



PROJECT IDENTIFICATION FORM (PIF)¹

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: GEF Trust Fund

PART I: PROJECT IDENTIFICATION

Project Title:	Development of a methodology with tools and Decision Support Systems to incorporate floods and droughts into IWRM in transboundary basins		
Country(ies):	Global	GEF Project ID: ²	4533
GEF Agency(ies):	UNEP (select) (select)	GEF Agency Project ID:	00676
Other Executing Partner(s):	UNEP-DHI Centre, DHI, IWA	Submission Date:	2011-12-23
GEF Focal Area (s):	International Waters	Project Duration (Months)	48
Name of parent program (if applicable): ➤ For SFM/REDD+ <input type="checkbox"/>	N/A	Agency Fee (\$):	409,027

A. FOCAL AREA STRATEGY FRAMEWORK³:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
IW-1 (select)	1.4 (project components 1-4)	Enhanced capacity for issues of climatic variability and change (and groundwater management)	GEFTF	3,895,500	19,400,000
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
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(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)	Others		(select)		
Sub-Total				3,895,500	19,400,000
Project Management Cost ⁴			(select)	194,775	1,557,000
Total Project Cost				4,090,275	20,957,000

B. PROJECT FRAMEWORK

Project Objective: Development of a methodology with tools and Decision Support Systems to incorporate floods and droughts into IWRM in transboundary basins.						
Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
1: Preparation and inception activities	TA	Stakeholder needs and trans-boundary basins for pilot testing DSS tools identified and engaged in the project	1) Case studies, mapping and assessing current decision making processes, highlighting strengths, weaknesses and any gaps identified (including those related to data and	GEFTF	510,000	200,000

¹ It is very important to consult the PIF preparation guidelines when completing this template.

² Project ID number will be assigned by GEFSEC.

³ Refer to the reference attached on the [Focal Area Results Framework](#) when filling up the table in item A.

⁴ GEF will finance management cost that is solely linked to GEF financing of the project.

			<p>information)</p> <p>2) Assessment of best practices and development of a set of criteria for selection of pilot basins for further assessment</p> <p>3) Identification of pilot basins based on refined criteria</p> <p>4) Stakeholder consultation and validation workshops for selected basins</p> <p>5) Inception workshop and report detailing rationale for basin selection and needs and expectations of DSSs</p>			
2: Decision Support Systems (DSSs) development and testing	TA	Enhanced tools and guidance at trans-boundary and national levels to predict and respond to flood and drought hazards	<p>1) Development and refinement of DSSs including guidance and modeling tools</p> <p>2) Simulation and testing of DSSs against a range of different contexts and real/simulated scenarios</p> <p>3) Development and testing of training course materials</p>	GEFTF	1,600,000	9,900,000
3: Incorporating floods and droughts management into River Basin Management and reviewing results	TA	New knowledge about flood and drought management available and informs the planning and management of transboundary water resources	<p>1) Training and consultation with key stakeholders in using DSS and applying its outputs to guide management</p> <p>2) DSSs generate information about floods and droughts in pilot basins</p> <p>3) Technical information on floods and droughts repackaged and disseminated to a broader range of stakeholders within pilot basins</p> <p>4) Policy and strategy recommendations for inclusion of flood and droughts assessment in IWRM and basin planning disseminated</p> <p>5) Using the new</p>	GEFTF	910,500	3,350,000

			methodology, specific recommendations are developed for integrating flood and drought management into the TDAs and SAPs of up to five selected basins			
4. Stakeholder engagement in DSSs use for flood and drought management	TA	Urban and (agro) industrial water users contribute to and benefit from optimization of basin water management, especially managing floods and droughts	<p>1) Framework and methodology for integration of urban and (agro)industrial water users perspectives and realities in floods and droughts planning at basin level</p> <p>2) Updated plans and investments for utility water safety and urban drainage incorporating basin level constraints and outlooks</p> <p>3) Increased capacities amongst utility managers and urban planners to contribute effectively to basin wide management of floods and droughts and outputs of basin wide planning processes strengthen water safety or utility plans</p> <p>4) Communication of project data, results and outcomes to a wide range of stakeholders, including basin level stakeholders, GEF partners, IWA members and partners, and the media.</p>	GEFTF	875,000	5,950,000
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
Sub-Total					3,895,500	19,400,000
Project Management Cost ⁵				GEFTF	194,775	1,557,000
Total Project Costs					4,090,275	20,957,000

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount (\$)
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⁵ Same as footnote #3.

