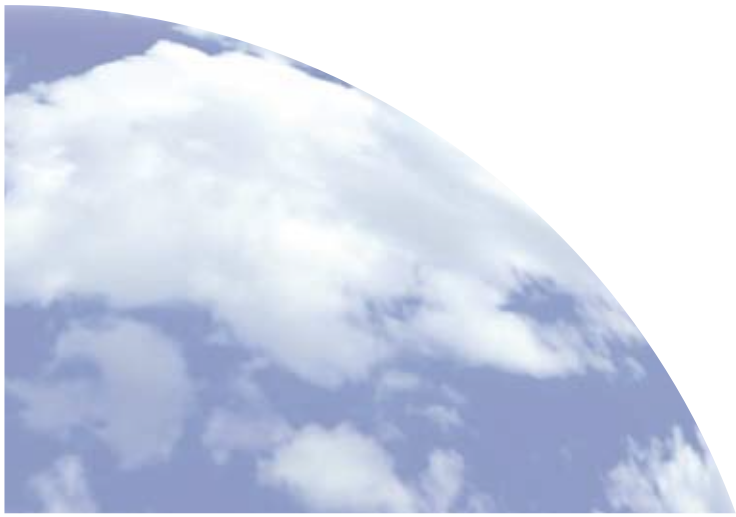
GEF Country Portfolio Evaluation: Egypt (1991–2008)

NOVEMBER 2009



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GEF Country Portfolio Evaluation: Egypt (1991–2008)

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Foreword

This evaluation was one of two country portfolio evaluations undertaken in 2009 examining support provided by the Global Environment Facility (GEF) in the Middle East. Egypt was selected for evalaution on the basis of its historically large and diverse portfolio, which includes projects in all focal areas implemented by various GEF Agencies. The portfolio also has a large number of completed projects and has received individual allocations under the Resource Allocation Framework for both climate change and biodiversity. Egypt has also benefited from the GEF Small Grants Programme since 1992.

The evaluation found that GEF activities in Egypt have been instrumental in focusing the attention of decision makers on the environmental issues at hand, promoting national policy changes, and mainstreaming environmental considerations into public policy, particularly in the climate change and biodiversity areas. The long-term sustainability of project results remains a challenge.

Another finding was that GEF support to biodiversity in Egypt has been of strategic importance. The GEF has contributed significantly to developing institutional capacity within national and local authorities. Its activities have also helped raise awareness on biodiversity issues on the part of decision makers outside environmental circles, local administrators, the media, and the public at large. Consequently, biodiversity is now more visible and higher on the political agenda, and some biodiversity projects have generated considerable cofinancing from line ministries, nongovernmental organizations, and the private sector. In climate change, activities have achieved results, particularly in the area of energy efficiency.

The Evaluation Office and the GEF operational and political focal points in Egypt invited a large number of national stakeholders, including representatives of the national government, GEF Agencies, nongovernmental organizations, and other civil society partners, to discuss the findings of the evaluation on March 10, 2009. During the workshop, the evaluation's context and methodology were presented as well as preliminary findings and any emerging recommendations. A very fruitful open forum discussion followed, which was jointly chaired by the operational focal point and the GEF Chief Evaluation Officer. The feedback received was highly constructive, and comments have been incorporated into this report as appropriate.

The evaluation was presented to the GEF Council in June 2009, together with the Annual Country Portfolio Evaluation Report, which synthesized the main conclusions and recommendations from three country portfolio evaluations undertaken by the Evaluation Office in Cameroon, Egypt, and Syria. Consequently, the Council asked the GEF Secretariat to explore, within the GEF partnership, modalities to address the gap in available

resources for combating land degradation to support key challenges facing countries such as Cameroon, Egypt, and Syria and to conduct a survey of countries that are, like Syria, in the exceptional circumstance of having limited access to GEF partner international financial institutions.

The government of Egypt has responded to the evaluation, and its response can be found in annex I of this report.

I thank everyone involved for their active and supportive participation in the process of conducting this evaluation. The Evaluation Office remains fully responsible for the content of the report.

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Director, GEF Evaluation Office

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This report was prepared by a team led by Claudio Volonté, Chief Evaluation Officer, and Sandra Romboli, Evaluation Officer, of the Global Environment Facility (GEF) Evaluation Office. The team's lead consultant was Tarek Genena, who was assisted by Nadine Ibrahim and Cecilia Vaverka, researchers at EcoConServ Environmental Solutions.

Yasmine Fouad, Director of the GEF Unit at the Egyptian Environmental Affairs Agency, and Mohamed Bayoumi, Assistant Resident Representative at the Cairo Office of the United Nations Development Programme, provided full cooperation and participated actively in the evaluation. The Evaluation Office is particularly thankful to them for facilitating access to GEF stakeholders. The team is also grateful for the field mission support provided by the GEF Unit.

Abbreviations

CBD	Convention on Biological Diversity
CDM	Clean Development Mechanism
CEO	Chief Executive Officer
CO_2	carbon dioxide
CPE	country portfolio evaluation
EEAA	Egyptian Environmental Affairs Agency
EEIGGR	Energy Efficiency Improvement and Greenhouse Gas Reduction
ESCO	energy service company
FAO	Food and Agriculture Organization of the United Nations
FSP	full-size project
GDP	gross domestic product
GEF	Global Environment Facility
GHG	greenhouse gas
ICZM	integrated coastal zone management
IFAD	International Fund for Agricultural Development
INC	Initial National Communication
LE	Egyptian pound
MDG	Millennium Development Goal
MEMAC	Marine Emergency Mutual Aid Centre
MSEA	Ministry of State for Environmental Affairs
MSP	medium-size project
MWRI	Ministry of Water Resources and Irrigation
NBI	Nile Basin Initiative
NBSAP	National Biodiversity Strategy and Action Plan
NCSA	National Capacity Self-Assessment
NEAP	National Environmental Action Plan
NGO	nongovernmental organization
NIP	National Implementation Plan
NSSD	National Strategy for Sustainable Development
NTEAP	Nile Transboundary Environmental Action Project
ODA	official development assistance
PDF	project development facility
PERSGA	Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden
PIF	project identification form
POP	persistent organic pollutant
RAF	Resource Allocation Framework
SAP	Strategic Action Programme
SCCF	Special Climate Change Fund
SGP	Small Grants Programme
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organization
USAID	U.S. Agency for International Development
WWF	World Wldlife Fund

All dollar amounts are U.S. dollars unless otherwise indicated.

1. Main Conclusions and Recommendations

1.1 Background

Egypt has been a long-standing partner of the Global Environment Facility (GEF), receiving GEF financial support since 1991 through a variety of projects and activities in collaboration with GEF Agencies, government agencies, nongovernmental organizations (NGOs), and civil society. From November 2008 to March 2009, the GEF Evaluation Office carried out an evaluation of GEF support to Egypt for the period 1991–2008. The evaluation was conducted by staff from the GEF Evaluation Office and a team of Egyptian consultants.

GEF country portfolio evaluations (CPEs) were launched in 2007 following the GEF Council's request that the Evaluation Office assess national GEF-supported activities. Based on the standard terms of reference for CPEs, the evaluation of GEF support to Egypt had the following specific objectives:

- Independently **evaluate the relevance and efficiency of GEF support** in the country from several points of view: national environmental frameworks and decision-making processes, the GEF mandate and achievement of global environmental benefits, and GEF policies and procedures
- **Assess the effectiveness and results** of completed and ongoing projects in each relevant focal area
- **Provide feedback and knowledge sharing** to (1) the GEF Council in its decision-making process to allocate resources and develop policies and strategies, (2) the country on its participation in the GEF, and (3) the different agencies and organizations involved in the preparation and implementation of GEF support

The scope of the Egypt CPE included all 19 national projects, totaling $87.87 million in GEF support, as well as 7 regional projects and 1 global project. In addition, the national component of the Small Grants Programme (SGP) has received $4.32 million, thus bringing the total amount Egypt has received from the GEF to $92.19 million. All GEF focal areas are to some extent represented in these projects, as are the three main GEF Implementing Agencies—the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), and the World Bank.

Egypt has played an important role in the international environmental arena for many years, with strong participation in and contribution to global and regional conventions. Several international organizations, including the GEF and UNEP, have been fortunate to have Egyptians at their helms. Egypt and the GEF Evaluation Office were partners in organizing and implementing the Alexandria Conference on Climate Change and Development in May 2008, which coincided with

a concerted effort in Egypt to further raise awareness of adaptation issues.

Conclusions

GEF activities in Egypt have been instrumental in drawing the attention of decision makers to global and regional environmental issues. GEF activities have resulted in national policy changes and mainstreaming, particularly through climate change and biodiversity projects. The GEF has also succeeded in contributing to the policy dialogue, for example in regional international waters projects.

Results and Effectiveness

Conclusion 1: GEF support to biodiversity in Egypt has been of strategic importance.

The GEF has played a major role in Egypt in the area of biodiversity; this was particularly the case during the GEF's early years, when other donors showed less interest in supporting biodiversity conservation in Egypt. It remains true to the present day, when donors' support to the environment is gradually phasing out.

Most of the GEF biodiversity projects in Egypt that have reached completion are enabling activities. Through these efforts, the GEF has contributed significantly to developing institutional capacity within national and local (governorate) authorities and enhancing national capacity in biodiversity. GEF activities have also helped raise awareness of biological diversity issues on the part of decision makers outside environmental circles, local administrators, the media, and the public at large. The result has been greater prominence and visibility for biodiversity on the political agenda; it has also helped some biodiversity projects generate considerable cofinancing from line ministries, NGOs, and the private sector.

In addition to building capacity, GEF-supported biodiversity projects have enabled the development of comprehensive frameworks such as policies, legislation, and strategic action plans; these include the National Biodiversity Strategy and Action Plan (NBSAP), the Wetland Strategy, the Integrated Coastal Zone Management (ICZM) Plan for the Red Sea, the National Capacity Self-Assessment, national reports to the Convention for Biological Diversity (CBD), and management plans for protected area sites. The GEF has introduced a more sustainable model for developing coastal areas by pioneering the concept and requirements of coastal zone planning. Several biodiversity projects have also initiated a successful model for community involvement and empowerment, decentralization, improved local governance, and the incorporation of innovative livelihood schemes in conservation activities. The importance of these successful examples is that, even though they are not necessarily fully sustainable, they set a precedent for biodiversity projects in Egypt through the introduction of new approaches and models. Over time, these practices have become an integral part of the relevant organizations and of biodiversity projects in general.

The SGP's activities in this regard are of particular note: they have helped mobilize local communities and establish the link between global and local benefits. The SGP has supported biodiversity activities

- addressing local environmental and/or sustainable development issues,
- reaching marginal populations and poorer communities,
- creating job opportunities and generating income.

Conclusion 2: Climate change activities have achieved results, particularly in terms of energy efficiency.

Egypt has been successful in accessing GEF funding for climate change activities, and there are projects addressing each of the GEF's climate change strategic priorities, focusing on energy efficiency, sustainable transport, and renewable energy. With the development of the GEF Climate Change Strategy, adaptation projects have been recently introduced in Egypt. The GEF is apparently driving the climate change agenda in Egypt, as the country has yet to complete a national strategy in this area. The GEF has introduced climate change issues to Egypt by building national capacities.

GEF support to enabling activities has contributed to institutionalizing climate change in the government and to elevating the issue on the national agenda. A climate change institutional mechanism consisting of a policy-making interministerial committee and a technical secretariat at the Egyptian Environmental Affairs Agency (EEAA) has been established. A climate change policy dialogue has been initiated, and indigenous capabilities in the areas of climate change assessment, mitigation, and project development have been enhanced.

The GEF Energy Efficiency Improvement and Greenhouse Gas Reductions (EEIGGR) project has had particularly important impacts in the climate change area. While the project fell far from achieving its initial reduction target of 11.7 million tons of cumulative carbon dioxide (CO_2) reduction by the planned completion date, it has continued to achieve CO_2 reductions in the project extension period and has since surpassed the initial target. It is estimated that EEIGGR has achieved a cumulative CO_2 reduction of 16.8 million tons. The project has had concrete results in other areas as well, which have resulted—and are still expected to result—in reasonable CO_2 reductions. For example, market transformations have been created in the energy efficient lighting system market, energy service companies (ESCOs) market, and energy efficiency appliances market; also, sectoral policies and regulations that support project goals have been developed. These latter include energy efficiency standards and labels for three electrical appliances, and energy efficiency codes for new residential buildings. Nine ESCOs have been established to provide advice in energy efficiency and financing. And the government is preparing a National Strategy for Improving Energy Efficiency in Egypt, all of which demonstrates that energy efficiency is well on its way to being mainstreamed.

Four relatively new GEF national projects in climate change are ongoing or are about to start: the "Solar Thermal Hybrid Project" (GEF ID 1040), "Bioenergy for Sustainable Rural Development" (GEF ID 1335), "Sustainable Transport" (GEF ID 2776), and "Adaptation to Climate Change in the Nile Delta through Integrated Coastal Zone Management" (GEF ID 3242). These projects will implement long-awaited actions and provide innovative approaches to national problems that have significant global impacts. Similar approaches have not previously received any substantial support from other donor agencies.

Conclusion 3: International waters projects have laid the foundation for collaboration among countries and demonstrated innovative technologies and approaches for water conservation.

GEF support to international waters projects in Egypt is relatively large compared to that in other countries. In total, the evaluation estimates that 15 projects, national and regional, are dealing with international waters issues.

National Projects

The international waters projects in the national portfolio have been pilot demonstration projects to stimulate research in the areas of wetlands engineering and groundwater resources. For example, the "Lake Manzala Engineered Wetlands" project (GEF ID 395) demonstrated a low-cost technology capable of treating large bodies of wastewater in Egypt, thus reducing the impact of land-based sources of pollution on the Mediterranean Sea while addressing the national development challenge of untreated wastewater. The project has treated only a minor fraction of the water flowing to the coastal Lake Manzala, but there is widespread consensus among researchers and decision makers that this project has great potential for replication in Egypt and other countries of the region. At this point, however, limited attempts have been made at replication; and no clear vision exists for dissemination, replication, or scaling up the constructed wetlands technology.

The other national demonstration project, "Developing Renewable Groundwater Resources in Arid Lands: A Pilot Case—The Eastern Desert of Egypt" (GEF ID 985), has identified the sources, extent, and histories of groundwater in alluvial aquifers as well as predicted rainfall patterns over the Eastern Desert. It has investigated groundwater flow in the alluvial aquifers flooring one of the main valleys of the Eastern Desert, produced a replicable model in neighboring Middle Eastern and Saharan countries, and contributed to the preservation of freshwater ecosystems in the region. It has demonstrated the benefits of selecting, designing, and approaching research so as to respond to policy and development concerns. Moreover, it has successfully managed to link research to development focused on a vital natural resource: groundwater. The project permits utilization of an untapped water resource that, if sustainably managed, would reduce the competing demands on the already overcommitted Nile waters.

In both projects, indigenous and local community knowledge has been built into the respective target areas. There have been spin-off results, and the experiences and knowledge gained have been—and still are being—transferred to individuals and institutions in the region.

Regional Projects

GEF support has reached all of the main transboundary water bodies in Egypt: the Mediterranean, the Red Sea, the Nile River, and the Nubian Aquifer. The evaluation found that these regional projects have succeeded in the following:

- Initiating a dialogue among countries of the region that might not have taken place otherwise—with regard to the Nile Basin Initiative (NBI) and the Nubian Aquifer, such dialogue is of particular strategic importance to Egypt
- Supporting regional institutional set-ups, such as that of the NBI and the Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA)—the likelihood of these mechanisms being sustainable and functional has proven to be quite high, and they are likely to continue to function after project completion, albeit with reduced effectiveness, as has been evidenced by the PERSGA

Evaluations of experience in Egypt and other countries with regional international waters projects have revealed the following problems:

- Coordination among national institutions responsible for water resources is not always efficient, as there is the added complexity of involving and coordinating the numerous such institutions in each country.
- The dissemination and use of information and regional products resulting from these projects

by national institutional stakeholders are less than satisfactory.

- Regional projects require a relatively longer time to achieve their objectives and produce tangible results due to their often inherent complexity.
- The capacities and competence of organizations vary considerably across countries; this results in capacity-building activities being neither appropriate nor sufficiently useful.
- Regional projects without national components do not always provide tangible benefits or support for national institutions. Their activities are not sufficiently visible, especially when compared to relatively large bilateral projects. Accordingly, these projects do not always receive the political attention and support they need.

Conclusion 4: GEF support to Egypt in the areas of land degradation and persistent organic pollutants has been limited.

In the area of land degradation, worldwide demand for GEF support has exceeded the available resources. This is a particularly difficult situation for countries such as Egypt where land degradation is one of the major challenges in the environmental sector. The only GEF-supported project solely focused on land degradation in which Egypt participates is the regional MENARID project. However, this project is in its early stages, and so far, there is no national component or activities in Egypt. A national project under MENARID was initially planned, but this had not materialized at the time of this evaluation.

Even though GEF support for persistent organic pollutants (POPs) projects is recent, GEF activities have managed to put this important environmental issue on the Egyptian government's agenda. With the assistance of a GEF-funded enabling activity, Egypt prepared its National Implementation Plan (NIP) for the Stockholm Convention on Persistent Organic Pollutants in 2005. Preparation of the NIP allowed the government to address POPs issues in a structured way and to define the manner in which it intends to fulfill its obligations to eliminate or reduce POPs production. However, while the NIP project facilitated collaboration and raised awareness concerning POPs among relevant ministries and authorities, implementation of the plan has yet to be initiated.

Conclusion 5: The long-term sustainability of achieved results remains a challenge.

Long-term sustainability of project results has been typically undermined in Egypt by inadequate planning and insufficient resource allocation at the local level. For example, in biodiversity, significant challenges remain in the management of protected areas, conservation, and enforcement. Actions to involve the private sector to mobilize financial resources are still insufficient.

Sustainability is often undermined by the challenge of anchoring complex environmental projects and priorities within public structures and institutions. Handover of project results to national institutions takes place too late in the project cycle to ensure smooth exit strategies. Moreover, national resources are not introduced gradually during project implementation to facilitate phaseout of GEF resources.Measurements are not put in place by project management, such as withholding/delaying final disbursement pending satisfactory performance of a project in achieving minimum levels of sustainability.

Another challenging area for sustainability is that dissemination of project outcomes and outputs to policy makers, executive bodies, and the public does not receive adequate attention.

Dissemination of GEF project results is one of the key tools for achieving sustainability through policy changes, wide-scale replication, and—consequently—tangible local and global benefits. A finding common to the majority of projects is the insufficient effort, resources, and time devoted to dissemination of project results. All too often, project executors tend to see the number of activities carried out and outputs produced as a sign of success, giving short shrift to those communication and dissemination activities that hold the potential for real project impact.

The short actual operational lifetime of a project (as distinct from its preparatory time and time awaiting implementation) often limits the degree of dissemination that can be achieved. Typically, there is insufficient time and budget for effective dissemination using the resources of the project. In addition, when the project is institutionally anchored and handed over, it often lacks needed financial resources, leaving the responsibility for widespread dissemination to the very limited resources of the national institution.

The potential for replicability needs to be better incorporated in project design so as to reap the full benefits of the knowledge and experience generated by projects. One possibility is to introduce the idea of "second phases" for potentially successful projects dedicated to adaptation and dissemination. This approach would be particularly important for projects that introduce a new technology or system that may need an adaptive follow-up phase. Building on the results of the initial phase with the aim of effectively disseminating and replicating results and experiences could be more cost-efficient than approving a new project.

In recent years, the likelihood of sustainability has improved in Egypt through a shift from a portfolio largely driven by technological approaches to one that involves more community-oriented mechanisms. For example, a promising aspect of the biodiversity portfolio concerns socioeconomic project impacts. Recently completed and ongoing projects have recognized the significance of increasing the ecological sustainability of current livelihoods, in addition to raising awareness and building capacity at the local level, and sufficiently managing to engage local communities. This reflects the significance of community participation and awareness throughout the project, given the shared interests they have in the local ecosystem.

Relevance

Conclusion 6: In general, GEF projects and activities address national priorities and coincide well with the environmental agenda in Egypt.

The majority of GEF projects and activities in Egypt address national priorities and align well with the national environmental agenda as reflected in policy and legal frameworks, including the National Environmental Action Plan (NEAP), Law 4/1994, Law 102/1983, and other relevant policy directives and strategy documents to the extent these priorities are relevant to the GEF focal areas.

Conclusion 7: GEF support in Egypt has been of particular strategic importance as compared to that of other donors in the environment field.

In the past 15 years, Egypt has received relatively large amounts of official development assistance (ODA) for work in the environment. However, the GEF has provided support in areas other donor agencies have largely refrained from supporting, particularly wetlands management and biodiversity conservation, energy efficiency, sustainable transport, biomass energy, and POPs. As noted earlier, this pattern of support was especially apparent in the GEF's early period when it first established itself as a means of support for national environmental challenges with global significance,

but continues to hold true now as donor support to the environment is gradually phased out.

Efficiency

Conclusion 8: In line with the findings of earlier evaluations, the project preparatory phase in Egypt was found to often be too long, running the risk of altered country priorities as well as GEF priorities by the time of approval and implementation.

The GEF project preparation process in Egypt is lengthy due to a combination of factors involving the GEF Secretariat, the Implementing Agencies, and the government. This corroborates with findings of previous evaluations, including those of the Joint Evaluation of the GEF Activity Cycle and Modalities (GEF EO 2007). The total time from pipeline entry to project start-up in Egypt takes on average about 77 months or 6.4 years, which is one of the longest averages when compared to previous CPEs conducted in Costa Rica, the Philippines, South Africa, and elsewhere. A new project cycle was introduced following recommendations of the joint evaluation, and 22 months was set as the maximum allowable project cycle length for projects prepared and approved in GEF-4 (2006–10). This shorter cycle has yet to materialize in Egypt.

Conclusion 9: Project supervision and/or steering committees need to be more proactive and responsive in addressing problems and in facilitating timely project implementation.

GEF projects, like other ODA projects, often face start-up, implementation, or handover and sustainability problems. In some cases, these problems stem from overly ambitious or inaccurate project designs that are not always resolved by the project's supervisory or steering mechanisms during implementation. Decisions or interventions to facilitate efficient implementation are not always taken in a timely manner. In some cases, adaptive decisions are not made until the midterm review is carried out, resulting in unjustifiable delays. In other projects, midterm reviews are carried out ahead of time in order to resolve a problem or adapt a project design. While it can be noted that the GEF Agencies and the EEAA's GEF Unit play an important role in attempting to address problems related to delays in implementation, sustainability, and project performance in general, their interventions were usually aimed at individual initiatives. In the case of the SGP, more field follow-up and technical assistance to projects is needed at the various stages of the project cycle.

Conclusion 10: The effectiveness of the focal point mechanism in Egypt has improved since the establishment of the GEF Unit and the GEF National Steering Committee.

Since the Egyptian government established the GEF Unit and National Steering Committee, the GEF project approval process is more systematic and follows clear priorities, and GEF project proposals have become more country driven. The diversity of representation on the committee has proven successful and has firmly rooted it in the relevant ministries. However, the evaluation found that there is no national GEF framework that reflects a vision and draws a roadmap for GEF activities in Egypt. The GEF does not require countries to have such a framework.

Coordination and collaboration among GEF projects were found weak, particularly for regional and global projects. The ownership of and commitment to GEF regional and global projects—especially those with no national components—are relatively weak and are most often limited to narrow circles of individuals and institutions directly involved in the projects. This circumstance could be attributed to a number of reasons. Development of regional and global projects often takes place without sufficient involvement

of national institutional stakeholders. Also, global and regional projects do not usually produce any short-term tangible results that may yield visibility. Therefore, "buy-in" from national executive bodies to global and regional projects is typically weak. Focal points of regional and global projects could facilitate coordination through improved dissemination of products such as reports, case studies, and project experiences.

Observation

It is suggested that a comprehensive and updated database of GEF activities in Egypt be developed and maintained. This database should cover all projects and activities in the country, and include all documentation relevant to the projects such as project documents, evaluations, and verifications. This database should be shared and maintained by and among all the GEF partners, including the GEF Secretariat, GEF operational focal point, and GEF Agencies.

Recommendations

Recommendation to the GEF Council

Recommendation 1: The GEF Council should address the significant gap in available resources in land degradation to support key challenges facing countries like Egypt.

The possibility of additional allocations for activities in the land degradation focal area should be further explored. There is widespread demand in Egypt for activities in this area.

Recommendations to the Government of Egypt

Recommendation 2: Prepare a GEF national framework to enhance the strategic use of GEF funds.

GEF support could become more strategic and effective if Egypt's GEF Unit and National Steering Committee were to prepare a national GEF framework, with GEF-5 (2010–14) in mind. This framework should be fully supported by the government to ensure buy-in and integration with national strategies. Such a framework would include a national vision and strategic plan for future GEF activities in Egypt. Because it would ensure a planned program rather than a set of projects, private sector involvement could be better attracted.

Recommendation 3: Improve the overall effectiveness of GEF support.

Improvement of the overall effectiveness of GEF support could be accomplished in various ways:

- The GEF Unit should work toward enhancing the coordination and collaboration of the institutions active in GEF projects, particularly including the regional and global projects. Furthermore, it could enhance the possibilities for synergy among projects in different focal areas, as well as with the SGP.
- The National Steering Committee should have an enhanced supervisory function as well as an explicit mandate to tackle project sustainability issues.
- The GEF Unit could play a more central role in the integration and dissemination of GEF project outputs and outcomes. The planned GEF national Web site would be a significant step in that direction. For efficient dissemination to take place, the unit's human and financial resources need to be substantially improved.

The effectiveness of GEF regional activities could be improved through a number of measures, including, but not limited to, the following:

- Enhance the visibility of regional projects and their activities so they come to the attention of decision makers, and expand the sphere of their influence to move beyond countries' relatively limited environmental circles.

- Emphasize early involvement of national stakeholders in project design and preparation.
- Ensure that the design of projects' capacity-building and training components takes into consideration the differing capabilities and capacities of individuals and institutions in the various countries in the region.
- Make use of the competent institutions and individuals in the region to undertake capacity-building and training activities.

The SGP should help pave the way and prepare for medium-size projects (MSPs) and full-size projects (FSPs), as well as follow up on and use their products and results. To this end, a stronger link between FSPs/MSPs and the SGP could be established. More importantly, GEF activities at large would be more effective and sustainable with the involvement of and linkage to the SGP. Where this kind of collaboration has taken place on an ad hoc and rather limited scale, it has already had successful results.

2. Evaluation Framework

This chapter presents the background information, objectives, and methodology related to and used in the GEF country portfolio evaluations.

2.1 Background

The CPEs were initiated following a decision by the GEF Council that the GEF Evaluation Office should conduct evaluations of the GEF portfolio at the country level. The overall purpose of the GEF CPEs is twofold:

- To evaluate how GEF-supported activities fit into national strategies and priorities, as well as within the global environmental mandate of the GEF
- To provide the Council with additional information on the results of GEF-supported activities and how these activities are implemented

Countries are selected for portfolio evaluation from the 160 countries eligible for GEF support, based on stratified randomized selection and a set of strategic criteria.

To date, the Evaluation Office has conducted seven CPEs: for Costa Rica (pilot case in 2006); the Philippines and Samoa (in 2007); and Benin, Cameroon, Madagascar, and South Africa (in 2008). Documents for the completed evaluations are available on the GEF Evaluation Office Web site. Most recently, portfolio evaluations were undertaken in Syria and Egypt. The findings and recommendations from these CPEs as well as from Cameroon (the Cameroon CPE was not completed until after the April 2008 Council meeting) were synthesized in a single report and presented in June 2009 to the GEF Council to assess and report on experiences and common issues across different types of countries (GEF EO 2009b).

Egypt was selected for evaluation in 2008 on the basis of its historically large and diverse portfolio, which includes projects in all GEF focal areas implemented by all relevant GEF Agencies, and its large number of completed projects with potentially important results. In addition, Egypt has received individual allocations under the Resource Allocation Framework (RAF) for both climate change and biodiversity, and the country has benefited from the GEF Small Grants Programme since 1992. This evaluation will not have any impact on Egypt's current or future RAF allocation.

2.2 Objectives

Based on the overall purpose of the CPEs, the evaluation for Egypt has the following specific objectives (annex A presents the terms of reference for the Egypt CPE):

- Independently evaluate the **relevance and efficiency** of GEF support in the country from several points of view: national environmental frameworks and decision-making processes,

the GEF mandate and achievement of global environmental benefits, and GEF policies and procedures

- Assess the **effectiveness and results** of completed and ongoing projects in each relevant focal area
- Provide **feedback and knowledge sharing** to (1) the GEF Council in its decision-making process on allocating resources and developing policies and strategies, (2) the country on its participation in the GEF, and (3) the different agencies and organizations involved in the preparation and implementation of GEF support

The CPE will also be used to provide information and evidence to other evaluations conducted by the GEF Evaluation Office. The evaluation does not aim to assess or rate the performance of the GEF Agencies or partners, or of national governments. In addition, the evaluation only analyzes the performance of individual projects as part of the overall GEF portfolio, without rating the individual projects.

Key Evaluation Questions

Chapters 5, 6, and 7 address the three main areas of the evaluation, namely the results and effectiveness, relevance, and efficiency of GEF support, respectively. Each chapter begins by listing certain key questions that have guided the evaluation process. Each question is supported by an evaluation matrix (see annex B), which contains a tentative list of indicators or basic data, potential sources of information, and methodology components. The matrix was continuously developed throughout the evaluation process. The evaluation made use of the indicators in GEF project documents, as well as indicators in each of the focal areas, the RAF, and any appropriate national sustainable development and environmental indicators.

Scope of the Evaluation

The main focus of the evaluation is projects implemented within the boundaries of Egypt, that is, **national projects**. The GEF has provided about $87.87 million for 19 national projects, and $4.32 million for SGP projects, from 1991 to December 2008. In the same period, Egypt received GEF support for 17 regional projects and 6 global projects (see annex C for the complete GEF portfolio in Egypt). The degree to which Egypt has benefited from this regional and global support varies; it was thus decided that of these **regional projects**, five projects with a national component—including a national budget allocation—would be fully reviewed in the evaluation, while two projects with no national component but with activities or a demonstration site in Egypt would be discussed as appropriate. Projects with neither national components nor activities are only mentioned briefly in this report. With respect to the six **global projects**, only one, which lacks a national component, has carried out activities in Egypt; this project is discussed as relevant.

The evaluation focuses primarily on a review of all the national projects supported by the GEF at all stages—that is, approved by the GEF Council or the GEF Chief Executive Officer (CEO), project identification form (PIF) or project preparation grant approved by the Council, endorsed by the CEO, under implementation, completed, or canceled. The SGP is assessed against national strategies and not in terms of individual projects. Project concepts in government or GEF Agency pipelines were not included.

The GEF portfolio assessed in this evaluation is thus the aggregate of the national projects plus the eight selected regional and global projects. The focus of the evaluation is determined by the status of the project, as shown in table A.4. In addition, attention was given to the context in which

the projects were developed and approved and in which they are being implemented. Chapter 3 highlights the three main contextual areas:[1]

- **Potential for securing global environmental benefits in each focal area.** This situational analysis provides a basis for assessing whether the maximum potential national and global benefits have been obtained.
- **Relevant national environmental policy, legislative, strategy, and institutional frameworks.** This provides a starting point for assessing the relevance of the portfolio to national frameworks and priorities.
- **GEF policies, principles, programs, and strategies.** These are outlined to enable the evaluation of the portfolio's relevance to the GEF.

2.3 Methodology

The Egypt CPE was conducted between November 2008 and March 2009, and the evaluation team consisted of staff from the GEF Evaluation Office and consultants from an environmental consultancy firm based in Cairo. The team was headed by a task manager from the GEF Evaluation Office. The methodology included a series of elements using a combination of qualitative and quantitative methods and tools. The **qualitative** aspects of the evaluation are based on the following sources of information.

- **At the project level**, project documents, project implementation reports, terminal evaluations or closure reports, verification evaluation reports, and reports from monitoring visits
- **At the country level**, documents relevant to the broad national sustainable development and environmental agenda, priorities, and strategies; specific policies, strategies, and action plans relevant to focal areas; GEF-supported strategies and action plans relevant to the global conventions; and national environmental indicators
- **At the GEF Agency level**, country assistance strategies and frameworks and their evaluations and reviews, specifically from the World Bank and UNDP
- **Evaluative evidence at the country level** from GEF Evaluation Office evaluations, such as the Joint Evaluation of the GEF Activity Cycle and Modalities, the overall performance studies, or from national evaluations
- **Statistics and scientific sources**, especially for national environmental indicators
- **Interviews with GEF stakeholders**, including individuals from the GEF Unit; relevant government departments; national executing agencies; presently active GEF Agencies including UNDP, UNEP, and the World Bank; local NGOs; bilateral donor agencies; project managers; and the SGP (interviewees are listed in annex D)
- A number of **field visits** to project sites, including interviews with GEF beneficiaries at the community level where possible (sites visited are listed in annex E)
- Information from the **national consultation workshop** held to enable comment and discussion on the draft report before it was finalized, as well as written comments (workshop participants are listed in annex F)

The **quantitative** analysis used indicators to assess the efficiency of GEF support using projects

[1]This is further discussed in a report prepared in the course of this evaluation, "Egypt CPE Technical Paper: Global Environmental Benefits Assessment Analysis and Environmental Institutional, Legal, and Policy Framework Analysis" (GEF EO 2009a).

as the unit of analysis—that is, the time and cost of preparing and implementing projects. Indicators were also used to measure GEF results obtained, more specifically, the degree to which global environmental improvement objectives were achieved, as well as project performance, including reports during and after project implementation. The evaluation team used standardized tools and protocols for the CPEs and adapted these to the Egyptian context. These tools included

- a matrix outlining the information relevant to the evaluation and expected sources (see annex B),
- a project review protocol to conduct the desk and field reviews of GEF projects,
- an interview guide for conducting interviews with different stakeholders.

Projects were selected for visits based on whether they had been completed and on their geographic location.

The process and outputs of the evaluation are outlined in the terms of reference (see annex A). The three main phases of the evaluation were to

- conduct the evaluation, including two visits by representatives of the GEF Evaluation Office;
- participate in a consultation workshop with major stakeholders, held in March 2009, to present a draft evaluation report;
- prepare a final report incorporating any comments, which subsequently was presented to the GEF Council and the government of Egypt.

2.4 Limitations of the Evaluation

One of the challenges facing the evaluation team stems from the fact that there is no GEF country strategy, and consequently no specified programmatic objectives, indicators, and targets against which to evaluate the effectiveness and results of GEF projects. The evaluation therefore considers the objectives and internal coherence of portfolio projects and activities, and how the portfolio has evolved. The evaluation frameworks used for assessing GEF support to Egypt include the country programs of GEF Agencies, as well as Egypt's national sustainable development and environmental policy, and the strategic frameworks and priorities within which these projects are prepared, approved, and conducted.

An additional challenge the team encountered was related to the issue of what projects to include in the evaluation. Discrepancies between the project lists provided by the GEF Evaluation Office and the GEF Unit in the Egyptian Environmental Affairs Agency, as well as uncertainties related to which regional and global projects had a national component, caused confusion and delays.

It must be noted that GEF support within any given area only represents one contribution among others, and that it is provided through partnerships bringing together several institutions. Given these circumstances, it is not the intention of the CPE to seek to attribute development or environmental impacts directly to the GEF, but rather to examine the GEF contribution to overall achievements. Moreover, the aim is to establish a credible link between the institutional, technical, and financial support provided and the benefits realized.

To the extent possible, the assessment of results is focused at the level of outcomes and impacts rather than outputs. Project-level results are measured against the overall expected impacts and outcomes from each project, with expected impacts at the focal area level being assessed in the context of GEF objectives and indicators of global environmental benefits. Outcomes at the focal area level are primarily evaluated with respect to catalytic

and replication effects, institutional sustainability and capacity building, and awareness.

Evaluating the impacts of GEF-funded initiatives has proved to be a somewhat complicated task. Many projects do not clearly specify their expected impacts—and sometimes not even the outcomes. The information provided by project reports and terminal evaluations is often confined to outcomes and outputs, and contains limited evaluation of impacts. Project documents also do not always provide clear, consistent formulations of objectives, indicators, and targets or baselines against which progress can be assessed. The absence of information on project impacts can be ascribed to the time frames of evaluation cycles, with evaluations usually conducted before measurable impacts can be expected. Notably, it was not within the scope of this evaluation to conduct primary research to complement project reports or identify impact, which constrained the evaluation team to secondary sources.

By and large, the evaluation team relied on documentation supplied by the GEF Evaluation Office and the GEF Agencies, which was not always complete. A full set of documents was only available for a limited number of projects, and gathering the existing ones was a time-consuming task. Obtaining information about the regional and global projects that lack a national component proved very challenging, as this information was neither available at the GEF Unit in Egypt nor centrally at the GEF Evaluation Office, which has been a constraint in carrying out a comprehensive review of some of these projects. The fact that the GEF portfolio in Egypt spans 17 years has made it difficult to locate all key stakeholders, which means that the picture of some earlier projects is less inclusive. Gaps in documentation and institutional memory were particularly encountered in connection with enabling activities that ended some years ago. Shortcomings in monitoring and evaluation at the project and GEF program levels also posed challenges to the evaluation team.

Finally, the evaluation was conducted within a rather tight time frame, given the duration, diversity, and size of the GEF portfolio in Egypt.

3. Context of the Evaluation

3.1 Egypt: General Description

Geography, Population, and Economy

Egypt's total area is approximately 1 million square kilometers, of which less than 6 percent is cultivated or inhabited territory (Economist Intelligence Unit 2008); the rest is predominantly desert land. Egypt has shorelines on the Mediterranean and Red Seas. It borders Libya to the west, Sudan to the south, and Israel and Gaza to the east. Egypt's natural boundaries consist of more than 2,450 kilometers of coastline along the Mediterranean Sea, the Gulf of Suez, the Gulf of Aqaba, and the Red Sea. Most of the country lies within the wide band of desert that stretches from North Africa's Atlantic coast across the continent and into southwest Asia. The River Nile is the country's main source of water, providing about 96 percent of Egypt's renewable water resources.

There are four distinct agro-ecological zones in Egypt, one of which—the Nile Valley and Delta—is the most important region, even though it covers only about 5 percent of Egypt's total area. The Nile Valley and Delta comprise the country's primary cultivable area, as well as being home to some 95 percent of the country's population (*Encyclopædia Britannica* 2009). This concentration of population, land use, agriculture, and economic activity makes the area extremely vulnerable to potential impacts on its water resources.

Egypt's economy relies on four main sources of income: tourism, remittances from Egyptians working abroad, revenues from the Suez Canal, and oil. An economic reform program aimed at fostering foreign direct investments and improving the country's business environment was introduced by the Egyptian government in 2004. It featured a dramatic reduction of customs and tariffs, a unified tax law, and numerous improvements in the overall regulatory structure and has led to rapid economic growth after several years of stagnation. Foreign direct investment in Egypt has increased considerably over the past few years, rising from $3.9 billion in 2005 to $11.1 billion in 2007 (Central Bank of Egypt 2009). Real growth in gross domestic product (GDP) for 2007 was 7.1 percent (Economist Intelligence Unit 2008), with the main engines of growth being the Suez Canal, construction, telecommunication, and tourism. Current government efforts focus on equity and social policies, while maintaining the pace of implementation of pro-growth measures.

In 2006, Egypt ranked 71st among 149 nations on the Environmental Performance Index. The index uses outcome-oriented indicators and focuses on two overarching environmental objectives: reducing environmental stresses to human health, and promoting ecosystem vitality and sound natural resource management (Esty and others 2008). Social indicators have improved noticeably over

the last decade, particularly with regard to infant mortality, malnutrition, and life expectancy (table 3.1). Recent reforms have resulted in a substantial reduction of poverty: while 23.4 percent of the population lived on less than $1 a day in 2005, this was true for 18.9 percent of the population in 2008 (World Bank 2009). Moreover, Egypt has recorded improvements in the value of its Human Development Index during the period 2000–05, as it increased from 0.642 points in 2000 to 0.708 points in 2005 (UNDP 2009).

Opportunities and Challenges for the Environment

Due to a significant population increase and an expansion in its industrial, agricultural, and tourism activities, Egypt faces a number of public health and environmental problems caused by air and water pollution and by waste. The growing population—which, according to some estimates, may exceed 100 million by 2020—places a considerable stress on natural resources and has been coupled with increased rural-urban internal migration; Egypt's urban population has in fact tripled over the last few decades (EEAA 2007). Egypt's high rate of population growth and density along the Nile Valley and Delta, together with industrial activities concentrated primarily along the Nile River and in the large cities in the Delta, has resulted in an increased burden on the carrying capacity of the country's limited natural resources. In addition, Egypt's dependency on the

Table 3.1

Changes in Egypt's Key Socioeconomic Indicators

Indicator	Value 1990s/early 2000s	Value mid-2000s
Population size	66.5 million (2000)	81.7 million (2008)
Population growth (annual)	1.8% (2000)	1.7% (2007)
School attendance by population age 5–24	n.a.	96% male, 94% female (2000–06)
Literacy rate of population age 15+	n.a.	71%; male, 83%, female, 59.4% (2005)
GDP growth (annual)	4.5% (1997)	7.1% (2007)
Per capita GDP growth	2.6% (1997)	5.2% (2007)
Official development assistance	$1.090 million (2001)	$787 million (2007)
Unemployment	7.9% (1999)	10.9% (2005)
Population living on < $1/day	23.4% (2005)	18.9% (2008)
Gini coefficient	29 (2000)	n.a.
Life expectancy	61 years (2000)	71 years (2007)
Birthrate	2.33% (1997)	n.a.
Under age 5 mortality rate (per 1,000)	51 (2000)	35 (2006)
Energy use (oil equivalent per capita)	683 kg (2000)	841 kg (2005)
Electric power consumption (per capita)	1.01 kWh (2000)	1.25 kWh (2005)
Number of subscribers to electricity network	n.a.	21.5 million (2006)
HIV prevalence (age 15–49)	n.a.	0.1% (2007)
New registrations of passenger cars	55,470 (2004)	200,760 (2008)
Economic contribution of tourism	n.a.	$9.7 million (2006)
Surface area protected for biodiversity	5.3% (2002)	15% (2008)

Sources: World Bank 2008; CIA 2008; Central Bank of Egypt 2008; OECD 2009.
Note: n.a. = not available.

Nile is making it increasingly vulnerable. The current levels of water extraction for irrigation, and the large pollution loads discharged into the river and water channels, have become a major problem for downstream users, who recycle polluted waters for irrigation and human consumption. Overall levels of domestic and industrial sewerage collection and treatment are minimal.

Several challenges are associated with the potential impacts of climate change in Egypt, where sea level rise and variation in the Nile's stream flow would have serious implications on human settlements and large parts of agricultural lands and industrial areas, with potentially adverse effects on jobs, food security, and population displacement. Additional environmental challenges include a scarcity of freshwater resources, insufficient sanitation systems, inadequate solid waste collection and disposal, and human pressures on coastal zones and marine resources mainly due to tourism.

3.2 Status of Environmental Resources in Key GEF Focal Areas

Biodiversity

Situated in the northeast corner of Africa at the junction of four biogeographical regions (Irano-Turanian, Mediterranean, Saharo-Sindian, and Afro-tropical) and at the center of the great Saharo-Sindian desert belt that runs from Morocco to the high, cold deserts of central Asia, Egypt is home to a wide diversity of marine and terrestrial habitats and fauna and flora. Although it has a relatively low number of species and few endemic species, Egypt's biodiversity is extremely varied in composition. More than 800 species of nonflowering plants, 2,302 flowering species and subspecies (62 endemic and 2 threatened), 116 mammal species (13 threatened), 447 bird species (7 threatened), 109 reptile species (6 threatened), 9 amphibian species, and more than 1,000 fish species can be found in Egypt. Invertebrates are highly diverse, with insect diversity varying between 5,000 and 10,000 species, more than 200 coral species, 800 mollusks, and more than 1,000 crustaceans (CBD n.d.)

Although Egypt is dominated by desert and arid land, the country's biodiversity should be considered of global significance for a number of reasons.

- Many plant and animal species in Egypt are on the very edge of their geographical or ecological range and therefore have very limited tolerance for ecological pressures. Prime examples of this are coral reefs and mangroves.
- Some species represent holdovers from earlier periods when climatic conditions in the region were different. With the habitat becoming more arid, these species have retreated to a few isolated refuge locations, such as the hilly sites in North Sinai or the mountains of Gabel Elba.
- While it is recognized that the Red Sea and Nile River biogeographical corridors are key migratory bird routes on the Africa-Paleartic flyway (EEAA 1998), knowledge of much of Egypt's biodiversity is sketchy and outdated, and taxonomic knowledge is poor and unclear for some groups of species.

Biodiversity Threats

Habitat destruction remains one of the largest threats to biodiversity in Egypt, primarily because the country's barren nature restricts the distribution of plants and animals to oases, marshes, mangroves, and the Nile system. The species found in Egypt are very narrowly distributed or highly localized, which makes habitat conservation crucial. Invasive species are a major cause of biodiversity loss in Egypt. While close to 50 invasive species have been identified, the capacity and

legislation to manage them remain relatively limited. The major threats to the Red Sea are oil leakages from the oil platforms near Suez, potential spills from ships navigating the waters, impacts from tourism developments, improper solid waste disposal, urban and industrial sewage treatment, and landfills.

Other biodiversity threats include land reclamation, climate change, uncontrolled economic activities within protectorates, limited human and financial resources, and habitat degradation due to agricultural and industrial pollution (USAID 1999).

Protected Areas

Recognizing the importance of ecosystems and species for the country's sustainable development and their significance as part of the global heritage, the government has devoted special attention to the establishment and management of protected areas. There is currently a network of 27 protected areas in Egypt (figure 3.1; table 3.2), covering 150,000 square kilometers, or almost 15 percent of the country's territory. These areas have been established to protect Egypt's unique and diverse habitats, rare and endangered species, geological formations,

Figure 3.1

Map of Protected Areas in Egypt

Source: EEAA n.d.

Table 3.2

Protected Areas in Egypt by Date of Establishment, Size, Location, and Decree

Name	Declaration	Area (km^2)	Governorate	Establishing decree
Ras Mohamed National Park	1983	850	South Sinai	1068/1983 and 2035/1996
Zaranik Protectorate	1985	230	North Sinai	1429/1985 and 3379/1996
Ahrash Protectorate	1985	8	North Sinai	1429/1985 and 3379/1996
El Omayed Protectorate	1986	700	Matrouh	671/1986 and 3276/1996
Elba National Park	1986	35,600	Red Sea	450/1986 and 642/1995
Saluga and Ghazal Protectorate	1986	0.5	Aswan	928/1986
Santa Katrine National Park	1988	5,750	South Sinai	613/1988 and 940/1996
Ashtum El Gamil Protectorate	1988	180	Port Said	459/1988 and 2780/1998
Lake Qarun Protectorate	1989	250	El Fayoum	943/1989 and 2954/1997
Wadi El Rayan Protectorate	1989	1,225	El Fayoum	943/1989 and 2954/1997
Wadi Alaqi Protectorate	1989	30,000	Aswan	945/1989 and 2378/1996
Wadi El Assuti Protectorate	1989	35	Assuit	942/11989 and 710/1997
El Hassana Dome Protectorate	1989	1	Giza	946/1989
Petrified Forest Protectorate	1989	7	Cairo	944/1989
Sannur Cave Protectorate	1992	12	Beni Suef	1204/1992 and 709/1997
Nabaq Protectorate	1992	600	South Sinai	1511/1992 and 33/1996
Abu Galum Protectorate	1992	500	South Sinai	1511/1992 and 33/1996
Taba Protectorate	1998	3,595	South Sinai	316/1998
Lake Burullus Protectorate	1998	460	Kafr El Sheikh	1444/1998
Nile Islands Protectorates	1998	160	All governorates on the Nile	1969/1998
Wadi Digla Protectorate	1999	60	Cairo	47/1999 and 3057/1999
Siwa	2002	7,800	Matrouh	Decree 1219/2002
White Desert	2002	3,010	El Wady EL Gedid	1220/2002
Wadi El Gemal–Hamata	2003	7,450	Red Sea	143/2003

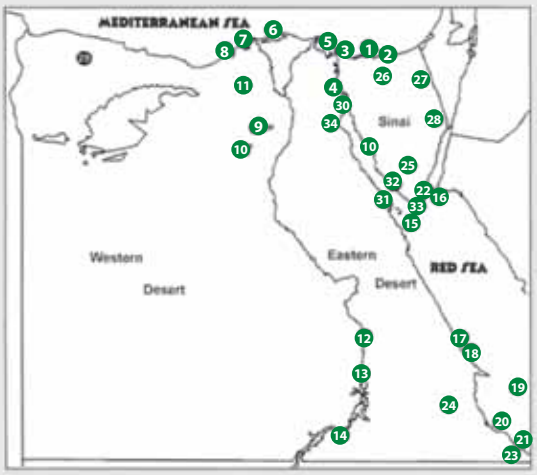
Source: EEAA n.d.

biodiversity hotspots, and landscapes of outstanding natural beauty (CBD n.d.). Their habitats and species nonetheless face specific threats, and greater resources are needed to mitigate the impacts of these threats effectively. Also, the national protected area network is seriously underresourced, and the revenues generated from the protected areas are not reinvested in conservation, management, and development. Without increased investment and effective management, the threats will be detrimental to their sustainability (EEAA 2006a).

Egypt's coastal and marine environment contains unique ecosystems, with the Mediterranean and Red Seas being well known for their abundance of marine fauna and flora. Both seas contain hundreds of species of phytoplankton and protozoa, and the Red Sea contains some 179 species of coral. Endemic species are largely limited to Red Sea habitats, and Egypt has the most northerly coral and mangrove habitats in the world (CBD n.d.). In addition, along the Mediterranean coast there are two important bird areas (figure 3.2) that are designated Ramsar sites: Lake Barawil and

Figure 3.2

Important Bird Areas in Egypt



1. Lake Bardawil
2. Zaranik
3. El Malaha
4. Bitter Lakes
5. Lake Manzala
6. Lake Burullus
7. Lake Idku
8. Lake Maryut
9. Lake Qarun
10. Wadi El Rayan
11. Wadi El Naturn
12. Upper Nile
13. Aswan Reservoir
14. Lake Nasser
15. Hurghada Archipelago
16. Tiran Island
17. Wadi Gemal Island
18. Qulan Island
19. Zabargad Island
20. Siyal Islands
21. Rawabel Islands
22. Nabaq
23. Gabel Elba
24. The Abraq Area
25. St. Katherine
26. Gabel Maghara
27. Quseima
28. Wadi Gerafi
29. El Qasr Desert
30. Suez
31. Gabel El Zeit
32. El Qa Plain
33. Ras Mohammed
34. Ain Sukhna

Source: EEAA, www.eeaa.gov.eg/English/main/protect_bird.asp (accessed March 2009).

Lake Burullus (RSIS n.d.). Additionally, two of the country's protected areas, St. Katherine and Wadi El Rayan, encompass United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Sites; two others, El Omayed and Allaqi, are biosphere reserves (EEAA 2008).

Ecotourism

The expanding tourism industry in Egypt is putting increasing pressure on the carrying capacity of several natural habitats and resources. In response, the government is actively promoting the development of ecotourism as a means for sustainable use of vulnerable habitats. Egypt's coastal resorts are among the fastest growing tourism developments in the world, with ecotourism options beginning to underpin the industry. Egypt's growing emphasis on ecotourism as a basis for long-term development has helped focus attention on biodiversity conservation. Additional priority action areas for Egypt's future conservation agenda include hunting management, invasive alien species, and regulation of resource use outside protected areas.

Climate Change

Status of Carbon Dioxide Emissions

In 2004, Egypt's total CO_2 emissions were about 158 million metric tons,[1] making the country's share of the world's total CO_2 emissions less than 1 percent, with per capita emissions equaling about 2.2 tons. Emissions in Egypt increased nearly 40 percent between 1996 and 2004, and are continuing to increase (EIA 2008, IAEA 2005). The main energy sources in Egypt are oil, natural gas, and—to a lesser extent—hydropower; coal, noncommercial fuels such as biomass, and wind and solar energy make only minor contributions. Faced with the need to secure reliable and affordable energy sources for the coming decades while maintaining growth, there is a national incentive to move toward a less greenhouse gas– (GHG-) intensive development path, by becoming more energy efficient and making greater use of the country's large renewable energy potential. The government has, in recent years, adopted several measures to promote efficient energy use,

[1]Data calculated in 2007 by the Carbon Dioxide Information Analysis Center; see http://mdgs.un.org/unsd/mdg/SeriesDetail.aspx?srid=749&crid= (accessed May 2010).

including reforming the electricity sector, introducing plans to reduce the energy subsidy, and approving a resolution to have 20 percent of installed electricity capacity come from renewable energy by 2020. In addition, Egypt's National Clean Development Mechanism (CDM) Strategy states that the country intends to reduce 8 million tons of CO_2 emissions annually by implementing CDM projects (EEAA 2003).

