyptian Tender Law No. 89 for the year 1998.

**Contractor:**

International City Cleaning (ICC)

**Financial Report:**

Deviation from budget is shown as follows:

| Description                                   | Governorate    | DANIDA         | Total          | Actual         | Deviation |
|---|----------------|----------------|----------------|----------------|-----------|
| Four Pick-up Trucks and Four Metal Containers |                | 587,400        | 587,400        | 587,400        | 0         |
| Operating Expenses for one year               | 226,644        |                | 226,644        | 226,644        | 0         |
| <b>Total</b>                                  | <b>226,644</b> | <b>587,400</b> | <b>814,044</b> | <b>814,044</b> | <b>0</b>  |
| DANIDA Contribution                           | 28 %           | 72 %           | 100 %          |                |           |

*Public Demonstration Projects, Sample project 10, continued*

**Financial Report, Continued**

- Operating expenses include equipment operation and maintenance cost, salaries, and taxes.
- The governorate pays the value of operating expenses directly to ICC in accordance to the addendum mentioned described below.

An addendum was signed on May 11th 2006 between the Aswan Governor and ICC to provide waste collection and disposal services, using the governorates's trucks and containers, until the end of the contract that was signed in May 2002. The value of this addendum is LE 28,677 monthly, from the governorate to ICC. An amount of LE 8,900 is deducted by the governorate each month, which represent the cost ICC pays for the use of the trucks and containers.

**Deviations from ESP Procedures:**

None

**Conclusions**

The El Nasreya CDA has an important role in monitoring the project, and both CDAN and ICC, through their cooperation with the residents, succeeded in implementing an efficient and working solid waste collection scheme.

Community mobilization is reflected in the population's change in attitude although a minority of the residents still refuse to pay for the services. The audit team noticed that even the narrow streets are clean, however, there is still some waste in El Sail Canal.

## **PRIVATE SECTOR PROJECTS**

## **Introduction to Private Sector Projects**

In order for a company to obtain a soft loan from ESP, it must submit an application to the Industrial Chamber. If the application is accepted, a pre and full assessment is conducted by the technical team of the Environmental Compliance Office (ECO).

Based on the assessment, a project proposal is prepared and submitted by the applicant company to the ECO Executive Committee for approval. If the project is accepted, a letter is sent to the National Bank of Egypt (NBE) along with the signed project proposal to obtain the bank's approval of the company's creditworthiness. According to the agreement between the NBE, the Egyptian Environmental Affairs Agency (EEAA), the Federation of Egyptian Industries (FEI) and DANIDA, the NBE must respond within twenty one days.

Upon approval of the ECO committee, the NBE opens a credit line for the company, and administers the loan disbursements as well as repayment of the loan.

Furthermore, in order to satisfy FEI's eligibility criteria, applicants must be:

- a member of FEI;
- active within the chemical, engineering, food, metallurgy or textile sectors;
- committed good management; and
- willing to address issues related to the working environment, child labour and gender issue.

## Sample Project 11

|                        |  |
|------------------------|--|
| <b>Project Title:</b>  | Cleaner Production with Energy Efficiency at the Modern Company for New Industries |
| <b>Sectors:</b>        | Chemical   |
| <b>Budget:</b>         | LE 1,231,250   |
| <b>Project Holder:</b> | Modern Company for New Industries  |
| <b>Location:</b>       | Industrial Zone 3, Borg Al Arab, Alexandria Governorate                            |
| <b>Starting Date:</b>  | Approved in September 2006   |
| <b>Ending Date:</b>    | Completed January 2008   |

### Technical Review

#### Project Objectives:

- Improve the Energy Efficiency of the plant
- Improve the Environmental condition of the plant
- Increase the productivity of the plant

#### Project Description:

The Modern Company for New Industries manufactures Sodium and Potassium silicates that are used in other products, such as detergents, welding electrodes, waste and paint. They are also used in wastewater treatment.

The produced Sodium and Potassium silicates are sold as a solid or in solution, in different concentrations.