Private Sector	DHI	In-kind	11,277,000
Others	UNEP-DHI Centre (Cash)	Grant	100,000
Private Sector	IWA (Cash and in-kind)	Grant	2,918,750
GEF Agency	UNEP(Cash and in-kind)	Grant	711,250
National Government	National Governments of the pilot basins (to be selected during the PPG phase)	In-kind	1,350,000
Local Government	Local Governments of the pilot basins (to be selected during the PPG phase)	Unknown at this stage	1,250,000
Other Multilateral Agency (ies)	Various initiatives linked to the pilot basins (to be selected during the PPG phase)	Unknown at this stage	800,000
Private Sector	Various initiatives linked to the pilot basins (to be selected during the PPG phase)	Unknown at this stage	1,750,000
Bilateral Aid Agency (ies)	Various initiatives linked to the pilot basins (to be selected during the PPG phase)	Unknown at this stage	800,000
(select)		(select)	
Total Cofinancing			20,957,000

D. GEF/LDCF/SCCF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY¹

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (a)	Agency Fee (b) ²	Total c=a+b
UNEP	GEF TF	International Waters	Global	4,090,275	409,027	4,499,302
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
Total Grant Resources				4,090,275	409,027	4,499,302

¹ In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table

² Please indicate fees related to this project.

PART II: PROJECT JUSTIFICATION

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

A.1.1 the [GEF focal area/LDCF/SCCF](#) strategies:

Previous GEF IW projects have shown flood and droughts to be a priority transboundary concern, along with the other multiple drivers that cause depletion and degradation. Consequently, the International Waters Focal Area Strategy emphasizes the need for considering floods and droughts as a key transboundary concern in GEF-5 so that multiple priority stresses for individual water bodies can be addressed together and collectively by States rather than by single themes or single States. Achieving benefits attributable to water that explicitly contribute to MDGs and WSSD targets dictates that multiple stresses must be addressed and multiple uses must be balanced or at least reconciled. Concerns of droughts and floods as extreme events will therefore be incorporated into selected transboundary surface and groundwater basin IW projects through Integrated Water Resources Management (IWRM) approaches that the GEF has applied successfully in a large number of transboundary river basins.

The International Waters Focal Area Strategy for GEF-5 furthermore emphasizes the need for continued foundational capacity building, targeted research and knowledge sharing, beyond the main focus on implementation of agreed action programmes. The GEF-5 Strategy specifically mentions that cross-project learning and knowledge management already piloted in the IW focal area will be even more critical in GEF-5 as new knowledge on climate and forecasting will need to be absorbed by States collaborating on transboundary water systems. Assistance with new policies based on new and timely information on fluctuating climate represents a new imperative for States and a new challenge for the GEF.

A.1.2. For projects funded from LDCF/SCCF: the LDCF/SCCF eligibility criteria and priorities:

A.2. national strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NIPs, PRSPs, NPFE, etc.:

The emphasis on floods and droughts in the International Waters Focal Area Strategy for GEF-5 described in the section above is a mere reflection and recognition of the emerging needs and priorities at the national and transboundary level. Water is the primary medium through which the climate influences the Earth's ecosystems, the services they provide and thereby people's livelihoods and well-being. Already, water-related climate impacts are being increasingly experienced in the form of more frequent floods and drought events. Although this global challenge is not yet systematically reflected in national development plans, there is a growing appreciation among States of the need to build resilience towards floods and droughts as an integral part of the management of water resources.

