REQUEST FOR CEO ENDORSEMENT/APPROVAL

PROJECT TYPE: Full-sized Project
THE **GEF TRUST FUND**

Submission Date: 04/12/2011

PART I: PROJECT INFORMATION

GEFSEC PROJECT ID: 3978
GEF AGENCY PROJECT ID: 117170
COUNTRY(IES): Lebanon, Morocco, Tunisia and Jordan as well as other Arab cooperating countries
PROJECT TITLE: Regional Coordination on Improved Water Resources Management and Capacity Building Horizontal Adaptable Programmatic Programme (H-APL) (TA)
GEF AGENCY(IES): World Bank, (select), (select)
OTHER EXECUTING PARTNER(S): Arab water council (AWC) and the Centre Regional de Teledetection des Etats d'Afrique du Nord (CRTEAN) in Tunisia
GEF FOCAL AREA(s): International Waters
GEF-4 STRATEGIC PROGRAM(s): IW-SP3
NAME OF PARENT PROGRAM/UMBRELLA PROJECT: MEDITERRANEAN SUSTAINABLE DEVELOPMENT PROGRAM (SUSTAINABLE MED)

Expected Calendar (mm/dd/yy)	
Milestones	**Dates**
Work Program (for FSPs only)	
Agency Approval date	May 10, 2011
Implementation Start	July 10, 2011
Mid-term Evaluation (if planned)	Aug 15, 2013
Project Closing Date	June 15, 2015

A. PROJECT FRAMEWORK (Expand table as necessary)

Project Objective: The proposed project development objective is to improve local and transboundary water resources and agricultural management and planning within and across project countries (Lebanon, Jordan, Tunisia and Morocco), based on quantitative Earth observation tools and processes, capacity building and regional integration.

Project Components	**Indicate whether Investment, TA, or STA[2]**	**Expected Outcomes**	**Expected Outputs**	**GEF Financing[1]**		**Co-Financing[1]**		**Total ($)**
				($) a	%	($) b	%	c=a+ b

1. Component 1: Improved Water Resources and Agricultural Management	STA	(i)Institutions and reforms introduced to catalyze implementation of policies for basin-scale IWRM and increased water use efficiency (ii) Real time quantification of wide range of critical water parameters, to inform infrastructure decisions and reform policies for sustainable water resources management and environmental protection (eg flood and drought mapping in Morocco, groundwater monitoring between Tunisia and Algeria, crop yield mapping in Lebanon, and Irrigation/evapotranspirtation mapping in Jordan). (iii) Political and legal commitments made to utilize IWRM policies towards sustainable water use (iv) Improved national coordination between remote sensing centers and local Ministries of water, agriculture and environment.	(i) National water resource and IWRM reforms/policies adopted; project evaluations show effectiveness (ii)Standardized access to real time satellite data and associated capacity building for improved water resources, agricultural and environmental management. (iii) Monitoring improved water use efficiency in demonstrations	2,100,950	22	7,880,000	78	9,980,950

2. Component 2: Local and Regional Capacity Building and Project Management	STA	(i) Increased awareness and capacity of local and regional stakeholders on role and importance of quantitative remote sensing for improved agricultural and water resources management (ii) Increased capacity within the implementing agencies to collect and utilize remote sensing data collected (iii) Selection of local candidates for continued academic study of remote sensing for environmental and water resources management (iv) effective and cost efficient project management.	(i) National inter-ministry committees formed and meet regularly, implement action plans. (ii) National stakeholder dissemination and training workshops, public awareness campaigns, national portal for data dissemination, graduate fellowhips for advanced study of environmental remote sensing, participation in international conferences as per IW:LEARN and others.	2,809,000	37	4,769,000	63	7,668,000

3. Component 3: Regional Integration/Cooperation on Shared Water Resources	STA	(i) Regional Quantification of impacts of climate change on water resources across MENA. (ii) Establishment of standardized definitions, methodologies and processes for measurement of and communication on regional water issues. (iii)Enhanced communication and knowledge sharing across recipient countries on transboundary water resources management issues.	(i) Regional inter-ministry committees formed and meet regularly, implement action plans (ii)Ministerially-agreed action programs and basin IWRM plans developed (iii) Decision support tool developed for managing water resources at basin level--involving multiple users from more than one country – and based on IW Learn Activities (iv) Generation of regional reports, delivery of international data sharing and coordination workshops (v) About 60 staff obtained relevant training in the use of latest tools and data collection and processing approaches. (vi) 6 regional workshops held in which most regional players in the area of natural resources management participate, including from academia and research centers.	394,595	43	530,000	56	924,595
8. Project management				340,000	34	690,000	66	1,030,000
Total Project Costs				A5,644,545	100	B13,869,000	100	19,513,545

[1] List the $ by project components. The percentage is the share of GEF and Co-financing respectively of the total amount for the component.