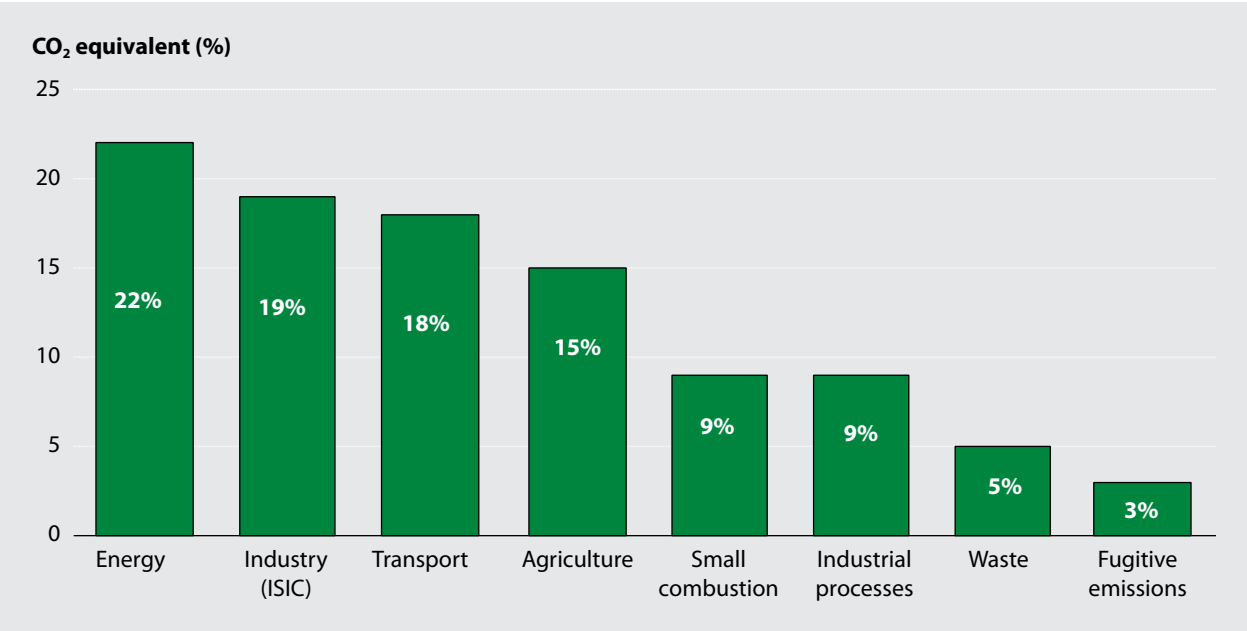
Main GHG Emitters

As shown in figure 3.3., the main contributors to GHG emissions in Egypt are fuel combustion in the energy sector (22 percent), in industry (19 percent), and in the transport sector (18 percent). Other important contributors are agriculture (15 percent), small combustion (9 percent), noncombustion emissions in industry (9 percent), and waste (5 percent). In total, energy-related sources are responsible for 71 percent of Egypt's GHG emissions (EEAA 2003). Analysis of future development of GHG emissions in Egypt indicates that they may reach more than three times the 1990 levels by 2017, with energy-related emissions remaining the major source.

Egypt's abundance of energy resources and historically low energy prices have led to greater per capita energy use than in other countries at a similar stage of economic development. Government forecasts indicate that total energy consumption will rise from 50.8 million tons of oil equivalent in 2001 to 82.7 million tons in 2010 (MEDNET n.d.). Moreover, the heavy energy price subsidy is constraining investment in the energy sector, while the potential for GHG reduction is not being properly exploited. Significant opportunities exist to reduce energy consumption and achieve reductions in GHG emissions by improving efficiency, reducing energy losses, developing renewable resources, and applying modern techniques of cogeneration.

Figure 3.3

Sector Percentage Share of Net GHG Emissions in Egypt, 1990/91



Source: EEAA 2003.

Climate Change Mitigation

Egypt's Initial National Communication (INC) to the United Nations Framework Convention on Climate Change (UNFCCC), prepared in 1999, outlines possible options for decreasing GHG emissions in the main contributing sectors. Mitigation measures include the following:

- **Industry sector:** energy conservation, waste heat recovery, fuel substitution, and efficient production and transmission of energy
- **Transport sector:** energy efficiency through vehicle maintenance, reintroducing electrified railways, extending the use of river transport, and further developing metro lines
- **Energy and power production sector:** improving energy efficiency, cleaner technologies, switching to natural gas combined cycle, and renewable energy use
- **Agricultural sector:** decreasing methane emissions from rice cultivation, decreasing methane and CO_2 emissions from livestock, and making use of high biomass-producing crops as sinks

Climate Change Vulnerability

According to the INC and the UNDP *Human Development Report 2006*, Egypt is highly vulnerable to climate change impacts, which may jeopardize the country's development gains. Egypt's most vulnerable sectors in this regard are coastal zones, water resources, and agriculture; one of the most serious threats the country faces is a sea level rise that would submerge areas of the Nile Delta and the coastal zone, and inflict serious damage on human settlements, agricultural lands, and industrial areas. It is estimated that a 0.5-meter sea level rise would lead to the permanent submersion of 1,800 square kilometers of cropland in the Nile Delta lowlands and increased soil salinity in the remaining lands. The economic losses are estimated at over $35 billion, which includes the loss of 30 percent of the total land area, some 195,000 jobs, and the relocation of more than 2 million people—all of which makes climate change a serious development concern for Egypt (OECD 2004).

Climate Change Adaptation

Because Egypt's scarce natural resources are highly vulnerable to climate change, anticipatory adaptation measures are necessary. General adaptation measures have already been incorporated in the development plans of some governorates, such as Alexandria, including land use changes, crop redistribution, drip irrigation, wastewater treatment and reuse, and law enforcement. Currently under discussion in Egypt is the introduction of strategic environmental assessments, which include a component on climate change adaptation, as a requirement for large-scale national projects. The need for capacity building on regional circulation models for predicting rainfall patterns and water availability and adaptation techniques has also been highlighted (El Raey n.d.).

International Waters

Freshwater Availability

Egypt is constrained by scarce freshwater resources; the Nile has a strict annual quota which results in a per capita share of 809 cubic meters per year. Water availability can be improved through reuse and by increasing efficiency-demand management. Total water withdrawals are 66 cubic kilometers: approximately 86 percent of the withdrawals from the Nile are for irrigation, 8 percent for domestic use, and 6 percent for industry (EoE 2008). Thus, water availability has a direct influence on national food security. Egypt is categorized as a high water stress area, in that it withdraws more than 40 percent of its available freshwater, and the Nile is its only surface source of renewable freshwater (Van Duinen 2007).

Surface Water Resources

Egypt has various inland water resources, all of which are part of the Nile River; these include six northern coastal lagoons opening to the Mediterranean Sea (Mariout, Edku, Burullus, Manzala, Port Fouad, and Bardawil) and two opening to the Suez Canal (Timsah and Bitter Lakes), two closed lakes (Qarun and Wadi Al Raiyan), and the large reservoir behind the Aswan High Dam (Lake Nasser). In addition, the Egyptian territory comprises several river basins including

- the Northern Interior Basin, covering 520,881 square kilometers or 52 percent of the country's total area, in the east and southeast;
- the Nile Basin, covering 326,751 square kilometers (33 percent), in a broad north-south strip;
- the Mediterranean Coast Basin, covering 65,568 square kilometers (6 percent);
- the Northeast Coast Basin, a narrow strip of 88,250 square kilometers along the Red Sea coast (8 percent) (FAO 2009).

The Nile Basin, which is shared by 10 countries, covers an area of about 3.3 million square kilometers and is 6,000 kilometers long (NBI 2009). Egypt lies at the downstream end of the basin. Because it receives hardly any rainfall, the country depends on the Nile for almost all its direct water requirements, including agriculture, domestic and industrial supplies, navigation, and tourism. The total annual discharge of the river at Aswan is about 84 billion cubic meters. Egypt's share of the Nile waters is 55.5 billion cubic meters per year, according to the 1959 Nile Waters Agreement between Egypt and Sudan (WL Delft Hydraulics n.d.).

Groundwater Resources

The second shared water resource in Egypt is the underground water in the Nubian Sandstone Aquifer. This is the world's largest fossil aquifer system, extending from the Western Desert in Egypt to Libya, Chad, and Sudan, covering about 2 million square kilometers. It has been estimated that the total quantity of water in the Nubian Aquifer amounts to 375,000 cubic kilometers, most of which is considered nonrenewable (IAEA n.d.). The annual natural discharge from the entire system is approximately 500 million cubic meters (Government of Egypt 2003). The volume of groundwater entering Egypt from Libya is estimated at 1 cubic kilometer per year, and internal renewable groundwater resources are estimated at 1.3 cubic kilometers per year, bringing total renewable groundwater resources in Egypt to 2.3 cubic kilometers annually. The total actual renewable water resources of the country amounts to 57.3 cubic kilometers per year (WRI 2003).

Marine Resources

Egypt is surrounded by two transboundary water bodies—the Mediterranean Sea and the Red Sea—with a total coastline of 2,400 kilometers; the coastal shelf area is 87,120 square kilometers. The coastal areas are composed of different development sites for tourism, fisheries, industry, and international trade. These are affected by degradation from maritime transport, oil and natural gas exploration and production in offshore areas, discharge of wastes from different land-based sources, dredging and dumping from near-shore construction activities, and leakage and discharge from boats and marine facilities. In 2005, the Egyptian marine-registered fishing fleet operating in the Mediterranean and Red Seas fishing grounds consisted of 4,383 powered vessels and 30,987 sailing and rowing boats used mainly in the River Nile and the lakes. The main fishing ground used by Egyptian vessels is the continental shelf off the Nile Delta, which may extend to the eastern side of Port Said and, rarely, to the western

side of Alexandria (El Alaily 2007). In 2000, Egypt's freshwater catch was 224,940 metric tons (WRI 2006), while aquaculture production amounted to 340,093 metric tons (WRI 2003).

Land Degradation

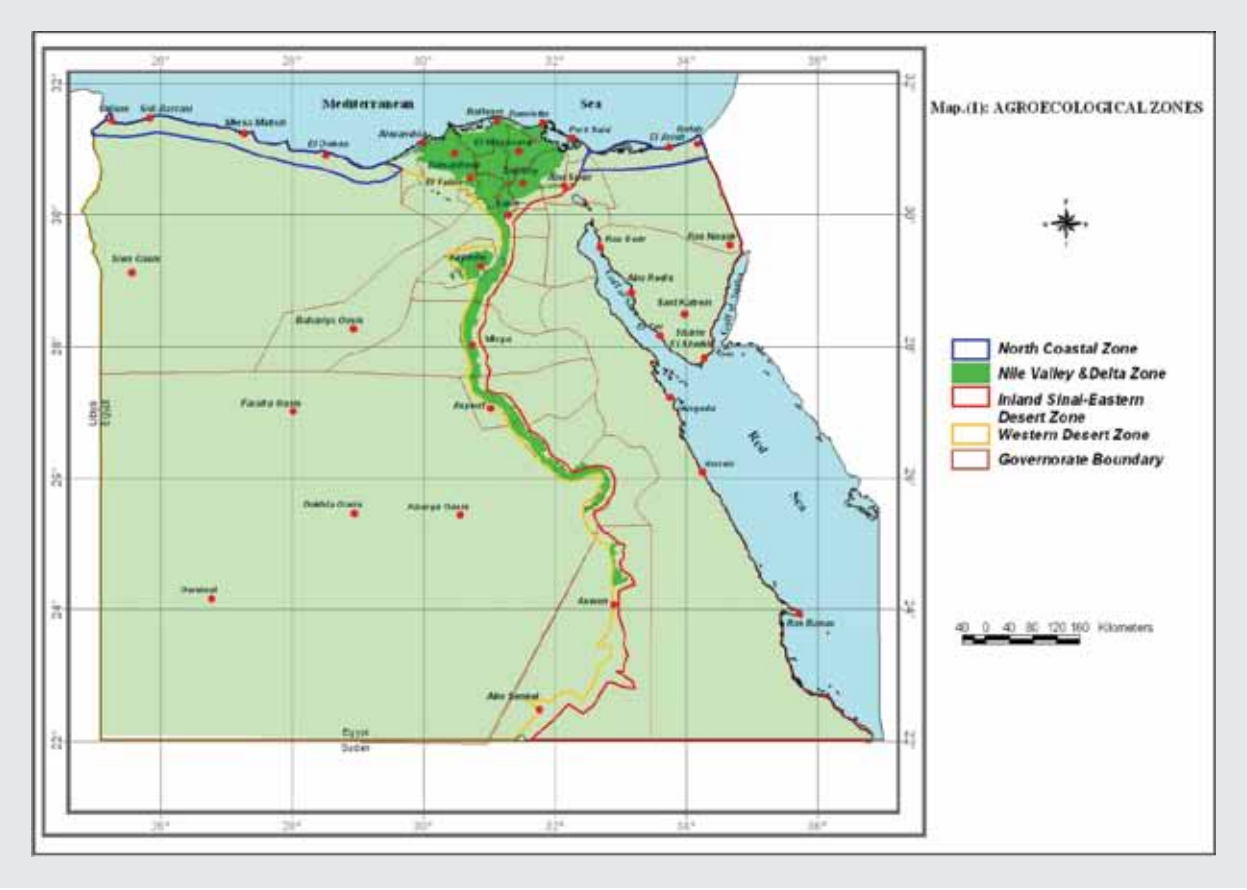
Land degradation and desertification are serious and far-reaching problems in Egypt. There are four distinct agro-ecological zones in Egypt (figure 3.4) with varied environmental attributes, including climate, geomorphology, soil and water properties, land use, management systems of available resources, and background of inhabitants and stakeholders. The four zones are as follows (Desert Research Center 2005):

- **North coastal.** These areas display the highest rainfall rates in Egypt (100–250 millimeters annually). Rangelands are the prevailing land-use pattern. Winter cereals and drought-resistant fruit and vegetables are cultivated, supported by rainwater harvesting. Two canals of mixed water (Nile and drainage) were recently introduced.
- **Nile Valley and Delta.** These areas demonstrate flat to low terracing topography. They are irrigated with Nile water, including 5.5 million feddan[2] of highly fertile alluvial soils, and 2.5 million feddan of recently reclaimed desert

[2]1 feddan = 4,200 square meters, or 0.42 hectares.

Figure 3.4

Agro-Ecological Zones in Egypt



Source: Desert Research Center 2005.

sandy, calcareous soils. This zone is the largest contributor of food and agro-industrial commodities in Egypt.

- **Inland Sinai and Eastern Desert.** This zone displays elevated lands dissected by dry valleys. Large water catchment areas with low and marginal rainfall combined with the topography cause floods of varying severity. Agricultural activities are limited to areas using groundwater. This is the major zone for oilfields and mineral ores.
- **Western Desert.** This zone comprises vast hyper-arid lands with a scattered number of oases depending on huge groundwater resources (for instance, the Nubian Aquifer). The zone hosts agricultural activities in the oases and new macro-reclamation projects of desert soils such as Tushka (Nile water) and East Owynate (groundwater).

Land degradation and desertification processes in Egypt are attributed to various factors, most of which are human induced, including overexploitation and mismanagement of available resources, urban encroachment, soil and water pollution, soil erosion by wind and water, and sand encroachment.

Overexploitation and mismanagement of available resources are among the major human-induced factors in land degradation:

- Overuse of irrigation water leads to salinization and sodicity of highly productive soils of the Old Nile Valley and newly reclaimed desert soils.
- Overuse of groundwater resources in the oases leads to water-logging of the limited soil resources with heavy losses of irrigation water.
- Overexploitation of rangelands in the coastal zone leads to a surpassing of the carrying capacity of the available range, which in turn causes overgrazing and the loss of plant cover and biodiversity.
- Overexploitation of newly reclaimed desert soils through cultivation of crops of high water and nutrient requirements leads to quick and serious degradation of reclaimed desert soils.

Urban encroachment is one of the major and serious land degradation factors in the Old Nile Valley, which results in sizable losses of highly fertile areas. Agricultural land that was once used for biomass production is transformed to accommodate residential settlements and infrastructure. In 2005, following the passage of new legislation regulating such expansion, urban encroachment on agricultural land dropped from 30,000 feddan a year to 5,000 feddan (EEAA 2006b).

Soil and water pollution originates from varied sources including overuse of agricultural chemicals, pesticides, sewage effluents, and industrial wastes, all of which reduce the productivity and quality of agricultural products. One of the main threats is sewage and agricultural drainage water containing fertilizers and pesticides being fed to the Nile, deteriorating the country's major source of irrigation water and adversely affecting irrigated lands.

Soil erosion by wind and water and sand encroachment are widespread processes in many areas of Egypt. The country's arid nature means that it is constantly threatened by wind erosion, which amplifies the desertification process—especially in the Eastern, Western, and Sinai Deserts, which are categorized as fragile habitats having very little vegetation and experiencing severe droughts. Some studies have concluded that the wind erosion rates in Egypt amount to 5.5 tons per hectare a year in the Western Desert oasis, and to 71–100 tons per hectare a year on the northwest coast (Wassif 2002). In addition, areas along the

north coast, Red Sea, Gulf of Aqaba, south Sinai, and some Eastern Desert valleys experience water erosion, which induces desertification. Sand dunes are also vulnerable to wind erosion and sedimentation.

The current use of agricultural land in Egypt is characterized as among the most intensive in the world, and the land is subjected to additional vegetation production inputs, such as irrigation, fertilization, and pesticides. These practices have resulted in an imbalance between production and land maintenance.

Persistent Organic Pollutants

Egypt makes substantial use of pesticides, insecticides, and herbicides for agricultural purposes. Because POPs circulate globally and can cause damage wherever they travel, the POPs used and emitted in Egypt are of global significance as well. POPs have toxic properties; resist degradation and bioaccumulation; and can be transported through air, water, and migratory species.

As in any developing country, chemicals are widely used in Egyptian industry, agriculture, trade, and health, and their use is growing as Egypt develops further as an industry-based economy. While agrochemicals and pharmaceuticals are regulated by quality control laws and periodic monitoring and registration schemes, the industrial chemicals used in various outlets have no strict control measures, which implies a lack of information on their toxicity and environmental impact.

The POPs used in Egypt are primarily organochlorine and cyclodiene pesticides used extensively to protect cash crops. The main hazard from these pesticides is that they are very persistent in the environment. Chlorinated hydrocarbons (such as DDT) are still in use in some rural agricultural areas, posing the threat of food contamination, as pesticides applied to crops in the field may remain on food surfaces or be incorporated into the plant.

By ratifying the Stockholm Convention, Egypt has agreed to reduce or eliminate the production, use, and release of 12 key POPs. The current status of POP pesticides, industrial chemicals, and unintended by-products is shown in table 3.3. There is, however, no integrated information on POPs currently available in Egypt. While a National Chemical Profile was prepared by the EEAA in 1999, it does not specifically address POPs beyond providing some information on pesticides' import and export. Alexandria has done preliminary work on establishing a pollutant release and transfer register for its governorate.

Egypt's laboratories are able to carry out residue analysis for crops, food, contaminated land, and so on. However, the country has major shortcomings with regard to managing unintentional POPs; promoting public awareness on chemical safety; providing up-to-date information on POPs; data collection and management and dissemination of data; monitoring of toxic chemicals and assessing their economic, social, and health impacts; introducing best available technologies and best environmental practices; and, especially, land remediation and right technology adoption for disposal of toxic and hazardous wastes.

3.3 Environmental Legal, Institutional, and Policy Framework

The main challenge facing Egyptian environmental policy is to manage the scarce common resources of water and cultivable land more effectively to meet the needs of a growing population that is placing enormous pressure on agricultural production and on nonrenewable and natural resources. In recent years, Egypt's environmental management capacity and performance have improved, but much remains to be addressed,

Table 3.3

Current Status of POPs in Egypt

Chemical	Status
DDT	Banned in 1996
Aldrin	Banned in 1996
Dieldrin	Banned in 1996
Chlordane	Banned in 1996
Endrin	Banned in 1996
Heptachlor	Banned in 1996
Hexachlorobenzene (HCB)	In use by industry; evaluation under way
Mirex	Banned in 1996
Toxaphene	Banned in 1996
Polychlorinated biphenyls (PCBs)	Banned in 1980; still found in numerous transformers and condensers manufactured between 1955 and 1977
Polychlorinated dibenzo-p-dioxins and dibenzofurans (PCDD/PCDF)	Measures are under way to control unintentional emissions

Source: EEAA 2005.

including the loss of agricultural land to urbanization; increasing soil salinization; desertification; oil pollution threatening coral reefs and marine habitats; water pollution from agricultural pesticides, sewage, and industrial effluents; and rapid population growth overstraining the River Nile.

Over the past two decades, Egypt's environmental legal, institutional, and policy framework—as well as its national capacity to tackle environmental challenges—has evolved considerably (table 3.4). This section summarizes key legislation and policies in each of the GEF focal areas; for more information, see GEF EO (2009a).

Framework for National Strategy on Sustainable Development

Aside from Egypt's five-year plans for socioeconomic development, which were launched in 1982 and do not explicitly address environmental protection, no comprehensive strategy has guided the country's efforts in the sustainable development field, which has resulted in a lack of coordination and coherence. In 2006, the government established a National Committee for Sustainable Development, headed by the minister of the Ministry of State for Environmental Affairs (MSEA); its mandate was to coordinate national efforts for sustainable development and ensure the inclusion of the environmental dimension in national development plans. The committee is currently developing a National Strategy for Sustainable Development (NSSD). In 2007, it launched Egypt's vision and framework for this strategy, which identifies priority issues and challenges to be addressed, as well as 20 long-term policy goals and guiding principles for their implementation. The document also lists policy tools for implementation and criteria for monitoring consistency of NSSD outputs, and outlines an approach to developing sustainable development indicators. The main areas identified for the policy goals include economic development and wealth creation; natural resources; environmental protection and nature conservation; and fairness in the distribution of wealth, access to services, and social inclusion. Each of the 20 policy goals has been assigned to one of five interministerial working groups

Table 3.4

Overview of Policy and Institutional Framework by Focal Area

Focal area	Policy /plan	Responsible institution/entity
Biodiversity	NBSAP (1998)	The Nature Conservation Sector was established in 1994 within the EEAA as the government body responsible for nature conservation, with one of its principal tasks being the management of Egypt's national protected area network. The sector plays an executive role in the implementation of Law 102/1983; it is also the national focal point for the CBD.
Climate change	• Climate Change Action Plan (1999) • INC (1999) • National Energy Efficiency Strategy (2000) • Egypt's Strategy on CDM (2003)	The EEAA is the national focal point for climate change agreements through its Climate Change Unit, which was established in 1999; it coordinates and follows up on climate change national strategies, policies, action plans, and activities in Egypt. A National Committee on Climate Change was formed by ministerial decree in 1997 to provide the institutional framework to facilitate UNFCCC implementation. Following Egypt's ratification of the Kyoto Protocol in 2005 and the increase in the Climate Change Unit's mandate, the unit is now being transformed into the Central Department for Industrial Improvement and Climate Change within the EEAA. The Supreme Council for Energy, headed by the prime minister, is mandated to revise national energy policies, including energy efficiency measures and incentives for renewable energy.
International waters		
Freshwater (Nile River, Nile Basin)	The NBI's Strategic Action Program, subprograms: the basinwide Shared Vision Program and Subsidiary Action Program	The Ministry of Water Resources and Irrigation (MWRI) is Egypt's primary representative in the NBI; the EEAA is responsible for the initiative's environmental component.
Groundwater (Nubian Aquifer)		In 1992, a joint authority was established between Egypt and the Libyan Arab Jamahiriya, subsequently joined by Chad and Sudan, to manage the Nubian Sandstone Aquifer. The responsibilities of this authority include: collecting and updating data, formulating plans for water resource development and utilization, implementing common groundwater management policies, training technical personnel, and rationing the aquifer waters. Specifications and permits for groundwater well drilling are the responsibility of the MWRI.
Marine (Mediterranean Sea, Red Sea)	• Mediterranean Action Plan • Action Plan for the Conservation of the Marine Environment and Coastal Areas in the Red Sea and Gulf of Aden (adopted in 1982, revised in 1999)	UNEP has served as the secretariat to the action plan since its adoption. The General Authority for Fish Resources Development, a subsidiary of the Ministry of Agriculture and Land Reclamation, is the agency responsible for all planning and control activities related to fish production.
Inland water resources	• Egypt Master Plan for Water Resources Development (1980) • Egyptian National Water Resources Plan (1990)	Policies for efficient allocation of water are drawn up and carried out by the MWRI, which also conducts periodic monitoring of water quality in Upper and Lower Egypt canals and waterways. The Ministry of Health and Population monitors water quality in major canals, while the MSEA plays a role in water quality protection by enforcing waste treatment for industrial enterprises and preventing their drainage into the waterways.
Land degradation	Egyptian National Action Program to Combat Desertification (2005)	A National Coordination Committee on Combating Desertification was formed in 2001, headed by the CEO of the EEAA, with the mandate of formulating and implementing the National Action Program for Combating Desertification. Later that year, the committee came under the chairmanship of the Ministry of Agriculture and Land Reclamation, which at this time also became the focal point for the United Nations Convention to Combat Desertification, while the Desert Research Center became the convention's implementing body. The Executive Authority for Land Improvement Projects is charged with initiating programs to improve the productivity of cultivated land.
POPs	NIP (2005)	Ministries responsible for enforcing POPs-related laws include the Ministries of Agriculture and Land Reclamation, Health and Population, Industry, and Manpower and Immigration.

established in 2006 and comprised of researchers and decision makers. When the preparatory steps of the NSSD process are completed, data collection and analysis toward assessing the existing baseline sustainability conditions will begin, along with a review of the existing policy framework.

Legislation and Key Cross-Cutting Policy

Legal Framework

Over the past four decades, Egypt has adopted a substantial number of laws and regulations addressing various aspects of environmental protection and management. While the legal framework still needs to be refined and complemented, the existing laws and regulations provide the government with an adequate legal authority for environmental planning, pollution prevention and control, and natural resource management. Implementation and enforcement of the regulatory framework have not been sufficiently effective, however, largely because of fragmented institutional responsibilities, poor coordination, and weak institutional structures and capacities (EcoConServ 2003).

The first comprehensive environment law in Egypt, Environmental Protection Law No. 4, was enacted in 1994, combining four separate existing laws pertaining to environmental management and land, air, and marine pollution. Law 4/1994 establishes a legal and policy framework that created the EEAA as an independent body endowed with a budget line and granted it the authority and responsibility to promote and protect the environment.[3] The law also created the Environmental Protection Fund, to finance environmental management activities, and addressed several significant gaps in the legal framework for environmental protection neglected by the earlier water pollution and waste management laws. The law authorizes the EEAA to regulate air pollution, control hazardous substances and waste management, and control discharges to marine waters; it also provides the EEAA with tools for implementing and enforcing these provisions, including traditional regulatory controls, economic instruments, environmental impact assessments and compliance monitoring, and inspection authorities. Amendments to Law 4/1994 were approved by the Egyptian Parliament in early 2009; these aimed to further strengthen environmental management in Egypt.

Additional relevant legislation pertaining to the GEF focal areas includes the following:

- Law 102/1983 provides the legal framework for the establishment and management of protected areas in Egypt.
- Law 48/1982 is the main instrument for water quality management, covering the protection of the River Nile and waterways from pollution from various sources.
- Law 12/1984 regulates irrigation, water distribution, and groundwater management in the Nile Valley and Delta, and the establishment and maintenance of drainage canals.
- Law 124/1983 regulates fisheries resources in Egypt, and describes technical measures for different fishing methods and minimum sizes for target species.
- Law 5/1966, amended in 1983, regulates the transfer of materials of agricultural soils to be used for nonagricultural purposes.
- Law 21/1958 sets rules for regulating industry in the production, handling, and import of industrial chemicals.

[3] The EEAA was established in 1982 and restructured in 1992 to address environmental issues in Egypt. In 1997, the Ministry of State for Environmental Affairs was created, and the EEAA became the ministry's technical arm.

- Law 874/1996 prohibits the use, import, handling, and preparation of potential carcinogenic pesticides.

Environmental Policy and Institutional Overview

The NEAP, developed in consultation with central and local public bodies and NGOs, was launched in 2002 and represents Egypt's agenda for environmental actions for the period 2002–17. It is designed to be one of the three entry points to a strategic coordinating framework for future environmental activities in support of sustainable development, and it complements and integrates sectoral plans for economic growth and social development. The NEAP provides the basis for developing local environmental initiatives, actions, and activities. It includes programs and projects that address water resources, air pollution, land, marine environment, solid waste management, biological diversity including biosafety, cultural heritage, desertification, and natural environmental hazards.[4]

Each NEAP program consists of three major components: information and monitoring, preventive and/or corrective measures, and supportive measures. The EEAA is responsible for most of the information and monitoring activities, as well as some supportive measures such as awareness and capacity building. Most of the corrective and preventive measures are intended to be included in the environmental plans of central and local agencies.

The most recent policy directives targeting the environmental sector were issued by the MSEA minister in 2004 (EEAA 2004), and can be summarized as follows:

- Strengthening partnership at the national level
- Supporting bilateral, regional, and multilateral environmental agreements
- Enforcing Law 4/1994 for environmental protection and Law 102/1983 for nature protection
- Supporting institutional strengthening and capacity building at central and local levels
- Supporting integrated environmental management systems
- Integrating the use of market-based instruments in the protection of the environment
- The transfer and adoption of environmentally friendly technologies

Relevant International Treaties and Protocols

Table 3.5 lists the conventions relevant to the GEF focal areas to which Egypt is a party.

Official Development Assistance

The Technical Cooperation Office for the Environment was established in 1992, with the support of a number of donor agencies. The office's mandate was, among other things, to collaborate with donor agencies in designing and preparing projects identified in the NEAP. Since the launch of the NEAP, Egypt has received assistance for environment-related activities from 19 international donor organizations. During the 1991–2001 period, the total amount of donor funds allocated to the environment reached nearly LE 2.4 billion (about $420 million). This amount is distributed among 51 environmental programs and projects, with multilateral assistance of LE 0.6 billion (about $150 million) and bilateral assistance of LE 1.8 billion (about $313 million) (World Bank 2005).

The seven largest donors during this period include the U.S. Agency for International Development (USAID), the Danish International

[4]Climate change is not included among the environmental challenges NEAP programs address, but is mentioned in a section on international cooperation.

Table 3.5

Relevant Conventions for GEF Focal Areas

Conventions by focal area	Year ratified	Effective date
Biodiversity		
UN Convention on Biological Diversity	1994	December 1992
Convention on International Trade in Endangered Species of Wild Flora and Fauna	1978	July 1975
Cartagena Biosafety Protocol	2004	September 2003
Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention)	1988	May 2000
Convention on the Conservation of Migratory Species of Wild Animals	1983	April 1986
Convention Concerning the Protection of World Cultural and Natural Heritage	1974	September 1982
Agreement on the Conservation on African-Eurasian Migratory Water Birds	1995	November 1999
Protocol Concerning Mediterranean Specially Protected Areas	1982	December 1999
African Convention on the Conservation of Nature and Natural Resources	1972	October 1969
Climate change		
UN Framework Convention on Climate Change	1994	June 1994
Kyoto Protocol	2005	February 2005
International waters		
Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter	Accession	February 2007
UN Law of the Sea Convention	1983	August 1983
Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention)	1978	February 1978, revised July 1995
Regional Convention for the Conservation of the Red Sea and Gulf of Aden (Jeddah Convention)	1982	1982
Ozone depletion		
Montreal Protocol: Protection of the Ozone Layer	1988	March 1993
Land degradation		
International Convention to Combat Desertification in Countries Experiencing Drought and/or Desertification Particularly in Africa	1995	June 1996
Persistent organic pollutants		
Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and Their Disposal	1993	October 1997
Stockholm Convention on Persistent Organic Pollutants	2003	May 2004

Development Agency, the World Bank, the Ozone Multilateral Fund in Montreal, Germany (through the German Agency for Technical Cooperation [GTZ] and KfW Entwicklungsbank), the GEF, and the Canadian International Development Agency, with the GEF being the sixth largest donor. Over 40 percent of this assistance was channeled through policy support and environmental management programs sponsored by USAID and the Danish International Development Agency. Industrial pollution abatement and air pollution accounted for 26 percent of the total; this was mainly provided through KfW and the World Bank.[5] Some

[5]This funding was in addition to GEF grants implemented through the World Bank.

90 percent of total environmental assistance was in the form of grants.

Support for environmental legal and regulatory capacity strengthening has been carried out in Egypt since the mid-1990s by the Danish International Development Agency, USAID, Italy, and the Japan International Cooperation Agency. International donors (USAID, European Union member states, the European Investment Bank, Japan, and the World Bank) have also allocated $2.3 billion for the water supply and sanitation, irrigation and drainage, and solid and hazardous waste management sectors. Donors have thus contributed to putting the environment on the government's agenda, in addition to building the environmental infrastructure and developing national and local capacity in major line ministries and within selected governorates (World Bank 2005).

GEF support to Egypt over the 1991–2008 period totals $87.87 million; SGP projects in Egypt have received $4.32 million over the same period. Chapter 6 further discusses GEF funding in the context of overall ODA to Egypt for the environment.

3.4 The GEF in Egypt

The GEF provides new and additional funding to cover the "incremental" costs associated with transforming a project with national benefits into one that achieves global environmental benefits in the focal areas of biodiversity, climate change, international waters, land degradation, and POPs, in accordance with their respective international conventions, protocols, and agreements.

UNDP, UNEP, and the World Bank were the three original Agencies implementing GEF projects; seven additional organizations have joined the GEF partnership over the years, namely the African Development Bank, the Asian Development Bank, the European Bank for Reconstruction and Development, the Food and Agriculture Organization of the United Nations (FAO), the Inter-American Development Bank, the International Fund for Agricultural Development (IFAD), and the United Nations Industrial Development Organization (UNIDO). The GEF Agencies have direct access to GEF funding through a memorandum of understanding with the GEF.

GEF support modalities include the following:

- **Full-size projects**—those with funding of more than $1 million
- **Medium-size projects**—those with funding of less than $1 million
- **Small grants**—those with funding of less than $50,000, directed at NGOs; small GEF grants are administered by the GEF SGP
- **Enabling activities,** which are intended to help countries meet their obligations under the various conventions the GEF services
- **Project preparation grants,** which were formerly known as project development facility (PDF) grants; these provide funding for the preparation and development of projects

The GEF officially began with a pilot phase taking place in 1991–94. This was followed by three regular four-year replenishment periods: GEF-1 (1995–98), GEF-2 (1999–2002), and GEF-3 (2003–06). GEF-4 was initiated in July 2006 and will continue until 2010. Through GEF-3, eligible GEF member countries submitted their requests through the various GEF Agencies on a demand basis. This practice was changed in GEF-4 with the introduction of the Resource Allocation Framework for two of the six focal areas (biodiversity and climate change).[6]

[6]More information about the RAF can be found at www.thegef.org.

The New GEF Project Cycle

Following an evaluation of the GEF project cycle conducted in 2006, which, among other findings, concluded that the GEF Activity Cycle was not sufficiently effective or efficient, the GEF Council and GEF CEO took steps to simplify the project approval process by consolidating the steps in the cycle and reducing the documentation requirements. PIFs can now be submitted on a rolling basis, accompanied by an endorsement from the national operational focal point. FSPs have to be endorsed by the CEO within 22 months from the date of Council approval of the work program; MSPs have to be granted CEO approval within 12 months of PIF approval. In addition to expediting the approval process, the new project cycle paves the way for more strategic programming of GEF resources and provides a more transparent decision-making process by posting all documents and decisions related to each PIF on the GEF Web site.

GEF-4 (2006–10) and the RAF

In September 2005, the GEF Council adopted the RAF, a system for allocating GEF resources to recipient countries for the biodiversity and climate change focal areas, to be implemented in GEF-4. Allocations are made individually, as a country allocation, or to a group of countries, as a group allocation, and are derived from the index assigned to each country based on its potential biodiversity and climate change global benefits and country performance. The objective of the RAF system is to allocate resources to countries in a transparent and consistent manner based on global environmental priorities and the relevance of country capacity, policies, and priorities. Funding allocations for the international waters, land degradation, POPs, and ozone focal areas are not subject to the RAF, but still function on a demand basis; it has not yet been decided whether these areas will become part of the RAF. Following the findings of the Midterm Review of the RAF (conducted by the GEF Evaluation Office in 2008) and donor negotiations for the fifth GEF replenishment (to be concluded in 2010), the RAF is likely to undergo changes.

The global significance of Egypt's biodiversity and its CO_2 emissions have been recognized through the application of the GEF Benefits Index under the RAF. Accordingly, Egypt has received an individual allocation for both biodiversity ($4.3 million) and climate change ($11.5 million) under GEF-4. Egypt's GEF Benefit Index rating for biodiversity is 21.5, which represents 0.3 percent of the total index share; its rating for climate change is 53139, which is 0.8 percent of the total share.

The GEF Focal Point Mechanism

Egypt has one GEF operational focal point and one political focal point. The operational focal point, the CEO of the EEAA, endorses project proposals proposed by the GEF National Steering Committee (see below), affirming that they are consistent with national plans and priorities. The operational focal point also ensures the effective engagement and coordination of stakeholders at the country level.

The political focal point, housed within the Ministry of Foreign Affairs, focuses primarily on governance issues and policies, and represents Egypt in the Conferences of Parties to the UNFCCC, the CBD, and the United Nations Convention to Combat Desertification (UNCCD); it does not, however, serve as the national focal point to the conventions.

The History of GEF Coordination in Egypt

In the 1990s, the Technical Cooperation Office for the Environment, as noted above, managed and coordinated donor-funded projects, including GEF projects. The office reviewed proposals

for donors, and it was—according to people interviewed for this evaluation—staffed by personnel possessing sufficient technical qualifications for this review and for ensuring compliance with GEF principles and operational programs. It was dissolved in 1998, and responsibility for the GEF portfolio moved to the Department for Multilateral Cooperation, later renamed the International Affairs Department.

However, roles and responsibilities regarding the preparation, design, and implementation of GEF projects were at that point not quite clear. Among other things, this meant that various technical departments approached the EEAA CEO directly with project proposals to be endorsed, without necessarily passing them through the International Affairs Department, resulting in confusion and inefficiency.

Thus, coordination of GEF support has changed hands over time, and institutionalizing GEF coordination has been rather challenging. Nevertheless, GEF projects in Egypt have been prepared and approved in all replenishment periods.

Establishment of the GEF National Steering Committee and the GEF Unit

In 2004, a decree calling for the establishment of a GEF National Steering Committee was drafted; this decree was approved by the current MSEA minister in 2006. Subsequent to its establishment, the committee requested the assistance of a technical secretariat to coordinate and support its activities. This task was assigned to the project management of the GEF National Capacity Self-Assessment for Environmental Management (NCSA) project, which performed this function until project completion at the end of 2007. The NCSA project management unit was subsequently transformed into the GEF Unit, established in January 2008 as a project output of the NCSA.

The **GEF Unit** is currently funded in part by the GEF-supported project "Mainstreaming Global Environment in National Plans and Policies by Strengthening the Monitoring and Reporting System for Multilateral Environmental Agreements" (GEF ID 3190). The unit was directly placed under the EEAA CEO, to ensure sustainability and facilitate communication with and coordination among stakeholders. The decision to place the unit directly under the CEO, and not under the International Affairs Department, stems not only from the prominence accorded the GEF, but also from the GEF's complexity in terms of both processes and substance.

The mandate of the GEF Unit is to maintain records of the GEF portfolio, support the initiation of project ideas, assist in project preparation in cooperation with the respective convention focal points and GEF Agencies, and consult and coordinate with stakeholders. Once a project is approved, it goes to the technical entity responsible for execution, ending the GEF Unit's involvement at the operational level. The unit subsequently participates in projects' midterm reviews.

Since the adoption of the RAF, the unit is also responsible for, in collaboration with the National Steering Committee, prioritizing the use of allocated resources based on the NEAP and sectoral plans and policies. Furthermore, the GEF operational focal point in Egypt is a constituency representative at the GEF Council, which entails additional work for the GEF Unit and the focal point. GEF involvement is also considered within the five-year plans prepared by the MSEA, and the ministry reports annually on this program, with relevant cofinancing for GEF projects being part of its budget.

The **GEF National Steering Committee** is made up of 18 representatives from the MSEA, the Ministry of Foreign Affairs, the Ministry of Water

Resources and Irrigation (MWRI), the Ministry of Electricity, and the Ministry of Agriculture, in addition to national experts in GEF focal areas (including the convention focal points) and representatives from UNDP, UNEP, the World Bank, and NGOs. The majority of members hold director-level positions, and the rest are experts in their respective fields. The committee is chaired by a former executive secretary of UNEP. Its mandate includes assessing previous and current GEF projects at the national level and developing a GEF country action plan, in consultation with relevant ministries that set country priorities and needs, including concept ideas and proposals. As a general rule, the committee meets every three months, as well as on a demand basis, and documents its deliberations in meeting minutes. Selection criteria for submitting proposals have been devised by the steering committee (box 3.1) and disseminated to relevant government entities, which has increased the rate of relevant project proposals submitted to the committee. Government agencies submit their proposals according to these criteria; the committee reviews the project proposals and selects the appropriate Implementing Agency according to its comparative advantage. The project proposals are endorsed by the committee, with an endorsement letter signed by the operational focal point for GEF pipeline entry. Project documents are signed by the executing agency, Implementing Agency, and Ministry of Foreign Affairs subsequent to GEF approval and before project start-up.

The **SGP** has its own steering committee, which includes representatives from the Ministry of Social Solidarity, NGOs, academia, the private sector, GEF Agencies, and the GEF Unit, as well as experts in the GEF focal areas. The SGP National Steering Committee has a supervisory and monitoring function, adopting all strategic decisions and playing an important role in monitoring and

Box 3.1

National Criteria for Selection of GEF Projects

Project proposals submitted for approval by Egypt's operational focal point should address the following:

- Identify the magnitude of the problem to address, as well as the number of people and areas affected or benefiting
- Ensure consistency with the NEAP and sectoral plans such as the Climate Change Action Plan, the NBSAP, the desertification action plan, and the NIP
- Generate global environmental benefits
- Provide concrete local benefits
- Show a potential for replication
- Ensure full participation of stakeholders in the design and implementation phases
- Develop an exit strategy as an integral part of the project to ensure its sustainability
- Provide an estimate of total project costs identifying the Egyptian contribution, including that of the private sector, the amount needed from the GEF as incremental cost, and the likelihood of the GEF contribution leveraging resources from other financing institutions
- Ensure that the project has positive impacts on one or more of the GEF thematic areas (mainstreaming concept)
- Develop environmental and social impact assessments for the proposed project
- Develop a clear monitoring and evaluation system with indicators to measure progress toward achieving project outputs
- Ensure a high likelihood for the success of the project

evaluation. It has three technical subcommittees on climate change, biodiversity, and international waters. These subcommittees meet to decide on new projects and occasionally give technical support to grantees. Given the large number of SGP projects in Egypt (approximately 220), the committee has developed a scheme to document approved and rejected projects.

4. The GEF Portfolio in Egypt

This chapter presents an overview of GEF support to Egypt. It summarizes the financial resources involved and examines projects by modality, focal area, Implementing Agency, national executing agency, and GEF replenishment period.

As in most GEF-eligible countries, there is no overarching plan or strategy guiding GEF support in Egypt. Consequently, the GEF country portfolio consists of a number of projects that were approved and implemented in relative isolation from each other.

4.1 Limitations of Portfolio Data at the Country Level

It is difficult to ascertain the actual allocation of GEF funding to any recipient country, as portfolios continue to develop and change through the months over which an evaluation is conducted. Moreover, it is particularly difficult to identify the regional and global allocations to a given country; this is further detailed below.

Egypt has a considerable portfolio of projects, which makes determining the actual allocations of GEF funding neither a minor nor a straightforward exercise. Database information is not consistent across the GEF Secretariat Web site, the Project Management Information System, or the GEF Agencies. GEF project listings from the recently established GEF Unit at the EEAA are also inconsistent when compared with the other sources. However, it was possible to assemble a comprehensive picture of the GEF portfolio by integrating all the available databases.

Egypt's portfolio is a young one in that it has only a small number of completed projects, with the majority having been recently approved or just commencing implementation. The portfolio consists of the full range of GEF grant modalities: enabling activities, MSPs, FSPs, the SGP, the Special Climate Change Fund (SCCF),[1] and funding for project preparation. This last type of funding has changed over time and includes the previously used mechanism of PDF grants (classified as either A, B, or C for grants up to $25,000, $350,000, or $1 million, respectively); and the currently used project preparation grants.

The implementation costs for regional and global projects are not readily available and are difficult to segregate. Because GEF grants are allocated for the entire regional or global project and not necessarily by country, some countries would have budgets allocated for the national components of the projects, whereas other countries would be included in regional or global activities funded

[1]The SCCF is a separate fund established under the UNFCCC in 2001; the GEF, as the entity that operates the financial mechanism, has been entrusted to operate it, which it does through the GEF Secretariat.

from the regional budget. In GEF-4, the grants for regional and global projects under the RAF are made up of specific country contributions.[2] However, a group of global programs, including the SGP and the SCCF, have clear national allocations. Funding from these programs is allocated according to phases that do not coincide with the GEF operational phases and are multifocal rather than by GEF focal area.

Given these limitations, the evaluation estimates that, as of the end of December 2008, Egypt had received about $87.87 million for national projects. In addition, the national component of the SGP had distributed $4.32 million, thus making the total amount Egypt had received at that point $92.19 million. These projects vary from relatively small investments for enabling activities to larger FSPs.

[2]With the introduction of the RAF, allocations for biodiversity and climate change projects are clearer, even with regard to regional and global projects, because the country must agree on an amount from its RAF allocations.

4.2 Projects in the GEF Egyptian Portfolio

Table 4.1 presents the GEF Egyptian portfolio—including national, regional, and global projects—in terms of number of projects by focal area, Implementing Agency, and modality. Table 4.2 shows GEF funding to national projects by modality. A listing of GEF support to 19 national, 17 regional, and 6 global completed, ongoing, or in pipeline projects, and to the SGP in Egypt as a whole, is shown in annex C; the annex also lists prepipeline, canceled, and dropped projects.

Figure 4.1 presents an overview of the support given by focal area throughout the GEF's involvement in Egypt from 1991 through 2008, covering all replenishment periods to date. The data shown in the figure do not include funding for the SGP or projects in the pipeline.

Table 4.3 summarizes the main objectives of GEF-supported activities in Egypt by focal area and modality; the remainder of this section details this summary of the portfolio by focal area. It is within this context that the evaluation has been conducted; impacts have been aggregated

Table 4.1

Projects in the GEF Egypt Portfolio

	Biodiversity			Climate change			International waters			Land degradation			POPs			Multifocal			
Agency	EA	MSP	FSP	EA	MSP	FSP	EA	MSP	FSP	EA	MSP	FSP	EA	MSP	FSP	EA	MSP	FSP	Total
UNDP			2N 2R	2N	1N	3N 1R		1N 2R	1N 2R 1G							1N	1N		**20**
UNEP	3N 3G	1N 1G							1R						1R			1R	**11**
UNIDO													1N	1R					**2**
World Bank			1N			1N 1R			2R								1R	2R	**8**
IFAD											1R								**1**
Total	**6**	**2**	**5**	**2**	**1**	**6**	**0**	**3**	**7**	**0**	**1**	**0**	**1**	**1**	**1**	**1**	**2**	**3**	**42**

Note: EA = enabling activity; G = global; N = national; R = regional.

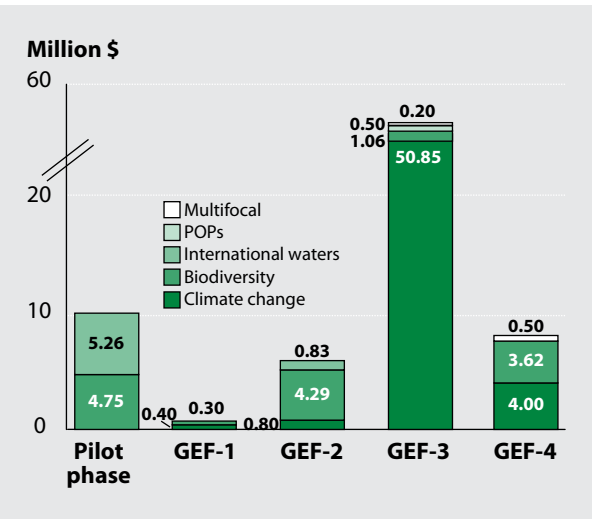
Table 4.2

GEF Funding by Project Modality

Project modality	Total (million $)
Enabling activities	1.60
MSPs	2.99
FSPs	83.28
Total	**87.87**

Figure 4.1

Distribution of GEF Funding to Focal Areas across GEF Phases



and outcomes identified (these are outlined in chapter 5).

Portfolio by Focal Area and Project Status

Biodiversity

The majority of projects in Egypt's GEF portfolio are in the biodiversity focal area: nine completed projects, three ongoing, one in pipeline, and 1one dropped. Biodiversity is one of the GEF's earliest focal areas, which explains its prominence in Egypt, which has participated with the GEF since its inception. More enabling activities have taken place in biodiversity (six) than in any other focal area. The biodiversity portfolio has targeted all of the GEF's long-term strategic objectives, including catalyzing the sustainability of protected area systems, mainstreaming biodiversity in production landscapes/seascapes and sectors, safeguarding biodiversity, and building capacity with regard to access and benefit sharing. This scope implies that the range of the portfolio is extensive, with resources and projects aimed at addressing each of these GEF strategic objectives.

Among the three **completed MSPs and FSPs**, "Red Sea Coastal and Marine Resource Management" (GEF ID 66, implemented by the World Bank) aimed at protecting biodiversity, particularly coral reefs, endemic island wildlife, and diverse marine environments; and preventing pollution in the Red Sea. "Conservation of Wetland and Coastal Ecosystems in the Mediterranean Region" (MedWetCoast, GEF ID 410, implemented by UNDP) sought to conserve globally endangered species and their habitats, as well as improve the capacity of relevant agencies to address biodiversity conservation issues. The objective of "Promoting Best Practices for Conservation and Sustainable Use of Biodiversity of Global Significance in Arid and Semi-Arid Zones" (GEF ID 23, implemented by UNEP) was to identify and disseminate best practices for biodiversity conservation in arid and semi-arid ecosystems. This last was a global project without a national component, but with some activities in Egypt.

The three **enabling activities** focused on building capacity to support the objectives of the Convention on Biological Diversity by preparing the first National Communication to the CBD and the NBSAP, updating the National Biodiversity Clearing-House Mechanism, and assessing capacity-building needs in biodiversity management and conservation in Egypt.

Regarding the three **projects under implementation**, "Conservation and Sustainable Use of Medicinal Plants in Arid and Semi-Arid Ecosystems"

Table 4.3

Main Objectives of GEF-Supported Activities in Egypt by Focal Area and Modality

Focal area	FSP	MSP	Enabling activity	SGP
Biodiversity	• Protection and management of wetland sites • Protection of coastal and marine resources • Conservation and sustainable use of medicinal plants • Mainstreaming conservation of migratory birds • Strengthening protected area financing • Research, training	• National biosafety law • Identifying and disseminating best practices for conserving and sustainably using biodiversity of global significance in arid and semi-arid ecosystems	• NBSAP • First National Report to the CBD • Biodiversity Clearing-House Mechanism • Assessment of capacity-building needs	• Field research and species conservation • Awareness raising, training
Climate change	• Removing barriers to energy conservation and efficiency • Reducing long-term costs of low-GHG-emitting technologies • Promoting adoption of renewable energy • Adaptation to climate change	• Promoting environmentally sustainable transport	• Supporting national communications to the UNFCCC • Capacity building in priority areas	• Sustainable transport • Bioenergy • Capacity building and awareness raising
International waters	• Improving coastal and marine environments of the Red Sea and Gulf of Aden through activities under the SAP • Fostering multistate cooperation on priority water concerns • Determining priority actions in implementing the SAP for the Mediterranean Sea • Demonstrating the effectiveness of engineered wetlands • ICZM Plan	• Integrating renewable groundwater resources into national water budget in arid regions • Developing framework for sustainable management and use of the Nubian Aquifer system • Integrating groundwater considerations in the Nile Basin		
POPs	Demonstrating sustainable alternatives to DDT and strengthening national vector control capabilities		NIP	
Multifocal		Mainstreaming the global environment in national plans by strengthening monitoring and reporting for multilateral environmental agreements	NCSA for environmental management	

(GEF ID 776, implemented by UNDP) aims to ensure conservation and sustainable use of globally significant medicinal plant biodiversity in St. Katherine's Protectorate. "Support the Implementation of the National Biosafety Framework" (GEF ID 2824, implemented by UNEP) involves implementing the objectives of the Cartagena Protocol on Biosafety by, among other things, preparing a functional regulatory regime. "Mainstreaming Conservation of Migratory Soaring Birds into

Key Productive Sectors along the Rift Valley/ Red Sea Flyway" (GEF ID 1028, implemented by UNDP) seeks to ensure that globally threatened and significant soaring birds that migrate along the Rift Valley and across the Red Sea are effectively maintained.