B. PROJECT OVERVIEW:

B.1. Describe the baseline project and the problem that it seeks to address:

GEF has an extensive portfolio that includes more than 50 IWRM-related projects in 30 lake and river basins throughout the world. The baseline project includes the project partners' efforts to incorporate tools, such as hydrological Decision Support Systems (DSSs) and water safety plans, into basin-level planning and management. The partners' contributions to the baseline project are elaborated below:

UNEP's current Program of Work includes significant support both to the development and application of IWRM and to building resilience to the adverse environmental impacts,

including floods and droughts. Under the Sub-Program on Ecosystem Management [#311], UNEP supports countries to identify and develop and test tools to strengthen ecosystems functioning for water regulation and purification services, particularly in developing countries. The tools developed include policy planning; assessment/identification of drivers – in particular climate variability. Under the Sub-Program for Climate change [#111], UNEP supports countries in building climate resilience of vulnerable human societies, ecosystems and economies through increased understanding of multi-stressor interactions and the mobilization of knowledge, capacities and integrated assessment results to support adaptation policy setting, planning and practices. The proposed project will build on both areas of UNEP's existing work and will develop synergies between the two areas.

UNEP-DHI Centre and its host institution, DHI (a not-for-profit foundation), have a wealth of experience in working with IWRM policy and implementation in transboundary settings. In recent years DHI has worked on both identifying and seeking to address the need for systems that support decision-making processes of water managers in river basins. The resulting Decision Support Systems (DSS) combine databases, models, GIS and web technologies with configurable decision logics. This information is processed in such a way that it allows water managers to produce various scenarios that can allow them to make informed decisions and provide answers to important management questions. DHI is currently involved in sizeable test and implementation projects using its DSS in the Nile Basin (all countries), Egypt, Kenya, India, Southern Africa and Australia. Depending on what is required and the range of models and tools applied, the analyses produced by the DSS can range from very simple to highly complex, and can be used, for example, for the feasibility testing, planning and design of various water dependent projects within a basin. The baseline project will provide information produced by DSSs to strengthen and support stakeholder engagement as part of TDA/SAP processes. To date, the DSSs developed by DHI have not been designed to explicitly take the more extreme climate events (floods and droughts) into consideration, but the systems can be amended for this purpose.

IWA and partners have developed an approach based on Water Safety Plans to enhance water security for cities, utilities and industries. Water Safety Plans help cities and industries to determine issues within their boundaries and circle of influence as well as those in the wider river basin context. As such it is increasingly seen as a viable approach to engage with a wider set of stakeholders influencing, for example, water intake, groundwater levels, water quality standards, discharge permit criteria etc. In many ways, a Water Safety Plan approach complements wider basin planning and use of basin wide tools in that it provides a more in depth engagement with key stakeholders and their legitimate concerns about wider water planning and use. A key outcome of this approach is arriving at an optimization of water use at the industrial plant / city level. This forms a crucial step for engaging constructively in a wider basin optimisation with a broader set of stakeholders and building system resilience in the face of increasing floods and droughts. With urbanization increasing in most basins, the need to better incorporate municipal water concerns into basin-level planning processes becomes paramount. The baseline project includes Water Safety Plan recommendations to support basin-level planning.

- B. 2. [incremental](#) / [Additional cost reasoning](#): describe the incremental (GEF Trust Fund) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF financing and the associated [global environmental benefits](#) (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:

GEF's extensive portfolio of more than 50 IWRM-related projects in 30 lake and river basins throughout the world has highlighted the need to include careful consideration of floods and droughts within the International Waters Focal Area Strategy for GEF-5. Indeed, extreme climate events is a reoccurring theme of many TDAs and SAPs. The goal is to be able to

combine, consider and address multiple priority stresses for individual water bodies with a view to optimizing water resources management. This can be achieved by introducing flood and drought management Decision Support Systems to support decision making processes.