[2] TA = Technical Assistance; STA = Scientific & Technical Analysis.

B. SOURCES OF CONFIRMED **CO-FINANCING FOR THE PROJECT** (expand the table line items as necessary)

Name of Co-financier (source)	*Classification*	*Type*	*Project*	*%**
Centre Royal de Teledetection Spatiale (Morocco)	Impl. Agency	In-kind	497,000	3.5
Ministry of Agriculture (Lebanon) and Ministry of Environment (Lebanon)	Beneficiary	In Cash	4,020,000	28.7
Conseil National de la Recherche Scientifique (Lebanon)	Impl. Agency	In Kind	200,000	1.43
Ministry of Water and Irrigation (Jordan)	Impl. Agency	In Cash	2,800,000	20
Royal Jordanian Geographic Center (Jordan) and Ministry of water and Irrigation	Beneficiary	In Kind	210,000	1.5
Centre Regional de Teledetection des Etats d'Afrique du Nord (Tunisia)	Impl. Agency	In Cash	200,000	1.43
Centre Regional de Teledetection des Etats d'Afrique du Nord (Tunisia)	Impl. Agency	In Kind	4,899,000	35
Arab Water Council	Impl. Agency	In Kind	110,000	1.3
National Authority for Remote Sensing and Space Sciences (Egypt) - in Phase 2 of H-APL	Impl. Agency	In cash	483,000	3.4
National Authority for Remote Sensing and Space Sciences (Egypt) - in Phase 2 of H-APL	Impl. Agency	In Kind	450,000	3.2
Total Co-financing			B 13,869,000	100%

* Percentage of each co-financier's contribution at CEO endorsement to total co-financing.

C. FINANCING PLAN SUMMARY FOR THE PROJECT ($)

	Project Preparation a	*Project b*	*Total c = a + b*	*Agency Fee*	*For comparison: GEF and Co-financing at PIF*
GEF financing		A5,644,545	5,644,545	564,455	5,644,545
Co-financing		B13,869,000	13,869,000		80,000,000
Total		19,513,545	19,513,545		85,644,545 *See explanation in Part IV

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 W	Lebanon, Jordan, Tunisia, Morocco, Egypt*, Arab	5,644,545	564,455	6,209,000

		Water Council			
(select)	(select)				
Total GEF Resources			5,644,545	564,455	6,209,000

[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.

* As a direct result of regional political events across several project beneficiary countries, and Egypt in particular, and the recent triggering by the World Bank of OP.7.30, the project has been designed to implement the various components in two phases: Phase 1 will cover implementation of activities described above in each of Lebanon, Jordan, Morocco , the AWC and CRTEAN. Once the Government of Egypt is ready to negotiate the Grant Agreement, it will join the project as Phase 2.

E. **CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS**:

Component	***Estimated person weeks***	***GEF amount($)***	***Co-financing ($)***	***Project total ($)***
Local consultants*	125	43,750	100,000	143,750
International consultants*	100	200,000	150,000	350,000
Total	225	243,750	250,000	493,750

* Details to be provided in Annex C.

F. PROJECT MANAGEMENT BUDGET/COST

Cost Items	***Total Estimated person weeks/months***	***GEF amount ($)***	***Co-financing ($)***	***Project total ($)***
Local consultants*	350	140,000	540,000	680,000
International consultants*	25	50,000	50,000	100,000
Office facilities, equipment, vehicles and communications*		50,000	100,000	150,000
Travel*		100,000		100,000
Others**				
Total		340,000	690,000	1,030,000

* Details to be provided in Annex C. ** For others, it has to clearly specify what type of expenses here in a footnote.

G. DOES THE PROJECT INCLUDE A "NON-GRANT" INSTRUMENT? yes ☐ no ☒
(If non-grant instruments are used, provide in Annex E an indicative calendar of expected reflows to your agency and to the GEF Trust Fund).

H. DESCRIBE THE BUDGETED M &E PLAN: As agreed with each of the implementing agencies, the monitoring and evaluation (M&E) plan will be financed as part of each of the Project Management Units (PMU) operating costs, will utilize the IW:LEARN Tracking tool to report results on an annual basis and will monitor: (i) the establishment and effective implementation of local and regional inter-ministerial committees on improved management of shared and transboundary waters; (ii) the number and impact of national and international IWRM reform policies implemented; (iii) project progress in catalyzing step changes in the way in which water resources are managed on the local and regional scale – through the enhanced and standardized use of real time data on water availability, variability and trends; (iv) the improved communication and dissemination of knowledge across stakeholders and partners in water and agricultural management both on the regional and local scale – by measuring the quantity and quality of regional and local stakeholder workshops held in line with IW:Learn standards; and (v) will measure the extent to which inter-regional cooperation on shared and transboundary water resources improves as a result of a standardized set of common parameters, definition and methodologies for water measurement and tracking.