In the pipeline, "Strengthening Protected Area Financing and Management Systems" (GEF ID 3209, implemented by UNDP), with its preparatory phase under way, aims to establish a comprehensive, ecologically representative, and effectively managed national protected area system in Egypt.

Climate Change

Egypt has participated in 12 climate change projects, most of which address mitigation and one—funded by the SCCF—addressing adaptation. Of these 12, 4 have been completed, 5 are either ongoing or in the pipeline, 1 is prepipeline,[3] and 1 each has been canceled or dropped; 10 are national projects, 1 is regional, and 1 is global.

Of the four **completed projects**, all of which were implemented by UNDP, two are enabling activities supporting national communications to the UNFCCC: "Building Capacity for GHG Inventory and Action Plans in Response to UNFCCC Communications Obligations" (GEF ID 282) and "Climate Change Enabling Activity (Additional Financing for Capacity Building in Priority Areas)" (GEF ID 827). The former project promoted technical assistance and capacity building in Egypt through the enhancement of institutional networks, development of GHG inventory assessments, training of personnel, establishment of policy dialogues, evaluation of climate change mitigation initiatives, review of climate change impacts, and project proposal development. The latter—which is considered the former's second phase and involved implementation of some of the results of the INC—aimed at establishing, broadening, and strengthening climate change institutions to assess technology needs and design, evaluate, and host projects.

One national MSP was completed: "Introduction of Viable Electric and Hybrid-Electric Bus Technology" (GEF ID 31). It sought to reduce GHG emissions by introducing a viable program for replacing diesel buses with electric, hybrid-electric, and, as applicable, fuel cell buses in historic sites, protectorates, and newly designed cities in Egypt.

Due to its limited regional coverage (just Egypt and the Palestinian Authority), the completed FSP "Energy Efficiency Improvement and Greenhouse Gas Reductions" (GEF ID 267) was regarded by Egypt as essentially a national project. It aimed to remove technical, institutional, financial, and cultural barriers to energy conservation and efficiency; its global environmental objective was to reduce GHG emissions through increased efficiency in electricity transmission and the expanded use of cogeneration to supply power to the national electricity grid.

One global and four national projects have begun or are **about to start**. Most notably, the World Bank–implemented "Solar Thermal Hybrid Project" (GEF ID 1040), which at $50.85 million accounts for the largest GEF grant in the Egyptian portfolio, started implementation almost one year ago. The other three national projects are UNDP FSPs: "Bioenergy for Sustainable Rural Development" (GEF ID 1335), "Sustainable Transport" (GEF ID 2776), and "Adaptation to Climate Change in the Nile Delta through Integrated Coastal Zone Management" (GEF ID 3242); the latter is the first project in Egypt to be financed from the SCCF. The

[3] "Industrial Energy Efficiency" (GEF ID 3742, to be implemented by UNIDO).

global project, "Fuel Cells Financing Initiative for Distributed Generation Applications (Phase 1)" (GEF ID 1685, implemented by the World Bank and executed by the International Finance Corporation), seeks to promote fuel cell technology in GEF-eligible countries through three demonstration projects; it is not clear at this point if the project will make a contribution to Egypt.

There is a noticeable spread of projects in the climate change focal area among several operational programs and GEF strategic priorities, which indicates that results among all operational programs and GEF strategic priorities can be expected.

International Waters

The international waters portfolio in Egypt is substantive, comprising 11 projects; when relevant initiatives in the multifocal and biodiversity areas are added to these, the portfolio encompasses 15 projects in all. This breadth makes for a useful opportunity to look at the achievements and shortcomings of a large number of national, regional, and global projects in the international waters focal area from a country perspective.

Aside from two one-off pilot demonstration projects implemented by UNDP—"Lake Manzala Engineered Wetlands" (GEF ID 395) and "Developing Renewable Groundwater Resources in Arid Lands: A Pilot Case—The Eastern Desert of Egypt" (GEF ID 985)—the GEF's international waters projects are divided into four strategic and geographical clusters: the Red Sea, the Nile Basin, the Nubian Aquifer, and the Mediterranean Sea. Most projects that have been implemented to date involve the Nile Basin and the Mediterranean Sea; most establish the groundwork and lay the foundation for future project investments.

Four projects particularly contributed to an in-depth review of impacts and outcomes of the Egyptian international waters portfolio. Two of these, the demonstration projects mentioned above, are national projects: the Lake Manzala effort is a completed FSP; the groundwater project is an ongoing MSP. Both projects aim to balance overuse and conflicting uses of water resources in surface and groundwater basins that are transboundary in nature, with Lake Manzala also aligned to the nutrient reduction strategic priority.

The other two key projects are ongoing regional FSPs with national components: namely the two phases of the "Nile Transboundary Environmental Action Project" (NTEAP), the first of which (GEF ID 1094) is implemented jointly by the World Bank and UNDP, and the second of which (GEF ID 2584) is a recently CEO-endorsed UNDP project.[4] In its entirety, the NTEAP is a $43.6 million multidonor regional effort, covering nine Nile Basin countries and executed by the Nile Basin Initiative Secretariat. It aims at achieving socioeconomic development through equitable utilization of Nile Basin resources. Its development objectives are to

- enhance analytic capacity for a basinwide perspective to support the sustainable development, management, and protection of the Nile Basin water;
- engage the full spectrum of stakeholders, from local communities to top national policy makers, from elementary schools to universities, and from NGOs to line ministries.

There is another national project, the MSP "Mainstreaming Groundwater Considerations in the Integrated Management of the Nile River Basin" (GEF ID 3321, implemented by UNDP), that is

[4]The NTEAP was initially one project, but was divided into two phases because of a shortage of funds on the part of the GEF Trustee at the time of submission. While all the World Bank components were fully funded from the initial GEF allocation, the UNDP components required a second submission to the GEF.

also currently under implementation. It focuses on the Nile's water and groundwater, reinforcing the fact that this is the most important water body in Egypt.

Several completed regional projects that were executed over the years with no or limited national components in Egypt are here reviewed and discussed insofar as they are relevant to results on the outcome and impact level in Egypt. These include "Implementation of the Strategic Action Programme (SAP) for the Red Sea and Gulf of Aden" (GEF ID 340, implemented by UNDP), which was executed by the PERSGA and has—among other activities—established the Marine Emergency Mutual Aid Centre (MEMAC), which now employs five staff members and operates on member fees; and "Determination of Priority Actions for the Further Elaboration and Implementation of the Strategic Action Programme for the Mediterranean Sea" (GEF ID 461, implemented by UNEP), which builds on the Mediterranean SAP adopted by the parties to the Barcelona Convention.

Ongoing projects with a national component in Egypt pertain to the NTEAP, and the NTEAP itself is one of eight regional capacity-building projects executed through the Shared Vision Program financed under the NBI umbrella. This program aims to achieve sustainable socioeconomic development through the equitable utilization of, and benefit from, the common Nile Basin water resources (NBI 2001, figure 1). Four of the NBI projects, including the NTEAP, are thematic and address environmental management, power trade, water use in agriculture, and water resource management. The other four projects build stakeholder confidence, train stakeholders, and promote socioeconomic development. Since the NTEAP is the first of both families of projects to be implemented and since the environment is central to the concerns of all the projects, it plays an important role in the development strategy for the Nile Basin.

Other ongoing projects in the international waters area include the regional initiative "Formulation of an Action Programme for the Integrated Management of the Shared Nubian Aquifer" (GEF ID 2020, implemented by UNDP) and the global project "Building Partnerships to Assist Developing Countries to Reduce the Transfer of Harmful Aquatic Organisms in Ships' Ballast Water" (GloBallast Partnerships; GEF ID 2261, implemented by UNDP). Prepipeline is the "Alexandria Integrated Coastal Zone Management Project"; Alexandria was identified as one of the hotspots eligible for funding from the World Bank–GEF Investment Fund for the Large Marine Ecosystem Partnership.

A quick glance at Egypt's regional and global portfolio reveals a significant number of international waters projects; but with few national activities and no specific budget allocation, the country has not achieved tangible environmental benefits from these projects. These projects have revolved around developing SAPs, fostering regional collaboration, determining priority actions, and formulating action plans. Thus, Egypt's involvement to date has been in the form of collaboration and dialogue: participating in workshops, stakeholder consultations, and working groups. The establishment of these regional frameworks and action plans has benefited Egypt indirectly; once these plans and programs are in place, with visible activities linked to in-country components, there is a good chance that Egypt will benefit still further from GEF support in this focal area. Moreover, these regional international waters projects have facilitated strategic meetings of neighboring countries. The Nubian Aquifer project, which involves Chad, Egypt, Libya, and Sudan, is an example of

a project where GEF support has contributed to countries gathering to initiate a dialogue that might otherwise not have taken place.

POPs

Egypt has received GEF support for three POPs project—one national enabling activity and two recently approved regional projects. Since the latter two lack a national component, their evaluation does not fall within the scope of this CPE.[5] The objective of the remaining project, "Enabling Activities to Facilitate Early Action on the Implementation of the Stockholm Convention on Persistent Organic Pollutants in Egypt" (GEF ID 1497, implemented by UNIDO) was to develop a NIP and thereby strengthen national capacity and enhance knowledge and understanding among decision makers and the public at large regarding POPs.

Land Degradation

Only a limited number of GEF projects address land degradation in Egypt, and all but one of these are multifocal. The GEF's only "pure" land degradation project that includes Egypt is the regional MENARID project (GEF ID 2628, implemented by IFAD), which addresses cross-cutting monitoring and evaluation functions and knowledge management for integrated natural resource management within a program framework for the Middle East and North Africa region. In May 2008, a project preparation grant was approved for the in-pipeline MENARID project. A national project for Egypt under MENARID was planned, but nothing had yet transpired at the time of this evaluation.

Multifocal

The portfolio includes six multifocal projects, two of which are national and four regional. Since the latter do not have a national component, they are not included in this evaluation.[6] The two projects that are included address biodiversity, climate change, and land degradation. The first of these has been completed; this is the "NCSA for Environmental Management" enabling activity (GEF ID 2200, implemented by UNDP), which was aimed at developing capacity in priority areas for more effective, efficient, and sustainable implementation of the three Rio Conventions (the UNFCCC, the CBD, and the UNCCD) in Egypt. The second, "Mainstreaming Global Environment in National Plans and Policies by Strengthening the Monitoring and Reporting System for Multilateral Environmental Agreements" (GEF ID 3190, implemented by UNDP), is still under implementation.

Canceled and Dropped Projects

A project can be dropped while in the pipeline before it becomes effective. Once the project has become effective and disbursement to it has been

[5]These two projects are "Demonstration of Sustainable Alternatives to DDT and Strengthening of National Vector Control Capabilities in Middle East and North Africa" (GEF ID 2546, implemented by UNEP) and "Promotion of Strategies to Reduce Unintentional Production of POPs in the PERSGA Region" (GEF ID 2865, implemented by UNIDO).

[6]These projects are "Climate, Water, and Agriculture: Impacts on and Adaptation of Agro-Ecological Systems in Africa" (GEF ID 1394, implemented by the World Bank), "Strategic Partnership for the Mediterranean Large Marine Ecosystem–Regional Component: Implementation of Agreed Actions for the Protection of the Environmental Resources of the Mediterranean Sea and Its Coastal Areas" (GEF ID 2600, implemented by UNEP), "World Bank–GEF Investment Fund for the Mediterranean Sea Large Marine Ecosystem Partnership, Tranche 1, 1st Allocation" (GEF ID 2601, implemented by the World Bank), and "SIP-Eastern Nile Transboundary Watershed Management in Support of ENSAP Implementation" (GEF ID 3398, implemented by the World Bank).

made, termination is referred to as cancellation. Four projects in the Egyptian portfolio have been either dropped or canceled over the years, as described below:

- The "Second Matrouh Resource Management Project" (GEF ID 1213, to be implemented by the World Bank) was a multifocal initiative covering biodiversity and climate change. Its objective was to help reduce rural poverty in Egypt's northwest coastal zone through sustainable, community-driven development and natural resource management. Project financing was to be provided through an International Bank for Reconstruction and Development loan of $12.35 million and a GEF grant of $5.17 million, as the first fully blended operation in the Middle East and North Africa region. Within the overall framework of integrated resource management, GEF support was to address the global environmental concerns in day-to-day management of resources, as well as mainstream environmental dimensions into the overall planning and implementation of development activities in the area. After much deliberation, the government decided in December 2004 to cancel the loan as its criteria for borrowing funds had changed; accordingly, the entire project—including the GEF funding component—was dropped.
- The "Fuel Cell Bus Demonstration Project in Cairo, Phase I" project (GEF ID 926, to be implemented by UNDP) was part of the GEF Strategy to Develop Fuel Cell Buses for the Developing World—an initiative to be implemented in staggered fashion, so as to facilitate lessons learned, in the five most polluted cities in Brazil, China, Egypt, India, and Mexico. The strategy envisions rapid commercialization and implementation of fuel cell bus technology following on from increased research and development encouraged by the initiative. The Egypt project was canceled, however, when key stakeholders, including international manufacturers, lost interest because of the technological and economic constraints associated with the technology; in addition, no cofinancing was forthcoming to complement the GEF grant. The project was in Egypt's portfolio for more than four years (March 2001–July 2005), tying up the allocated funds and preventing Egypt from applying for other projects. The funds were later reallocated to the "Sustainable Transport" project, which is now ongoing.
- After five years of preparation and fits and starts, it was decided that "Conservation of Biodiversity and Ecosystem Management in a Sample of Representative Islands of the Nile Valley of Egypt" (GEF ID 1504, to be implemented by UNDP) would be a demonstration site for a regional GEF project. While the Nile Islands project fit perfectly into national priorities as a fragile ecosystem, it was discovered that the islands' plants were common to all Nile countries and not globally significant species. Extensive research was carried out to justify global significance, but this effort failed. Since the GEF was primarily interested in pursuing global environmental benefits rather than national priorities, the project was dropped in 2005.
- "Private Sector Wind Power Development" (GEF ID 1076, to be implemented by the World Bank) sought to diversify energy supply, reduce GHGs and local and regional air pollution, and develop a sustainable wind industry. The project involved the introduction and execution of a market mechanism that would have required a regulatory framework to buy wind-generated electricity at a market-determined price on a competitive basis; the assistance would be tailored to support policy, regulatory, and market development for the dissemination of this key

renewable energy technology. After the project had been approved by the GEF Council, the Ministry of Electricity and Energy—whose New and Renewable Energy Authority was to have executed the project—dropped it, claiming the World Bank had imposed too much conditionality and that conditions would be more favorable for private sector wind power projects funded by Japanese and German banks.

Portfolio by GEF Phase

The first GEF projects in Egypt were two FSPs funded for a total of $10.01 million during the GEF **pilot phase**: a World Bank project in biodiversity ("Red Sea Coastal and Marine Resource Management," $4.75 million) and a UNDP project in international waters ("Lake Manzala Engineered Wetlands," $5.26 million).

GEF-1 consisted entirely of enabling activities, with UNEP taking on two such activities in the biodiversity area to initiate the NBSAP and the First (of four to date) National Report to the CBD; it also performed a Clearing-House Mechanism enabling activity. UNDP implemented a climate change enabling activity that resulted in the preparation of the initial National Communication related to that convention.

In **GEF-2**, UNDP implemented three MSPs and FSPs totaling $5.91 million in the three most prominent focal areas in Egypt: biodiversity ("Conservation and Sustainable Use of Medicinal Plants in Arid and Semi-Arid Ecosystems"), climate change ("Introduction of Viable Electric and Hybrid-Electric Bus Technology"), and international waters ("Developing Renewable Groundwater Resources in Arid Lands"). It also conducted a climate change enabling activity involving additional financing for capacity building in priority areas for the intersessional period between the Initial and Second National Communications.

GEF-3 witnessed the approval of Egypt's largest GEF-supported project, the $50.85 million "Solar Thermal Hybrid Project." GEF-3 funds also went to UNEP's first MSP in Egypt, which supports implementation of the National Biosafety Framework; two UNDP climate change initiatives ("Bioenergy for Sustainable Rural Development" and "Sustainable Transport"); and several enabling activities: to UNIDO in the POPs area, to UNDP for the NCSA, and to UNEP for "Assessment of Capacity-Building Needs in Country-Specific Priorities in Biodiversity Management and Conservation in Egypt."

GEF-4 is characterized by the introduction of the RAF allocations for biodiversity and climate change, under which Egypt has received individual allocations of $4.3 million and $11.8 million, respectively; these represent considerable allocations. Table 4.4 presents a breakdown of Egypt's use of its allocations for biodiversity and climate change under the RAF. Note that at the country level, all RAF funds have been allocated, but all projects are not yet officially approved, as the last row of table 4.4 shows.

Table 4.4

RAF Allocation and Use as of December 30, 2008
Million $

Allocation/use	Biodiversity	Climate change
GEF-4 indicative allocation	4.30	11.80
Allocation used		
Grants	3.77	0.19
Agency fee	0.37	0.01
PIFs cleared by CEO awaiting approval		
Proposed grants	0.00	3.95
Proposed Agency fee	0.00	0.40
Allocations remaining to be programmed	0.16	7.26

As in GEF-2, the projects approved under GEF-4 are all implemented by UNDP. Two FSPs are about to start up: "Strengthening Protected Area Financing and Management Systems" in the biodiversity focal area and "Adaptation to Climate Change in the Nile Delta through Integrated Coastal Zone Management." No projects in non-RAF focal areas have been introduced in this phase, with the exception of the mainstreaming the global environment project, which stems from the NCSA finalized in GEF-3.

4.3 Allocation by Focal Area

By number of projects, climate change and biodiversity account for 74 percent of all projects in the national portfolio, making them the largest focal areas with seven projects each. GEF support for climate change is, however, on the order of 4.75 times more than that for biodiversity. In fact, climate change accounts for 76 percent of total funding of the national portfolio, followed by biodiversity with 16 percent and international waters with 7 percent. The POPs and multifocal areas together account for 16 percent of the projects in the portfolio, and a little over 1 percent of the funding. There are no land degradation projects in the national portfolio, and no national activities have yet been undertaken in the regional MENARID project. Table 4.5 presents GEF funding by focal area.

Table 4.5

GEF Support to National Projects in Egypt by Focal Area, 1991 through GEF-4

Focal area	Million $	% of total
Biodiversity	14.01	16
Climate change	66.57	76
International waters	6.09	7
POPs	0.50	1
Multifocal	0.70	1
Total	**87.87**	**100**

4.4 Project Status

About 42 percent of the funding allocated to Egypt from 1991 through GEF-4 has been allocated to projects that are now completed (table 4.6); half of these completed projects are in the biodiversity focal area. At least one project each in biodiversity, climate change, international waters, and POPs has been completed. Two FSPs have been completed in biodiversity and international waters; the remainder of the completed projects are enabling activities. Most of the remaining funding is for projects that are either ongoing or will be beginning implementation soon. There are two prepipeline projects: the World Bank's Alexandria ICZM initiative in the international waters area, and UNIDO's "Industrial Energy Efficiency" project in the climate change area.

Table 4.6

GEF Support to National Projects in Egypt by Status and Focal Area, 1991 through GEF-4
Million $

Focal area	Completed	Under implementation	In pipeline	Total
Biodiversity	5.20	5.20	3.62	**14.01**
Climate change	1.20	50.85	14.52	**66.57**
Int'l waters	5.26	0.83	n.a.	**6.09**
POPs	0.50	n.a.	n.a.	**0.50**
Multifocal	0.20	n.a.	0.50	**0.70**
Total	**12.36**	**56.88**	**18.64**	**87.87**

Note: n.a. = not applicable.

4.5 Allocation by GEF Agency

UNDP and the World Bank are the primary GEF Implementing Agencies in Egypt, with UNDP's funding allocation amounting to almost 35 percent; the World Bank, even though its portfolio includes only two projects, has an allocation almost double UNDP's and accounting for about 63 percent of total GEF support (table 4.7). The

Table 4.7

GEF Support to National Projects in Egypt by Focal Area and Agency, 1991 through GEF-4
Million $

Focal area	UNDP	UNEP	UNIDO	World Bank	Total	% of total
Biodiversity	7.90	1.36	n.a.	4.75	**14.01**	15.9
Climate change	15.72	n.a.	n.a.	50.85	**66.57**	75.8
International waters	6.09	n.a.	n.a.	n.a.	**6.09**	6.9
POPs	n.a.	n.a.	0.50	n.a.	**0.50**	0.6
Multifocal	0.70	n.a.	n.a.	n.a.	**0.70**	0.8
Total	**30.41**	**1.36**	**0.50**	**55.60**	**87.87**	**100.0**
% of total	34.6	1.5	0.5	63.3	**100.00**	**100.0**

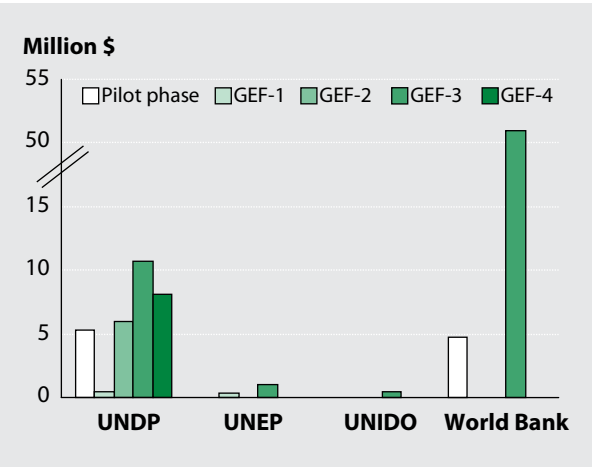
Note: n.a. = not applicable.

"Solar Thermal Hybrid Project" accounts for 91 percent of the World Bank's portion of GEF funds in Egypt, or $50.85 million. UNEP has been involved with biodiversity projects only, and has been primarily responsible for enabling activities. In GEF-3, UNEP started supporting implementation of an MSP pertaining to the National Biosafety Framework. Also in GEF-3, UNIDO contributed to the POPs focal area through an enabling activity.

Figure 4.2 shows GEF support by Agency and replenishment period. UNDP has been the Agency most consistently involved with the GEF in Egypt, responsible for funding in all replenishment periods including the pilot phase, and the only Implementing Agency in GEF-2 and (so far) in GEF-4. UNIDO and UNEP played only a marginal role in GEF-3, though UNEP's role more than tripled since GEF-1. The World Bank's involvement, which was relatively small during the GEF pilot phase, increased tenfold in GEF-3 with implementation of the "Solar Thermal Hybrid Project."

Figure 4.2

GEF Support to Egypt by Agency and Replenishment Period



4.6 Allocation by National Executing Agency

Given the size and diversity of the GEF portfolio of projects in Egypt, there is a surprising lack of variety among the projects' national executers, almost all of which are government entities (table 4.8).[7]

The EEAA and the New and Renewable Energy Authority are together responsible for projects worth about $78.29 million, or 89 percent of total GEF support in Egypt. Almost two-thirds of this

[7]Many organizations are involved in project implementation; the table and this discussion focus only on those entities that are responsible for project execution.

Table 4.8

GEF Support to National Projects in Egypt by National Executing Agency, 1991 through GEF-4
Million $

Agency	Funding
Ministry of Electricity and Energy (New and Renewable Energy Authority)	50.85
MSEA (EEAA)	27.44
Ministry of Tourism (Tourism Development Authority) and the Red Sea Governorate (with EEAA)	4.75
MWRI (Coastal Research Institute), Shore Protection Authority	4.00[a]
Cairo University	0.83
Total	**87.87**

a. This figure refers to the SCCF adaptation project, for which funding has already been allocated even though it has not yet begun implementation.

amount, $50.85 million, was for a single project, the "Solar Thermal Hybrid Project," which accounts for just over half of all GEF support in Egypt and the majority of funding for climate change. Even so, the EEAA alone executes 15 of the 19 national projects in the country portfolio. Other government national executing agencies are the MWRI's Coastal Research Institute and the Shore Protection Authority, which together are executing the UNDP project "Adaptation to Climate Change in the Nile Delta through Integrated Coastal Zone Management"; and the Tourism Development Authority and Red Sea Governorate (in collaboration with the EEAA), which are executing the World Bank's biodiversity project "Red Sea Coastal and Marine Resource Management."

Less than 1 percent of GEF funding has been channeled through an academic institution: Cairo University, which is executing an international waters project. No NGOs have received GEF support other than through the SGP, which is largely implemented through NGOs and community-based organizations.

4.7 The SGP and the SCCF

Small Grants Programme

The SGP was launched globally in 1992 to complement other GEF grants by supporting the activities of NGOs and community-based organizations in developing countries that are aligned with the objectives of the global conventions in each of the GEF focal areas, while generating sustainable livelihoods. The GEF SGP is implemented by UNDP on behalf of the three main GEF Agencies and is executed by the United Nations Office for Project Services. The maximum grant amount per project is $50,000, which is channeled directly to the recipient organizations.

Since its inception, the SGP has occupied a strategic niche with regard to national environmental management capacity, by supporting community-based initiatives that respond to the GEF criteria and fulfill local community needs. Often, the program has initiated activities to raise awareness and motivate NGOs to address priority national and/or regional environmental problems that have a global impact. As needed, the SGP also builds the capacity of NGOs to prepare and implement projects dealing with such problems.

To date in Egypt, the SGP has supported more than 150 NGOs implementing some 220 projects totaling about $4.32 million (table 4.9). These projects complied with GEF criteria while addressing local environmental issues, reaching marginal populations, and creating job opportunities. The following paragraphs summarize SGP activities in Egypt by operational phase since 1992.[8]

[8]This information is largely taken from the GEF-UNDP joint evaluation of the SGP (GEF EO 2008), which included a case study on program activity in Egypt (Risby and Genena 2007); information since that evaluation was obtained from Egypt's SGP coordinator and the SGP Web site.

Table 4.9

SGP Allocations in Egypt by Operational Phase as of December 2008

SGP phase	Total allocation ($)
Pilot phase (1992–96)	337,790.00
Phase 1 (1997–98)	396,597.76
Phase 2 (1999–2004)	1,745,959.93
Phase 3 (2005–07)	1,028,013.77
Phase 4 (2008–)	811,828.35
Total	**4,320,189.81**

Source: UNDP SGP Web site, http://sgp.undp.org (accessed March 2009).

- **Pilot phase.** The SGP started in Egypt in 1992. During the four-year pilot phase, the program used $337,790 in support of 15 projects implemented by 21 NGOs from different geographic locations in Egypt. During this phase, capacity building for the NGO community was a strategic target for the SGP. It also focused on climate change and, to a much lesser extent, on biodiversity and international waters. The majority of projects funded fell under the climate change focal area. This distribution was attributed to (1) a lack of awareness on the issues of biodiversity and international waters, and (2) limited capacities of the NGOs to write proposals in areas that were not yet clearly understood.
- **Phase 1.** In 1997, the SGP began its first two-year operational phase, during which it allocated a total of $396,598. A new country program strategy was developed based on the experience gained and lessons learned during the pilot phase. The strategy was prepared in a participatory manner with key stakeholders, including the UNDP country office, national and international NGOs, community-based organizations, government representatives from relevant ministries, academia, and the media. During this phase, 15 projects were funded: 8 related to climate change, 5 addressing biodiversity, and 2 multifocal. No NGOs submitted proposals for international waters projects during this period. Projects that addressed issues related to climate change, energy conservation, and global warming received a large percentage of the phase's funding. Planting trees and establishing green areas represented the dominant feature of this phase, and constituted almost 50 percent of the climate change projects. The remaining 50 percent comprised new project ideas that introduced renewable energy and environmentally friendly technologies to local communities; these included the use of biogas and solar energy for water heating and cooking.
- **Phase 2.** During its second operational phase (1999–2004), the SGP focused on achieving several objectives cited in an independent evaluation of the program; these included improving its fit with the GEF strategic framework and defined operational programs; selecting and implementing community projects; establishing links with GEF FSPs and MSPs and with other UNDP programs, government agencies, and national environmental funds; establishing a capacity-building program for key stakeholders; developing means of sharing SGP experiences and demonstrating global benefits; working to ensure program/project sustainability through resource mobilization strategies at the global, country, and project levels; and establishing a monitoring and evaluation system to track and assess global benefits. These efforts met with varying degrees of success.

  Between 1999 and 2004, the program financed 96 projects, most of which were in the climate change area, eight in biodiversity, and one multifocal; funding levels followed this order as well. No proposals in the international waters focal area were received. To date, the second operational phase has been the largest by far

in terms of number of projects undertaken and magnitude of funds disbursed ($1,745,960). New project ideas emerged in mitigating against climate change, including use of energy-conserving lighting, wind turbines, solar cookers, and solar heaters.

- **Phase 3.** The third operational phase started in March 2005 and concluded in June 2007 for a total allocation of $1,028,014, through which 62 projects have been implemented. The distribution of these projects is as follows: 47 climate change, 1 biodiversity, 12 international waters, and 2 POPs. During this phase, the program increased the number of projects dealing with international waters, but the majority of projects are still in the climate change area. The program was able to establish a partnership with CARE International and continued to collaborate with the GEF's EEIGGR project, a regional FSP implemented by UNDP.
- **Phase 4.** One year of the fourth operational phase has been completed, and the phase is well into its second year, with allocations of $811,828 thus far. To date, 28 projects have received funding: 19 in the first year (2 in biodiversity and 17 in climate change); and 9 (all in climate change) in the second. The total RAF allocation in this operational phase has been $335,448 for climate change and $50,000 in biodiversity. Thus far, there have been no projects suggested in any other focal area, which may be a consequence of the RAF allocations, in that community-based organizations and NGOs would want to make use of these.

The SGP global Web site as of December 2007 provided information on 219 projects in Egypt (this information is uploaded by the national program and revised by the global SGP). Annex H lists these SGP projects.

Special Climate Change Fund

The SCCF was established under the UNFCCC in 2001 to finance projects in adaptation, technology transfer and capacity building, energy, transport, industry, agriculture, forestry and waste management, and economic diversification. This fund complements other funding mechanisms for UNFCCC implementation, and the GEF has been entrusted to operate it.[9] In Egypt, the project "Adaptation to Climate Change in the Nile Delta through Integrated Coastal Zone Management" has made use of the SCCF with a grant of $4 million that has been used to leverage $12 million in cofinancing. The project objectives are in line with those of the SCCF: the project aims to implement adaptation measures to increase the resilience of national development sectors to climate change impacts by focusing on long-term planned response strategies and policies rather than on short-term activities. The project incorporates management of sea-level-rise risks into the development of Egypt's low-elevation coastal zone in the Nile Delta.

4.8 Regional and Global Projects

Egypt has also received support from the GEF through 17 regional and 6 global projects; these are listed in annex C and summarized in table 4.10.

It is something of a distortion to carry out an assessment of the regional and global projects in which Egypt is included, since Egypt has national components in only five such projects. However, there are projects in all focal areas, including Egypt's only land degradation project, the MENARID

[9] To date, 13 donors (Canada, Denmark, Finland, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom) have made pledges totaling $90 million to the SCCF. Donor countries are continuing to contribute to the SCCF on a voluntary basis.

Table 4.10

Number of GEF Regional and Global Projects in Which Egypt Participates by Focal Area and Agency

Focal area	UNDP	UNEP	WB	UNIDO	IFAD	Total
Biodiversity	2	(4)				6
Climate change	1		(1)			2
Int'l waters	4 (1)	1	2			8
Land degrad.					1	1
POPs		1		1		2
Multifocal		1	3			4
Total	**8**	**7**	**6**	**1**	**1**	**23**

Note: WB = World Bank. Figures in parentheses indicate number of global projects.

project (a national project under MENARID was initially planned; however, such a project has not yet materialized). One-third of the regional and global projects are in the international waters area, and one-quarter are in biodiversity. There are two projects in climate change and POPs, and four in multifocal areas. Table 4.11 presents the focus of the regional and global projects.

Five regional projects have been reviewed in depth for this evaluation because they have a national component. These are FSPs in the biodiversity, climate change, and international waters focal areas. In biodiversity, the two projects reviewed are both implemented by UNDP: MedWetCoast and "Mainstreaming Conservation of Migratory Soaring Birds into Key Productive Sectors along the Rift Valley/Red Sea Flyway (Tranches 1 and 2)," although the latter has only just started. In climate change, the project reviewed is the UNDP-implemented EEIGGR project. In international waters, the projects reviewed are the two NTEAP initiatives, the first undertaken jointly by the World Bank and UNDP, and the second by UNDP alone.

Two additional regional projects have been partially reviewed; these have a national demonstration or office, even though they do not have a national component. These are the international waters project on implementing the SAP for the Red Sea and Gulf of Aden, for which the MEMAC is one of the project outputs, housed at the EEAA regional branch office in Hurghada; and the UNEP-funded POPs project "Demonstration of Sustainable Alternatives to DDT and Strengthening of National Vector Control Capabilities in Middle East and North Africa," which is implemented through the World Health Organization office in Cairo.

Other regional and global projects involving some national activities but without national components per se are discussed, albeit briefly, with respect to impacts at the country level.

Table 4.11

Scope of Regional and Global Projects in Which Egypt Participates

Focal area	Regional projects	Global projects
Biodiversity	• Promote conservation and sustainable use of biological resources • Assist governments in the region in implementing their obligations under the CBD • Improve the availability of biodiversity information and its application in conservation planning and management • Promote collaboration among countries in the management of shared natural resources • Develop national and regional institutional capacity • Contribute to community development	• Build local, national, regional, and global capacities • Develop and implement tools, methodologies, and strategies • Determine and disseminate best practices
Climate change	• Remove barriers to enhance energy efficiency in the regional context • Create appropriate institutional setting and capacity	Accelerate the market for fuel cell technology in distributed stationary power applications
International waters	• Develop and implement regional guidelines and plans • Develop sustainable and integrated transboundary ecosystem management • Expand and consolidate the technical and scientific knowledge base • Improve identification of hotspots and sensitive areas • Assess groundwater-surface water interactions • Provide capacity building and training • Provide necessary institutional and policy support	Assist vulnerable developing states implement sustainable, risk-based mechanisms for the management and control of ships' ballast water
Land degradation	• Promote an integrated approach to natural resource management • Catalyze sustainable land management investments	
POPs	• Contribute to the goals of the Stockholm Convention • Demonstrate the viability, availability, efficiency, and cost-effectiveness of the alternatives to the use of DDT • Reduce and/or eliminate POPs in key industry sectors	
Multifocal	• Increase the adoption of sustainable land and water management practices • Facilitate the implementation of transboundary priority pollution reduction and habitat protection measures • Facilitate harmonized policy, legal, and institutional reforms aimed at reversing degradation trends with a focus on land-based pollution • Promote the regional dissemination and replication of new approaches • Contribute to the implementation of the NIP • Develop analytical methods and procedures for assessing the impact of climate change on agriculture	

5. Results of GEF Support to Egypt

This chapter examines the following questions regarding global environmental impacts of GEF projects in Egypt:

- What are the aggregated results by focal area?
- What are the aggregated results at the country level?
- What are the cross-cutting results in terms of catalytic and replication effects, capacity building, awareness, and improvements in the enabling environment?
- What is the likelihood that objectives will be achieved for those projects still under implementation?

The results outlined in this chapter were measured by focal area using the following parameters:

- **Impacts:** changes in environmental status, especially those of global significance, and reductions in threats to globally significant resources, for completed and ongoing projects
- **Outcomes:**
  - Catalytic and replication effects
  - Institutional sustainability and capacity development outcomes
  - Awareness raising

Information on results was compiled from interviews, reviews of existing project documentation, and field visits to selected projects.

5.1 Biodiversity

Biodiversity faces major threats in Egypt, mainly due to demographic pressures which adversely affect most ecosystems. The GEF has played a significant role in the biodiversity area in Egypt during the past 15 years, contributing to the preparation of the country's NBSAP and First National Report to the CBD, establishing a Natural Biodiversity Unit within the EEAA's Nature Conservation Sector, establishing protected areas, and developing a Biodiversity Clearing-House. Through these activities, the GEF has made a considerable contribution to the progress made by Egypt in implementing its commitments under the CBD.

Because most of the completed GEF projects in biodiversity were enabling activities, with only two FSPs completed to date—the national Red Sea project and the regional MedWetCoast project—it is too early to measure the global environmental impacts of the country's biodiversity portfolio. Such benefits in this focal area take a long time to materialize and need a long-term strategy and follow-up. Moreover, enabling activities are not expected to produce direct impacts at the environmental level, although they can have an impact when follow-up activities are implemented. Thus, attributing any significant impact from biodiversity conservation and sustainable use of natural resources to GEF support is not a straightforward task.

There is no clear evidence in the context of the projects that have closed thus far that GEF funding has substantially improved biodiversity degradation in Egypt. However, this support has prevented further deterioration and provided alternatives to business as usual. Also, because the GEF is one of the country's largest contributors to biodiversity and activities focusing on habitat conservation, it may be concluded that GEF support has contributed to the consolidated network of protected areas in Egypt.

Biodiversity efforts in Egypt have focused primarily on habitat conservation through the establishment of protected areas and, less explicitly, on the conservation of endangered species. Between 1991 and 2008, Egypt's network of protected areas expanded by more than 2.3 million hectares. While it is difficult to gauge the extent of this expansion attributable to GEF support, the GEF's Red Sea project catalyzed the establishment of the Wadi Gemal protected area, covering 0.75 million hectares.

Project documents rarely cite the species a given project aims to target and protect. However, species conservation has clearly benefited from management and monitoring activities conducted by GEF-funded projects; this is evidenced by the increased species diversity displayed in the MedWetCoast project sites. SGP projects have also contributed to protecting and reintroducing endangered species of flora. And the ongoing medicinal plants project is reestablishing globally significant medicinal plants in rehabilitation sites, while the migratory birds project aims to safeguard globally threatened soaring birds during their migration along the Red Sea flyway.

Recently completed and ongoing projects have focused to a large extent on promoting alternative livelihoods and increasing the ecological sustainability of current livelihoods, as well as to raising awareness and building capacity at the local level and successfully engaging with local communities. Such local community participation and awareness are critical in sustaining impacts achieved in biodiversity conservation, as these communities share the habitat and resources of potentially endangered or threatened species. Finding a balance between maintaining their livelihoods while sustainably using resources is imperative. This balance appears to have been achieved, for example, by communities participating in the MedWetCoast project that put a self-imposed moratorium on fishing to conserve important fish stocks during spawning.

Catalytic effects to date have largely involved elevating the environmental agenda in the areas targeted by the projects, improving communication and coordination among various agencies, and potentially effecting behavior changes among stakeholders. Some projects have managed to generate additional financing from the government, NGOs, and the private sector. Replication outcomes have been somewhat ad hoc, rather than based on a project strategy that strives to achieve replication. Replicability clearly needs to be given more focus when designing projects in order to reap the benefits of lessons learned and knowledge generated. A major achievement of GEF support has been the awareness-raising activities taking place in most biodiversity projects.

By and large, the GEF has succeeded in laying the foundation to manage biodiversity conservation and sustainable use more effectively by enhancing institutional capacity within national and local authorities, and by introducing relevant structures and action plans. For example, the Red Sea project managed successfully to bring together three executing agencies in a functioning partnership, thereby strengthening capacity; this, to some extent, continues post project.

The continued implementation of the frameworks and action plans established depends entirely on the institutional, financial, and coordination capabilities and resources channeled and supported by the government. The lack of sustainability planning and shortcomings in institutional and capacity development has, in some cases, resulted in inadequate provision for enforcement and in the securing of global environmental benefits. Sustaining the gains and benefits realized thus continues to be a challenge.

Impacts

Impacts of Completed Projects

The **Red Sea project** resulted in changes in sectoral regulations to improve biodiversity conservation and sustainable use. Specifically, it introduced the requirement of preparing full environmental impact assessments for tourism developments in the Red Sea Governorate. With a markedly enhanced capacity, the governorate's Environmental Management Unit continues to inspect and monitor tourism developments to ensure compliance with environmental impact assessment regulations.

The conservation status of biodiversity in the project area has not been properly monitored against baseline data, however; it is therefore difficult to know what impacts the project has had on the overall biodiversity situation. The fact that this area has seen a rapid expansion in tourism in the decade since the project ended—a circumstance that was not accounted for in the project design by including regulations on the tourism industry's use of the natural resources—also contributes to the difficulty in assessing impact and attribution.

The project did strengthen environmental impact assessment capabilities and provided ICZM knowledge to the three executing agencies—the EEAA, the Tourism Development Authority, and the Red Sea Governorate. The project thus enabled the first important steps to be taken toward introducing a more sustainable development model in the area, especially by pioneering the concept of ICZM in Egypt, but fell short in providing appropriate and sustainable arrangements to secure global environmental impacts on the ground.

Activities performed in Egypt under the regional **MedWetCoast project** displayed certain impacts in terms of conservation of species and habitat. Compared to the baseline of the site diagnostics studies, species diversity increased in the three project sites: 10 marine zooplankton species and the marine mullet *Liza aurata* reappeared in Lake Burullus; an increase in cover of the medicinal plant *Colchicum ritchii* was recorded in Omayed, which indicates that its use was decreased as Bedouins were given the opportunity to engage in alternative livelihoods; and the recorded number of greater flamingo birds increased from 19 in 2000 to 926 in 2004 in Zaranik.[1]

Improved practices of sustainable use of biodiversity resources—including a significant decrease in the number of violations in bird hunting and grazing and banning of the use of insecticides—were also inculcated. A reed cropping activity carried out in collaboration with the SGP resulted in an improved ecological balance, as well as an increase in areas available for fishing and the creation of job opportunities.

To properly target the root causes of biodiversity loss, many socioeconomic, ecological, and political issues need to be addressed. While the project managed to incorporate livelihood schemes and activities into the wetlands strategy and put in place a revolving fund to maintain the

[1]The final evaluation of the MedWetCoast project had to reconstruct the baseline, as the project document did not include these data.

sustainability of these activities, critical ecological challenges—such as coastal tourism development and associated water issues—were not part of the project's scope. Moreover, even if some root causes of biodiversity loss were addressed and the protection of the sites improved, it has not been easy to assess lasting impacts on habitat and species conservation. Lake Burullus, for example, still faces considerable conservation challenges caused by fishing pressures, large amounts of sewage, and agricultural and industrial runoff.

SGP projects in biodiversity have contributed to protecting and reintroducing some endangered species of flora, such as medicinal plants in North Sinai. However, the terminal SGP evaluation highlights that additional opportunities to positively affect biodiversity conservation could be accomplished if models developed by SGP projects were disseminated and replicated.

Impacts of Ongoing Projects

Based on midterm review recommendations, the medicinal plants project was reorganized, its community-based natural resource management component was initiated, and more efforts were dedicated to in situ conservation. Of the five rehabilitation sites selected, four have been rehabilitated to date, with 12 globally significant medicinal and aromatic plants reestablished. As an ex situ conservation method, more than 800 accessions for globally significant medicinal and aromatic plants have been collected, with 73 medicinal and aromatic plants and 14 globally significant such plants being stored in the national gene bank and a living collection available in greenhouses. The project is making extensive efforts to control and manage invasive alien species through implementation of the Feral Donkey Control Program, which aims to have positive impacts on medicinal and aromatic plant conservation.

Outcomes

Catalytic and Replication Effects

The **Red Sea project** contributed to elevating the environmental agenda in Egypt and to emphasizing the importance of protecting marine resources. The project helped establish policies and plans—including the ICZM Plan, the Reef Recreation Management Action Plan, and the Red Sea Coastal and Marine Protected Area Strategy—that sought to ensure that development was consistent with the protection of marine resources in the Red Sea coastal zone.

Time constraints limited the evaluation's ability to verify the extent to which these plans have been implemented or enforced; however, many interviewees stressed that these have been used as a basis for other policies and activities and have thus provided a valuable foundation. For instance, the plans produced by the project formed the basis for its recommendation to establish a protected area in Wadi Gemal, which was declared a protected area by the government in 2003. The plans also catalyzed the preservation guidelines prepared by the Tourism Development Authority's Red Sea Sustainable Tourism Initiative. And the land-use planning that has taken place south of Marsa Alam can partly be attributed to outputs developed by the project.

Construction of the EEAA's regional branch office in Hurghada accelerated the establishment of the MEMAC, which in turn is an output of the GEF-funded regional project "Implementation of the SAP for the Red Sea and Gulf of Aden." In addition to hosting the MEMAC, the regional branch office building has enabled the establishment of a marine laboratory, and it accommodates the Red Sea Governorate Environmental Management Unit as well—thus effectively gathering the main environmental stakeholders under one roof. The project was the first of its scale in the region, and

the ICZM plan developed approaches with large replication potential for countries facing similar coastal and marine pressures.

The **MedWetCoast project** managed to secure additional financing amounting to LE 28 million (about $4 million) from, among others, the MWRI, the Ministry of Agriculture, and a private company to fund various activities related to habitat conservation. The project demonstrated the importance of socioeconomic incentives for biodiversity conservation by creating a model for local community participation and provision of alternative livelihoods, as well as actively involving local administration units in protected area management. Several field actions were implemented that have contributed to improving local governance and social organization, community empowerment, job creation, and the reinforcement of traditional management systems in addition to establishing several community-based organizations and NGOs representing the major segments of local society. However, the terminal evaluation highlights that the opportunity to integrate wetlands conservation and sustainable use into other sectors, such as fisheries, water management, tourism, and the private sector, was not sufficiently realized.

The research and ecological monitoring data generated in the wetland sites have been integrated into and used by the Italian-funded Biodiversity Monitoring and Assessment Project, and have been reported to the Ramsar Convention. An additional catalytic outcome can be found in an ongoing initiative, which involves the EEAA and UNDP, to develop an ornithological tourist trail in one of the wetland sites.

The community-based natural resource management component established by the **medicinal plants project** represents an unprecedented approach in Egypt which may hold considerable potential for replication (box 5.1). For instance, scenario planning workshops have been conducted with representatives from the government, protected areas' management, academia, and the local community; the project intends this scenario planning, as a tool in the component, be turned into a pilot approach that could be replicated in the management of other protected areas in Egypt. The success of this approach has yet to materialize.

While the biodiversity portfolio has witnessed some catalytic effects, the replication outcomes resulting from these projects have been rather ad hoc and seemingly random, rather than based on a project strategy that strives to achieve replication. Replicability clearly needs to be given more attention when designing projects in order to reap the full benefits of the knowledge and experiences generated by each project and to avoid "reinventing the wheel."

Institutional Sustainability and Capacity Development Outcomes

GEF-funded biodiversity projects have enabled the development of comprehensive frameworks, policies, and strategic action plans, including the NBSAP, the Wetland Strategy, the ICZM Plan for the Red Sea, national reports to the CBD, and management plans for protected area sites, as well as the access and benefit-sharing law and the national medicinal plants strategy and action plan now under preparation; all of these aim to lay the foundation for protecting biodiversity resources in Egypt. However, sustaining some of these achievements is not secured because of shortcomings in institutional and capacity development.

An achievement of the **Red Sea project** was bringing together three executing agencies in a functioning partnership, which clearly resulted in institutional strengthening through training

Box 5.1

Innovative Practice: Community-Based Natural Resource Management

The Community-Based Natural Resource Management (CBNRM) component introduced by the medicinal plants project is a quite innovative model in Egypt and the region. The driving force behind the model is addressing the issues of tenure of and access to medicinal and aromatic plant resources, and striving to capitalize on the knowledge and capacities of the local community, while ensuring that the benefits are returned to those closest to the resources, as they bear the costs of conservation management. To date, the component has achieved 9 of 13 targets—among others, identifying all the user groups of wild medicinal and aromatic plants, including collectors, processors, and traders; establishing lines of communication with these groups, as well as other groups in the community; introducing community-based cultivation to reduce the pressure on wild medicinal plants; and pioneering good practices for sustainable wild medicinal plant collection.

The development of the CBNRM component is carried out through a participatory approach which includes regular meetings with Bedouin community members from the Gebalya tribe in St. Katherine's Protectorate. Adaptive management is given considerable attention by the CBNRM team, with the understanding that it is not possible to identify every variable when dealing with the environment, society, and the economic drivers that affect biodiversity. As a part of the adaptive management approach, the hypothesis developed at the beginning of the project is continuously reappraised to see if it still holds true in light of lessons learned.

The capacity and awareness of the local community has been significantly enhanced through the CBNRM approach, and the active participation of the local community has become an integral part of project activities. This is evident through the creation of the Association for Collectors and Traders, which is being set up in collaboration with the Bedouin community. Its constitution, rules, and regulations are in the process of being approved by the Nature Conservation Sector. Once this is accomplished, the transfer of responsibility and authority to protect the medicinal plants from the sector to the Bedouin community will be possible. The success of the approach to a large extent lies in this transfer of responsibility and authority.

Sources: Annual review of CBNRM in St. Katherine's Protectorate 2009; interview with medicinal plant project manager, Omar Abdel Dayem.

on the geographic information system database, environmental impact assessment requirements, and so on. An environmental unit in the Tourism Development Authority was established. Short-term sustainability was reinforced by the fact that project staff could transfer their individual expertise to the Implementing Agencies and various universities. Due to high staff turnover, some of the experiences have been lost over time; concurrently, there has been a quite substantial increase in staff members at the regional branch office and Environmental Management Unit in Hurghada since project completion.

The three agencies continue to cooperate and recently prepared a report on the problem of landfills created by tourism resorts in the area. With no recurrent funding mechanism established, sustained CZM monitoring has depended on the availability of USAID support. It has become clear that the project was not adequately anchored either institutionally or financially to provide long-term sustainability. The project also fell short of engaging the local community, which could have enhanced sustainable impacts.

The **biosafety project** has laid the groundwork for mobilizing capacity by providing training for a large number of ministry officials, and has concrete plans for educating journalists on biosafety and genetically modified organisms to promote a more balanced view of these. There is a genuine interest in the issue of biosafety in Egypt, due to its important implications for human health and trade, which will most likely keep the issue high on the political agenda after project completion. The biosafety law about to be adopted includes safeguards for sustainability by making it financially

self-sustaining. Challenges related to financial and technical resources to enforce the law remain, as many issues pertaining to biosafety are still uncertain and evolving, and the need for resources will be constant.

To enhance its potential for institutional sustainability, the **medicinal plants project** conducted training on the community-based natural resource management approach for Nature Conservation Sector and protected area staff. The likelihood of sustained monitoring of medicinal and aromatic plants has been strengthened by building the capacity of St. Katherine's Protectorate staff and by the EEAA's plan to reinject revenues from the protectorate into conservation activities. The project has contributed to identifying and documenting a propagation and cultivation methodology for wild medicinal and aromatic plants for the first time, as well as recording traditional knowledge on medicinal uses of many plant species. The community-based natural resource management approach has helped establish communication lines with various local groups and has helped in gaining the trust of wild medicinal and aromatic plant collectors; thus, the project has encouraged participation and capacity development. By establishing cultivation farms for community members and providing technical knowledge and training on cultivation techniques, the project has contributed to increasing capacity for small-scale community-based cultivation. Another important tool to warrant sustainability is the current drafting of legislation for the protection of intellectual property rights and access and benefit sharing, which aims to protect the traditional knowledge of the local community and its marketable medicinal and aromatic plant products. The Intellectual Property Rights Committee established by the project has prepared an access and benefit-sharing law, which is currently under review by various stakeholders before being presented to the Egyptian Parliament for approval. Enactment of this law will represent a major achievement in obtaining legal rights and increasing the motivation of the local community to manage resources sustainably. Another dimension of sustainability relates to the possible financial revenue resulting from the organic certification that has been issued for both wild and cultivated medicinal plants.

The **MedWetCoast project** made extensive efforts to develop capacity by mobilizing and including all relevant stakeholders in the decision making and by promoting intersectoral coordination. The attempt by the project to integrate local development and livelihood issues into wetlands conservation was unique and innovative. Moreover, the model taken for reeds management in Lake Burullus provides a good example of mobilizing local civil society to become active conservation partners. Strong local community commitment to assume the responsibility to continue conservation while improving their own livelihoods has also taken place—for instance, the self-imposed two-month moratorium on fishing in Lake Burullus enforced by local communities with a view to conserving important fish stocks during spawning. Nonetheless, the project's final evaluation highlighted that several opportunities for developing capacity were missed, including involving and building the capacity of government officials and a broader group of conservationists, and exploring payments for ecological services (such as taxes) to enhance financial sustainability by internalizing costs (Fenton and others 2007). The project did contribute to enhancing the protection of wetlands resources and the conservation of migratory and other birds; this is evidenced by protected area support having been sustained and institutional capacities in terms of staffing having been maintained after project completion. The EEAA has assumed financial responsibility for management and operation of the wetland sites,

and conservation and monitoring activities are continuing.