The production process is summarized as follows:

- Sodium carbonate or potassium carbonate is mixed with selected high silica content sand and charged to a melting furnace that is heated by natural gas. The resulting melt is discharged to a cooling ramp where it solidifies. It is then moved to the floor outside the furnace for further atmospheric cooling. This solid sodium/potassium silicate is either sold in a solid state, or further processed and liquefied.
- Solid silicates are fed to an autoclave maintained at high pressure by adding steam, until they dissolve into water.
- The liquid product from the autoclave is then filtered and heated by steam coils to obtain the concentration required by the customers.

The assessment report provided through DANIDA and the Environmental Compliance Office (ECO) made the following recommendations to achieve the above stated objectives:

- Provide the silicates melting furnaces with waste heat exchangers to preheat the combustion air against the flue gas.
- Install a flash tank to flash the condensate out of the heating coils used in the concentration tanks.
- Add a new steam boiler to speed up the concentration of the silicate solutions.

#### Population Served:

Work force 45

Private Sector Projects, Sample project 11, continued

**Project Results:**

The objectives of the Project were successfully met.

1. By preheating the combustion air using the new waste heat exchangers, reduction in energy use, fuel consumption and emissions was obtained.
2. The condensate from the heating coils at 10 bar is adiabatically expanded and flashed in the flash tank, producing saturated steam at 2 bar. The recovered steam is used in the heating of the autoclaves. As a result, less steam is needed from the boiler. This results in a decrease in the boiler feed water rates, and a decrease in the consumption of chemical treatment additives. With less condensate sent to the sewer, there is a reduction in wastewater.
3. The addition of a new boiler allowed the plant to take advantage of its existing capacity, while speeding up the concentration of the final product in the concentration tanks. Thus a higher productivity was attained, which resulted in reduction of:
  - i. production cost.
  - ii. steam consumption per unit weight of material produced.
  - iii. fuel consumption per weight of product.
  - iv. water consumption.

In general, the project has attained its goals by improving the energy efficiency of the plant as demonstrated by the reduction in the consumption of natural gas. A letter from the plant manager addressed to ECO showed that the natural gas consumption after the project completion has decreased by about 40%, which is equivalent to a reduction of 3,000 tons of CO<sup>2</sup> emitted per year. The plant water consumption decreased due to the addition of the flash tank by 28,500 m<sup>3</sup> per year. The decrease in natural gas and water consumption results in more profitability.

**Progress Reports:**

N/A

## Private Sector Projects, Sample project 11, continued

**Financial Review****Funding Sources:**

Project Holder: LE 246,250  
 DANIDA/ESP: LE 985,000  
 Total: LE 1,231,250

**Project Loan Agreement:**

The Executive Committee of ECO has approved a soft loan of LE 985,000 with a 2.5 % interest rate for the purchase and installation of equipment (see below). DANIDA gave a grant to the Federation of Egyptian Industries (FEI) to establish a revolving fund supporting targeting private sector industries. This is pursuant to an agreement signed between the Egyptian Environmental Affairs Agency (EEAA), the National Bank of Egypt (NBE), and DANIDA.

**Financial Supervision:**

Mrs Hoda Mohamed Fathy Abdel Haleim, the owner.

**Tender Process**

- The procurement process for the needed equipment was carried out based on a list of specifications prepared by the ECO technical staff and in coordination with the owner of the company.
- Direct purchase orders and contracts were issued to the suppliers based on the owner's experience with these types of equipment.

**Contractors:**

Abdel Alateif Al Malky for Construction, Al Ahmadia Co. For Importing and Trading, Mantrac Co., and Boilers and Steel Fabrications Co.

**Financial Report:**

Close follow up was conducted by the ECO technical coordinator, and all payments were supervised and paid directly to the suppliers by the National Bank of Egypt, based on the terms of the contract and invoices.

