

REQUEST FOR CEO APPROVAL¹

PROJECT Type: Full-sized Project TYPE OF TRUST FUND: GEF Trust Fund

PART I: PROJECT INFORMATION

Project Title: A Transboundary Waters Assessment Programme: Aquifers, Lake/Reservoir Basins, River Basins, Large						
Marine Ecosystems, and Open O	cean to catalyze sound environmenta	al management				
Country(ies):	Global	GEF Project ID: ²	4489			
GEF Agency(ies):	UNEP (select) (select)	GEF Agency Project ID:	00658			
Other Executing Partner(s):	UNESCO, ILEC, UNEP-DHI, IOC,	Submission Date:	16 November 2012			
	UNEP-GRID	Resubmission Date:	18 December 2012			
GEF Focal Area (s):	International Waters	Project	24			
		Duration(Months)				
Name of Parent Program (if	N/A	Agency Fee (\$):	500,000			
applicable):						
For SFM/REDD+						

A. FOCAL AREA STRATEGY FRAMEWORK³

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount (\$)	Co-financing (\$)
IW-1 (select)	Outcome 1.4: Climatic variability and change as well as groundwater capacity incorporated into updated SAP to reflect adaptive management	Enhanced capacity for issues of climatic variability and change and groundwater management	GEFTF	3,300,000	18,527,731
IW-2 (select)	Outcome 2.4: Climatic variability and change at coasts and in LMEs incorporated into updated SAP to reflect adaptive management and ICM principles (including protection of "blue forests")	Enhanced capacity for issues of climatic variability and change	GEFTF	400,000	4,325,000
IW-4 (select)	Outcome 4.2:Plans and institutional frameworks for pilot case ABNJ have catalytic effect on global discussions	Demonstrations for management measures in ABNJ, (including deep-sea fisheries, ocean areas) with institutions	GEFTF	600,000	6,201,582
(select) (select)	Others	Others (Data and Information Management, Cross-cutting issues and Monitoring, Project Management)	GEFTF	350,000	1,339,000
		Sub-Total		4,650,000	26,878,313
		Project Management Cost ⁴	GEFTF	350,000	1,470,500
		Total Project Cost		5,000,000	31,863,813

¹ It is important to consult the GEF Preparation Guidelines when completing this template

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² Project ID number will be assigned by GEFSEC.
³ Refer to the <u>Focal Area/LDCF/SCCF Results Framework</u> when filling up the table in item A.

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

B. PROJECT FRAMEWORK

Project Objective: To undertake the first global assessment of transboundary waterbodies, through a formalised consortium of partners, that will assist GEF and other international organizations to improve the setting of priorities for funding; and to formalise the partnership with key institutions aimed at incorporating transboundary considerations into regular assessment programmes, resulting in periodic assessments of transboundary groundwater, lake/reservoirs, river basins, large marine ecosystems, and open ocean areas.

ecosystems, and open o	Grant			Trust	Grant	Confirmed
Project Component	Туре	Expected Outcomes	Expected Outputs	Fund	Amount (\$)	Cofinancing (\$)
Component 1: Transboundary Aquifers and SIDS Groundwater Systems.	TA	Outcome I: Improved review of the state of TBAs, through a sustainable periodic assessment process, linked to the regular assessment programmes of the partners.	Output I: A systematic global assessment report on transboundary aquifers and groundwater systems in SIDS with provisional outlook projections; an agreed framework for a periodic assessment process, including a sustainable consortium of partners; and a data and information management system.	GEF TF	1,500,000	11,114,000
Component 2: Lake and Reservoir Basins.	ТА	Outcome II: Improved review of the state of transboundary lake basins, through a sustainable periodic assessment process, linked to the regular assessment programmes of the partners.	Output II: A systematic global assessment report on transboundary lake basins with provisional outlook projections; an agreed framework for a periodic assessment process, including a sustainable consortium of partners; and a data and information management system.	GEF TF	300,000	1,222,000
Component 3: River Basins.	ТА	Outcome III: Improved review of the state of transboundary river basins, through a sustainable periodic assessment process, linked to the regular assessment programmes of the partners.	Output III: A systematic global assessment report on transboundary river basins with provisional outlook projections; an agreed framework for a periodic assessment process, including a sustainable consortium of	GEF TF	1,500,000	6,191,731

			partners; and a data			=
			and information			
			management system.			
Component 4: Large	TA	Outcome IV: Improved	Output IV: A	GEF TF	400,000	4,325,000
Marine Ecosystems.		review of the state of	systematic global		,	,
,		transboundary LMEs,	assessment report on			
		through a sustainable	LMEs with provisional			
		periodic assessment	outlook projections;			
		process, linked to the	an agreed framework			
		regular assessment	for a periodic			
		programmes of the	assessment process,			
		partners.	including a sustainable			
			consortium of			
			partners; and a data			
			and information			
			management system.			
Component 5: Open	TA	Outcome V: Improved	Output V: A metric-	GEF TF	600,000	6,201,582
Ocean.		review of the open	and mapping-based		,	, ,
		ocean, through a	assessment report for			
		sustainable periodic	the open ocean with			
		assessment process,	provisional outlook			
		linked to the regular	projections; an agreed			
		assessment	framework for a			
		programmes of the	periodic assessment			
		partners.	process, including a			
		·	sustainable			
			consortium of			
			partners; and a data			
			and information			
			management system.			
Component 6: Cross-	TA	Outcome VI: Improved	Output VI: A	GEF TF	100,000	100,000
cutting Issues.		understanding of	systematic indicator-			
		transboundary water	based global			
		governance	assessment of			
		architecture and	governance			
		Improved capacity to	arrangements for			
		compare the cross-	transboundary waters;			
		cutting social and	and a systematic, and			
		economic features of	comparative indicator-			
		human-water	based global			
		interactions across and	assessment of human			
		within the five	populations			
		transboundary water	dependent on			
		systems.	transboundary waters.			
Component 7: Data	TA	Outcome VII: Improved	Output VII: A project	GEF TF	180,000	1,189,000
and Information		availability and	data and information			
Management.		accessibility of	management platform			
		consistent data and	for showcasing,			
		indicators on	visualizing and			
		transboundary water	exploring main			
		systems, including	assessment results			
		targeted, customized	and as a clearing			
		information products	house on			

		available for stakeholders and mainstreaming into policy-making.	transboundary water system data and indicators; a dedicated project website connected with IW: LEARN and other GEF knowledge management systems, and knowledge products such as experience and result notes as well as reports from the participation in the IWC.			
Component 8:	TA			GEF TF	70,000	50,000
Evaluation						
Subtotal					4,650,000	30,393,313
	Project management Cost ⁵ (select) 350,000 1,470,5					1,470,500
	Total project costs 5,000,000 31,863,813					

C. SOURCES OF CONFIRMED COFINANCING FOR THE PROJECT BY SOURCE AND BY NAME (\$)

Sources of Co-financing	Name of Co-financier	Type of Co-	Amount (\$)
		financing	
GEF Agency	UNEP-DEWA	Grant	1,790,500
Rivers			
Bilateral Aid Agency (ies)	DHI Center, SIWI and IUCN	Grant	126,500
Bilateral Aid Agency (ies)	DHI Center, SIWI, IUCN, Kassel Univ., City University of New	In-kind	6,065,231
	York, Oregon State Univ., IGBP, CIESIN & Delta Alliance		
TBA			
Bilateral Aid Agency (ies)	Swiss Agency for Development and	Grant	4,800,000
	Cooperation (SOC)		
Bilateral Aid Agency (ies)	BGR	In-kind	378,000
Multilateral Agency(ies),	UNESCO-IHP, IGRAC, UN WWAP, FAO, UNESCWA, UNECE,	In-kind	5,936,000
NGOs and others	OAS, ECOWAS, SADC, ECCAS, International Association for		
	Water Law, Research Institute for Humanity and Nature		
	(Kyoto, Japan), University of Frankfurt, University of Western		
	Cape, University of Arizona, Simon Fraser University		
	(Canada)		
Lakes			
National Government,	ILEC, Texas States University, Corazon de la Tierra (Mexico),	Grant	418,000
NGO, and private sector	International Environmental Management Services (IEMS:		
	USA)		
National Government,	ILEC, Texas States University, Corazon de la Tierra, Shiga	In-kind	804,000
NGO and others	University		
LMEs			

⁵ Same as footnote #4.

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Multilateral Agency(ies),	Joint Group of Experts on the Scientific Aspects of Marine	Grant	1,969,000
private sector, NGOs	Environmental Protection (GESAMP), PlasticsEurope, PEW		
and others	Foundation, NOAA, UNESCO-IOC, Center for Marine		
	Assessment and Planning (CMAP) University of California,		
	Univ. British Columbia (UBC) Fisheries Centre		
Multilateral Agency(ies),	Joint Group of Experts on the Scientific Aspects of Marine	In-kind	2,356,000
National Government	Environmental Protection (GESAMP), UNESCO-IOC, NOAA,		
and others	Center for Marine Assessment and Planning (CMAP)		
	University of California, UNEP-World Conservation		
	Monitoring Centre, University of the West Indies, Centre for		
	Resource Management and Environmental Studies (CERMES),		
	Int'l Geosphere Biosphere Programme		
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Multilateral Agency(ies),	UNESCO-IOC, European Commission Seventh Framework	Grant	2,993,416
Private sector, National	Programme (EU FP7) GEOWOW project, Center for Marine		
Government and NGO	Assessment and Planning (CMAP) University of California,		
	Joint Group of Experts on the Scientific Aspects of Marine		
	Environmental Protection (GESAMP), Plymouth Marine Lab		
	(PML), SAHFOS/Global Alliance of Continuous Plankton		
	Recorder Surveys Global Assessment (GACS), Univ. British		
	Columbia Sea Around Us project (supported by Pew		
	Charitable Trusts), WMO-ICSU-IOC World Climate Research		
	Programme (WCRP), American Chemistry Council		
Multilateral Agency(ies),	UNESCO-IOC, Center for Marine Assessment and Planning	In-kind	3,208,166
National Government	(CMAP) University of California, Joint Group of Experts on the		
and NGO	Scientific Aspects of Marine Environmental Protection		
	(GESAMP), Plymouth Marine Lab (PML), SAHFOS/Global		
	Alliance of Continuous Plankton Recorder Surveys Global		
	Assessment (GACS), Univ. British Columbia Sea Around Us		
	project (supported by Pew Charitable Trusts), University of		
	the West Indies, Centre for Resource Management and		
	Environmental Studies (CERMES)		
National Government	Finland	Grant	1,019,000
Total Co-financing			31,863,813

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

	Type of		Country Name/		(in \$)	
GEF Agency	Trust Fund	FOCAL Area		Grant Amount (a)	Agency Fee (b) ²	Total c=a+b
UNEP	GEF TF	International Waters	Global	5,000,000	500,000	5,500,000
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0

Total Grant Resources			5,000,000	500,000	5,500,000	
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0

E. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

Component	Estimated Person Weeks	Grant Amount (\$)	Cofinancing (\$)	Project Total (\$)
Local consultants*	656	355,000	545,600	900,600
International consultants*	496.8	947,800	146,000	1.093,800
Total	1,152.8	1,302,800	691,600	1,994,400

^{*} Details to be provided in Annex C.