The GEF has played an important role in the biodiversity area with regard to **enabling activities**, contributing to necessary foundational work and capacity development through the preparation of the NBSAP and the First National Report to the CBD, the creation of the Natural Biodiversity Unit within the Nature Conservation Sector, and the development of a Biodiversity Clearing-House. These plans and entities are all in use or have formed the basis for further progress in this area, such as more recent prioritization of capacity-building efforts and the project to strengthen protected areas financing, as well as the Fourth National Communication which is currently being formulated. Evidence that the biodiversity portfolio has been influenced by the experiences of earlier projects is particularly clear in the context of these enabling activities, which have also played a very important role in developing capacity through collection, verification, and analysis of baseline data, as well as by helping meet commitments under the CBD. However, assessing capacity is an essentially subjective exercise, as there is no common format against which to measure capacity using indicators. In addition, the fact that enabling activities are not required to prepare evaluation reports makes replication of potentially good practices more difficult.

The **SGP** has contributed extensively to the capacity-building efforts of NGOs in biodiversity, where capacity and knowledge used to be limited, as well as to enhancing their capacity to mobilize communities and resources. SGP activities have helped address a weakness in national environmental management policies that has an impact on the global environment—namely the involvement of local communities in nature conservation efforts. This is particularly true for the SGP involvement in the MedWetCoast project. SGP biodiversity projects have been particularly successful in raising awareness in local communities and changing behaviors toward a more sustainable use of natural resources.

A common denominator for many projects is that their impacts have not been fully realized for various reasons, including the lack of built-in mechanisms for follow-up or sustainability. In many cases, project objectives were met to a large extent, but after GEF funding ended, institutional and financial support has dwindled. This may indicate that GEF-supported projects in the biodiversity area have been too financially or institutionally burdensome for the Egyptian government to sustain or that they have not been properly anchored institutionally.

Awareness Raising

Promotion of environmental awareness among stakeholders by enhancing their understanding and involvement is key to protecting fragile natural resources and achieving sustainable impacts. In general, the awareness-raising activities in most biodiversity projects have been quite extensive and a major achievement of GEF support. These activities have engaged national and local government institutions and local communities; this is evidenced by broad stakeholder participation in local advisory committees involved in protected area management, training of protected area rangers, the assumption by local communities of responsibility for alternative livelihoods, the establishment of numerous community-based organizations and NGOs, and the introduction of NGOs to the SGP.

Many projects appear to have played a considerable role in enhancing familiarity with, and possibly fostering a deeper understanding of, biodiversity conservation and sustainable use of

natural resources by focusing efforts on raising public awareness and encouraging environmental education at all levels, including to investors and developers, local communities, tourists, and schoolchildren.

5.2 Climate Change

Egypt has been successful in accessing GEF funding for climate change activities, and there are projects in each of the GEF climate change strategic priorities with a focus on energy efficiency, transport, and renewable energy. Following the development of the GEF Climate Change Strategy, an adaptation project was introduced in Egypt. The GEF seems to have been driving the climate change agenda in Egypt while the country develops a National Strategy for Climate Change. The GEF has been the lead institution in introducing climate change issues to Egypt and in building national capacities in this area through various enabling activities.

Impacts

The completed MSP and FSP in climate change remove barriers to energy conservation and efficiency (the EEIGGR project) and promote environmentally sustainable transport (the electric bus project); their impacts are measured (albeit in different units) in terms of the reduction or avoidance of GHGs.

In the area of **energy efficiency**, a cumulative CO_2 reduction of 16.8 million tons resulted from energy efficiency market support provided since the start of the EEIGGR project in 1999 until 2007. This represents 11.87 million tons of CO_2 reduction from the reduced transmission network losses (the project has reduced transmission losses from 7.0 percent to 3.5 percent, which is more than the target reduction of 5 percent by the year 2010) and 4.9 million tons of CO_2 reduction from the compact fluorescent lamp program. While the project did not reach its target of 11.7 million tons of CO_2 reduction upon project completion, it met and exceeded this target during the project extension period (EEIGGR 2008). The project made good progress in several areas; this is expected to result in significant CO_2 reductions in the future.

In the area of **sustainable transport**, 127.75 tons per year of CO_2 reduction were reported by the electric bus project for replacing diesel buses with two demonstration electric buses. The emission reduction of using an electric bus as compared to a diesel bus is about 1.75 kilograms of CO_2 per kilometer traveled (NGM 2003).

Outcomes

Market Transformation

The completed projects in the climate change area have made achievements in energy efficiency through market penetration and technologies; and in the promotion, creation, and adoption of innovative sustainable public transport systems.

A positive indicator of the market transformation that has been achieved is the influence the **electric bus project** had on Egypt's Supreme Council of Antiquities in requesting that access to relevant historic sites be limited to electric buses; this has prompted a local bus manufacturer to investigate electric bus assembly in the country. The project has not, however, yet resulted in any significant follow-up activity by the government to expand the electric bus fleet in Egypt. One reason may be the fundamental change in GEF funding priorities for sustainable transport, shifting from a technology-oriented focus (for example, electric, hybrid, or fuel cell vehicles for public transportation as well as advanced technologies for converting biomass feedstock into liquid fuels) to a more planning-oriented focus (for example, modal shifts to more efficient and less polluting forms of public transport and nonmotorized transport through measures such as improved traffic management,

better urban and transport planning and associated training, capacity building, and dissemination of results). While the withdrawal of GEF funding is regrettable, interviewees noted that this should not be used as an excuse for the Egyptian entities involved (the EEAA, the Social Fund for Development, and the Supreme Council of Antiquities, as well as interested private sector parties) to not undertake serious replication efforts.

The electric bus initiative has been a successful pilot project, and electric buses are fully operational at Luxor Temple. National car manufacturers are working on initiating local production of electric buses to satisfy the demand of the Supreme Council of Antiquities. The project has developed the basis for launching the next phase, which will include configuring buses and routes for the next demonstration phase; elaborating additional needs for institutional strengthening and capacity building; and evaluating and addressing the economic, environmental, and social aspects of the project. This phase has yet to materialize.

Energy efficiency standards and labels have been put in place for major appliances such as refrigerators, freezers, washing machines, air conditioners, electric water heaters, electronic ballasts, and compact fluorescent lamps, and the EEIGGR project has encouraged local manufacturers to produce energy efficiency products. A ministerial decree was issued in 2002–03 for the enforcement of the standards and labeling program for the refrigerators, freezers, washing machines, and air conditioners, and in 2008 for the compact fluorescent lamps and electronic ballasts. These standards are upgraded every two years; this has already taken place for refrigerators and washing machines. A significant achievement of the project is that the ministerial decrees now make it compulsory for local manufacturers and importers to abide by the specifications and label their products with energy consumption information. Box 5.2 highlights some of the EEIGGR project's results and activities.

Energy efficiency market support was achieved by conducting 193 audits and implementing the recommendations of 20 audits, replicating a compact fluorescent lamp leasing program at Cairo and Canal Distribution Companies, and promoting and diffusing compact fluorescent lamps with the active participation of the private sector. The market has increased more than 20 times over since the project's inception, which has encouraged local manufacturers to produce and assemble compact fluorescent lamps; this, in turn, has further reduced prices. EEIGGR has also contributed to the establishment of a reference energy efficiency testing lab for refrigerators and washing machines, housed in the New and Renewable Energy Authority. Lighting system and air conditioner testing labs are under construction. The project succeeded in leveraging $300,000 from UNDP internal funds to further establish energy efficiency testing laboratories.

Energy efficiency building construction codes for new residential, commercial, and administrative buildings have been completed, although the issuance of a ministerial decree for their enforcement is still pending. The Arabic version of the commercial building energy efficiency code has been prepared, and the participation of more than 10 NGOs in promoting energy efficiency through the GEF SGP partnership has been catalyzed. Nine ESCOs, with differing expertise in utilities, equipment supply, and electro-mechanical contracting and consulting, have been established to provide advice in energy efficiency and financing.

Catalytic and Replication Effects

The actual catalytic and replication results achieved are of central importance to the

Box 5.2

Good Practice: Energy Efficiency Improvement and GHG Reductions

The EEIGGR project was designed to remove technical, institutional, and capacity barriers and to raise awareness of energy efficiency and the global environment. The project worked from both demand and supply sides, building consumer awareness of energy and conservation issues, encouraging the use of energy efficient appliances, and proving alternatives to increasing generating capacity to meet the demand for power. Following are highlights of project activities and results.

- The project's efforts to reduce network transmission losses, load management, and load shifting have resulted in a reduction of transmission losses from 6.7 percent in 1999 to 3.68 percent at the end of 2005. This is a saving of 0.186 million tons of CO_2 and well above the project goal which sought to reduce losses to 5 percent by 2010.
- An Energy Efficiency Information Centre has been established. NGOs have become involved in energy efficiency activities and awareness campaigns. EEIGGR's awareness program is targeted toward providing households with information on lighting, home appliances, and building materials; industrial premises with information on energy efficient technologies and control systems; and the commercial sector with information on energy saving and the use of appliances and equipment.
- Field surveys were conducted at five industrial companies to investigate the potential for load shifting and a new time of use tariff option was developed. A cogeneration guidebook was prepared and a cogeneration tariff developed.
- Several demonstration projects on efficient lighting systems have been conducted. A techno-economic study on the feasibility of replacing incandescent streetlights with efficient compact fluorescent lamps was prepared.
- Two hundred energy audits were made of government buildings and commercial and industrial establishments between 1999 and 2003. A code for energy efficient residential and commercial buildings has been drafted.
- An Energy Efficiency Testing Laboratory was established by the Ministry of Electricity and Energy to verify claims.
- Training sessions on energy efficiency have been held for manufacturers of home appliances.
- Engineers have been trained in calibration, measurement, cogeneration, digital meters, and demand side management.
- EEIGGR has established nine ESCOs to provide advice in energy efficiency and financing. Capacity building has been provided to the ESCOs through training on energy auditing, energy efficient technologies, economic and feasibility project evaluation, risk evaluation, and financing. EEIGGR has also developed a project sales process for the ESCOs, which covers both private and public sectors.
- After the audit program in 2004, EEIGGR reformed its support to ESCOs by substituting a supplier-based credit model, instead of a performance-based model; developing simplified contracts which include measures for performance guarantee and savings verification; and concentrates on those energy efficiency technologies with low technical risks and attractive payback periods, such as power factor improvement, high efficiency lighting, energy management systems, and combustion improvement which includes switching to natural gas as well as combustion tune-ups.
- EEIGGR has signed cooperation protocols with strategic customers including water and drainage companies and holding companies for natural gas, and has supported exhibitions for energy efficient lighting. Three lighting programs have been carried out in a shopping mall, a chemical plant, and street lighting; four power factor improvement projects in water treatment plants and the conversion of an industrial plant to natural gas are under way.
- More than 10,000 compact fluorescent lamps have been sold to companies. EEIGGR's target is to sell 50,000 units by mid-2006 and 150,000 by the end of the year.
- EEIGGR prepared feasibility studies for a cogeneration pilot project in various institutions, including a paper company and a hospital, before deciding on a tourist resort and diesel power plant.
- EEIGGR provided technical advice to a project funded by the the Canadian International Development Agency to manufacture compact fluorescent lamps in Egypt.
- High-efficiency lighting and energy management systems have been installed at the MWRI and the Arab Academy for Science and Technology. Ten more energy efficiency projects are under way in administrative buildings belonging to electricity companies.

- EEIGGR jointly organized a workshop on consumer education and social marketing of appliance standards with the Collaborative Labeling and Appliance Standards Programme in 2003.
- The building codes of countries with climates similar to Egypt's were reviewed. An energy efficiency code for residential buildings has been finalized and a code for commercial buildings has been drafted.
- Energy-efficiency standard specifications have been set for three groups of electric appliances—refrigerators, washing machines, and air conditioners. A ministerial degree now obligates manufacturers and importers to abide by the specifications and label their products with energy consumption information.
- EEIGGR has issued an Egyptian Measurements and Verification Protocol to verify energy savings in performance contracting.
- The project prepared a draft energy efficiency law for Egypt.

evaluation of climate change projects in Egypt. As mentioned above, Egypt is preparing its Second National Communication to the UNFCCC, which was expected to be finalized in June 2009. The Action Plan on Climate Change will be updated based on the outputs of this communication. The National Committee on Climate Change, which was established in 1997 and restructured in 2007, is an interministerial expert committee. Based on experience and skills gained from this committee, the Ministry of Agriculture and Land Reclamation, the MWRI, and other ministries are working to establish climate change committees, which are seen as playing an increasingly important role. Furthermore, a decision has been made to start a strategic action plan for climate change adaptation, and with the first adaptation project being implemented in Alexandria, it is likely that there will be a spin-off effect in terms of an increased number of investment projects.

For the intersessional period between the Initial and Second National Communications, the climate change focal point and institutions, together with government organizations and NGOs, have used the momentum developed through the INC enabling activity to cooperate on projects focusing on the implementation of some INC findings. These projects have included an assessment of proposed technologies to mitigate climate change impacts on coastal zones, water resources, and agriculture; and the identification and assessment of abatement measures for climate change impacts on Egypt's coral reefs.

The EEIGGR project succeeded in encouraging local manufacturers to produce energy efficient products. The project also catalyzed policy change in terms of issuing the residential energy efficiency code. The government is preparing a National Strategy for Improving Energy Efficiency in Egypt. Based on groundwork done by EEIGGR, the "Industrial Energy Efficiency" project will focus on two thematic areas that have already shown signs of success—energy efficient lighting and appliance standards and labels.

Institutional Sustainability and Capacity Development

Cost-effective policy options for mitigation or adaptation strategies were developed, and national capability was created in the areas of climate change assessment, mitigation, and project development through GEF projects that strengthened existing institutions. Development of sectoral policies and regulations involved the establishment of energy efficiency standards and labels for electrical appliances and energy efficiency codes for new residential, commercial, and industrial buildings.

The INC's institutional sustainability is evidenced by Phase II being coordinated by the same management structure as Phase I; the team includes both national and international experts. During the execution of Phase I, the National Committee on Climate Change replaced the project steering committee and took the lead for managing Phase II of the enabling activity. The permanent staff of the EEAA Climate Change Unit is aware of recent activities, projects, and studies, and works to ensure that duplication of efforts is avoided and that previous achievements are built on.

There are no signs of a supportive policy environment in the electricity sector to demonstrate government commitment, which makes for a weak implementation environment for projects in this sector. The government has fallen short of meeting its commitments for several policy reforms that were considered prerequisites for the EEIGGR project. Two of these—which pertain to the implementation of time-of-use tariffs and development of regulations for cogeneration, renewable energy tariffs, and power purchase agreements for small generators—have had an adverse impact on EEIGGR. These much-needed reforms will help ensure the viability of the large GEF investment in the "Solar Thermal Hybrid Project."

The GEF enabling activities relating to climate change have resulted in a two-tiered institutional mechanism consisting of a policy-making interministerial committee (mentioned above) and a permanent technical secretariat in the EEAA responsible for coordinating activities to develop policy options related to climate change and to comply with UNFCCC provisions. A climate change policy dialogue has been initiated among the government, nongovernmental, academic, and grassroots sectors that has fostered an understanding of climate change issues and their linkage with a sustainable development strategy. Building upon these achievements has been important in the establishment and strengthening of climate change institutions that assess technology needs and design, evaluate, and host projects. Capacity has also been built by developing an inventory of GHG emissions and their removal by sinks. The inventory continues to be updated, following accepted international methodologies, such as those of the Intergovernmental Panel on Climate Change.

The EEIGGR project issued an Egyptian measurements and verification protocol to verify energy savings in performance contracting. Based on a review of building codes for countries with climates similar to Egypt's, the project developed an energy efficiency code for residential buildings; a code for commercial buildings is being drafted.

Institutional sustainability for cogeneration was achieved through the establishment of a cogeneration small power group within the Egyptian Electricity Holding Company, development of technical specifications for safety interconnection to the grid, development of the cogeneration tariff structure, and development of a model for power purchase agreement suitable for small producers. A cogeneration guidebook was prepared, and a cogeneration tariff developed.

EEIGGR also enhanced capacity development in the areas of climate change assessment, mitigation, and project development through projects that integrated the capacity building of relevant institutions. Capacity building has been provided to the ESCOs through training on energy auditing, energy efficient technologies, economic and feasibility project evaluation, risk evaluation, and financing. The EEIGGR project has developed a project sales process for the ESCOs, which covers both the private and public sectors. The number of ESCOs operating in Egypt has grown from 3 at the project's start to more than 10.

Egypt submitted its INC to the UNFCCC in 1999; this covered the 1990 GHG inventory, a preliminary vulnerability and adaptation assessment for different sectors, steps taken in the field of climate change in various sectors in Egypt, and future needs. Within the first phase of this project, a complete set of activities—including background studies, public awareness raising, and training—were undertaken, leading to broad coverage of most of the important sectors, with an emphasis on the vulnerability of such non-energy sectors as water resources, agriculture, and coastal zones to climate change. A cadre of experts has been created and institutions established, such as the Climate Change Unit of the EEAA. Local capacity to respond to the UNFCCC has been supported through promotion of GHG inventory assessments, establishment of policy dialogues, evaluation of technological options, investigation of climate change impacts, and analysis of adaptation opportunities.

The electric bus project has achieved enhanced capacities of transportation authority managers and of maintenance and operation personnel involved in the operation of two test vehicles. Testing of the buses at various sites in Giza and Luxor encountered several delays, but enabled the adjustment of required specifications to suit the Egyptian environment. The project has been a learning process in which Egyptian technicians have gained first-hand experience by addressing problems on site.

Sustainability is often a sensitive issue in capacity-building projects such as enabling activities, as these projects aim to encourage actions that are not being carried out due to a lack of knowledge, prioritization, or institutional capability. The climate change enabling activities have provided an opportunity for the government of Egypt to embrace and continue support of these activities—particularly once it recognized that the proposed measures are cost-effective, and that donor countries are willing to support projects that have global benefits in terms of reduced GHG emissions. The enabling activities aim to ensure sustainability through the development of a pipeline of sound projects and of an institutional structure that links national and international stakeholders. These activities have also built the capacities of individuals and institutionalized national communication, and have provided technical assistance and training in Egypt to assist in climate change mitigation and adaptation through the advancement of national priorities in energy efficiency, fuel substitution, and renewable energy development, among others. They have also contributed to capacity development for the convention focal points and their related agencies.

The majority of SGP projects in Egypt have been in the climate change focal area, a trend that continues through the current operational phase, when projects have been in this area exclusively. During the SGP's pilot phase in Egypt, most of the climate change projects addressed greening and tree-planting activities. In the second phase, new project ideas emerged to mitigate climate change, such as energy-conserving lighting and the use of wind turbines, solar cookers, and solar heaters.

One successful project in this phase was "Technological Units Appropriate for the Environment Implemented in El-Taiaba Village—Governorate of Minya," which aimed to use available natural resources to rationalize electricity consumption, thus reducing the air pollution caused by thermal power stations (GEF EO 2008). Raising inhabitants' awareness of the importance of improving indoor air quality was another target of the project. It sought to introduce improved ovens to reduce indoor air pollution and improve women's and children's health. The implementing NGO

targeted the installation of 56 solar water heaters and 20 ovens in a village, and trained individuals in their maintenance to ensure the project's sustainability and generate job opportunities. This initiative of installing solar heaters in the villages of Upper Egypt using revolving funds became a model and was replicated in many other areas.

The SGP has funded projects that aimed at increasing the capacity of NGOs to implement sustainable projects that fit within GEF objectives. These projects organized workshops to build the capacity and raise the awareness of NGOs with respect to activities, projects, and systems in the GEF focal areas. A series of workshops were held for NGO capacity building in climate change and in the other GEF focal areas. For example, the SGP played a significant role in building capacity and raising awareness of the air pollution episodes over Greater Cairo, notoriously known as the "black cloud phenomenon." This problem has significant global environmental impact, since it entails the open burning of millions of tons of agricultural waste every year.

To initiate cooperation between the EEIGGR project and NGOs, a workshop was organized to discuss project ideas about energy conservation and environmental protection that could be implemented by NGOs, funded by the SGP, and receive technical support from EEIGGR. The chairs of more than 30 NGOs actively participated in this workshop. Initially, nine received grants to implement energy efficiency projects, and the successful outcome encouraged other NGOs to submit proposals. NGO activities covered a large number of cities across Egypt and included training and capacity building for technicians in efficient lighting, holding public awareness seminars and workshops on the local and global benefits of energy efficiency, implementation of energy efficiency projects through revolving funds, and establishing showrooms for energy efficient lighting in NGO headquarters. The SGP played an important role in involving and mobilizing local communities and civil society, as well as in demonstrating the link between global and local benefits.

Awareness Raising

Successful awareness raising in climate change has been conducted through educational efforts and information dissemination both for large projects and SGP projects. Public awareness campaigns have been carried out by NGOs under the EEIGGR project on issues of energy efficiency and the dissemination of compact fluorescent lamps through project technical support and SGP financial support. As a result, more than 10,000 compact fluorescent lamps have been sold to distribution companies.

A key lesson learned during implementation of the EEIGGR project was the importance of cooperating with NGOs to interact efficiently with end users. This cooperation was the reason behind the successful implementation of energy efficiency pilot projects with NGOs and civil society. The SGP raised awareness of different target groups, including NGOs, concerning the SGP's mission, operational programs, and procedures; this was achieved through various informational materials, including a multimedia package.

EEIGGR helped explain to decision makers the linkages between energy efficiency and reduction in the consumption of highly subsidized fossil fuels. Accordingly, energy efficiency is now receiving attention at the highest political levels, including by the Supreme Council for Energy. Under the EEIGGR project, an Energy Efficiency Information Centre was established, which includes a database for large consumers and provides an audit function for customers. The project's awareness program is targeted toward providing households

with information on lighting, home appliances, and building materials; industrial premises with information on energy efficient technologies and control systems; and the commercial sector—in particular, office buildings, hotels, hospitals, and schools—with information on energy saving and the use of appliances and equipment.

Web sites have been created for the EEIGGR project and the EEAA Climate Change Unit to facilitate information dissemination and promote training, education, and public awareness. EEIGGR also introduced awareness campaigns on television; this was accomplished through a UNDP coordinated partnership among the project, the EEAA, and a group of private sector companies led by Proctor & Gamble. The private companies covered the cost of production and broadcasting of TV spots on several regional satellite channels, while the project provided technical assistance in designing the campaign messages and selecting the topics. The awareness campaign has been singled out as a model for social marketing, based on the partners' vast private sector experience and the EEIGGR team's technical knowledge. The project also organized a highly visible workshop on consumer education and social marketing of appliance standards in December 2003.

Several demonstration projects have been conducted under the EEIGGR aegis on efficient lighting systems, and a techno-economic study on the feasibility of replacing incandescent streetlights with efficient compact fluorescent lamps was prepared for the Ministry of Electricity. The demonstration projects contributed to the high-efficiency lighting and energy management systems that have been installed at the MWRI and the Arab Academy for Science and Technology. Ten additional energy efficiency projects are under way in the administrative buildings of five electricity companies. Training sessions on energy efficiency have been held for manufacturers of home appliances, and the EEIGGR project has signed cooperation protocols with strategic customers, including water and drainage companies and holding companies for natural gas, and has supported exhibitions of energy efficient lighting. Three lighting programs have been carried out thus far, in a shopping mall, a chemical plant, and as street lighting; four power factor improvement projects were conducted in water treatment plants; and the conversion of an industrial plant to natural gas is under way.

The "Sustainable Transport" and bioenergy projects recognize the importance of implementing a well-defined communication and public relations strategy to address the risks associated with the acceptance of the measures they will promote. These projects are likely to contribute at many levels to extending awareness and a deeper understanding of the links between energy and climate change.

5.3 International Waters

The international waters portfolio in Egypt is a substantial one, with two national projects either completed or ongoing and one in the pipeline, seven regional projects, and one global project. When three multifocal projects and one biodiversity project with a strong international waters emphasis are taken into account, the portfolio comprises 15 projects in total.

Egypt's frequent inclusion in regional international waters projects is partly due to its strategic geographic location, meaning that any initiatives in the Mediterranean Sea (such as the Mediterranean SAP or Mediterranean Action Plan), Red Sea and Gulf of Aden (for example, the Red Sea SAP), the Nile Basin (for example, the NBI and its environmental pillar, the NTEAP), or the Nubian Aquifer must include Egypt. Egypt has been one

of the driving forces behind both the Nubian Aquifer project and the NBI. The current regional projects in international waters have revolved around developing SAPs, determining priority actions, and formulating action plans, which indicate that Egypt's involvement to date has been at the foundational stage, creating an enabling environment for future action. While these plans and programs have yet to translate into tangible and visible activities at the national level, Egypt has benefited—and is likely to benefit in the future—from the establishment of these regional frameworks, which will facilitate implementation at the national level. Moreover, agreeing on priority water and environmental issues, required governance reforms and investments, and taking steps toward aligning governance structures with these regional frameworks have provided national benefits for all countries participating in the regional international waters projects. In this respect, experiences to date show that waterbody management processes "often take 15–20 years before meaningful commitments to joint action can be secured" (GEF 2002).

One of the strengths of regional international waters projects is that GEF support is often coupled with that of several other donors; consequently, regional institutions such as those established with GEF support for the NBI and Red Sea SAP have a high likelihood of sustainability. Evidence of this are the Mediterranean Action Plan and the PERSGA for the Red Sea, which have been operational and functional for the past decades. These regional mechanisms have continued to function after project completion, albeit with some reduced effectiveness.

GEF international waters regional programs offer a forum in which the participating countries can come together to initiate discussion on these highly strategic and often sensitive natural transboundary resources. However, evaluations of experience in Egypt and other countries in the region with these projects have surfaced the following problems:

- **Inefficient coordination among national institutions in the participating countries.** A common feature of regional international waters projects is that more than one national institution from each of the countries generally is involved, and the institutions do not always coordinate efficiently, which tends to complicate project implementation. Activities and inputs required from participating countries are usually the responsibility of individuals representing national institutions in different regional forums. The backing and support of national institutions in securing these inputs and activities are not always adequate, which causes delays in providing inputs needed from the national level to achieve regional benefits.
- **Less than satisfactory dissemination and utilization of information and regional outputs.** A good example is the case of the NTEAP, in which both the EEAA and the MWRI are involved.
- **Ineffective institutions and policy tools.** The relative weakness of the environmental institutions in some of the involved countries, as well as the inadequacy of some important policy tools such as legislation and/or information in these countries, complicates collaboration in activities related to the environment.
- **Varying levels of competency.** The capacities and competencies of the relevant national stakeholders in the various countries involved differ considerably. Consequently, capacity-building activities are neither relevant nor sufficiently useful for institutions in Egypt, where capacity is greater than in some other countries in this sector.

- **Insufficient visibility.** The activities of regional projects with no national component are not sufficiently visible, especially when compared with relatively large bilateral projects. Accordingly, these projects do not always receive the political attention they greatly need.

Impacts

Impacts of Completed Projects

The **Lake Manzala** initiative was the first national project in the international waters focal area to be implemented and completed in Egypt, with implementation occurring over some 15 years (1992–2007).

The project created a pilot engineered wetlands facility to treat the agricultural drainage waters of one of Lake Manzala's five drains. The impacts of the Lake Manzala project is evidenced by its contributions to reduced water pollution. The ratio of actual to planned treatment efficiency was 61 percent for biological oxygen demand, 80 percent for total suspended solids, 51 percent for total nitrogen, 15 percent for total phosphorous, and 97 percent for total coliform. Thus, the actual treatment efficiency of the facility was even higher than the original design. Both the main and pilot wetlands are now operational.

The project has been influential, involving as it did eight national agencies, including five ministries (involved with agriculture, housing, environment, and water and the Port Said Governorate), and three academic and private organizations (Cairo University, the Agriculture Research Center, and the Arab Fisheries Company). Nevertheless, the positive achievements made during implementation are to some extent jeopardized now that the project has been handed over to the MWRI's Drainage Research Institute, which has a very limited budget to operate the wetlands. This point is further elaborated below.

Two **regional projects** have been completed so far: "Implementation of the SAP for the Red Sea and Gulf of Aden" and "Determination of Priority Actions for the Further Elaboration and Implementation of the SAP for the Mediterranean Sea." Neither of these projects had a national component in Egypt, and no specific global environmental impacts directly stemming from them have been achieved in Egypt per se. However, the Red Sea SAP project has produced useful outputs including studies, protocols, plans, surveys, and capacity-building activities that may have some impacts if sufficiently utilized at the national level. At the regional level, the project established the MEMAC in Hurghada under the PERSGA.[2] The MEMAC conducts highly specified training for its members several times a year and has a training facility, library, and an oil spill trajectory model to predict the movements of a given oil spill. The MEMAC operates on a regional budget from the PERSGA, supported by member countries. The achievements of the Red Sea SAP project are described in more detail in box 5.3.

Likely Impacts of Ongoing Projects

All ongoing projects address integrated ecosystem and resource management (with the exception of the global ballast water project, which addresses contaminant-based programs). Regionally, ongoing projects are foundational projects. By their very nature, there are no impacts as such that can be reported in terms of increased fish stocks, reduction in land pollution, and complementary water uses. Rather, the outcomes of these projects aim to foster multistate cooperation on priority

[2]It took from 1991 to 2003 for the MEMAC to reach an agreement with the EEAA regarding the center's diplomatic status and implementation arrangements. The center is now fully operational with five full-time staff members.

Box 5.3

Good Practice: Implementation of the SAP for the Red Sea and the Gulf of Aden

Through the Red Sea and Gulf of Aden SAP, the institutions and networks created by the project have achieved considerable success. Based in Jeddah, Saudi Arabia, the PERSGA has brought together ministries, scientists, and civil society leaders from Djibouti, Egypt, Jordan, Saudi Arabia, Sudan, and Yemen. Among the project's accomplishments are the following:

- A network of marine protected areas has been established through the enhancement of existing protected areas and the creation of new ones, including Dongonab Bay and Mukawwar Island in Sudan, Belhaf-Bir Ali in Yemen, and Îles des Sept Frères in Djibouti.
- A new regional protocol on biodiversity and protected areas has been drafted and is awaiting final approval.
- New hydrographic surveys to reduce the environmental risks from shipping in the southern Red Sea have been undertaken.
- A strong partnership with the International Maritime Organization has resulted in a series of training workshops on oil spill contingency planning and accidents and emergency procedures.
- New data collection centers have been established to lead efforts at reducing pressure on overexploited shark stocks. A preliminary analysis of the ornamental fish trade has been conducted and management guidelines prepared.

Source: UNDP-GEF 2004.

water concerns, and are therefore analyzed at the outcome level (see below).

Although a national project, the **Eastern Desert groundwater project** allows utilization of an untapped water resource that would, if used sustainably, reduce competing demands on the already overcommitted Nile waters. The project has developed several models and is, according to experts in the field, technically very sound. It has been showcased at international and regional events. One reported weakness was its lack of an environmental impact assessment to map out the adverse ecological effects of project interventions.

GEF support has addressed the main water bodies in Egypt, where the GEF has built on the results of the plans and strategies developed in foundational projects and turned plans into actions reflected by investment projects. For example, the prepipelined Alexandria ICZM stems from the the Mediterranean SAP and falls under the umbrella of the Investment Fund for the Mediterranean Sea Large Marine Ecosystem Partnership. This national project is also linked to the World Bank's Egyptian Pollution Abatement Project, whose goal is to improve environmental conditions in a limited number of pollution hotspots including Lake Mariout in Alexandria.

Outcomes

Outcomes of Transboundary Programs/Actions

The regional international waters projects in which Egypt participates aim to fulfill one of three broad objectives:

- Lay the foundation for collaboration among countries over transboundary water resources
- Develop diagnosis analyses, action plans, strategies, and frameworks stemming from the collaboration among countries
- Develop a program of investments based on such plans and frameworks for cooperation, involving both regional and national components

Important achievements have been made through these regional foundational projects, including paving the way for collaboration among countries on transboundary water resources; initiating a dialogue; and laying the groundwork for strengthened institutional, legal, and coordination

frameworks and networks among national institutions in participating countries. However, these collaborations and networks are fragile in nature and have yet to achieve solid, agreed-upon institutional, legal, and coordination frameworks. This is particularly true for those initiatives related to the Nile Basin and Red Sea, which have not produced signed cooperation agreements/frameworks.

The following sections, presented by water body, describe the different projects supported by the GEF and their respective strengths and weaknesses.

Red Sea. The project implementing the SAP for the Red Sea and the Gulf of Aden was initiated in 1997. Its strategy involves strengthening the technical and managerial capacities of the regional organization (PERSGA) based in Jeddah, Saudi Arabia, and its national focal points; facilitating the sharing of information and experiences across the region; and supporting the development and implementation of legal, institutional, and financial instruments to sustain good environmental management practices. The project had limited success on certain fronts, and the commitment of regional states to project implementation was low by the project's end due to limited coordination among the national institutions of participating countries and the relative weakness of the environmental institutions engaged, as well as to the limited dissemination and utilization of information and regional outputs.

The SAP for the Red Sea and the biodiversity project "Red Sea Coastal and Marine Resource Management" were implemented at about the same time (late 1990s to early 2000). Though the two projects did not interact, the building that now houses the EEAA's regional branch office in the Red Sea Governorate was an output of the biodiversity project; it also houses the MEMAC, an output of the international waters project.

Mediterranean Sea. Twenty countries and the European Union are contracting parties to the Convention for the Protection of the Mediterranean Sea against Pollution (the Barcelona Convention), the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources, and the Mediterranean Action Plan. UNEP has served as the secretariat to the Mediterranean Action Plan and to the Barcelona Convention since their adoption. The regional initiatives covering the Mediterranean Sea, including GEF-funded projects, are closely linked and are designed to build on and support previous experiences and outcomes.

The parties to the Barcelona Convention adopted the SAP for the Mediterranean Sea in 1997, and the first GEF project in Egypt, "Determination of Priority Actions for the Further Elaboration and Implementation of the SAP for the Mediterranean Sea," was designed to support implementation of the SAP nationally. With GEF support, a transboundary diagnostic analysis was carried out in 1997, followed by the preparation of two SAPs—one for land-based pollution and one for biodiversity protection. The Mediterranean basin countries recognized the need for a coordinated and innovative approach to SAP implementation that would accelerate on-the-ground implementation of priority actions and aim to remove institutional, financial, and technical barriers to investments. The GEF, the World Bank, UNEP, and the Mediterranean Action Plan have jointly proposed the establishment of a Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem to leverage reforms and catalyze investments that address transboundary pollution reduction and marine and coastal biodiversity conservation priorities identified in the two SAPs. The proposed partnership would achieve its objective through two components:

- **Regional component**—implementation of regional activities to protect the environmental resources of the Mediterranean and its coastal areas ($15 million GEF grant, under preparation, to be implemented by UNEP and partners[3])
- **Investment Fund** for the Mediterranean Sea Large Marine Ecosystem Partnership ($85 million GEF grant, implemented by the World Bank)

The objective of the regional component is to promote and induce harmonized policy, legal, and institutional reforms, and fill the knowledge gap aimed at reversing marine and coastal degradation trends and living resource depletion, in accordance with priorities agreed on by the countries in the SAPs for land-based pollution and biodiversity protection. The regional component will also implement a regional replication strategy for the demonstration investments implemented under the Investment Fund. The Alexandria ICZM project is one of two project concepts that have been reviewed and approved by the GEF Secretariat for pipeline entry; the other is in Bosnia/Croatia.

The objective of the Investment Fund is to accelerate the implementation of transboundary pollution reduction and biodiversity conservation measures in priority hotspots and sensitive areas of selected countries of the Mediterranean basin that would help achieve the targets outlined in the SAPs for land-based pollution and biodiversity protection. The four main transboundary concerns identified in the Mediterranean Sea Large Marine Ecosystem include biodiversity loss, pollution hotspots, coastal habitat degradation and loss, and fisheries depletion.

While the regional MedWetCoast is categorized as a biodiversity project, it has some bearing on the international waters portfolio in that it contributed to improved conservation of some wetland-related species. This project had a strong national character. Moreover, with no defined regional coordination or management, it developed according to national interpretation. In Egypt, there was a strong emphasis on research, individual capacity development, and site management.

Nile Basin. The NTEAP funded by the GEF is one of seven projects under the NBI Shared Vision Program. Other NBI donors include the World Bank, UNDP, and the Canadian International Development Agency. The objective was to support the development of a basinwide framework for actions to address high-priority transboundary environmental issues within the context of the NBI's Strategic Action Program. The NTEAP has been designed as an integrated five-year project, with UNDP and the World Bank as GEF co-Implementing Agencies. Its first tranche underwent a midterm review in November 2006 that issued 38 detailed recommendations, including enhancing ownership of the national institutions, utilizing capabilities from national institutions in capacity-building efforts, and widening the circle of influence of the project activities and making them more visible; it recommended a one-year extension until the end of 2009. Overall, the midterm review found the project to be "reasonably advanced in its goals and objectives" with 12 project targets fully attained out of 40. The review also notes that if the NTEAP can overcome the general weaknesses of regional projects and effectively implement the recommendations put forth, the remaining project targets are more likely to be attained within the extension period.

[3]The concept for the regional component entered the GEF pipeline in November 2004. The project is currently under preparation and will be presented for Council approval by end of 2006.

The project seeks to encourage more effective basinwide stakeholder cooperation on transboundary environmental issues by supporting the implementation of the actions prioritized by the Transboundary Environmental Analysis. The major implementation problem appeared to be related to insufficient coordination of the various project components—not surprising in an institutional set-up as complex as the NBI's. The NTEAP has maintained the original development objective designed and agreed to by the riparian countries, namely "to create more effective basinwide stakeholder cooperation on transboundary environmental issues by supporting the implementation of a subset of the actions prioritized by the Transboundary Environmental Analysis." The second phase focus is "to protect critical Nile Basin ecosystems from transboundary threats through the provision of a strategic environmental framework and the engagement of stakeholders according to the principles of Integrated Water Resources Management."[4]

Under NTEAP I, a Nile Transboundary Microgrants Program was established to support local-level land and water conservation initiatives at transboundary sites and of transboundary significance for the regional international waters project. A microgrant coordinator was hired to oversee and manage the fund, which was positioned at a transboundary governorate (Aswan). In participating riparian countries with an SGP presence, such as Egypt, the SGP steering committee was used as an advisory body for the overall functioning of the microgrants program. The microgrants coordinator, together with the SGP steering committee, succeeded in establishing benchmarks in the National Transboundary Microgrants Program Action Plan that address key issues highlighted in the Transboundary Environmental Analysis. In Egypt, the microgrant fund was well managed and coordinated by and with the SGP Steering Committee, which resulted in a number of community-based projects; these did not cause any overlap or redundancy with the SGP, but instead created synergies and useful collaboration.

The second phase of the NTEAP is a continuation and consolidation of activities of the first phase. The project will begin to phase out project activities and phase them into the permanent institution for cooperation in the Nile Basin. The project outcomes achieved so far face several risks, including political risks associated with the commitment of the Nile Basin countries and general insecurity, operational risks related to institutional leadership and regional coordination capacity, strategic risks linked to the sustainability of project products, and climatic risks related to changes of flows and recurrence of floods. During the second phase of NTEAP, the project is putting more resources into demonstrating the practical effects of its achievements, helping the created stakeholder networks define and achieve their goals, reinforcing collaboration with other environmental projects in the basin, using knowledge dissemination for economic development in the region, and orienting activities toward environmental transboundary issues.

Other projects in the Nile Basin are "Mainstreaming Groundwater Considerations into the Integrated Management of the Nile River Basin" and "SIP-Eastern Nile Transboundary Watershed Management in Support of ENSAP Implementation." The former has recently begun, and the latter has received PIF approval; thus little information regarding their achievements can be noted.

Nubian Aquifer. This aquifer is addressed through a recent regional project, "Action Programme for

[4]Information about NTEAP from its Web site, http://nteap.nilebasin.org/ (accessed March 2009).

the Integrated Management of the Shared Nubian Aquifer." The Nubian Sandstone Aquifer System is one of the largest aquifers in the world, covering Chad, Egypt, Libya, and Sudan. The project's overall expected results would contribute to strengthening the institutional, legal, and analytical frameworks for sustainable management and use of the shared aquifer system. The project seeks to achieve a clear understanding of transboundary issues, problems, and potential solutions; prepare a shared aquifer diagnostics analysis that identifies gaps in capacity and data; and jointly develop and agree on a strategic action program to address real and potential problems. The project also aims to establish a framework for developing an appropriate legal mechanism, such as a convention, to underpin transboundary cooperation represented by a strengthened Joint Nubian Sandstone Aquifer System Authority. The project uses the transboundary diagnostic analysis methodology as well as isotope analysis for groundwater modeling, which holds potential lessons for groundwater modeling at large.

GEF support of the shared Nubian Aquifer project has initiated a dialogue among the four participating countries that might not have taken place without GEF funding. The GEF contribution in putting such dialogues in place vis-à-vis the NBI and the Nubian Aquifer has been of particular strategic importance.

Catalytic and Replication Effects

The catalytic effects of the international waters projects are demonstrated by the extent to which follow-up projects have resulted from the initial GEF investments. For example, projects in groundwater have become more prominent in the portfolio, beginning with the national groundwater project in the Eastern Desert; the International Atomic Energy Agency, the implementing agency in the regional shared Nubian Aquifer project, just started "Mainstreaming Groundwater Considerations into the Integrated Management of the Nile River Basin." A new U.S.-funded project has been awarded to Cairo University and the University of Western Michigan, which have been involved in the Eastern Desert project, to investigate the potential for groundwater resources in Sinai as a direct continuation of the current Eastern Desert initiative. The main justification for funding this project has been the innovative and successful approaches of the GEF project.

The Lake Manzala project has a large potential for replication, both in Egypt and other countries in the region with similar environmental problems. Nevertheless, there is no vision for replication of constructed wetlands in Egypt. The project document does not set out a replication approach, but rather infers opportunities for replication of capacity building and dissemination. The project treats 2.5 percent of the agricultural drainage waters of one of five drains of Lake Manzala. Two or three more drains replicating the same technology were considered during the project design phase; however, the project could only fund treatment of one drain, and therefore turned into a small pilot project conducted only in Lake Manzala. While the project developers did not articulate how replication should be fostered, it has been recognized that there is a real potential for Egypt to expand its use of constructed wetland systems. To date, the government has not supported the replication efforts as much as anticipated.

At the end of GEF support, the Lake Manzala project was handed over to the Drainage Research Institute, which has been given the responsibility to operate the engineered wetlands facility and to extend treatment of the Bahr El Baqar Drain. The National Water Research Centre, under which the institute operates, intends to extend the technology for treatment of domestic sewage for

villages on the fringe of the Delta; to date, some small-scale wastewater treatment systems using engineered wetlands have been installed in surrounding villages. In addition, the World Bank is planning to integrate constructed wetlands as part of a project in the Alexandria region. However, there has been no specific plan for scaling up the Lake Manzala project or for reforming policies and removing barriers for replication. Initiating a pilot for a technology means that adaptation to the technology and variations to the implementation may be required for replication to take place in other parts of Egypt. The technology adopted by the wetlands for the treatment of wastewater is a low-cost technology when compared to the costs associated with traditional wastewater treatment plants. Box 5.4 presents the success of the technology adopted at Lake Manzala. It should be noted that Lake Manzala is one of the poorest areas in Egypt; it lacks electricity, piped water, and basic infrastructure. It is the lack of supporting infrastructure at the project site that has in part caused the high operation and maintenance costs associated with running the engineered wetlands.

During the last year of implementation, the Lake Manzala project initiated a national dialogue on the expansion of engineered wetlands for treating drainage water in suitable locations in Egypt, which will link national priorities in reuse of drainage water with global benefits of reducing pollution load discharged into the Mediterranean. The project prepared an international waters experience note on the methodology to identify the factors influencing engineered wetlands to facilitate replication in other countries. These initiatives have yet to materialize, and the government has thus far not provided any budget to continue operation of the Lake Manzala engineered wetlands.

Box 5.4

Good Practice: Innovative Approach and Technology in the Lake Manzala Engineered Wetlands Project

The Lake Manzala project has helped Egypt in an ambitious and pioneering effort to clean and reuse agricultural drainage waters for productive purposes by developing an innovative approach and technology. Using a series of engineered wetlands, 25,000 cubic meters of water are pumped daily from the Bahr El Baqr canal, which leads into Lake Manzala, into a series of large ponds, where most of the toxic sediments settle in the water. After the sediments settle, the water flows into the specially designed wetlands, where plants and bacteria filter it gradually, removing additional pollutants. The entire process is chemical-free and can be undertaken for just one-tenth the cost of traditional competing technologies.

Treatment of wastewater via engineered wetlands is a new low-cost technology to the Middle East, and the Lake Manzala engineered wetlands are the first of their type in Egypt. The success of the technology in reducing water pollution has led national authorities to explore the reuse of treated water via engineered wetlands in irrigation, fish farming, and decentralized wastewater treatment technology in remote areas.

The project is negotiating with a fish research institute to explore the suitability of using treated water in breeding some fish species that have vanished from the lake due to pollution stress. The project seeks to involve the local community in the facility's operation and maintenance to increase awareness of the technology and reduce risks of pollution. The Egyptian government plans to convert the facility into a center of excellence for low-cost techniques for wastewater treatment.

Source: Atallah and Hamid 2007.

Institutional Sustainability and Capacity Development

Institutional anchoring of projects has been achieved, even though the sustainability of the institutional and financial set-ups in some cases are not sufficiently secured. Regarding the Lake Manzala engineered wetlands, the EEAA initially

bore responsibility for the project, and while its involvement through parts of the project was not sufficiently proactive, it was active in several key situations. Early on, the EEAA requested the Port Said Governorate to allocate the land for the facility and provided a strong defense of the project during public hearings in the parliament. Nevertheless, no single line ministry of the Egyptian government has the required expertise to address and manage this type of project. The Ministry of Agriculture promotes land reclamation for increased agricultural production at the expense of Lake Manzala, and the MWRI has focused on reuse of appropriate water for irrigation and agricultural development, also at the expense of Lake Manzala. The MWRI played a significant role through the provision and participation in water quality measurements, in addition to its role at project handover. The National Water Research Center was actively involved in carrying out the monitoring and sampling analysis program at the wetlands. An initial agreement on transfer of authority from the EEAA to the MWRI took place in 2003, with the official handover conducted in 2007; the MWRI operated the facility during that four-year period. In other words, while institutional anchoring was achieved by the ownership of the MWRI, the nonphased and nongradual ending of the project has led to challenges in the financial sustainability of fully operationalizing, disseminating, and scaling up the wetlands.

The success and sustainability of the project depend not only on technical aspects and securing the project within the MWRI, but also on positioning it within a suitable institutional framework. While the changeover from the EEAA to the MWRI's Drainage Research Institute makes sense, as the center is the agency best able to manage the facility and benefit from the use of the engineered wetlands, and the Drainage Research Institute's specialists have the experience and expertise to carry out replication of the technology, the handover also raises some questions regarding sustainability and replication. The handover may be sustainable from a research perspective, but financial sustainability is to some extent put to risk, as the Drainage Research Institute, by virtue of being a public research institute, will not have the budget or the mandate to operate, scale up, disseminate or push for replication of the engineered wetlands. The Drainage Research Institute has put forward proposals for a Code of Practice for Wetlands in Egypt, Common Definition for Wetlands, Functions of Wetlands, and an Atlas of Wetlands, and is trying to find donors. Even though the technology of the engineered wetlands has worked well, these proposals have not been addressed to date, and there is only a limited budget to continue the operation of the wetlands in Lake Manzala. An additional impediment is the fact there is no strategic decision in Egypt stating that engineered wetlands are important.

A business plan was developed for Lake Manzala to help achieve and secure its financial sustainability. While the EEAA reaped the benefits of implementing the engineered wetlands as a donor-funded project, once operating costs begun to accumulate, the operational responsibility has fallen on the MWRI. The engineered wetlands at Manzala adopt a low-cost technology, which could be managed under a cost-recovery mechanism. However, the project did not design a built-in cost-recovery mechanism. While the business plan projected that fish farming revenues would cover and exceed expenses of the facility starting in year 4, the first fish farming trials were not successful and are facing technical, logistic, and bureaucratic challenges.

In general, the regional bodies executing the regional projects are found to be well positioned to manage these, with the NBI being a particularly

experienced and competent forum well aware of many of the strategic issues entailed; the relatively new Joint Nubian Aquifer Authority is, in contrast, still unfamiliar with many of the relevant transboundary water resource issues.

Awareness Raising

The international waters projects in the national portfolio have been pilot demonstration projects, which activated research in the area of engineered wetlands and groundwater resources. While the projects were intended to change societal behavior, the Lake Manzala project was not able to reach and collaborate with the communities, partly due to tensions regarding land tenure. However, the projects have built the capacities of staff in relevant institutions, and several doctoral students have dedicated their studies to these research areas.

Under the first NTEAP, the institutions mandated to facilitate regional cooperation were strengthened, and a microgrants program was managed and coordinated by a national microgrants coordinator working with the SGP Steering Committee to approve community-level projects in water and conservation. One of the project's components was environmental education and awareness, which included the annual Nile Week, with a different theme each year (land degradation in 2007, wetlands management in 2008); boat rides for schoolchildren in the governorates of Qena, Luxor, and Aswan; a Nile Awards program in preparatory and secondary schools in Egypt for drawing, poetry, and articles; radio contests; quarterly newsletters distributed among youth centers and schools; project-based learning in 10 government schools; an environmental education module for universities; a Nile River Awareness Kit, which included an interactive CD to provide education on the hydrology, sociology, and biodiversity of the Nile; and a documentary, *Endangered Lifeline*. Awareness-raising and education initiatives vary in magnitude and achievement, and have been highly visible and successful where implemented. However, they reach only a small fraction of the audience for such information (project-based learning was implemented in only 10 of the thousands of government schools across the country). Workshops held in Egypt have addressed national water quality monitoring and enforcement, microgrant capacity building, and national transboundary issues. Additionally, the PERSGA regional project's MEMAC conducts a number of training workshops every year in its offices in Hurghada, and disseminates print material about project initiatives.

5.4 Land Degradation

The only GEF-supported project dealing entirely and exclusively with land degradation in which Egypt participates is the regional MENARID initiative. This project is in its early stages and, so far, has no activities in Egypt. The national MENARID project initially planned under the regional program has not materialized. Two multifocal projects, the NCSA enabling activity and the mainstreaming the global environment project, address land degradation to some extent, although with a limited focus. The SGP has not provided funding to land degradation projects in Egypt.

5.5 Persistent Organic Pollutants

The completed NIP enabling activity has allowed Egypt to meet its reporting obligations under the Stockholm Convention on POPs, as well as laid the groundwork for implementation of the convention.

Impacts

The evaluation found no impacts in the POPs focal area in terms of reduced or eliminated

production, use, and release of POPs. This finding is in line with the fact that, so far, only the NIP enabling activity has been completed in this area.

Outcomes

Catalytic and Replication Effects

One of the objectives of the NIP enabling activity was to facilitate ratification of the Stockholm Convention. While it has been difficult to assess the extent to which the NIP contributed to or influenced the ratification process, it can be noted that Egypt ratified the Stockholm Convention in 2003, one year after the enabling activity was initiated. The NIP enabling activity has catalytic potential in providing a basis for further project development and action in the POPs area. For instance, a project proposal on integrated and sustainable management of PCBs, dioxins, and furans is being prepared in collaboration with the World Bank and is due to be submitted for GEF review.

Institutional Sustainability and Capacity Development

The NIP enabling activity addressed capacity development at various levels of government by conducting training and workshops for a range of stakeholders. This project element has, to some extent, strengthened national capacity and enhanced knowledge on POPs among decision makers, industry, and the public at large. However, the absence of a common system for reporting and documenting capacity-building activities does not allow for a full assessment of the NIP's contribution toward building national and institutional capacity. Inclusion of the development of a capacity-screening tool would be useful in proposals addressing institutional capacity building.

Awareness Raising

The NIP has helped raise awareness about the status of POPs within the Egyptian government, among its ministries, relevant authorities, and NGOs, as well as among private sector and environmental experts.