Project Management Units (PMUs) will be established within each implementing agency and will be responsible for the monitoring, measurement and evaluation of these national indicators. The PMU's will also be responsible for reporting, via quarterly and annual progress reports submitted to the World Bank, on progress made on national and regional indicators. The Regional Project Management Unit (RPMU), established within the Arab Water Council, will be responsible for monitoring the progress of the project's international indicators namely the number of regional reports and workshops which require the sharing of data across all implementing agencies. The detailed arrangements for

M&E including indicators are included in the Project Appraisal Document and in the Project Implementation Manual (PIM) of the project management units. The cost of monitoring and evaluation is included in the project costs and the PMU's have confirmed their commitment to the agreed upon M&E plan.

PART II: PROJECT JUSTIFICATION: In addition to the following questions, please ensure that the project design incorporates key GEF operational principles, including sustainability of global environmental benefits, institutional continuity and replicability, keeping in mind that these principles will be monitored rigorously in the annual Project Implementation Review and other Review stages.

A. STATE THE ISSUE, HOW THE PROJECT SEEKS TO ADDRESS IT, AND THE EXPECTED GLOBAL ENVIRONMENTAL BENEFITS TO BE DELIVERED: The scarcity of freshwater in most countries of the Middle East and North Africa (MENA) region is an increasingly acute problem, particularly as populations grow, rapid urbanization continues and the pressure to shift water from agriculture (which consumes over 84% of the region's water resources on average) to domestic and industrial uses increases. Fourteen of twenty MENA nations are classified as being in water deficit, defined as less than 500 cubic meters of renewable water supply per capita per year. The Intergovernmental Panel on Climate Change further reports an expected precipitation decrease over the next century by over 20% for large parts of the MENA region (including those countries along the Meditteranean in particular), a likely increase in the frequency and severity of droughts and a reduction in groundwater recharge rates. Furthermore, over 60% of the MENA region's water supply flows across international borders which further engenders political tensions between communities, stakeholders and countries and therefore necessitates equitable appropriation of available water among riparians.

   This critical situation is further exacerbated by several key obstacles to the effective and sustainable management of water resources in the MENA region which include: (i) a lack of current and reliable decision support tools that can be used by policy makers to make informed policy and infrastructure decisions on the sustainable use of water resources; (ii) the inability to quantitatively monitor real time changes in regional water availability, changes in surface and groundwater storage, precipitation, runoff, evapotranspiration, drought and flood trends, agricultural productivity or land use changes; (iii) a lack of integrated platforms for international cooperation and data sharing among nations, including coordinated management of transboundary water resources, regional floods, droughts and oversubscribed shared aquifers as well as (vi) a lack of technical tools for predicting and adapting to the regional hydrological impacts of climate change.

   The high cost and technical complexity of in-situ data collection and analysis, the lack of data management systems and the un-standardized methods and protocols for data collection, management and validation across MENA play a large role in the current status quo of the MENA water sector. The proposed project will thus introduce several key decision support tools (which utilize quantitative measurements of the location, availability, quality and current/future uses of local and regional water and agricultural resources) and will provide targeted capacity building on the use of remote sensing and Earth Observation tools for improved water and agricultural management, critical to the policy and infrastructure reforms needed across MENA's urban and rural water sectors.

   By enhancing the access and capacity of local ministries of water, irrigation and agriculture (in each of Lebanon, Jordan, Tunisia and Morocco) to access, validate and utilize real-time remotely-sensed data on various water variables (including precipitation, crop yield, forest fire, droughts and floods), the regional project will catalyze several significant global environmental benefits which include: (i) the enactment of local and regional policy reforms on transboundary water management and water efficiency measures (ii) implement infrastructure investment decisions based on realtime water data (iii) Generate maps of soil wetness and estimates of irrigation water use for large scale agricultural productivity assessments and planning and water efficiency improvements; (iv) Provide water balance data for a regional and temporal perspective to identify local, short term and long term trends in water usage anomalies; (v) Monitor extent and severity of droughts; (vi) Estimate current water storage conditions in the uplands of river basins to improve river flow predictions and; (vii) Evaluate potential increases/decreases in irrigation water requirements under various climate change scenarios to inform the planning of agricultural policies.

B. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH NATIONAL AND/OR REGIONAL PRIORITIES/PLANS: The proposed project is consistent with the national priorities of each of Lebanon, Jordan, Morocco and Tunisia to

improve the sustainability of water resources management. The project forms part of the World Bank Arab World Initiative, which emphasizes regional cooperation solutions to major challenges such as the water resource management, food security and climate change nexus. In addition, the proposed project is fully consistent with the World Bank "*Water Resources Sector Strategy – Sustaining Water for All in a Changing Climate"*, particularly in improving client countries' access to technologies to increase the availability and dissemination of information for results-based decision making. Furthermore, the proposed project is in line with the priorities and goals of several of the MENA's region's most influential sector-specific regional organizations, including the Arab Water Council, the Arab League Ministerial Council for Water, the Arab Water Academy, the International Center for Biosaline Agriculture, the International Center for Agriculture in Dry Areas and others.

C. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH GEF STRATEGIES AND STRATEGIC PROGRAMS: By providing improved access to decision support tools and frequent opportunities (at least 4 times per year) for project countries to interact and directly share knowledge on common issues related to transboundary waters and the impact of climate change on local and regional hydrologies, the proposed project is fully consistent with the **International Waters Focal Area Strategy and Strategic Programming for GEF 4**. Through the project, implementing agencies and stakeholders will build local and regional capacity on the establishment, use and validation of decision support systems that utilize integrated, ecosystem-based approaches to management of transboundary waters including the use of Earth Observation tools for the monitoring and observation of shared aquifers between Tunisia and Algeria and in Jordan and Lebanon among others. In a region where over 60% of available water resources are shared (either in shared rivers or shared aquifers), the opportunity to make informed decisions on water resources management based on validated quantified data on the location and volume of available water, will significantly impact the regional and local nature of water resourcse management in and across MENA countries. These activities consequently fall directly in line with Strategic Program 3 of the IW Focal Area Strategy which aims to "balance overuse and conflicting uses of water resoruces in transboundary surface and groundwater basins". The substantial project budget allocated to regional workshops on cooperation, data sharing and knowledge transfer among the project nations will play a critical role in meeting fostering international, multi-state cooperation on priority water concerns and to catalyze transboundary action saddressing water concerns. Finally, the establishment of a common platform and methodology for measurement of relevant water data across project nations is critical to harmonizing the regional approach to international ground and surface waters and is an important step towards improved coordination and cooperation.

D. JUSTIFY THE TYPE OF FINANCING SUPPORT PROVIDED WITH THE GEF RESOURCES. Over 35% of the total project Grant will finance technical assistance needed to improve local stakeholders' knowledge and utilization of Earth Observation tools and systems for improved water data management. This technical assistance will be provided by leading academic institutions that have been directly involved in developing many of these tools and data support systems currently being utilized by NASA and its partners for Earth Sciences Applications across the world and thus constitutes a unique opportunity to transmit this critical knowledge to project recipients. Approximately 30% of the technical assistance anticipated through this project will be provided pro-bono by NASA staff, as per an agreement between the World Bank and NASA specific to this project. The remaining technical assistance will be procured competitively through the GEF Grant. In addition, the project will finance the hardware, software, validation data and field training required to build a database of knowledge on various water parameters as described in this paper and which include data on temperature, precipitation, evapotranspiration, land cover, land use, crop yield, groundwater storage, runoff, snow cover and others. Finally, the project will finance approximately 1.64 million USD (equivalent to 30% of the total Grant) towards national and regional knowledge transfer events, dissemination workshops, stakeholder training, graduate study fellowships and participation in international conferences and events targeting the Mediterranean region in particular.

E. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES: Through its specific focus on knowledge sharing related to water knowledge across the MENA region, the project will be closely aligned and coordinated with the UNDP/UNEP "MENARID GEF IW:LEARN: Strengthening IW Portfolio Delivery and Impact under the Regional MENARID Integrated Natures Resources Management in the Middle East and North Africa Region" Project which aims to encourage learning, information sharing, collaboration and replication of good practices and experiences in the GEF International Waters portfolio. Furthermore, the project is also aligned with the Mediteranean Action Plan of the United Nation's Environmental Program (UNEP-MAP) that is actively engaged in climate change impacts and adptation issues in the coastal zone of the Mediteranean Sea and with the Sustainable

Mediterranean program which facilitates mainstreaming environmental issues in the economic development agenda of Mediterranean countries, following a shared common vision. The project will be closely aligned with several other GEF projects currently under preparation by the MENA region of the World Bank including but not limited to the "Improvement of Water Resources Management Project", the "Global Sustainable MED Governance and Knowledge Center" and the "Coastal and Orontes River Basins Water Resources Management" Project – all of which are proposed for GEF financing.