F. PROJECT MANAGEMENT COST

Cost Items	Total Estimated Person Weeks/Months	Grant Amount (\$)	Co-financing (\$)	Project Total (\$)
Local consultants*				0
International consultants*	24 months	300,000	1,057,000	1,357,000
Office facilities, equipment, vehicles and communications*				0
Travel*		50,000	413,500	463,500
Others**	Specify "Others" (1)			0
	Specify "Others" (2)			0
Total		350,000	1,470,500	1,820,500

^{*} Details to be provided in Annex C.

G. DOES THE PROJECT INCLUDE A "NON-GRANT" INSTRUMENT? NO

(If non-grant instruments are used, provide in Annex E an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/NPIF Trust Fund).

H. DESCRIBE THE BUDGETED M &E PLAN:

The project will follow UNEP standard monitoring, reporting and evaluation processes and procedures. Substantive and financial project reporting requirements are summarized in Appendix 8. Reporting requirements and templates are an integral part of the UNEP legal instruments to be signed by the executing agencies and UNEP.

The project M&E plan is consistent with the GEF Monitoring and Evaluation policy. The Project Results Framework presented in Appendix 4 includes Self-Monitoring, Analysis and Reporting Technology (SMART) indicators for each expected outcome as well as mid-term and end-of-project targets. These indicators along with the key deliverables and benchmarks included in Appendix 6 will be the main tools for assessing project implementation progress and whether project results are being achieved. The means of verification and the costs associated with obtaining the information to track the indicators are summarized in Appendix 2. Other M&E related costs are also presented in the Costed M&E Plan and are fully integrated in the overall project budget.

^{**} For others, to be clearly specified by overwriting fields *(1) and *(2).

The M&E plan will be presented to the first meeting of the PSC to ensure project stakeholders understand their roles and responsibilities vis-à-vis project monitoring and evaluation. The PSC will be responsible for proposing to UNEP management any necessary amendments to the M&E plan during project implementation. Indicators and their means of verification may also be fine-tuned by the PSC. Day-to-day project monitoring is the responsibility of the PCU but other project partners will have responsibilities to collect specific information to track the indicators. It is the responsibility of the Project Manager to inform UNEP of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely fashion.

The Project Steering Committee will receive periodic reports on progress and will make recommendations to UNEP concerning the need to revise any aspects of the Results Framework or the M&E plan. Project oversight to ensure that the project meets UNEP and GEF policies and procedures is the responsibility to the Task Manager in UNEP-GEF. The Task Manager will also review the quality of draft project outputs, provide feedback to the project partners, and establish peer review procedures to ensure adequate quality of scientific and technical outputs and publications.

The Project Manager will develop a project supervision plan at the inception of the project which will be communicated to the project partners during the first meeting of the PSC. The Project Manager will also be responsible for initial screening of the financial and administrative reports from the core partners prior to their submission to the Finance and Management Divisions of the United Nations Office at Nairobi. Progress vis-à-vis the delivery of agreed project outputs will be assessed by the PSC at least annually. Project risks and assumptions will be regularly reviewed both by project partners and the PCU on behalf of UNEP. Risk assessment and rating is an integral part of the annual Project Implementation Review (PIR), preparation of which will be the responsibility of the Project Manager. The quality of project monitoring and evaluation will also be reviewed and rated as part of the PIR and the PSC shall clear the PIR prior to its final submission. Key financial parameters will be monitored quarterly to ensure cost-effective use of financial resources.

A mid-term management review will be conducted by the Task Manager in consultation with the Project Manager and the outcomes reported to the Project Steering Committee. An independent terminal evaluation will take place at the end of project implementation. The Evaluation and Oversight Unit of UNEP will manage both the mid-term and terminal evaluation processes.

An independent terminal evaluation will take place at the end of project implementation. The Evaluation and Oversight Unit of UNEP will manage the terminal evaluation process. A review of the quality of the evaluation report will be done by the Evaluation and Oversight Unit and submitted along with the report to the GEF Evaluation Office not later than 6 months after the completion of the evaluation. The standard terms of reference for the terminal evaluation are included in Appendix 9. These will be adjusted to the special needs of the project.

The GEF tracking tools are attached as Appendix 15. These will be updated at mid-term and at the end of the project and will be made available to the GEF Secretariat along with the project PIR report. As mentioned above the mid-term review and terminal evaluation will verify the information of the tracking tool.

PART II: PROJECT JUSTIFICATION

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

A.1.1. The GEF focal area/LDCF/SCCF strategies/NPIF Initiative:

The proposed project is consistent with GEF-5 International Waters Focal Area Strategy and responds to Strategic

Priorities 1,2, and 4 of the International Waters Strategy, as well as the Strategic Goals of the GEF-5 Programming Document, by undertaking a global assessment of transboundary water bodies, through a formalised consortium of partners, to support informed investments by the GEF and other international organizations, and to be sustained through a periodic process in partnership with key institutions, aimed at incorporating transboundary considerations into regular assessment programmes.

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

N/A

A.1.3 For projects funded from NPIF, relevant eligibility criteria and priorities of the Fund:

N/A

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.:

To the extent possible and feasible given its scope, while the proposed project is global, it can support existing and future GEF IW TDA-SAP projects that are country-driven, by assessing transboundary waters, developing sustainable partnerships for assessments, and providing feasible assessment methodologies that can be adapted and implemented for all transboundary water systems. The proposed project will be linked to planned and ongoing assessment activities at national, regional and global levels, including GEF projects, by embellishing them and adding value to the data and information they produce, through analysis and synthesis. This project will in some form also provide a basis for identifying regional priorities within the defined assessment units. Therefore, the project will contribute to support the national and transboundary priorities in international waters of practically every GEF-eligible country. The project will be closely linked with the UNEP Regional Seas Programme (RSP), under which 18 Regional Seas Conventions and Action Plans exist around the world. Further, the project will be linked with the Global Programme of Action for the Protection of the Marine Environment from Landbased Activities (GPA) and associated National Action Plans, and the UNGA 60/30 Regular Process. The countries are also parties to other international agreements and frameworks with relevance to aquatic issues, such as UNFCCC, MARPOL, CBD, Ramsar, FAO Code of Conduct for Responsible Fisheries, River Basin Organisations and Commissions. TWAP will be closely linked with the UN World Water Assessment Programme, the flagship programme of UN Water. All these frameworks need indicators and assessments for monitoring and reporting on the relevant component of the environment. The assessments will also support efforts towards achievement of the MDG and WSSD targets, through the assessment of the water systems around the globe and the development of the cooperative interactive network of partners that will implement such assessment. In particular, support is expected for the achievement of Goal 7 (Ensure Environmental Sustainability) of the MDGs.

B. PROJECT OVERVIEW:

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

Many aquatic systems (aquifers, lakes/reservoirs basins, river basins, large marine ecosystems (LMEs) and open ocean areas) extend across, or lie beyond, national boundaries, and are referred to in the context of the Global Environment Facility (GEF) as "transboundary waters". The ecosystem goods and services (e.g.) provided by transboundary aquatic systems are critical to the socioeconomic development and well being of a significant portion of the world's population. These systems, which cover most of the planet, continue to be impacted and degraded by multiple and complex human-induced and natural stressors that threaten the sustainability of these goods and services and, in turn, human survival and well being. Addressing these issues requires more effective management of transboundary waters, but this is increasingly becoming constrained by limited availability of funds, resulting in the need for better prioritization of the allocations of limited financial resources.

For the purposes of the assessment the Earth's transboundary waters will be divided into five categories of transboundary water system (groundwater aquifers; lakes/reservoirs; river basins, large marine ecosystems; and open ocean). Information System (GIS) will be used to manage, analyze and visualize geographically referenced data including those that would be used to evaluate biophysical and gridded socioeconomic indicators. Data to support indicator assessment have been identified. Polygons will be utilised in a Geographic Information System to characterize individual systems as assessment units, such as individual lake basins or river catchments or a current, gyre system or region in the oceans. Various attributes would be assigned to those polygons for different assessment criteria/indicators/projections to enable a relative assessment among water systems within the five categories. Indicators to be used have been identified together with sources of information/data; and the assessment units have been identified.

The overall assessment will consist of five independent assessments (sub-projects) covering the five transboundary water systems, but with consideration of linkages between the systems and cross-cutting elements (socio-economic and governance). The project activities will be executed by the respective lead organisations in collaboration with core partners and through their networks of data providers and collaborators, operating under the direction of a Project Steering Committee (PSC) and advised by an independent, high level scientific and technical advisory committee (STAC). UNEP will establish a TWAP Secretariat to: facilitate the work of the partners; to organize meetings of the PSC and STAC; oversee financial transfers to the partners; be responsible for due diligence monitoring of the financial aspects of the project; oversee execution of project activities; and day-to-day liaison with the coordination units established by the partners to oversee the individual component implementation.

The implementation of this project and the conduct of the global transboundary waters assessment itself will be coordinated by UNEP (Division of Early Warning and Assessment) and will involve many partners that are already engaged in assessment efforts. The lead organizations and core partners for the implementation of this Project are listed in section B5 below and further detail is provided in the project document paragraphs 23 *et sequitor* which include short summaries for lead organisations and core partners. The full list of (i) lead organisations (6); (ii) core partners (18); (iii) thematic partners (40); and (iv) Data/Expertise Providers (68) is presented in Table 2 of the project document.

One outcome of the medium sized project that preceded this project has been the establishment of an informal institutional framework and partnership between the principle international agencies and organizations collecting data or currently engaged in regular assessments of one or more of the transboundary water systems. This network has been established for the systematic utilization of the enormous data and information base and expertise in an integrated manner that would take advantage of potential synergies to produce the TWAP assessment in an efficient and cost effective manner. This project will formalize the institutional framework and partnerships thereby establishing the institutional basis for a sustainable global process for future transboundary waters assessments, whilst at the same time producing the first global assessment of transboundary waters.

In addition to the difficulties associated with scattered data and information, another problem is that, despite the existence of many global-scale water assessment programmes (run by the UN and other international or regional organisations), they do not highlight transboundary issues, which require more

attention from the riparian and littoral countries. This factor is an impediment in allowing cross-comparisons of water systems of the same type (river basins, lake basins, groundwater aquifers, etc.)

The assessment will provide a baseline to facilitate identification and evaluation of changes in the state of environmental and natural resources in the transboundary water systems resulting from interventions by national authorities and international/regional communities. Such worldwide, comprehensive assessments of transboundary waters have not yet been undertaken, although the required data, information, modelling tools and expertise needed to undertake a global assessment, are generally available. These data, however, are currently scattered among different sources, including governments, regional organisations, academic networks, research programmes, private sector, and local and indigenous communities. Additionally, there is no GEF programme for capturing and analysing the time series of data collected by GEF IW projects, which could be a valuable addition to a worldwide assessment programme.

Long-term goal of the project is to promote financing of future management and development of the environments and resources of transboundary water systems, through strong stakeholder engagement. The Global environment objective is to apply the agreed methodologies to the conduct of a global assessment of transboundary groundwater aquifers, lakes/reservoirs, river basins, large marine ecosystems, and the open ocean, and to formalize the partnerships and institutional arrangements for periodically conducting such global assessments. The Project Objective is to undertake the first global assessment of transboundary waterbodies, through a formalised consortium of partners, that will assist GEF and other international organizations to improve the setting of priorities for funding; and to formalise the partnership with key institutions aimed at incorporating transboundary considerations into regular assessment programmes, resulting in periodic assessments of transboundary groundwater, lake/reservoirs, river basins, large marine ecosystems, and open ocean areas.

The full details of the project are contained in the project document attached as Annex 1 to this document.

