Ministry of Foreign Affairs **Danida**

Final Component Description

Achieving Cost-Effective Compliance in Industry with Environmental Regulations

Environmental Sector Programme Support

Egypt

Ref. No. 104. Egypten. 806 **March 2000**

COMPONENT DESCRIPTION

COVER PAGE

Country	:	Egypt
Sector	:	Environment
Title of SPS Document	:	Environmental Sector Programme Support
Title of Component	:	Achieving Compliance in Industry
National Agency	:	Federation of Egypt Industries (FEI)
Duration	:	6 years
Starting Date	:	1 January 2001
Overall Budget Frame	:	100.61 million DKK (13,24 mill. USD)

DESCRIPTION

The objective of the component is to assist industry to improve compliance with environmental legislation through Cleaner Production (CP). Three immediate objectives are needed to achieve the development objective: (i) Environmental Compliance Office (ECO) at Federation of Egyptian Industries (FEI) serves as a link between the industry, the ETC, EEAA, and financial facilities. (ii) Awareness and usage of cleaner production (CP) in at least three sectors (Chambers) of the Egyptian industry. Environmental management schemes (EMS) and cleaner production are implemented in selected industries. (iii) Egyptian technical consultants (ETC) promote and implement cleaner production (CP) in the industry.

The component will be anchored in the FEI and initially work with three chambers to be selected during the inception of the SPS. The windows of opportunity for the component is to work with the small and medium sized industries that are organised in industrial chambers and affiliated with the (FEI). FEI will fund the head of the ECO unit and provide office space, secretariat, and facilities for the component. After three years the local staff of the ECO unit will be partly funded by FEI and after 6 years, FEI resumes the full cost of local staff. Danida will provide funds for one long-term technical advisor, short-term international assistance, initial support to the ECO office, funds to retain Egyptian technical consultants and a financial facility to provide means for cleaner and end-of-pipe technologies.

This component provides the incentive of the ESPS to reduce the impact of the environment, in parallel to the KIMA component. The DEM and EMG components both contribute to the motivation for industry to be part of the ACI component. However, the ACI component is not focussed on only two Governorates. Therefore, co-ordination with the CEM components is important, particularly with regard to the information and awareness activities.

Polluting industries are often placed in remote areas, where also disadvantaged and poor people live. The component will improve the livelihood of people living near the industry (often the poorest segment of the population). Reducing the emissions from the production and cleaning up the vicinity of a factory thus benefit these groups the most. Improved working conditions for poor workers, including children and women at a factory applying an effective EMS can be an indirect effect of the programme as well. These issues are important priorities when selecting among industries to enter the component.

Signatures:

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List of Abbreviations

CSC	Component Steering Committee
CP	Cleaner Production
CT	Cleaner Technology
CTA	International, chief technical advisor of the ESPS
DANIDA	Danish Development Assistance
DKK	Danish Kroner
EEAA	Egyptian Environmental Affairs Agency
ECO	Environmental Compliance Office at FEI
EMG	Environmental Management in the Governorates
EMS	Environmental Management Schemes in industry
EPF	Environmental Protection Fund
ESPS	Environmental Sector Support Programme
FEI	Federation of Egyptian Industries
GOFI	General Organisation for Industrialisation
IT	Information Technology
LFA	Logical Framework Approach
SMEs	Small & Medium Enterprises
TA	International, long-term Technical Advisor to the FEI
TOR	Terms of Reference
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

AIM OF ESPS

The overall objective of the ESPS is to contribute to the efforts of the Egyptian government within the environmental sector. In particular to improving environmental conditions, developing environmental management capacity of institutions, and providing frameworks for compliance with environmental regulations. This will be achieved by establishing effective implementation of environmental management and improvement activities at the local level. The EEAA's strategy for regionalisation of its services and functions will be supported. Programmes within the targeted governorates will be supported, including institutional development, environmental remediation of hotspots, knowledge creation, awareness raising, and technology transfer. Assistance under the ESPS will be provided through a number of programme components each of which targets a specific element of a clearly expressed Government of Egypt priority.

COMPONENT OBJECTIVES AND OUTPUTS

The objective of the component is to assist industry to improve compliance with environmental regulation through cleaner production. Cleaner production is the combining term used to describe:

1. The cleaner technologies involved (reuse and recycling of material, process modifications, changes to input specifications etc.),

2. End of pipe abatement equipment (filters, effluent treatment plants etc.), and

3. Good environmental management (good house keeping, monitoring of emissions, safe working environment, resource and energy savings etc.).

The components immediate objectives and corresponding outputs are:

1. Environmental Compliance Office (ECO) at FEI serves as a link between the industry, the Egyptian technical consultants, the EEAA, and financial facilities/institutions.

   Outputs:
   ECO established at FEI.
   Grants/loans from other sources as well as promotion of CP in the industrial sectors, facilitated by the ECO.

2. Awareness and usage of cleaner production in at least three sectors (Chambers) of the Egyptian industry.

   Outputs:
   Knowledge of environmental management schemes disseminated and implemented.
   A financial facility established, to provide financial support for cleaner and end-of-pipe technology investments.
   Cleaner technologies and end-of-pipe solutions, demonstrated.

3. Egyptian technical consultants promote and implement cleaner production in the industry.

   Outputs:
   The capacity among of the Egyptian technical consultants strengthened.

The implementation of cleaner production in three industrial sectors demonstrated by Egyptian technical consultants.

INPUTS

The Danida inputs will include:

- Long-term international advisor (industrial/technical environmental manager) (6 years), and medium to short term technical assistance in cleaner technologies, environmental audits and management, information technology, communication and awareness and training.

- Short-term local and international consultants to assist the formulation of industrial environmental action plans, implementation of environmental management schemes, and design and implement the cleaner technologies. Local consultants will work alongside, and eventually take over the roles of all the international consultants.

- Funding for FEI to retain and train three full-time industrial cleaner production specialists to work in the ECO; paid in full for three years, then gradually decreased to zero after 6 years.

- Funds and management resources for a financial facility to support cleaner production.

- Office equipment, IT and Database equipment, vehicles etc.

FEI will provide:

- A Director, full time to be head of the ECO.

- Three full time ECO staff members, one for each of the three industrial sectors, gradually paid for after 3 years and paid in full after 6 years.

- Office space, telephone lines for the Management Office and consultants.

- Access to the administrative facilities of FEI.

POVERTY REDUCTION AND CROSS-CUTTING ISSUES

Poverty alleviation, gender, and governance issues are not the direct targets of this component, but there is a potential for profound indirect effects. Polluting industries are often placed in remote areas, where also disadvantaged and poor people live. The component will improve the livelihood of people living near the industry (often the poorest segment of the population). Reducing the emissions from the production and cleaning up the vicinity of a factory thus benefit these groups the most. Improved working conditions for poor workers, including children and women at a factory applying an effective environmental management scheme (EMS) can be an indirect effect of the programme as well.

These issues are important priorities when selecting among industries to enter the component. To maximise this potential benefit to poor and women, sectors should be targeted that (i) are highly polluting and poorly regulated; (ii) tend to be located within poor communities; (iii) employ many women or make use of child labour; (iv) has occupational health and safety problems.

The component contributes to the creation of a non-governmental body that will disseminate information, create networks for spreading good practice, and enable investment in cleaner production. This is a significant contribution to the capacity development in Egypt and the improvement of governance in the environment sector.

SUSTAINABILITY ISSUES

Technical Sustainability
The technical standard of Egyptian industry is very fragmented, ranging from enterprises using state-of-the-art technology, to enterprises with semi-obsolete equipment housed in primitive premises. However, good environmental management does not necessarily require a high degree of technological sophistication. There is potential for the application of simple solutions that can have a great effect on environmental performance. Therefore, no major technical obstacles to the implementation of the component are anticipated. Furthermore, due to EEAA's increased attention to pollution prevention and enforcement of environmental regulations, awareness of the need for cleaner technology is increasing and demands for these services are likely to continue to grow.

There is an Egyptian resource base to advise on the advantages of cleaner production, but it has very limited "hands-on" experience. The component will develop this resource base and reinforce it with international expertise. Cleaner production has become a natural part of running a company in Denmark, because Danish experts and manufacturers have developed the technical capability to supply services and equipment for the implementation of this component.

Institutional Sustainability
Although the FEI is undergoing a profound and occasionally problematic transition from public to private sector, the new management understands the necessity of change and is committed to transforming FEI into a self-sustaining service provider. Management has been replaced with former senior managers from industry and wide-ranging staff changes have been implemented. With financial support from USAID, FEI has improved communication with and the service provided to its members.

Financial Sustainability
The financial situation of FEI is uncertain at present, after the support from USAID has ceased. FEI anticipate to be financially self-sustained by the middle of 2000. FEI is the only national industrial organisation, and it has every opportunity to sustain itself at a reasonable level as a fully privatised and self-financing organisation. They are already paid 40% of the total income of industrial chambers from member fees. FEI is working to ensure financing from other sources as well, such as direct membership fees from major Egyptian companies.

At present, very skilled staffs are employed at FEI, and they are paid salaries up to five times higher than government employees are. Salaries have to remain at a sufficient level to retain qualified staff, but the financial burden could become a constraint on the speed of transition and subsequent growth of the organisation. The component includes an activity to develop a financial sustainability plan for the ECO.

