

PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Full-sized Project

S THE GEF TRUST FUND

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Submission Date: 5/4/09

PART I: PROJECT IDENTIFICATION

GEF PROJECT ID¹: 3991 **PROJECT DURATION:** 36 months
GEF AGENCY PROJECT ID:
COUNTRY(IES): Egypt
PROJECT TITLE: Egypt: Enhanced Water Resources Management
GEF AGENCY(IES): World Bank, (select), (select)
OTHER EXECUTING PARTNER(S):
GEF FOCAL AREA (S)²: International Waters
GEF-4 STRATEGIC PROGRAM(S): IW SP3 Freshwater Basins and IW SP2 Nutrient Reduction
NAME OF PARENT PROGRAM/UMBRELLA PROJECT (if applicable):
MEDITERRANEAN SUSTAINABLE DEVELOPMENT PROGRAM (SUSTAINABLE MED)

INDICATIVE CALENDAR*	
Milestones	Expected Dates mm/dd/yyyy
Work Program (for FSP)	07/01/2009
CEO Endorsement/Approval	03/01/2010
Agency Approval Date	05/01/2010
Implementation Start	06/01/2010
Mid-term Evaluation (if planned)	12/01/2011
Project Closing Date	06/01/2013

* See guidelines for definition of milestones.

A. PROJECT FRAMEWORK

Project Objective: The objective of this project is to improve water resources management; thus leading to reducing pollution loads in the Nile Delta Drains and the Mediterranean Sea through targeted pilot investments, technical assistance and knowledge generation. This will be achieved through improving quality and availability of surface and ground water and their effective management in response to climatic variability including flood and drought as well as water scarcity. These pilots will form the basis for scaling up investments through the Government's Integrated Water Resources Management Plan and contribute even more significantly to depollution and improved ecosystem health of the Mediterranean Sea and its biodiversity resources.;

Project Components	Indicate whether Investment, TA, or STA ^b	Expected Outcomes	Expected Outputs	Indicative GEF Financing ^a		Indicative Co-Financing ^a		Total (\$) c = a + b
				(\$ a)	%	(\$ b)	%	
1. Improved Surface Water Availability and Quality	Investment and TA	Water quality monitoring networks strengthened and improved decision making for management of the Nile Delta drains Water quality in pilot sites in the Nile Delta drains improved (Target Indicators: reduction of COD, nutrients and fecal by up to 60%, 30%, and 70% respectively, biodiversity indicator to be established) Agreement on and evidence of scaling up of investments for improving water quality in the Delta	Water quality monitoring network and modeling abilities for the Nile Delta drains are in place and capacitated, Technology investments (such as passive instream wetlands). Strategy and priority action plan for improving water quality and reducing pollution loads in Delta Drains produced. Regional technical workshop .	5,442,500	16	28,650,000	84	34,092,500

¹ Project ID number will be assigned by GEFSEC.

² Select only those focal areas from which GEF financing is requested.