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

GEF has invested one billion dollars since 1990 to address transboundary water concerns identified by countries based on system-specific analyses of the transboundary waters and the root causes for degradation of their resources and environment. There is currently no global/regional mechanism that specifically focuses on the assessment of transboundary water systems, although there are a number of global/regional assessment programmes which either focus on specific issues (such as fisheries), or which assess both transboundary and domestic issues together in a limited manner. There is currently no way to utilize the data arising from GEF international waters projects beyond the projects themselves, and there is no global system to track the status of these water systems over time, in order to determine whether they are improving or degrading. Without a framework such as that to be provided through this project, as outlined above, the GEF and international community risk spending scarce financial resources in the wrong places, and will not be able to demonstrate results over time relative to other waterbodies. This project will apply the agreed methodology, and formalise the needed

partnerships and implementation arrangements with existing, fragmented programs to serve GEF corporate needs as specified in the International Waters Focal Area Strategy and Strategic Programming for GEF-4 and International Water Strategy for GEF-5 approved by the GEF Council.

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/NPIF) or adaptation benefits (LDCF/SCCF). As a background information, read Mainstreaming Gender at the GEF.":

Transboundary water systems support the socioeconomic development and wellbeing of a significant part of the world's population. The GEF IW focal area addresses the very complex sustainable development challenges faced by States sharing transboundary water systems that continue to be degraded by multiple human-induced stresses, including global climate change. The sustainability of resource exploitation and environment management of many of these water systems seems questionable. The proposed project, which will undertake a global assessment of transboundary water systems, will primarily support the efforts of GEF, UNEP and other UN and international organizations to better assist developing countries, and countries in transition, to develop and implement improved resource management and efficient socio-economic development strategies. Many agencies are collecting a variety of assessment information, and global science organizations are undertaking modelling activities and making projections based on the collected data. UNEP has the responsibility and comparative advantage for undertaking assessments for the GEF, including globally through its various programmes such as the Global Environment Outlook (GEO), UNGA 60/30 Regular Process, and its Regional Seas Conventions and Action Plans. Implementation of the proposed project would address the problem of fragmenation in the mandates and responsibilities of the various involved agencies, and maximize global environmental benefits. Gender and social issues will be addressed in this project, as they are important drivers and incentives for achieving global environmental benefits, as well as the overall success of the project. Gender accountability is a cross-cutting issue at both the project level and component level. Special attention will be paid to gender issues in developing socioeconomic indicators, and in the capacity-building component.

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:

There is a risk that the five transboundary water system assessment methodologies developed in the GEF TWAP MSP might not be fully implemented, due to the inability of partners to access critical information and data necessary for undertaking the assessment. This reflects the fact that the methodologies had to be adapted to a scaled down assessment resulting from the reduced size of the GEF grant. Data and information, including those involving all five transboundary water systems, as well as climate change effects, which are available through existing assessment activities undertaken by the UN and other organisations, are nevertheless scattered among a large number of sources. This significant problem has been mitigated through establishment of strong partnerships with relevant UN and other organisations possessing such data and information. Initial agreements with relevant organisations and institutions were developed in the GEF TWAP MSP, and such agreements will be formalised during the proposed project, as a means of facilitating the global assessment of transboundary water systems, and for establishing a sustainable assessment process at the global level. Possible risks and ratings, as well as the

management strategy for dealing with each of them, are highlighted in the following table.

Risk	Rating	Risk management strategy
1. A lack of adequate data/information for some transboundary waterbodies might hinder proper assessment of those waterbodies.	Medium	Through formalized partnerships with relevant organizations and resulting cooperative/joint work, all available data/information will be assessed and existing data gaps minimized. Basing the assessment on indicators for which data are available. Applying a modelling approach also might help resolve some data gaps.
2. Methodologies to be applied in the assessments do not clearly show benefits to major partners (intergovernmental organizations, regional organizations, governments and private sector) for their participation in the assessments.	Low	The partnerships arrangements to be formalized should clearly identify the role of each participant in such a manner that the benefits for each partner/stakeholder in the project will be highlighted.
3. The assessment might be too rapid and succinct and uneven in its assessment of the five systems.	Medium	Committed partners, and a strong project coordination mechanism are needed to best harness the work done by all entities and ensure a meaningful comprehensive assessment.
4. Participating partners insist on using their own assessment methodologies, without trying to achieve the overall objectives of the proposed project.	Medium	Active involvement of partners from the design phase and the beginning of the project implementation. Linking to ongoing assessment work of: (a) relevant assessment programmes of UN and other international agencies, including other GEF projects; (b) river and lake basin organizations; and (c) Regional Seas Conventions and Action Plans. Active monitoring coordination of implementation by the PCU
5. Limited influence of national and regional stakeholders in promoting and sustaining transboundary waters assessment.	Medium	Cooperation with regional and national organisations to support sustainable transboundary waters assessment. Engagement with regional stakeholders in conducting/validating the assessment to promote their buy-in of the project. Capacity building of influential stakeholders for water system management. Use of media and targeted political messages to encourage the engagement of influential stakeholders.
6. Limited capacity of stakeholders to implement the results of the assessment of transboundary water systems in order to improve water systems management.	Low	Capacity building of stakeholders for implementing the results of the assessments.
7. Discontinuation of involvement of partners, withdrawal of support by key partners (financial support, data and information, etc.)	Low	Continuous contact, interaction and consultation with partners.
8. Difficulty in securing the multilateral national engagement required to ensure long-term periodic assessments.9. Difficulty in securing long-term	High Medium	A successful project that demonstrates benefits to donors and countries, as well as engaging these parties throughout the project. A successful project that demonstrates benefits to donors

incremental	funding	for	periodic	;	and	countries,	as	well	as	engaging	with	these	parties
assessments.				1	thro	ughout the	pro	ject.					

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:

The implementation of this project and the conduct of the global transboundary waters assessment itself will be coordinated by UNEP (Division of Early Warning and Assessment) and will involve many partners that are already engaged in assessment efforts (See the project document Table 2). The following are lead organizations and core partners for the implementation of this Project:

- (a) transboundary aquifers and SIDS groundwater systems: UNESCO's International Hydrological Programme (IHP) (lead), International Groundwater Resources Assessment Centre (IGRAC), Internationally Shared Aquifer Resources Management (ISARM), World Water Assessment Programme (WWAP), Food and Agriculture Organization of the United Nations (FAO), Swiss Development Cooperation (SDC), and the World-wide Hydrogeological Mapping and Assessment Programme (WHYMAP);
- (b) transboundary lake/reservoirs basins: International Lake Environment Committee (ILEC) (lead), UNEP Division of Early Warning and Assessment (DEWA), International Center for Watershed Studies (ICWS), Texas State University, and Research Center for Sustainability and Environment (RSCE), Shiga University;
- (c) transboundary river basins: UNEP-DHI Centre for Water and Environment (lead), International Union for the Conservation of Nature (IUCN), and Stockholm International Water Institute (SIWI);
- (d) LMEs: Intergovernmental Oceanographic Commission of UNESCO (IOC of UNESCO) (lead), National Oceanic and Atmospheric Administration (NOAA), UNEP Division of Environmental Policy Implementation (DEPI);
- (e) open ocean: Intergovernmental Oceanographic Commission of UNESCO (IOC of UNESCO) (lead), European Commission - Global Earth Observation System of Systems (GEOSS) interoperability for Weather, Ocean and Water (GEOWOW), UNEP Division of Early Warning and Assessment (DEWA), Global Ocean Observing System (GOOS); and
- (f) data and information management: UNEP/DEWA/GRID-Geneva (lead), the Government of Switzerland (CH-FOEN) and the University of Geneva (UniGe).

B.6. Explain how cost-effectiveness is reflected in the project design:

This project is based on series of baseline activities that represent a significant investment in water related assessment activities over a number of years. These are as follows:

Transboundary Aquifers. The programmatic baseline for the Transboundary Aquifers (TBAs) Assessment is largely based on the relevant work and activities of the four members of the TWAP groundwater coalition core group: UNESCO-IHP, IGRAC, the WWAP, and FAO. UNESCO-IHP has 35 years of institutional experience at the global scale, and its ISARM and Worldwide Hydrogeological Mapping and Assessment Programme flagship programmes provide access to the most comprehensive data and knowledge on TBAs available. IGRAC commands the Global Groundwater Information System, relevant TBA data sets and special thematic projects, as well as mapping of TBAs. The UN's WWAP and World

Water Development Reports I to III highlighted the most recent global-scale knowledge on freshwater resources. FAO's Information System on Water and Agriculture provides comprehensive data on water resources and water use, including the Global Map of Irrigation Areas. The monetary value of these baseline programmes that contribute data, information and expertise to the TWAP assessment of Transboundary Aquifers is estimated at **30 million US\$**. Incremental funding provided by the GEF will allow for addressing knowledge gaps, and advancing the knowledge on TBAs globally, by establishing a long-term partnership and pooling of data and information.

Transboundary Lake Basins. The Lake Basin assessment methodology builds on more than 25 years of intense, collaborative, international work on Integrated Lake Basin Management (ILBM) led by the International Lake Environment Committee (ILEC) Foundation (25 million US\$), as well as monitoring and assessment activities carried out over recent decades in individual lake basins in countries throughout the world, global-level datasets not developed specifically for lakes and reservoirs, but nevertheless directly applicable to the TWAP assessment (500 million US\$). The value added by TWAP to this ongoing international work is to: (1) develop formal ILBM indicators applicable to transboundary lake basins, and (2) improve the integration of rivers, groundwater and Large Marine Ecosystem assessments and management within the ILBM concept.

Transboundary River Basins. The River Basins assessment methodology builds on ongoing baseline programmes of partners, worth 30-40 million US\$ over the last 10 years. This includes global modelling and assessments from the Universities of Kassel, Frankfurt, and New York, Center for International Earth Science Information Network, International Geosphere-Biosphere Programme (IGBP), and IUCN. This is complemented by projects and institutional experience in water governance associated with the UNEP-DHI Centre for Water and Environment (UNEP-DHI), Stockholm International Water Institute (SIWI), and Oregon State University. The assessment will utilize global datasets from the World Bank, FAO, United Nations Children's Fund, World Health Organization, and the Global Water System Project, among other sources. Incremental funding provided by the GEF will allow for filling knowledge gaps and advancing the knowledge on transboundary river basins globally, by establishing a long-term partnership and pooling of data and information.

Large Marine Ecosystems. The TWAP LME assessments will build on a substantial programmatic baseline, consisting of a wide array of global, regional and national monitoring/observing and assessment programmes and datasets relevant to key indicators for assessing LMEs. These sources include satellite remote sensing information, empirical observations and mathematical modelling from organizations such as IOC-UNESCO, NOAA, UNEP, UNEP-WCMC, University of British Columbia 'Sea Around Us' project, IGBP, Centre for Resource Management and Environmental Studies, University of the West Indies; GESAMP and FAO. Similarly, baseline assessments can build on the State of the Marine Environment reports conducted periodically by the Regional Seas Conventions and Action Plans. The value of this programmatic baseline collectively amounts to about 10.5 million US\$. However, this baseline has not previously been harnessed in an integrated, coordinated manner for a comprehensive global assessment of LMEs. The GEF increment will catalyze a partnership among these and other key organizations to enable such a global assessment.