RISKS AND ASSUMPTIONS

The main risks come from the uncertainties regarding industry, Egyptian technical consultants, FEI and policy issues of the central government (EEAA) and the governorates. The most important assumptions may be summarised:

- Increased attention, pressure and incentives on Egyptian enterprises to comply with environmental legislation.

  Environmental compliance is in most cases an increased financial burden on industries, particularly if marked based tools are not used to give incentives to comply (green taxes, tax lifting for environmental investments etc.).

- Enterprises are interested in the activities and services provided through the component.

  The Egyptian Government and Danida have signed an agreement. FEI has signed a component agreement, but neither the industry nor the workers associations, or other stakeholders have any knowledge of the agreement at the time of inception.

- Egyptian resource base has available experts and staff and will participate in component activities.

  Egyptian technical consultants have not signed any agreement either, but at least they can build new competence and get business at the same time. There is apparently a great variation in the quality of the Egyptian technical consultants, but in previous projects, Danida has been able to find qualified consultants.

- FEI will develop into a sustainable national industrial organisation representing Egyptian private enterprises, having a qualified staff and a management supporting the ECO activities.

  FEI management has signed an agreement to participate in the component of the sector programme, so in reality the risk is limited to the financial situation and the availability of qualified staff. Giving the fact that salaries at FEI are quite high compared to other job possibilities qualified staff should be attracted to the ECO offer of permanent job positions. The financial sustainability depends on the willingness, pressure, and incentives created for industry to contribute to FEI. By law, they have to be members of FEI, but enterprises should feel that they get value for their member fees, if FEI is to be regarded sustainable.

The most important assumptions may be summarised:

- Increased attention, pressure and incentives on Egyptian enterprises to comply with environmental legislation.

- Enterprises are interested in the activities and services provided through the component.

- Egyptian resource base has available experts and staff and will participate in component activities.

- FEI will develop into a sustainable national industrial organisation representing Egyptian private enterprises, having a qualified staff and a management supporting the ECO activities.

1. INTRODUCTION

With a share of approximately 21% of the gross domestic product, the industrial sector is a major contributor to the Egyptian economy. It is estimated that Egypt has 25,000 industrial facilities, which work under a license issued by the General Organisation for Industrialisation (GOFI). Probably more than 250,000 production facilities are established in Egypt, but not registered due to e.g. the limited number of employees and capital requirements. Private industries tend to be small to medium sized enterprises and they have largely been established during the last fifteen years. The large majority of Egypt's industrial facilities are located near Cairo and Alexandria.

In 1992, Egypt initiated an ambitious program of public sector restructuring and privatisation. Although certain strategic industries are likely to remain in the public sector, many large industrial enterprises are expected to undergo privatisation during the next 5-10 years. To privatise public-sector enterprises, the Government of Egypt will have to make these enterprises attractive to investors. This often involves reducing pollution and manpower to acceptable levels.

Egypt has the environmental laws and executive regulations in place to regulate industrial pollution. However, the institutional capacity of government to identify pollution sources, monitor compliance, and take enforcement actions to address non-compliance is still limited and fragmented. Many chemical analyses data often exist, but they are seldom put in perspective and used for environmental planning. Therefore, the industrial community often feels other responsibilities and obligations more pertinent than to comply with Egyptian environmental regulations. However, the awareness of these issues is growing, partly due to information campaigns initiated by the Minister of the State for Environment and the Egyptian Environmental Affairs Agency (EEAA) as well as an increasing media coverage of environmental issues.

Within the framework of the Danida Environmental Sector Programme Support (ESPS), this component is intended improve industrial compliance with the Egyptian environmental regulations. The component will help industry to achieve compliance with environmental regulations through a holistic approach to environmental management, using the full range of approaches and techniques available for cleaner production (CP). CP is the combining term used to describe:

- The cleaner technologies involved (reuse and recycling of material, process modifications, changes to input specifications etc.),
- End of pipe abatement equipment (filters, effluent treatment plants etc.), and
- Good environmental management (good house keeping, monitoring of emissions, safe working environment, resource and energy savings etc.).

The component is scheduled to start immediately after the onset of the SPS implementation 2001 with an up front activity of identification of three industrial sectors, on which the component initially will concentrate.

1.1 Status of Component Development

Two missions have taken place in January and March 1999 to identify the appropriate partner and to discuss and prepare the component. During the first formulation mission, a number of organisations and universities were evaluated but not found feasible as local partner. During

the second mission, The Federation of Egypt Industries was identified, and based on detailed discussion with them, they are proposed as anchor for the component.

The Federation of Egypt Industries (FEI) was established in 1922 as a government organisation for public owned enterprises, but it is at present in a transition phase changing to a private industrial organisation. FEI is in essence by 1 January 2000 self-supporting, being sustained by membership dues and fees for services provided to its members. However, some financial uncertainty about the FEI still exists. FEI is an industrial organisation that works on a national basis and within all industries. FEI has industrial chambers as members through which it is possible to reach small and medium sized enterprises. Therefore, FEI become a more appropriate partner for the ACI component than individual business associations with memberships depending on the present status of an enterprise.

The focus will be on small and medium size industries (SMEs) in three sectors of the industry, and these will be approached from FEI through the industrial chambers. The component objectives and strategy has been developed in consultations with FEI. Initially the focus will be on the implementation of environmental management schemes in approximately 100 SMEs. Later in the programme, support will be provided to a smaller number of industries to implement technologies requiring larger investments and these industries has the potential to develop into "industrial sector models" of compliance with environmental compliance. Danida will provide the means to establish a financial facility for supporting larger investments in technology.

An important element of the component is to develop capacity within the Egyptian environment profession in undertaking audits and implementing systems for compliance with environmental legislation, e.g. consultants, environmental institutes, and universities. Danida will provide the means to achieve this objective.

FEI will provide the necessary staff and office space to create an Environmental compliance Office (ECO). Danida will contribute with international long-term and short-term assistance, and with support to retain new staff, office equipment, and training.

1.2 Gender and Poverty Reduction

Poverty alleviation, gender, and governance issues are not the direct targets of this component, but there is a potential for profound indirect effects. Polluting industries are often placed in remote areas, where also disadvantaged and poor people live. The component will improve the livelihood of people living near the industry (often the poorest segment of the population. Reducing the emissions from the production and cleaning up the vicinity of a factory thus benefit these groups the most. Improved working conditions for poor workers, including children and women at a factory applying an effective EMS can be an indirect effect of the programme as well.

These issues are important priorities when selecting among industries to enter the component. To maximise this potential benefit to poor and women, sectors should be targeted that (i) have serious pollution problems and is poorly regulated; (ii) tend to be located in remote areas/within poor communities; (iv) employ poor people and female workers; (v) has occupational health and safety problems, which can be solved through better management.

1.3 Environmental Issues

The component focuses on institutional development and cleaner production in industry. This should not involve constructions or disturbances to the environment that might merit a "B" or "C" classification for environmental assessment1. However, there will be significant opportunities for environmental improvement. These can be maximised by:

- selecting industries to be models that are presently giving rise to significant environmental pollution;

- working closely with governorates to ensure that the installations targeted are priorities in the GEAP.

Sector models may prompt an EA classification "B" or "C". If so, an EA will be commissioned by the component managers and undertaken by competent local consultants. The potential for training afforded by any such EA will be fully exploited and followed up. The process will be guided by an Environmental Management Plan (see Annex A) to be developed during the inception phase according to the Danida publication: "Environmental Assessment in Sustainable Development", December 1999.

1.4 Good Governance

A fruitful collaboration between industry and authorities is needed to increase compliance with environmental legislation in industry. A strong industrial organisation like FEI is needed to catalyse such co-operation; i.e. an organisation that speaks the language of industry and at the same time understands the responsibilities of industry with regard to environmental protection. Synergy is created with several other components of the ESPS, e.g. with the component "Environmental Management in Governorates", which focus on good governance from the part of the public authorities.

As a national industrial organisation, FEI can support individual enterprises to improve their environmental performance. The component will contribute to better environmental management within FEI and its member enterprises. Better environmental performance will improve compliance with the environmental regulations. Long-term, improved environmental performance within industries will contribute to establishment of more sustainable economic and social development throughout the country.

1.5 Outstanding Issues

FEI is in the proces of a re-organisation. Approximately 200 large enterprises will become direct members However, the chambers with their vast number of enterprises will still be the core support to FEI finances. The year 2000 is crucial for FEI's long-term sustainability. So far, it seems that FEI has success with its vision—a clearer picture will emerge by the end of this year. It is particularly important to ensure that FEI continuous to support SMEs and not only the 200 large, direct members to come. The three industrial sectors to participate in the components will be selected during the inception phase, based on careful studies of the different industrial sectors, following a set of selection criteria.

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[1] According to Egyptian Environmental Assessment schemes category "A"-projects will not require EA's, whereas "B"-projects will need parcial and "C"-projects full EA's.