Deviation from budget is shown as follows:

| Project Budget                     |                  |                  |                |
|------------------------------------|------------------|------------------|----------------|
| Item                               | Budget           | Actual           | Deviation      |
| Waste Heat Exchange                | 275,000          | 192,000          | 83,000         |
| Flash Tank                         | 60,000           | 51,700           | 8,300          |
| Steam Boiler                       | 746,250          | 497,000          | 249,250        |
| Taxes, construction, installations | 150,000          | 208,000          | -58,000        |
| Generator                          | 0                | 168,000          | -168,000       |
| <b>Total</b>                       | <b>1,231,250</b> | <b>1,116,700</b> | <b>114,550</b> |
| ECO Contribution                   | 985,000          | 886,000          |                |
| ECO Contribution %                 | 80%              | 79%              |                |

The table shows that:

- The total disbursed amount is LE 1,116,700, and the actual cost for items 1, 2, and 3 is less than the budgeted costs, due to good negotiations done by the owner of the company with the suppliers.

Private Sector Projects, Sample project 11, continued

**Financial Report, continued**

- The actual amount spent for item No. 4 is higher than the budgeted amount, because of price increases for installation of the new equipment.
- A generator which was not included in the budget had to be purchased and installed to the Pursuer Vessel by the owner.
- Although additional funds were spent on installation, construction, and purchase of a generator, the total actual disbursement is less than the budgeted amount by 9 %, for the reasons mentioned above.

FEI contribution as stated in the approved project proposal by the ECO Executive Committee was LE 985,000, while the approved loan amount by the NBE was LE 886,000.

**Deviations from ESP Procedures:**

None

**Conclusions**

- As a direct result of implementing the project, and in addition to the positive environmental impact, the total cost of silicates production has been reduced by 30 %, while the expected production increase is 1,560 tons of silicates per year.
- Given the fact that the average selling price for the final products is LE 650 per ton, and the profit margin is 10 %, the expected annual profit is LE 280,800, and the payback period is expected to be 32 months.
- While trying to improve one element of a process, several other elements end up being simultaneously improved as well. In this case the goal was to improve energy efficiency, which resulted in an improvement of the overall environmental conditions. Thus, whenever a plant is being designed, we need to optimise heat integration and energy efficiency while complying with environmental regulations.
- The money provided by DANIDA was well spent and generated obvious improvements.

## Sample Project 12

|                        |   |
|------------------------|---|
| <b>Project Title:</b>  | Cleaner Production at Abo Kamar Weaving Company |
| <b>Sectors:</b>        | Textile   |
| <b>Budget:</b>         | LE 2,997,000                                    |
| <b>Project Holder:</b> | Abo Kamar weaving Co.                           |
| <b>Location:</b>       | Mahalla El-Kobra, Gharbiya                      |
| <b>Starting Date:</b>  | Approved in June 2006.                          |
| <b>Ending Date:</b>    | Full Production January 2008.                   |

### Technical Review

#### Project Objectives:

The Objectives of the project were to:

- Substitute polluting production methods for table cloths and kitchen towels with a cleaner alternative.
- Improve the Occupational Health and Safety conditions of the plant workers.

#### Project Description:

The plant manufactures beach towels, blankets, table cloths and kitchen towels. However this project focused on the improvement production of table cloths and kitchen towels only. The assessment report carried out through DANIDA and the Environmental Compliance Office (ECO) recommended changing the two machines used for weaving table cloths and kitchen towels with more up-to-date equipment. This is to reduce the environmental pollution inside the factory, minimize production flaws, as well as reduce noise pollution.

The production process for table cloths and kitchen towels is summarized as follows:

- Receive cotton yarn from other companies.
- Warp yarn as required.
- Weave yarn into cloth.
- Send cloth to other companies for bleaching and further preparation.
- Return to Abo Kamar to be tailored, inspected, and packaged.

The Weaving department has 16 weaving machines placed in the same hall, only two are used for the production of the table cloth and kitchen towels. The project is to replace the two rigid Rapier weaving machines used with two Air-Jet weaving machines.

The rigid Rapier weaving machines with Jacquard have a mechanical mechanism that produces high friction between the grippers (weft insertion device with the warp threads) and the reed cover, causing the following problems:

- High noise and vibrations.
- Emitted heat due to friction of metal parts.