Open Ocean. The Open Ocean methodology builds on natural science observations and research

coordinated globally by the Intergovernmental Oceanographic Commission of UNESCO's (IOC-UNESCO) (GOOS). The IOC coordination effort of 1 million US\$/year leverages about 2 billion US\$/year of national investment in global ocean observations. A specific grant to IOC-UNESCO from the European Commission for the Global Earth Observation System of Systems interoperability for Weather, Ocean and Water) will underpin the information management and mapping in the assessment. Thematic partner programmes in climate (the World Climate Research Programme), ocean ecosystems and biodiversity (Center for Marine Assessment and Planning; UNEP-WCMC), fisheries ('Sea Around Us,' FAO), pollution (GESAMP), and marine governance (Centre for Resource Management and Environmental Studies, University of the West Indies; Dalhousie University) have elements essential to the TWAP Open Ocean assessment. The scientific community is active in research on the link between human well-being and the management of the human impact on the open ocean, and a desk review of this literature will add to the assessment of potentially high-uncertainty but high-risk issues. The GEF increment will transform this extensive, but disperse, knowledge base into information of relevance to stakeholders, catalyzing political action and sounder policy and management.

UNEP's baseline - a cross cutting contribution. Consistent with its mandate to keep the state of the global environment under review, and to promote scientific assessments of current and emerging issues for policy and decision making purposes, UNEP is providing the world community with improved access to, and better understanding of, meaningful environmental data and information. In doing so, it also is helping to increase the capacity of governments to use environmental information for decision-making and action-planning for sustainable human development. UNEP also works closely with many partners and collaborating centres in all regions of the world, and has over time established functional networks for data, information, assessments and capacity development. Further, in carrying out its mission, primarily through its Division of Early Warning and Assessment (DEWA), UNEP is implementing or participating in several ongoing global and regional environmental assessments, as well as the planned UNGA 60/30 regular process for Global Reporting and Assessment on the State of the Marine Environment, including the socioeconomic aspects. UNEP's role in incorporating science into multinational water projects has continuously been demonstrated through its oversight functions and its leadership role in the framework of its Regional Seas Programme. This role includes development of a comprehensive framework for the study of various water systems, with the main objective of identifying, assessing and proposing best management options directed to fresh, coastal and marine waters. Under its Marine and Coastal Ecosystems Branch, UNEP coordinates the 18 Regional Seas Conventions and Action Plans representing 143 member countries. These quasi-legal frameworks provide valuable entry points for conducting regular assessments at the national and regional level, including over 30 years of experience in developing regional State-of-the-Marine Environment reports. Similarly, UNEP also participates in the freshwater agenda at the international and national level, promoting scientific assessment and access to scientifically-credible environmental data and information, and supporting capacity building through its Freshwater Programme and Strategy, the GPA, GEMS-Water Programme, GEO water cluster, etc.

The willingness of the partners to become involved in the TWAP process brings to the table all current and ongoing water related assessment activities as outlined above. By building on this baseline the GEF incremental investment ensures cost-effectiveness in the delivery of a global transboundary water assessment and a formal partnership for the conduct of future assessments.

B.7. Outline the coordination with other related initiatives:

This project is a continuation of the coordination of related water assessment activities initiated under the MSP and outlined in detail in the project document. In describing the baseline activities in Section B6 of this document, on which the global assessment is based the coordination with related activities is also explained.

C. GEF AGENCY INFORMATION:

C.1 Confirm the co-financing amount the GEF agency brings to the project:

UNEP co-financing is realized through its management support, as well staff time to project monitoring and evaluation and the data and information management of the TWAP estimated at USD 1,790,500.

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 Project fits well into the GEF Agency's programme, particularly through the UN Development Assistance Framework (UNDAF), which could assist countries participating in the proposed project, including capacity building activities.

PART III: INSTITUTIONAL COORDINATION AND SUPPORT

A. INSTITUTIONAL ARRANGEMENT:

Executing Agencies. DEWA (Nairobi) will be the primary Executing Agency of the project in partnership with UNESCO-IHP (transboundary aquifers and SIDS groundwater systems), IOC-UNESCO (large marine ecosystems and open ocean), ILEC (transboundary lakes and reservoirs), and UNEP-DHI (transboundary rivers) (see Figure 1 of the Project Document).

The lead agencies responsible for each subproject will be engaged through a project cooperation agreement or similar instrument that will serve as the financial mechanism through which UNEP transfers GEF funds to the executing partners. These Instruments are contained in Annex 11 of the Project Document, which also contains the Terms of Reference for the Project Steering Committee and the Scientific and Technical Advisory Committee.

Core partners, thematic and regional partners together with the data providers will be engaged through agreements between the lead agencies responsible for each component and the institutions concerned.

B. PROJECT IMPLEMENTATION ARRANGEMENT:

Project Steering Committee (PSC). A Project Steering Committee (PSC) will be established to oversee the implementation of the project. It will consist of representatives from **DEWA**, **UNEP-DHI**, **GEF Secretariat**, **IOC-UNESCO**, **UNESCO-IHP**, **ILEC**, **UNEP/DEWA/GRID-Geneva**. It will meet at least annually during the life of the project, and generally provide policy guidance and advice to the management team regarding the progress and direction of the project; review and approve the overall project work plan against budget allocations; review progress reports; review and approve the overall budget, and project monitoring, evaluation and audit reports; provide general oversight of project implementation; establish the operational agreements with co-executing agencies; and assist with outreach, administration and other tasks. The PSC will also monitor the progress of the project and approve any major changes to the project's strategic direction and work plan. It will establish timelines and agree baselines for provision of agreed outputs and maintain focus on the project overall goal and objectives. The membership and terms of references of this committee are contained in Appendix 11.

Scientific and Technical Advisory Committee (STAC). Members of the TWAP Scientific and Technical Advisory Committee will include STAP member together with a selection of independent expert members of high international

standing representing each of the five transboundary water systems. The functions of the STAC shall include the provision of advice on scientific and technical matters to all levels of the project, but particularly to the Project Steering Committee. The Lead Agencies for each component will nominate potential members of the STAC who will be appointed by the PSC. Terms of Reference for the STAC are found in appendix 11 of this document,

Project Coordination Unit (PCU) - The Project Coordination Unit (PCU) will be based in UNEP's Division of Early Warning and Assessment (DEWA), in Nairobi, Kenya and will serve as the TWAP Project Secretariat. The unit will be headed by a Project Manager (a UNEP staff member), and the team shall consist of technical advisors from DEWA, administrative support staff and consultants as required. The staffing of the PCU and terms of reference for individual members are contained in Appendix 11 of this project document. The PCU will be responsible for project management, organizing meetings of the PSC and STAC, liaison with the component coordinating units, and liaison with UNEP/GEF and GEF.

PART IV: EXPLAIN THE ALIGNMENT OF PROJECT DESIGN WITH THE ORIGINAL PIF

As outlined in the PIF the project was to consist of only six components, five encompassing the five types of transboundary water systems and a data and information component. During project preparation it was decided that governance and cross-cutting socioeconomic issues should be handled through a separate component closely linked to the water system related components and that evaluation should be treated as a separate component. The resultant project design has therefore seven rather than the original six substantive components together with the evaluation and project management components.

The Project Management costs from the GEF Trust fund have been adjusted upwards by 100,000 US dollars at the expense of the Data and Information Management component which has substantial additional grant cofinancing from the Swiss Agency for Development and Cooperation.

Overall substantially more cofinancing has been raised, \$30,393,313 as opposed to the \$24,074,000 originally envisaged.

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

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/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for CEO endorsement/approval of project.

Agency Coordinator, Agency Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Maryam	W. Wiam Jule	December	Isabelle	+1-202-	Isabelle.vanderbeck@unep.org
Niamir-Fuller,	M. Maintall	18, 2012	Van der	974-1314	
Director, GEF			Beck		
Coordination					
Office, UNEP					

ANNEX A: PROJECT RESULTS FRAMEWORK

Appendix 4: Results Framework

Goal: To promote financing of the future management and development of the environments and resources of transboundary water systems, through strong stakeholder engagement.

	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Objective: 1a) To undertake the first global assessment of transboundary water bodies, through a formalised consortium of partners, that will assist GEF and other international organizations to improve the setting of priorities for funding;	Published global assessment of the five types of transboundary water systems.	Fragmented and incomplete assessments of different types of water bodies by different agencies and institutions and a lack of consideration of transboundary elements in these assessments.	Integrated and holistic assessment of all five types of transboundary water systems.	Project website and water systems portal maintained by Grid Geneva, supported by five component websites and data systems.	One of more of the transboundary water components fails to deliver the required data and information by the due dates. This risk is assumed to be small since all the partners have collaborated to date in the MSP and the Project preparatory Process.

1b) To formalise the partnership with key institutions aimed at incorporating transboundary considerations into regular assessment programmes, resulting in periodic assessments of transboundary aquifers, lake/reservoirs, river basins, large marine ecosystems, and open ocean areas.

Formalised network of partners linked via Memoranda of agreement.

Network established informally to conduct the present assessment.

Formalised network of partners that agree to conduct future periodic assessments.

Signed agreements between partners.

This **risk** is of unknown magnitude but presumed to be small given the successful informal networking that has taken place to date.

One of more of the

key partners refuses

to sign such an

agreement.

Component I Objective: To undertake a global assessment of transboundary aquifers and SIDS groundwater systems, through a formalized consortium of partners, to support informed investments by the GEF and other international organizations, and to be sustained through a periodic process in partnership with key institutions aiming at incorporating transboundary considerations into a regular assessment programme.

Component I Outcomes	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Outcome I.1: Improved strategic focus and cost-effectiveness of investments of GEF and other international agencies and programmes, based on a solid scientific foundation.	I.1 The GEF 6 strategy for the IW focal area, global water policy formulation processes, and other International Financial Institutions (IFI) and donor investment programs show increased focus on TBAs and make reference to TWAP.	I.1 GEF 5 strategy includes only generic reference to groundwater as a priority area. Other donor's investment programs or policy formulation processes lack specific mention of, neither or indication of understanding of TBAs issues.	I.1 GEF 6 Strategy earmarks resources for investments on TBAs based on TWAP; processes like WWDR reflect TWAP TBA priorities; by the end of the project at least 1 donor program allocates additional resources for TBAs issues.	I.1 The GEF 6 IW Strategy; future annual WWDRs (starting 2014); documentation showing donor consideration of new programs on TBAs.	I.1 GEF Council will adopt and continue to sustain the TWAP approach to allocation of IW resources; this will in turn trigger interest in countries, other International Financial Institutions (IFI) and donors.

Outcome I.2: Improved country capacity to manage transboundary aquifers by using TWAP TBA assessment methodology.	I. 2 Water managers in countries ready to implement level 2 TWAP TBAs methodology.	I.2 Limited understanding in countries of TBAs issues and lack of capacity to undertake science based assessments.	I.2 By the end of the project at least 5 countries poised to undertake "level 2" assessments based on TWAP TBA methodology.	I.2 Countries decisions showing commitment to in depth TBA assessments based on TWAP.	I.2 Implementation of baseline TWAP will effectively engage decision makers in countries.
Outcome I.3: Improved review of the state of transboundary water concerns in TBAs through a periodic sustainable assessment process linked to regular assessment programmes.	I.3 A coalition of partners takes over the periodic TBA assessment process.	I.3 Regular water related assessments do not include consideration of TBAs.	I.3 TBA coalition of partners commits to integrate TBAs in regular periodic assessments based on TWAP methodology and indicators.	I.3 Document stating commitment of partners to sustain periodic TWAP indicators based TBA assessment.	I.3 Regular programs, e.g.: UN Water WWAP, willing to lead partner coalition on future periodic TBAs assessments.
Outcome 1.4: A network of informed stakeholders technically ready to implement periodic assessments.	I.4 Communication strategy in place.	I.4 Project beneficiaries, partner executing entities and other stakeholders lack awareness of TBA assessment modalities.	I.4 Primary target GEF Council members and international agencies; partners and stakeholders at regional and national level.	I.4 Communication strategy and functioning data and information system with access to synoptic reports and awareness materials.	I.4 Partners and stakeholders remain committed to actively contribute to the assessment.