		<p>drains.. Target indicator to be tracked: COD reduced by up to 10% Nutrients reduced by 5%; Biodiveristy indicators to be established)</p> <p>Strengthened capacity, and improved monitoring of Lake Nasser hydrology as well as improved decision making for lake management.</p> <p>Agreed action (and management) plan to reduce losses from spill flows due to hydrologic variability (target: increase water availability by up to 0.5 BCM per year in non-drought periods).</p> <p>Increased resilience to the hydrologic variability due to CC through specific technical and management investments.</p> <p>Pilot investment over 3000 acres of smallholder farm using treated wastewater and drainage water for irrigation.</p> <p>Improved acceptance by stakeholders to use treated wastewater.</p> <p>Reforms in place and evidence of short term scale-up of reuse of wastewater schemes.(contribution of these scale-up investments: 5% to the target of 1.5 BCM water availability)</p> <p>Increased resilience to the hydrologic variability through</p>	<p>Investment to capacitate monitoring , data collectin and analysis of lake Nasser hydrology as well as modelling abilities.</p> <p>Study on alternative management options to reduce frequency of spill flows from Lake Nasser .</p> <p>Study on alternative management options to use spill flows during high flood periods.</p> <p>Regional technical workshop.</p> <p>Cost/Benefit study on use of of treated waste water and drainage water reuse in agriculture.</p> <p>Low cost technologies for reuse of treated wastewater and drainage water compiled and equipment and infrastructure, purchased and installed.</p> <p>Report on institutional and technical arrangements/reforms for scaling up and for sustainable management of treated wastewater and drainage water reuse schemes and services.</p>					
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		technical and pilot investments.	Regional technical workshops.					
2. Improved Groundwater Management	Investment and TA	Improved Monitoring network of groundwater use Improved decision making as evidenced by ;sound, technical and regulation reform for groundwater use , including considerations of hydrologic variability due to CC. Reduced pressure on groundwater through investents and monitoring at 2-3 sensitive groundwater aquifers Reduced pollution loads to open water bodies following improved management and investment at a coastal aquifers	Investments to capacitiae groundwater monitoring, data collection and analysis, and modeling abilities. Management plans of renewable aquifers and non-renewable sensitive aquifers. developed, including consideration for hydrologic variability due to CC Nationwaide cadastre (registry / database) of existing wells is developed. Rregulatory framework for groundwater use including licensing, management and monitoring of wells. Updated. Regional technical workshop	1,190,000	19	5,200,000	81	6,390,000
3. Project Management including IW Learn	The objective of IW:LEARN is to improve GEF International Waters projects, through information sharing, learning, dialog, innovation, and partnerships			50,000	10	450,000	90	500,000
Total project costs				A 6,682,500	16	B 34,300,000	84	40,982,500

^a List the \$ by project components. The percentage is the share of GEF and Co-financing respectively of the total amount for the component.

^b TA = Technical Assistance; STA = Scientific & Technical Analysis.

B. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE and by NAME (in parenthesis) if available, (\$)

Sources of Co-financing	Type of Co-financing	Project
Project Government Contribution	In-kind / Cash	6,650,000
GEF Agency(ies): (IBRD)	Soft Loan / Cash/Grant	17,650,000
Bilateral Aid Agency(ies) (KfW, AfD, Netherlands)	Soft Loan / Cash / Grant	10,000,000
Multilateral Agency(ies) (EIB)	Soft Loan / Cash	
Private Sector	cash	
NGO	(select)	
Others	(select)	
Total Co-financing		B 34,300,000

C. INDICATIVE FINANCING PLAN SUMMARY FOR THE PROJECT (\$)

	Previous Project Preparation Amount (a) ³	Project (b)	Total c = a + b	Agency Fee

³ Include project preparation funds that were previously approved but exclude PPGs that are awaiting for approval.

GEF financing		A7,425,000	7,425,000	742,500
Co-financing		B34,250,000	34,250,000	
Total	0	41,675,000	41,675,000	742,500

D. GEF RESOURCES REQUESTED BY AGENCY (IES), FOCAL AREA(S) AND COUNTRY(IES)¹

GEF Agency	Focal Area	Country Name/ Global	(in \$)		
			Project (a)	Agency Fee (b) ²	Total c=a+b
World Bank	International Wa	EGYPT	6,682,500	668,250	7,350,750
(select)	(select)				
(select)	(select)				
(select)	(select)				
(select)	(select)				
(select)	(select)				
(select)	(select)				
(select)	(select)				
(select)	(select)				
Total GEF Resources			6,682,500	668,250	7,350,750

¹ No need to provide information for this table if it is a single focal area, single country and single GEF Agency project.

² Relates to the project and any previous project preparation funding that have been provided and for which no Agency fee has been requested from Trustee.