In addition, the project is closely aligned with existing regional iniatives on the enhancement of water management across the MENA region including activities under the Arab League Ministerial Council for Water (which will be represented on the Technical Advisory Committee of the Arab Water Council), the Arab Water Academy and the Arab Water Council. The World Bank is furthermore already extensively involved in many of MENA's water resources management-related research, projects and reforms – many of which include international riparians. The proposed project, through the Bank's convening power and established relationships with MENA countries, will thus compound the positive development impacts of existing and ongoing initiatives in the water sector across MENA.

F. DISCUSS THE VALUE-ADDED OF GEF INVOLVEMENT IN THE PROJECT DEMONSTRATED THROUGH INCREMENTAL REASONING : Under current conditions, (i.e without GEF involvement in the project), high-impact decision on water sector infrastructure investments (such as the size and capacity of irrigation channels, the volume of water pumped from shared aquifers, the size of water storage infrastructure, the impact and spread of forest fires etc), policy reform and adaptation/mitigation to climate change impacts **will continue to be made on the basis of hypothetical trend data and assumptions instead of real-time quantification, assessment and measurement of "actual" water available across local and regional boundaries, real-time hydraulic balances and factual measurements of trends** as measured by Earth observation environmental remote sensing satellites and equipment. Furthermore, without GEF intervention on the project, the various countries involved in the proposed project (including Lebanon for example who will benefit from the GEF intervention with improved access to real time knowledge and information on flood, drought and forest fire monitoring further enhancing existing efforts in these critical domains and as referenced in the letter of co-financing and endorsement received from the Lebanese Ministry of Agriculture and Ministry of Environment) will continue to operate independently with very little venue, forum or opportunity for interaction, cooperation and knowledge exchange on shared water resources. Nationally, inter-ministerial committees established to work together towards the common goal of improved local and regional water resources management will not be set up and various stakeholder ministries and institutions will continue to operate in silos without explicitly working together towards a common goal of environmental sustainability. Finally, the remote sensing centers, who currently have a certain (and widely varying) degree of existing infrastructure and technical know-how on the use of remote sensing and Earth observation tools for improved water resources and environmental management will not have the opportunity to interact with NASA scientists and associated academic and commercial partners, whose expertise lies in the use of Earth Observation tools for improved environmental management on a regional and local scale.

With GEF intervention on this project, the technical assistance, hardware, software and capacity building financed will catalyze radical and relatively low-cost step changes in the way in which water and agriculture, both regionally and locally, are managed. One investment of a satellite receiving station (in the order of 200,000 USD) will enable access to over 300 water parameters needed to adequately assess real time changes in water across the MENA region and subsequently inform very high impact infrastructure and policy reform decisions for a relatively modest cost. Furthermore, by investing in standardized equipment and harmonized capacity building across the project implementing agencies, the project will enable a step-change in regional communication and harmonization regarding transboundary water resources which to date have been handled in a piecemeal and very subjective fashion.

G. INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS, THAT MIGHT PREVENT THE PROJECT OBJECTIVE(S) FROM BEING ACHIEVED AND OUTLINE RISK MANAGEMENT MEASURES: The project operational risks, which mostly center on a weak technical capacity in remote sensing and an anticipated unfamiliarity with Bank procurement and financial management standards will be mitigated by the extensive capacity building and technical assistance anticipated under the project. The overall project risks are rated Medium - Low Impact and considered manageable with mitigation measures in place.

Furthermore, and by enabling project countries to gain real-time access to historical and real-time information on changes in key environmental parameters including temperature, precipitation, evapotranspiration and many others across the project region as a whole, the project will significantly reduce risks associated with climate change and will enable decision makers to: (i) better understand trends on the impact of climate change to local and regional hydrologies based on real recorded data; and (ii) adjust infrastructure and reform decisions to better reflect these trends and implement scientifically proven mitigation and adaptation measures. By enabling improved decisions on water allocation, water use efficiency, water investments, soil and vegetation management, catchment protection and adaptation to climate change, the project thus falls directly in line with the Adaptation Objective of the Climate Change Focal Area Stategy to support pilot and demonstration projects for adapation to climate change.