Component II Objective: to provide an assessment of the state of transboundary lakes through a systematic review of existing data and information, application of relevant indicators, and utilization of both expert opinion and lake basin questionnaires, in order to facilitate the ability of the GEF to more accurately and cost-effectively utilize its limited International Waters funds.

Component II Outcomes	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Outcome II.1.1: Increased data, knowledge and understanding regarding status of transboundary lakes at risk, their basins and their assessment and management challenges.	1. Evidence of increased use of results by GEF and other partners of global-scale assessment of transboundary lake basins undertaken by ILEC and its core partners, as basis for guiding future GEF IW funding possibilities.	1. Sparse and/or inadequate information and data on comparative status of transboundary lakes and their basins hindering GEF and other funding agencies from establishing funding priorities.	1. Scientifically-based comparative assessment of transboundary lakes including lakes at risk thereby guiding GEF and other agencies regarding IW funding priorities.	1. FSP Final Report on results of transboundary lake basin assessments.	Risk (1-2): Transboundary Lakes Final Report will not provide necessary data and information for prioritizing and guiding GEF IW activities. Assumption: Transboundary Lakes Final Report will provide scientifically-rigorous

Outcome II.1.2: Guidance regarding specific aspects of lake assessment and management related to GEF's TDA/SAP process for IW and their basins, as well as non-GEF water systems on a global scale.	2. Improved identification and prioritization of GEF IW and non-GEF transboundary lake basin projects.	2. GEF TDA/SAP process inadequate for identifying and assessing transboundary lake priorities.	2. GEF TDA/SAP process is enhanced providing more useful scientific and governance information for addressing lakes and other water systems at risk.	2. Enhanced understanding of concept of "prioritization" as applied to lakes and enhanced capabilities of GEF TDA/SAP IW activities.	data/info for addressing transboundary lake issues.
Outcome II.2.1: Mechanism for conducting periodic comparable lake basin assessments.	3. Increased and continuing periodic assessment of status of Transboundary lake basins.	3. Sustainable partnerships for undertaking rigorous, compatible and periodic assessment of Transboundary lake basins.	3. To identify and establish formal and sustainable partnerships for undertaking rigorous, compatible and periodic assessments of transboundary lake basins.	3. Continuing rigorous assessment of transboundary lake systems within ongoing and anticipated GEF and non-GEF monitoring and assessment activities.	Risk (3): Insufficient interest in conducting continuing transboundary lake basin assessments. Assumption: Transboundary lake consortium partners continue lake basin data collection and analyses.
Outcome II.2.2: Appropriate management of and access to lake basin data and information.	4. Scientifically-based data and information on transboundary lakes available and readily utilized by GEF and other IW organisations.	4. Needed lake basin data and information scattered among many sources and/or only accessible with difficulty, thereby hindering transboundary lake basin assessments.	4. Rigorous and continuously updated data base established for use by GEF and lake consortium partners.	4. Consortium of lake partners actively utilizing and continuously updating transboundary lake basin data base.	Risk (4): Inadequate management of transboundary lake basin data/info. Assumption: Transboundary lake consortium partners willingly cooperate in making data/info available to interested parties. i

Outcome II.3.1: Lake subproject is effectively managed and produces credible results. Component III Objective: To	of Transboundary lakes.	5. Inadequate output and usable results from transboundary lake basin assessment.	5. Lake sub-project is managed in effective and cost-effective manner.	5. Lakes sub-project is conducted on-time and within budget, producing identified outputs.	Risk (5): Transboundary lakes component of TWAP is not properly managed. Assumption: ILEC and partners have undertaken lake projects for many years with much experience conducting such activities.
support informed investmen institutions aiming at incorporations.	ts by the GEF and other ir	nternational organizations,	and to be sustained th	rough a periodic process	
Component III Outcomes	Indicator	Baseline	Target	Source of verification	Risks and Assumptions
Outcome III.1: Improved review of the state of water concerns in transboundary river systems through a sustainable periodic assessment process linked to regular assessment programmes of the partners.	1. Evidence of global comparative transboundary river basins assessment undertaken through a formalized consortium of partners.	other agencies from setting priorities for funding.	Comparative assessment which allows GEF and other agencies to set priorities for funding.	Systematic global assessment report on the state of transboundary river basins with provisional outlook projections (Output 6.4).	Risk: A lack of adequate data/information for some transboundary water bodies might hinder proper assessment of those water bodies. Assumption: The report will not provide solutions, only a prioritization of basins according to a range of issues. The report will not deliver a 'final' prioritization combining all issues, but rather the tools to weight issues differently.
	2. Framework designed and established during FSP for sustainable periodic assessment process.	Data and information is currently scattered and assessments often undertaken on an adhoc basis.	Sustainable partnerships to undertake compatible periodic assessments to observe trends.	An agreed framework for a sustainable periodic assessment process, including a sustainable consortium	Assumption: Funding mechanisms identified during the TWAP FSP for periodic assessments.

of partners by Dec. 2014 (Output 7.1).

Component IV Objective: To conduct a global comparative baseline assessment of LMEs through a formalised consortium of partners, and to establish a process for future periodic assessments of LMEs through formal partnerships with key institutions and linkage with regular assessment programmes.

Component IV Outcomes	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Outcome IV.1: Improved strategic focus and costeffectiveness of investments of GEF and other international stakeholders based on a credible/valid scientific foundation	GEF and other international stakeholders accept and agree to use the assessment results in decision-making regarding funding allocation	Strategic focus and cost- effectiveness of investments of GEF and other int'l agencies constrained by the lack of a credible and valid scientific foundation to guide investments.	Improved strategic focus and cost-effectiveness of investments of GEF and other int'l agencies based on a scientifically valid foundation in the form of a global baseline comparative assessment of LMEs.	GEF IW VI strategy incorporating assessment results, Periodic progress reports, LME Working Group meeting reports, project mid-term and terminal evaluation.	Assumption: GEF and other stakeholders have a high level of confidence that the assessment will be scientifically credible and will allow a valid ranking and prioritization of LMEs, and agree to apply results in decision-making regarding investments. Risks: GEF and other stakeholders reject LME assessment results because they are not considered adequate to allow prioritization of LMEs or because the methodology is not accepted as valid; prioritization of LMEs considered to be biased.

Outcome IV.2: Improved country capacity to assess and manage LMEs adoption of standard assessment methodology and assessment results.	Assessment methodology and comprehensive and standardized LME-scale data and information available to bordering countries; increased awareness about transboundary issues.	Transboundary issues not fully considered by bordering countries in assessment and management of marine and coastal areas, and limited availability of indicators and data at LME scale; limited awareness about transboundary issues.	Countries are aware of the TWAP, and assessment results including indicators and data are easily accessible by the countries.	Periodic progress reports; LME Working Group meeting reports; project mid-term and terminal evaluation; feedback from countries through communication with Regional Seas programmes, GEF LME projects and others.	Assumption: Countries will be interested in transboundary issues, will accept the assessment methodology and results, and adopt them in assessment and management of LME transboundary issues. Risks: Countries reject the methodology and assessment results; do not have the required human and financial resources and political will; and view LMEs as conflicting with other regional frameworks.
Outcome IV.3: Improved review of the state of transboundary water concerns in LMEs through a periodic sustainable assessment process linked to regular assessment programmes.	Agreed institutional framework linked to regular assessment programmes designed and established for a sustainable periodic assessment process.	Review of state of transboundary water concerns in LMEs currently inadequate; regular assessment programmes do not incorporate transboundary issues.	Links with regular assessment processes such as the UN Regular Process and Regional Seas to carry out period review of transboundary concerns in LMEs.	Document describing an agreed strategy to link TWAP with regular assessment programmes; Letters of agreement with partners; periodic progress reports; LME Working Group meeting reports; project midterm and terminal evaluation.	Assumption: Institutions responsible for regular assessment programmes will see the added value of linking with TWAP and agree to incorporate elements of TWAP; financial resources will be available. Risks: Non-compatibility between TWAP and regular assessment processes makes linking difficult or impossible; financial resources inadequate f.org/gef/node/1325"A dditional cost

Outcome IV.4: Efficient delivery of sub-project outputs and effective communication and information dissemination.	Sub-project outputs and communication strategy within established timeframe and budget.	No dedicated mechanism in place for communication and dissemination of information and assessment results.	Successful completion of all outputs and communication strategy, including website.	Project outputs and communication strategy, website, periodic progress reports, LME Working Group meeting reports, project midterm and terminal evaluation.	Assumption: No unforeseen events or circumstances will hinder completion of sub-project within the established timeframe and budget; executing agency is competent in carrying out its functions within the framework of the project and employ adaptive management to address adverse situations. Risks: Occurrence of unforeseen adverse events and circumstances; executing agency unable to address these events and circumstances should they occur.
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Component V Objective: To undertake a global assessment of the open ocean through a formalized consortium of partners, highlighting global ocean environmental issues, their local environmental and human impact, and informing and influencing the development of thematic interventions through informed investments by the GEF and other international organizations, providing a baseline on which to monitor future progress.

Component V Outcomes	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Outcome V.1: Enhanced global cooperative management action on environmental issues involving the open ocean and affecting human wellbeing.	Adoption of the assessment results by key open ocean stakeholders' and decision makers .	Lack of a scientifically- credible global baseline assessment of ecological state and trends of the Open Ocean and impacts on human wellbeing.	Wide consultation and use of a scientifically-valid, policy-relevant assessment of Open ocean ecological state and trends in relevant themes, and impacts on human wellbeing.	Web clicks on the assessment web page and indicator platforms, media mentions of the assessment, assessment results cited in proceedings/documents of global environmental governance agreements and conventions, project	Assumption: High level of confidence that the assessment will be robust and scientifically credible and will be used for cooperative management action. Risks: Assessment not well-communicated,

				evaluations.	Assessment invalid or inadequate because of data and knowledge gaps, etc.
V.2 Improved strategic focus and cost-effectiveness of investments of GEF and other international agencies and programmes.	GEF and other international stakeholders recognize the value of Open Ocean ecosystem services and agree to use the assessment results in decision-making regarding funding allocation	Limited strategic focus and cost-effectiveness of GEF and other int'l agencies in setting priorities for funding; limited recognition of the value of Open Ocean ecosystem services	Increased awareness by GEF and int'l community on Open Ocean issues and impacts on human wellbeing; a scientifically valid global baseline assessment that will allow GEF and other int'l agencies to identify ocean areas and themes in need of urgent attention and help to better set priorities for investment and track results of interventions	GEF IW VI strategy incorporating preliminary assessment results, periodic progress reports, OO Working Group meeting reports, project midterm and terminal evaluation.	Assumption: GEF and the int'l community have an interest in addressing Open Ocean issues. Risks: GEF and other stakeholders do not see Open Ocean as a priority or reject assessment results.
V.3 Improved review of the state of the open ocean through a periodic sustainable assessment process linked to regular assessment programmes.	Agreed institutional framework linked to regular assessment programmes designed and established for a sustainable periodic assessment process; and financing mechanism identified.	No institutional framework and financial mechanism currently exist for periodic assessment of the Open Ocean; previous assessments have been ad hoc and not comprehensive.	Sustainable partnership among institutions and links with regular assessment processes such as the UN Regular Process and Regional Seas to carry out period review of the Open Ocean, with funding mechanism identified.	Document describing the framework and mechanism; Letters of agreement with partners; periodic progress reports; OO Working Group meeting reports; project midterm and terminal evaluation.	Assumption: Institutions responsible for regular assessment programmes will see the added value of linking with TWAP and agree to incorporate elements of TWAP Open Ocean; financial resources will be available. Risks: Non-compatibility between TWAP and regular assessment. processes makes linking difficult or impossible; financial

V.4 Efficient delivery of project outputs, and effective data and information dissemination.	Sub-project outputs and communication strategy within established timeframe and budget.	No dedicated mechanism in place for communication and dissemination of information and assessment results.	Successful completion of all outputs and communication strategy, including website.	Project outputs and communication strategy, website, periodic progress reports, OO Working Group meeting reports, project mid-term and terminal evaluation.	resources inadequate to allow meaningful periodic assessments. Assumption: No unforeseen events or circumstances will hinder completion of sub-project within the established timeframe and budget; executing agency is competent in carrying out its functions within the framework of the project and employ adaptive management to address adverse situations. Risks: Occurrence of unforeseen adverse events and circumstances; executing agency unable to address these events and circumstances should they occur.
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Component VI Objective: To evaluate governance and socio-economic aspects of all five transboundary water systems and provide an analysis of governance architecture and the cross-cutting social and economic features of the human-environment interactions as a basis for a comparative, synthetic approach for examining common issues across them.