Tools, such as DSSs for hydrological systems and water safety plans, and their application in pilot basins is a significant part of the baseline project. However, these tools have not been designed to address extreme climatic events, such as floods and droughts. Floods and droughts add to the challenges of water resources management. As the pressures on water resources increase, so does the urgency of applying sustainable management options. Implementing IWRM is a long term process that is extremely challenging on local and national levels. On a transboundary level these complexities are multiplied, as are the risks of failure. While this project does not seek to directly address all the complexities of addressing climate change impacts in transboundary water management, it does aim to provide the necessary tools for others to do this. Development of tools, methodologies and DSSs which incorporate extreme climate events into management planning processes are the incremental activities for which GEF support is requested. The main value-added by the project will be targeted tools to support policy, strategy, planning and implementation to address floods and droughts in a transboundary setting. Floods and drought management DSSs can become invaluable centralized points of reference for guiding essential aspects of effective transboundary water resources management that simply does not exist today. It is only in more recent years that attention has been given to producing guidance and training related to integrated flood and drought management. Furthermore, there is little coherence in the guidance and training on offer.

This project will bring together flood and drought management techniques and tools in a more structured way: A particular emphasis will be placed on approaches to plan for and manage floods and droughts affecting urban and industrial areas which are the centres of economic assets and wealth and engines of economic growth and wealth creation. By focusing on these the protection and wise management of related assets in the face of floods and droughts can be optimized. Furthermore the engagement with key economic stakeholders depending on sound international river basin management can be deepened and lead to a wider appreciation of international river basin management benefits.

- Providing operational value to transboundary river basin management;
- Helping managers and users of the resource to make the right decisions on land management, land use planning, infrastructure development and cross border emergency planning and mitigation in support of longer-term resilience; and,
- Ensuring that decisions made to reduce risks and hazards are also supportive of reducing impacts on vulnerable communities and stakeholders as well as sustainable economic development and growth in the longer term.

More specifically, this will be done by creating and disseminating dynamic and easily accessible Integrated Flood and Drought Management Decision Support Systems (DSSs) that combine analytical tools with expert guidance and an interactive scenario methodology that has been tried and tested by the target audience. The expected results will become an integrated part of the TDA/SAP approach, and on a broader level, will lead to increased resilience to floods and droughts not only at the transboundary level, but also on more local urban and industrial site levels in the targeted basins. As a first step the targets will be appropriate current and planned GEF supported transboundary basin projects. Following this, the initiative will be expanded to as many non-GEF supported basins as feasible.

Many GEF IW Strategic Action Programmes, notably the Lake Chad, Volta, Limpopo, Plata and Amazon River Basins have highlighted extreme climatic events (e.g. floods and droughts) as a key transboundary threat to shared aquatic ecosystems. Consequently tools and methodologies, such as DSSs, that improve our understanding of extreme climatic events and incorporate these considerations into TDAs/SAPs and other management processes, are a

crucial first step in maintaining transboundary ecosystem function and ultimately conserving global environmental benefits in these shared aquatic ecosystems.

While the application of DSSs to hydrological systems constitutes the baseline project, the modification of these systems to include extreme climate events, and the incorporation of this information into TDA and SAP processes constitutes the GEF increment. A description of the whole project (baseline+increment) follows:

Project Objective: Development of a methodology with tools and Decision Support Systems to incorporate floods and droughts into IWRM in transboundary basins.

Component 1: Preparation and inception activities

Following the situation assessment conducted during the PPG, the project will undertake a detailed review of formal and informal decision making processes on flood and drought events in contemporary transboundary settings at different scales ranging from the basin level to local levels, in particular in urban areas. This will involve an assessment of existing TDAs and SAPs, as well as existing planning and analysis on local risks related to floods and droughts and an assessment of best practices through:

- a. Initial screening to identify relevant GEF projects and local level initiatives
- b. Study of the ongoing and future impacts of extreme climate events on water resources in relevant projects
- c. Evaluation of the extent to which the impacts of floods and droughts have been understood and addressed in GEF-funded projects, including the availability of basic hydrological datasets and historical data associated with known extremes (floods & droughts)
- d. Evaluation of the extent to which the impacts of floods and droughts have been understood and addressed by existing policies and strategies at transboundary, national and local levels in the basins.
- e. Identification of both general and specific needs that can feed into components 2, 3 and 4 through consultation with key-stakeholders
- f. Mapping and assessing current decision-making processes, identification of gaps and identification of good practices.