H. EXPLAIN HOW COST-EFFECTIVENESS IS REFLECTED IN THE PROJECT DESIGN: Notwithstanding the temporal and spatial variability in water availability that has been historically characterisic of the water sector across the MENA region, stakeholders and decision makers in this region today face obstacles to effective and efficient water management **for which technical and policy solutions exist and which primarily center on the lack of real-time data on water availability, variability and historical changes.** These high-impact obstacles include: (i) the inability to compile past and current water conditions to inform improved water policy and natural resources management decisions; (ii) the lack of realtime data to generate maps of soil wetness and estimates of irrigation water use for large scale agricultural productivity assessments and planning; (iii) the inability to provide water balance data for a regional and temporal perspective to identify local, short term and long term trends in water usage anomalies; (iv) lack of information to monitor extent and severity of droughts; (v) inability to estimate current water storage conditions in the uplands of river basins to improve river flow predictions and; (vi) the inability to evaluate potential increases/decreases in irrigation water requirements under various climate change scenarios to inform the planning of agricultural policies.

Specifically, the project will comprise the cost of satellite receiving stations, validation equipment and technical assistance (averaging 600,000 USD in each country and equivalent to ~57% of the total Grant to each country). The remainder of the project budget will finance international workshops on transboundary resources, national stakeholder training events, national data dissemination portals, fellowships for local graduate students to advance environmental remote sensing and other activities geared specifically at ensuring project sustainability and long term continuity of the upfront investments.

By improving countries' access to real time data on various water, environmental, land use and climate change parameters , such as temperature, precipitation, evapotranspiration, runoff, groundwater storage, crop yield and land use measurements – all of which can be measured through widely available remote sensing and Earth Observation tools - and by increasing the technical assistance and capacity building required to train users and validate the data collected, the project implementing agencies and water stakeholders will implement step changes in the way in which local and regional water and agricultural resources are managed. As a result, the cost-effectiveness of the project becomes obvious and justified.

PART III: INSTITUTIONAL COORDINATION AND SUPPORT

A. INSTITUTIONAL ARRANGEMENT: Five Grants, each totaling USD 1,050,000 will be granted to each of Lebanon, Jordan, the Centre Regional de Teledetection des Etats D'Afrique de Nord (CRTEAN - for the benefit of Tunisia) and Morocco to finance consulting services, training, goods and related installation services, operating costs, workshops and scholarships. An additional sixth Grant of USD 394,545 will be granted to the Arab Water Council to finance goods, consulting services, training, workshops and operating costs for regional cooperation and dissemination activities.

B. PROJECT IMPLEMENTATION ARRANGEMENT: Within each implementing agency, a project management unit (PMU) will be established to: (i) manage the technical and fiduciary aspects of project implementation; (ii) monitor and report on project outputs; (iii) coordinate with national stakeholders and; (iv) liaise with the Arab Water Council on the implementation of regional activities. As an established regional institution with proven capacity in gathering regional and international stakeholders within the water sector, the Arab Water Council will be the implementing agency responsible for the implementation of the regional coordination activities. As an established partner of various leading water institutions across MENA, the AWC will play an important role in catalyzing knowledge sharing and cooperation. The AWC will establish a Regional Project Management Unit (RPMU)

which will be responsible for (i) organizing regional workshops; (ii) coordinating the implementation of regional applications of data management tools; (iii) compile a yearly regional report on local and regional research results on the impact of climate change on international waters; and (iv) liaise with individual PMUs on implementation of regional activities. The RPMU will also establish a technical Advisory Committee (TAC) for review and guidance of the technical aspects of the projects. The TAC will comprise (i) a NASA representative (ii) representatives from each participating country and (iii) representatives from local centers of expertise such as the International Center for Agricultural Research in the Dry Areas (ICARDA), International Center for Biosaline Agriculture (ICBA) or others as deemed appropriate.

PART IV: EXPLAIN THE ALIGNMENT OF PROJECT DESIGN WITH THE ORIGINAL PIF: The project concept remains largely in line with the original PIF. Some exceptions are however to be noted:

1. As a direct result of regional political events across several project beneficiary countries, and Egypt in particular, and the recent triggering by the World Bank of OP.7.30, the project has been designed to implement the various components in two phases: Phase 1 will cover implementation of activities described above in each of Lebanon, Jordan, Morocco , the AWC and CRTEAN. Once the Government of Egypt is ready to negotiate the Grant Agreement, it will join the project as Phase 2. The Egyptian implementing agency (NARSS) has nonetheless provided its co-financing commitment and endorsement to this project and is expected to begin project implementation by summer 2011.

2. Jordan has replaced the West Bank and Gaza (WBG) as as a GEF Recipient Agency under this project due to the political and geographic context in the WBG and Jordan Area. WBG will nonetheless have access to capacity building and training workshops organized on a regional scale by the AWC as described above.

3. Co-financing commitments have been received by all implementing agencies and the GEF Grant is thus equivalent to 29% of the total value of this project (USD 19.6 million). While the co-financing potential presented at PIF stage (USD 80 million) is a valid representation of the value of current and planned water, agriculture and environment projects to be impacted by the activities of the proposed project across the MENA region, an actual co-financing commitment of USD 13.969 million was secured and represents the serious and unprecedented intent of the various implementing agencies to cooperate for improved water resources and agricultural management across the Mediterranean.