Component VI Outcomes	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Outcome VI.1: Improved understanding of transboundary water governance architecture.	Presentation of an holistic picture of governance arrangements for individual water	arrangements for	Use of a common governance assessment methodology to evaluate governance arrangements across	Website publication of assessment methodology reports on individual water system governance	Assumption: That governance arrangements can be harmonised across transboundary water

Dutcome VI.2: Improved capacity to compare the cross-cutting social and economic features of numan-water interactions across and within the five transboundary water systems.	indicators of human population distribution, its growth and level of development associated with transboundary waters, the waterbased livelihoods and the vulnerabilities of human communities to environmental	To date no attempt has been made to compare the linkages between human populations and transboundary waters across water systems.	Use of a common methodology and indicator set across selected systems in all five transboundary water system.	Website publication of the methodology and reports on water ,system-human interactions.	economic features of human-water system interactions are comparable across transboundary water systems. Risks: selected indicators and methodology will not prove replicable across transboundary water systems; required input data products are not
	changes and climate- related natural disasters.				available for subsequent periodic indicator-based assessments.

Outcome VII.1.1: Improved availability and accessibility of consistent data and indicators on transboundary water systems for use by TWAP stakeholders and the wider public.	Single online access point to relevant data on transboundary water systems has been created and is operational, including mapping of TWAP indicators. The TWAP Portal/Platform is linked with the TWAP website and connected with IW:LEARN functionalities.	Scattered and incomplete data available in different formats from WGs and external data partners.	One entry point for accessing and presenting TWAP data sets and indicators, available for use by TWAP stakeholders, enabling comparison and visualization of main assessment results.	TWAP Portal/Platform is on-line, functioning and linked to TWAP website, providing access to core TWAP data and indicators.	Assumption: data formats used by WGs are compatible Risks: Copyright issues on data from WGs and other sources; Insufficient resources.
Outcome VII.1.2: Availability of TWAP Project Information, connected to the International Waters Learning Exchange and Resource Network – IW:LEARN. Improved knowledge management with compiled knowledge and experiences about the project shared with other GEF projects and GEF Sec.	Project information and assessment results and documents are available on-line via a dedicated TWAP project website, with links to TWAP Portal/Platform and IW:LEARN information.	Off-line project information available from TWAP Secretariat and WGs.	On-line, up-to-date and integrated project information available through dedicated website, including electronic assessments reports.	A project website exists and provides upto-date information on the project and its assessment results and provides access to other TWAP resources and IW:LEARN information.	Assumption: project information is up-to-date and available Risks: Incomplete and/or outdated project information available from Secretariat and WGs. IW:LEARN not able to host TWAP project website. Insufficient resources.
Outcome VII.2.1: Targeted, customized information products available for stakeholders and mainstreaming into policy-making.	Assessments reports and outreach products are produced and disseminated.	No reports or information products available.	All assessments reports are made available printed and on-line; outreach material is produced, disseminated and communicated to stakeholders.	Availability of reports and outreach material, web statistics and references in policy documents.	Assumption: resources are available for printing reports (printed and oline) and for preparing outreach material. Risks: WGs do not provide final reports on time. Insufficient resources.

Component I Objective: To undertake a global assessment of transboundary aquifers and SIDS groundwater systems, through a formalized consortium of partners, to support informed investments by the GEF and other international organizations, and to be sustained through a periodic process in partnership with key institutions aiming at incorporating transboundary considerations into a regular assessment programme.

Component I Outputs	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Output 1.1: Data sets from the 166 transboundary aquifers and 43 groundwater systems in SIDS.	Data sets added to the global data system.	Additional data unlikely to be added.	Basic information available on all TBAs harmonized and captured by TWAP TBA/SIDS indicators suite.	TBAs final reports.	Countries unwilling to engage and recognize transboundary nature of TBAs; data owners, including the private sector, unwilling to share basic information.
Output 1.2: A systematic assessment of the current status of 166 ⁶ transboundary aquifers including 43 ⁷ aquifers in SIDS as well as provisional outlook projections of future status, with consolidated results within 24 months.	1.1 Assessment report covering 166 TBAs and 43 SIDS groundwater systems, organized by regions including indicators valuation and projections produced by the end of the project.	The transboundary nature of existing major TBAs not always recognized by countries, and only scanty information available, including on groundwater in SIDS.	Basic information available on all TBAs harmonized and captured by TWAP TBA/SIDS indicators suite.	TBAs final reports.	Countries unwilling to engage and recognize transboundary nature of TBAs; data owners, including the private sector, unwilling to share basic information.
Output 1.3: An interim assessment report within 9 months after sub-project effectiveness and a draft final assessment report within 21 months after sub-project effectiveness.	Published reports.	None.	GEF Council and all stakeholders.	Published reports.	Risk: Insufficient data and information acquired to produce the reports. Assumptions: none.

⁶ Size is considered to be the most pragmatic criterion to reduce the number of transboundary aquifers to be assessed in the framework of the TWAP level 1 assessment. All transboundary aquifers with a total size of at least 5000 km2 will be covered by the assessment. This reduces the number of TB aquifers from 448 currently known to 166 (assuming that aquifers with unknown area – probably poorly explored and poorly known - will also be deleted)

⁷ Three criteria have been applied to reduce the number of SIDS to be included in TWAP's aquifer assessment: (i) a maximum size of 50,000 km² (eliminates four countries: Cuba, Guyana, Suriname and Papua New Guinea), (ii) the state should consist of one or more islands (or part of islands) and not be located on the continent (eliminates another two countries: Guinea-Bissau and Belize); (iii) number of inhabitants should not exceed 5 million (leads to deleting also the Dominican Republic and Haiti). Combining these criteria reduces the number to be included in TWAP from 51 to 43 SIDS.

Component II Outputs	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
more accurately and cost-effecti	vely utilize its limited In	ternational Waters funds			
application of relevant indicators		•		- The state of the	
Output 1.6: A communication strategy for periodic reporting to stakeholders. (Draft within 6 months of project start, rolling improvements until project end at 24 months). Component II Objective: to prove	1.4 Countries and other stakeholders regularly informed on project advancements through project website, IW LEARN, and a TBA newsletter/bulletin.	The UNESCO ISARM is the only website that contains information on the TBAs; it will be linked to the IMS and contribute information to the TWAP TBA website.	Globally disseminated information on TWAP TBAs helps creating momentum and triggers exchanges and synergies.	Terminal Evaluation confirms full implementation and effectiveness of the TWAP TBA communication strategy.	Limited funding hinders effectiveness of TBA communication strategy.
Output 1.5: A sustainable consortium of partners among institutions and experts, within 24 months.	1.2 TBAs consortium of partners, possibly under UN Water lead, committed to sustain and implement periodic TBA assessments using TWAP methodology and indicators.	None of the regular assessment programs include consideration of TBAs.	Long-term periodic and systematic TBA assessments allow the detection of trends and impacts.	Document containing formal agreement of partners.	Partners unwilling to modify their regular assessment programs to integrate TBAs and adopt TWAP methodology.
Output 1.4: A data and information management system that will include assessment results, indicators, and links to partners, data sources and the TWAP platform (draft system set up within 6 months of project start, rolling improvements until project end at 24 months).	1.3 By the end of the project, all collected information on TBAs, including assessment results and indicators, hosted in neutral repository - IMS, open to all and linked to the overall TWAP platform.	The ISARM database, hosted and maintained by IGRAC, is the only existing repository of information on TBAs, and might represent the starting point of the TWAP TBA IMS.	The TBA IMS, regularly updated and expanded, used by GEF, by the countries and by the international community to inform resources allocation and water management policies.	Terminal Project Evaluation confirms TBA IMS full effectiveness.	Countries, partner agencies, and data providers unwilling to publicly disclose and share TBA information.

Output II.1.1: Master list of Transboundary lake basins and revised lake basin indicators.	1. Master list of Transboundary lake basins and revised indicators published and accessible online and at ilec.or.jp and partner websites.	1. Sparse and/or inadequate knowledge of location and status of transboundary lakes and inadequate understanding of status of transboundary lake basins.	1. Credible knowledge of location and status of transboundary lakes.	1. Availability of final master list of transboundary lakes and revised indicators via Lakes website and accessible through TWAP website.	Risk (1-3)_ Lakes Interim and Final Reports will not
Output II.1.2: Interim (Sept. 2013) and Final list (project termination date 2014) of transboundary lakes at risk based on GIS techniques, expert opinion and basin questionnaires.	2. Published and accessible Interim and Final Reports on transboundary lakes at risk.	2. Uncoordinated and non-collaborative lake basin programmes and activities involving a myriad of water-related agencies and organisations.	2. Interim and Final Reports on transboundary lakes provide basis for guiding future GEF transboundary lake projects, finding priorities and lake basin assessment approaches.	2. Interim and Final Reports on appropriate means of identifying priority transboundary lakes at risk available on website and guiding future GEF activities regarding transboundary lake funding considerations.	necessarily sufficient information and knowledge regarding lake basin management. Assumption: Lakes Interim and Final Reports will provide adequate, understandable and credible information
Output II.1.3: Overview paper(s) on: (i) implications of hydrologic connections of lakes with other water systems; (ii) "prioritization" concept for transboundary vs. non-transboundary lakes; and (iii) Integrated Lake Basin Management (ILBM) Platform Process applied to TDA/SAP process.	3. Published and accessible Overview papers on: (i) hydrologic linkages between lakes and other water systems; (ii) concept of prioritization applied to transboundary lakes; and (iii) application of ILBM within context of GEF's TDA/SAP process.	3. Inadequate understanding of implications of hydrological linkages between lakes and other water systems, the concept of establishing "priority" in identifying lakes at risk and inability to apply ILBM as supplement to GEF TDA/SAP process	3. Better understanding on part of GEF regarding implications of hydrological lake linkages, appropriate means of establishing lake funding priorities, and utility of ILBM within GEF IS lake activities.	3. Overview papers available in hard copy and oh the website used as guidance for addressing issues of hydrologic linkages, establishing transboundary lake priorities, and greater use of ILBM in GEF lake basin activities.	and guidance to address transboundary lake basin issues. Assumption: ILEC's ILBM Platform Process will be increasingly used to guide lake basin assessment and management studies.