Much experience has been gained by donor organisations on how to support cleaner production. On the one hand investments in cleaner production and environmental protection should not be granted as a "free ride" to industry giving the impression that only if grants are provided should one care about environmental protection. On the other hand, many SMEs have low profit rates and turnover for weeks of production. They are reluctant to commit themselves to bank loans for investments with interest rates as high as 12-14%. Therefore, the establishment of the financial facility should be based on a thorough assessment of various funding mechanisms that will provide the most appropriate support mechanism, e.g.: no/low interest loans, return of savings only, etc.

2. VISIONS, OPPORTUNITIES AND BARRIERS

At the end of component activities an increased level of compliance in industry with environmental regulations is experienced through awareness and usage of cleaner production (CP) exist in at least three sectors (Chambers) of the Egyptian industry. Egyptian technical consultants promote and implement cleaner production (CP) in the industry, and the ECO at FEI serves as a link between the industry, the Egyptian technical consultants, EEAA, and financial facilities, as shown in Figure 1.

The guiding principles for the selection of chambers to receive support are:

1. small and medium sized private enterprises,
2. industries with serious pollution problems located in remote and/or poor areas of Egypt,
3. industries to a large extent employing poor people and female workers,
4. sectors with a long-term potential for survival, and
5. sectors where Danish expertise is available.

About 90 industries have developed an environmental management scheme, 15 industries have implemented cleaner production, and about six industries are models for their sector. EEAA experiences the increased awareness, improved environmental management, and cleaner technologies by improved levels of compliance.

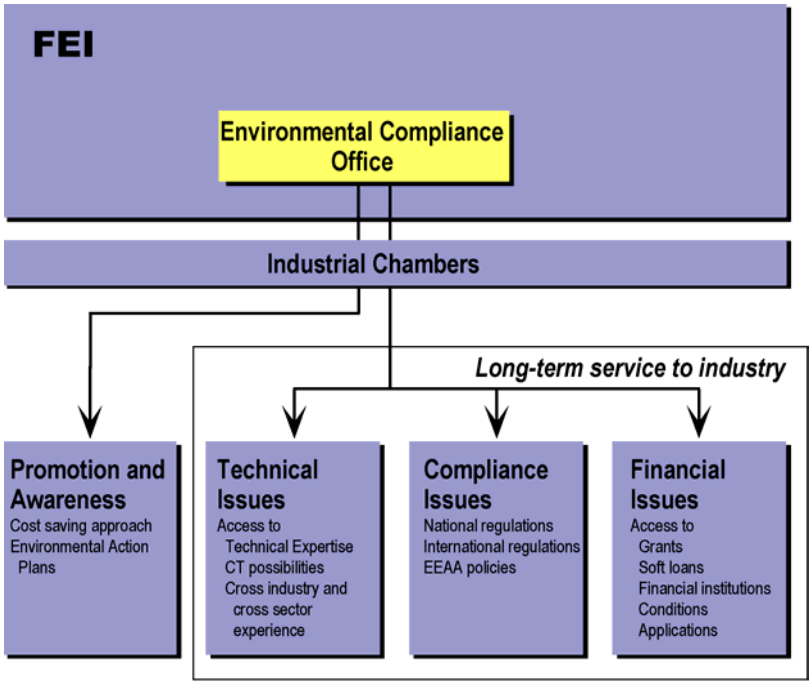

Figure 1 The component vision for FEL

2.1 Environmental Objectives and Policy Directives

The Environmental Objectives and Policy Directives issued in August 1998 by the Egyptian Minister of Environment and EEAA, focus on a number of important issues. Among the Directives relevant to this component are:

- The Policy Directive II, outlining among a number of objectives to be achieved a support to transfer and use of cleaner technology.
- The Policy Directive III, focusing on compliance with Law 4/94 for protection of the environment with special attention to economic incentives to make the enterprises comply with the legislation, such as access to soft loans and other assistance.
- The Policy Directive VI, focusing directly on environmental management systems and promotion of ISO 14000.
- The Policy Directive VII, outlining a number of market-based instruments that can be implemented to ensure environmental protection within industry.

Implementation of this component supports all of these four Policy Directives.

2.2 Opportunities

The window of opportunity is to support the development of the national industrial association, FEI, into a true, self-sustained non-governmental organisation. FEI is striving to become an independent service provider to its members the industrial chambers and it has the opportunity to develop skills of environmental management of cleaner production. If successful, EEAA has a competent partner with whom to discuss environmental compliance in industry. FEI can make the industry see the advantages in applying good environmental management and cleaner production as the cost-effective tools for regulatory compliance.

2.3 Impact on Stakeholders

The following are the main stakeholders to benefit from the successful performance of the component:

- Communities of people living near polluting industries, including women and children.
- Employees and owners of SMEs.
- Industrial Chambers.
- Egyptian technical consultans.
- FEI.
- EEAA.

The effect on communities comes from the increased industrial compliance with current environmental regulations. When pollution diminishes the welfare of exposed people increases. Inside the fence, better control of air emissions and waste handling improves environmental health and safety conditions for all employees. This will improve the health conditions of the workers and in the long term affect the social and health costs in a positive direction. In addition, when an enterprise complies with environmental regulations, long-term strategies for the production can be developed, as the immediate threat of closing down the operation by environmental authorities no longer exist. A more profitable long-term

operation gives basis for better payment to workers and thus increases the welfare of the community as a whole. Finally, implementation of environmental management schemes at an enterprise requires well-trained workers. A well-trained worker is an asset to an enterprise, so a tighter bond between enterprise and worker will develop. Employment of day labourers become less attractive compared to permanently employed workers, and the worker will become aware of the benefits of a cleaner environment.

Although the function of the involved industrial chambers is that of co-ordination between enterprises and FEI, the awareness activities will influence current thinking of the chamber staff; environmental protection will become an integrated part of any business plan developments. The training of Egyptian technical consultants will further support this development. Enterprises will be more willing to pay for consultancy, when they experience the value of qualified, independent advice on environmental issues.

The ECO will be developed at FEI to serve the members of the three selected industrial chambers on issues related to environmental regulations and cleaner production. SMEs will have an organisation to call, when they enter negotiations with regulatory authorities to get working permits. The ECO liaison officer of the industrial chamber in question talks the "industry language" and will be able to direct the enterprise to resources making environmental compliance achievable.

The signed Co-operation Protocol between FEI and EEAA on environmental matters becomes meaningful, when FEI has the capacity to understand and convey EEAA environmental policies to its member enterprises. In addition, EEAA will have a qualified industrial organisation to discuss environmental strategies related to industrial production and implementation plans for compliance with current environmental regulations.

2.4 Financial Sustainability of FEI

Although the FEI is undergoing a profound and occasionally problematic transition from public to private sector, the new management understands the necessity of change and is committed to transforming FEI into a self-sustaining service provider. FEI strive to ensure financing from other sources. These include direct membership of major Egyptian companies and memberships from the financial and the insurance sectors. They are already paid 40% of the total income by membership fee from the industrial chambers. FEI is the only national industrial organisation, and it has every opportunity to sustain itself at a reasonable level as a fully privatised and self-financing organisation.

At present, very skilled staffs are employed at FEI, and they are paid salaries up to five times higher than government employees are. Management has been replaced with former senior managers from industry and wide-ranging staff changes have been implemented. With financial support from USAID, FEI has improved communication with and the service provided to its members. Salaries have to remain at a sufficient level to retain qualified staff, but the financial burden could become a constraint on the speed of transition and subsequent growth of the organisation.

A financial, long-term sustainability strategy for ECO will have to be developed during the programme. FEI will be required to gradually take over the financial burden of the new ECO staff, as Danida funds start to decline. After six years, the office must be self-sustained with regard to salaries, office space, and secretariat. Eventually, each of the major industrial chambers has their own liaison officer at ECO.

2.5 Obstacles Impeding the Expected Outputs

Failure of FEI's financial sustainability plan is a major obstacle for all the outputs of the component. However, it is likely that FEI, as the only national industrial organisation, will be able to exist at a reasonable level during the transition into a fully privatised and self-financing organisation. Still, the Chief Technical Advisor (CTA) of the ESPS will have to verify FEI's financial sustainability during the inception phase before the final decision regarding the execution of this component is taken.

The success of the component also depends on industry commitment, which makes it very important that industry understands the incentives involved. Good environmental management does not necessarily require a high degree of technological sophistication. There is potential for the application of simple solutions that can have a great effect on environmental performance. Therefore, no major technical obstacles to the implementation of the component are anticipated. However, introduction of environmental management schemes in industry can be a long and often slow process. Employees at all levels will have to understand and implement the procedures needed for good environmental management. For SMEs it can be difficult to retain the knowledge of environmental management in-house, e.g. a well-trained environmental manager may get a better job opportunity elsewhere. SMEs often do not have any desire to gain access to financial resources for investments. They may not apply for financial support, if things are too complicated. It is therefore vital that application procedures and forms are available in Arabic and do not ask for information that the enterprise cannot provide.

EEAA's continued commitment to pollution prevention and enforcement of environmental regulations is vital. If Law 4/94 regulations are not enforced, the industry will have to delay their commitment to those pollution prevention measures that impose an increased cost on production. In a competitive environment an enterprise cannot comply with the regulations and stay competitive, if its competitors do not comply and thus save the money needed for pollution prevention. Law 4/94 cannot be enforced from Cairo; the success depends on the effectiveness of the regulatory bodies in the governorates.