Through these analyses and processes, pilot basins for the project will be selected and convened in an inception workshop. Important potential partners will be ongoing GEF projects, and other key institutions with knowledge and experience on floods and droughts and their management.

Component 2: Decision Support Systems (DSS) development and testing⁶

Having established the outline needs of the transboundary basins in component 1 and current availability of flood and drought management tools as input from the project preparation phase, the groundwork has been laid for the development and testing of a pilot DSS, as well as training courses and associated training course materials in collaboration with partner institutions in different transboundary contexts.

Existing systems will be used as a starting point, including models that have been under development in recent years by organizations such as DHI and other institutions and consultants. The design criteria for the DSS software would include, but not be limited to, the following:

1. Facilitate transparent, objective and agreed decision making processes at sub-catchment,

⁶The DSS will be designed after the assessment of existing systems to be carried out in the project preparation phase.

sub-basin, basin, transboundary basin levels as required to establish IWRM plans

2. Be based on open or freeware server databases
3. Implement client-server architecture
4. Provide scripting facilities
5. Implement Open GIS Consortium standards to ensure that spatial information can be displayed and analysed using a range of commercial and freeware GIS components
6. Implement open interfaces to external data sources and modelling tools to ensure that new data sets and model engines from public and third party vendors can be plugged into the system and used as an integral part of decision making and planning processes
7. Provide extensive web reporting facilities and tools for report composition and dissemination
8. Provide built-in tools for system optimization, multi criteria analysis, ranking and prioritization of planning strategies
9. Provide built-in tools for risk analysis and mitigation
10. Provide built-in methods for assessing economic, social, and environmental indicators
11. Include the most recent climate change projection data, comprising different global climate model (GCM) simulation results of the IPCC 4th Assessment Report and available regional climate (RCM) simulation results
12. Provide a set of statistical downscaling procedures that are relevant for different applications, ranging from simple mean correction (delta change) procedures used in most climate change studies to more complex stochastic weather generator procedures that provide more reliable downscaling of extreme events
13. Provide tools for using the downscaled information for climate change and adaptation studies based on the models plugged into the DSS to facilitate comparative climate impact analyses and identification of adaptation and mitigation strategies

The DSSs will be designed partly based on the assessment of existing systems to be carried out in the project preparation phase. This component also includes testing and simulation of the DSSs and the development of training materials.

Important potential partners include: Global Water Partnership, UNDP Cap-Net and DHI (DHI is a not-for-profit private foundation. DHI is also the host organization for the UNEP-DHI collaborating Centre for Water and Environment).

Component 3: Incorporating flood and drought management into River Basin Management

The application of the DSS that will help to guide river managers in situations of floods and droughts will involve piloting, refining, training and implementation. DSSs will be applied in up to five selected GEF projects, and consolidating lessons learned from this process will be developed and utilized in component 4 (below), as well as in the development of a set of policy and strategy recommendations for inclusion of floods and droughts response management in IWRM and basin management.

Important potential partners include: DHI and transboundary river basin organizations, as well as UNDP Cap-Net.

Component 4: Dissemination and engagement of key stakeholders

A key aspect of making basin management successful is the engagement with water utilities and industries. They form a cornerstone of the interface between river basin management and river basin economies. Presently, however, their demands need to be better understood in terms

of linking to basin management decision-making and the management of floods and droughts in particular. A critical approach for linking with basin management is the development and use of Water Safety Plans. These provide a basis for utilities and industries to map both internal and externally driven challenges and opportunities and follow through with a strategy to address water security issues.

The linkages with wider decision making approaches, including but not restricted to decision support systems, will help utility and industry managers to become more effective stakeholders in the process of finding and implementing basin wide solutions in particular in relation to the management of floods and droughts. The work on this will focus on better understanding and supporting a) practices for optimizing and building resilience in water use and reducing pollution at the utility and industry level, b) practices for optimizing and building resilience in multiple water uses at the basin level, including industries (ie agro, chemical, mining) and energy production, in the context of urbanisation and changes in land-use, population and climate.