PART II: PROJECT JUSTIFICATION

A. STATE THE ISSUE, HOW THE PROJECT SEEKS TO ADDRESS IT, AND THE EXPECTED GLOBAL ENVIRONMENTAL BENEFITS TO BE DELIVERED:

Background: In Egypt, agriculture is highly water-intensive; 80% of the available water resources are being consumed by irrigated crop production. Seventy percent of the poor live in rural agricultural areas. On-farm and off-farm income and employment for the rural poor and non-poor alike are linked to some extent to water use and efficiency. With a very tight water resources situation, Egypt has managed to build an extensive infrastructure base for management of its limited water resources that is vital for its existence. For example, Egypt has equipped the River Nile with a world-class hydraulic infrastructure in the Aswan and Lake Nasser that is used as a storage reservoir for full regulation of the flow of the river. Agricultural water use efficiency is generally low. Thus; the utilization of return flows to drains, or avoidance of deep percolation losses, has become an extremely important element of water resources management in Egypt, resulting in higher overall water use efficiency that requires more attention to water quality issues. Use of groundwater from non-renewable aquifers; such as the Nubian Sand Stone aquifer, which is shared among a number of neighboring countries, is becoming increasingly important.

The Government of Egypt (GoE) has launched a number of mega-scale programs for improving water management to increase reliability of water supply to different uses, improve water delivery services, improve irrigation efficiency, and sustain the existing production base. Some of these programs support land drainage improvement, pumping stations rehabilitation, and irrigation improvement. Over the past forty years, the World Bank has been a major partner in almost every single program. While GoE has recently embarked on a reform agenda, to adopt IWRM as a means for achieving sustainable use of water resources, there are still number of areas that need to be addressed in order to achieve this goal and ensure sustainability of ongoing programs.

Challenge 1: Limited Availability of Renewable Water Resources: The scarcity of freshwater in Egypt is an increasingly acute problem, particularly as the population continues to grow. Availability of renewable water resources in Egypt is less than 800m³/capita/year, lower than the regional annual Middle East and North Africa (MENA) average of 1,200m³/capita. Egypt is completely reliant on the Nile water as the only source of its renewable water resources, both for surface and groundwater, and this is reflected in the fact that 90% of the population live on 5% of the country's area, in the Nile Valley and the Delta. The Nile waters are shared by nine other upper riparian nations, all with growing water demands.

Growing population and urbanization is increasing pressure on limited land and water resources and significant portions of the fertile agricultural lands of the Nile and Delta are being converted to housing. The need to stop and compensate for such losses and for economic growth is putting pressures on the Government of Egypt (GoE) for₄

horizontal expansion to new agricultural areas. This has been further aggravated by the hikes of food prices, which has led to increased pressures on the existing limited water and land resources to produce more food locally.

The above situation has caused many water users and stakeholders to revert to non-sustainable exploitation of available surface and groundwater resources; thus leading to severe deterioration of water and land availability and quality and/or use of drainage water that is highly polluted. These problems are particularly severe in the Nile Delta. Application of IWRM is recognized to be the way forward; however, actions in certain crucial areas are still lacking with no agreement on how to move forward to improve water availability, manage the demand, and preserve existing scarce resources.

Challenge 2: Poor Water Quality and Large Pollution Loads: Approximately 80% of the urban population is connected to public sanitary sewerage. Coverage in rural areas is significantly lower, with only 26% of the rural population receiving the service. The discharge of insufficiently treated industrial/municipal wastes from some urban centers and inadequate sanitation coverage in rural areas have led to degradation of water quality in general and heavily polluted drainage networks in particular; in certain areas, groundwater and shallow water aquifers are severely contaminated. In fact, studies have shown that deterioration of water quality has become a widespread catastrophic phenomenon, particularly in the Delta Drains; thus resulting in: (i) significant health hazards due to drainage water reuse, which is the only water source in large areas; and (ii) large pollution loads reaching the Mediterranean. The government program to provide rural sanitation is not likely to be completed in the near future; accordingly, there is a need to develop a medium term strategy to mitigate the above-mentioned serious deterioration.

Challenge 3: Biodiversity threatened due to high pollution loads from drains: As mentioned in **Challenge 2**, the high pollution loads from the Nile Delta drains continues to negatively impact biodiversity and international water bodies. Several drains are highly polluted and carry high COD, BOD, nutrients and fecal levels.