3. GOVERNMENT MANAGEMENT

3.1 The National Management

For many reasons, the Law 4/94 has not yet been effectively enforced. Two major reasons for this have been lack of resources within EEAA in general and within the Department of Industrial Compliance in particular. The department has recently acquired 11 inspectors and a new head, but there is currently no support for training in compliance audits of industries. The mandate of the department is also unclear, as EEAA is not set up to be the enforcement authority within the Egyptian environmental management system. This task belongs to the Ministry of Industry.

Efficient enforcement of Law 4/94 regulations would put an intense pressure on industry to invest in pollution prevention in the form waste minimisation, wastewater treatment, air filters, and other measures to reduce pollution. EEAA recommends pollution prevention plans to be prepared for all polluting enterprises, but SMEs cannot afford the required often significant investments. They will have either to close or continue to pollute. For many reasons, including social impact, closing industries is not a viable option. Furthermore, the necessary hands-on experience to support industry is not readily available from Egyptian technical consultants.

EEAA and FEI both express an interest in industries complying with the Law 4/94 regulations. A newly signed protocol between the two organisations focuses on industrial compliance with regulations, while industry at the same time develops its business. The protocol lists a number of objectives, which are eligible for donor support. Through co-operation, FEI and EEAA will formulate a strategy and joint work plans to achieve the goals of sustainable industrial development. One of the objectives of the protocol is to promote and use environmental management as a tool for pollution control.

GOFI is in charge of issuing operating permits (licenses) to enterprises. An operating permit is needed for new enterprises to be established and has to be renewed every 1-5 years depending on the type of industry. The procedure today involves the local GOFI offices in the various governorates with a final approval by GOFI. Although this procedure may not be very effective and does not currently include environmental issues, it can serve as a focal point for environmental regulation of the industry. A revision and updating of existing procedures is underway that will support the modernisation effort and include measures to achieve compliance of enterprises with environmental legislation.

3.2 Partner Arrangement

The co-operating partner of the component will be the FEI. Support will be given to form the new ECO within FEI, and this office will be assisted by an International Technical Advisor (TA).

3.3 Partner Contribution to the Component

FEI will provide office space, telephone lines etc. for the ECO, including secretariat assistance. A full time Director of the ECO will be employed to be assisted by the TA. The person to undertake this job must possess strong management capabilities, but also have the necessary understanding of environmental and technical issues. In addition, FEI will identify

a new full time staff member for each of the three industrial sectors selected. These staff members must possess technical skills related to the sectors selected for the component. FEI will gradually take over the financial burden of the ECO staff, when Danida funds to support the ECO starts to decline after 3 years. After six years it is the intention that the office is self-sustained with regard to salaries, office space and secretariat.

4. LOGICAL FRAMEWORK

The logical framework matrix for the ACI component is presented in Annex 1.

4.2 Immediate objectives and outputs

Three immediate objectives should be achieved by the component:

1. Environmental Compliance Office (ECO) at FEI serves as a link between the industry, the Egyptian technical consultants, EEAA, and financial facilities/institutions.

   Outputs:
   1.1 Established Environmental Compliance Office (ECO) at FEI, trained staff.
   1.2 ECO sustainable, facilitating grants/loans from other sources as well.

2. Awareness and usage of cleaner production (CP) in at least three sectors (Chambers) of the Egyptian industry.

   Outputs:
   2.1. Three industrial sectors selected.
   2.2. Knowledge of environmental management schemes disseminated and implemented.
   2.3. EMS implemented in approx. 30 enterprises in each Chamber.
   2.4. A financial facility established, to provide financial support for cleaner and end-of-pipe technology investments.
   2.5. Cleaner technologies and end-of-pipe solutions, demonstrated

3. Egyptian technical consultants promote and implement cleaner production (CP) in the industry.

   Outputs:
   3.1 The capacity among of the Egyptian technical consultants strengthened.
   3.2 ETC demonstrated the implementation of cleaner production (CP) in three industrial sectors.

4.4 Activity Outline

The activities related to the outputs are outlined below:

1.1.1 Establishing the ECO office at FEI.

Following the expected positive appraisal of the financial sustainability of the FEI by the CTA of the ESPS during the inception phase of the programme, the ECO office will be established. FEI provides the Director and the ACI-component supports the ECO with long- and short-term technical assistance, support to salaries for local staff etc.

1.1.2 External training of new ECO staff.

Each of the three newly retained ECO staff members from each of the three supported sectors would receive two-months training abroad on various concepts of cleaner production.

1.1.3 Planning and participation in awareness programme, workshops, meeting etc.

The ECO would co-ordinate this effort and liase with the CEM component to produce three information packages aimed at SMEs in the three industrial sectors.

1.2.1 Facilitating environmental audits of the EMS.

The ECO staff would assist the enterprises during the external audit conducted through activities 2.4.3 & 2.4.4.

1.2.2 Assisting the preparation of industrial applications for loan/grant approval and fulfilling the conditions in relation to this.

The ECO staff will assist the enterprises during the activities 2.5.1 & 2.5.2.

1.2.3 Facilitating grants/loans to industry.

Eventually, ECO will not only facilitate support from the financial facility of this component, but will be able to assist SMEs in getting support from the many other sources available to Egyptian industry to implement cleaner production.

1.2.4 Developing monitoring practices to collect the experiences gained and to continuously work to improve the entire process.

From the very start of the component activities, the ECO would develop practices to systematically collect and evaluate experiences gained. This information would be used to modify the activities as needed, e.g. during the official reviews of the component.

1.2.5 Developing a financial strategy for the long-term sustainability of the ECO.

FEI is currently implementing a new financial strategy following the halt of support from USAID by 1 January 2000. The ECO office is intended to be part of FEIs long-term services to its members. Danida would support the office through the component, but salaries for the tree ECO staff members from each of the three industrial sectors, would only be supported in full during the first three years. Then it would gradually decrease to 75 %, 50 %, and 25 % during the following three years. Therefore, a financial strategy would have to be developed to support the ECO through member fees.

2.1.1 Study of the potential for awareness raising and usage of cleaner production (CP) in different Chambers of the Federation of Egyptian industry.

The study will describe each potential industrial sector in terms of:

- Description of the Chamber, its knowledge of CP and ability and willingness to support the ACI component.

- The number of industries in the Chamber.
- Gross turnover and profit margins.
- The number of employees. (Distribution of number of industries in a particular interval of number of employees).
- Percentage of females and of children under the age of 15 employed.
- Dominating workplace problems, occupational health and safety records.
- History of environmental compliance, knowledge of emissions.
- Case studies of cleaner production.

This activity is anticipated to be carried out as a bridging activity before inception of the component.

2.2.1 Creating awareness in industry and Chambers of CP through workshops, hand-on training, etc.

This activity is planned and executed in close collaboration with the CEM component.

2.3.1 Offering initial assessments of cost saving environmental action plans (EAP). (Small payment).

Following an initial environmental screening supported through activity 3.1.1, the management of the enterprise will endorse the proposed EAP, which may cover a 3-6 year period.

2.3.2 Implementing EMS in industry covering EAP (interest free short-term loans/grants through ECO).

An EMS requires formulation of an environmental policy for the enterprise. The EAP can be incorporated in the corresponding strategy, but implementation of procedures for good environmental management in the handling day-to-day operations is the major task of this activity. Small investments in necessary technologies may be needed. However, the challenge is to get the message across to all employees of the enterprise, and have them follow the procedures day in and day out for years. To begin with, motivation is normally high among employees, but things get to be routine, and then problems of sustainability arise. Enterprises with a good EMS record could be eligible as sector models. About 90 industries may be involved in this activity through the ECO office, which could provide resources for Egyptian technical consultants as well as short-term international assistance.

2.4.1 Study of funding options for industrial CP projects.

This activity provides the knowledge needed to implement the financial facility to support technology investments in industry.

2.4.2 Establishing financial facility (FF).

Based on the outcome of activity 2.4.1 the financial facility should be established best to fulfil the immediate objective of supporting the usage of cleaner production in at least three sectors of the Egyptian industry.

2.4.3 Financial facility providing financial support to industry through simple and clearly understandable procedures for applying.

Those industries with a demonstrated good EMS record could be eligible for further financial support from the ACI financial facility established in activity 2.4.2. The financial facility should base its assessment of good performance on an independent environmental audit of the EMS of each enterprise performed by qualified Egyptian quality auditors.

2.4.4 Financial facility providing grants to sector model enterprises following compliance with EMS.

Those industries supported through activity 2.4.3 and with a continued demonstrated good EMS-record are eligible to become sector models. The incentive for industry should be created by grants from the financial facility. The decision taken is partly based on a new, independent environmental audit of the industrial performance of the enterprise, similarly to activity 2.4.3. Activities should be conducted to spread the experience gained from these exemplary industries to other industries in that sector.

2.5.1 Industry applying for support from the financial facility to implement CP.

Industries could be assisted by the ECO staff to fill in the applications for support to CP in accordance with activity 2.4.3.

In continuation of activity 2.3.2, the new technologies should be incorporated in the EMS at the enterprise. The first environmental action plan may have been fulfilled, so enterprise management may need assistance in developing a new or revised action plan. New procedures may have to be developed for pollution control, taking into account the new technology available.