Output II.2.1: Long-term lake basin assessment partnership.	4. Partnership established for long-term Transboundary lakes assessment process.	4. No existing consortium directed to assessment of transboundary lake basins.	4. Formally established long-term consortium for conducting continuing transboundary lake basin assessment.	4. Memoranda of Understanding used to establish the Lake consortium for future transboundary lake assessment. Cooperating partners involved in transboundary lake basin assessment activities on a continuing basis.	Risk (4-6): No basis for continuous long-term
Output II.2.2: Framework for long-term evaluation of transboundary lake basins and risk.	5. Existing framework for continuing evaluation of status of transboundary lakes.	5. No credible framework for conducting transboundary lake assessments over longterm.	5. Long-term framework and mechanism for conducting transboundary lake basin assessments.	5. Work plan and agreed modalities for conducting future assessments available on the website. Longterm assessment of transboundary lake basins ongoing.	lake basin assessment activities. Assumption: Consortium of lake basin partner agencies will engage in long-term continuing lake basin assessment activities
Output II.2.3: Mechanism for long-term data management.	6. Reliable long-term data base and management activities.	6. Relevant lake data is not identified, compiled or analyzed in rigorous, scientifically-sound manner.	6. Effective data acquisition and management.	6. Network for data management. Database and information archive available via website, operated and used by lake basin assessment consortium.	within a coordinated and agreed assessment framework.
Output II.3.1: Lakes sub-project management process.	7. TWAP Lakes sub- project is managed in an efficient and cost- effective manner. Quarterly operational and financial reports produced in timely manner.	7. No TWAP lake project management process.	7. Effective TWAP transboundary lake management of the Lake sub-project.	7. TWAP Lake assessment process ongoing and effectively managed. Effectiveness of sub-project management evaluated as part of the Terminal evaluation.	

Component III Objective: To undertake a global comparative assessment of transboundary river basins, through a formalised consortium of partners, to support informed investments by the GEF and other international organizations, and to be sustained through a periodic process in partnership with key institutions aiming at incorporating transboundary considerations into regular assessment programmes.

Component III Outputs	Indicator	Baseline	Target	Source of verification	Risks and Assumptions
Output III.1: A systematic global assessment report on the state of transboundary river basins with provisional outlook projections.	Indicator based assessment of major transboundary river basins, including projections. Draft results at 10 months. Consolidated results at 24 months.	Transboundary assessments generally not comprehensive or globally comparable. Data, information and expertise presently scattered among different institutions.	Comparative assessment of major river basins, including some initial projections.	Systematic global assessment report on the state of transboundary river basins with provisional outlook projections (Output 6.4).	Risk: not enough data in all basins to undertake global comparison. Risk: difficulty in defining risk categories if basins acquire similar scores. Assumption: Partners can agree on 'baseline' datasets and assessment approach.
Output III.2: An agreed framework for a sustainable periodic assessment process, including a sustainable consortium of partners.	Evidence of a designed framework.	Lack of systematic, periodic assessment of transboundary river basins which hinders GEF and other agencies from setting priorities for funding.	Institutional arrangements to provide a sustainable, cost-effective process for transboundary assessments.	An agreed framework for a sustainable periodic assessment process, including a sustainable consortium of partners by Dec. 2014 (Output 7.1)	Risk: most viable sustainability strategies for 5 components are not compatible, jeopardizing the overall sustainability of the TWAP. Assumption: partners continue to see value in participating in the TWAP, and are able to continue commitment.
Component IV Objective: To corprocess for future periodic asses					
Component IV Outputs	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions

Output IV.1:. A systematic, comparative global assessment of all LMEs based on ecological status, stress, socioeconomic and governance indicators and provisional outlook projections within 24 months, presented in interim and final reports and data products.	Completed and valid, indicator-based comparative assessment of all LMEs and	A significant amount of data relevant to LMEs being collected by a large number of institutions, but this has not been harnessed for a systematic assessment of all LMEs incorporating a standard suite of indicators of ecological status, stress, socioeconomics and governance; ongoing marine assessments do not explicitly consider transboundary issues	A valid, global comparative baseline assessment of all LMEs within 24 months, using a suite of indicators of ecological status, stress, socioeconomics and governance to allow ranking of LMEs in terms of their ecological status	Interim and final assessment reports and datasets quantifying the indicators; website/DIM system with assessment results; periodic progress reports; LME Working Group meeting reports; project mid-term and terminal evaluation	Assumption: Adequate data are available for the core set of indicators for all LMEs and assessment partners will be engaged for the full duration of the subproject to deliver the assessment results Risks: Data unavailable for some LMEs to enable global comparative assessment; Discontinuation of involvement of partners, withdrawal of support by key partners (financial support, data and information, etc.)
Output IV.2:. Sustainable framework and partnership among institutions and experts to conduct periodic assessment of LMEs within 24 months.	An agreed framework of partners with defined roles, and sustainable financial mechanism identified for periodic assessment of LMEs	A wide array of institutions and experts involved in data collection, monitoring/observation, and marine assessment of relevance to LMEs, but currently there is no partnership among them for a cost-effective and sustainable process for periodic assessment of LMEs	Within 24 months, a formalized partnership of institutions and experts, with sustainable financing mechanism identified, for periodic assessment of LMEs	Letters of agreement from partners; document describing partners' roles and institutional arrangement for conduct of periodic assessment	Assumption: Institutions and experts will have interest in forming a sustainable partnership, and financial resources will be available Risks: Difficulty in securing the multilateral national engagement required to ensure long- term periodic assessments; and in securing long-term incremental funding for periodic assessments
Output IV.3: A communication strategy for periodic reporting to	Communication strategy developed	No strategy currently exists for communication	Effective communication	Document describing communication	Assumption: Communication strategy

stakeholders within 3 months	and implemented	of LME assessment to stakeholders	websit	cy consisting of e and other nisms within 3 s	strategy; functional website	will be approved by the executing agency and implemented within the specified timeframe; the sub-project will generate information in a timely manner for reporting to stakeholders Risks: Communication strategy delayed; no information available for communicating to stakeholders
Outputs IV.4: A data and information management system that will include assessment results, indicators, and links to partners, data sources and the TWAP platform within 24 months.	Functional marine DIM system, integrating both Open Ocean and LME assessment results, linked to partners and relevant data sources and the TWAP common platform	A large number of relevant DIM systems exist, but none dedicated to assessment of LMEs, data sources, indicators	function LMEs I integra Open (with LN	24 months, a onal dedicated DIM system ated with the Ocean system, MEs assessment and relevant	Accessible LMEs DIM system populated wi assessment results a appropriate links	Assumption: Assessment partners provide assessment results and relevant data in a timely manner and in the required format; data providers agree to make data available through LMEs
Component V Objective: To undertake a global assessment of the open ocean through a formalized consortium of partners, highlighting global ocean environmental issues, their local environmental and human impact, and informing and influencing the development of thematic interventions through						
informed investments by the GEF and other international organizations, providing a baseline on which to monitor future progress.						
Component V Outputs	Indicator	Baseline		Target	Sources of verification	Risks and Assumptions

V.1 A metric- and mapping-based assessment transforming existing scientific data and projections for the open ocean into stakeholder-relevant information for several themes of relevance, built on a data and information management system that will include assessment results, indicators, and links to partners, data sources and the TWAP platform (intermediate results by July 2013, final by August 2014).	Indicators and maps available for the four themes of the open ocean assessment: climate, ecosystem, fisheries, and pollution.	A significant amount of data about the open ocean and its relationship to human wellbeing is being collected, but has not been harnessed for systematic assessment of ocean environmental issues requiring global action and their local impact on human well-being. Some assessments are available for certain themes and for certain regions, but not globally for the open ocean.	Interactive platform for mapping and global indicators, as a basis for an interpreted assessment.	TWAP OO web site, periodic progress reports, project mid-term and terminal evaluations.	Assumption: TWAP OO partners will deliver data, the GEOWOW project will deliver appropriate infrastructure to host data and provide interface into indicators. Risks: Difficulties of partners in providing data, divergent objectives of complementary projects.
V.2 Individual review assessments of high uncertainty but potentially high impact of environmental issues and governance arrangements (final by December 2014).	Completed assessment reports in the four themes of the open ocean assessment and an additional assessment of global governance structures	A unified assessment across the conceptual framework spanning the natural and human systems does not exist.	Interpreted assessment that allows stakeholders and users to make decisions about priority action in ocean observations, science, and governance.	Assessment report, periodic progress reports, project mid-term and terminal evaluations.	Assumption: Consultants of sufficiently broad background and credibility hired to compile review articles for climate and ecosystem themes. Risks: Lack of coherence in reports across all four themes plus governance.
V.3 Reporting and interpretation of assessment results relevant to key stakeholders including GEF (intermediate results by July 2013, final results by December 2014).	Assessment products with interpretation of the assessment results and distillation of main messages for key stakeholders	Limited availability of policy- relevant Open Ocean assessment information in a form that is easily understood and relevant to key stakeholders	Effective interpretation and communication of assessment results and main messages to key stakeholders including the GEF	Completed assessment products, periodic progress reports, project mid-term and terminal evaluations	Assumption: Competent communication expert with good understanding of science-policy interface related to the Open Ocean indicators and themes will be available. Risks: Unavailability of consultant with the necessary skills for the required time period.

V.4 Formal agreements among partner institutions and experts to conduct periodic assessment of the open ocean (by December 2014).	An agreed partnership with defined roles and sustained funding for periodic assessment of the open ocean	A wide array of scientific and institutional partners currently has the distributed ability to perform a global assessment of the open oceans, but lacks a strong framework for present and future cooperative action needed to conduct a periodic assessment.	A formalized partnership of institutions and expertise.	Letters of agreement from partners, document describing strategy for periodic assessment.	Assumption: TWAP recognized within its partnership as a useful contribution to the individual objectives of each partner. Risk: Lack of repeated central funding will erode interest of some partners.
V.5 A strategy for linking TWAP with the ongoing UN Regular Process (ongoing engagement during entire project, final by December 2014).	A defined and recognized strategy for TWAP to contribute to the UN World Ocean Assessment (UN Regular process).	The UN World Ocean Assessment (UN Regular process) recognizes the role of IOC-UNESCO and UNEP as technical agencies able to contribute to the substance of the assessment, and may emerge as a framework for the sustainability of TWAP.	The TWAP OO methodology and partnership accepted as a contribution to the UN World Ocean Assessment	Incorporation of TWAP OO indicators and methodology in portions of the UN World Ocean Assessment (UN Regular process) report due in 2014.	Assumption: Institutions responsible for ongoing assessment programmes will agree to incorporate elements of TWAP Open Ocean assessment; financial resources will be available. Risks: Political considerations may force introduction of new partnerships, governance of the assessment.
V.6 Quarterly Financial and activity reporting to UNEP and the GEF	The individual OO TWAP component can be interpreted in the context of the full TWAP assessment.	The MSP provides a strong baseline for cooperation amongst the TWAP components and in cross-cutting areas such as socioeconomics and governance.	Strong overall TWAP assessment coherent with individual component results.	Assessment report, periodic progress reports, project mid-term and terminal evaluations.	Assumption: strong level of communication between TWAP partners and guidance from UNEP and GEF. Risks: Partner's objectives diverge.

comparative, synthetic approach for examining common issues across them.