The above steps are starting to become issues for an increasing number of utilities and industries that wish to focus part of their attention on adaptation to climate change and engaging in basin wide planning and optimization. Optimization of water uses and creating resilience at both plant and basin level are essential for this. Utilities and industries form key actors in water sensitive cities that need to develop the necessary flexibility and resilience to cope with impacts of floods and droughts. While working at the utility level is critical, adaptation to climate change for urban areas implies many other dimensions of urban water management, many of which are directly related to the management of floods and droughts in the wider basin. Adaptive urban water management will be a key component of future basin wide management.

The above work will be implemented through:

- a) the development of a series of ‘pilot cities’ in international river basin or international marine areas where specific urban water adaptation plans are developed in the context of wider international basin and coastal management (preferably in GEF project basins);
- b) the further development and application of new or existing approaches to urban water management focused on floods and droughts allowing cities, utilities and industries in international river basins to get prepared and adapt their practices to climate change;
- c) the creation of active linkages with and mobilisation of the IWA expert network to provide in-depth back-stopping to and learning on urban water management adaptation strategies with a particular focus on floods and droughts.

Wider dissemination and application of DSSs through demonstration and knowledge-sharing and policy advice to relevant organizations and projects. This will include both those currently being assisted by the GEF, as well as those that are not.

Important potential partners include: IWA, IUCN, IW:Learn

- B.3. Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF). As a background information, read [Mainstreaming Gender at the GEF.](#)":

By improving the ability of river basin managers to handle situations of flood and drought, this project can potentially have a positive affect on the livelihoods of millions of people who reside and work in transboundary basin areas. With a particular emphasis on the urban centres in these

basins, the potential impact of the project could be transformative in many ways. These people, as well as many others living outside the basin areas, are dependent on the ecosystem goods and services that are produced with water from these basins. These goods and services and their wise management could be a key component of managing floods and droughts. Yet, many of these goods and services are negatively impacted in situations of flood and drought. Women's roles as water custodians at the household level in procuring water for basic human needs and subsistence farming are of special concern. Key beneficiaries of a wise use are downstream urban centres that benefit from continuous supplies in cases of drought or flood attenuation in cases of floods. In addition are other goods and services and productive activities such as agriculture, travel, domestic and industrial water supply, tourism and leisure, aquaculture and not least power generation, which is heavily reliant on water for both generation and cooling services.

This project directly strengthens the implementation of integrated water resources management (IWRM), an approach based not only on environmental considerations, but also on the greater involvement of all stakeholders, including women, in water resources management.

B.4 Indicate risks, including climate change risks that might prevent the project objectives from being achieved, and if possible, propose measures that address these risks to be further developed during the project design:

Risk 1: The success of the project will rely upon a variety of agencies and partners working together, which will increase the complexity of the implementation and may impact the final results.

Rating: Medium

Mitigation: During the project preparation phase particular emphasis will be placed on definition of roles and responsibilities, as well as accountability for joint management and results.

Risk 2: It can be very difficult to translate areas of common interest with the private sector into tangible results.

Rating: Medium

Mitigation: Having a separate component that will focus solely on identifying lessons learned and possibilities from previous experience will help to ameliorate a portion of the risk. Collaboration with the private sector is desirable but not necessarily a fundamental requirement for the success of the project.

Risk 3: Not all GEF IW projects are willing to be assessed and react to recommendations for change.

Rating: Low

Mitigation: Project stakeholders are officially encouraged to utilize this project in order to improve the outcomes of their own.

Risk 4: Even though decision support is developed, it is not used by the target stakeholders, either because they are not aware of them or are unable to access them.

Rating: Medium

Mitigation: Efforts will be made to learn from previous experiences, and to understand the needs of the users, with a view to developing not only a user-friendly format, but also training and other forms of dissemination.