4. Finally, the various components described in the PIF have been consolidated into the Components 1, 2 and 3 described above.

PART V: AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for CEO Endorsement.					
Agency Coordinator, Agency name	Signature	Date *(Month, day, year)*	Project Contact Person	Telephone	Email Address
Karin Shepardson World Bank		03/18/2011	Song Li Acting GEF MNA Regional Coordinator	202-473-4269	Sli@worldbank.org

ANNEX A: PROJECT RESULTS FRAMEWORK

Project Development Objective (PDO):
The proposed project development objective is to improve water resources and agricultural management and planning within and across beneficiary countries, based on quantitative and spatial-based decision making tools.

PDO Level Results Indicators*	Core	Unit of Measure	Baseline	Cumulative Target Values**					Frequency	Data Source/ Mthology	Resp. for Data Collection	Description (indicator definition etc.)
				YR 1	YR 2	YR3	YR 4	YR5				
WISP operational in at least three implementing agencies	☐	Number of WISP systems operating	0	0	1	2	2	2	Bi-yearly	Qrtly Reports	PMU	Technical specifications met
Number of major water resources decisions made on improved agricultural and land use management taking into consideration outputs of WISP tools **Institutions and reforms introduced to catalyze implementation of policies for basin-scale IWRM and increased water use efficiency**	☐	Number of major decisions/policies made	0	0	1	2	3	4	Bi-yearly	Qrtly Reports	PMU	
Regional project data portal developed and operational (according to IW:LEARN guidelines	☐	Project portal in operation	0	0	1	1	1	1	Bi-yearly	Qrtly Reports	RPMU	IW Learn Guidelines applied, Number of hits to the website
INTERMEDIATE RESULTS												
Intermediate Result (Component One): Improved Local Water Resources and Agricultural Management												
WISP Hardware Purchased and Installed	☐	No. of hardware installed	0	0	1	2	2	2	Bi-yearly	Qrtly Reports	PMU	Technical specifications met
Number of remote sensing and stakeholder staff trained on use of WISP tools	☐	No. of staff trained	0	3	6	9	12	15	Bi-yearly	Qrtly Reports	PMU	

Intermediate Result (Component Two): Capacity Building and Project Management												
Scholarships for advanced study in environmental science, remote sensing technology and/or related subjects selected	☐	No. of scholars selected	0	0	2	4	4	4	Bi-yearly	Qrtly Reports	PMU	As per selection criteria set out in PIM
Local stakeholder workshops held	☐	No. of workshops held	0	1	2	3	5	6	Bi-yearly	Qrtly Reports	PMU	
Number of national inter-ministerial committees formed and action plans for improved IWRM generated and agreed upon	☐	No. of national committees established	0	1	1	1	2	2	Bi-yearly	Qrtly Reports	PMU	
Intermediate Result (Component Three): Regional Integration and Cooperation												
Number of Regional Workshops held	☐	No. of workshops held	0	1	2	3	4	5	Bi-yearly	Qrtly Reports	RPMU	
Number of Regional Reports on Impact of Climate Change on Regional Water Resources Published	☐	No. of Regional Reports	0	0	1	2	3	4	Bi-yearly	Qrtly Reports	RPMU	
Number of international inter-ministerial committees formed and action plans for improved IWRM generated and agreed upon	☐	No. of international committees established	0	1	1	1	2	2	Bi-yearly	Qrtly Reports	RPMU	

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF)
A Scientific and Technical Screening of the Project Identification Form was performed on May 28, 2009. It indicated that the project appears to provide a good foundation for the work within the overall framework for the Mediterranean Sustainable Development Program. Specific answers to the issues raised by the review are as follows.

Suggested Guidance from STAP:
With respect to the food and agricultural production impacts from climate change, STAP recommends that the project also make contact with the International Center for Agricultural Research in the Dry Areas (ICARDA). As well as having deep knowledge of the agriculture of the region, ICARDA has extensive knowledge of supplemental irrigation and water harvesting for agriculture and horticulture in dry, rainfed areas. A useful new reference on the topic is: Wani, S.P., J. Rockstrom and T. Oweis (Eds) 2009. Rainfed agriculture: unlocking the potential. Comprehensive Assessment of Water Management in Agriculture and CABI. 310pp.

The project team fully agrees with STAP's recommendation on including ICARDA in the project and has included a representative from ICARDA to participate in the Arab Water Council's Technical Advisory Committee (TAC) planned for the effective and technically controlled implementation of the project's Component 3 on Regional Integration.