Challenge 4: Poor Groundwater Management: Sustainable use of groundwater is one of the most important aspects of water resources management in Egypt as: (i) non-renewable groundwater aquifers such as the international water body of the Nubian sandstone aquifer is the main source for water outside the Nile Valley and Delta; (ii) use of groundwater is one of the main ways of re-using losses from irrigated agriculture; and (iii) groundwater plays an important role in providing resiliency to the water resources management system under hydrologic variability conditions. Groundwater use is marred by over-exploitation due to weak regulatory framework, violation of drilling regulations and licensing rules. Furthermore, there is a shortage of enforcement and technical guidelines on how wells should be drilled, managed protected, and equipped with monitoring and metering devices. Groundwater quality is deteriorating in large areas close to the Coast and in the Delta due to sea water intrusion. Unregulated groundwater use could lead to catastrophic consequences on the shorelines.

Challenge 5: Hydrological variability and increased demands for water due to global warming and climate change: The Intergovernmental Panel on Climate Change (IPCC) global weather models predict that the effects of climate change on irrigated agriculture will be driven by changes in water availability and quality on the one hand, and by changes in average and maximum temperatures on the other hand. In a water-scarce country, such as Egypt, climate change is further expected to further reduce both water availability – due to increased frequency of droughts, and changes in patterns of rainfall and runoff – and water quality, through sea water intrusion and over-exploitation of scarce water resources. The problem will be further aggravated by the increased water demand due to global warming.

Egypt's Lake Nasser is a world-class example of hydraulic infrastructure in need of increased resilience measures to adapt to the climate change impacts. The need for upgrading/protecting these hydraulic infrastructures from the potential impacts of climate change is therefore particularly pressing. In the past few years, excess water had to be allowed to overflow from the Lake Nasser into nearby desert to protect the safety of the High Aswan Dam. This has resulted in loss of about 40 BCM over a period of 4 years that had to be largely left to evaporate. There is a clear need to upgrade the operation rules and/or existing infrastructure along with developing plans for the use of excess water flows that may take place due to increased climate variability. A special strategy has to be developed as this source of water is intermittent and difficult to predict.

Climate variability due to CC further aggravates challenges 1 and 2. However, actions to reduce losses even due to extreme flooding cases, such as the one mentioned above, would increase resilience of the system and would help adaptation measures. Measures to manage the demand and improve sustainability of groundwater aquifers are other essential adaptation measures.

The above challenges are threatening the sustainability of existing investments in infrastructure and other ongoing programs that aim at addressing water resources management challenges through IWRM, such as the Integrated Irrigation Improvement and Management Project and the West Delta Water Conservation and Irrigation Rehabilitation Project.

The baseline situation is one where there is a good understanding of the underlying challenges and the key needs to address the issue of water scarcity in terms of enhancing quality and quantity, including enhanced climate resilient strategies. What is lacking are some critical knowledge, data and monitoring gaps coupled with the utilisation of this information, through informed decision making to support strategically targeted investments mainstreamed into critical sector work (water supply, agriculture, irrigation, sanitation, sewerage) related to water resources management.

How the Project Seeks to Address the Challenges:

The GEF alternative will fill this niche and help realise a paradigm shift which will allow for more effective implementation of the Government's Integrated Water Resources Management Plan. The project has 2 major components: I Improved Surface Water Availability and Quality; and II Improved Groundwater Management.. More specifically, the project through these components and sub-components will: (i) invest in application of a number of innovative cost-effective technologies to improve water quality in the Nile Delta Drains; (ii) invest in introduction of low cost safe reuse of treated wastewater and drainage water in small farms, which will contribute to improved water availability and water saving; (iii) strengthen monitoring capacity of surface water bodies and groundwater aquifers, some of which are strategic international water bodies; (iv) develop strategies and action plans that will improve water availability through scaling up of reuse of treated wastewater drainage water and improving management of Lake Nasser to reduce spillway losses; and (v) improve governance mechanisms to achieve sustainable management of renewable and non-renewable groundwater resources.