Private Sector Projects, Sample project 12, continued

**Project Description, continued**

- Asbestos used in the brakes of the machine.
- Friction of the rigid grippers against the yarn produces pilling of the yarn and air pollution with particulate matters and lint.
- Rigid grippers require oiling which can stain the material and result in waste of production.
- Higher use of industrial solvents and water for rinsing to remove the stains, resulting in higher rates of polluted drained water.
- Rigid gripper can harm the workers while they adjust the machine.

The recommended Dornier Air-jet Weaving machines with adjoining Jacquard unit are equipped with a pneumatic tuck-in device that has no direct contact between the filling yarn and the filling device, and therefore is more environmentally friendly than the mechanical system of rigid grippers. The Air-jet machines have the following characteristics:

- High stability, low vibrations and noise.
- Low friction, therefore low heat emission.
- The pneumatic device does not pollute air, as there is no pilling of yarn.
- Brakes are asbestos free, therefore hazard free.
- Machine is equipped with a vacuum system to collect dust or lint around the machine
- More than twice as fast as the old Rapier machine.
- More efficient than the Rapier, requiring less maintenance time, and therefore less down time. The machine is more automated and self correcting.
- Production to specification is higher.
- Productivity per labourer is four times greater than the rigid Rapier machine.

**Population Served:**

Work force of 280.

**Project Results:**

The production capacities of the new weaving machines are higher than the old ones, and therefore the plant capacity has increased.

The owner Engineer N. Abo Kamar informed us during the site visit that:

- The work environment became much cleaner and more pleasant.
- Removal of the collected particulate matters, dust and fibre from around the machines is currently done once a week, while it used to be done every two days with the old machines.
- The old machines dissipated heat which increased the temperature in the weaving hall to 36°C. However after the replacement of the machines with Air-jet machines the temperature decreased to 32°C. With the A/C the temperature is down to 26°C which is in compliance with the environmental regulations and gives the workers a pleasant and more productive atmosphere.

Private Sector Projects, Sample project 12, continued

**Project results, continued**

- The noise pollution has decreased from 132 decibels to 112 decibels which is still too high but better than the previous situation.
- Sick leaves of the workers have decreased.

**Progress Reports:** N/A

**Financial Review**

**Funding Sources:**

|                 |              |
|-----------------|--------------|
| Project Holder: | LE 899,100   |
| DANIDA/ESP:     | LE 2,097,900 |
| Total:          | LE 2,997,000 |

**Project Loan Agreement:** The Executive Committee of ECO has approved a soft loan of LE 2,097,900 with a 2.5 % interest rate for the purchase and installation of equipment (see below). DANIDA gave a grant to the Federation of Egyptian Industries (FEI) to establish a revolving fund supporting targeting private sector industries. This is pursuant to an agreement signed between the Egyptian Environmental Affairs Agency (EEAA), the National Bank of Egypt (NBE), and DANIDA.

**Financial Supervision:** Eng, Mo'men Abou Kamr, the owner.

**Tender Process**

- The procurement process for the requested machines was carried out based on a list of specifications prepared by ECO technical staff and in coordination with the owner of the company.
- Direct purchase orders and importing documents were issued to the suppliers based on the owner's experience with these types of machines.

**Contractors:** Staublilyon, France, and Lidauer Dornier GmbH, Germany

## Private Sector Projects, Sample project 12, continued

**Financial Report:**

Close follow up was conducted by the ECO technical coordinator, and all payments were supervised and paid by the NBE directly to the suppliers based on the terms of the contracts and invoices.