5.6 Multifocal Projects

GEF support to multifocal projects is relatively recent, beginning in GEF-4. At the national level, only one multifocal project, the NCSA enabling activity, has been completed. A second project, on mainstreaming the global environment, recently started and is now under implementation. The GEF database indicates that there are three additional projects in Egypt classified as multifocal. However, after a close look, it was evident that these projects were essentially international waters projects; they are thus discussed briefly in section 5.3.

Impacts

The NCSA enabling activity contributed to the establishment of the GEF Unit in 2008. The unit, in turn, has played an important role in improving GEF project preparation and strengthening coordination among stakeholders. The ongoing mainstreaming the global environment project currently funds the GEF Unit.

Outcomes

Catalytic and Replication Effects

The NCSA enabling activity has shown catalytic potential by providing the basis for further project development in the climate change, biodiversity, and land degradation focal areas. Issued in December 2007, the NCSA report emphasized that the existing weakness of the monitoring, evaluation, and reporting system in these three areas was a major constraint to proper implementation of national and international environmental commitments, particularly of the three Rio conventions. This finding catalyzed initiation of the mainstreaming the global environment project, with a view to tackling capacity constraints

such as public participation, technology transfer and cooperation, financial mechanisms, and legal enforcement in the three areas.

Institutional Sustainability and Capacity Development

NCSA achievements are largely demonstrated by Egypt's improved institutional set-up and coordination, as well as the development of capacity within the NCSA team and among project stakeholders. Numerous academic and research institutions have been engaged in the project, which has contributed to an exchange of knowledge and the preparation of stocktaking reports; also, the EEAA's Multilateral Environmental Agreement team built its capacity through the NCSA process. The NSCA project team benefited from various opportunities offered by the NCSA Global Support Programme, such as attending meetings and receiving advice.

The NCSA identified priority capacity needs related to global environmental management in Egypt in the areas of climate change, biodiversity, and land degradation, and formulated the National Strategy and Action Plan for Capacity Development to address these needs. By including a component for monitoring and evaluation of this plan, the NCSA has contributed to improved planning and implementation of capacity development programs, thereby ensuring their sustainability and success. Monitoring and evaluation systems have been put in place that build on those in the agencies that serve as focal points to the Rio conventions. Among other things, these systems assess compliance with a set of capacity development indicators, including output, effect, impact, sustainability, and equitability indicators.

The project played a role in furthering the aims of Millennium Development Goal 7 (MDG7), Ensure environmental sustainability (box 5.5). With respect to institutional sustainability, the NCSA project management team was assigned to serve as the technical secretariat of the GEF National Steering Committee when it was established in 2006. Upon completion of the NCSA project, this group became the GEF Unit; essentially, then, the

Box 5.5

Good Practice: Nationalization of the MDG7 through the NCSA

The GEF-funded NCSA for Environmental Management project in Egypt has laid the groundwork for reports on almost all global environmental indicators under MDG7. In its first MDG report, issued in 2002, Egypt indicated its intent to combine global MDG targets and indicators with country-specific ones. Its second MDG report (2004) aimed to facilitate debate on how to localize MDG country reporting. Specific challenges flagged in Egypt's MDG reports included rapid population growth and limited resources, climate change impacts, and data deficiencies. Within the NCSA framework, Egypt reviewed and developed a set of targets and indicators to better meet national environmental priorities and MDG7.

Nationalization of MDG7 primarily rests on a consensus of the relevant Egyptian line ministries and authorities on targets and performance indicators addressing environmental priorities as expressed by the NEAP 2002–17 and the three Rio conventions. To date, Egypt has set one country-specific target: to increase the proportion of areas covered by national protectorates to 25 percent from the current 15 percent by 2015.

Nationalization of MDG7 targets and indicators allows for improved reporting and the inclusion of environmental sustainability within national development schemes. To ensure the sustainability of the nationalization of MDG7 targets and indicators, the NSCA team collaborated with the National Committee for Sustainable Development to optimize synchronization between the committee's policy development and the NCSA team's monitoring of performance and environmental impact.

Source: UNDP 2006b.

GEF Unit is an output of the NCSA. While the mainstreaming the global environment project is currently providing partial funding of the GEF Unit, the EEAA is also providing it with funds, another sign of institutional sustainability.

Awareness Raising

As part of the NCSA process, awareness was raised on global issues and commitments in the areas of climate change, biodiversity, and land degradation to foster a more informed dialogue with stakeholders, including convention focal points, implementing bodies, national experts, regional and local authorities, and academia. For example, the NCSA team conducted an awareness program in cooperation with the Ministry of Education called the Bezra Schools Awareness Campaign. GEF support has contributed considerably to enhancing awareness of the significance of addressing all GEF thematic areas.

6. Relevance of GEF Support to Egypt

This chapter addresses the following questions:

- Is GEF support relevant to Egypt's sustainable development agenda and environmental priorities?
- Is GEF support relevant to national development needs and challenges?
- Is GEF support relevant to national environmental policies and frameworks?
- Is the country supporting the GEF mandate and focal area programs with its own resources or support from other donors?
- Is GEF support relevant to the achievement of the GEF mandate of maximizing global benefits, GEF principles (projects are cost-effective, catalytic, sustainable, and replicable), and objectives of each GEF focal area's operational programs and strategies?
- Is GEF support relevant to the GEF Agencies' strategies and frameworks?
- How relevant is the RAF index to country priorities?

6.1 The GEF Portfolio and Egypt's Sustainable Development Agenda and Environmental Priorities

This section explores the relevance of the focus and distribution of the overall GEF portfolio in relation to Egypt's framework for a National Strategy for Sustainable Development, as well as its environmental priorities.

Egypt's Emerging Sustainable Development Agenda

Egypt's vision and framework for its NSSD were launched in 2007, with the aim of identifying priority issues and translating them into specific policy goals for sustainable development. The preparatory steps in formulating the framework are still ongoing, which indicates that the NSSD is as yet insufficient for use in assessing the relevance of the GEF portfolio. However, the current GEF-funded capacity-building project on mainstreaming global environmental issues is linked to the NSSD to ensure integration of such issues in the upcoming plan. The framework strategy is described in more detail in chapter 3 and GEF EO (2009). The fact that no comprehensive sustainable development strategy has ever existed in Egypt compounds the lack of coordination in this area. Even though the NEAP 2002–17 (EEAA 2001) takes into consideration, to some extent, the synergies between the environment and sustainable development, it does not provide an inclusive framework for sustainable development.

While the rate of economic growth has accelerated in recent times, the pressures on the environment and natural resources have also increased, and a fair distribution of wealth within the Egyptian society continues to be a challenge. Given the close

link between environmental sustainability and social and economic development in Egypt, and with the poor population being disproportionately affected by environmental degradation, GEF support has increasingly complemented the emerging sustainable development priorities in Egypt.

Notably, the GEF portfolio in Egypt has shifted its focus over time from mainly promoting environmental interventions to attaching greater importance to involving local stakeholders, integrating their livelihoods into project activities, and establishing appropriate local and national governance frameworks, thereby making GEF support more relevant to Egypt's sustainable development agenda. Where early biodiversity projects such as "Red Sea Coastal and Marine Resource Management" had a limited focus on local community participation, the more recent MedWetCoast and medicinal plants projects have incorporated a more pronounced socioeconomic dimension. In addition, to address the issue of poverty reduction, the medicinal plants project has helped establish a market for medicinal plant products developed by the Bedouins, with the most vulnerable group in Bedouin society—women—expected to benefit most. GEF projects also feature revolving funds to support alternative resource use, both to protect endangered species and reduce poverty.

Evolving Environmental Agenda

In the early 1990s, Egypt had no overall national environmental policy framework or sufficient national capacity to deal with the country's environmental challenges; it therefore relied to a considerable extent on international experts and consultants. The interest from the international donor community in supporting environmental projects in Egypt was extensive, and funding was readily available. As a consequence, Egypt's environmental agenda was largely donor driven during this period. Gradually this situation shifted, with enhanced national expertise, the creation of the EEAA, and the formulation of better structures and action plans. This produced a "matchmaking situation," wherein funding decisions were based on a merging of donors' objectives and national priorities. Lately, the Egyptian government has found itself in a situation where it can, to a large extent, dictate its needs and shape the environmental agenda.

In the initial phase of GEF funding in Egypt during the 1990s, the focus was primarily on global environmental benefits, at the expense of national environmental priorities. For instance, project preparation for "Conservation of Biodiversity and Ecosystem Management in a Sample of Representative Islands of the Nile Valley of Egypt" lasted five years, and while the project fit perfectly into national priorities representing a fragile ecosystem, it was discovered that the flora and fauna in the Nile Islands were unique only to the Nile Valley and Delta, and were not globally significant species. Extensive research was carried out to try to find any species of global significance, but to no avail. Consequently, the project was dropped in 2005. Presently, the GEF is demonstrating more of a balance between securing global environmental benefits and achieving national environmental objectives.

The national development and environmental agenda that has evolved in Egypt over the past two decades has benefited substantially from the baseline information and technical and contextual analyses GEF support has enabled. In addition, the opportunity to identify priorities and establish strategies and action plans in the fields of biodiversity, climate change, and international waters has contributed to moving the environmental agenda forward.

Gaps in the GEF Portfolio

When assessing the relevance of the GEF's Egyptian portfolio, gaps are apparent in the spread of

projects across the focal areas. For example, there are no national projects dedicated to land degradation (a national project under the regional MENARID initiative was initially planned, but had not materialized at the time of this evaluation), and there is only one national project related to POPs.

Land Degradation

Land degradation was added as a focal area to the GEF portfolio in 2002, and the GEF was designated a UNCCD financial mechanism in 2003; thus, pure land degradation projects have only been funded since GEF-3, which has certainly contributed to the relatively small number of projects in this area. In addition, the GEF has not funded the preparation of national action plans in the field of land degradation. Land degradation and desertification are major challenges in Egypt, and the lack of GEF-funded projects therefore does not correlate with national priorities. Government officials, researchers, and specialists in Egypt are not sufficiently aware of the fact that the GEF funds projects that target combating desertification and land degradation. There is also insufficient awareness of the ways, means, and requirements of requesting financial support for projects of various sizes as well as of the organizations to approach for national and multinational projects. Moreover, even among those people who are aware of GEF funding in the area of degradation, the lengthy stages and steps required to reach approval and initiate activities on the ground has had a discouraging effect.

For its part, even though Egypt ratified the UNCCD in 1995, its National Action Program to Combat Desertification (which was not financed by the GEF) was not prepared until 2005, which may indicate a lack of national resources dedicated to this focal area. Because the action program does not contain any specific plans of action or projects with explicit time lines or budgets, it is, in its current form, essentially not fundable, which creates an obvious constraint to transforming it into GEF proposals. Nonetheless, the EEAA and the Desert Research Center have engaged in a dialogue to work out some project concepts. To date, these have been rejected because the GEF was interested in program-level land degradation projects that address wide-reaching desertification challenges such as the Sub-Saharan initiative, TerrAfrica, for which Egypt was not eligible. Another project proposal that was submitted to and rejected by the GEF involved rangelands and presented an integrated biodiversity and land degradation approach. There is widespread interest in Egypt in receiving GEF funding in this focal area, and the possibilities for national activities stemming from the MENARID project will be further explored (as mentioned, the national project initially planned under the regional MENARID has so far not materialized).

POPs

While the issue of tackling POPs, especially in terms of pesticide stockpiles, is of paramount importance to Egypt, only one national project has been supported by the GEF in this focal area. A project proposal is being prepared in collaboration with the World Bank focusing on integrated and sustainable management of PCBs, dioxins, and furans; this proposal has not yet entered the GEF pipeline. Like land degradation, POPs is a relatively new focal area for the GEF, and funding initially went to regional projects and is now beginning to focus more on national projects. There is clearly a need for capacity building in the POPs area in Egypt to address limitations related to land remediation, linking environmental contamination with socioeconomic impacts within the country, and waste handling and management. Egypt must also address various issues and problems related to unintentional POPs. In the

recently prepared NIP, action plans and related activities were put forward in connection with capacity building in various critical areas.

Country Ownership, Cofinancing, and ODA

Country Ownership and Commitment

A number of people interviewed pointed to the fact that GEF support has changed quite markedly since the 1990s when funding was easier to access and there were fewer requirements or expectations. However, there was also limited country ownership of GEF projects and results in those days. The enhanced involvement of national stakeholders in the preparatory process makes for a greater sense of ownership and responsibility for outcomes. Also, coordination and collaboration among sectors and stakeholders have increased over the years.

In general, country ownership of and commitment to donor-funded projects are, to a large extent, affected by how relevant the project objectives are to national priorities. Because Egypt faces several environmental and other challenges that are beyond the scope of GEF support, country ownership and commitment regarding existing GEF projects may be somewhat lacking. However, Egypt's shift from a mostly donor-driven development and environmental agenda, and its improved national capacity and institutional frameworks, mean that national priorities are increasingly dictating donor-funded environmental activities, which certainly has had a positive impact on the sense of ownership and responsibility.

The establishment of the GEF Unit and National Steering Committee is a clear sign of enhanced country ownership and has contributed to a more systematic project approval process. Also, a better understanding of the concept of country ownership seems to have developed over the past few years, especially in the field of biodiversity; this may reflect improved institutional capacity and knowledge. This enhanced awareness of country ownership may also reflect the unique role of the Nature Conservation Sector within the EEAA in wielding executive power in the implementation of Law 102/1983 on the establishment and management of protected areas in Egypt. The sector has thus been responsible for initiating most of the country's recent biodiversity projects and is the executing agency for many of these as well.

When government commitment is present, the likelihood of sustainability increases considerably. For instance, the Nature Conservation Sector takes an active role in the medicinal plants project and its recently initiated community-based natural resource management approach; this in turn has facilitated the formulation of the access and benefit-sharing law and several capacity-building exercises, in addition to contributing to plans for the EEAA to provide funding after GEF support to the project ends.

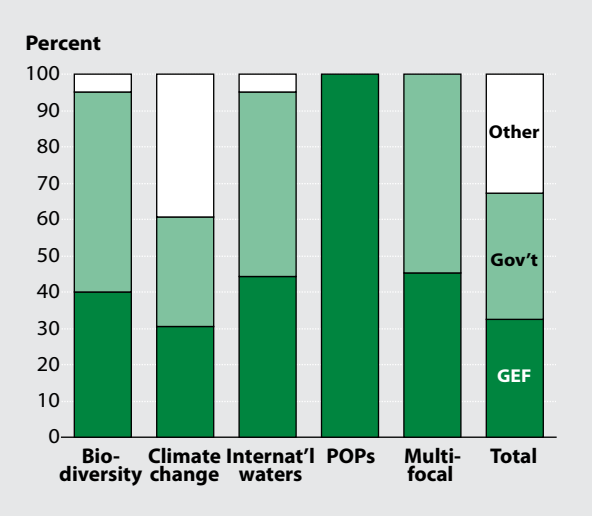
Cofinancing

Cofinancing for the GEF portfolio in Egypt is mostly provided by Egyptian government agencies and is on average about twice the amount of the original GEF grant (figure 6.1). For the total $87.87 million in GEF support for national projects, excluding the SGP, cofinancing amounts to $181.49 million. This ratio of almost $2 for every $1 provided by the GEF is rather small compared with other countries receiving GEF support. The low levels of cofinancing received from national institutions may indicate that Egypt finds it difficult to finance environmental activities.

Cofinancing levels vary somewhat by **GEF Agency** (table 6.1). Cofinancing for projects implemented by UNDP, calculated at 2.47, exceeds the cofinancing average; while both UNEP (1.05) and the World Bank (1.77) have cofinancing ratios that fall below the cofinancing average. UNIDO funded a

Figure 6.1

Cofinancing of GEF Projects in Egypt by Focal Area and Source, 1991–2008



POPs enabling activity in GEF-3; this received no cofinancing.

Table 6.1

Cofinancing Ratios by Agency, Modality, Focal Area, and GEF Replenishment Period

Parameter		Ratio
Agency	World Bank	1.77
	UNDP	2.47
	UNEP	1.05
	UNIDO	n.a.
Modality	Enabling activity	0.05
	MSP	1.40
	FSP	2.05
Focal area	Biodiversity	1.50
	Climate change	2.18
	International waters	1.25
	POPs	n.a.
	Multifocal	1.21
Replenishment period	Pilot phase	0.76
	GEF-1	n.a.
	GEF-2	1.14
	GEF-3	2.23
	GEF-4	3.28

Note: n.a. = not applicable.

Ratios across **focal areas** range from 1.21 for multifocal projects to 2.18 for climate change projects. This disparity is largely explained by the $97.2 million in cofinancing provided for the "Solar Thermal Hybrid Project," which received a GEF grant of $50.85 million. This project accounts for about two-thirds of all cofinancing provided to the climate change area ($145.24 million), somewhat skewing the results. In fact, because cofinancing in climate change exceeds the average across the focal areas, the cofinancing for all other focal areas falls below the country portfolio average. The POPs focal area only included one enabling activity in GEF-3, which received no cofinancing.

There is a large difference in cofinancing ratios by **modality**. The enabling activities have the lowest cofinancing (a ratio of 0.05), while the FSPs have the highest cofinancing ratio—2.05, which exceeds the cofinancing average across project types.

When examining cofinancing patterns by **replenishment period**, it is apparent that cofinancing ratios are improving. The complete lack of cofinancing in GEF-1 is attributable to the fact that this period's projects were all enabling activities, which did not at that time require a cofinancing contribution. Since GEF-2, cofinancing has been required for enabling activities. The cofinancing ratio in GEF-4 is 3.28, which greatly exceeds the cofinancing average over the replenishment periods since the pilot phase.

The GEF and Other ODA

GEF support to Egypt over the 1991–2008 time frame totals about $87.87 million and accounts for approximately one-fifth of the funding contributed by other bilateral and international donor agencies to Egypt (table 6.2).[1]

[1]Many of those interviewed for the evaluation noted that, compared to the funds received from other

Italy has contributed substantial amounts of funding to Egypt in the **biodiversity** area, both within the framework of the Egyptian-Italian Environmental Cooperation Program and the Biodiversity Monitoring and Assessment Project; this work mainly focuses on protected area management, national biodiversity inventory and monitoring systems, dolphin habitat conservation and sustainable use, and capacity building in the EEAA on natural resource protection. In 2002, it was agreed that Italy would contribute €9 million for the implementation of the second phase of the Egyptian-Italian Environmental Cooperation Program to contribute to the protection of Egypt's natural and cultural resources, and, among other things, properly establish and manage a representative national network of protected areas.

In **climate change**, the Canadian International Development Agency has contributed $4.2 million for the Climate Change Initiative, which is working with 50 brick-manufacturing factories in the Giza Governorate to convert their combustion systems from heavy oil (mazot) to natural gas. Private sector companies also provide substantial funding in this focal area because of the large potential for profit with regard to renewable energy, energy efficiency, and so on. Since the 2005 establishment of a designated national authority for the Clean Development Mechanism, funding has increased considerably for the initiation and implementation of CDM projects.

There is no apparent rivalry or overlap among the GEF and other donors active in Egypt, as they all have their own agendas and priorities. However, a recent constraint in mobilizing donor support is Egypt's reclassification as a lower middle-income country by the World Bank in 2002. Subsequently, the Danish International Development Agency announced a decision to phase out its assistance by the end of 2009; and USAID, whose financial assistance to Egypt has totaled almost $26 billion since 1975, ceased its funding for the environment and natural resource management in Egypt in 2004.

With funds from bilateral donors decreasing, the visibility and importance of GEF assistance in the environmental field will clearly increase. Moreover, as shown in table 6.2, whereas ODA disbursements to Egypt have gradually declined since 2002, GEF commitments have been relatively consistent.

Table 6.2

ODA Disbursements and GEF Commitments
Million $

Year	ODA disbursement	GEF commitment
1992	3,820.91	4.75
1993	2,290.51	5.26
1994	2,950.22	—
1995	1,908.81	0.40
1996	2,220.33	—
1997	1,820.22	0.29
1998	1,813.74	0.01
1999	1,580.60	—
2000	1,448.35	5.08
2001	1,392.87	0.83
2002	1,338.23	—
2003	871.38	0.64
2004	1,236.58	51.05
2005	686.80	—
2006	536.75	0.91
2007	739.46	10.52
2008	—	8.12
Total	**24,692.75**	**87.87**

Note: ODA is given in constant 2006 dollars. GEF commitments are for approved projects. — = not available.

donors for work in the environment, GEF support is minimal and not sufficient to accomplish the objectives of the Rio conventions. In this regard, however, the GEF is only supposed to finance the incremental cost of projects, not bear the full cost of reaching convention objectives.

6.2 Relevance of GEF Allocations by Focal Area to Environmental Priorities and Frameworks

GEF support has contributed to the aims and objectives of many of Egypt's key national environmental priorities and policy and legal frameworks, including the NEAP, NBSAP, Law 4/1994, and Law 102/1983, to the extent that these priorities have been relevant to the GEF focal areas. The most pressing environmental challenges in Egypt include problems with wastewater treatment, air pollution, and sanitation—areas in which the GEF has no direct mandate. This circumstance necessitates direct funding by the government to produce tangible results for the population at large, leaving less national resources available to fund projects in the GEF focal areas. There are, nonetheless, numerous examples where GEF projects have had positive spin-off effects on national environmental priorities. For example, the "Sustainable Transport" project is likely to contribute to less air pollution in the project area.

Biodiversity

By and large, GEF support in the area of biodiversity is highly relevant to the national agenda in Egypt. Law 102, which provides a legal framework for the establishment of protected areas, entered into force in 1983 and the first protected area in Ras Mohammed was established the same year, with 13 additional protected areas established during the period 1983–2000. The early GEF portfolio's particular focus on protected areas is likely due to a law on protected areas already being in place upon the GEF's initial engagement in Egypt. In the mid-1990s, GEF funding helped build capacity and establish structures to guide the work in the biodiversity field. GEF support has been instrumental in Egypt's compliance with its commitments under the CBD; to a large extent, it has also contributed to sustaining and consolidating the National Protected Areas Network. The NEAP for 2002–17 focuses more attention on biodiversity conservation and biosafety than did the original NEAP, and highlights the need for strengthening the institutional framework and building capacity in biodiversity conservation. Projects have since broadened their focus to include, among other subjects, wetlands, soaring birds, and biosafety. Even though the relevant legislation and policies have not been a prerequisite for project approval, they have helped justify project aims and priorities.

Projects have addressed many of the priorities listed in the NBSAP, such as sensitive ecosystems (coastal and marine habitats, wetlands), threats to biodiversity (invasive species, hunting management), species conservation (globally significant medicinal and aromatic plants, migratory birds), biosafety, and enhancing capacity building at the individual level and (to some extent) the systemic level.

Many GEF project outputs have been relevant in promoting and mainstreaming biodiversity conservation in Egypt, particularly in establishing a useful framework.[2] Notably, the ICZM plan developed by the "Red Sea Coastal and Marine Resource Management" project was the first of its kind in Egypt, and the Wetland Strategy—along with the national action plan for the conservation of medicinal plants, the access and benefit-sharing law, and the biosafety law that are under preparation—helps establish a policy and legal framework for addressing biodiversity challenges.

[2]Older project documents were found to be much less likely to establish specific links to the NEAP, NBSAP, or relevant legislation and to explain how the respective activity supports these action plans; more recent project documents, to a greater extent, outline the rationale for the project by describing its relevance to national priorities.

Climate Change

Egypt's Climate Change Action Plan from 1999 is in the process of being updated, pending finalization of the Second National Communication to the UNFCCC. The older version of the plan does not clearly spell out concrete priorities, projects, or activities, which makes it rather difficult to assess the relevance of the climate change portfolio against it.

The NEAP does not include climate change as one of its focus areas, instead discussing it in the context of international cooperation—thus indicating that climate change is seen more as a global issue than an environmental challenge or threat Egypt needs to address directly.

The National Energy Efficiency Strategy prepared in 2000 creates an enabling environment for projects involving renewable energy and energy efficiency, which points up the relevance of the EEIGGR and hybrid bus projects. The strategy also encourages biomass energy—not surprising, given that Egypt is an agriculture-intensive country.

International Waters

GEF support in international waters correlates with Egyptian priorities by focusing on the key challenges facing its main transboundary water bodies. In the Red Sea, the SAP project has addressed coastal and marine resource protection and conservation. The GEF-supported Alexandria ICZM project looks to implement the SAP in two hotspots identified in Egypt, El Mex Bay and Alexandria.

The NEAP identified Lake Manzala as an example of severe water pollution in Egypt, with the government calling its environment a "black spot." The GEF's "Lake Manzala Engineered Wetlands," project, which was originally designed to reduce the main source of pollution to the Manzala coastal lake and Mediterranean Sea, also looks to reduce the impact of land-based sources of pollution on the sea while addressing the national development challenge of poor water quality.

A key national concern and priority regarding freshwater resources is improving the water quality of the River Nile; this largely depends on the water quality and ecosystem characteristics of Lake Nasser and the upper reaches of the Nile. The regional NTEAP and the Nubian Aquifer project are of direct relevance to this national priority.

POPs

GEF support to projects in the POPs focal area is relatively recent and limited, with only one completed enabling activity and one project in the pipeline. Egypt's strategy for improving air quality includes addressing POPs as a main air pollutant. Further demonstrating the relevance of POPs projects to national environmental priorities is the fact that POPs are targeted in the National Cleaner Production Strategy, which addresses the prevention of hazardous waste production and reduction of toxic chemical use.

6.3 Relevance to the GEF Mandate

Relevance to Maximizing Global Environmental Benefits

Biodiversity

There is a good balance among the types of ecosystems covered in the biodiversity portfolio in Egypt. Project interventions have addressed a number of critical ecosystems and habitats, including the Red Sea coast and marine resources, the north coast lakes and wetlands, arid and semi-arid zones, as well as the migratory birds' route and the mountainous region of St. Katherine's Protectorate. While the conservation and sustainable use of biodiversity has largely centered on habitat conservation through the establishment

of protected areas, less attention has been given to species conservation. Environmental sustainability and sustainable use have been targeted in the MedWetCoast and medicinal plants projects, seeking to provide local communities with alternative livelihoods and providing training on sustainable use of existing resources. Nevertheless, some threats to biodiversity in Egypt, such as habitat destruction due to agricultural and industrial pollution, climate change including sea level rise, and land degradation in terms of overexploitation of resources and soil erosion, are not properly addressed in the portfolio.

Climate Change

To promote environmentally sustainable development in Egypt by combining economic growth—and concomitant growing energy demand—with a reduction in GHGs, the Egyptian government needs to explore a less GHG-intensive approach to growth by becoming a more energy efficient economy. Energy conservation, change in types of fuels used, use of renewables, and increasing GHG sinks all offer the potential of generating global environmental benefits. GEF projects have reduced GHG emissions through increased efficiency in electricity transmission, and expanded use of cogeneration to supply power to the national electricity grid, by increasing market share for low GHG-emitting technologies, and—more recently—by using renewable biomass as an alternative energy resource to promote sustainable rural development.

International Waters

Global environmental benefits in the international waters area have been achieved by improving national to global environmental linkages—for instance, by reducing international water pollution. Under local conditions in the southern Mediterranean region, GEF projects have demonstrated the effectiveness of engineered wetlands in decreasing the impact of land-based sources of pollution on the Mediterranean Sea and its coastal lagoons, and have developed replicable models for integrating watersheds' renewable groundwater resources into national water budgets in arid regions. The NTEAP has helped support local-level land, forest, and water conservation initiatives, and has resulted in sustainable socioeconomic development through equitable utilization of common Nile Basin water resources. The SAP project has generated global benefits by introducing hydrographic surveys to reduce the environmental risks from shipping in the Red Sea; it has also established data collection centers seeking to reduce pressure on overexploited shark stocks.

Relevance to GEF Objectives and Strategies

Biodiversity

Egypt's biodiversity projects align well with GEF strategic objectives. Collectively, they aim to conserve and sustainably use biodiversity resources and to share genetic resources. They have helped build systemic capacity for long-term sustainability by drafting the biosafety law and the access and benefit-sharing law, and by formulating policies including the NBSAP, ICZM Plan, and Wetland Strategy. Institutional capacity is bolstered through the "Strengthening Protected Area Financing and Management Systems" project, which seeks to improve management effectiveness and thus ensure protected area system sustainability. Capacity building of a more technical nature is provided by the medicinal plants project which aims to control and manage invasive alien species. The ongoing biosafety project seeks to enhance existing technical capacity with regard to implementing the Cartagena Protocol, focusing on risk assessment and management as well as on monitoring and enforcement.

Mainstreaming of biodiversity considerations is also being addressed by GEF projects. Management plans formulated and implemented by the MedWetCoast project seek to ensure that biodiversity considerations are effectively internalized in site management. Institutional or sectoral mainstreaming has been more limited to date: the MedWetCoast terminal evaluation states that the opportunity to integrate wetlands conservation and sustainable use into other sectors (fisheries, water management, tourism, and the private sector) was not sufficiently realized (Fenton and others 2007).

Climate Change

Climate change projects have been aligned with GEF operational programs and strategic priorities. They have addressed—and recently approved projects will continue to address—the promotion of environmentally sustainable transport through modal shifts in urban transport and clean vehicle/fuel technologies, the removal of barriers to energy conservation and efficiency, the reduction of costs for low GHG-emitting technologies through global market aggregation and national innovation for emerging technologies, and the adoption of renewable energy by removing barriers and reducing costs through productive use. Though aligned with GEF objectives, this diversity of aims may indicate a lack of consensus on national priorities with regard to climate change.

International Waters

Egypt's international waters projects have been relevant to GEF strategic objectives, primarily by looking to catalyze transboundary action in terms of reduced land-based pollution as well as by undertaking innovative demonstrations for reducing water pollution. The projects have largely focused on regional ecosystems and water resource management by seeking to balance overuse and conflicting uses of water resources in transboundary surface and groundwater basins. In particular, the Nubian Aquifer project has helped foster multistate cooperation on priority water concerns. Also, several strategic action plans have been developed by GEF-supported projects in this focal area to facilitate learning and promote sharing of experiences among participating countries.

POPs

The preparation of the NIP for the Stockholm Convention correlates with the GEF strategic objective of reducing and eliminating the production, use, and release of POPs by strengthening capacity for sound POPs management.

Relevance to GEF Principles

The examples of projects that have been **replicated** in Egypt's portfolio have not been very prominent to date, and **catalytic** outcomes have most often been rather ad hoc and seemingly by chance rather than based on a recognized strategy. While it is too early to assess the catalytic dimension, in some cases, it can be concluded that most project designs have not sufficiently accounted for catalytic or replicability effects. The fact that enabling activities do not have any reporting requirements, and thus no obligations to set targets for capacity development and catalytic and replication outcomes, may imply that opportunities in this regard are lost. In recently started projects, more thought seems to have been put into promoting an exchange of knowledge and learning from other projects as well as investigating the potential for replicable outcomes. Replicability in many projects has not been achieved, largely due to differences in project environments. New technologies demonstrated in GEF-supported pilot projects could be replicated by adaptation, modification, or fine-tuning of the technology or implementation approach, which could increase

the possibility of successful replication. While **sustainability** plans are described in almost all project documents, projects' actual sustainability is not sufficiently built into the design, and is thus formulated—at best—at project closure.

6.4 Relevance of the RAF Index to Country Priorities

The GEF does not have standardized indicators to measure global environmental benefits. Consequently, the evaluation has used the implicit RAF criteria for biodiversity and climate change as environmental indicators.

The GEF Benefits Index for Biodiversity for GEF-4 seeks to measure the potential global benefits that can be realized from biodiversity-related activities in a country. The index is developed from several data sets and takes into account countries' terrestrial ecoregion components and complexity (including represented and threatened species and represented and threatened ecoregions) as well as their marine biodiversity (which is equal to the sum of credits from all marine species in the territorial waters); the index is a weighted average of each country's scores for terrestrial biodiversity and marine biodiversity.

Egypt scored 21.5 on the GEF Benefits Index for Biodiversity, which represents a 0.3 percent share of the world's biodiversity. According to the World Wildlife Fund's (WWF's) terrestrial ecoregions index, Egypt occupies nine terrestrial ecoregions, three of which are considered critical or endangered in terms of their conservation status; five are vulnerable, and one is relatively stable. The critical or endangered ecoregions are the Red Sea Nubo-Sindian tropical desert and semi-desert, the Arabian Desert and East Sahero-Arabian xeric shrublands, and the flooded grasslands and savannas (National Geographic Society 2001). Completed or ongoing GEF projects in these ecoregions are the medicinal plants project, MedWetCoast, the soaring birds project, and the biodiversity in arid zones project. The GEF's Red Sea project was implemented in the Red Sea coastal desert, which is listed as vulnerable in the WWF index. Thus, GEF-supported projects have to date targeted four of Egypt's nine ecoregions. In addition, three GEF biodiversity projects carried out enabling activities to facilitate compliance with Egypt's obligations under the CBD, while one FSP seeks to achieve strengthened legal and institutional frameworks for the country's protected areas, by—among other things—assessing Egypt's protected area system, including its globally significant biodiversity as well as threats to and root causes of biodiversity loss. The biodiversity portfolio has targeted all the GEF-4 long-term objectives: catalyze sustainability of protected area systems, mainstream biodiversity in production landscapes/seascapes and sectors, safeguard biodiversity, and build capacity on access and benefit sharing. The Benefits Index for Biodiversity thus appears to reflect Egypt's major biodiversity resources and the country's potential to generate significant global environmental benefits.

The GEF Benefits Index for Climate Change, which presents a relative ranking of countries in achieving the GEF's RAF climate change objectives, is derived from the following indicators:

- **GHG emissions in 2000,** including emissions from fossil fuels, cement production, and other sources, but not from changes in land use
- **Carbon intensity adjustment factor**, where carbon intensity is the amount of carbon equivalent emitted per unit of economic activity or kilograms of carbon per $1 of GDP, and the adjustment factor is the ratio of carbon intensity in 1990 to carbon intensity in 2000; the adjustment factor is multiplied by the level of the above emissions, which rewards countries

that have reduced carbon intensity levels through energy efficiency or increased use of renewable energy sources

The GEF Benefits Index for Climate Change rating for Egypt is 53139, which represents a global share of 0.8 percent. Most of the national and regional climate change projects in Egypt have focused on energy efficiency, growth in renewable energy markets, sustainable energy production from biomass, and promotion of innovative sustainable public transport systems; these cover most of the GEF's strategic objectives for climate change. In addition, enabling activities have sought to promote Egypt's compliance with its commitments under the UNFCCC by preparing the required national reports. Accordingly, GEF climate change projects in Egypt are considered to be largely relevant to the Benefits Index for Climate Change.

6.5 Relevance to GEF Agency Strategies and Frameworks

While the GEF portfolio in Egypt is in line with the strategies and frameworks of its Implementing Agencies, GEF projects are shaped by the overall aim of meeting obligations under the various global conventions, and not by its Agencies' priorities.

Several projects in the Egyptian portfolio contribute to achieving the **World Bank** Country Assistance Strategy; these include the NTEAP, which focuses on socioeconomic development through equitable use of common Nile Basin water resources. Protecting the high coastal and marine biodiversity values of the Red Sea is also consistent with World Bank environmental priorities. The "Solar Thermal Hybrid Project" is of strategic significance for the World Bank now that it has once again attained a high degree of partnership with the country's energy sector. The project will contribute to the goals articulated in the World Bank's Country Assistance Strategy for Egypt, which include enhancing the provision of public goods through modernized infrastructure services to achieve higher growth. Egypt and the World Bank are engaged in an intensive policy dialogue, and a comprehensive program of financial and technical support has been developed.

GEF biodiversity, climate change, and international waters projects are all in accordance with priorities identified in the second **UNDP** Country Co-operation Framework (2002–06) for Egypt: "UNDP will continue to demonstrate and transfer environmentally sound technologies for sustainable development in the focal areas of climate change, biodiversity and international waters." In the biodiversity area, UNDP seeks to support projects contributing to the conservation and sustainable use of biodiversity by involving local communities and making sure they maintain and benefit from these biodiversity and ecosystem services. The clear linkages between biodiversity and both sustainable development and achievement of the MDGs make projects in this field highly relevant to UNDP. Biodiversity and protected area management is also identified as a priority area for the latest United Nations Development Assistance Framework. UNDP also focuses on sustainable land management to combat desertification, since land degradation is a major cause of rural poverty in Egypt, and it supports the promotion of clean energy technologies to mitigate climate change and energy activities to reduce poverty.

While UNEP and UNIDO do not have any country-specific frameworks or strategies for Egypt, the GEF projects are within the global mandates of both Agencies.

7. Efficiency of GEF-Supported Activities in Egypt

This chapter addresses the following issues:

- How much time, effort, and financial resources does it take to develop and implement projects?
- Who initiates, designs, and implements GEF projects?
- How clear are roles and responsibilities?
- How successful is dissemination of GEF project lessons and results?
- What are the synergies achieved in GEF project programming and implementation, national institutions, GEF projects, and other projects?
- How does the national focal point mechanism function?
- How has the RAF affected GEF operations?

7.1 Resources Required for Project Processing

This section reviews the efficiency of GEF-supported activities in Egypt, measured by the time and financial resources needed to move a project through the GEF project cycle—that is, the project preparation and implementation period.[1] Estimating these time and cost figures poses several problems, primarily stemming from a lack of complete information and conflicting data. Even though the GEF maintains information on payments made to the GEF Agencies, it does not have information on the investments that project proponents or project implementing and executing agencies make during project preparation.

Preparation Costs

An approximation of preparation costs is calculated by taking into account the cost of a PDF, which is not necessarily independently determined, since there are maximum amounts allowed in the windows for PDF-A, B, and C project preparation grants.

Table 7.1 lists the projects that have requested PDFs for project preparation, expressed as a percentage of the GEF grant. On average, PDFs account for a little over 2 percent of the GEF grant.

Agency Fees and Proportion of Budget for Management Costs

A similar problem to accurate calculation of project preparation costs is calculation of project management costs. The GEF only has information on the amount of funding it provides to the GEF Agencies to manage the projects (referred to as Agency fees). Each project has a management cost that is covered by the actual grant, but this cost is not easily obtained, since it is embedded in the budget of each project. One approximation

[1]This analysis does not reference the newly approved GEF project cycle initiated in June 2007.

Table 7.1

Project Preparation Costs as a Percentage of GEF Grant

Project title	Modality	Focal area	Project status	Agency	GEF amount	PDF amount	Total GEF amount	Preparation cost (% total cost)
					Million $			
Introduction of Viable Electric and Hybrid-Electric Bus Technology	MSP	CC	Completed	UNDP	0.75	0.00	0.75	0.0
Red Sea Coastal and Marine Resource Management	FSP	BD	Completed	World Bank	4.75	0.00	4.75	0.0
National Biodiversity Strategy, Action Plan, and First National Report to the CBD	Enabling activity	BD	Completed	UNEP	0.29	0.00	0.29	0.0
Building Capacity for GHG Inventory and Action Plans in Response to UNFCCC Communications Obligations	Enabling activity	CC	Completed	UNDP	0.40	0.00	0.40	0.0
Lake Manzala Engineered Wetlands	FSP	IW	Completed	UNDP	5.26	0.00	5.26	0.0
Clearing House Mechanism Enabling Activity	Enabling activity	BD	Completed	UNEP	0.01	0.00	0.01	0.0
Conservation and Sustainable Use of Medicinal Plants in Arid and Semi-arid Ecosystems	FSP	BD	Ongoing	UNDP	4.29	0.17	4.46	4.0
Climate Change Enabling Activity (Additional Financing for Capacity Building in Priority Areas)	Enabling activity	CC	Completed	UNDP	0.05	0.00	0.05	0.0
Developing Renewable Groundwater Resources in Arid Lands: a Pilot Case - the Eastern Desert of Egypt	MSP	IW	Ongoing	UNDP	0.83	0.00	0.83	0.0
Solar Thermal Hybrid Project	FSP	CC	Ongoing	World Bank	50.85	1.05	51.90	2.1
Bioenergy for Sustainable Rural Development	FSP	CC	Council approved	UNDP	3.34	0.34	3.68	10.3
Enabling Activities to Facilitate Early Action on the Implementation of the Stockholm Convention on Persistent Organic Pollutants (POPs) in Egypt	Enabling activity	POP	Completed	UNIDO	0.50	0.00	0.50	0.0
Assessment of Capacity-building Needs in Country Specific Priorities in Biodiversity Management and Conservation in Egypt	Enabling activity	BD	Completed	UNEP	0.15	0.00	0.15	0.0

Project title	Modality	Focal area	Project status	Agency	GEF amount	PDF amount	Total GEF amount	Preparation cost (% total cost)
					Million $			
National Capacity Self-Assessment for Environmental Management	Enabling activity	MF	Completed	UNDP	0.20	0.00	0.20	0.0
Sustainable Transport	FSP	CC	CEO endorsed	UNDP	7.18	0.28	7.45	3.8
Support the Implementation of the National Biosafety Framework	MSP	BD	Ongoing	UNEP	0.91	0.00	0.91	0.0
Mainstreaming Global Environment in National Plans and Policies by Strengthening the Monitoring and Reporting System for Multilateral Environmental Agreements	MSP	MF	CEO approved	UNDP	0.50	0.03	0.53	5.0
Strengthening Protected Area Financing and Management Systems	FSP	BD	Council approved	UNDP	3.62	0.00	3.62	0.0
Adaptation to Climate Change in the Nile Delta through Integrated Coastal Zone Management	FSP	CC	Council Approved	UNDP	4.00	0.00	4.00	0.0
Total					**87.87**	**1.86**	**89.73**	**2.1**

Note: BD = biodiversity; CC = climate change; IW = international waters; MF = multifocal.

is the agency fee. The GEF Agency fees have varied over time from an initial flat fee per project modality to a percentage of the GEF grant.

Table 7.2 presents information on the fees the GEF provides to the Agencies to manage projects. The table presents Agency fees as a percentage of the GEF grant only (no information is available on the cost of managing the cofinancing part of the project) for all approved national projects in Egypt.

Both UNDP and UNEP have an average Agency fee of around 12 percent. The only UNIDO project indicates a fee of 10.87 percent of total cost; the only World Bank project shows a fee of 8.17 percent. The average Agency fee for all FSPs was 9.11 percent, compared with 13.77 percent for MSPs and 13.86 percent for enabling activities.

Average Time Taken to Achieve Project Cycle Milestones

Figure 7.1 presents the GEF Activity Cycle before its reformulation in 2007, as all of the projects discussed here, except two, were approved under the earlier cycle (the exceptions are "Bioenergy for Sustainable Rural Development" and "Sustainable Transport"). Tables 7.3 and 7.4 show that the length of time a project takes to move from one phase to another varies considerably, even when FSPs and MSPs are analyzed separately.[2] Many projects may have taken longer to go through the

[2]Even though regional and global projects follow the same steps in the Activity Cycle, they are not included in this analysis as they involve different requirements, including extensive international consultations.

Table 7.2

Agency Fee for National Projects

Agency and project (and modality)	GEF grant (million $)	Agency fee (million $)	Fee (as % of GEF grant)
World Bank, average fee			**8.17**
Red Sea Coastal and Marine Resource Management (FSP)	4.75	n.a.	n.a.
Solar Thermal Hybrid Project (FSP)	50.85	4.16	8.17
UNDP, average fee			**12.22**
Introduction of Viable Electric and Hybrid-Electric Bus Technology (MSP)	0.75	0.15	19.49
Building Capacity for GHG Inventory and Action Plans in Response to UNFCCC Communications Obligations (EA)	0.40	n.a.	n.a.
Lake Manzala Engineered Wetlands (FSP)	5.26	n.a.	n.a.
Conservation and Sustainable Use of Medicinal Plants in Arid and Semi-Arid Ecosystems (FSP)	4.29	0.37	8.51
Climate Change Enabling Activity (Additional Financing for Capacity Building in Priority Areas) (EA)	0.05	0.01	14.58
Developing Renewable Groundwater Resources in Arid Lands: A Pilot Case–The Eastern Desert of Egypt (MSP)	0.83	0.15	17.59
Bioenergy for Sustainable Rural Development (FSP)	3.34	0.30	9.00
National Capacity Self-Assessment for Environmental Management (EA)	0.20	0.03	15.00
Sustainable Transport (FSP)	7.18	0.65	9.00
Mainstreaming Global Environment in National Plans and Policies by Strengthening the Monitoring and Reporting System for Multilateral Environmental Agreements (MSP)	0.50	0.05	9.00
Strengthening Protected Area Financing and Management Systems (FSP)	3.62	0.36	10.00
Adaptation to Climate Change in the Nile Delta through Integrated Coastal Zone Management (FSP)	4.00	0.40	10.00
UNEP, average fee			**12.00**
National Biodiversity Strategy, Action Plan, and First National Report to the CBD (EA)	0.29	n.a.	n.a.
Clearing-House Mechanism Enabling Activity (EA)	0.01	n.a.	n.a.
Assessment of Capacity-Building Needs in Country-Specific Priorities in Biodiversity Management and Conservation in Egypt (EA)	0.15	0.02	15.00
Support the Implementation of the National Biosafety Framework (MSP)	0.91	0.08	9.00
UNIDO, average fee			**10.87**
Enabling Activities to Facilitate Early Action on the Implementation of the Stockholm Convention on Persistent Organic Pollutants in Egypt (EA)	0.50	0.05	10.87

Note: EA = enabling activity; n.a. = not applicable (pertains to projects prior to 2000).

cycle than is indicated here, as only official dates are used in this analysis.

On average, it took FSPs 40 months, or 3.3 years, from Council approval to project start-up. The average total time from pipeline entry to start-up was 77 months, or 6.4 years. This is one of the highest average lag times calculated for the CPEs conducted to date (in Benin, Cameroon, Costa Rica, Madagascar, the Philippines, Samoa, and South Africa). The longest step in the GEF cycle for FSPs is from pipeline entry to Council

Figure 7.1

GEF Activity Cycle

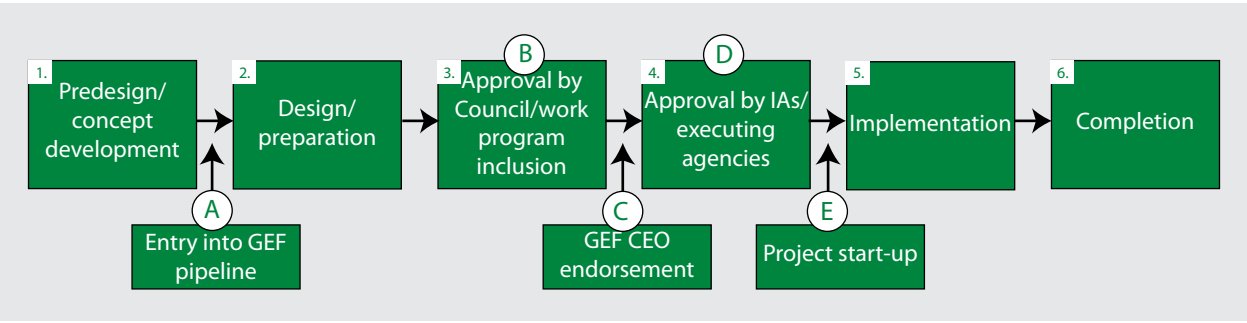


Table 7.3

Duration of Activity Cycle in GEF-Supported FSPs in Egypt

Days

Project	A→B	B→C	C→D	D→E	B→E	A→E
Red Sea Coastal and Marine Resource Management	0	—	—	767	1,003	1,003
Lake Manzala Engineered Wetlands	—	1,612	7	42	1661	—
Conservation and Sustainable Use of Medicinal Plants in Arid and Semi-Arid Ecosystems	—	470	38	133	641	—
Solar Thermal Hybrid Project	2,212	1,266	33	148	1,447	3,659
Bioenergy for Sustainable Rural Development	1,853	686	n.a.	n.a.	n.a.	n.a.
Sustainable Transport	461	687	n.a.	n.a.	n.a.	n.a.
Average	**1,131.5**	**944.2**	**26**	**272.5**	**1,188**	**2,331**
Average (in years)	**3.1**	**2.6**	**0.1**	**0.7**	**3.3**	**6.4**

Note: — = not available; n.a. = not applicable. Data are based on the received date in the GEF database. See figure 7.1 for steps in the GEF Activity Cycle (A–E).

Table 7.4

Duration of Activity Cycle for GEF-Supported MSPs in Egypt

Days

Project title	C→D	D→E	A→E
Introduction of Viable Electric and Hybrid-Electric Bus Technology	98	15	141
Developing Renewable Groundwater Resources in Arid Lands	502	0	—
Support the Implementation of the National Biosafety Framework	264	0	515
Average (days)	**288**	**15**	**328**
Average (in years)	**0.8**	**0.01**	**0.9**

Note: — = not available. Data are based on the received date in the GEF database. See figure 7.1 for steps in the GEF Activity Cycle (A–E).

approval, which averaged 3.1 years, or almost half of the total processing time. The shortest step in the cycle for FSPs is from CEO endorsement to Agency approval, which averaged 26 days. The full project cycle for FSPs takes a little over 6 years; for MSPs, it takes less than a year. MSPs took almost 10 months from CEO endorsement to Agency approval, and 15 days on average from Agency approval to project start-up.

This analysis should be regarded with some caution, as the lack of available data prevented reliable calculations, which of course influences the averages.

The problems noted in previous evaluations with reference to the length of the Activity Cycle are even more pronounced in Egypt. Stakeholders indicated that the projects' preparatory phase is too long, which creates the risk of changed country priorities and circumstances or of moving into a new GEF phase with different strategic priorities and objectives. Much momentum is mobilized during project preparation in terms of energy and interest, and overly long cycles mean this momentum is easily lost. The cycle has now been set at 22 months by the GEF Secretariat in order to address these problems.

Many underlying factors influence a project's progression through the cycle, whether fast or slow. For example, the recently begun "Strengthening Protected Areas Financing and Management Systems" project has had a very smooth cycle, and funds were made available less than six months after the project was approved. In contrast, "Bioenergy for Sustainable Rural Development" took almost seven years of preparation due to numerous requests for project resubmissions, causing the project to be postponed in GEF-3. In the interim, circumstances changed, including an increase in fossil fuel prices as well as changes to the dollar value against the Egyptian pound. Fortunately, this price increase served to make the project more attractive, and it was approved during GEF-4.

Expected and Actual Completion Dates

Table 7.5 compares the start-up and actual closing dates as reported in project completion reports. Ten projects have been completed to date.

The average planned length of implementation is 55.5 months for FSPs, 31.5 months for MSPs, and 16.3 months for enabling activities.

7.2 Roles and Relationships

Who Initiates, Designs, and Implements GEF Projects in Egypt?

In the early phases of the GEF in Egypt, projects were often initiated and designed by the Implementing Agencies—UNDP in particular—using international and national consultants; the relevant government entities were subsequently approached for endorsement and implementation. Dedicated national experts familiar with the GEF process also introduced project ideas based on their specific field of expertise rather than on coherent national strategies or priorities. Universities and research institutes were regularly consulted with in the preparation of a project concept.

Over time, local capacities were built, and there was a shift in emphasis from the GEF to country drivenness and ownership. In essence, the GEF brought global problems with national repercussions to the attention of the Egyptian government, which has prioritized these issues on the policy agenda. The enhanced national capacities to initiate and design projects have led to individuals and government entities that have come up with a "GEF-able" project and approached the Implementing Agencies for GEF support.