Collectively the interventions of the GEF, complemented by on-the ground investments will reduce pollution loads to the Nile Delta drains, the coastal aquifers and thereby contribute effectively to the depollution of the Mediterranean and an invigoration of the coastal and marine habitats. Without the GEF support, there will be a missed opportunity to provide co-coordinated assistance over a range of sectors and influence and scale-up (large scale) investments through an IWRM approach. This case is the most dynamic case of an application of IWRM working at multiple levels of sector investments, pilots, scale-ups and capacity building to influence the overall pollution loads to an international water body. . .

The project aims at launching a number of programs that are linked to ongoing programs and have the potential to upscale to large programs. Most of the suggested interventions address more of than one of the above-mentioned challenges as follow:

Improve water quality in selected key strategic areas in the Delta Drains to reduce pollution loads to the Mediterranean, help sustainable management of land resources, improve crop production and reduce health risks due to reuse of highly polluted drainage water. This intervention will help improve water quality, and help adapt to climate change impacts. This intervention will provide: (i) investments in strengthening water quality monitoring and TA for strengthening modeling capacity to decide where an intervention is needed; and (ii) investing in construction of pilots for innovative technologies for improving water quality in the Nile Delta Drains.

Global Environmental Benefits The project will help reduce pollution loads in the drains in the selected pilots; e.g. COD, nutrients and fecal by up to 60%, 30% and 70% respectively. The scaling up of investments due to the catalytic effect of GEF investments is expected to lead to overall reductions in pollution loads in the drains by up to 10% COD and 5% nutrients. Thus leading to reduction of overall pollution loads reaching open water bodies; accordingly biodiversity conservation in Egypt catalyzed.

Utilize spillage losses from Lake Nasser. This intervention will mainly help address the water resources shortage challenge through reduction of losses and help adapt to climate change impacts. This sub-component will include:

(i) investments in strengthening the monitoring network in the Lake; and (ii) TA for developing options for utilizing spill flow.

Safe drainage water reuse and better knowledge and assessment of options and technologies. This intervention will mainly help mitigate health impacts and address water resources shortage challenges on number of critical spots and help adapt to climate change impacts. This intervention will include: (i) TA for conducting cost/benefit analysis for different options of treated wastewater and drainage water reuse; (ii) investments for pilots for treated wastewater and drainage water reuse in irrigated agriculture; and (iii) TA to develop strategies and action plan for increasing reuse.

Better groundwater management will help address challenges about groundwater over-exploitation and quality deterioration, shortage of water resources, and adaptation to climate change. This component will include: (i) investing in strengthening of groundwater monitoring and modeling capacity for decision making processes (particularly in sensitive aquifers); (ii) TA and investment for nationwide registration of existing wells; (iii) TA for strengthening of existing regulatory framework regarding licensing, management and enforcement of wells; and (iv) TA for preparation of agreed-upon technical procedures for management and protection of wells and investigation of linkages of surface water and agricultural practices to groundwater availability and quality.

The project is expected to influence existing projects/policies and carry out specific, catalytic pilot projects that can be expected to have a demonstration effect; such as:

- the integrated irrigation improvement and management project (IIIMP), which is going through early phases of implementation, aims at improving water delivery services to small farmers in the Nile Delta through application of IWRM, including empowerment of water users. The GEF project will support the IIIMP through improving water quality in the drains, improving overall water availability and sustainable management of groundwater resources;
- the west delta project (WDP), which is starting soon, aims at sustaining agricultural base in the project area through providing new source of water and introduction of major reforms for improving financial sustainability of the water management system. The GEF project will support the WDP through improving overall water availability in the country and sustainable management of groundwater resources;
- the integrated sewerage and sanitation improvement project (ISSIP), which has just started, and aims at improving water quality in the Nile Delta through application of IWRM including empowering the water users. The GEF project will contribute to the overall objective of the ISSIP through providing low cost alternatives for improving water quality;

All of the above mentioned projects are intended to be scaled up through national programs for implementation of IWRM. The catalytic pilot projects supported by the GEF are expected to save up to 2BCM per year and reduce pollution loads in the Delta drains; e.g COD by up to 30%, Nutrients by 15% and fecal coli form by 40%). Investments from the above projects (IIIMP, WDP and ISSIP) will be used to co-finance the projects. Investments from existing components - namely environmental mainstreaming components - will be re-directed to support the GEF projects. Additionally, knowledge dissemination (partly via IW:Learn) is an integral element, and the project is expected to be a catalyst that will attract additional funds for improving water resources management, water quality, and reduction of pollution loads.

B. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH NATIONAL/REGIONAL PRIORITIES/PLANS:

Project interventions will be mainstreamed into the Bank's work in relevant sectors in Egypt for support of GoE plans to implement an Integrated Water Resources Management (IWRM). The interventions of the current project are important for the sustainability of other interventions, including those financed by the Bank, including: (i) the Integrated Irrigation Improvement and Management Project, (ii) Ongoing Pumping Stations and Drainage Rehabilitation Programs, and (iii) The West Delta Irrigation Rehabilitation Project. These projects are aligned with the current Egypt 2006-2009 CAS through the overarching goals: Achievement high and sustainable GDP growth, alleviation of poverty, and attenuation of income disparity. It is also rooted in the three CAS pillars, and particularly Pillar two "enhancing the provision of public services", which has, as its main outcomes "water quality are improved and water resources are managed efficiently". Furthermore; this project complements partly the Eastern Nile Watershed Project through the Nile Basin Initiative, which will be utilizing

an integrated lake management framework to monitor sediment accumulation in Lake Nasser and Lake Nubia (the Sudan part of the reservoir).

GoE is signatory to treaties that deal with protection of the Mediterranean Sea as well as protection of Ramsar sites, and this project will help in the compliance process with these treaties.

The project will be catalytic in addressing trans-boundary water concerns as Egypt demonstrates the ability to reduce land-based coastal pollution, balance competing water uses in basins, and report subsequent water related improvements with co financing targets secured. The project components have been designed to be country-driven, cost-effective, and integrated into national sustainable development (e.g. Integrated Water Resources Management) and poverty-reduction strategies for Egypt.

During the consultations carried out at the annual meeting of the Mediterranean Environmental Technical Assistance Program in June 2007 (specifically during the meeting of the national focal points, that included representatives from Egypt), a strong demand for the emergence of a regional climate change effort was expressed. To respond to the demand for support on the climate change agenda, the Bank is establishing a regional program for technical assistance on adaptation to, and mitigation of, climate change, to be funded through a multi-donor trust fund financed (for a total amount of around US\$ 7 million) by the Government of Italy, the European Commission, and possibly the United Kingdom through DFID. The project will ensure synergies with other initiatives and key national and international players involved in natural resources management, environment, and climate change. It will also be critical for the project to build on the results of the project on adaptation in the coastal zones recently submitted to the GEF by UNDP. The project will closely be linked to the regional technical assistance program for addressing climate change adaptations in MENA region.

C. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH [GEF STRATEGIES](#) AND STRATEGIC PROGRAMS:

The above project will be carried under the umbrella of the proposed Mediterranean Environmental Sustainable Development Program (SUSTAINABLE MED). SUSTAINABLE MED represents a continuation and further expansion of the Investment Fund of the GEF/IWs Mediterranean Sea Large Marine Ecosystem Strategic Partnership (Mediterranean Strategic Partnership). Key objectives of the Investment Fund regarding pollution reduction and biodiversity conservation will be maintained. In addition, SUSTAINABLE MED will deepen the work on governance, capacity building, and technical assistance.

The project components are addressing mainly SP3 (Overuse and conflicting uses of both surface and groundwater resources in international basins) and SP2 (Nutrient over-enrichment and oxygen depletion from land-based pollution and of coastal waters in Large Marine Ecosystems).

D. JUSTIFY THE TYPE OF FINANCING SUPPORT PROVIDED WITH THE GEF RESOURCES:

The purpose of the GEF grant is to provide a catalytic impetus to mobilize resources from other related projects to investments for measurable pollution reduction and biodiversity conservation, and for promoting innovative, cost-effective investments in specific country contexts for global benefits.