Deviation from budget is shown as per the following table:

| Item  | Project Budget   |                  | Deviation      |
|---|------------------|------------------|----------------|
|   | Budget           | Actual           |                |
| Two Dornier Air jet weaving machines and Two electronic Jacquard machines | 2,997,000        | 2,044,683        | 952,317        |
| Installations   |                  | 200,000          | -200,000       |
| Construction works  |                  | 300,000          | -300,000       |
| <b>Total</b>  | <b>2,997,000</b> | <b>2,544,683</b> | <b>452,317</b> |
| ECO/DANIDA Contribution   | 2,097,900        | 2,097,900        |                |
| ECO Contribution %  | 70%              | 82%              |                |

The table shows that the total disbursed amount is LE 2,544,683, representing the purchase of 2 Dornier Air jet weaving machines and 2 electronic Jacquard machines, as per the loan agreement.

In addition, the owner decided to buy 2 more sets of the same machines, because he believed in the positive economic value added for the quality of the production process. The table also shows that the actual amounts spent for item No. 2 and 3 represent the cost of installation and construction works that were required for the new 2 machines.

**Deviations from ESP Procedures:**

None

**Conclusions**

- According to the owner's documents, the direct result of implementing the project was a reduction by 28 % of the total cost of operation.
- Labour cost was reduced by 8%.
- The expected production increase is 50% per year.
- The payback period is expected to be 3.7 years.
- The management of industrial facilities has the social responsibility of taking care of the safety and health of their plant workers, and reducing pollution at source. This project has attained its objectives. The money provided by DANIDA was well spent.

## Sample Project 13

|                        |                                      |
|------------------------|--------------------------------------|
| <b>Project Title:</b>  | Cleaner Production at Chloride Egypt |
| <b>Sectors:</b>        | Chemical                             |
| <b>Budget:</b>         | LE 2,803,125                         |
| <b>Project Holder:</b> | Chloride Egypt                       |
| <b>Location:</b>       | Industrial Zone, Abu Rawash, Giza    |
| <b>Starting Date:</b>  | Signed in July 2006                  |
| <b>Ending Date:</b>    | Completed January 2008               |

### Technical Review

#### Project Objectives:

The Objectives of the project were:

- Substitute polluting production methods with cleaner alternatives.
- Improve the Energy Efficiency of the plant.
- Improve the Occupational Health and Safety conditions of the plant workers and surrounding population.

#### Project Description:

Chloride Egypt manufactures an array of different types of batteries for several applications. The most common type of batteries are the dry and the wet car batteries.

The production process can be summarized as follows:

- Pure lead is melted and then oxidized.
- Lead oxide is mixed with sulphuric acid and additives to produce lead oxide paste for positive or negative plates, depending on the additives included.
- Lead-antimony alloy is melted and casted into double grid panels.
- The lead oxide paste is applied onto the double grid panel, then dried and cured to form either positive or negative plates.
- The plates are immersed in sulphuric acid tanks, and electrically charged by passing an electrical current. They are then rinsed, and dried.
- A number of positive and negative plates are assembled in sequence, with the positive plates enveloped in polypropylene for electrical insulation. The assembled plates are placed in battery casings to produce dry batteries.
- To produce wet batteries, the above step of electrically charging the plates is bypassed. Plates that have not been charged are assembled and placed in the casing, and then the batteries are filled with sulphuric acid. The last step in the manufacturing process is to charge the batteries by passing an electrical current.

This plant has many possibilities for cleaner production. The assessment report provided by DANIDA and the Environmental Compliance Office (ECO) recommended the following:

Private Sector Projects, Sample project 13, continued

|  |  |
|--|--|
| <p><b>Project Description, continued</b></p> | <ul style="list-style-type: none"> <li>- Installing a new lead-antimony alloy melting furnace and casting machine to produce the double grid panels. The new furnace crucible to be enclosed and heated by LPG.</li> <li>- Installing an acid vapour collection and extraction system in the tank formation area.</li> <li>- Installing a dust collection system in the assembly area, where the plates are cut and enveloped to insulate the positive from the negative plates.</li> <li>- Providing a new automatic sulphuric acid filling and levelling machine to avoid manually filling the wet batteries with acid.</li> <li>- Installing a wastewater treatment plant.</li> </ul>   |
| <p><b>Population Served:</b></p>             | <p>Work force 450</p>  |
| <p><b>Project Results:</b></p>               | <p>The project attained its objectives. It has improved the Occupational Health and Safety conditions of the plant workers to an acceptable level. The plant handles hazardous materials like sulphuric acid, lead, lead oxide and products, and lead dust. The plant labour force is regularly tested for lead in the blood. It was found that before the modifications of the plant most of the workers had high concentrations of lead in their blood. Sometimes the concentration was higher than twice the maximum permissible value in Egypt, which is 80 µg/dl. After completion of the project, there were no more traces of lead detected in any the workers' the blood, which is a major accomplishment.</p> <p>Each of the five recommended modifications fulfilled their objectives:</p> <ul style="list-style-type: none"> <li>- The lead-antimony alloy melting furnace and casting machine is working properly. It has eliminated the risk of having lead emissions from the open melting pot that was used with the old equipment. The use of LPG instead of electricity for melting the alloy is more economical, as shown in ECO's assessment report. There is no heat loss from the new furnace, because the melting pot is properly insulated. The cost saving in energy is 30%.</li> <li>- The vapour collection and extraction system in the tank formation hall eliminated acid vapour in the working area.</li> <li>- The dust collecting system in the assembly area has prevented airborne, lead-carrying dust from spreading in the working hall. Lead from the collected dust is recycled. The lead oxide dust collected in the filter is 7.8 tons per year</li> <li>- The automatic sulphuric acid filling machine is working properly. It has eliminated the spillage associated with manual filling, and therefore decreased the amount acid wasted and improved the wastewater quality. The waste acid eliminated amount to 5% of the acid used, which is equivalent to 90 tons per year of sulphuric acid.</li> <li>- The wastewater treatment plant reclaims the water. The treated water is of a good quality and is reused within the plant, which saves money and complies with the environmental regulations. The recycled water amounts to about 18,000 m3 per year.</li> </ul> |
| <p><b>Progress Reports:</b></p>              | <p>N/A</p>   |

## Private Sector Projects, Sample project 13, continued

**Financial Review****Funding Sources:**

Project Holder: LE 840,625  
 DANIDA/ESP: LE 1,962,500  
 Total: LE 2,803,125

**Project Loan Agreement:**

The Executive Committee of ECO has approved a soft loan of LE 1,962,500 with a 2.5 % interest rate for the purchase and installation of equipment (see below). DANIDA gave a grant to the Federation of Egyptian Industries (FEI) to establish a revolving fund supporting targeting private sector industries. This is pursuant to an agreement signed between the Egyptian Environmental Affairs Agency (EEAA), the National Bank of Egypt (NBE), and DANIDA.

**Financial Supervision:**

Eng. Zinat Rady, Project Manager.

**Tender Process**

- Procurement process for the needed equipment was carried out based on a list of specifications prepared by ECO technical staff and in coordination with the Chloride Egypt management.
- Direct purchase orders and importing documents were issued to suppliers based on Chloride Egypt's experience with the requested equipment.

**Contractors:**

Several Suppliers

**Financial Report:**

Follow-up was conducted by the ECO technical coordinator, and all payments were supervised and paid by the NBE directly to the suppliers based on the terms of the contracts and invoices.

Deviation from budget is shown as follows:

| Item  | Project Budget   |                  | Deviation      |
|---|------------------|------------------|----------------|
|   | Budget           | Actual           |                |
| Lead-antimony alloy melting furnace and casting machine | 1,050,000        | 1,400,062        | 350,062        |
| Acid vapour collection and extraction system.           | 110,000          | 96,580           | (13,420)       |
| Dust collection system                                  | 691,500          | 1,020,971        | 329,471        |
| Automatic sulphuric acid filling and leveling machine   | 303,000          | 475,766          | 172,766        |
| Waste water treatment plant                             | 48,625           | 690,630          | 42,005         |
| <b>Total</b>  | <b>2,803,125</b> | <b>3,684,009</b> | <b>880,884</b> |
| ECO Contribution  | 1,962,500        | 1,962,500        |                |
| ECO Contribution %                                      | 70%              | 53%              |                |

*Private Sector Projects, Sample project 13, continued*

**Financial Report, continued**

- The table shows that the actual amount spent for item No. 1, 3, 4 and 5 is higher than the budgeted amount due to extra installation and construction works that was required.
- It also shows that the total disbursed amount is LE 3,684,009. The project holder has injected LE 880,884 in addition to his agreed contribution that amounted to LE 840,625 to upgrade and improve the plant. In light of the changes brought about by the project holder, DANIDA's contribution was reduced from 70% to 53%.