2.5.2 Industry converting loans to grants following compliance with EMS.

Industries with continued good performance after implementation of new, cleaner production may consider becoming sector models. The ECO staff could promote this option and support the application to the financial facility. The industry would benefit when loans that were provided for cleaner production were partly converted to grants. Thereby, industries with a good record of environmental regulatory compliance would get a competitive edge towards industries with a record of non-compliance.

3.1.1 Training and experience gaining by Egyptian technical consultants from collaboration with short-term international technical advisors, assistance with EMS, EAPs etc.

A tender would identify Egyptian consulting companies with a profile and performance record, which would be useful for the component. The Director/TA at the ECO has the resources to draw on short-term international assistance for various tasks related to environmental management. A merged effort by the Egyptian and international consultants would upgrade the resource base of Egyptian consultancy and ensure that SMEs are able to develop EMS.

3.2.1 Egyptian technical consultants conducting environmental audits on request from FF.

Independent Egyptian enterprise(s) with the qualifications to conduct quality audits could be retained by the financial facility to perform environmental audits of the EMS at enterprises. This is to support activities 2.4.3 and 2.5.1.

3.2.2 Egyptian technical consultants assisting the implementation of CP.

Enterprises may need continued support from Egyptian technical consultants during the implementation of new procedures to address cleaner production.

4.5 Inputs

Table 1 provides a review of the LFA, where the logistics is shown. Immediate objectives, outputs, activity outline, and necessary inputs are linked together, to ensure that the inputs provided will lead to the desired immediate objective. Annex 1 provides the full LFA, including indicators, means of verification etc.

The Danida inputs includes:

- A resident international industrial/technical environmental manager (6 years), and medium to short term technical assistance in cleaner technologies, environmental audits and management, information technology, communication and awareness, and training.

- Long-term financial assistance to the ECO, including salaries for three new ECO staff sector specialists paid in full for three years, then gradually decreased to zero after 6 years.

- Funds and short-term technical advisors to assist the formulation of industrial environmental action plans, to implement environmental management schemes, and to design and implement cleaner technologies. This includes short term technical assistance in the following areas:

    - Environmental Audit and Environmental management assistance.
    - Sector specific, cleaner technologies assistance.
    - IT/Communication assistance.
    - Promotion and awareness assistance.
    - Training assistance.

- Local Consultants and funds to support local consultants to work alongside and eventually take over the roles of all the international consultants.

- Funds and management resources for a financial facility to support in cleaner production.

- Office equipment, IT and Database equipment, vehicles etc.

FEI will provide:

- A Director, full time to be head of the ECO.

- Three full time ECO staff members, one for each of the three industrial sectors, gradually paid for after 3 years and paid in full after 6 years.

- Office space, telephone lines for the Management Office and consultants.

- Access to the administrative facilities of FEI.

Table 1. Usage of cleaner production to improve industrial compliance with environmental regulations.

Immediate objectives	Outputs	Activity outline	Inputs
1. Environmental Compliance Office (ECO) at FEI serves as a link between the industry, the ETC, EEAA, and financial facilities.	1.1 Environmental Compliance Office (ECO) established at FEI, and staff trained.	1.1.1 Establishing the ECO office at FEI.	Danida: International technical advisor (ITA) at FEI (72 mm). Funds to support hiring and training of local staff to assist selected Chambers. (162 mm.). IT Equipment, 3 vehicles. Travel and accomodation. FEI: Head of the ECO. Office space, telephone lines. Secretariat assistance. Local staff to assist selected Chambers, when Danida funds starts to decline.
		1.1.2 External training of new ECO staff.	6 mm training in EM & CP in Denmark.
		1.1.3 Planning and participation in awareness programme, workshops, meeting etc.	Rf. To act. 2.2.1
	1.2 Financial support from other sources as well as promotion of CP in the industrial sectors, facilitated by the ECO.	1.2.1 Facilitating environmental audits of the EMS.	Rf. To act. 3.2.1
		1.2.2 Assisting the preparation of industrial applications for loan /grant approval and fulfilling the conditions in relation to this.	Rf. To act. 2.5.1
		1.2.3 Facilitating grants /loans to industry.	Rf. To act. 2.4.3
		1.2.4 Developing monitoring practices to collect the experiences gained and continuously work to improve the entire process.	Rf. To act. 1.1.1
		1.2.5 Developing a financial strategy for the long-term sustainability.	Rf. To act. 1.1.1

Immediate objectives	Outputs	Activity outline	Inputs
2. Awareness and usage of cleaner production (CP) in at least three sectors (Chambers) of the Egyptian industry.	2.1 Three industrial sectors selected.	2.1.1 Study of the potential for awareness raising and usage of cleaner production (CP) in different Chambers of the FEI	Danida: ETC 5 mm per sector, 6 sectors studied. FEI: Head (3 mm). Rf. Act. 1.1.1
	2.2 Knowledge of environmental management schemes (EMS) disseminated.	2.2.1 Creating awareness in industry and Chambers of CP through workshops, media packages and hands-on training, etc.	Danida: Promotion expert (12 mm). Promotion and awareness costs. Cooperation with CEM
	2.3 EMS implemented in approx. 30 enterprises in each Chamber.	2.3.1 Offering initial assessments of cost saving environmental action plans (EAP). (Small payment).	Danida: ETC (75 mm)/short-term ITAs (23 mm).
		2.3.2 Implementing EMS in industry covering EAP (interest free short-term loans/grants through ECO).	Danida: ETC (25 mm)/short-term ITAs (8 mm) Funding of Loans/Grants for technology (90 industries DKK 100.000 average)
	2.4 A financial facility (FF) established, to provide financial support for CT and EOP investments.	2.4.1 Study of funding options for industrial CP projects and determining the mechanism.	Danida: Short term to assist ITA feasibility study (3 mm). ETC (9 mm)
		2.4.2 Establishing financial facility (FF).	Danida: Funds for the FF (DKK 51 mill.)
		2.4.3 Providing financial support to industry through simple and clearly understandable procedures for applying.	Danida: Funds for the FF, rf. act. 1.4.2
		2.4.4 FF providing grants to sector model enterprises following compliance with EMS.	Danida: Grants through FF, rf. act. 1.4.2
	2.5 Cleaner technol-ogies (CT) and end-of-pipe (EOP) solutions, demonstrated.	2.5.1 Industry applying for support from the financial facility to implement CP.	Danida: Funds for ETC (15 mm) Support for CT through FF, rf. act.1.4.3
		2.5.3 Industry converting loans to grants following compliance with EMS.	Danida: Funds for ETC, rf. to act. 1.2.2

Immediate objectives	Outputs	Activity outline	Inputs
3. Egyptian technical consultants (ETC) promote and implement cleaner production (CP) in the industry.	3.1 The capacity among of the ETC strengthened.	3.1.1 Training and experience gaining by ETC from collaboration with short-term ITA, assistance with EMS, EAPs etc.	Danida (through activity 2.2.1, 2.3.1 - 2.3.2): Funds to retain ETC. Short-term ITA.
	3.2 The implement-ation of cleaner production in three industrial sectors demonstrated by ETC.	3.2.1 ETC conducting environmental audits on request from FF.	Danida (Through act. 2.4.3): Funds for ETC/Short-term ITA to conduct audits.
		3.2.2 ETC assisting the implementation of CP.	Danida (funded through act. 2.3.1 - 2.3.2): Funds for ETC/Short-term ITA to conduct audits.

4.6 Implementation Strategy

The implementation strategy for the ACI-component is based on the success of eight blocks of activities, carried out in sequence or in parallel:

1. Establishment of an environmental compliance office (ECO) at FEI at the start of the component. The FEI will appoint a Director for the ECO. Assisted by the international TA he will appoint three new staff members for the ECO, when the nature of the participating industrial sectors has been decided. Each new staff member will be selected on their knowledge of cleaner production in one of the three industrial sectors chosen for support through the component. Each of the new staff members will initially receive two-month training in Denmark on cleaner production and environmental management strategies in industry.

2. Development of a financial, long-term sustainability strategy for ECO will start 2-3 years into the programme. The strategy will ensure that FEI will gradually take over the financial burden of the ECO staff, as Danida funds starts to decline after 3 years. After six years it is the intention that the office is self-sustained with regard to salaries, office space and secretariat. The long-term perspective is that each of the major industrial chambers has their own liaison officer at ECO.

3. Identification of three industrial sectors to participate in the component by the ECO of FEI. The guiding principles for the selection are to support (i) small and medium sized private enterprises, (ii) industries with serious pollution problems situated in remote and/or poor areas of Egypt, (iii) industries mainly employing poor people and female workers, (iv) sectors with a long-term potential for survival, (v) and sectors where Danish expertise is available.

4. Development and co-ordination of awareness raising strategies of environmental management schemes (EMS) by the ECO. These should be used by industry as tools for implementing environmental action plans. Supporting information packages should be developed in collaboration with the CEM component.