National stakeholders have, in a few cases, initiated the national component of a regional GEF project, laying most of the groundwork for the project, and ensuring an appropriate budget allocation. In other cases, an NGO or a regional organization such as the Third World Network of Scientific Organizations or the PERSGA has prepared a project proposal, upon receiving approval from its member states. These organizations have also been in charge of project design and implementation in collaboration with the relevant GEF Agency. For international waters initiatives in particular, regional organizations have worked with

Table 7.5

Planned and Actual Durations of FSPs, MSPs, and Enabling Activities in Egypt

Project title	Target completion date	Actual completion date	Extension (months)	Planned duration (months)
FSPs				
Red Sea Coastal and Marine Resource Management	09/30/98	06/30/02	45	48
Lake Manzala Engineered Wetlands	06/30/01	06/01/07	72.07	60
Conservation and Sustainable Use of Medicinal Plants in Arid and Semi-Arid Ecosystems	10/01/06	n.a.	n.a.	60
Solar Thermal Hybrid Project	10/31/11	n.a.	n.a.	96
Bioenergy for Sustainable Rural Development	n.a.	n.a.	n.a.	60
Sustainable Transport	09/01/13	n.a.	n.a.	9
Average difference			**58.54**	**55.5**
MSPs				
Introduction of Viable Electric and Hybrid-Electric Bus Technology	01/01/00	01/01/06	73.07	6
Developing Renewable Groundwater Resources in Arid Lands: A Pilot Case—The Eastern Desert of Egypt	08/01/05	n.a.	n.a.	36
Support the Implementation of the National Biosafety Framework	09/30/10	n.a.	n.a.	48
Mainstreaming Global Environment in National Plans and Policies by Strengthening the Monitoring and Reporting System for Multilateral Environmental Agreements	06/30/11	n.a.	n.a.	36
Average difference			**73.07**	**31.5**
Enabling activities				
National Biodiversity Strategy, Action Plan, and First National Report to the CBD	12/07/98	12/31/05	86.03	12
Building Capacity for GHG Inventory and Action Plans in Response to UNFCCC Communications Obligations	07/01/98	12/31/06	103.50	24
Clearing-House Mechanism Enabling Activity	12/26/98	12/31/05	85.40	12
Climate Change Enabling Activity (Additional Financing for Capacity Building in Priority Areas)	—	12/31/06	—	12
Enabling Activities to Facilitate Early Action on the Implementation of the Stockholm Convention on Persistent Organic Pollutants in Egypt	—	12/31/06	—	24
Assessment of Capacity-Building Needs in Country-Specific Priorities in Biodiversity Management and Conservation in Egypt	04/30/07	09/24/07	4.90	12
National Capacity Self-Assessment for Environmental Management	—	12/31/07	—	18
Average difference			**69.96**	**16.3**

Note: — = unavailable or unreliable data; n.a. = not applicable (project still under implementation).

the Implementing Agency to initiate and design projects, resulting in limited presence and visibility at the national level for participating countries. For the MedWetCoast project, several national projects were merged into a regional initiative, with the argument that the regionality would imply added value, provide greater cost-effectiveness, and create synergies in terms of lessons learned and experiences transferred among the participating countries. With respect to many of

the more recent biodiversity projects, the Nature Conservation Sector within the EEAA is responsible for initiation, design, and implementation.

The three major GEF Agencies in Egypt are UNDP, UNEP, and the World Bank, and each has their distinct comparative advantage when it comes to initiating and implementing projects. UNDP is very active in Egypt and assists in project implementation through a national execution modality. It has a country office in Egypt, and has developed or helped develop numerous GEF projects. UNEP, which has primarily implemented enabling activities in Egypt, has no in-country representation. The World Bank implements its projects in Egypt from its headquarters in Washington.

The quality of the project documents submitted to the GEF has improved over time, with the newer projects displaying more focused objectives, clear indicators which will help ensure project sustainability, and greater connection to national policy frameworks.

How Clear Are Roles and Responsibilities?

Clarity of roles and responsibilities with regard to GEF projects appears to be insufficient. As noted, interviewees maintained that the criteria for project approval/rejection are not sufficiently clear. Problems occur at the national level because of unclear roles and responsibilities, and coordination among various stakeholders and beneficiaries is lacking. GEF Agencies differ in their approach to the hiring of project managers, and assessment of project manager performance—ostensibly a joint responsibility of the Agency and the government—makes unclear to whom project managers are accountable.

In some cases, key individuals in a relevant organization take it on themselves to elucidate project roles and responsibilities among GEF Implementing Agencies, national executing agencies, and stakeholders in the interests of project success. While such an approach is essentially positive and useful, it does not compensate for a lack of institutionalized procedures, which are vital to the success of all GEF projects and should be in place before accessing GEF funds so as to ensure that processes are not halted or delayed should these individuals be replaced.

The MedWetCoast project provides many examples of how poorly delineated roles and responsibilities led to weak regional coordination and management. According to the GEF terminal evaluation verification report, this flaw largely stemmed from the fact that the project design essentially forced national projects together under a regional umbrella, with each country component displaying a strong national character.

A global project that has shown some success in its institutional arrangement is "Promoting Best Practices for Conservation and Sustainable Use of Biodiversity of Global Significance in Arid and Semi-Arid Zones." This project was executed by the Third World Network of Scientific Organizations, which played a coordinating and facilitative role, with the ownership of the participating countries given priority. UNEP, the GEF Implementing Agency, was responsible for enforcing the project's monitoring and evaluation procedures. This arrangement turned out to be a successful one.

Coordination and Synergy

Several **GEF Agencies** operate in Egypt, including UNDP, UNEP, the World Bank, UNIDO, FAO, IFAD, and the African Development Bank. While most are represented in Cairo, neither UNEP nor the World Bank has in-country representation. Thus, coordination among the GEF Agencies is somewhat limited. On the other hand, it is widely recognized that each Implementing Agency targets a specific field, with UNDP focusing on

demonstration projects, UNEP on research and identification of hotspots, and the World Bank mainly providing large-scale loans. Also, the operational focal point, assisted by the GEF Unit, works to coordinate the GEF portfolio.

Projects and natural resources that have, as one interviewee expressed it, "more than one father"—that is, they are the responsibility of more than one organization—face a particular coordination-related risk. The organizations may not coordinate sufficiently, leaving a gap where synergies and lessons learned could otherwise be achieved and sustained. Land degradation, for example, falls under the responsibility of the Ministry of Agriculture and Land Reclamation and the Desert Research Center, among others. Wetlands in Egypt belong to the MWRI, Ministry of Agriculture and Land Reclamation, and individual governorates. Bioenergy sources belong to the Ministry of Electricity and Energy, the Ministry of Housing, the Ministry of Local Development, and individual governorates.

Synergies among projects in the same focal area or among the various focal areas tend to be quite limited. Some exceptions have been found where projects are managed by the same executing agency. For example, the national component of the regional MedWetCoast project and the medicinal plants project share a common executing agency, the EEAA's Nature Conservation Sector, which has facilitated a series of workshops enabling the exchange of project experiences. Also, the NCSA, which promoted synergies among the focal areas, has engendered a discussion among the national focal points to the three Rio Conventions.

Synergies among government agencies have been established in many projects. The MedWetCoast project helped create a working protocol between the MWRI and the Fisheries Department of the Ministry of Agriculture for reed management of one of the project sites. The EEIGGR project worked with government agencies and industries to provide energy efficiency to government buildings and industrial facilities, respectively. The combination of highly experienced international consultants and a dedicated local team has, for many projects, had a synergistic learning effect.

Complementarity of GEF Support

As the discussion of relevance and country ownership in chapter 6 indicates, the ad hoc nature of the process of selecting GEF projects in the biodiversity, climate change, and international waters focal areas has meant that opportunities for improved effectiveness through greater coherence have been lost and that complementarity has been jeopardized by not building sufficiently on previous accomplishments.

To date, there has been complementarity between the SGP and three regional projects in climate change, biodiversity, and international waters, and for one national project in biodiversity. Large projects must continue to be linked with the SGP to ensure that the hundreds of SGP projects focus on national priorities and not in isolation. To ensure complementarity, the government must set its priorities because GEF funds are limited and the country cannot work on all fronts.

7.3 Learning

Have Projects Been Designed to Promote Learning?

The GEF accords an essential role to information dissemination and the promotion of effective learning, largely because of their importance in addressing the link between the global environment and national sustainable development programs.

In many of Egypt's biodiversity projects, the preparation and appraisal of a given action plan or strategy involved only limited participation by relevant government agencies, which did not foster a learning experience or institutional anchoring, and thus resulted in limited follow-up.

Results are mixed regarding regional and global projects, where the advancement of learning through the exchange of experiences and knowledge is a raison d'être for the projects. Whereas MedWetCoast project management participated in a number of regional conferences and technical seminars, there was little documented exchange of expertise and knowledge among the national components, and no exchange of experts among the participating countries. On the other hand, the tourism development and business planning taking place at an Egyptian site after this project ended drew on experiences generated in MedWetCoast's Lebanese component. The regional exchange of experiences was extensive in the project promoting best practices on biodiversity in arid zones, but it failed to properly describe why biodiversity in the drylands is important and what would happen if these were mismanaged or degraded.

Many projects included extensive public awareness-raising and environmental education components aimed at various levels—including among investors and developers, international tourists, local communities, and schoolchildren—but sufficient dissemination of project outputs within relevant government agencies has not been as widespread. Moreover, in quite a few cases, important opportunities for sharing information and experiences appear to have been missed. Lessons learned in the MedWetCoast project regarding socioeconomic and stakeholder involvement were internalized by personnel within the UNDP country office and the EEAA, but the documentation covering the socioeconomic work carried out was never disseminated.

The Red Sea project demonstrated collaboration among three major government entities as executing agencies—which was at the time unprecedented—and, by ensuring that all their interests were addressed, project implementation was facilitated. However, the experiences stemming from this collaboration have not been properly propagated, nor has the example been replicated.

Learning opportunities have been more prominent in demonstration and research-based projects, such as the training and graduate-level degrees that evolved from the Lake Manzala project and the Eastern Desert pilot case. Also, the enabling activities for reporting to the CBD and UNFCCC have disseminated learning to junior staff that continue to be involved in communications to the conventions. The regional EEIGGR project has had a positive learning effect on various beneficiaries including experts at the electricity distribution companies, ESCOs, NGOs, and the public at large—especially those employed at government buildings—through dissemination of information, workshops, and demonstration events.

The GEF had a demonstrated impact on communities through the learning achieved from SGP projects. Capacity building and education for SGP partners and key stakeholders were addressed through workshops held to promote the SGP within the NGO community and to explain GEF criteria, operational programs, and procedures. The SGP has funded projects that aim to increase the capacity of NGOs to implement sustainable projects that fit within GEF objectives; these included "The Project of Preparing the Environmental NGO Community for Operational Phase II of GEF Small Grants" and "The Project of Hands-on Capacity Building for NGOs Participating in

the GEF Small Grants Programme." These projects organized workshops to build capacity and raise awareness of NGOs with respect to activities, projects, and systems in the GEF focal areas. A further series of workshops were held for NGO capacity building in each of the GEF focal areas. The SGP raised the awareness of the different target groups concerning the SGP's mission, operational programs, and procedures; this included, but was not limited to, documents prepared in Arabic to help NGOs better understand the SGP and its operational programs; a brochure for the SGP in Egypt; and a multimedia package presenting the SGP and the projects it has funded, complemented with photos.

A constraint to sharing information can be found in the national Red Sea project and the global "Promoting Best Practices for Conservation and Sustainable Use of Biodiversity of Global Significance in Arid and Semi-Arid Zones" project, which only produced their outputs in English. This decision has limited the possibility for wide dissemination and use, especially in terms of including local communities. In the latter project, however, the large number of participating centers of excellence facilitated dissemination in the academic and research arena.

By finding common denominators among best practices, such as lessons learned, this information can be applied across a wider range of conditions than can site-specific practices. While the promotion of learning has occurred to some extent in the biodiversity projects, examples of missed opportunities seem more common. The Red Sea project fell short of properly appreciating institutional weaknesses and the time required to undertake project activities, and thus did not put enough emphasis on training and promotion of learning, which might have resulted in a better phased approach to implementation.

Has the Experience of Other Projects Been Used to Enrich Project Design and Implementation?

A number of ongoing and recently begun projects used the experience of other projects from within and outside Egypt in their project design and implementation—thus proving that project preparation now looks to previous projects in the portfolio as a capacity-building means to enrich project design and implementation.

In **biodiversity**, the biosafety project builds on UNEP's portfolio of enabling activities in more than 100 countries and 8 demonstration projects, and on capacity building for implementation of the Cartagena Protocol, carried out through the development and implementation of National Biosafety Frameworks. The migratory soaring birds project has studied evaluation results from a number of GEF-funded projects, including "African NGO-Government Partnerships for Sustainable Biodiversity Action," "Implementation of the SAP for the Red Sea and Gulf of Aden," "Red Sea Coastal and Marine Resource Management," and "Conservation and Sustainable Use of the Biodiversity of Socotra Archipelago." "Strengthening Protected Area Financing and Management Systems" has benefited extensively from the information and analysis concerning Egypt's protected area system made available by a recent Italian-supported development cooperation project, including the Nature Conservation Sector capacity-building effort.

In **climate change**, the "Sustainable Transport" project has looked into the joint initiative of the ongoing cooperation of the MSEA with USAID and the Cairo Transport Authority to transform diesel-fueled buses to natural gas as well as the follow-up activities initiated by the former UNDP GEF project to support the introduction of electric or electric hybrid buses into the Egyptian

market in partnership with the local private sector. The newly pipelined UNIDO-funded "Industrial Energy Efficiency" project explored the findings and documents related to the EEIGGR project.

In **international waters**, the lessons learned from the implementation of the Lake Manzala project were taken into consideration in the preparation and design of the Alexandria ICZM project in Lake Maryut.

With the exception of the various projects outlined above, there are limited resources at the national level for sharing experiences and disseminating lessons learned across projects and among the relevant national and regional stakeholders. The National Steering Committee regularly reviews ongoing GEF projects and requests presentations from project directors on the implementation of ongoing projects; this is a means of capturing success stories and constraints, and thereby ensuring that lessons are learned while sparking constructive discussion among relevant ministries.

7.4 GEF Focal Point Mechanism

Prior to the establishment of the GEF National Steering Committee in 2006,[3] project proposals were driven primarily by the GEF Implementing Agency or by individual engagement and enthusiasm. The process is today more systematic and follows clear priorities, and GEF project proposals have consequently become more country driven. The diversity of representation on the steering committee has proved successful and has rooted the committee in the relevant ministries; the committee's involvement in project endorsement has enhanced transparency. The committee is headed by a key environmental figure—the former executive director of UNEP.

Since the GEF Unit was launched in 2008, coordination among national executing agencies has been enhanced, and a more structured and transparent approach to project initiation and implementation established. The GEF Unit is well positioned; its connection to the convention focal points has helped created synergies between the GEF and the conventions in Egypt. The unit's staff understands the concept of global environmental benefits, and is building further capacity in a focused and efficient manner. It is also developing a Web site for the GEF in Egypt.

Concerns have been expressed regarding the fact that the GEF Unit is comprised of only two full-time employees, which may be insufficient given the extended responsibilities of the operational focal point under the RAF; and that is not fully able to follow up on all projects, particularly regional and global projects.

The unit, which was initially staffed by the Project Management Unit of the NCSA project, is now managed and funded by the recently implemented mainstreaming the global environment project. In the period between the completion of the former project and the start-up of the latter, Egypt was appointed head of the GEF North African Constituency (from mid-2007 to end of 2008), which provided another source of funding for supporting the operational focal point, since it was obliged to hold meetings among the North African countries and to collaborate and coordinate countries' involvement, along with its financial support of the GEF Unit.

The GEF Country Support Program provides support for constituency meetings preceding GEF Council meetings and for National Dialogue workshops and subregional consultations; it also

[3] Chapter 3 provides background on the operational and political focal points, and the establishment of the GEF National Steering Committee and GEF Unit.

supports the operational focal point;[4] the GEF Unit may look into using funds from the Country Support Program in the future. Even though the GEF Unit is independent of the EEAA Department for International Affairs, collaboration between them can be improved. In Egypt, the operational focal point is based in the EEAA, and the political focal point in the Ministry of Foreign Affairs.

Egypt currently has no national GEF strategy, but intends to prepare some form of a strategy document in the coming years. Egypt may use funding from the GEF Country Support Program, or through the mainstreaming the global environment project, to accomplish this.

The focal point mechanism has offered guidance to GEF operations in Egypt, and has provided a vision to the use of GEF support in the country. The focal point mechanism is encouraged to play a role and to provide more attention to follow-up and to the dissemination and replication of project outputs at the strategic and policy levels.

7.5 Emerging Issues Concerning the RAF

Clarity of Process, Procedure, and Roles

While the process and procedures of the RAF clearly are complicated, Egypt has been fortunate in the sense that it was aware of the RAF early on and has been able to be proactive in deciding how to spend its allocations for the climate change and biodiversity focal areas. Among other things, Egypt benefited from the consultations regarding the RAF,[5] which provided a better understanding of and shed light on the requirements of the new GEF-4 phase and how these would affect project proposals submitted by Egypt in the future. Egypt's participation in these consultations on the RAF allocations has resulted in more strategic use of GEF funds in biodiversity and climate change at the national level, although it did not have the same effect on the use of GEF funds for regional and global projects.

Changes in the Role of the Operational Focal Point

The RAF's launch led to an enhanced role on the part of the operational focal point in facilitating identification of national priorities for GEF project funding. Working with the GEF Agencies, operational focal points are now responsible for confirming that project concepts can be financed within the country's focal area–specific RAF allocation.

During regional consultations sponsored by the GEF Country Support Program in 2006, several operational focal points expressed frustration about a lack of capacity and resources to fulfill their new roles in driving the RAF process. In the Egyptian context, one of the challenges linked to the RAF is to reach consensus on what national priorities should be addressed first. Egypt's operational focal point is also head of the GEF North African constituency, representing the constituency at the GEF Council.

Likely Impacts on the SGP

Since the onset of the RAF, funding for the SGP, which had had an annual country program contribution cap of $600,000, has been reduced by half. Countries have been urged to negotiate with their governments so they can receive funds

[4]Due to restrictions and complexities in the disbursement of a relatively small amount of funds, some $8,000 has not been utilized.

[5]GEF Country Support Program, SGP: Follow-up to Evaluation, Subregional Programme for GEF Focal Points, Dubrovnik, Croatia, February 11–13, 2009.

allocated for the SGP from the core funding allocations, provided they were able to obtain an equal amount of government cofinancing (that is, a 1:1 ratio of core funding allocation to government cofinancing). The Egyptian government recognized that the more it committed to contribute in cofinancing to the SGP, the more core funding it was likely to receive and guarantee (since SGP funding is received up front). The SGP currently receives $300,000 in core funding and $270,000 (that is, $300,000 less the 10 percent Agency fee of $30,000) from the RAF allocations annually; of this, $220,000 is assigned to climate change and $50,000 to biodiversity.

Projects by Focal Area

In the SGP's fourth operational phase, only projects in the climate change and biodiversity areas have been funded; the second year of the fourth phase has involved only climate change projects. This focus is not a result of the RAF per se, but rather because Egypt's NGOs are more experienced in climate change–related projects. Biodiversity projects in Egypt, especially those relating to protected areas, are largely run by government entities rather than NGOs. Furthermore, the impacts and effects of climate change projects, particularly those related to sustainable transportation and renewable energy, are highly tangible and directly visible to the local communities with which NGOs work.

There has been a noticeable decline since the first operational phase in SGP-funded projects in the POPs and multifocal areas. In the POPs area, this decline is explained somewhat by the fact that three projects were recently completed and sufficient time has not elapsed to enable the NGOs working in this area to develop new project ideas. SGP-funded projects in international waters were only performed in the third operational phase. There have been no SGP-funded projects in land degradation. To maintain a reasonable balance in the SGP portfolio, the SGP national coordinator will be initiating workshops to regenerate interest and highlight opportunities in these other focal areas among civil society.

The advantages of the SGP in light of the RAF is that the percentage that will be allocated to the SGP is granted, and the GEF would not withdraw the funds allocated to the SGP because they are received up front. This would also encourage NGO contributions to MSPs and FSPs. The NGO contribution to GEF funds represents 50 percent (25 percent in kind and 25 percent in cash), moreover the cofinancing for the SGP does not come from the governments, but rather from the private sectors and other stakeholders. The requirement that SGP funding be allocated from country RAF allocations undermines the basic purpose of the SGP, which is to keep a window open to nongovernmental stakeholders, activists, and communities to access funding for projects. It is strongly recommended that this be revisited and that the SGP be strengthened and diversified, rather than limited to the focal areas under the RAF, for it to play its role effectively.

SGP Graduation

Automatic graduation from the SGP as a country program older than eight years would have a very negative effect on Egypt, in addition to putting the cost-effectiveness of the overall GEF portfolio in peril. The SGP automatic graduation policy will result in more than 40 countries leaving the SGP by July 2010 (GEF EO 2008). This policy is currently being discussed, and no decisions have yet been made. While it may allow for a focusing on newer country programs and the establishment of programs in countries not yet covered by the SGP, it may risk losing programs that are more cost-effective than the GEF FSP and MSP portfolio. Moreover, without a country SGP, there is no

guarantee that the community focus provided by the SGP will continue to be addressed by a given country. MSPs and FSPs work with government entities as executing agencies for their implementation, whereas SGP projects work with the communities; this benefits civil society long after projects have been completed, and thus lends a noticeable sustainability to the initiatives undertaken by the NGOs.

In January 2009, the GEF Secretariat invited a sample of SGP national coordinators from the 40 countries that would be affected by the automatic graduation policy. Among other things, it was agreed that the concept of graduation should be based on a principle of equity in accessing core resources, and that it should not indicate the end of a country program nor a delinking from the global SGP, but rather that the country is advanced in managing and sustaining its SGP and fully prepared to take on broader responsibilities in its upgraded status. The proposed SGP country program graduation policy will be revised for GEF-5 (2010–14) to address the risks to GEF achievements and cost-effectiveness in less developed countries, including Egypt.

Likely Impacts on Regional Projects

There are no more financial resources for regional and global projects under the RAF in GEF-4, as all funds have been committed. Five percent of the RAF total global allocation goes to regional and global projects, and does not come from the individual country allocations. The RAF may negatively affect future development of regional projects, as these may be funded from the country RAF allocation. The international waters focal area may be most adversely affected, with stakeholders in these projects underlining the importance of regional efforts regarding key environmental concerns and transboundary issues that cannot be addressed at the national level.

Annex A. Terms of Reference

A.1 Background and Introduction

The Global Environment Facility (GEF) Council has requested that the GEF Evaluation Office conduct evaluations of the GEF portfolio at the country level: GEF country portfolio evaluations (CPEs). The Office conducted its first CPE in 2006 in Costa Rica on a pilot basis with the objective of assessing the feasibility and cost-effectiveness of this type of evaluation and to develop, based on the experience, methodologies to fully implement this type of evaluation in subsequent years.

The objective of these evaluations, as requested by the GEF Council, is twofold: (1) to provide the Council with additional information on the results of GEF-supported activities and how these activities are implemented, and (2) to evaluate how GEF-supported activities fit into national strategies and priorities as well as within the global environmental mandate of the GEF. This indicates that the Council is interested in using this type of evaluation primarily to assess and report on experiences across different types of countries.

There are several other reasons to conduct CPEs. First, although the GEF has been in existence for more than a decade, no other assessments have ever been conducted of a GEF portfolio using a country as a basis for analysis, regardless of the GEF focal area or Implementing Agency. Second, given the new Resource Allocation Framework (RAF) that allocates funds to countries, the GEF will need to further research and assess how the GEF is implemented at the country level. Finally, these evaluations provide additional opportunities for the GEF Evaluation Office to collect evaluative evidence to be incorporated into other evaluations conducted by the Office or reviews conducted by the GEF Secretariat and for the Office to collaborate with the evaluation offices of the GEF partners in conducting their own country evaluations of their programs and/or strategies.

This document is based on the approved standard terms of reference for CPEs approved by the GEF Evaluation Office Director in October 2006 and revised in July 2008 based on the continuous experience with this type of evaluation. It presents the objectives, main questions, scope, and methodology of the CPEs. The way in which they are conducted remains consistent, particularly throughout GEF-4, so that at the end of the period there will be an opportunity for comparison across countries. Nevertheless, additional questions may be included to reflect particular issues in a country and other evaluations under implementation during this fiscal year. The evaluations are conducted fully and independently by the GEF Evaluation Office (with assistance from consultants) and, when possible, in partnership with the evaluation offices of GEF Agencies, governments, or nongovernmental organizations.

There are about 160 GEF-eligible countries. The GEF Evaluation Office cannot evaluate all their portfolios. Straightforward and transparent criteria have been developed by the Evaluation Office to conduct the selection of countries for each year. The criteria ensure that all of the 160 countries have a fair chance to be chosen. In 2009, the GEF Evaluation Office selected two countries in the Middle East and Northern Africa region: Egypt and Syria. The first step in making this choice included a random selection of all countries in the region and then application of a set of strategic criteria in which opportunities of synergies with ongoing evaluations in the Office played a role. The random selection ensures that all countries participating with the GEF could be selected for this type of evaluation, while the other criteria allow for more strategic selection.

Egypt was considered a good choice given its historically large and diverse portfolio, including projects in all GEF focal areas, implemented by all relevant GEF Agencies, and with a large number of completed projects with potentially important results. In addition, Egypt has received individual allocations under the RAF for both climate change and biodiversity, and has benefited from a Small Grants Programme (SGP) since 1992. Syria was also selected randomly and through the use of strategic criteria, but also because it has a smaller GEF portfolio and a RAF group allocation in biodiversity.

Documents for the completed evaluations are available on the GEF Evaluation Office Web site. The evaluations, findings, and recommendations from the Cameroon Egypt, and Syria CPEs will be synthesized in a single report and presented in June 2009 to the GEF Council to assess and report on experiences and common issues across different types of countries.

As a result of significant population increase and expansion in industrial, agricultural, and tourism activities, Egypt faces a number of public health and environmental problems caused by the pollution of air and water, and by wastes. The current population growth places considerable pressure on natural resources and has been coupled with increased rural-urban internal migration, which has tripled the urban population in Egypt over the last few decades. Egypt's high rate of population growth and density along the Nile Valley and Delta, coupled with industrial activities concentrated primarily along the river Nile and in the large cities of Cairo and the Delta, has resulted in an increased burden on the country's limited natural resources and has adversely affected public health.

Since 1992, Egypt has taken important steps to establish a framework for environmental management and build the capacities of the relevant institutions. The Egyptian Environmental Affairs Agency (EEAA) was established in 1982 and restructured in 1992 to address environmental issues in Egypt. Law 4/1994 for the Protection of the Environment was issued to define the mandate of the EEAA, specifying its role and responsibilities in environmental management. In 1997, the Ministry of State for Environmental Affairs (MSEA) was created, and the EEAA became the ministry's technical arm.

The adoption of the National Environmental Action Plan (NEAP) in 1992 served as a basis for an upgraded and extended national environmental policy and regulatory framework. Based on the recommendations of the NEAP, Law 4/1994 was enacted, with executive regulations issued in 1995. The second NEAP was launched in 2002 and represents Egypt's agenda for environmental actions for the period 2002–17.

Regarding Egypt's response to the GEF mandate, in 2001, the World Bank prepared a country environmental analysis in 2005, and the MSEA issued the most recent *Egypt State of the Environment Report* in 2007, which provides a very good overview of how Egypt has prioritized GEF support. In addition, these documents provide a very good presentation of the main issues in each focal area. The following paragraphs are based on these documents.

- **Biodiversity.** In 1992 at the Rio Conference, Egypt signed the Convention on Biological Diversity which was subsequently ratified by the Egyptian Parliament in 1994. The Nature Conservation Sector is a department in the EEAA and the government body entrusted with overseeing management of the national protected area network, coordination of hunting management, and following up on international conventions related to biodiversity. A National Biodiversity Unit has been established in the Nature Conservation Sector to undertake the necessary studies and programs related to the convention. The unit produced the National Biodiversity Strategy and Action Plan in 1998, which identified priorities and programs to fulfill Egypt's obligations under the convention. While there has been nature conservation legislation on the books in Egypt since the 1920s, there are only a handful of laws aimed at conserving biodiversity, the most important of which are Law 102/1983 for the Natural Protectorates and Law 4/1994 for the Protection of the Environment. Egypt occupies a significant geographic location, with distinguished ecosystems and habitats sheltering about 20,000 flora and fauna species, including some endemic to Egypt and other rare or endangered species. With the promulgation of Law 102/1983, Egypt has declared a total of 27 natural protectorates covering an area of about 150,000 square kilometers which represents 15 percent of Egypt's total area.
- **Climate change.** Egypt ratified the United Nations Framework Convention on Climate Change in 1994 and the Kyoto Protocol in 2004. The EEAA is the national focal point for climate change agreements through its Climate Change Unit, which was established in 1999. It coordinates and follows up on climate change national strategies, policies, action plans, and activities in Egypt. The National Committee on Climate Change was formed by ministerial decree in 1997 to provide the institutional framework to facilitate implementation of the convention. In this framework, the designated national authority for the Clean Development Mechanism (CDM) was established. This authority consists of the Egyptian Council for the CDM, which is responsible for setting CDM policies in Egypt; and the Egyptian Bureau for the CDM , which is considered the CDM executive secretariat. Greenhouse gases produced in Egypt in the year 2005/06 account for 0.57 pecent of the world's total emissions. The sectors that are most vulnerable to climate change are agricultural, tourism, and the Egyptian Delta. Egypt became engaged in CDM activities in 2002, when the country participated in the National Strategy Studies Program launched by the World Bank and the government of Switzerland, with the aim of enabling developing countries to participate and benefit from the CDM. There is no regulatory framework covering the climate change issue nor any law regulating activities causing it, such as emitting greenhouse gases.
- **International waters.** The Egyptian territory comprises the following four basins: Northern Interior Basin, Nile Basin in the form of a broad north-south strip, Mediterranean Coast Basin, and Northeast Coast Basin along the coast of

the Red Sea. In the 1980s, the first attempt was made to create a plan for all water use in Egypt. The resulting Egypt Master Plan for Water Resources Development and Use was, however, not a plan as such, but a first step in a process that aimed to improve planning capabilities within the sector. The main instrument for water quality management is Law 48/1982 which protects the River Nile and its water channels; Law 4/1994 also has provisions that deal with the management of water resources in Egypt. In addition, Law 12/1984 regulates irrigation, water distribution, and groundwater management in the Nile Valley and Delta, and the establishment and maintenance of drainage canals.

- **Land degradation.** Egypt signed the United Nations Convention to Combat Desertification (UNCCD) in 1994 and ratified it in 1995. Egypt submitted its first national report to the UNCCD in 1999. The EEAA was the UNCCD focal point. A National Coordination Committee was formed, headed by the chief executive officer of the EEAA, to formulate and implement the National Action Programme for Combating Desertification . In July 2001, the committee was reformed and came under the chairmanship of the minister of agriculture. Based on the committee's recommendations, a ministerial decree was issued in July 2001 making the Ministry of Agriculture the focal point for the UNCCD and the Desert Research Center the implementing body. In 2005, the Egyptian National Action Programme to Combat Desertification was prepared. It is geared toward addressing the specific attributes of the four agro-ecological zones in Egypt and priorities for action. The general policy adopted by Egypt of combating land degradation and desertification is based on two components: aiming to control land degradation factors and reducing their risks and implications; and extending the land degradation strategy to desert areas in order to increase Egypt's populated area to 50–60 million feddans, or 25 percent of the country's total area, where new urban communities can be established.
- **Persistent organic pollutants (POPs).** The issue of POPs is of importance to Egypt because of its substantial use of pesticides, insecticides, and herbicides for agricultural purposes. In 2005, Egypt prepared its National Implementation Plan in accordance with provisions in the Stockholm Convention on Persistent Organic Pollutants. Egypt is also taking measures to implement the Basel Convention; with an industrial hazardous waste management plan and implementation program being prepared. Several laws pertain to POPs, such as Law 4/1994 which covers the management of all kinds of chemicals—industrial, agricultural, pharmaceutical, petroleum products, explosives, radioactive materials, domestically used chemicals, and hazardous waste; Law 21/1958, which sets out rules regulating industry and the production, handling, and importation of industrial chemicals; and Law 874/1996, which prohibits the use, import, handling, and preparation of potential carcinogenic pesticides. In addition, a number of national ministerial decrees concern the elimination and control of POPs.

The GEF has invested about $88.216 million (with about $244.694 million in cofinancing) through 20 national projects (7 biodiversity, 7 climate change, 3 international waters, 1 POPs, and 2 multifocal). Table A.1 breaks down GEF support according to focal areas and GEF Agencies. These figures include enabling activities.

Egypt has also received GEF support through the SGP. The total grant amount through the SGP

Table A.1

GEF Support to National Projects by Focal Area and Agency
Million $

Focal area	UNDP	UNEP	World Bank	UNIDO	Total
Biodiversity	7.90	1.36	4.75	0	**14.01**
Climate change	15.72	0	50.85	0	**66.57**
Int'l waters	6.09	0	0	0	**6.09**
POPs	0	0	0	0.50	**0.50**
Multifocal	0.70	0	0	0	**0.70**
Total	**30.41**	**1.36**	**55.60**	**0.50**	**87.87**

Note: UNDP = United Nations Development Programme; UNEP = United Nations Environment Programme; UNIDO = United Nations Industrial Development Organization.

is $4.32 million for 219 projects. A joint evaluation of the SGP was carried out by the GEF and the United Nations Development Programme for Egypt; this was completed in 2007, and will be included in this evaluation.

In addition, Egypt has participated in 17 regional and 6 global projects, very few of which have a national component or activities within the country. Tables A.2 and A.3 provide data on these projects.

Table A.3

Number of GEF Global Projects in Which Egypt Participates by Focal Area and Agency

Focal area	UNDP	UNEP	World Bank	Total
Biodiversity	0	4	0	**4**
Climate change	0	0	1	**1**
International waters	1	0	0	**1**
Total	**1**	**4**	**1**	**6**

Note: UNDP = United Nations Development Programme; UNEP = United Nations Environment Programme.

A.2 Objectives of the Evaluation

The purpose of GEF Country Portfolio Evaluations is to provide GEF Council with an assessment of how GEF is implemented at the country level, a report on results from projects and assess how these projects are linked to national environmental and sustainable development agendas as well as to the GEF mandate of generating global environmental benefits within its focal areas. In particularly, the country evaluations will have the following objectives:

- Independently evaluate the *relevance* and *efficiency* of GEF support in a country from several

Table A.2

Number of GEF Regional Projects in Which Egypt Participates by Focal Area and Agency

Focal area	UNDP	UNEP	World Bank	UNIDO	IFAD	Total
Biodiversity	2	0	0	0	0	**2**
Climate change	1	0	0	0	0	**1**
International waters	4	1	2	0	0	**7**
Land degradation	0	0	0	0	1	**1**
POPs	0	1	0	1	0	**2**
Multifocal	0	1	3	0	0	**4**
Total	**7**	**3**	**5**	**1**	**1**	**17**

Note: UNDP = United Nations Development Programme; UNEP = United Nations Environment Programme; UNIDO = United Nations Industrial Development Organization; IFAD = International Fund for Agricultural Development.

points of view:[1] national environmental frameworks and decision-making processes, the GEF mandate and achievement of global environmental benefits, and GEF policies and procedures.

- Assess the *effectiveness* and *results* of completed projects in each relevant focal area.[2]
- Provide additional evaluative evidence to other evaluations conducted or sponsored by the GEF Evaluation Office.
- Provide *feedback* and *knowledge sharing* to (1) the GEF Council in its decision-making process to allocate resources and to develop policies and strategies, (2) the country on its participation in the GEF, and (3) the different agencies and organizations involved in the preparation and implementation of GEF-funded projects and activities.

CPEs do not have the objective of evaluating the performance of Implementing Agencies, executing agencies, or national governments or individual projects. It is not expected that these two countries are fully representative of the region's experience with the GEF.

[1] *Relevance:* the extent to which the objectives of the GEF activity are consistent with beneficiaries' requirements, country needs, global priorities, and partner and donor policies, including changes with time; *efficiency:* the extent to which results have been delivered with the least costly resources possible (funds, expertise, time, and so on). Efficiency is also called cost-effectiveness or efficacy.

[2] *Effectiveness:* the output, outcome, or impact (intended or unintended, positive and/or negative) of a GEF activity; *effectiveness:* the extent to which the GEF activity's objectives were achieved or are expected to be achieved, taking into account their relative importance.

A.3 Key Evaluation Questions

GEF CPEs are guided by a set of key questions that should be answered based on the analysis of the evaluative information and perceptions collected during the evaluation exercise. These questions are as follows:

- **Relevance of GEF support**
  - Is GEF support relevant to the national sustainable development agenda and environmental priorities, national development needs and challenges, and action plans in the GEF focal areas?
  - Are the GEF and its Agencies supporting the environmental and sustainable development prioritization and decision-making process of the country?
  - Is GEF support in the country relevant to the objectives of global environmental benefits in the GEF focal areas (biodiversity, greenhouse gases, international waters, POPs, land degradation, ozone)?
  - Is the country supporting the GEF mandate and focal area programs and strategies with its own resources and/or support from other donors?
- **Efficiency of GEF support**
  - How much time, effort, and money are needed to develop and implement projects, by GEF support modality?
  - What are the roles, types of engagement, and coordination mechanisms among different stakeholders in project implementation?
  - How successful is dissemination of GEF project lessons and results?
  - What are the synergies between GEF project programming and implementation among GEF Agencies, national institutions, GEF projects, and other donor–supported projects and activities?

- **Results and effectiveness of GEF support**
  - What are the results (impacts and outcomes) of completed projects?
  - What are the aggregated results at the focal area and country levels?
  - What is the likelihood that objectives will be achieved for those projects that are still under implementation?
  - What is the sustainability of GEF-supported activities?

Each of these questions is complemented by a short list of indicative aspects to be explored and potential sources of information. A table of evaluation guidelines with these indicative aspects and sources of information is attached as annex B.

Specific issues identified during the inception mission to Egypt (November 16–21, 2008) will be looked into in the course of the CPE and include the following

- What is the GEF's history and development in Egypt since 1992? How have decisions been taken, and how has the GEF in Egypt changed over the years? Are there any trends to be identified? What has been the strategic direction taken by the GEF and the government in Egypt?
- How is the GEF viewed in the context of national priorities in light of the GEF's interest in global environmental benefits?
- How are the GEF funds used strategically? What is the current programming of GEF funds?
- Are there catalytic and replication effects of GEF support? Is there dissemination and a "lessons learned" process for projects to evaluate how they have worked?
- What is the sustainability of GEF projects?
- What is the process for regional projects? How are regional projects set up and supervised? What are the results of the regional projects at the national level? The GEF focal point has no control over or information about regional projects; what is the set-up for managing regional projects? How sustainable are regional and global projects at the national level?
- What is the focal point mechanism in Egypt in general? What is the role of the operational versus the political focal point? What is the role and function of the GEF steering committee in relation to the two focal points?
- With regard to project preparation, what steps are currently very time consuming regarding the GEF, especially in comparison to other donors?
- What is the role of the GEF vis-à-vis other funding?
- What is the confusion and overlap between the GEF and the CDM in Egypt?

A.4 Scope and Limitations

The CPEs focus on all types of GEF-supported activities in the country at all stages of the project cycle (in pipeline, ongoing, and completed) and implemented by all GEF Agencies in all focal areas, including applicable GEF corporate activities such as the SGP. The aggregate of all these activities constitutes the GEF portfolio. The stage of the project will determine the expected focus (table A.4).

Table A.4

Focus of Evaluation by Project Status

Project status	Relevance	Efficiency	Effectiveness	Results
Completed	Full	Full	Full	Full
Ongoing	Full	Partially	Likelihood	Likelihood
Pipeline	Expected	Processes	n.a.	n.a.

Note: n.a. = not applicable. The main focus of the evaluation will be relevance and efficiency; it will explore possible methodologies on how to evaluate project effectiveness and results.

In addition, the context in which these projects were developed and approved and in which they are being implemented constitutes another focus of the evaluation. This includes a historical assessment of national sustainable development and environmental policies, strategies, and priorities; the legal environment in which these policies are implemented and enforced; GEF Agency country strategies and programs; and GEF policies, principles, programs, and strategies.

The way in which the GEF operates poses several difficulties in conducting this type of evaluation. For example, the GEF does not have country programs, so there is no GEF framework against which to assess results or effectiveness. Furthermore, GEF support rarely works in isolation but instead through partnerships with many institutions; this makes attribution difficult to determine. On the positive side, an assessment with the objectives as described above may provide important insights that may allow the GEF to become more effective at the country level and within the context of the RAF's operationalization.

As of mid-2006, the GEF had not yet used country strategies or programs, making it significantly different from other agencies such as the World Bank, the United Nations Development Programme, and the regional banks, in that there is no GEF program to be used as a reference. Similarly, the GEF focal areas do not have a clear set of indicators that can be used at the country level to assess country portfolio performance.

By mid-2006, the beginning of the RAF process is expected to lead the way toward more country programming or at least prioritization of projects or areas in which the government determines it would like to focus GEF support. The GEF Evaluation Office may encounter countries in which these exercises have been completed, which will provide an additional context in which to assess the GEF portfolio.

The inclusion of regional and global projects potentially increases the complexity of this type of evaluation since these projects are developed and approved in a different context (regional or global policies and strategies). Given the limited time and financial resources to conduct CPEs, such projects will in principle not be included unless the project implementation unit is located in the country under evaluation. In each specific case, the feasibility of including regional and global projects and their relevance for the national portfolio will be looked at when preparing the terms of reference for the evaluation.

A.5 Methodology

The GEF CPEs will be conducted by staff of the GEF Evaluation Office and international and local consultants; this will be the evaluation team.

The methodology includes a series of components using a combination of qualitative and quantitative methods and tools. The *qualitative* aspects of the evaluation include a desk review of existing documentation such as GEF project documents; policy and strategy documents from national, GEF, and convention levels and relevant scientific literature; GEF Agency national strategic frameworks (particularly those related to the GEF focal areas); extensive interviews with GEF stakeholders; consultation workshops; and field visits to a few project sites. The *quantitative* analysis will use indicators to assess the relevance and efficiency of GEF support using projects as the unit of analysis (that is, linkages with national priorities, time and cost of preparing and implementing projects, and so on) and to measure GEF results (progress toward achieving global environmental impacts) and project performance (implementation and completion ratings).

The evaluation will develop different tools and protocols. For example, a *project review protocol* will be prepared to conduct the desk and field reviews of GEF projects, and *questionnaires* will be developed to conduct interviews with different stakeholders. Examples of both protocols have been prepared but will need to be adapted to the particular CPE to bring into the evaluation particular issues related to the country or to the GEF Evaluation Office work program.

The CPEs will primarily be based on the review of existing information and on additional information gathered for the purpose of the evaluation. The expected sources of information to be used include the following:

- At the *project level*, project documents, project implementation reports, terminal evaluations, reports from field visits, and scientific literature
- At the *country level*, national sustainable development agendas, environmental priorities and strategies, GEF focal area strategies and action plans, GEF-supported national capacity self-assessments, global and national environmental indicators, and literature review
- At the *Agency level*, country assistance strategies and frameworks and their evaluations and reviews
- *Evaluative evidence* at the country level from GEF Evaluation Office evaluations, the overall performance studies, or from national evaluation organizations
- *Interviews* with GEF stakeholders and beneficiaries
- Information from national consultation *workshops*

A.6 Process and Outputs

The methodology will include the following steps:

1. Initial GEF Evaluation Office visit to
   - Secure government support, in particular from GEF focal points. The focal point will be requested to provide support to the evaluation such as identification of key people to be interviewed; support to organize interviews, field visits, and meetings; and identification of main documents.
   - Identify a local consultant. The consultant should qualify under the GEF Evaluation Office ethics guidelines.
   - Identify local evaluators/evaluation associations as possible partners in the evaluation.
   - Conduct a first workshop to present the evaluation and receive comments to develop country-specific terms of reference.
2. Prepare country-specific terms of reference.
3. Collect information and conduct literature review to extract existing reliable evaluative evidence.
4. Prepare specific inputs to the CPE:[3]
   - GEF portfolio database which describes all GEF support activities within the country, basic information (Agency, focal area), implementation status, project cycle information, GEF and cofinancing financial information, major objectives and expected (or actual) results, key partners per project, and so on.
   - Country environmental framework which provides the context in which the GEF projects have been developed and implemented (in some cases, this framework may be already available, prepared by GEF Agencies or national governments). This document

[3]These inputs are working documents and are not expected to be published as separate documents.

will be based on information on environmental legislation, environmental policies of each government administration (plans, strategies and similar), and the international agreements signed by the country presented and analyzed through time so as to be able to connect with particular GEF support. The experience in Costa Rica showed that this analysis should be done preferably by an environmental lawyer.

- Global environmental benefits assessment, which provides an assessment of the country's contribution to the GEF mandate and its focal areas based on appropriate indicators, such as those used in the RAF (biodiversity and climate change) and others used in project documents.

5. The evaluation team conducts the evaluation, including at least one visit by GEF Evaluation Office representatives.
6. Prepare draft report.
7. GEF Evaluation Office visit to present draft report at a second consultation workshop with major stakeholders.
8. Prepare final report, which incorporates comments and is then presented to the Council and the recipient government.

A.7 CPE Report Outline

The report should be a concise, stand-alone document organized according to the following table of contents:

Chapter 1: Main Conclusions and Recommendations

- Background
- Scope and Methodology
- Conclusions on the portfolio
  - Relevance
  - Efficiency
  - Results and effectiveness
- Recommendations

Chapter 2: Evaluation Framework

- Background
- Objectives of the evaluation
- Key questions for the evaluation
- Methodology

Chapter 3: Context of the Evaluation

- Egypt: General description
- Brief description of environmental resources in key GEF support areas
- The environmental legal framework in Egypt
- The environmental policy framework in Egypt
- The GEF: General description

Chapter 4: Activities Funded by the GEF in Egypt

- Introduction
- Activities considered in the evaluation
- Activities over time
- Evolution of the GEF funding to the country

Chapter 5: Relevance of GEF Support in Egypt

- Relevance of GEF support to the country's sustainable development agenda and environmental priorities
- Relevance of GEF support to country's decisions and processes
- Relevance of GEF support to national action plans within GEF focal areas
- Relevance of GEF support to the achievement of global environmental benefits
- Relevance of the GEF portfolio to other global and national organizations

Chapter 6: Efficiency of GEF-Supported Activities in Egypt

- Time, effort, and money to develop and implement projects, by type of GEF support modality
- Roles and responsibilities among different stakeholders in project implementation
- The GEF focal point mechanism in the country
- Lessons learned across GEF projects
- Synergies between GEF stakeholders and projects

Chapter 7: Results of GEF Support to Egypt

- Global environmental impacts
- Catalytic and replication effects
- Institutional sustainability and capacity building
- Details of project results

Each TOR for a CPE may adopt variations of this outline, if and when certain aspects merit more or less attention in the specific case of that country. However, the possibility to aggregate findings across CPEs will be an important factor to take into consideration when deciding on the contents of each report.