**Deviations from ESP Procedures:**

None

**Conclusions**

- As a direct result of implementing the project, and in addition to the positive environmental impact, the total cost of production has been reduced by 30 %, labor cost has been reduced by 12%, while production has increased by 30 % over 2008.
- Payback period is 3.5 years, with one year grace period.
- It has been clearly demonstrated that it is possible to have a plant handling and processing hazardous material while complying with environmental regulations. The clean production concept should always be considered when designing an industrial facility. It can improve safety and health of the workers, ensure compliance with environmental regulations, reduce waste, and be more economical.
- The money provided by DANIDA was well spent.

## **OVERALL CONCLUSIONS**

All of the six Community Development sample projects that were audited contributed to improving the living conditions of the communities they addressed. DANIDA funds were utilised to purchase the requested equipment, awareness raising campaigns were appropriately carried out, and cooperation between stakeholders was ensured. In some cases, project implementation also provided job opportunities for local residents. The projects have all been properly implemented, and the systems that are now operated are for the most part sustainable.

Cooperation between all stakeholders and public involvement were important aspects of the four Public Demonstration projects. The value for money audit revealed that DANIDA funds were used for the purpose they were meant, as all equipment and installations called for in the agreements were purchased and carried out. The government agencies responsible for implementing the requested waste collection and sanitation systems proved to work efficiently, although in one case (El Konayesah), proper operation of the project was delayed for reasons beyond the scope of the Grant Agreement.

The role of the Community Development Associations was substantial in ensuring cooperation between all stakeholders in the Community Development and Public Demonstration projects. All CDAs were committed to the enhancement of the environment and the betterment of their communities. The people's willingness to pay for the services provided, and the fact that fees, although minimal, have sustained the provision of services, is noteworthy.

Overall, these projects were well managed, despite the fact that progress reports were seldom submitted to the ESP or the various governorates' EMUs. Another issue is that bookkeeping was generally inadequate in the majority of institutions audited, even though once reconciliation was done, all invoices were accounted for. Such inadequate filing results in a loss of time that should be avoided. ESP projects should therefore be designed to include a capacity building component specifically for the project holders, both for the write-up of progress reports, and for the proper filing of financial transactions.

The three Private Sector sample projects were highly successful. The companies that purchased new equipment through DANIDA loans were all able to improve the occupational health and safety working conditions of their workforce. Some were also able to achieve improvements in terms of pollution abatement, as the new equipment guarantees cleaner and more efficient production: it generates less waste or pollution during production, and is more efficient in terms of energy use. The higher productivity of these new machines, and cheaper costs they imply, translate into increased profitability for the factory owner. This should ensure the timely payback of the loans according to the loan agreements.

Interviews by the audit team at the central level revealed that EEAA was pleased with the way ESP administers the funds it provides to Egypt. For instance, it only takes 6 to 8 weeks for the funds to be approved once an applicant submits a proposal. Moreover, ESP is present throughout the duration of the project, providing help if necessary to the project holder. It also issues certificates at the end of the project that can be used as a reference by project holders when applying for more funding. Most of all, ESP is appreciated for its transparency, and for the authority it delegates to its Egyptian counterparts from the planning to the implementation stages.

The Value for Money audit showed that the funds were utilized for their intended activities, benefiting targeted communities through interventions in various sectors and geographical regions. ESP created a successful model for the engagement of civil society, the private sector and government agencies in environmental initiatives.

## **ANNEX: TERMS OF REFERENCE**