5. Preparation and implementation of environmental management schemes in approx. 90 enterprises, based on environmental action plans designed for each enterprise. Through

the ECO office, the component will fund initial assessments of cost saving environmental action plans. The management of the enterprise will sign an agreement with ECO to implement the plan, and interest free short-term loans/grants are offered up to a limit of DKK 100,000 to finance up to 85% of small needed investments. Support to the implementation from Egyptian and international consultants over a period of 2-3 years are foreseen and also funded through ECO.

6. Selection of the best performing among the 90 industries where environmental management schemes have been developed. These are eligible for support from the financial facility. The ECO officers will have continual contact with these industries and will assist in filling in applications to the fund. The procedures will be simple and understandable for the industrial managers. Following an independent audit of the implemented environmental action plan, the financial facility decides to fund several of the proposed projects. Two years after the technology has been implemented, i.e. 5 years into the component and following another environmental audit, the enterprise may choose to become a sector model. 50% of the investment loan will then be converted to a grant, and demonstration activities are conducted at the enterprise for other Chamber members. The ECO office will develop monitoring practices to collect the experiences gained to continuously improve the entire process.

7. Establishment of a financial facility to provide loans and grants for larger investments in cleaner technology and end-of-pipe solution to comply with Law 4/94. There is uncertainty regarding the most efficient way to implement a financial facility. Therefore, the final set-up of the financial facility will be designed 2-3 years into the component based on a study of funding options for industrial projects of cleaner production.

8. Involvement of Egyptian technical consultants in all relevant activities throughout the component. International advisors will support them to perform tasks for which the Egyptian technical consultants need training or experience. The training will consist of mostly hands-on or learning by doing experience. Substantial funds are allocated to these activities through the ECO.

4.7 Budget

This component involves technical assistance and consultancy support to the industrial sector, supported by substantial investment funds for sector model projects and other investments stimulated by the programme. Expenditure is expected to begin in 2001, and to build up over the programme. During the first years, only small investments are budgeted to support the environmental action plans and EMS. When the financial facility is established, larger investments are made to demonstrate cleaner production and develop sector models. The total funds allocated for these larger investments are DKK 60 million.

The annual disbursement of the budget for the component is given in Table 2 below.

Table 2 Budget for ACI Component (DKK million)

Item	2001	2002	2003	2004	2005	2006	TOTAL
International							
TA (Long Term)	1,20	1,20	1,20	1,20	1,20	1,20	7,20
TA (Short Term)	1,20	1,56	1,20	0,96	0,96	0,96	6,84
Total	*2,40*	*2,76*	*2,40*	*2,16*	*2,16*	*2,16*	***14,04***
Local							
TA (Long Term)	0,54	0,54	0,54	0,41	0,27	0,14	2,43
TA (Short Term)	0,68	0,60	0,45	0,38	0,38	0,38	2,85
Support staff	0,05	0,05	0,09	0,09	0,09	0,09	0,45
Total	*1,26*	*1,19*	*1,08*	*0,87*	*0,74*	*0,60*	***5,73***
Office Equip	0,50	0,00	0,00	0,40	0,00	0,00	0,90
Vehicles	0,25	0,50	0,00	0,00	0,00	0,00	0,75
Operat. Costs	0,05	0,10	0,10	0,10	0,10	0,10	0,55
Communic.	0,10	0,10	0,10	0,10	0,10	0,10	0,60
Pilot sector model projects	1,00	2,00	3,00	3,00	0,00	0,00	9,00
Sector model projects	0,00	0,00	0,00	15,00	20,00	25,00	60,00
Training	0,50	0,25	0,05	0,05	0,05	0,05	0,95
Visits to industries	0,35	0,35	0,35	0,35	0,35	0,35	2,10
Total	*2,75*	*3,30*	*3,60*	*19,00*	*20,60*	*25,60*	***74,85***
Contingency 8%	0,22	0,26	0,29	1,52	1,65	2,05	5,99
GRAND TOTAL	**6,63**	**7,51**	**7,37**	**23,55**	**25,14**	**30,41**	**100,61**

4.8 Assumptions and Risks

The main risks—which are outside the influence of the management of the component—come from the uncertainties regarding industry, Egyptian technical consultants, FEI and policy issues of the central government (EEAA) and the governorates. The most important assumptions may be summarised:

- FEI will develop into a sustainable national industrial organisation representing Egyptian private enterprises, having a qualified staff and a management supporting the ECO activities.

  FEI management has signed an agreement to participate in the component of the sector programme, so in reality the risk is limited to the financial situation and the availability of qualified staff. Giving the fact that salaries at FEI are quite high compared to other job possibilities qualified staff should be attracted to the ECO offer of permanent job positions. The financial sustainability depends on the willingness, pressure, and incentives created for industry to contribute to FEI. By law, they have to be members of FEI, but enterprises should feel that they get value for their member fees, if FEI is to be

regarded sustainable. Management support within FEI is assumed for achieving the necessary enthusiasm among employed staff.

FEI might not be able to ensure that similar donor projects in the future will liase with the ECO, which might lead to competition between donors in their implementation of such projects. To a certain extent, this is already happening today. An initiative from the Royal Danish Embassy to co-ordinate environmental projects within the Egyptian industry would minimise any damaging effects from such competition.

- Increased attention, pressure and incentives on Egyptian enterprises to comply with environmental legislation.

  Environmental compliance is in most cases an increased financial burden on industries, particularly if marked based tools are not used to give incentives to comply (green taxes, tax lifting for environmental investments etc.).

- Enterprises are interested in the activities and services provided through the component.

  The Egyptian Government and Danida have signed an agreement. FEI has signed a component agreement, but neither the industry nor the workers associations, or other stakeholders have any knowledge of the agreement at the time of inception.

- Egyptian resource base has available experts and staff and will participate in component activities.

  Egyptian technical consultants have not signed any agreement either, but at least they can build new competence and get business at the same time. There is apparently a great variation in the quality of the Egyptian technical consultants, but in previous projects, Danida has been able to find qualified consultants.

4.9 Indicators and Means of Verification

The LFA-table including indicators and means of verification is provided in Annex 1. A summary of identified indicators, and means of verification is provided below. In general, the verifiable figures are preliminary estimates, which may have to be modified during the first review of the component, based on recommendations from the CTA/TA. The monitoring and filing system set up at ECO constitute the core of the Means of Verification for most of the Indicators. Great care should be taken by the Director of the ECO and the international TA in developing this system (Activity 1.2.4).

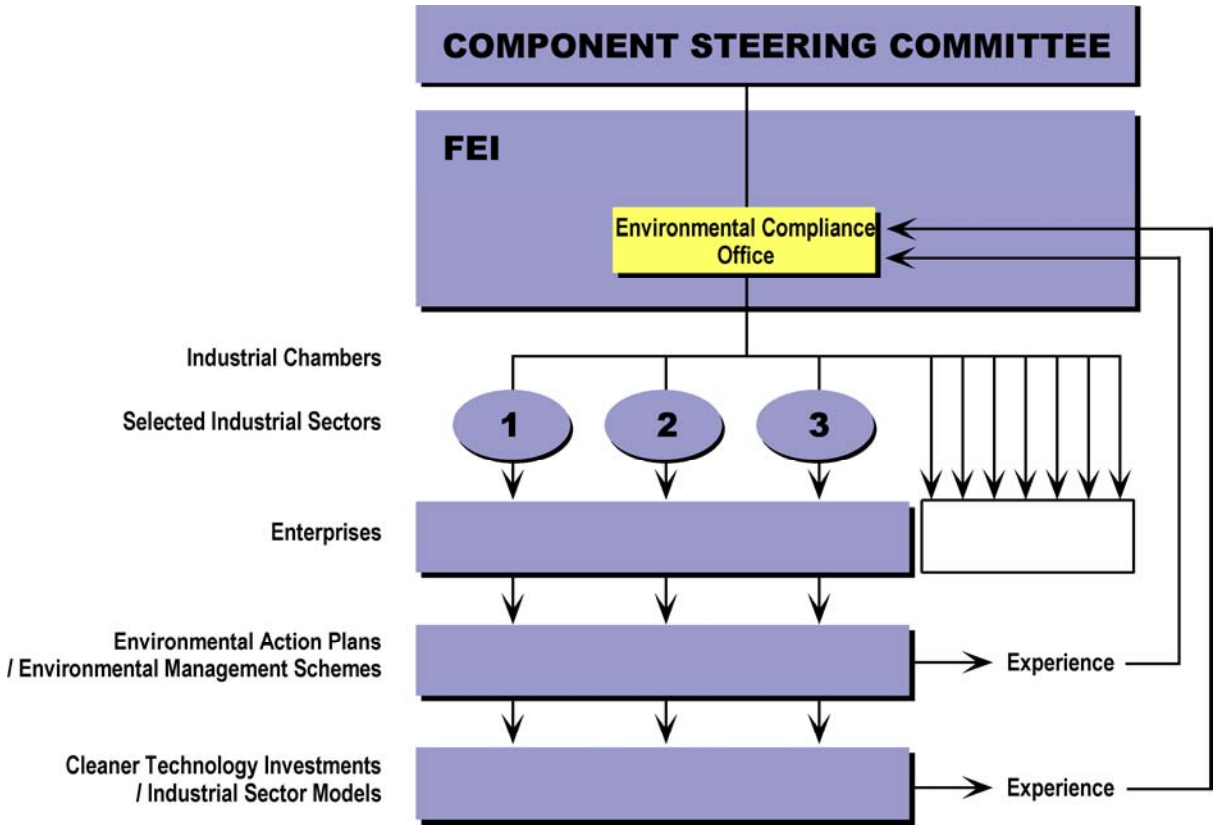

Figure 1. Organograms of the ACI-component with FEI and ECO.