The GEF project will be matched with significant co-financing, which includes: i) funding from certain components of existing projects, directed to the activities of this project, and (ii) new funding.

E. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

Project interventions will be mainstreamed with the GoE initiative to implement Integrated Water Resources Management and Bank support for this purpose. The ongoing/pipeline Bank programs, e.g. the Integrated Irrigation Improvement and Management Project (IIIMP), West Delta Water Conservation and Irrigation Rehabilitation Project (WDWCIRP), Integrated Sewerage and Sanitation Improvement Project (ISSIP), and Second National Drainage Project (NDP-2) will be used to co-finance this project in addition to additional local funding. The water quality improvement sub-component will receive co-financing from the environmental mainstreaming components from the IIIMP, the NDP-2, as well as the ISSIP to pilot low-cost innovative technologies and TA. The source of funding for these projects will be from the IBRD and bilateral financing from

the Netherlands Government and the KfW as well as cash and in-kind local funding. Co-financing for the Lake Nasser sub-component will be in the form of in-kind and cash contribution from local funding as well as small grants from different sources. With regard to the drainage water reuse subcomponent, the co-financing will be from investment components of the IIIMP and ISSIP with the sources of funding from IBRD and local funding. The co-financing for the groundwater component will be from the investment component of the IIIMP and the environmental component of the WDWCIRP and the source of funding will be the IBRD, local funding and the Netherlands Government. The GEF funding will play a catalytic role in mobilizing and focusing these funds on the above-mentioned activities. The above are investments from projects that are just starting, will start soon, or are pipeline projects. In general, the above-mentioned list of projects is strongly linked to the proposed GEF project with activities initiated by this project fostering the sustainability of the projects in the list.

The GEF project will closely be linked to the regional technical assistance program for addressing climate change adaptations in MENA region and fully participate in IW:Learn for GEF water projects.

E. DISCUSS THE VALUE-ADDED OF GEF INVOLVEMENT IN THE PROJECT DEMONSTRATED THROUGH INCREMENTAL REASONING :

The added-value of the proposed GEF involvement is alter the “business-as-usual scenario” by helping to catalyze a paradigm shift to approaches that change the economic and social dimensions of non-sustainable water resources use, degradation, and climate change. The increasing demand for water due to continuous population increase and possible reduction in water availability due to CC induced hydrologic variability will threaten sustainability of ongoing / planned projects. Furthermore; the high pollution loads from the drains will continue to negatively impact biodiversity and international water bodies. Through an integrated approach, it will provide a strong mechanism for more operational linkages across the concerned implementing agencies. This approach is expected to strengthen the different stakeholders’ commitments to a common water resources and environmental management agenda and will lead to a number of important incremental outcomes including but not limited to: (i) short-term productivity gains in the targeted areas, which in turn is expected to lead to a demonstration effect that will result in an up-scaling of activities; such as safe treated wastewater and drainage water reuse and reduction of pollution loads in the Nile Delta drains; (ii) the risk from climate change will be reduced by introducing several adaptive measures to reduce losses, improve sustainability of groundwater use, and incorporate treated wastewater and drainage water reuse; and (iii) the project will initiate pollution reduction and biodiversity conservation investments and in-country replication, thus accelerating the implementation of the SAP for trans-boundary pollution reduction and biodiversity conservation in coastal gulfs of Egypt. Such outcomes are unlikely to be realized without the grant funding provided by GEF, which is expected to catalyze additional support to the proposed programmatic approach.

F. INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS, THAT MIGHT PREVENT THE PROJECT OBJECTIVE(S) FROM BEING ACHIEVED, AND IF POSSIBLE INCLUDING RISK MITIGATION MEASURES THAT WILL BE TAKEN:

No.	RISKS	MITIGATION
1	Unregulated reuse of treated wastewater and drainage water could lead to public health risks	A preventative health program specifically targeted to farmers and water distributors will begin during preparation to mitigate the risk of infectious diseases that may be caught through the utilization of drainage water.
2	The hydrologic variability due to CC could affect water availability and thus negatively impacting investments.	The interventions proposed by the project is adopting measures that increase water availability and increase resiliency to hydrologic variability; such as wastewater and drainage water reuse and groundwater storage. The strategies and action plans will describe the measures in more concrete manner.