Table A.5

Evaluation's Key Milestones

Milestone	Deadline
1. Request for interest from consultants	August 14–31, 2008
2. Contract consultants based in Egypt	October 27, 2008
3. Inception mission to launch evaluation and discuss draft terms of reference with key GEF stakeholders	November 16–21, 2008
4. Country-specific terms of reference for the Egypt evaluation	November 30, 2008
5. Review of the projects in Egypt's portfolio including interviews with stakeholders	December 1, 2008–February 1, 2009
6. Literature review	December 15, 2008
7. Country environmental framework for Egypt	December 31, 2008
8. Global environmental assessment for Egypt	December 31, 2008
9. Protocols for project reviews and interviews	January 18, 2009
10. Data collection mission	January 26–February 3, 2009
11. First draft of report	February 26, 2009
12. National consultation workshop to present preliminary conclusions and results	March 10, 2009
13. Final draft documents for distribution to stakeholders for comments	April 5, 2009
14. Final CPE report (incorporating comments from stakeholders) for government	April 24, 2009
15. Government response to final CPE report	May 5, 2009
16. Presentation to GEF Council	June 22, 2009

Annex B. Evaluation Matrix

Item/key question	Information/ indicator/basic data	Sources	Methodology
1. Context of the evaluation			
1.1 General description	• Human development profile • Social and political context of environmental issues • Status of each focal area in Egypt • Capacity	• NEAP 2002–17 • State of the Environment Report 2005, 2006 • World Development Indicators database • World Bank Egypt Country Profile (2006) • CIA 2008	
1.2 Brief description of environmental resources in key GEF support areas (what is potential global benefit?)	Potential global benefits: • Biodiversity potential and actual status • Climate potential and actual status • Land degradation and desertification • POPs potential and actual status • International waters: potential and actual status and regional significance; which transboundary features (fresh and marine) are relevant in the regional context (rivers and large marine ecosystems)? • Overall alignment	• State of the Environment Report 2005, 2006 • Frameworks and action plans: NEAP 2002–17, NBSAP, National Strategy and Action Plan for Capacity Development, Climate Change Action Plan, CDM Strategy, National Energy Efficiency Strategy, NIP, National Action Program to Combat Desertification • Specialists and key informants	
1.3 The environmental legal and policy framework in Egypt	• Outline legal and policy framework and ratification of protocols • Adequacy, ownership and embeddedness, and alignment • Development and environment strategy, plans including targets and budgets, and future trajectory: sustainability, commitment, and coherence	• NEAP 2002–17 • State of the Environment Report 2005, 2006 • NBSAP • Climate Change Action Plan • CDM Strategy • National Energy Efficiency Strategy • NIP • National Action Program to Combat Desertification • World Bank Egypt Country Environmental Analysis, 2005	
1.4 The GEF: general description	• Brief overview of GEF-1 to GEF-4 and Implementing Agency involvement • GEF-4 and RAF and Egypt allocations	• Other CPE documents • GEF focal area strategy • Interviews with UNDP, World Bank, and SGP	

Item/key question	Information/ indicator/basic data	Sources	Methodology
2. Activities funded by the GEF			
2.1 Activities considered in the evaluation	Agreed national and regional projects	• Evaluation Office database and completed project protocols • Implementing Agency records	
2.2 Activities over time	Activities over time and by Agency and modality; activities by focal area, breakdown by number, budget, and modality; activities by GEF Executing Agencies; activities by GEF phase; SGP		
2.3 Evolution of GEF funding to the country	• For different GEF phases by Agency, focal area, and modality • Other ODA and cofinancing and Egypt's contribution to replenishment fund for each GEF phase • History of focal point	• Evaluation Office database and completed project protocols • Implementing Agency records • Implementing Agency interviews	
3. Results of GEF support			
3.1 What are the aggregated results by focal area?	• Aggregated indicators (see 4, below) • Overall catalytic and replication effect • Contribution by the GEF	• Project data in protocols and project documents • State of the Environment Report 2005, 2006 • GEF Executing Agencies, government officials, project staff, and other key stakeholders where necessary • Key informants: Mohamed Bayoumi, UNDP; Yasmine Fouad, GEF Unit	• Analysis of project data and portfolio in terms of project protocol • Document review • Interviews • Global Environmental Benefits Assessment • Field visits
3.2 What are the aggregated results at the country level?	• Aggregated indicators (see 4, below) • Overall outcomes and impacts of GEF support • Overall catalytic and replication effect		
3.3 What are the cross-cutting results in terms of catalytic and replication effects?	Potential catalytic and replication effects of projects identified in project design and realized		
3.4 What are the cross-cutting results in terms of individual and organizational capacity building?	Capacity needs assessment conducted with institution(s) with the mandate and addressed in project design and results		
3.5 What are the cross-cutting results in terms of improvements in the enabling environment?	Set of required enabling factors, including strong partnerships, policy, strategy, and monitoring and evaluation frameworks, assessed and addressed in project design and in results		
3.6 What are the cross-cutting results in terms of increased awareness?	• Evidence of improved awareness as a result of project activities • Evidence of changed behavior attributable to project activities		
3.7 What is the likelihood that objectives will be achieved for projects that are still under implementation?	Ratings of relevant ongoing projects in terms of likely, moderately likely, moderately unlikely, and unlikely		

Item/key question	Information/ indicator/basic data	Sources	Methodology
4. Relevance of GEF support			
4.1 Is GEF support relevant to Egypt's sustainable development agenda and environmental priorities?	• GEF support is within the country's sustainable development agenda and environmental priorities (national environmental act and subsequent acts) • Evidence of deliberate pro-poor or developmental orientation in project planning, implementation, and evaluation • Beneficiaries and benefits identified • GEF support has Egyptian ownership, evident in project origin, design, and implementation • Relative weight of different focal areas and alignment with Egypt's environmental policy and plans • Level of GEF funding relative to ODA in the environmental sector	• Framework NSSD (2007) • NEAP 2002–17 • Law 4/1994 • Ministerial policy directives (2004) • Analysis of project design information and results using project protocols • Interviews with government officials, local communities, and authorities and beneficiaries	• Review and analysis of relevant country-level information and documents and legal framework • Analysis of projects and portfolio • Interviews • National consultation workshop
4.2 Is GEF support relevant to national development needs and challenges?	• Priority development needs are supported (capacity building and income generation) and challenges reduced • Different types of GEF modalities and components (enabling activities, MSPs, FSPs, SGP, PDF, GEF Agencies, technical support) align with the country's needs and challenges • The GEF provided support for the country's reconstruction • GEF support plays a role in Egypt's strategy for the region and NEPAD • GEF approaches are adapted to country political realities	• NEAP 2002–17 • State of the Environment Report 2005 • NBSAP • Climate Change Action Plan • CDM Strategy • National Energy Efficiency Strategy • National Strategy and Action Plan for Capacity Development • GEF Agency strategies • Interviews with government officials, local communities, and authorities and beneficiaries • Analysis of project objectives and results based on protocols • Information and data on efficiency (project cycle, modalities, and so on)	• Document review and analysis of relevant country-level information • Review of regional documents • Review of Implementing Agency documents • Interviews • Portfolio analysis • National consultation workshop
4.3 Is GEF support relevant to national environmental priorities?	• Alignment with NEAP 2002–17 and other relevant policies • Alignment with specific action plans: NBSAP, NIP , National Action Program to Combat Desertification, INC, NCSA, Climate Change and CDM Strategies, National Energy Efficiency Strategy	• Record of initial meetings • Framework NSSD • NEAP 2002–17 • Law 4/1994 • State of the Environment Report 2005, 2006 • National action plans in each focal area and GEF-supported enabling activities • SGP country strategy • Analysis of project objectives and results based on project protocol • Government officials, NGOs, and Agencies • Project reviews	• Document review and analysis of country-level information • Desk review of country strategies and plans • Review of GEF Agency country strategies • Portfolio analysis • Interviews

Item/key question	Information/ indicator/basic data	Sources	Methodology
4.4 Is the country supporting the GEF mandate and focal area programs and strategies with its own resources and/or support from other donors?	Amount and percentage of cofinancing by source and focal area	• Project protocol and analysis of cofinancing • Database of projects • EEAA interviews	• Document review of relevant country-level information • Analysis of project information and database on cofinancing • Interviews
4.5 Is GEF support relevant to achieving the GEF mandate, principles, and objectives of each GEF focal area's operational programs and strategies?	• Evidence that GEF support is maximizing potential global benefits based on analysis of alignment between aggregated project outcomes and impacts in each focal area by modality, and the outcome and impact indicators identified for each focal area • Relation of GEF support and aggregated project outcomes and impacts to the relevant national commitments to conventions, focal area strategy outcomes, and impacts and related targets • Evidence of alignment between the GEF portfolio in Egypt and GEF principles of incrementality, cost-effectiveness, sustainability, and catalytic orientation	• Project documents, analysis of project objectives and results in each focal area • GEF focal area strategies, GEF-1 to GEF-4 documents on programs and monitoring and evaluation frameworks; Egyptian commitments based on international conventions; Egyptian environmental documents • Interviews with GEF Agency technical staff, SGP • Evaluations • Data from RAF Global Benefits Index (for biodiversity and climate change) and from other global indicators for POPs, land degradation, and international waters	• GEF portfolio and pipeline analysis using protocol • Document review of country-level information and legal framework: Global Environmental Benefits Assessment • Document review of conventions and GEF results frameworks • Interviews
4.6 Is GEF support relevant to GEF Agency strategies and frameworks?	• Relevance to strategies and frameworks of GEF Agencies (UNDP, World Bank, UNEP, UNIDO) • Reasons given by others (African Development Bank, FAO) for noninvolvement or limited involvement	• Analysis of project objectives and results • GEF Agency strategies • Key Agency staff: UNDP, World Bank, and UNEP	• Analysis of portfolio • Desk review of GEF Agency–level information • Interviews
4.7 How relevant is the RAF index to country priorities?	• Alignment of RAF indexes with Egyptian environmental priorities and plans • Alignment with locally based data and indexes	• Interviews: national experts on RAF indexes and assessment • Analysis of objectives of pipeline projects	• Interviews • Desk review of available data • Analysis of pipeline
5. Efficiency of GEF support			
5.1 How much time, effort, and financial resources does it take to develop and implement projects, by GEF support modality?	• Preparation costs (any PDF or project preparation grants?) • GEF Agency project fee • How much of project budget is for management and implementation cost? • Is economy and efficiency evident from comparing inputs to outputs and rate? • To what extent has the project identified and operationalized "win-win" outcomes? • To what extent has the project assessed and incorporated trade-offs between environmental and development issues? • What is the average time taken to achieve each milestone in the project cycle by modality and focus area and by GEF phase and Agency? • Projects not progressing past PDF, cancellations	• Analysis of information in project protocols, including project budgets and staff, monitoring and evaluation budgets, and activities and RAF pipeline • External evaluation documents of projects • Interviews with GEF Agencies and government • Joint Evaluation of the GEF Activity Cycle and Modalities • Field visits	• Collation and analysis of data in project protocols • Review of project evaluations and GEF project cycle documents • Interviews • Project field visits

Item/key question	Information/ indicator/basic data	Sources	Methodology
5.2 What are the roles, types of engagement, and coordination among different stakeholders in project implementation?	• Level of participation of actors and stakeholders in key phases of the project cycle • Beneficiaries identified and analyzed, and appropriate engagement strategy implemented • Actors' roles and responsibilities and their clarity • Coordination among projects planned and implemented • Complementarity of GEF support (to national roles and responsibilities)	• Analysis of information in project protocols • External evaluation documents of closed projects • Interviews with project staff, beneficiaries, and other actors • Interviews with GEF Agencies • Minutes of National Steering Committee meetings	• Collation and analysis of data in project protocols • Review of project evaluations • Field visits and interviews • Interviews and workshops
5.3 How good is dissemination of GEF project lessons and results?	• Deliberate and effective anticipation at project design to ensure reliable learning and a sound basis for assessing replicability, as well as provision for dissemination of learning • Lessons from previous projects within and outside the GEF incorporated in project design, preparation, and implementation	• Analysis of information in project protocols • External evaluations of projects • Interviews with project staff and GEF Agencies • Minutes of National Steering Committee meetings	• Collation and analysis of data in project protocols • Document review • Interviews and workshops • Field visits
5.4 What are the synergies in GEF project programming and implementation with GEF Agencies? What are the synergies between GEF stakeholders and projects?	• Awareness and acknowledgement among GEF Agencies of each other's projects • Communication among Implementing Agencies • Technical support among Implementing Agencies	• Global Environmental Benefits Assessment and Country Environmental Framework Analysis • Interviews with GEF Agencies, government officials, academics, and project staff • Project protocols	• Document review • Interviews and workshops • Field visits • Analysis of GEF portfolio
5.5 What are the synergies in GEF project programming and implementation with national institutions?	• Awareness and acknowledgement among institutions of each other's projects • Communication among institutions • Technical support among institutions	• Global Environmental Benefits Assessment and Country Environmental Framework Analysis • Interviews with government officials and GEF Executing Agencies • Interviews with Implementing Agency staff, academics, and project staff • National environmental policy and plans • Project protocols • Minutes of National Steering Committee meetings	• Document review • Interviews and workshops • Field visits • GEF portfolio analysis
5.6 What are the synergies in GEF project programming and implementation with GEF projects and other donor-supported projects and activities?	• Explicit statements or evidence of deliberate efforts to maximize synergy in project documents • Coordination among projects • Alignment and levels of integration required for coherence in focal area or landscape achieved • Complementarity of GEF support • Relevant government plans integrate funding	• Global Environmental Benefits Assessment and Country Environmental Framework Analysis • Interviews with GEF Agency staff • Interviews with government officials, academics, project staff, NGOs, and bilateral donors • Donor evaluations • Project protocols	

Item/key question	Information/ indicator/basic data	Sources	Methodology
5.7 What is the national mechanism for GEF implementation (such as the GEF focal point mechanism in the country)?	• Development of country strategy, approach, or priorities • Quality and adequacy of information on projects available and used • Role in ensuring alignment and coordination • Contribution to dissemination of learning • Changes in the focal point mechanism's capacity to support project design, implementation, and monitoring and evaluation • Changes in time taken to process documents • Achievement of commitments and responsibilities related to focal point role • Clear communication with national stakeholders on GEF policies and procedures • Clear communication to GEF and its Agencies	• Interviews with the operational and political focal points, the National Steering Committee, and the GEF Unit • Project protocols and evaluations • Minutes of National Steering Committee meetings	• Document review • Interviews • Analysis of GEF portfolio and project documents
5.8 To what extent have GEF operations changed after the introduction of the RAF?	• Difference in average time taken in key phases of the project cycle pre- and post-RAF • Improved level of alignment between portfolio of projects approved based on the RAF and Egypt's potential global benefits, the GEF mandate, and Egypt's country priorities • Impact on allocations to the SGP	• Project protocols • Analysis of relevance of project portfolio over time • GEF Evaluation Office evaluations, such as the Joint Evaluation of the GEF Activity Cycle and Modalities • Interviews with EEAA and GEF Agencies	• Analysis of GEF portfolio over time • Analysis of relevance • Review of GEF documents on RAF and project cycle • Interviews
5.9 What is the sustainability of GEF support?	• Project documents adequately anticipate institutional, environmental, socio-political, economic, and financial risks and include adequate plans to manage, mitigate, or influence risks related to sustainability in the short, medium, and long term of gains made • Level to which gains of projects completed more than a year before the evaluation sustained and evidence of future capacity to sustain available • Likelihood of financial and other resources required to sustain gains being available • Institutional commitment to maintaining the required capacity and resources to sustain gains • Level of stakeholder commitment, awareness, and ownership evident in relation to that required • Legal frameworks, policies, governance structures, and capacity to enforce compliance in place • Systems of accountability and technical capacity in place	• State of the Environment Report 2005, 2006 • Project protocols and project evaluation reports • Officials and staff related to completed projects • Interviews with officials and GEF Executing Agencies • Interviews with NGOs and bilateral donors, and local communities and authorities	• Document review • Analysis of protocol data and project documents • Field visits and interviews • Interviews and workshops • Country Environmental Framework Analysis

Annex C. GEF Portfolio in Egypt, 1991–2008

GEF ID	Scope	Project name	Focal area	Modality	IA	Executing agency	PDF/ PPG	GEF grant	Co-financing
							Million $		
Completed									
23	Global	Promoting Best Practices for Conservation and Sustainable Use of Biodiversity of Global Significance in Arid and Semi-Arid Zones	BD	MSP	UNEP	Third World Network of Scientific Organizations		0.75	0.15
31	National	Introduction of Viable Electric and Hybrid-Electric Bus Technology	CC	MSP	UNDP	EEAA		0.749	0.965
66	National	Red Sea Coastal and Marine Resource Management	BD	FSP	WB	EEAA, Tourism Development Authority, Red Sea Governorate		4.75	0.98
145	Global	Biodiversity Data Management Capacitation in Developing Countries and Networking Biodiversity Information	BD	EA	UNEP	National biodiversity institutions/ units, national scientific organizations		4	1.39
154	National	National Biodiversity Strategy, Action Plan, and First National Report to the CBD	BD	EA	UNEP	EEAA		0.288	0
172	Global	Biodiversity Country Studies—Phase I	BD	EA	UNEP	National biodiversity institutions, national scientific organizations		5	0.801
267	Regional (Egypt, Palestinian Authority)	Energy Efficiency Improvements and Greenhouse Gas Reductions	CC	FSP	UNDP	Ministry of Electricity and Energy, Egyptian Electricity Holding Company		6.36	1.784
282	National	Building Capacity for GHG Inventory and Action Plans in Response to UNFCCC Communications Obligations	CC	EA	UNDP	EEAA		0.402	0

GEF ID	Scope	Project name	Focal area	Modality	IA	Executing agency	PDF/ PPG	GEF grant	Co-financing
							Million $		
340	Regional (Djibouti, Egypt, Jordan, Saudi Arabia, Somalia, Sudan, Yemen)	Implementation of the Strategic Action Programme for the Red Sea and Gulf of Aden	IW	FSP	UNDP	PERSGA		19.34	25.65
395	National	Lake Manzala Engineered Wetlands	IW	FSP	UNDP	EEAA, MWRI, National Water Research Centre		5.26	6.63
402	Global	Pilot Biosafety Enabling Activity	BD	EA	UNEP	National governments, and others		2.744	0
410	Regional (Albania, Egypt, Lebanon, Morocco, Palestinian Authority, Tunisia)	Conservation of Wetland and Coastal Ecosystems in the Mediterranean Region (MedWetCoast)	BD	FSP	UNDP	EEAA		13.435	26.32
428	National	Clearing-House Mechanism Enabling Activity	BD	EA	UNEP	EEAA		0.014	0
461	Regional (Albania, Algeria, Bosnia-Herzegovina, Croatia, Egypt, Lebanon, Libya, Morocco, Slovenia, Syria, Tunisia, Turkey)	Determination of Priority Actions for the Further Elaboration and Implementation of the Strategic Action Programme for the Mediterranean Sea	IW	FSP	UNEP	Secretariat for Barcelona Convention Coordinating Unit for Mediterranean Action Plan		6.29	4.185
827	National	Climate Change Enabling Activity (Additional Financing for Capacity Building in Priority Areas)	CC	EA	UNDP	EEAA		0.048	0
1497	National	Enabling Activities to Facilitate Early Action on the Implementation of the Stockholm Convention on Persistent Organic Pollutants in Egypt	POPs	EA	UNIDO	EEAA		0.497	0
2157	National	Assessment of Capacity-Building Needs in Country-Specific Priorities in Biodiversity Management and Conservation in Egypt	BD	EA	UNEP	EEAA		0.148	0.042
2200	National	National Capacity Self-Assessment for Environmental Management	MF	EA	UNDP	EEAA		0.2	0.035
				Under implementation					
		Small Grants Programme			UNDP-UNOPS	SGP		4.320	
776	National	Conservation and Sustainable Use of Medicinal Plants in Arid and Semi-Arid Ecosystems	BD	FSP	UNDP	EEAA		4.287	4.766

GEF ID	Scope	Project name	Focal area	Modality	IA	Executing agency	PDF/ PPG	GEF grant	Co-financing
							Million $		
985	National	Developing Renewable Groundwater Resources in Arid Lands: A Pilot Case—The Eastern Desert of Egypt	IW	MSP	UNDP	Cairo University		0.83	1.005
1028	Regional (Yemen, Lebanon, Palestinian Authority, Djibouti, Egypt, Eritrea, Ethiopia, Jordan, Sudan, Syria, Saudi Arabia)	Mainstreaming Conservation of Migratory Soaring Birds into Key Productive Sectors along the Rift Valley/Red Sea Flyway (Tranches 1 and 2)	BD	FSP	UNDP	BirdLife International		10.243	15.597
1040	National	Solar Thermal Hybrid Project	CC	FSP	WB	New and Renewable Energy Authority		50.85	97.2
1094	Regional (Burundi, Congo DR, Egypt, Eritrea, Ethiopia, Kenya, Rwanda, Sudan, Tanzania)	Nile Transboundary Environmental Action Project, Tranche 1	IW	FSP	WB	NBI Secretariat with support by UNOPS		17.15	90.76
1335	National	Bioenergy for Sustainable Rural Development	CC	FSP	UNDP	EEAA		3.344	13.3
1394	Regional (Burkina Faso, Cameroon, Egypt, Ethiopia, Ghana, Kenya, Niger, Nigeria, Senegal, South Africa, Zambia, Zimbabwe)	Climate, Water, and Agriculture: Impacts on and Adaptation of Agroecological Systems in Africa	MF	MSP	WB	Governments, research institutions, NGOs		0.7	0.54
2020	Regional (Chad, Egypt, Libya, Sudan)	Formulation of an Action Programme for the Integrated Management of the Shared Nubian Aquifer	IW	MSP	UNDP	International Atomic Energy Agency		1	6.951
2261	Global	Building Partnerships to Assist Developing Countries to Reduce the Transfer of Harmful Aquatic Organisms in Ships' Ballast Water (GloBallast Partnerships)	IW	FSP	UNDP	International Maritime Organization		6.388	17.702
2584	Regional (Burundi, Congo DR, Egypt, Ethiopia, Kenya, Rwanda, Sudan, Tanzania, Uganda)	Nile Transboundary Environmental Action Project, Phase II	IW	FSP	UNDP	NBI Secretariat with support by UNOPS		6.7	71.99
2824	National	Support the Implementation of the National Biosafety Framework	BD	MSP	UNEP	EEAA		0.908	1.389

GEF ID	Scope	Project name	Focal area	Modality	IA	Executing agency	PDF/ PPG	GEF grant	Co-financing
							Million $		
3190	National	Mainstreaming Global Environment in National Plans and Policies by Strengthening the Monitoring and Reporting System for Multilateral Environmental Agreements	MF	MSP	UNDP	EEAA		0.5	0.812
3321	Regional (Burundi, Congo, Egypt, Ethiopia, Kenya, Rwanda, Sudan, Tanzania, Uganda)	Mainstreaming Groundwater Considerations into the Integrated Management of the Nile River Basin	IW	MSP	UNDP	International Atomic Energy Agency		1	2.891
Pipeline[a]									
1685	Global	Fuel Cells Financing Initiative for Distributed Generation Applications (Phase 1)	CC	FSP	WB	International Finance Corporation		6.575	9
2546	Regional (Sudan, Morocco, Yemen, Djibouti, Egypt, Syria, Jordan, Iran)	Demonstration of Sustainable Alternatives to DDT and Strengthening of National Vector Control Capabilities in Middle East and North Africa	POPs	FSP	UNEP	WHO Regional Office for Eastern Mediterranean; ministries of health of participating countries		5.563	8.416
2600	Regional (Albania, Bosnia-Herzegovina, Croatia, Egypt, Lebanon, Libya, Morocco, Serbia, Syria, Tunisia, Turkey, Algeria)	Strategic Partnership for the Mediterranean Large Marine Ecosystem—Regional Component: Implementation of Agreed Actions for the Protection of the Environmental Resources of the Mediterranean Sea and Its Coastal Areas	MF	FSP	UNEP	UNEP/MAP FAO, UNESCO, UNIDO, ICS-UNIDO, METAP/WB/ WWF		13.591	29.607
2601	Regional (Albania, Algeria, Bosnia-Herzegovina, Bulgaria, Croatia, Egypt, Lebanon, Libya, Macedonia, Morocco, Serbia, Syria, Tunisia, Turkey)	World Bank–GEF Investment Fund for the Mediterranean Sea Large Marine Ecosystem Partnership, Tranche 1, 1st Allocation	MF	FSP	WB	UNEP/MAP		10	90
2776	National	Sustainable Transport	CC	FSP	UNDP	EEAA		7.175	28.57
2865	Regional (Egypt, Jordan, Yemen)	Promotion of Strategies to Reduce Unintentional Production of POPs in the PERSGA Region	POPs	MSP	UNIDO	PERSGA		1	1.095
3209	National	Strengthening Protected Area Financing and Management Systems	BD	FSP	UNDP	EEAA		3.616	13.8

GEF ID	Scope	Project name	Focal area	Modality	IA	Executing agency	PDF/PPG	GEF grant	Co-financing
							Million $		
3229	Regional (Albania, Algeria, Bosnia-Herzegovina, Bulgaria, Croatia, Egypt, Macedonia, Lebanon, Libya, Morocco, Serbia, Syria, Tunisia, Turkey)	World Bank–GEF Investment Fund for the Mediterranean Sea Large Marine Ecosystem Partnership, Tranche 1, 2nd Installment	IW	FSP	WB	UNEP/MAP-FAO, UNESCO, UNIDO, ICS-UNIDO, METAP/WB, WWF		15	45
3242	National	Adaptation to Climate Change in the Nile Delta through Integrated Coastal Zone Management	CC	FSP	UNDP	MWRI, Coastal Research Institute, Egyptian Shore Protection Authority		4	12
3398	Regional (Ethiopia, Sudan, Egypt)	SIP-Eastern Nile Transboundary Watershed Management in Support of ENSAP Implementation	MF	FSP	WB			8.7	62.3
3628	Regional (Algeria, Egypt, Iran, Jordan, Morocco, Tunisia, Yemen)	MENARID Cross-Cutting M&E Functions and Knowledge Management for INRM within the MENARID Programme Framework	LD	MSP	IFAD			0.727	1.6
Prepipeline[a]									
2602	National	Alexandria Integrated Coastal Zone Management Project—under Investment Fund for the Mediterranean Sea Large Marine Ecosystem Partnership	IW	FSP	WB		0.35		0.12
3742	National	Industrial Energy Efficiency	CC	FSP	UNIDO		0.1		0.15
Canceled									
926	National	Fuel Cell Bus Demonstration Project in Cairo, Phase I	CC	FSP	UNDP	EEAA, Great Cairo Bus Company		6.51	7.088
1213	National	Second Matrouh Resource Management Project	MF	FSP	WB	Ministry of Agriculture and Land Reclamation		5.12	50.55
Dropped									
1076	National	Private Sector Wind Power Development	CC	FSP	WB	New and Renewable Energy Authority		15.35	65
1504	National	Conservation of Biodiversity and Ecosystem Management in a Sample of Representative Islands of the Nile Valley of Egypt	BD	MSP	UNDP	EEAA		0.025	0.02

Note: — = not available or unknown; BD = biodiversity; CC = climate change; EA = enabling activity; IA = Implementing Agency; IW = international waters; LD = land degradation: MF = multifocal; PPG = project preparation grant; TBD = to be determined; UNOPS = United Nations Office for Project Services; WB = World Bank.

a. Pipeline projects refer to projects that have entered the GEF cycle. Prepipeline projects are those that have been assigned a GEF ID number, but are still under preparation and awaiting approval.

Annex D. Interviewees

Mawaheb Abu El Azm, Chief Executive Officer, EEAA, GEF Operational Focal Point

Yasmine Fouad, GEF Unit Director, EEAA

Hoda Omar El Chawadfy, GEF Unit, EEAA

Ossama Abd Elsalam, Head of International Affairs Department, EEAA

Mostafa Fouda, Director of Nature Conservation Sector, EEAA, Focal Point for the CBD

Mona El Aguizy, International Cooperation, EEAA

Mostafa Kamal Tolba, Chair of the GEF National Steering Committee

Baha Mansour, Climate Change Unit, EEAA, Manager of the Second National Communication to UNFCCC

Samir Tantawi, Climate Change Specialist, Egyptian Bureau for CDM, Climate Change Unit, EEAA

Ismail M. El-Bagouri, Desert Research Center, Ministry of Agriculture

Mohamed Bayoumi, Environmental Specialist and Assistant Resident Representative, UNDP

Emad El-Sharkawi, General Manager, PGESCo, Ministry of Electricity and Energy

Asem Elgawhary, CEO, PGESCo, Ministry of Electricity and Energy

Ibrahim Yassin Mahamoud, Technical Project Director, EEIGGR

Bothaina Abd El Moneam, General Director of Environmental Studies, Egyptian Electrical Holding Company

Sidi Boubacar, Lead Operations Officer, Deputy Head of Office, World Bank

Somaya Saad, Deputy Assistant Minister, Department of Environment and Sustainability, Ministry of Foreign Affairs, Political Focal Point

Mohamed Nasr, Office of Deputy Assistant Minister for Environmental Affairs and Sustainable Development

Amr Essam, Diplomatic Attaché, Ministry of Foreign Affairs

Yasser Ali Ragab, Counselor, Ministry of Foreign Affairs

Emad Adly, Senior National Coordinator, SGP

Doha Abdelhamid, Senior Advisor to the Minister President of the CAOA for Civil Services Policy Reforms and International Relations, Resident Representative of IDEAS

Naoufel Telahigue, Program Officer, IFAD

Frank Moser, Industrial Development Officer–POPs, UNIDO

Kuena Morebotsane, Associate Professional Officer, GEF, Food and Agriculture Organization of the United Nations

Virginie Hart, Task Manager, International Waters, GEF, UNEP

Mirey Atallah-Auge, Regional Technical Officer, UNDP

Dahlia Lotayef, Senior Environmental Specialist, Middle East and North Africa, World Bank

Ossama El-Tayeb, Scientific Advisor, member of the National Biosafety Committee, Chairman of Ministerial Drafting Committee, Center for Microbiological Technology, Cairo University

Mohamed Qassass, Department of Biology, Faculty of Science, University of Cairo

Mohamed Al Bayoumy, Environment Specialist, Assistant Resident Representative, UNDP

Mohamed Fawzi, Director, Crisis and Disaster Management Sector, Egyptian Cabinet, Information and Decision Support Center

Diaa El Din El Quossy, Project Manager for Lake Manzala Engineered Wetlands

Mohamed El Zarka, Former Head of Environmental Quality Sector, EEAA

Essam El Badry, Nature Conservation Sector, Advisor on Biodiversity to Minister of Environment, EEAA

Mohamed Hassanein, Head of the Tourism Development Authority, Ministry of Tourism

Mohamed Abbas Mabrouk, Acting President of the Desert Research Center, Focal Point for the UN Convention on Combating Desertification

Amina El Zalabany, R&D Technical Senior Consultant, New and Renewable Energy Authority

Khaled Fekry, R&D Sector Director, New and Renewable Energy Authority

Bente Schiller, Development Counselor (Environment), Danish International Development Agency, Royal Danish Embassy

Mahmoud Khamis, Professor at Oceanography, Faculty of Science, Alexandria University

Mohamed Fawzy Bakry, Drainage Research Institute, National Water Research Council, MWRI

Ashraf El Sayed Ismail, Drainage Research Institute, National Water Research Council, MWRI

Ghada El Refaie, Drainage Research Institute, National Water Research Council, MWRI

Mohamed Abbas Mabrouk, Acting President, Desert Research Center

Ahmed Wagdi, Associate Professor of Hydraulics, Irrigation and Hydraulics Department, Cairo University

Mohamed A. Fawzi, Director, Crisis and Disaster Management Sector, Egyptian Cabinet, Information and Decision Support Center

Sayed Mohamed Madian, General Manager, Regional Branch Office, EEAA, Hurghada

Mohamed Abdel Gawad Ali, General Manager for Environmental Management Unit, Red Sea Governorate, Hurghada

Kahlan Abu Ghanem, Deputy Director, Marine Emergency Mutual Aid Centre, Hurghada

Ihab Taher, Branch Manager, Chamber of Diving and Water Sports

Omar Abdel Dayem, Project Manager, Medicinal Plants Project, St. Katherine

Ayman Hamada, responsible for Community-Based Natural Resources Management, Medicinal Plants Project, St. Katherine

Ahmed Mohamed Zoromba, Research Assistant, Mechanical and Electrical Research Institute, National Water Research Council, MWRI

Mostafa Sedik Nasr El-Komy, Assistant Researcher, Drainage Research Institute, National Water Research Council, MWRI

Ayman Abdeen, Fisheries Consultant, National Water Research Center

Ithar Khalil, National Project Coordinator, NBI-NTEAP

Ahmed Mansour, Trader

Sheikh Moussa, Bedouin Tribe Leader, Medicinal Plants Project, St. Katherine

Annex E. Sites Visited

Energy Efficiency Improvements and Greenhouse Gas Reductions (GEF ID 267), Ministry of Electricity and Energy, Cairo; January 28, 2009

Solar Thermal Hybrid Project (GEF ID 1040), New and Renewable Energy Authority

Lake Manzala Engineered Wetlands (GEF ID 395), Lake Manzala, Port Said; February 3, 2009

Red Sea Coastal and Marine Resource Management (GEF ID 66), Hurghada, Red Sea; February 1, 2009

Conservation and Sustainable Use of Medicinal Plants in Arid and Semi-Arid Ecosystems (GEF ID 776), St. Catherine, Sinai; February 2, 2009

Developing Renewable Groundwater Resources in Arid Lands: A Pilot Case—the Eastern Desert of Egypt (GEF ID 985), Cairo University; January 29, 2009

Annex F. Workshop Participants

The following people participated in the consultation workshop held March 10, 2009, at the Marriott Hotel, Cairo.

Emad Adly, SGP

Ghada Gameel El Adui, MWRI, Drainage Research Institute

Mohamed Afifi, Desert Research Center

Mona El Agizy, EEAA

Mirey Atallah, Regional Technical Officer, UNDP

Heba Yaken Atef, MWRI

Mohamed Awadallah, Egyptian Electricity Holding Company

Mawaheb Abouel Azm, EEAA

Ismail El Bagouri, Desert Research Center

Mohamed El Banna, Day Hospital Institute for Development and Rehabilitation

Mohamed Bayoumi, UNDP

Adli Bishay, Friends of the Environment & Development Association

Hoda Omar El Chawadfy, GEF Unit, EEAA

Omar Abdel Dayem, EEAA

Mohamed Elmasry, FAO

Riham Elmikawi, EEAA

Mohamed Fathy, UNDP

Mohamed Fawzi, Egyptian Cabinet, Information and Decision Support Center

Shahenaz Fouad, UNIDO

Yasmine Fouad, GEF Unit, EEAA

Mahdia Farid Gabr, Desert Research Center

Mohamed Ahmed Ghanem, MWRI

Sami El Ghayaty, Friends of Nature Association

Nadine Abu El Gheit, UNDP

Magda Ghoneim, North South Consultancy Exchange

Fatma El Gohary, National Research Center

Ezzat Abdel Hamid, EEAA

Mohamed Hassanein, Ministry of Tourism

Malak Hayder, FAO

Ahmed Hossam, University of Alexandria

Ahmed Kamal, Federation of Egyptian Industries

Dalia Lotayef, World Bank

Bahaa Mahmoud, EEAA

Javier Menendez, European Commission

Amany Nakhla, UNDP

Mohamed Nasr, Ministry of Foreign Affairs

Elham Refaat, EEAA

Hussein Rizk, New and Renewable Energy Authority

Somaya Saad, Ministry of Foreign Affairs

Elsayed Sabry, EEAA

Moheeb Abdel Sattar, EEAA

Ahmed Shehata, Nature Conservation Sector, EEAA

Samir Tantawi, EEAA

Heba Wafa, UNDP

Amina El Zalabany, New and Renewable Energy Authority

Mohamed El Zarka, World Bank

Khaled Mahmoud Abu Zeid, Center for Environment and Development for the Arab Region and Europe

Annex G. Framework for Analysis of Results and Summary of Project Results

Table G.1

Framework for Analysis of Results

Focal area	Expected impacts	Expected outcomes
Biodiversity	Biodiversity resources are conserved or sustainably used, or genetic resources are shared	• On-site and sustainable biodiversity conservation in protected areas (catalyzing sustainability of systems) • On-site and sustainable biodiversity conservation in production landscapes (and seascapes): mainstreaming • Implementation of Cartagena Protocol on Biosafety and improved invasive alien species management • Knowledge generation, dissemination, and good practices
Climate change	Reduction or avoidance of GHGs in renewable energy, energy efficiency, and sustainable transport	• Energy efficiency (residential and commercial buildings and industry sector) through market penetration and technologies • Growth in renewable energy markets • Sustainable energy production of biomass • Innovative sustainable public transport systems promoted, created, and adopted
International waters	Fish stock increased, land pollution reduced, water uses are complementary	• Fostering international, multistate cooperation on priority water concerns (political commitment to improve multicountry cooperation) • Catalyzing transboundary action: overexploitation of fish stocks, reduce land-based coastal pollution, balance competing water uses, melting of ice in high altitudes • Balancing overuse and conflicting uses of water resources in surface and groundwater basins that are transboundary in nature
Land degradation	Control the increasing severity and extent of land degradation in order to derive global environmental benefits	• Sustainable land management is integrated into national development priorities • Strengthen human, technical, and institutional capacities • Global environment and local benefits generated • Synergies among focal areas • Themes: agriculture, rangeland, forest
POPs	Reduce and eliminate production, use, and release of POPs	• Strengthening capacity for NIP development and implementation • Investments for NIP implementation • Knowledge generation, dissemination, and good practices
Multifocal	Framework based on each project's own objectives	

Table G.2

Summary of Project Results by Focal Area

Biodiversity
Biodiversity resources are conserved or sustainably used, or genetic resources are shared
Project: Red Sea Coastal and Marine Resource Management (GEF ID 66) **Expected impact:** Protect biodiversity and develop practical solutions for the management of protected areas and marine recreational resources and conservation of biodiversity. **Achievements:** The project suggested Wadi Gemal become a protected area, which was approved by the government in 2003. The project has strengthened environmental impact assessment capabilities and provided coastal zone management knowledge within the Tourism Development Authority, the EEAA, and the Red Sea Governorate. The coral sites in Soma Bay were, at the time of the terminal evaluation, adequately protected. Protected area fees are also collected for snorkelers and divers going to the islands outside Hurghada. However, no conservation efforts have been seen in these areas in the past 10 years.
Project: Conservation of Wetland and Coastal Ecosystems in the Mediterranean Region (GEF ID 410) **Expected impact:** The project document only refers to achieving on-site protection of globally significant biodiversity in the project sites. **Achievements:** Lake Burullus: The recording of the marine mullet *Liza aurata*, which had disappeared during the last decade due to the freshening of the lake water. Omayed: Increase in cover of *Colchicum ritchii* (a medicinal plant), which indicates that its use has been decreased, as Bedouins are busy in alternative livelihoods. Zaranik: Only a single corncrake was recorded during the survey in 2000, while 233 were recorded during the same period in 2004; 19 birds of the greater flamingo were recorded in 2000, while 926 were recorded in 2004. A reed cropping activity resulted in improved ecological balance by reintroducing saltwater into the lake, as well as an increase of areas available for fishing. Other activities implied reduction in existing threats, measured by a decrease in the number of violations in bird hunting and grazing, and banning the use of insecticides.
Project: Conservation and Sustainable Use of Medicinal Plants in Arid and Semi-Arid Ecosystems (GEF ID 776) **Expected impact:** Enhancement of global biodiversity conservation and sustainable use in the target site; local community capacity will be enhanced in dealing with conservation, sustainable management and production, and marketing of medicinal plant resources; existing institutions will be able to manage medicinal plants and natural resources, conserve biodiversity, and promote sustainable development. **Achievements:** There are currently four rehabilitation sites, which are reestablishing 14 globally significant medicinal and aromatic plants; 73 medicinal plants have been safeguarded by storing them in the national gene bank and living collection available at the project greenhouses and rehabilitation sites. More than 800 accessions for globally significant medicinal and aromatic plants were collected by the project team.
On-site and sustainable biodiversity conservation in protected areas (catalyzing sustainability of systems)
Project: Red Sea Coastal and Marine Resource Management (GEF ID 66) **Expected impact:** No expected outcomes were discussed in the implementation completion report. According to the project document, the project would make a significant contribution to global achievements in protecting coral reefs, endemic island wildlife, and diverse marine environments. The project aims to assist interagency coordination and the joint management of a plan by public and private sector parties. This plan would allocate resources and promote polices that support sustainable economic development and income generation from tourism, oil, fishing, and nature conservation. **Achievements:** Environmental legislation now requires full environmental impact assessments for tourism development projects. Several policies, plans, and strategies were prepared, most notably the ICZM Plan, the Reef Recreation Management Action Plan, and the Red Sea Coastal and Marine Protected Area Strategy, which identifies protected areas and provides recommendations on protection of coastal and marine resources. The executing agencies (the EEAA, the Tourism Development Authority, and the Red Sea Governorate) have received extensive training and additional resources, with an environmental unit established in the Tourism Development Authority. Investors' environmental group and NGOs are active. A geographic information system database was compiled and is operational and accessible to government agencies, investors, and donors. Two buildings were constructed, the EEAA regional branch office in Hurghada and a visitor's center in Port Ghalib.
Project: Conservation of Wetland and Coastal Ecosystems in the Mediterranean Region (GEF ID 410) **Expected impact:** National policies and tools to address policy-related root causes of the loss of wetland and coastal biodiversity and capacity are being developed; important biodiversity sites are managed for biodiversity conservation and protected, including related capacity building and sustainability; at important biodiversity sites and surrounding areas, biodiversity conservation is adequately integrated into local economic and political decision making; the Mediterranean circle is closed: knowledge has been transferred and sustainable knowledge-sharing mechanisms are effective. **Achievements:** Based on the recommendation of the project, one protected area (Burullus) was established and delineated by prime ministerial decree. A Wetland Strategy, database, and National Wetlands Steering Committee were established. A management planning technical working group was established, which produced management plans for the three sites. Local advisory committees, comprising all relevant stakeholders and chaired by the governors, were designated and obtained legal status. Basic socioeconomic data were collected, several field activities were undertaken aiming at socioeconomic development, and investments were made in pro-biodiversity actions by concerned ministries. Very little international and regional expertise was used by the project, and Egypt contributed to a limited extent to regional knowledge sharing.

Project: Conservation and Sustainable Use of Medicinal Plants in Arid and Semi-Arid Ecosystems (GEF ID 776)

Expected impact: Conservation management of St. Katherine's Protectorate resources strengthened; medicinal and aromatic plant products' market value chain strengthened and sustained; pressure on target resources reduced by alternatives; medicinal and aromatic plant conservation and management enabling environment strengthened; learning, evaluation, and adaptive management increased.

Achievements: The project established a functional community-based natural resource management area in Gebalya tribe tenure areas, and the community-based natural resource management unit established consists of a task force of national and international expertise in full cooperation with Gebalya tribe leaders. Four rehabilitation sites are currently available in the rehabilitation and restoration program, and medicinal plants have been collected and stored in the national gene bank. Local awareness has been increased through the local community having participated in a number of workshops and trainings related to the medicinal and aromatic plant issues. Linkages and collaboration of essential stakeholders—including producers, collectors, retailers, researchers, and exporters—in the value chain was strengthened. 40% of the harvested plants is being stored according to international standards. Marketing plan for medicinal and aromatic plant association was designed and is being implemented. 100% of cultivated area is managed by local community members. Four alternative resources were introduced, including medicinal and aromatic plant farms, solar heaters, firewood outlets, and butane cookers. The final draft of the National Medicinal and Aromatic Plant Strategy and Action Plan has been prepared. Final version of the law for managing access to and from and obtaining natural resources and the corresponding intellectual heritage was prepared by the access and benefit-sharing committee. Incorporation of a monitoring system (including indicators) into St. Katherine's Protectorate management practices. Web site and database established in 2006 and currently updated.

Knowledge generation, dissemination, and good practices

Project: 2428 Biosafety Framework

Expected impact: Egypt has a fully functional and responsive regulatory regime in line with the Cartagena Protocol on Biosafety and national needs; Egypt has a functional national system for handling requests for permits for living modified organisms harmonized by international standards and obligations under the protocol; Egypt has a functional national system for follow-up actions and a functional national system for public awareness, education, participation, and access to information.

Achievements: The biosafety law has not yet been approved by the government, but executive directive regulations are being formulated. National competence on risk assessment and handling of requests has been enhanced by convening workshops with international experts. Procedures for monitoring environmental effects and enforcement actions are not in place, but the project is currently attempting to locate a research laboratory. The project has to date focused on raising awareness about the biosafety law and its implementation among decision makers and policy makers, while deciding not to involve the public until the biosafety law has been passed, given the sensitivity of the genetically modified organism issue in Egypt.

Project: Strengthening Protected Area Financing and Management Systems (GEF ID 3209)

Expected impact: Strengthened legal, institutional, and regulatory frameworks for the protected areas in Egypt; establishment of partnerships with the private sector and civil society organizations to consolidate efforts around the conservation of protected areas.

The project has obtained a project preparation grant and is currently carrying out preparatory activities focusing on the assessment of Egypt's protected area system.

Project: Mainstreaming Conservation of Migratory Soaring Birds into Key Productive Sectors along the Rift Valley/Red Sea Flyway (GEF ID 1028)

Expected impact: Raised awareness of the flyway and altered social and cultural behaviors among target groups that threaten the migratory soaring birds; increased national and regional capacity to mainstream migratory soaring bird considerations into the productive sectors along the flyway that pose the greatest risk to their safe migration, primarily hunting, energy, agriculture, and waste management, while promoting activities in sectors that could benefit from these birds, such as ecotourism; content and tools to enhance flyway-friendly practice developed, delivered, and mainstreamed effectively into sector processes and programs; learning, evaluation, and adaptive management increased.

This project started implementation in early 2009.

Project: First National Report to the CBD and Preparation of National Biodiversity Strategy and Action Plan (GEF ID 154)

Achievements: First National Report to the CBD prepared and submitted; National Biodiversity Strategy and Action Plan prepared.

Project: Clearing-House Mechanism (GEF ID 428)

Achievements: Egypt's Biodiversity Clearing-House Mechanism developed and launched. A report, "Capacity-Building Needs in Biodiversity Conservation in Egypt," prepared and published.

Project: Assessment of Capacity-Building Needs in Country-Specific Priorities in Biodiversity Management and Conservation in Egypt (GEF ID 2157)

Achievements: Information on the outcomes of this enabling activity has not been found. Some indications exist that it contributed to the preparation of the above-mentioned report on capacity-building needs.

Climate change
Reduction or avoidance of GHG in the areas of renewable energy, energy efficiency, and sustainable transport
Project: 31 Introduction of Viable Electric and Hybrid-Electric Bus Technology **Operational Program:** 11 relating to promoting environmentally sustainable transport, and within the GEF Strategic Priority CC-6 – Modal Shifts in Urban Transport and Clean Vehicle/Fuel Technologies **Expected impact:** Annual CO_2 reduction of electric buses in comparison with the baseline of having diesel-fueled buses only. **Achievements:** • 127.75 tons per year of CO_2 reduction were reported by the electric bus project for replacing diesel buses by two demonstration electric buses. Emission reduction of using an electric bus in comparison with a diesel bus is about 1.75 kg CO_2 per kilometer traveled. • A positive indicator of the market transformation that has been achieved is evidenced by the influence that the Hybrid-Electric Bus project had on the Supreme Council of Antiquities in requesting to limit the access to relevant historic sites to electric buses, which has made a local bus manufacturer currently investigating bus assembly in Egypt. However, the project has not yet resulted in any significant follow-up activity by the government to expand the electric buses fleet in Egypt. • The project has been a successful pilot project and the electric buses are fully operational at Luxor Temple. National car manufacturers are working on initiating local production of electric buses to satisfy the demand of the Supreme Council of Antiquities. The project has developed the basis for launching the next phase, including: configuration of buses and routes for the next demonstration phase; elaborating the additional needs for institutional strengthening and capacity building; and evaluating and addressing the economic, environmental and social aspects of the project. However, this phase has yet to materialize. • The project has not yet led to any significant follow-up activity to expand the electric buses fleet in Egypt. One reason is the fundamental change in GEF funding priorities for sustainable transport, shifting from technology-oriented to a more planning-oriented focus.
Project: 267 Energy Efficiency Improvement and Greenhouse Gas Reduction Project **Operational Program:** 5 relating to removing barriers to energy conservation and efficiency **Expected impact:** Target of 11.7 million tons CO_2 reduction upon project completion. **Achievements:** • A cumulative CO_2 reduction of 16.8 million tons resulted from energy efficiency market support since the EEIGGR project start in 1999 until 2007. This is a combination of 11.87 million tons of CO_2 reduction from the reduced transmission network losses (the project has reduced transmission losses from 7% to 3.5%, which is more than the target reduction of 5% by the year 2010) and 4.9 million tons of CO_2 reduction from the compact fluorescent lamp program. The project did not reach the target of 11.7 million tons CO_2 reduction upon project completion, but met and exceeded this target during the project extension period. • Energy efficiency standards and labels have been put in place for major appliances, such as refrigerators, freezers, washing machines, air conditioners, electric water heaters, electronic ballasts and compact fluorescent lamps, where EEIGGR has encouraged local manufacturers to produce energy efficiency products. A ministerial decree was issued in 2002-2003 for the enforcement of the standards and labelling program for the refrigerators, freezers, washing machines and air conditioners, and in 2008 for the compact fluorescent lamps and electronic ballasts. The standards are upgraded every two years, and this has already taken place for refrigerators and washing machines. A significant achievement of the project is that the ministerial decrees now make it compulsory for local manufacturers and importers to abide by the specifications and label their products with their energy consumption information. • Energy efficiency market support was achieved by conducting 193 audits and recommendations of 20 audits implemented, replication of a compact fluorescent lamps leasing program at Cairo and Canal Distribution Companies; and promotion and diffusion of compact fluorescent lamps, with active participation of the private sector. The market has increased by more than 20 times since the inception of the EEIGGR, which has encouraged local manufacturers to produce and assemble compact fluorescent lamps, which, in turn, has further reduced prices. • The project contributed to the establishment of a reference Energy Efficiency Testing Lab located at the New and Renewable Energy Authority for refrigerators and washing machines. Lighting systems and air conditioners testing labs are under construction. • The project has succeeded in leveraging US$ 300,000 additional funds from UNDP internal funds to establish energy efficiency testing laboratories at the New and Renewable Energy Authority for the above three appliances. • The energy efficiency building construction codes for new residential, commercial and administrative buildings have been completed, although the issuance of a ministerial decree for its enforcement is still pending. Preparation of the Arabic version for commercial buildings energy efficiency code has been carried out, and the participation of more than 10 NGOs in promotion energy efficiency through the partnership with the GEF SGP has been catalyzed. • The expansion of business and supporting services for energy efficiency has been expanded to nine ESCOs to provide advice in energy efficiency and financing. The ESCOs have different expertise in utilities, equipment supply, electro-mechanical contracting and consulting.

Energy efficiency (residential & commercial buildings; industry sector) through market penetration and technologies

Project: 31 Introduction of Viable Electric and Hybrid-Electric Bus Technology

Expected impact: Enhanced experience on electric buses by building on the monitoring of the operation of the two test vehicles; enhanced capacity of the transportation authority managers and the maintenance and operation personnel to participate in the program; Phase 1a has facilitated a first experience with employing electric buses in Egypt and has provided useful insights in the acquisition, operation and maintenance issues involved; creation of the basis for the launching of the next phase

Achievements: Supreme Council of Antiquities is running the two test buses (In 2003, it was decided to employ the two buses to transport tourist to and fro the periphery of the Hatshepsut Temple in the Deir al-Bahri area in Luxor); ownership transferred in 2003 with maintenance contract with AFICO until 2006. Two Egyptian engineers are now fully trained and currently performing the regular maintenance of the buses. The two years regular maintenance by the supplier via Egyptian engineers at local counterpart which was part of the original contract is now completed. Impact studies finalised and presented in final report, but the other activities have been shelved, as the plan for a joint GEF/Egyptian phase 1b have been discontinued due to changing GEF priorities. One reason is the fundamental change in GEF funding priorities for sustainable transport, shifting from technology-oriented to a more planning-oriented focus.

Project: 267 Energy Efficiency Improvement and Greenhouse Gas Reduction Project

Expected impact: To assist Egypt in reducing the long-term growth of GHG emissions from electric power generation and from consumption of nonrenewable fuel resources.

- To improve capability of UPS operations department for transmission network loss reduction measurements to reduce transmission losses from 7% to 5% by 2010;
- To measure dynamic response of thermal stations and set priorities for dynamic response improvement;
- To enhance network loss reduction through network analysis and control strategies;
- To develop, seek approval for and notify a time of use tariff for EEHC customers to encourage load shifting from peak to off peak periods;
- To facilitate a 3.8% reduction in electricity demand (compared to current level) by 2010, through fostering continuous growth of Egypt's energy services industry and removing key barriers that impair energy efficiency industry;
- To develop energy efficiency standards and labelling for at least two classes of major energy consuming equipment and implemented prior to the end of the project by one or more organizations;
- To develop and apply a voluntary code of practice for energy efficient design in newly constructed residential and commercial buildings.

Nonrenewable energy use in new residential and commercial buildings covered by the code will be reduced by an estimated 20%;

- To establish an energy efficiency center to promote increased awareness of and strategic awareness of and strategic action on energy efficiency issues, with the EEA, and among energy service providers, equipment manufacturers, other energy industry professionals, and energy users;
- Establish a small power group within EEHC;
- Establish safety and interconnection requirements for parallel grid connections with small producers;
- Create an infrastructure for EEHC to purchase electricity from small producers;
- Establish and develop materials for a customer (small producers) training program;
- Develop industrial cogeneration and biomass agricultural waste projects for small power production

Achievements:

- The project's efforts to reduce network transmission losses, load management and load shifting have resulted in a reduction of transmission losses from 6.7 per cent in 1999 to 3.68 per cent at the end of 2005. This is a saving of 0.186 million tons of CO_2 and far in advance of the project goal which sought to reduce losses to 5 per cent by 2010.
- An Energy Efficiency Information centre has been established. NGOs have become involved in energy efficiency activities and awareness campaigns. EEIGGR's awareness programme is targeted toward providing households with information on lighting, home appliances and building materials; industrial premises with information on energy efficient technologies and control systems, and targeting the commercial sector – particularly office buildings, hotels, hospitals and schools – with information on energy saving and the use of appliances and equipment.
- Field surveys were conducted at five industrial companies to investigate the potential for load shifting and a new Time of Use tariff option was developed. A cogeneration guidebook was prepared and a cogeneration tariff developed.
- Several demonstration projects on efficient lighting systems have been conducted. A techno-economic study on the feasibility of replacing incandescent streetlights with efficient compact fluorescent lamps was prepared for the Ministry of Electricity.
- EEIGGR's energy audit programme included 200 audits made for government buildings, commercial and industrial establishments between 1999 and 2003. A code for energy-efficient residential and commercial buildings has been drafted (is this the same code as above? – if different it should be specified and then put under a legislation heading).\
- An Energy Efficiency Testing Laboratory has been established by the Ministry of Electricity and Energy to verify their claims.
- Training sessions on energy efficiency have been held for manufacturers of home appliances.
- The project has trained engineers in calibration and in measurement. Engineers have also been trained in cogeneration, digital meters and in demand side management.

Achievements (continued)

- EEIGGR has established eight ESCOs to provide advice in energy efficiency and financing. The ESCOs have different expertise – one in utilities, two in equipment supply, two in electro-mechanical contracting and three in consulting. Capacity building has been provided to the ESCOs through training on energy auditing, energy efficient technologies, economic and feasibility project evaluation, risk evaluation and financing. EEIGGR has also developed a project sales process for the ESCOs which cover both private and public sectors.
- After the audit programme in 2004 EEIGGR reformed its support to ESCOs by substituting a supplier-based credit model, instead of a performance-based model; developing simplified contracts which include measures for performance guarantee and savings verification; and concentrates on those energy efficiency technologies which have low technical risks and attractive payback periods, such as power factor improvement, high efficiency lighting, energy management systems and combustion improvement – which includes switching to natural gas as well as combustion tune-ups.
- EEIGGR has signed cooperation protocols with strategic customers including water and drainage companies, holding companies for natural gas and has supported exhibitions for energy efficient lighting. Currently three lighting programmes have been carried out –a shopping mall, a chemical plant and street lighting; four power factor improvement projects in water treatment plants and the conversion of an industrial plant to natural gas are under way. (2006)
- More than 10,000 compact fluorescent lights have been sold to companies. EEIGGR's target is to sell 50,000 units by mid-2006 and 150,000 by the end of the year.
- EEIGGR prepared a feasibility studies for a cogeneration pilot project in various institutions, including a paper company and a hospital, before deciding on a tourist resort and diesel power plant.
- The project provided technical advice to a project funded by the Canadian International Development Agency to manufacture compact fluorescent lamps in Egypt.
- High-efficiency lighting and energy management systems have been installed at the MWRI and at the Arab Academy for Science and technology. Ten more energy efficiency projects are under way in administrative buildings belonging to five different electricity companies.
- EEIGGR organized a workshop on 'Consumer education and social marketing of appliance standards' in cooperation with the Collaborative Labeling and Appliance Standards Programme (CLASP) in December 2003.
- Legislation
- The building codes of countries with similar climates to Egypt were reviewed. An energy efficiency code for residential buildings has been finalized and a code for commercial building has been drafted.
- Energy-efficiency standard specifications have been set for three groups of electric appliances – fridges, washing machines and air conditioners. (Standards specifications for water heaters will follow.) A ministerial degree now makes it compulsory for local manufacturers and importers to abide by the specifications and label their products with their energy consumption information.
- EEIGGR has issued an Egyptian Measurements and Verification Protocol to verify energy savings in performance contracting.
- The project prepared a draft energy efficiency law for Egypt.

Project: Industrial Energy Efficiency (GEF ID 3742)

Operating under SP#1: Promoting Energy Efficiency in Residential and Commercial Buildings

Expected impact: Accelerated growth of the energy efficiency lighting market in Egypt; a comprehensive standards and labels scheme for electric appliances developed and effectively implemented; additional financing leveraged for energy efficiency investments; sustaining the project results including the required monitoring and evaluation for adaptive management.

The PIF approval has been received on December 16 2008

Growth in the renewable energy markets

Project: 1040 Solar Thermal Hybrid Project

Operational Program: 7 relating to reducing long term costs of low greenhouse gas-emitting technologies, and within the GEF Strategic Priority CC-5 - Global Market Aggregation and National Innovation for Emerging Technologies

Expected impact: The design, construction and initial operation of the proposed Integrated Solar Combined Cycle Plant include two subcomponents: The solar portion of the power plant and the combined cycle portion. Capacity building to the New and Renewable Energy Authority through consulting services for construction management during the construction, testing and operation of the plant. Environmental and Social Impact management

Achievements: Expected: (a) the demonstration of operational viability of hybrid solar thermal power generation in Egypt; (b) contribution to accelerated market penetration of large-scale backstop power generation technologies; and (c) reduction of greenhouse gas emissions from power generation. The carbon savings of the project are estimated at 149,975 tC over the 25-year lifetime of the plant.

Innovative sustainable public transport systems are promoted, created & adopted

Project: 2776 Sustainable Transport

Operational Program: 11 which pertains to promoting environmentally sustainable transports, and within the GEF Strategic Priority CC-6 – Modal Shifts in Urban Transport and Clean Vehicle/Fuel Technologies

Expected impact: To reduce the growth of the energy consumption and the related greenhouse gas emissions of the transport sector in Egypt, while simultaneously mitigating the local environmental and other problems of increasing traffic such as deteriorated urban air quality and congestion.