ANNEX C: CONSULTANTS TO BE HIRED FOR THE PROJECT USING GEF RESOURCES

Position Titles	*$/ person week**	*Estimated person weeks***	*Tasks to be performed*
For Project Management			
Local			
Project coordinators (6: One in each PMU and one in the RPMU)	400	350	Provide technical quality control to the project, supervise M&E plan, monitor procurement and disbursement plan, write quarterly progress reports, coordinator with other local coordinators, coordinate with AWC on regional events and activities.
International			
Experts in communications planning and public awareness and policy reform	2,000	25	Assist local project coordinators with specific technical issues related to project management of remote sensing tools, awareness raising and public communication of generated outputs
Justification for Travel, if any: Given the regional nature of the project, and the fact that the AWC will be organizing regional workshops for data dissemination and coordination among the 5 implementing agencies, the project coordinators of each of Lebanon, Jordan, Morocco and Tunisia will participate in these regional workshops (estimated 2 per year) and local travel among these countries and/or to Cairo, Egypt will be required and has been budgeted.			
For Technical Assistance			
Local			
Local Remote Sensing experts	350	75	Assist with installation of peripheral equipment, training etc
Capacity building and knowledge management consultant	350	50	Assist with public awareness raising and organization of local stakeholder workshops and materials
International			
Evapotranspiration and crop yield estimation technical consultant	2,000	40	Provide technical assistance on applications of technical and scientific nature such as ET mapping and crop yeild mapping.
Groundwater modeling technical consultant	2,000	40	Provide technical assistance on applications of technical and scientific nature such as groundwater modeling and surface storage estimations
Remote sensing and environmental management consultant	2,000	20	Provide technical assistance on applications of technical and scientific nature such as ET mapping and crop yeild mapping.
Justification for Travel, if any: As described above, the project objectives rely on the regular meeting of local and regional stakeholders to dissemintate results and share knowledge. International consultants will be invited to these events to provide technical assistance and to build a scientific and academic network of contacts between the MENA region and other regions with an interest and expertise in environmental remote sensing.			

* Provide dollar rate per person week. ** Total person weeks needed to carry out the tasks.

ANNEX D: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS

A. EXPLAIN IF THE PPG OBJECTIVE HAS BEEN ACHIEVED THROUGH THE PPG ACTIVITIES UNDERTAKEN. N/A

B. DESCRIBE FINDINGS THAT MIGHT AFFECT THE PROJECT DESIGN OR ANY CONCERNS ON PROJECT IMPLEMENTATION, IF ANY: N/A

C. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES AND THEIR IMPLEMENTATION STATUS IN THE TABLE BELOW: N/A

Project Preparation Activities Approved	***Implementation Status***	***GEF Amount ($)***				***Co-financing ($)***
		Amount Approved	***Amount Spent Todate***	***Amount Committed***	***Uncommitted Amount****	
	(Select)					
	(Select)					
	(Select)					
	(Select)					
	(Select)					
	(Select)					
	(Select)					
	(Select)					
Total						

* Any uncommitted amounts should be returned to the GEF Trust Fund. This is not a physical transfer of money, but achieved through reporting and netting out from disbursement request to Trustee. Please indicate expected date of refund transaction to Trustee.

ANNEX E: CALENDAR OF EXPECTED REFLOWS

Provide a calendar of expected reflows to the GEF Trust Fund or to your Agency (and/or revolving fund that will be set up)

ANNEX F: MONITORING AND EVALUATION MATRIX

M&E Activities	Responsible	Timeframe	Budget
International inception workshop	Project manager in each of the 6 implementing agency (PMU) Regional Project Management Unit Director within Arab Water Council	First 6 months	$70,000
Inception Report	Project manager in each PMU	60 days after meeting	$0
International regional coordination workshop	Project manager in each of the 6 implementing agency (PMU) Regional Project Management Unit Director within Arab Water Council Staff of water ministries in each country	18 months after project launch	$70,000
Mid-term independent external evaluation and tracking tool completion	Project manager in each of the 6 implementing agency (PMU) Financial officer	At project mid-point	$80,000
Terminal independent external evaluation and tracking tool completion	Project manager in each of the 6 implementing agency (PMU) Financial officer	At end of project implementation	$80,000
Audit	Project Manager External consultant(s)	At end of every year	$ 50,000 (total project budget)
Project Final Report	Project manager in each of the 6 implementing agency (PMU) Financial officer	Within 3 months of project completion date	$0
TOTAL			**$350,000**

As agreed with the implementing agencies, the M&E activities that will be financed by the local co-financing contribution. The Audits will be financed by the GEF Grant.