3	Weak collaboration between different implementing agencies	While most of the sub-components will be implemented using existing PIUs, there is possibility of weak coordination among different PIUs. In response to this risk, one of the PIUs will be assigned the task of coordination among the different entities. In addition, it is expected that the project's institutional building activities will attract the interest of the various agencies and provide incentives to collaborate during project implementation.
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G. DESCRIBE, IF POSSIBLE, THE EXPECTED COST-EFFECTIVENESS OF THE PROJECT: The project's programmatic approach of linking ongoing national activities and setting a longer term vision to ensure sustainability is in line with the SUSTAINABLE MED Program and the GEF IW-SP3 strategic priorities and provides an excellent opportunity for their implementation. A strategic approach is a more cost-effective vehicle than a series of individual projects: The project will save substantial costs that would have been required to set up and run new activities involving water resource management interventions. Most of the activities will be implemented using existing PMUs/PIUs, thus ensuring proper capacity of most of the implementation teams and most of the additional costs required for training new teams. Furthermore; being submitted under the SUSTAINABLE MED Program, the project will benefit from the catalytic role the partnership is intended to play in leveraging additional investments for reversing degradation caused by the impacts of pollution to the Mediterranean and ensuring sustainability of use of the scarce water resources. The choice of the proposed programmatic approach is a response to the need for integration between different implementation agencies for more efficient water management. By supporting on-going initiatives, there will be a reduction in transaction costs for the Government, the Bank, and GEF to implement activities as economies of scale will be harnessed and results and knowledge disseminated. Finally, the project will be implemented by a Project Implementation Team within Line Ministries in Egypt, which have relatively strong institutional and technical capacity, and long familiarity with the Bank's procedures and requirements. These teams will be an integral program of these institutions which will save the costs for establishing an independent project implementation unit.

H. JUSTIFY THE COMPARATIVE ADVANTAGE OF GEF AGENCY: Successful interventions to prevent or control land degradation, enhance water resources management, optimize agriculture, and adapt to the impacts of climate change require integrated and cross-sectoral approaches to sustainable water management. The Bank is in a unique position to catalyze the adoption of such approaches in Egypt, because of its strong policy dialogue with each government agency and development partners, its long-term engagement in water management with investments targeting policy, technical and governance aspects of agricultural water, its broad experience in ARD, NRM, and CDD, its access to country-level information, and new internal synergies within the new Sustainable Development Network (SDN). The Bank has also global experience in assisting developing countries to protect critical ecological systems and adapt to climate change. Its involvement in the proposed project would help to focus attention and assistance not only on promoting sustainable water resources management to improve/sustain agricultural productivity, but also in helping concerned stakeholders to adapt to extreme climatic events. Also, as the Lead Agency for the Mediterranean Investment Fund and now the Sustainable MED, the Bank is in a unique position to promote the coordination of programming and implementation of pollution reduction investments on the Egyptian Coast. Finally, project interventions will be mainstreamed into the Bank's work in relevant sectors in Egypt from which project co-financing will be secured. This includes the Bank's past and ongoing work in Egypt (Integrated Irrigation Improvement and Management Project, West Delta Water Conservation and Irrigation Rehabilitation Project and Modernization of Irrigation, Second National Drainage Project, and Integrated Sewerage and Sanitation Improvement Project).

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)


A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):

(Please attach the [country endorsement letter\(s\)](#) or [regional endorsement letter\(s\)](#) with this template).

NAME	POSITION	MINISTRY	DATE (Month, day, year)
Dr. Mawaheb Abou El Azm	Chief Executive Officer	EGYPTIAN ENVIRONMENTAL AFFAIRS AGENCY	APRIL 19, 2009

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for project identification and preparation.

Agency Coordinator, Agency name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Steve Gorman, World Bank		May 4, 2009	Kanta Kumari Rigaud GEF MNA Regional Coordinator	202-473- 4269	Kkumari@worldbank.org