5. IMPLEMENTATION PROCEDURES

5.1 Organisation, Management, and Administration

The Component will be implemented as part of the ESPS. The management of the component will be carried out in accordance with general, programme support procedures.

The Component will be implemented by the Federation of Egypt Industries. The FEI Director of the ECO will be supported by an international Technical Advisor. The Director will liase with the ESPS and the other components, as appropriate. The TA will be responsible for progress reporting, etc. The organisation plan is depicted in Figure 2. For a detailed description of FEI, see Annex 3.

Similarly to the other components, a Component Steering Committee (CSC) will be established. An executive from FEI will be chairperson and members are representatives from a number of institutions, including EEAA as programme coordinator, the CTA and the executives from each of the three Chambers. The CSC will play an important role in determining the contents of the sector programme based on technical advice from the ECO and the resident Danish advisor.

The ECO Director supported by the TA will manage the short-term international assistance inputs, and all the activities from the component description. The industrial activities in the three sectors will be co-ordinated by the sector-responsible new staff member at ECO. The management of the financial facility (Activity 2.4.2) will be decided when the recommendations from the feasibility study have been made (Activity 2.4.1).

5.2 Monitoring and Reporting

The TA at the ECO is responsible for monitoring the progress of the ACI component and thus for writing quarterly progress reports. Using the specified indicators and means of verification, the progress reports should indicate the progress made towards the three immediate objectives and the corresponding outputs, activities and inputs, rf. to Annex 1. It is important that the progress reports also provide an indication of progress in relation to the plans made and/or revised during the reporting period. Annually, a summary of the four progress reports is made by the TA. The progress reports are annexes to this summary report.

ACI-component progress reports are written in English and distributed to the ECO staff, the three industrial Chambers, the ESPS management, and the management of the CEM, DEM, and EMS components.

The progress of the ESPS should be monitored by the indicators associated with the development objectives of the individual components. The ECO will provide the necessary inputs to the ESPS progress report as requested by the CTA. At the inter-governmental level, the ESPS review process provides the monitoring mechanism for adjusting aspects of the ESPS, whenever relevant.

The ESPS management will review the quarterly progress reports. The reporting procedures for the ACI-component to the ESPS should be clarified during the inception phase. The current component description provides an overall framework for implementation, which may be amended and revised as the ESPS and ACI component progress. During the review process, activity plans and budgets for the component will be assessed, and revised if needed. When changes prompt a revision of the progress indicators and the timing of the component

activities, care should be taken that such changes do not change the immediate objectives of the component.

Changes to immediate objectives and outputs of the components can only be endorsed by the Joint Annual Sector Review Mission.

5.3 Flow of Funds. Auditing

Based on outputs agreed by the CSC, an annual fund will be disbursed to the FEI to cover the costs of supporting activities. The FEI will provide quarterly reports on expenditure and progress and will submit an annual audited report for the annual review process.

The FEI will hold a line of finance to support the costs to industry of environmental screenings and implementation of environmental management schemes. This line will pay for the costs of Egyptian technical consultants and short-term international assistance.

FEI will operate as a non-governmental organisation. The accounting structures of the organisation are understood to be robust and transparent, based on financial operating procedures of Exxon Corporation. The Danida support will be accounted for under clear separate heads; it may be appropriate to hold the funds in a designated bank account separate from FEI's other resources. The auditing procedures for FEI are not yet firmly in place, as they are awaiting legislation on their transition from government agency to non governmental organisation, and the auditing procedures will be set out in the law.

The financial facility will be established three years into the programme with a flow of funds independent from FEI. This is to provide support to industries with the potential of becoming sector models. The principle of Polluter Pays should be weighed against the financial situation of the SMEs with a good record of environmental mangement from the preceeding years. Support is also justified to compensate sector model industries for inconvenience or costs associated with the training element during the implementation stage. The proposed flow of funds is shown schematically in Figure 3.

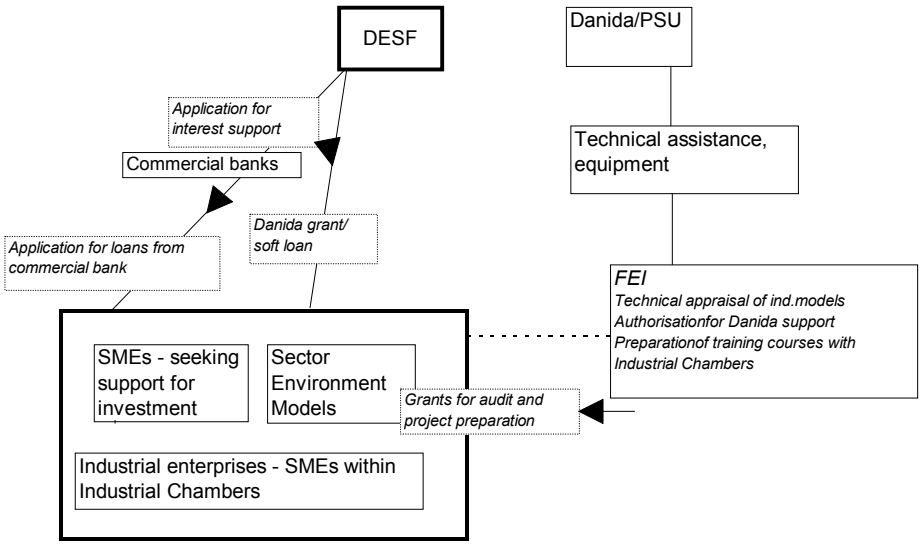

Figure 3 Flow of Funds for the ACI Component

The Financing Facility

Details for the operation of the financial facility are still to be determined, but the main points are as follows:

- The fund would be disbursed from the EPF (as agreed overall for the project) using commercial banks as the vehicle.

- Industrialists would apply to their commercial bank for loans, on the advice of FEI which would provide authorisation through technical appraisal for DANIDA support (see diagram)

- The facility will support interest costs on loans for eligible investments; under some circumstances (e.g. where there is a particular element of innovation or training); part of the investment cost may be supported through grants.

5.4 Component Implementation Plan

The proposed implementation plan is presented in Table 3.

Table 3 Component Implementation Plan

Year:		1				2				3				4				5				6			
#	Support Activities																								
1.1	**Established ECO at FEI, trained staff.**																								
1.1.1	Establishing the ECO office at FEI, inception phase.																								
1.1.3	External training of new ECO staff.																								
1.1.2	Planning and participation in awareness programme																								
1.2	**ECO sustainable, facilitating grants/loans**																								
1.2.1	Facilitating environmental audits of the EMS.																								
1.2.2	Assisting the preparation of industrial applications																								
1.2.3	Facilitating grants/loans to industry.																								
1.2.4	Developing monitoring and improvement practices																								
1.2.5	Developing a financial strategy for the long-term sustainability.																								
2.1	**Three industrial sectors selected.**																								
2.1.1	Study of the potential for participation in component																								
2.2	**Knowledge of EMS disseminated.**																								
2.2.1	Creating awareness in industry and Chambers of CP																								
2.3	**EMS implemented in approx. 90 enterprises**																								
2.3.1	Offering initial assessments of cost saving EAP																								
2.3.2	Implementing EMS in industry covering EAP																								
2.4	**FF provided loans and grants for CT and EOP.**																								
2.4.1	Study of funding options for industrial CP projects.																								
2.4.2	Establishing financial facility (FF)																								
2.4.3	FF providing loans/grants to CT/EOP																								
2.4.4	FF converting loans to grants following compliance with EMS.																								
2.5	**CT and end-of-pipe (EOP) solutions demonstrated**																								
2.5.1	Industry applying for loans/grants for CP to ECO.																								
2.5.2	Industry implementing CP.																								
2.5.3	Industry converting loans to grants after audit of EMS.																								
3.1	**Increased technical capacity of ETC.**																								
3.1.1	Training and experience gaining by ETC from EAPs, EMS etc.																								
3.2	**ETC demonstrated the implementation of CP)**																								
3.2.1	ETC conducting environmental audits on request from FF.																								
3.2.2	ETC assisting the implementation of CP.																								
	Quarterly progress reports																								
	Annual progress reports and the Joint Annual Sector Review Mission																								
	Steering Group Meetings																								
	ITA in Cairo																								
	Short-term ITAs in Cairo																								

Annex 1. Logical Framework Matrix

Annex 2. Job Descriptions

Job Title 1

International Technical Advisor (environmental management in industry),
Component: Achieving Compliance in Industry.

Location

Federation of Egyptian Industries (FEI), Cairo.

Qualifications

Technical consultant or industrial manager with extensive experience from technical / industrial environmental management. Knowledge of environmental communication, quality systems (ISO 9000/14000), organisational changes, and management.