- The concept for new, high quality integrated public transport services for Cairo and its satellite cities to exert shift from private car use successfully introduced, and its replication initiated on the basis of public-private partnerships.
- The modal share of nonmotorized transport in middle-size provincial cities increased or sustained.
- Successful introduction of the Transport Demand Management (TDM) concept with an objective to expand it toward more aggressive measures over time to effectively discourage the use of private cars, when good quality public transport services are available.
- Improved energy efficiency of freight transport
- Enhanced awareness and capacity and strengthened institutional basis to promote sustainable transport sector development during and after the project.

The project was CEO endorsed on July 15, 2008.

Sustainable energy production of biomass

Project: 1335 Bioenergy for Sustainable Rural Development

Operational Program: 6 relating to promoting adoption of renewable energy by removing barriers and reducing costs, and within the GEF Strategic Priority CC-4 – Productive Uses of Renewable Energy)

Expected impact: To facilitate and accelerate the market development for new bioenergy technologies (BET) in Egypt, thereby promoting sustainable socio-economic development of the rural communities in Egypt and reducing the negative global and local environmental impacts associated with the use of fossil fuels and the environmentally not sound management of the agricultural waste.

- New business and financing models successfully introduced and tested by using appropriate technical solutions and demonstrating the possibility to construct and operate bioenergy systems on a cost recovery basis under a supportive and enabling policy and financing environment.
- An enabling policy framework, effectively promoting rural bioenergy development adopted.
- Enhanced capacity of the local supply chain to market and deliver sustainable rural bioenergy products and services, including financing.
- Institutionalization of the support provided by the project, including monitoring, learning, adaptive feedback and evaluation.

Project has been CEO endorsed on 14/07/2008.

Expected achievements: Providing an alternative energy source to rural population producing costs savings compared to competing energy sources; economic costs savings at the national level and reduced dependency and expenditures on imported energy; reduced local pollution produced by conventional energy sources and reduced, uncontrolled burning or agricultural waste in the fields; the higher nutrient value of the effluent of the biogas digesters compared to the original animal manure, when used as a fertilizer and the associated possibilities for an additional revenue stream when selling this effluent;.health benefits associated with the killing of the pathogens and seeds during the digestion process; and general socioeconomic development of the rural communities (being a key element of Egypt's Development Policy and Plan 2002/2017) and enhanced employment opportunities in manufacturing and providing the required services for bioenergy technologies and development of the country's SME sector.

Adaptation

Project: 3242 Adaptation to Climate Change in the Nile Delta through Integrated Coastal Zone Management (SCCF)

Expected impact: To integrate the management of SLR risks into the development of Egypt's Low Elevation Coastal Zone (LECZ) in the Nile Delta: (1) capacity to improve resilience of coastal settlements and development infrastructure is strengthened; (2) innovative and environmentally friendly adaptation measures enforced in the framework of Nile Delta ICZM; (3) monitoring and evaluation framework and knowledge management system in place.

Project began implementation September 23, 2008.

Project: 282 Building Capacity for GHG Inventory and action Plans in Response to UNFCCC Communications Obligations (Enabling Activity)

Expected impact: Improve capacity in the country to comply with UNFCCC communication obligations and inventory requirements. Contribute to the emergence of Egyptian national approaches and responses to the UNFCCC.

Achievements: A two-tiered institutional mechanism consisting of a policy-making interministerial committee and permanent technical secretariat in EEAA is created and strengthened that is able to coordinate the activities that are necessary to develop policy options related to climate change and comply with the provisions of the UNFCCC. A climate change policy dialogue process, among governmental and nongovernmental, academics, business, and grassroots sectors, has been created which has fostered understanding of climate change issues and linkages with sustainable development strategy. An inventory of GHG emissions and their removal by sinks, created and periodically updated following accepted international methodologies, such as those of the IPCC. Cost-effective policy options for mitigation or adaptation strategies developed. Enhanced national capability created in the areas of climate change assessment, mitigation, and project development through programmes that strengthen existing institutions.

Project: 827 Climate Change Enabling Activity (Additional Financing for Capacity Building in Priority Areas (Enabling Activity)

Expected impact: Needs identification and capacity building to absorb and address some of these needs that were identified as gaps within the first phase

Achievements: Identification and submission of technology needs. Capacity building to assess technology needs, modalities to acquire and absorb them, design, evaluate and host projects . Capacity building for participation in systematic observation networks. Preparation of programs to address climate change (emission factors).

International waters

Fish stock increased, land pollution reduced, water uses are complementary

Project: 395 Lake Manzala Engineered Wetlands

Operational Program: 8 and 10 relating to water-body based programs, and contaminant-based programs

Expected impact: To demonstrate cost effective methods for improving water quality entering Lake Manzala and the Mediterranean Sea and to facilitate the transfer of a low cost biotechnology (engineered wetlands) to Egypt.

Expected impact: a fully operational, engineered wetlands treating 25,000 to 50,000 m3 per day of highly-polluted drain water. There will be a biomass harvesting and aquaculture facility operated by local employees and assisted by NGOs.

Achievements: Reduced loads to Lake Manzala and the Mediterranean through operation of engineered wetlands by removal of 61% of Biological Oxygen Demand, 80% of Total Suspended Solids,15% of Total Phosphorous, 51% of Total Nitrogen, 97% of Total coliform. At least 3 bird species nesting/resident at the site, and fish growth rate improved by 50% due to the use of water with reduced BOD.

Project: 985 Developing Renewable Groundwater Resources in Arid Lands: A Pilot Case – the Eastern Desert of Egypt

(GEF Operational Program 9 relating to the International Ecosystem and Resource Management)

Expected impact: To develop a replicable model for demonstrating different approaches to integrate renewable groundwater resources of watersheds into national water budget in arid regions.

Achievements: The project assisted the government in evaluating the existing groundwater extraction potential in the eastern desert. The project assessed the potential of water resources in areas where the farming communities that have been neglected for decades and could benefit the most from this project for alleviating their poverty. The project developed technical approach for groundwater water assessment in arid areas, where basic data are usually lacking or sporadic. Such procedures can be applied in other similar areas in Egypt or outside.

Participating states demonstrate the necessary ability to reduce over-exploitation of fish stocks, reduce land-based coastal pollution, & balance competing water uses in basins & report subsequent water-related improvements.

Project: 2602 Alexandria Integrated Coastal Zone Management Project - under Investment Fund for the Mediterranean Sea Large Marine Ecosystem Partnership

Expected impact: Reduction of the pollution load reaching the hot spots El-Mex Bay and Alexandria through Lake Mariout. Improved quality of the 6 million cubic meter/day of water pumped from the lake into the El-Mex Bay (by far the largest point source of pollution in the Alexandria area and a very significant point source at the regional level) will also have a positive impact on marine biodiversity. The GEF project would initially target sewage-related pollutants (BOD, COD, TSS, and nutrients) by enhancing primary treatment and use of beneficial microorganisms and engineered wetlands.

This project is still in the pipeline.

Fostering international, multi-state cooperation on priority water concerns (political commitment to improve multi-country cooperation)

Project: 1094 Nile Transboundary Environmental Action Project, Tranche 1

Expected impact: Institutional strengthening to facilitate regional cooperation; regional capacity building for transboundary environmental management; communications and knowledge management; Decision Support System (River Basin Model); macro and sectoral policies and the environment; community-level land, forest, and water conservation; enhanced basinwide capabilities and cooperation; improved understanding of transboundary soil erosion; microgrant fund to support local-level land, forest and water conservation initiatives at transboundary sites; environmental education and awareness; enhanced public awareness and understanding of Nile transboundary environmental issues; enhanced networking among secondary schools for project-based learning; piloting enhanced networking among universities and other research institutions; wetlands and biodiversity conservation; enhanced regional cooperation and capacity for conservation and management of wetlands and their biodiversity is improved; understanding and awareness of the role of wetlands in supporting sustainable development is improved; management capacity of selected wetlands strengthened; water quality monitoring basinwide ; enhanced national capacities for water quality monitoring; ransboundary water quality awareness raising and information sharing

Achievements: The institutions mandated to facilitate regional cooperation have been strengthened and a microgrants program has been managed and coordinated by the national coordinator of the SGP in community-level land and water conservation projects. Environmental education and awareness has been implemented and a basinwide water quality monitoring has been established.

- Increased regional cooperation in environmental and water management fields
- Increased basinwide community action and cooperation in land and water management
- Basinwide networks of environmental and water professionals
- Greater appreciation of river hydrology and more informed discussion of development paths
- Expanded information and knowledge base on land and water resources available to professionals and NGOs
- Greater awareness of the linkages between macro/sectoral policies and the environment
- Greater awareness and increased capacity on transboundary water quality threats

Project: 2584 Nile Transboundary Environmental Action Project (NTEAP), Phase II

Expected impact: Regional and national institutions strengthened in addressing transboundary threats to Nile ecosystem resources. Improved capacity of Nile Basin countries for integrated natural resources management across relevant GEF focal areas. Enhanced environmental education and public awareness targeting Nile Basin transboundary issues. Enhanced conservation and management of Nile Basin wetlands and their biodiversity through application of integrated water resource management approaches.

Achievements: The expected outcomes of this phase include regional and national institutions strengthened in addressing transboundary threats to Nile ecosystem resources, improved capacity of Nile Basin countries for integrated natural resources management across relevant GEF focal areas, enhanced environmental education and public awareness targeting Nile Basin transboundary issues, and enhanced conservation and management of Nile Basin wetlands and their biodiversity through application of integrated water resource management approaches.

Reducing nutrient over-enrichment & oxygen depletion from land-based pollution of coastal waters in large marine ecosystems consistent with the Global Protocol for Action

Project: 395 Lake Manzala Engineered Wetlands

Operational Program: 8 and 10 relating to water-body based programs, and contaminant-based programs

Expected impact: Capacity building for sustainable development in managing Lake Manzala, including local and national participation. Demonstration of engineered wetlands technology as a low-cost and efficient method of treating large bodies of water in Egypt and promoting a cleaner Mediterranean Sea.

Achievements: The project carried out capacity building for sustainable development in managing Lake Manzala, including local and national participation. This was evidenced by 10 national researchers and trainees having been involved in the operation and management of the wetland, and 15 members of a multidisciplinary team of the national consulting firm including soil mechanics, hydraulics, water quality and treatment, structure, architecture, landscape, fish and plant experts having contributed to the design. Another team of national experts worked on designing the physical model of the facility on 2 acres of land. The second outcome was achieved by a successful demonstration of engineered wetlands technology as a low-cost, efficient method of treating large bodies of water in Egypt and promoting a cleaner Mediterranean Sea.

Project: 3229 World Bank-GEF Investment Fund for the Mediterranean Sea Large Marine Ecosystem Partnership, Tranche 1, 2nd Instalment

Expected impact: The expected outcomes of the partnership are more effective collaboration between international and domestic donors and financiers (including the non-GEF Mediterranean countries and the European Union; SAP objectives mainstreamed into national policies; leveraged financing from different sources for multiple investments and policy measures that reduce pollution and preserve biodiversity in the Mediterranean basin; successful investments replicated or scaled up above and beyond what was achieved by the Investment Fund and Regional component; stress reduction achieved at the water-body level.

The expected outcomes of the regional component are increased capacity of basin countries to implement policies and strategies that address SAP priorities; increased knowledge of countries and donors on most innovative projects/technologies that address regional priority objectives; replication strategy for scaling-up successful investments within and across countries fully developed; stress reduction measures monitored at water-body level; increased coordination of donors and governments programs addressing SAPs.

The expected outcomes of the Investment Fund are transboundary pollution reduction and biodiversity conservation in priority hotspots and sensitive areas of the Mediterranean Sea identified through the transboundary diagnostic analysis-SAP process are achieved; in-country replication of pollution reduction and biodiversity conservation investments is initiated; investments for pollution reduction and biodiversity conservation in selected countries are catalyzed; SAP implementation is addressed in World Bank country dialogues; innovative, cost-effective investments in specific country contexts are promoted; measurable pollution reduction and biodiversity conservation in support of the SAP targets are achieved; knowledge sharing and cross-fertilization of project achievements among partners are facilitated.

This project was approved by the Council on June 14, 2007

Balancing overuse & conflicting uses of water resources in surface & groundwater basins that are transboundary in nature

Project: 985 Developing Renewable Groundwater Resources in Arid Lands: A Pilot Case – the Eastern Desert of Egypt

Operational Program: 9 relating to the International Ecosystem and Resource Management

Expected impact: Develop a replicable integrated technique for evaluating the extent of renewable groundwater resources in arid lands, with the Eastern Desert of Egypt as test site. Sources, extent, and histories of groundwater in alluvial aquifers under investigation identified. Rainfall patterns over Eastern Desert predicted. Surface runoff model developed, and recharge to alluvial aquifers estimated. Groundwater flow model constructed and groundwater flow in the alluvial aquifers flooring one of the main valleys of the Eastern Desert investigated. Replicable model in neighboring Middle Eastern and Saharan countries produced, thus contributing to preservation of freshwater ecosystems in the region. Adverse ecological effects that could result from the exploitation of the investigated freshwater resources assessed. In-country and out-of-country scientific, technical, and research-oriented training and outreach activities on the assessment of alternative water resources provided.

Achievements: Identified sources, extent, and histories of groundwater in alluvial aquifers under investigation, and rainfall patterns over Eastern Desert have been predicted. A surface runoff model has been developed, recharge to alluvial aquifers has been estimated, and groundwater flow model has been constructed. Groundwater flow in the alluvial aquifers flooring one of the main valleys of the Eastern Desert was investigated, and a replicable model in neighboring Middle Eastern and Saharan countries was produced, which contributes to the preservation of freshwater ecosystems in the region. Adverse ecological effects resulting from exploitation of the investigated freshwater resources have been assessed, and scientific, technical, and research-oriented training centering on the assessment of alternative water resources provided. The benefits of selecting, designing, and approaching research in a way to respond to policy and development concerns has been demonstrated. The project successfully linked research to development focused on a vital natural resource, groundwater. Numerous scientific papers documenting and ascertaining its demonstration role have been produced, and the project team has taken part in several regional and international events, besides actively seeking cooperation with other initiatives in dryland countries for the promotion and replication of the tools developed. The methodology has been applied in the case of the Eastern Desert to produce the first-ever map for recommended locations for wells with high groundwater development potential. This map is being updated to incorporate new findings, and the final version and outputs will be endorsed by the MWRI as the main guide for future water development plans with the Eastern Desert.

Persistent organic pollutants

Reduce and eliminate production, use, and release of POPs

Project: 1497 Enabling activities to facilitate early action on the implementation of the Stockholm Convention on Persistent Organic Pollutants

Operational Program:14 - Strategic Priorities: SP-1

Achievements: Strengthening national capacity activities to manage POPs including strengthening existing regulatory controls and measures for the use of POPs, avoidance of registration, use and accumulation of new chemicals with POPs whose characteristics will ultimately lead to the reduction of release of POPs.

Strengthening capacity for NIP development and implementation

Project: 1497 Enabling activities to facilitate early action on the implementation of the Stockholm Convention on Persistent Organic Pollutants

Outcomes: Preliminary inventories of sources and emissions of POPs listed in Annexes A and B to the convention were undertaken, action plan for the reduction of releases of unintentional by-products was developed; taking into account inventory of current and projected releases of POPs chemicals, assessment of enforcement capacity and adequacy of laws and policies to meet the obligation of reduction of by-products under the convention. Strategies to meet these obligations were developed.

Achievements: NIP developed and submitted to the Stockholm Convention Conference of the Parties.

Multifocal

Project: 2200 National Capacity Self-Assessment for Environmental Management

Operational Program: EA - Strategic Priorities: CB-2 Cross-Cutting Capacity Building

Achievements: The NCSA enabling activity had catalytic potential in terms of providing the basis for further project development. The NCSA emphasized that the weakness of the monitoring, evaluation, and reporting system is a main constraint hindering proper implementation of national and international environmental commitments, particularly the three Rio conventions. Accordingly, the MSP for mainstreaming the global environment in national plans and policies was proposed to tackle capacity constraints in public participation, technology transfer and cooperation, financial mechanism, and legal enforcement in the three thematic areas.

The NCSA identified priority capacity needs related to global environmental management in Egypt in the areas of climate change, biodiversity, and land degradation. It examined barriers to effectively address these needs and explored synergies among and across these thematic areas. The national strategy and action plan for capacity development was formulated to address the identified capacity needs.

Project: 3190 Mainstreaming Global Environment in National Plans and Policies by Strengthening the Monitoring and Reporting System for Multilateral Environmental Agreements

Operational Program: CB - Strategic Priorities: CB-2 Cross-cutting Capacity Building

Likely achievements: An operational monitoring and information management system for multilateral environmental agreements enhanced at the policy, institutional, and individual levels comprising a database with an information management system to manage all data of global environmental issues, legislative, and regulatory changes developed for streamlining integrated monitoring and evaluation for global environmental management, strengthening the capacity of MSEA and other institutions for monitoring and evaluation through targeted training. Coordination mechanism developed for complying with reporting obligations. Funding scenarios for achieving monitoring, evaluation, and reporting in a sustainable manner.

Annex H. Small Grants Programme Projects

SGP phase	Project name	Grant ($)	Grant recipient	Focal area	Project status	Start date
Pilot	Building and Dissemination of Biogas Technology at Bassaysa in Sharkia and Bated El Arab in Beni Seuf	29,698	Basaisa Community Development Association	CC	S	1/94
Pilot	Surveying, Recording, Planting, and Preserving Medicinal Plants in North Sinai	26,490	Natural Association for Environment Protection	BD	S	2/94
2	Preparing the Environmental NGO Community for Operational Phase II of GEF Small Grants	46,370	Egyptian Environmental NGO Federation	MF	S	5/99
1	Multifocal Demonstration Projects	45,000	Environment Conservation and Development Society	MF	S	5/99
1	Hands-on Capacity Building for NGOs Participating in the GEF/SGP	40,000	Global Environment	MF	S	1/99
2	Surveying, Recording, and Planting of Wild Plants in the Desert of New Valley	29,551	Egyptian Youth Association for Environment and Development	BD	T	11/00
2	Renewable Energy Technology Development	30,009	Society for Cultural Development	CC	S	11/00
2	Protecting Sea Turtles	12,289	Friends of the Environment Association in Alexandria	BD	S	11/00
2	Upgrading and Manufacturing of a Unit for Converting Agricultural Wastes into Briquettes to Be Used as Fuel	48,585	Association for the Protection of the Environment	CC	S	11/00
2	Upgrading Charcoal Kilns	30,539	Egyptian Association for Comprehensive Development	CC	S	11/00
2	Technological Units Appropriate for the Environment	29,023	El Gamaia El Khairia El Engilia - Tayeba - Minia	CC	S	11/00
2	A Model Village Friendly with the Environment	28,124	Community Care Association in Kom El Aghdar - Magaga - Minia	CC	S	11/00
2	Disseminating Solar Heater Technology in Sharkiya Governorate	28,863	Community Development Association in Basaisa	CC	S	11/00
2	Technological Interventions for Protecting the Environment	30,366	Friends of the Ozone Association in Minia	CC	S	11/00
2	Sustainable Use of Renewable Energy	21,448	Family & Environment Development Association in Qena	CC	S	11/00

SGP phase	Project name	Grant ($)	Grant recipient	Focal area	Project status	Start date
2	Utilization of Clean, New, and Renewable Energy through the Installation of Solar Water Heaters	24,633	Community Development Association in Gezeiret El Sheir	CC	S	11/00
2	Using Solar Heaters in New Urban Communities–Katamia City	29,723	Community Development Association in Katamia City	CC	S	11/00
2	Dissemination of Solar Energy Technologies in the Villages of Beni Suef	29,557	Institute for Cultural Affairs	CC	T	11/00
2	Global Environment in Egypt	43,530	International Center for Environment and Development	MF	S	12/01
2	Record and Documentation of Indigenous Knowledge of the Use of Components of Biological Diversity	15,568	Egyptian Botanical Association	BD	T	12/02
2	Improvement of Energy Efficiency	22,272	Omer Ebin El Khatab Association	CC	S	12/01
2	Conservation of Energy and the Improvement of Its Efficiency	19,530	Friends of Ozone Association	CC	T	12/01
2	Improvement of Energy Efficiency	23,530	Friends of Nature Association	CC	S	12/01
2	Disseminating Solar Heater Technology in Mokattam	23,530	General Central Association in Mokattam	CC	S	12/01
2	Efficient Usage of Energy	22,353	Friends of Environment & Community Association in El Gharbia	CC	S	12/01
2	Improvement of Energy Efficiency and Reduction of Its Consumption	23,530	Civil Association for Environmental Protection in El Ari	CC	S	12/01
2	Improvement of Energy Efficiency	23,530	Environmental Protection Association, Beni Seuf	CC	S	12/01
2	Governing Bird Hunting to Prevent Its Random Action	11,111	Environmental Protection Association in Bier El Abd	BD	S	3/02
2	Field Research and Species Protection in Egypt	22,222	Egyptian British Association	BD	S	3/02
2	Improvement of Energy Efficiency and Prevention of the Green House	23,530	Renewable Energy and the Environmental Protection Association	CC	S	12/01
2	Conversion of Liquid Fuel to Gas	23,530	Local Community Development in Shobra El Khema	CC	S	12/01
2	Studying the Urban Policies in Nile Island	17,778	Arab Center for Urban Studies Association	BD	S	3/02
2	Coral Reef Protection in the South of Red Sea	26,665	Environmental Promoters Association in Alexandria	BD	S	3/02
2	Suitable Technology Access for Local Environment	21,436	Better Life Association in Kolosona	CC	S	12/01
2	Pollution Prevention in Kom Ghorab	24,589	Coptic Evangelical Organization for Social Services	CC	S	12/01
2	Studying Biodiversity in Nile Islands in Upper Egypt	17,778	Community Capacity Developing and the Environmental Protection	BD	S	3/02
2	Rural Technology (Improving Traditional Oven)	23,530	New Vision Association	CC	S	12/01

SGP phase	Project name	Grant ($)	Grant recipient	Focal area	Project status	Start date
2	Recycling Agriculture Waste	23,530	El Thanaa Association for Community Development and Environment	CC	S	12/01
2	Improvement of Energy Efficiency	18,587	Islamic Care Association	CC	S	4/03
2	Disseminating Biogas Technology in Minia	22,002	Sharmoukh Community Development Association	CC	T	1/03
2	Biogas Units in Sahel Seliem Villages	19,459	Egyptian Association for Comprehensive Development	CC	S	1/03
2	Solar Energy–Friendly Energy for Environment	19,517	Central Association for Development and Environmental Tech. Improvement	CC	S	8/03
2	Introducing Wind Energy in the Bedouin Village	10,065	Hemaya Association	CC	S	1/03
2	Disseminating Solar Energy Technology	19,535	Islamic Association in Atsa- Minia	CC	S	4/03
2	Utilizing Natural Resources to Protect the Environment	21,537	Gafar Community Development Association	CC	S	1/03
2	Utilizing Clean Energy (Biogas)	21,645	West Elmawhoub Community Development	CC	S	1/03
2	Environmental Development in the Clean Energy Field	21,645	Sanaa Development Association–New Valley	CC	S	1/03
2	Installing Biogas Units in New Valley	21,645	Ellwaa Sobaih Community Development.	CC	S	1/03
2	Establishment of Awareness Center for Clean and Renewable Energy Uses	26,929	Educational Development Association	CC	S	1/03
2	Dissemination of Knowledge on Biodiversity in Egypt and Energy Efficiency (Phase 1)	16,450	Egyptian Energy Service Business Association	CC	S	10/02
2	Dissemination of Knowledge on Biodiversity in Egypt and Energy Efficiency (Phase 2)	27,056	Egyptian Energy Service Business Association	CC	S	12/02
2	Facilitating the Use of Nonmotorized Transport	24,469	Environmental Protection Association, Beni Seuf	CC	S	5/04
2	Preventing Harmful Practices of Fisheries in Burullus Lake	14,681	Cooperative Association for Fisheries in Br-Bahry	BD	S	5/04
2	Preventing Harmful Practices of Fisheries in Burullus Lake	11,419	Cooperative Association For Fisheries in Minit El-Morshid	BD	S	4/04
2	Preventing Harmful Practices of Fisheries in Burullus Lake	11,419	Cooperative Association for Fisheries in Brembal	BD	S	4/04
2	Preventing Harmful Practices of Fisheries in Burullus Lake	11,419	Cooperative Association for Fisheries In Shakhloba	BD	S	4/04
2	Preventing Harmful Practices of Fisheries in Burullus Lake	11,419	Cooperative Association for Fisheries In Baltim	BD	S	4/04
2	Preventing Pollutant Flows at the Local Level	21,919	El Mahaba Associaton for Development and Environment	IW	S	4/04
2	Removing Ditch Reed from Lake Burullus	21,207	Al-Ethar Association for Comprehensive Development	BD	S	4/04
2	Protecting International Water	26,469	New Vision Community	IW	S	4/04

SGP phase	Project name	Grant ($)	Grant recipient	Focal area	Project status	Start date
2	Decreasing Air Pollution In Cairo	25,653	New Horizon Association for Social Development	CC	S	1/04
2	Removing Ditch from Lake Burullus	21,241	Cooperative Association for Fisheries In Borg Burullus	BD	S	1/04
2	Solar Heaters Technology	28,434	Future Eve Association	CC	S	1/04
2	Raising and Providing Awareness to the Public and Stakeholders on Persistent Organic Pollutants and Their Dangers to Environment and Human Jealth	18,954	Day Hospital Institute for Development & Rehabilitation	POPs	S	1/04
2	Suitable Technology for Environment and Saving Energy	19,526	Nile Valley Association for the Care of the Quarries Labors	CC	S	1/04
2	Sustainable Management of Lake Brulus	10,000	Egyptian Society for Development of Fisheries	BD	S	1/04
2	Surveying, Recording, and Development of the Wild Plant In New Valley	31,046	Community Development Association in Zakheira-New Valley	BD	S	1/04
2	Recycling Agriculture Wastes	3,527	Local Community Development Association in Kafr Shebien	CC	S	2/05
2	Suitable Technology Access for Local Environment	17,123	Better Life Association in Kolosona	CC	S	1/05
2	Upgrading Pottery Ovens in Old Cairo District	17,123	Ahbab Sidi Abdel-Aziz El-Drini Association for Community Development and Environmental Protection	CC	S	1/05
2	Disseminating Solar Energy Technology in Tayba	16,979	Evangelical Association for Development in Tayba - Minia	CC	S	1/05
2	Reducing Greenhouse Gas Emissions	17,038	Local Community Development Association in El-Eskan El-Sinay	CC	T	1/05
2	Improving Energy Efficiency	17,123	Local Community Development Association in Mit Ghorab–Dakahlia	CC	T	1/05
2	Recycling Agricultural Wastes in Dakahlia	3,554	Community Development Association in Buha	CC	S	9/04
2	Recycling Agricultural Wastes in Sharkia	3,473	Ansaar Elsonna Association in Mashtoul	CC	T	9/04
2	Recycling Agricultural Wastes in Sharkia	3,150	Community Development Association in Tarek Ibn Ziad	CC	S	9/04
2	Recycling Agricultural Wastes in Sharkia	7,268	Environmental Protection Association in Sharkia	CC	S	9/04
2	Recycling Agricultural Wastes in Dakahlia	3,150	Alrahma Charity Association in Rouda	CC	S	9/04
2	Recycling Agricultural Wastes in Dakahlia	3,473	Community Development Association in Baydaa	CC	S	9/04
2	Recycling Agricultural Wastes in Dakahlia	3,344	Elnour Services Association in Shoubrahor	CC	T	9/04

SGP phase	Project name	Grant ($)	Grant recipient	Focal area	Project status	Start date
2	Recycling Agricultural Wastes in Dakahlia	3,473	Community Development Association in Shaha	CC	S	9/04
2	Recycling Agricultural Wastes in Dakahlia	3,473	Community Development Association in Shaala	CC	S	9/04
2	Recycling Agricultural Wastes in Dakahlia	3,312	Community Development Association in Shawa	CC	S	9/04
2	Recycling Agricultural Wastes in Sharkia	3,554	Community Development Association in Kafr Alhamam	CC	S	9/04
2	Recycling Agricultural Wastes in Dakahlia	3,150	AlHedaya AlKhairia AlIslamia Association	CC	S	9/04
2	Recycling Agricultural Wastes in Sharkia	4,120	Islamic Mercy Association in Ghanimia	CC	S	9/04
2	Recycling Agricultural Wastes in Sharkia	1,834	Community Development Association in Kafr Elgaraya	CC	S	9/04
2	Recycling Agricultural Wastes in Dakahlia	3,554	Childhood Care & Family Support Association in Senbelawin	CC	S	9/04
2	Recycling Agricultural Wastes in Sharkia	3,635	Community Development & Environment Protection Association in Bendaf	CC	S	9/04
2	Recycling Agricultural Wastes in Sharkia	4,645	Kafr Hamoud, Hehia center, Sharkia Governorate	CC	S	9/04
2	Recycling Agricultural Wastes in Sharkia	2,989	Social & Environmental Services Association in Elmalakien Elbahria	CC	S	9/04
2	Recycling Agricultural Wastes in Sharkia	2,989	Scientific Association for Protection of Rural Environment in Kafr Mekawi	CC	S	9/04
1	Building and Dissemination of 8 Biogas Units in 3 Villages of Dakahleya Governorate	22,667	Egyptian Academic Society for Environment & Development	CC	S	12/00
1	Improving the Traditional Oven in Seven Villages in Upper Egypt, Mallawi, Minya	28,000	Shamroukh CDA in Minia	CC	S	11/00
1	Design and Manufacturing of Wind Turbines for Electricity Generation	22,000	Egyptian Solar Energy Society	CC	S	12/00
2	Disseminating of Clean Energy	17,301	Right of Life Association–Beni Suef	CC	S	2/05
2	Bicycle for Every Student to Create an Environmental Behavior	17,768	Sawa Association for Development of Society, Woman, Child, and Environment	CC	S	2/05
2	Reducing of Gases Ration of Green Houses	17,301	Egyptian Association for Environmental Protection from Vehicles Emissions	CC	S	2/05
2	Contribution to Sustainable Management of Zaranik Protectorate and Lake Bardawil	10,258	Egyptian Academic Society for Environmental Development	BD	S	2/05
2	Decreasing Air Pollution in Sahel Selim and 10 Villages	17,301	Development Association of Society in Sahel Selim	CC	S	2/05
2	Decreasing of Air Pollution	17,301	Refaa El-Tahtawy Association for Development	CC	S	2/05

SGP phase	Project name	Grant ($)	Grant recipient	Focal area	Project status	Start date
2	Decreasing of Air Pollution in Armant	17,301	Key of Life Association in Armant	CC	S	2/05
2	Utilization of Nature Resources for Protecting the Environment	17,266	Future Horizons Association for Development	CC		2/05
3	Improving Energy Efficiency in Damahour	17,301	Behera Academy Association for Science and Technology	CC	T	7/05
3	Protecting IW by Collecting and Recycling Used Water in Nasseria	19,654	Women Association in Naseria–Bani Mazar	IW	S	6/05
3	Reuse of the Waste Water in el Karawy	19,329	Al Thanaa Association for Society Development	IW	U	7/05
3	Protecting Water from Pollution in Assiut	17,820	Childhood and Development Association	IW	S	7/05
3	Recycling the Agricultural Wastes	3,374	Local Community Development in Meet-Khamies	CC	S	7/05
3	Recycling the Agricultural Wastes	3,841	Local Community Development Association in Marsafa	CC	S	7/05
3	Disseminating Nonmotorized Transport Culture	17,301	Future Eve Association	CC	S	6/05
3	Recycling the Agricultural Wastes	3,564	Local Community Development Association in Tahnoub	CC	S	7/05
3	Recycling of the Agricultural Wastes in Meet Ghamr	4,325	Family and Childhood Association in Meet Ghamr	CC	S	7/05
3	Recycling of the Agricultural Wastes in El-Bughdady	4,325	Local Community Development Association in El-Bughdady	CC	S	7/05
3	Recycling of the Agricultural Wastes in Galia El-Kobra	4,325	Local Community Development Association in Galia El-Kobra	CC	S	7/05
3	Recycling of the Agricultural Wastes in Nabaroh	4,325	Local Community Development Association in Nabaroh	CC	S	6/05
3	Utilization of Natural Resources to Protect the Environment and Reducing the Air Pollution in El- Minia	17,301	AL-Khashaba Association for Development and Graduates Projects	CC	S	7/05
3	Recycling the Agriculture Waste to Environmental Friendly Products	4,325	Association of Friends of Patients and People with Special Needs	CC	S	9/05
3	Recycling the Farming Leaves Waste in Qulila	4,325	Local Community Development Association in Oulila	CC	S	9/05
3	Recycling of the Agricultural Waste in Baddala	4,325	Society of Social Care in Baddala	CC	S	9/05
3	Recycling the Waste to Produce Organic Fertilizers	4,325	Islamic Charity Association in El-Baramoon	CC	S	9/05
3	Bicycles as Clean Transportation Method in El-Harga Village	17,301	Local Community Development Association in El-Haraga	CC	S	9/05
3	Eliminate Indoor and Outdoor Emissions in Enibas and Raise Economic Standard of Female-Headed Households in 1 Year's Time	17,059	Egyptian Foundation for Development and Training	CC	S	9/05

SGP phase	Project name	Grant ($)	Grant recipient	Focal area	Project status	Start date
3	Recycling of the Agricultural Wastes in Meet Antar	4,325	El-Gamiya El-Shariya Letawon Elameleen Bel Ketab wa Al-Sonna Al-Mohamediya	CC	S	9/05
3	Recycling of the Agricultural Wastes in Taneekh	4,325	Local Community Development Association in Taneekh	CC	S	9/05
3	Recycling the Agricultural Wastes	4,325	Local Community Development Association in Kafr El-Tara'a El-Gaded	CC	S	8/05
3	Recycling the Agricultural Wastes	4,325	Local Community Development Association in Abo-Nabhan	CC	S	8/05
3	Agricultural and Environmental Sustainability by Natural Farming Practices	4,348	Evangelical Association for Sustainable Development	CC	S	12/05
3	Water Education and Awareness for Egypt's New Generation	25,000	Wadi Environmental Science Centre	IW	S	12/05
3	Protecting the Environment and Reducing the Consumption of Energy by Using Saving Energy	17,391	Alta'awon wal Saada Association	CC	S	12/05
3	Safety Disposal of Used Water and Reused It	21,766	Gafar Community Development Association	IW	U	12/05
3	Towards Environmental Friendly Energy	17,391	Rowwad Beit El-thaqafa Association in Samaloot	CC	S	12/05
3	River Nile Protection	23,652	Local Community Development Association in Somosta	IW	S	2/06
3	Mitigation of Climate Change by Using the Technology of Solar Heater	17,391	Woman Association for the Developing the Woman	CC	T	2/06
3	Environment Protection and Use of Solar Energy	24,774	Environmental Protection and Use of Solar Energy Association	CC	U	2/06
3	Producing Compost for Youth Villages in Minia	17,826	Egypt Youth Rise Association	CC	T	2/06
3	Together to Utilize Bicycles and Protect the Air in the District of Helwan	26,438	Future Lights for Development Foundation	CC	U	2/06
3	Improving the Livestock Barns and Renewable Energy	28,557	Local Community Development Association in Barawaa	CC	U	2/06
3	Improving the Livestock Barns and Renewable Energy	22,609	Future Youth Association for Development and Environment	CC	U	2/06
3	Energy Conservation for Mitigating the Climate Change	22,522	Egyptian Association for Development and Institutional Support	CC	S	2/06
3	Safety Disposal of Used Water and Reusing	23,792	Princes Tadrous El-Mashraque Association for Social Services	IW	U	2/06
3	Improving the Soil Characteristics to Get Continuously Good and High-Quality Crops	4,348	AlKom Alkhdar Association for Developing the Society	CC	U	2/06
3	Protecting the Environment and Reducing Air Pollution through Dissemination of Information about Using Environmentally Friendly Transportation (Bicycles)	25,997	Association for Women's Rights and Development	CC	S	7/06

SGP phase	Project name	Grant ($)	Grant recipient	Focal area	Project status	Start date
3	Protecting the Environment and Reducing Air Pollution through Dissemination of Information about the Use of the Environmentally Friendly Modified Oven	17,324	El-Amal Association for Women's Development	CC	S	7/06
3	Enhancement of Traditional Ovens in Minia	17,324	Bent El-Reef Association for Comprehensive Development	CC	S	7/06
3	Protecting the Environment and Reducing the Consumption of Energy by Using Energy-Saving Equipment as Well as Teaching the Society How to Save Electric Energy	17,331	El Fardos Charity Association	CC	U	7/06
3	Protecting the Environment and Reducing Air Pollution through Dissemination of the Use of Environmentally Friendly Modified Oven	24,523	Abdalla El-Nadeem Foundation in Minia	CC	S	7/06
3	Monitoring the Residues of Persistent Organic Pesticides in Soil Water and Food in Some Regions of Greater Cairo	36,049	Local Community Development Association in Warrak El- Hadar	POPs	S	7/06
3	Contribute to the Protection of the International Water of the Mediterranean Sea from Pollution due to the Disposal of Untreated Sewage Water and Preventing Pollution of Water Resources with Sewage Water and Reuse of the Treated Sewage Water in Agriculture That Contributes in Best Utilization of Water Resources and Protecting Public Health	42,634	Egyptian Water Partnership	IW	S	7/06
3	Increase the Use of Natural Gas	32,024	Old Cairo Voice for Social Development Association	CC	S	11/06
3	Recycling of Agricultural Wastes in Hehia Center	25,264	Environmental Protection Association in Hehia	CC	U	11/06
2	Recycling Agricultural Wastes in Dakahlia	3,312	Community Development Association in Elsarief wa Elgohary	CC	S	9/04
3	Enhancement of the Traditional Charcoal Kiln in Qalyoubia	17,331	Association for Development of Local Society–EL Montazah EL Mattaria	CC	U	7/06
3	To Investigate the Ecological Impact of This New Exotic Crayfish Species on the River Nile Ecosystem and Its biodiversity and the Possibility of Using It in Many Positive Aspects	19,250	Egyptian Society for Electric Microscopy	BD	U	11/06
3	Protecting Children from Environmental Contaminants	13,832	Environmental Promoters Association in Alexandria	POPs	U	11/06
3	CC and Energy Saving	26,069	El Rahma Charity Association	CC	U	11/06
3	Collection and Treatment of Gray Water	29,930	Community Development Association in Bahsamon	IW	S	3/07
3	Collection and Treatment of Gray Water	30,930	Community Development Association in Bahsamon	IW	S	3/08
3	Producing Compost from Recycling of Agriculture Wastes	40,698	Environmental Protection Association in Sharkia	CC	S	11/06
3	Dissemination of Solar Heater Technology in Sharkia	19,656	Renewable Energy Forum	CC	S	11/06

SGP phase	Project name	Grant ($)	Grant recipient	Focal area	Project status	Start date
3	Electrical Energy Saving in Sharkia Cities	20,585	Qualitative Union for Environmental Association	CC	S	11/06
3	Collection and Treatment of Gray Water in Mamalik	25,290	Community Development Association in Mamalik Village	IW	S	3/07
3	Collection and Treatment of Gray Water in Manial Hany	24,701	Community Development Association in Manial Hany	IW	S	3/07
3	Reuse of Waste Water–Raising Public Awareness of the Community with the Importance of Collecting Used Water to Treat It	20,805	Christian Practical Society	IW	T	7/05
4	Solar Energy Development in Giza	31,764	Central Association for Development and Promotion of Environmental Technologies	CC	U	12/07
3	Limiting Climatic Change by Promoting the Use of Environment-Friendly Transportation	30,218	Egyptian Association for Development and Institutional Support	CC	U	12/07
4	Conservation of Natural Resources by Promoting the Use of Solar Energy	29,465	Values of Life	CC	U	12/07
4	Climate Change and Energy Conservation	25,581	Community Development Association–Tersa	CC	U	12/07
4	Spreading Bicycle Culture in Rural Areas	26,289	Sadat Association for Development and Social Care	CC	U	12/07
4	Renewable Energy and Improved Barns	29,800	Life Makers Association for Development and Services	CC	U	12/07
4	Solar Energy in Our Daily Needs	17,695	El Derini Association for Society Development & Environment Protection	CC	U	12/07
4	Design Model for Green Building	49,909	Association of Enterprises for Environmental Conservation	CC	U	12/07
3	Electrical Energy Saving and the Control of Greenhouse Gas Emissions	23,473	Future Association in Salamoun–Hehia	CC	U	12/07
3	Energy Efficiency for Environmental Protection	12,653	Scientific Association for Protection of Rural Environment in Kafr Mekawi	CC	S	11/06
3	Utilizing Nature Resources to Protect the Environment–Mobilizing Farmers to Compress and Grind the Agriculture Waste to Use It as Compost and Fodder	4,271	Young Men's Christian Association in Aswan	CC	S	11/05
4	The Use of Bicycles to Decrease the Emission of Greenhouse Gases	34,831	Local Community Development Association in Mit Ghorab–Dakahlia	CC	U	6/08
4	Reducing Pollution Rate by Using Clean Transportation	37,116	Islamic Mercy Association in Ghanimia	CC	U	6/08
4	Roof Agriculture in Aldarb Alahmar	42,978	Aga Khan Foundation	CC	U	6/08
4	Roof Agriculture in Aldarb Alahmar	43,978	Aga Khan Foundation	CC	U	6/09
4	Energy Conservation to Reduce Climate Change	20,300	Abou Baker El Seddek Association	CC	U	6/08
4	The Use of Bicycles to Decrease the Emission of Greenhouse Gases	22,472	Women Association for Human Development	CC	U	6/08

SGP phase	Project name	Grant ($)	Grant recipient	Focal area	Project status	Start date
4	Energy Conservation to Reduce Climate Change	26,873	Community Development Association in Kfar ElMahmoudia	CC	U	6/08
4	Biogas Units in Minia	27,053	Abdalla El-Nadeem Foundation in Minia	CC	U	6/08
4	Using Natural Gas to Reduce Air Pollution	34,644	Emad Future Egypt Association for development	CC	U	6/08
4	Decontamination of Mangrove Natural Reserves in Red Sea	30,000	American Muslim Foundation International	BD	U	6/08
4	Preservation of Medicinal Herbs in Dry Lands, Al Hammam, Matrouh	20,000	Arab Association for Environmental protection And Development	BD	U	6/08
4	Energy Conservation to Reduce Climate Change	4,700	Abou Baker El Seddek Association	CC	U	6/08
4	Developing the Traditional Ovens	24,991		CC	N	1/09
4	Protecting the Environment and Reducing the Consumption of Energy by Saving Energy	25,590		CC	N	1/09
4	Protecting the Environment and Reducing the Consumption of Energy by Saving Energy	25,590		CC	N	1/09
4	Disseminating the Use of Solar Energy Technology	29,946		CC	N	1/09
4	Environmental Friendly Transportation Models	33,485		CC	N	1/09
4	Developing the Traditional Ovens	24,955		CC	N	1/09
4	Disseminating Solar Energy Technology	30,853		CC	N	1/09
4	Protecting the Environment and Reducing the Consumption of Energy by Saving Energy	33,575		CC	N	1/09
4	Protecting the Environment and Reducing the Consumption of Energy by Saving Energy	26,225		CC	N	1/09
Pilot	A Pilot Demonstration for Sustainable Desert Development	35,328	Friends of Environment and Development Association	MF	S	2/94
Pilot	Reducing the Amount of Air Pollution in the Northern District of the Governorate of Cairo	12,387		CC	S	1/94
Pilot	Introducing Neem Trees in Maadi Area and in Old Cairo	10,448	Tree Lovers Association	CC	S	1/94
Pilot	Reforestation and Environmental Awareness at Wady El Rayan Protected Area	16,500	Social Organization for Environment Protection in Fayoum	BD	S	3/94
Pilot	Community Tree Planting in El Shorouk City, East Cairo	15,500	Association for Conservation of Nature's Beauty	CC	S	2/94
Pilot	Water Quality Training and Orientation Programme in Greater Cairo, Alexandria, and Suez	43,824	AOYE, EYDE, FOE, EPS	IW	S	2/94
Pilot	Palm Tree Planting and Creating Green Areas in New and Old Nubia	22,790	Association for Urban Development of Islamic Cairo	BD	S	1/95
Pilot	Raising Community Environmental Awareness and Participation through Tree Planting in Zamalek and in Almaza	2,115	Association for Promotion of Services in Zamalek	CC	S	10/95
Pilot	Design and Manufacture of Small-Scale Wind Turbines for Water Pumping and Electrification	28,000	Egyptian Energy Solar Society	CC	S	9/95

SGP phase	Project name	Grant ($)	Grant recipient	Focal area	Project status	Start date
1	Cultivating International Green Fences in Cairo, Heliopolis, and Abbassia	4,710	Patients Welfare and Environment Protection	CC	S	1/97
1	Transforming Some Deteriorated Lands in Ismalia into Green Areas	30,000	Environmental Development Association in Ismailia	CC	S	1/97
1	Reducing Solid Wastes Generated from the Packaging Systems for Environmental and Health Purposes	10,000	Egyptian Packaging Development Association	CC	S	1/97
Pilot	A Modular Prototype for Converting Domestic Solid Waste into Ethanol to Replace Lead in Gasoline	50,000	Egyptian Association for Development and Human Resources	CC	T	1/97
1	Developing and Tree Planting the District of Masaed	23,597	Association of Women Rights in Al Arish	BD	S	6/98
1	Dissemination and Institutionalization of Biogas Technology	25,506	Basseysa Community Development Association	CC	S	6/98
1	Protecting Biodiversity in the Area of Mariut Lake in Alexandria	26,637	Friends of the Environment Association	BD	S	6/98
1	Tree Planting of Streets, City Entrance, Canal Sides, and Sewers of Etai El Baroud City and the Near Villages	28,908	Environment Protection & Childhood Care Association	BD	S	6/98
1	Local Technological Units for Energy Appropriate for the Environment	26,527	Coptic Evangelical Organization for Social Services	CC	S	6/98
1	Various Usage of Natural Energy in the Daily Life Uses	11,184	Society for Community Welfare in Kom El Aghdar- Maghagha	CC	S	6/98
1	Conservation of Biodiversity in Rangelands of Northwest Coastal Zone, Egypt	26,549	Botanical Society, Department of Botany	BD	S	6/98
1	Tree Planting in Behera	10,084	Future Youth Association	BD	T	7/98
1	Tree Planting the Village of Kowse Kena	6,767	Community Development Association in Hagaza	BD	T	7/98
1	Developing a Productive Eco-Desert Community in Sinai Based on the Use of Renewable Energy and Environmental Technologies	29,469	Kenouz Sinai for Environmental Development	CC	S	7/98
1	Gabel Elba Protected Area Community Participatory Program	50,000	Arab Network for Environment and Development	BD	S	1/99

Note: BD = biodiversity; CC = climate change; IW = international waters; MF = multifocal: N = not active yet; S = satisfactorily completed; T = terminated before completion; U = currently under execution.

Annex I. Country Response

Arab Republic of Egypt
Cabinet of Ministers
Ministry of State for Environmental Affairs
Egyptian Environmental Affairs Agency

جمهورية مصر العربية
رئاسة مجلس الوزراء
وزارة الدولة لشئون البيئة
جهاز شئون البيئة

Ms Monique Barbut
CEO and Chairperson
Global Environment Facility
Washington D.C. 20433, USA

Dear Ms Barbut,

Subject: GEF Country Portfolio Evaluation – Egypt (1991 – 2008)

Dear Ms. Barbut,

The government of Egypt welcomes the effort conducted in the development of GEF / Egypt country portfolio evaluation (1991 – 2008) during the period from March 2008 to April 2009.

We like to extend our thanks and appreciation to the GEF Evaluation office and their national team for compiling such an important report. The report provides a useful analysis that will further enhance the work of the GEF at the national level. It had identified a number of best practices in different GEF themes that would be further replicated. However, we would like to share with you the following specific remarks:

1- The fact that "dissemination of information related to regional projects is weak…." is due to the fact that most of these projects do not have national components that allow appropriate involvement of national stakeholders from the beginning. The gap of weak communication between respective regional management unit and the national beneficiary institutions is considered as underline cause for such a problem. We believe that the responsibility of that problem lies more within the GEF process.

2- Although we do understand that the purpose of the evaluation is restricted to the GEF projects, it is worth noting that other activities supported by the national government in cooperation with other donors in the similar areas had its impact on the status of the global environmental issues.

3- The cooperation between the government, GEF and multilateral fund is based on the National Environmental Action Plan (NEAP) and the National Action Plan (NAP) of multilateral convention. Currently, the GEF unit in cooperation with the GEF national steering committee will consider preparing GEF vision for future areas of cooperation.

٣٠ طريق مصر حلوان الزراعى – خلف فندق سوفيتل المعادى – القاهرة الرقم البريدى ١١٧٢٨ ت : ٢٥٢٥٦٤٥٢ فاكس : ٢٥٢٥٦٤٩٠
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Arab Republic of Egypt
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جمهورية مصر العربية
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4- It seems that the conclusions and recommendations of the report reflect the point of view of the evaluation office rather than national stakeholders. Moreover, the evaluation team did not include an international consultant as pre the TORs.

5- Conclusion 5 states that "the long term sustainability of achieved results remains a challenge". This is a generic finding. This cannot be applied to all Egyptian GEF small, medium and large scale projects. Some had their sustainability aspects and was further considered for replication and upscaling. Nevertheless, the GEF national steering committee had recently included sustainability "as one of the main criteria for internally approving project proposals".

6- The GEF unit established last year (2008) has participated in disseminating relevant GEF information and project results to the concerned stakeholders in Egypt. However, disseminating projects results, best practices and information is a joint responsibility between national executing agency, implementing agency and GEF secretariat.

7- The length of project preparatory phase was partly due to previous GEF approval process. Moreover, we consider that the intensive national consultation process (especially in programming the RAF) represents an important value for national ownership and effectiveness. This was not mentioned in the report.

Finally, I would like to reiterate my appreciation for the evaluation team on consolidation of such a full fledged, comprehensive report.

We look forward to further fruitful cooperation with the GEF.

Yours sincerely,

Dr. Mawaheb Abou el Azm
EEAA CEO and GEF Operational Focal Point
Egypt

٣٠ طريق مصر حلوان الزراعى - خلف فندق سوفيتل المعادى - القاهرة الرقم البريدى ١١٧٢٨ ت : ٢٥٢٥٦٤٥٢ فاكس : ٢٥٢٥٦٤٩٠
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GEF Evaluation Office Publications

Number	Title	Year
	OPS4: Progress Toward Impact—Fourth Overall Performance Study of the GEF, Executive Version	2010
Evaluation Reports		
50	GEF Annual Country Portfolio Evaluation Report 2009	2009
49	GEF Annual Performance Report 2008	2009
48	GEF Annual Impact Report 2008	2009
47	Midterm Review of the Resource Allocation Framework	2009
46	GEF Annual Impact Report 2007	2009
45	GEF Country Portfolio Evaluation: Cameroon (1992–2007)	2009
44	GEF Annual Country Portfolio Evaluation Report 2008	2008
43	GEF Country Portfolio Evaluation: South Africa (1994–2007)	2008
42	GEF Country Portfolio Evaluation: Madagascar (1994–2007)	2008
41	GEF Country Portfolio Evaluation: Benin (1991–2007)	2008
40	GEF Annual Performance Report 2007	2008
39	Joint Evaluation of the GEF Small Grants Programme	2008
38	GEF Annual Performance Report 2006	2008
37	GEF Country Portfolio Evaluation: Samoa (1992–2007)	2008
36	GEF Country Portfolio Evaluation: The Philippines (1992–2007)	2008
35	Evaluation of the Experience of Executing Agencies under Expanded Opportunities in the GEF	2007
34	Evaluation of Incremental Cost Assessment	2007
33	Joint Evaluation of the GEF Activity Cycle and Modalities	2007
32	GEF Country Portfolio Evaluation: Costa Rica (1992–2005)	2007
31	GEF Annual Performance Report 2005	2006
30	The Role of Local Benefits in Global Environmental Programs	2006
29	GEF Annual Performance Report 2004	2005
28	Evaluation of GEF Support for Biosafety	2006
	Third Overall Performance Study	2005
	GEF Integrated Ecosystem Management Program Study	2005
	Biodiversity Program Study	2004
	Climate Change Program Study	2004
	International Waters Program Study	2004
Evaluation Documents		
ED-3	Guidelines for GEF Agencies in Conducting Terminal Evaluations	2008
ED-2	GEF Evaluation Office Ethical Guidelines	2008
ED-1	The GEF Evaluation and Monitoring Policy	2006

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