Risk 5: The project establishes a 'push-approach' to the use of DSS rather than a genuine approach to engage with stakeholders and respond to their demands, resolving their immediate needs and producing tangible benefits in a reasonable timeframe.

Rating: Medium

Mitigation: the project design is thoroughly reviewed and tested with key stakeholders and beneficiaries.

- B.5. Identify key stakeholders involved in the project including the private sector, civil society organizations, local and indigenous communities, and their respective roles, as applicable:

GEF (consultation and collaboration), UNEP (GEF Agency), UNEP-DHI Centre (executing partner), DHI (DSS support and implementation), IWA (approach testing in cities-basins, dissemination and stakeholder engagement – utilities & industry), GWP (consultation on transboundary IWRM), World Bank (assistance with development and outreach), Flood Hazard Research Centre (technical input), International Water Association (technical input), IUCN (technical input), UNESCO (technical input), INBO (assistance in identification of transboundary basin partners, World Meteorological Office (technical input), UN-Water (technical input), GEUS (technical input), IUCN – Technical support (ecosystem services, basin management); IW:Learn (technical input and collaboration).

Within the pilot basins it will be important to draw upon a broad range of stakeholders including but not limited to Transboundary River Basin Organisations (technical input and collaboration), local authorities, local and indigenous communities, urban and (agro) industrial water users and civil society groups. Where appropriate, identification and engagement of stakeholder groups will be determined as part of the work carried out under the PPG.

- B.6. Outline the coordination with other related initiatives:

The project will seek collaboration with IW: Learn (management assistance and dissemination of results), GWP ToolBox (consultation on DSS design), as well as various flood and drought initiatives by the European Commission. GWP and WMO have been implementing the Associated Programme on Flood Management over the past ten years and are in the process of launching a similar joint programme on Integrated Drought Management. This proposed GEF Project will enter into a dialogue with GWP and WMO during a PPG Phase in order to reach an agreement on collaboration and mutual assistance. Further linkages will be built with the IWA Specialist Groups network and the various programmes on climate change, floods and drought management. Also a direct link will be established with a range of consultancy agencies that are directly involved in approaches and DSS for floods and drought management.

C. DESCRIBE THE GEF AGENCY'S COMPARATIVE ADVANTAGE TO IMPLEMENT THIS PROJECT:

As the only United Nations organization whose mandate and core business is the environment, UNEP brings together unique institutional and professional capacities to the GEF's work. UNEP has a strong record in fostering technical and institutional cooperation at multi-country and multi-organization levels. During the GEF CEO's visit to UNEP in January 2011, three primary strengths or comparative advantages within the GEF IW focal area were identified, namely: catalyzing regional and multi-country cooperation, scientific assessment, and development of innovative approaches and tools. While the proposed project will deliver the development of innovative approaches and tools, at the same time it will contribute to scientific assessments and regional cooperation. As such, the proposed project maximally leverages UNEP's role within GEF IW. UNEP has experience with similar work within the GEF as an implementing agency for related learning projects on enhancing the use of science in GEF IW projects (IW:Science, IW:LEARN), and is developing a methodology for international waters assessments (TWAP). Many years of direct experience of working with IWRM has provided UNEP with a wealth of experience in knowledge management science, policy linkages and capacity building.

- C.1 Indicate the co-financing amount the GEF agency is bringing to the project:

Building on UNEP's programme of work, the project will leverage a cash and in-kind contribution of \$711,250, which includes a \$111,250 contribution to project management costs. In addition, UNEP's collaborating center on water (UNEP-DHI) will also contribute \$100,000 in

cash towards project management.

C.2 How does the project fit into the GEF agency's program (reflected in documents such as UNDAF, CAS, etc.) and staff capacity in the country to follow up project implementation:


This global project will be specifically designed to both complement and strengthen ongoing and future work in supporting transboundary water resources management.

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 [Operational Focal Point endorsement letter\(s\)](#) with this template. For SGP, use this [OFP endorsement letter](#)).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Maryam Niamir-Fuller		December 23, 2011	Kelly West	+254 20 762 4147	kelly.west@unep.org