Role

The role of the international, long-term Technical Advisor will be to assist the FEI in getting SMEs to use cleaner production to improve industrial compliance with environmental regulations. The main objectives of the component is

1. creating awareness and usage of cleaner production (CP) in at least three sectors (Chambers) of the Egyptian industry;

2. getting Egyptian technical consultants promote and implement cleaner production (CP) in the industry, and

3. establishing an Environmental Compliance Office (ECO) at FEI to serve as a link between the industry, the ETC, EEAA, and financial facilities.

The advisor will assist the co-ordination of all component activities, and identify and plan short-term technical inputs to the component.

Activities

The implementation strategy for the component is based on the success of eight blocks of activities, carried out in sequence or in parallel:

1. Identification of three industrial sectors to participate in the component by the ECO of FEI.

2. Establishment of an environmental compliance office (ECO) at FEI at the start of the component.

3. Development and co-ordination of awareness raising strategies of environmental management schemes (EMS) by the ECO

4. Preparation and implementation of environmental management schemes in approx. 90 enterprises, based on environmental action plans designed for each enterprise.

5. Selection of the best performing among the 90 industries where environmental management schemes have been developed. These are eligible for support from the financial facility.

6. Establishment of a financial facility to provide loans and grants for larger investments in cleaner technology and end-of-pipe solution to comply with Law 4/94.

7. Development of a financial, long-term sustainability strategy for ECO, which will start 2-3 years into the programme.

8. Involvement of Egyptian technical consultants in all relevant activities throughout the component.

Reporting

The Technical Advisor will report to the Director of the ECO on a day-to-day basis, and also to the Chief Technical Advisor from the ESPS Programme Support Unit.

Inputs and Timing

The post will be full-time in Cairo for a period of six years, beginning January 2001.

Job Title 2

ECO staff Industrial Sector Specialists,
Component: Achieving Compliance in Industry.

Location

Federation of Egyptian Industries (FEI), Cairo.

Qualifications

Process engineer with technical, working experience from an industrial plant in the sector in question. Knowledge of the process equipment, cleaner technology options, and pollution prevention measures.

Role

The role of the ECO staff sector specialists will be to develop the environmental management capacity and industrial sector expertise of the FEI. They will create a network between the SMEs, industrial chamber staff, the Egyptian technical consultants, and financial facilities. They will support SMEs to develop environmental management schemes, implement cleaner production and even becoming sector models. Immediately after being retained, they will receive 2 months training in cleaner production concepts, quality audits and other subjects of relevance to their task.

Activities

The activities of the sector specialists will include, *inter alia*, assisting the ECO Director/TA to carry out the following:

1. Planning and participation in awareness programme, workshops, meeting etc.
2. Facilitating environmental audits of the EMS.
3. Assisting the preparation of industrial applications for loan /grant approval and fulfilling the conditions in relation to this.
4. Facilitating grants /loans to industry.
5. Developing monitoring practices to collect the experiences gained and continuously work to improve the entire process.

Reporting

The sector specialists will report to the Director of ECO within the FEI.

Inputs and Timing

The sector specialist posts will be full-time in Cairo for a period of three years (36 person months), beginning January 2001

Annex 3. FEI – The Federation of Egyptian Industries

FEI – The Federation of Egyptian Industries

The Federation of Egyptian Industries was established in 1922 as a private industrial organisation. However, under governmental umbrella for many years, FEI is now in a transition phase of again becoming a private industrial organisation for all Egyptian Industries. FEI has at present a membership of all industrial companies that have more than 10 employees or a capital of more than L.E.10, 000 according to the law. It is the umbrella organisation for 14 Industrial Chambers representing the structure of Egyptian industry.

Objectives of FEI

The objectives of FEI are to empower its members to effectively compete in the global market place, to promote national, Arab and foreign investments in Egypt and to enhance the socio-economic growth in Egypt. With the objectives in mind, it is FEI´s goal to supply its members with updated information in order to advocate the common interest of its members, especially regarding government industrial policy. Below the important objectives of FEI are listed:

- Representing FEI's interest before governmental, legislative, local and international entities.
- Advocating policies and legislation that produce the best investment and business environments for rapid industrial growth
- Promoting changes that lead to clear laws and enforcement
- Increasing members' interest by solving industrial problems
- Advancing Egyptian Industry by updating and adopting international quality standards
- Providing members with tools and information to effectively compete in the global market place
- Co-ordinating research and technical training to maximise the human resources potential
- Supporting small and medium sized businesses and promoting free competition for developing this sector, which is vital for the future of Egyptian economy
- Design programs that awards excellence in industrial communities
- Encouraging members to participate in environmental and community matters that improve the quality of life
- Providing information via publications, seminars and other media in order to improve operations

Restructuring of FEI

The transition to a non-governmental self-sustaining organisation is being undertaken with the support of USAID, which set up a Project Management Unit within FEI. A draft law for the reform of FEI is to be submitted to the government. Until the law is agreed, final details and regulations covering the future FEI are not certain. However, it is anticipated that the

former FEI will effectively cease to function by the end of 1999, to be replaced by the Project Management Unit (which we refer to as FEI). Of the 60 staff in the 'old' FEI, a few have been taken into the PMU, while the remaining staff will no longer be employed in FEI. Staff will be fired or required to take early retirement).

The three main changes being introduced with the restructuring are firstly that the FEI should become an independent self-financing organisation. Secondly, the chief executive will no longer be an appointee of the Ministry of Industry, and board members will be elected by the FEI and the Industrial Chambers. Thirdly, the membership is mandatory now, but will in a period of 1-5 years become voluntary. (The implication of this is not yet clear; it seems that in order to renew their licenses to operate, industries will be required to show a certificate from the FEI, so that there will continue to be a strong pressure for membership, although indirect rather than mandatory).

Organisation of FEI

FEI is at present organised with the following six departments:

- The Department of Chambers Affairs

  Works for all 14 Industrial Chambers in developing strategies for development of the Chambers. Besides providing the chambers with technical support, it also plans seminars, workshops, arranges business trips abroad, trains staff, and participates in other market activities.

- The Department of Governmental Relations, Public Affairs, International Co-operation and Conferences

  This department advocates the common interests of FEI members on industrial legislation. It reports on industrial and economic issues, arranges conferences and workshops and co-ordinates work with international organisations

- Information Services Department

  This department provides updated information about FEI activities and services.

- The Department of Technical Affairs and Training, Environment, Quality and Technology Services.

  Provides training to members within technical issues such as quality assurance and relevant environmental matters. Furthermore, it helps members identifying solutions on how to comply with environmental legislation. This department is new and would be the anchor for the programme.

- The Financial and Administrative Affairs Department.

  The department is responsible for administrative and financial planning within FEI.

- The Department of Exportation, Marketing and Exhibitions Services.

  Helps members with marketing activities and training programs. Looks for new business opportunities and provides market information relevant for members.

The Federation has two branch offices outside Cairo, one in Alexandria and one in 10th of Ramadan City.

The FEI comprises five directorates, covering export and foreign direct investment, government and public affairs, information systems, finance and administration, and technical affairs. It is within the latter that the proposed CTU will be developed, through the offices of the Environmental Affairs Manager.

Structure and membership

It is important to note that the FEI is an umbrella for the Industrial Chambers, not the other way round. The following table shows numbers of members by industrial chamber and by size of enterprise.

Sector	< 5,000	5,001 to 50,000	50001 to 500,000	Over 5,000,000	Total
Wood and timber	289	151	51	29	520
Petroleum	16	13	4	61	94
Leather	921	68	16	5	1010
Cereals	2713	465	89	34	3301
Tanning	309	-	1	3	313
Cinema	2098	277	21	9	2405
Printing and paper	1292	1081	148	50	2423
Foods	170	279	498	236	1183
Chemicals	402	373	282	172	1229
Metallurgical	33	2	26	69	130
Building materials	411	559	86	98	1154
Textiles	904	1277	382	228	2791
Engineering	996	547	158	127	1828
Pharmaceuticals	83	58	36	46	223
Total	10637	5150	1798	1167	18752

Source: Federation of Egyptian Industries, 1999

The Federation has nearly 19,000 members, out of some 25,000 registered industries in Egypt, i.e. about 75%. The majority are SMEs, reflecting the industrial structure of Egypt, and the representation by sector reflects the industrial structure of Egypt.

Financial structure

The current cost of wages and salaries is around LE 2 million per year. The FEI is financed in part by member fees and in part by donor funds from USAID. The member fees are collected at the industry chamber level, and 40% of the funds collected are passed through to FEI itself. The average fee level is about LE 100 per year, ranging between LE 50 to LE 2000 per establishment. The value of revenues collected in this manner is around LE 800,000 per year.

The majority of the FEI's funds have been supplied by USAID over the period of conversion of FEI from a government body to a modern and self-sustaining organisation capable of representing the industrial sector of Egypt. The average annual value of USAID support has

been LE 5 million, covering wages and salaries, and financing certain new projects within FEI, such as the department for information and the government relations data base system. Support from USAID has ceased by 1 January 2000, so FEI has prepared a strategy for meeting the shortfall in the future. This strategy will start to be implemented during 2000, so it is possible to revisit the financial situation of FEI, before the final decision of the ACI-component is made in about a year.

Annex 4. Environmental Management Plan