Component VI Outcomes	Indicator	Devadina	Tavant	Sources of	Risks and
component vi outcomes	ilidicatoi	Baseline	Target	verification	Assumptions
				VCCation	7.050.119610115

Output VI.1.1: A systematic indicator-based global assessment of governance arrangements for transboundary waters.	Completed and robust crosscutting assessment of transboundary governance arrangements for transboundary water systems,	Transboundary governance arrangements and architecture for key issues affecting transboundary water systems have not been systematically examined	A valid and systematic baseline assessment of transboundary governance arrangements and architecture for key issues affecting transboundary water systems human populations, their levels of completeness and implications for successful water system governance,	Information on transboundary governance arrangements in relation to key issues assembled, analysed and documented in Interim and final assessment reports; web-based publication of data, methods and results; Periodic progress reports; Working Group meeting reports; Project mid-term and terminal evaluation,	Assumptions: Adequate current and projected input data products are available to support indicator-based assessments; Partners and other stakeholders in selected water systems are willing and able to complete their assessments in a timely fashion. Risks: Project partners and stakeholders can provide accurate and relevant information on governance arrangements.
Output VI.2.1: A systematic, and comparative indicator-based global assessment of human populations dependent on transboundary waters. Component VII Objective: To org	Completed and robust assessment of crosscutting social and economic features of human populations associated with transboundary waters,	Data on population, economic production, and vulnerability to climate-related natural disasters are routinely collected but have never been analysed in relation to the environmental states of transboundary waters at a global scale,	A valid and systematic baseline assessment of human populations, their levels of current and projected dependence on changing states of transboundary waters,	Identified input data sets and core crosscutting socioeconomic indicators; Interim and final assessment reports; web-based publication of data, methods and results; Periodic progress reports; Working Group meeting reports; Project mid-term and terminal evaluation,	Assumptions: Adequate current and projected input data products are available to support indicator-based assessments; Partners are able to complete their assessments during the project's lifespan. Risks: Unavailability of up-to-date and projected input data products and disrupted involvement of partners to complete global assessment.

Component VII Outputs	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Output VII.1.1: A project data and information management platform for showcasing, visualizing and exploring main assessment results and as a clearing house on transboundary water system data and indicators (by 24 months).	Single online access point to relevant data on transboundary water systems has been created and is operational, including mapping of TWAP indicators. The TWAP Portal/Platform is linked with the TWAP website and connected with IW:LEARN functionalities.	Scattered and incomplete data available in different formats from WGs and external data partners.	One entry point for accessing and presenting TWAP data sets and indicators, available for use by TWAP stakeholders, enabling comparison and visualization of main assessment results.	TWAP Portal/Platform is on-line, functioning and linked to TWAP website, providing access to core TWAP data and indicators.	Assumption: data formats used by WGs are compatible. Risks: Copyright issues on data from WGs and other sources; Insufficient resources.
Output VII.1.2: Dedicated project website connected with IW: LEARN and other GEF knowledge management systems (within 6 months).	Project information and assessment results and documents are available on-line via a dedicated TWAP project website, with links to TWAP Portal/Platform and IW:LEARN information.	Off-line project information available from TWAP Secretariat and WGs.	On-line, up-to-date and integrated project information available through dedicated website, including electronic assessments reports.	A project website exists and provides up-to-date information on the project and its assessment results and provides access to other TWAP resources and IW:LEARN information.	Assumption: project information is up-to-date and available. Risks: Incomplete and/or outdated project information available from Secretariat and WGs. IW:LEARN not able to host TWAP project website. Insufficient resources.
Output VII.2.1: Published assessment reports, launch events, communication and outreach material printed, and online.	Assessments reports and outreach products are produced and disseminated.	No reports or information products available.	All assessments reports are made available printed and on-line; outreach material is produced, disseminated and communicated to stakeholders.	Availability of reports and outreach material, web statistics and references in policy documents.	Assumption: resources are available for printing reports (printed and oline) and for preparing outreach material. Risks: WGs do not provide final reports on time. Insufficient resources.

Component I Objective: To undertake a global assessment of transboundary aquifers and SIDS groundwater systems, through a formalized consortium of partners, to support informed investments by the GEF and other international organizations, and to be sustained through a periodic process in partnership with key institutions aiming at incorporating transboundary considerations into a regular assessment programme.

Activities	Objectively verifiable indicators
Sub-component I.1: Assessment of 166 TBAs and 43 SIDS groundwater systems	Comprehensive Report (Activity I.1.3, , Sub-activity 1)
Activity I.1.1: Data and Information gathering	Comprehensive Report (Activity I.1.3, , Sub-activity 1) containing section on information on data gathered on all 166 TBAs and 43 SIDS.
Sub-activity 1: For major TBAs	See above
Sub-activity 2: For SIDS groundwater systems	See above
Sub-activity 3: Modelling and remote sensing	Data and information management system incorporating all collected date and information.
Activity I.1.2: Assessment of TBAs and SIDS groundwater systems	Comprehensive Report (Activity I.1.3, , Sub-activity 1) includes sections on results of the indicator-based assessment of TBAs and SIDS groundwater systems, on expected future trends, and on conclusions and priorities for action.
Sub-activity 1: Assessment for major TBAs	See above
Sub-activity 2: Assessment for SIDS	See above
Sub-activity 3: Determine priority aquifers/regions	See above
Sub-activity 4: Outlook projections for 2030 and 2050	See above
Activity I.1.3: Assessment reporting	Comprehensive Report (Activity I.1.3, , Sub-activity 1)
Sub-activity 1: Comprehensive Report on major issues for TBA & SIDS	See above
Activity I.1.4: Data and Information management	Data and Information management system operational and data collected during the assessment accommodated in the system. Main results of the assessment transferred to central TWAP web-interface according to defined protocol.
Sub-component I.2: Sustainability of the TBA assessment	Report containing the technical specifications, operational modalities and execution arrangements and costs of follow up periodic monitoring
Activity I.2.1: Establishment of a periodic assessment system	TWAP implementing and executing partners mandated to assess periodically the conditions of TBAs.

Sub-activity 1: Sustainability of consortium of partners	Partners formalize their long-term commitment to the periodic assessment
Sub-activity 2: Sustainability of the assessment process	GEF and other beneficiaries formalize their interest and support to the recommended follow up monitoring
Sub-activity 3: Sustainability of the TBA data and information management system	See above
Sub-component I.3: Coordination of the assessment process	Partners and stakeholders fully informed and working in a complementary way.
Activity I 3.1: Coordination of the assessment process	See above
	ate of transboundary lakes through a systematic review of existing data and information, ert opinion and lake basin questionnaires, in order to facilitate the ability of the GEF to ational Waters funds.
Activities	Objectively verifiable indicators
Sub-component II.1: Assessment of Lake Basins	
Activity II.1.1: Data and Information gathering	Relevant information regarding transboundary lakes and lake basin data sets used in lakes component of TWAP will be provided as a major component of the Report on Transboundary Lake Basins and Lakes at Risk (Activity II.1.3, Sub-activity 2. All relevant data will be included and accessible in the project data and information management system.
Sub-activity 1: For transboundary lake basins	
Sub-activity 2: For lake basins at risk	
Sub-activity 3: For linked lentic and lotic water systems	
Activity II.1.2: Transboundary Lake Basins assessment	Final results and conclusions of the transboundary lakes and lake basin assessments, validation and projections will be provided in the Report on Transboundary Lake Basins and Lakes at Risk ((Activity II.1.3, Sub-activity 2), or in the Report on Major Issues for Transboundary Lake Basins or Lakes at Risk (Activity II.1.3, Sub-activity 1), as appropriate. Interlinked topics will be discussed and cross-referenced as appropriate in both Reports. All relevant data will be included and accessible in the project data and information management system.
Sub-activity 1: Assessment for transboundary lake basins	
Sub-activity 2: Assessment for lake basins at risk	
Sub-activity 3: Assessment for linked lentic and lotic water systems	

Sub-activity 4: Assessment of cross cutting issues (governance – socio-economic issues)	
Sub-activity 5: Validation process	
Sub-activity 6: Determine priority Lake Basins/regions	
Sub-activity 7: Outlook projections for 2030 and 2050	
Activity I.1.3: Assessment Reporting	Comprehensive reports on Transboundary Lake Basins and Lakes at Risk, Major Issues for Transboundary Lake Basins or Lakes at Risk, and Needed Responses, are prepared. If deemed appropriate for better understanding and guidance to GEF upon completion of the assessment, consideration will be given to combining one or more of these reports into a single document, and cross-referencing relevant issues, conclusions and recommendations.
Sub-activity 1: Reports on major issues for transboundary lake basins and lakes at risk, and linked lentic and lotic water systems	
Sub-activity 2: Reports on priority transboundary lake basins and lakes at risk, and I inked lentic and lotic water systems	
Sub-activity 3: Report on needed responses for transboundary lake basins and lakes at risk	
Sub-component II.2: Sustainability of the Transboundary Lake Basins Assessment	
Activity II.2.1: Establishment of a periodic assessment system	Core and data partners formalize an agreed framework for a sustained assessment process, including identification of any additional collaborative partners deemed necessary for long-term lake-based assessments
Sub-activity 1: Sustainability of consortium of partners	
Sub-activity 2: Sustainability of the assessment process - an evaluation framework to identify high risks transboundary lake basins	
Sub-activity 3: Data and information management system	
Sub-component II.3: Assessment Coordination	Core and data partners are actively cooperating in project activities, and meeting project deadlines, outputs and budgetary constraints.
Activity II.3.1: Sub-project management.	

Component III Objective: To undertake a global comparative assessment of transboundary river basins, through a formalised consortium of partners, to support informed investments by the GEF and other international organizations, and to be sustained through a periodic process in partnership with key institutions aiming at incorporating transboundary considerations into regular assessment programmes.

Activities	Objectively verifiable indicators
Sub-component III.1: Water quantity & quality	
Activity III.1.1: Environmental water stress - current	Environmental water stress (current) indicator results data, intermediate by July 2013, final by Aug. 2014.
Activity III.1.2: Environmental water stress - projected	Environmental water stress (projected) indicator results data by Aug. 2014.
Activity III.1.3: Agricultural water stress	Agricultural water stress indicator results data, intermediate by July 2013, final by Aug. 2014.
Activity III.1.4: Urban water quality	Urban water quality indicator results data, intermediate by July 2013, final by Aug. 2014.
Activity III.1.5: Lake influence	Lake influence indicator results data, by Aug. 2014.
Activity III.1.6: Human water stress – current	Human water stress (current) indicator results data, intermediate by July 2013, final by Aug. 2014.
Activity III.1.7: Human water stress – projected	Human water stress (projected) indicator results data by Aug. 2014.
Activity III.1.8: Nutrients – current	Nutrients (current) indicator results data, intermediate by July 2013, final by Aug. 2014.
Activity III.1.9: Nutrients – projected	Nutrients (projected) indicator results data by Aug. 2014.
Activity III.1.10: Water quantity & quality reporting (CESR, CUNY, IGBP)	Water quantity & quality report, intermediate by Aug. 2013, final by Oct. 2014.
Sub-components III.2: Ecosystems	
Activity III.2.1: Biodiversity & habitat loss	Biodiversity & habitat loss indicator results data, intermediate by July 2013, final by Aug. 2014.
Activity III.2.2: Ecosystem integrity	Ecosystem integrity indicator results data, intermediate by July 2013, final by Aug. 2014.
Activity III.2.3: Threats to fish	Threats to fish indicator results data, intermediate by July 2013, final by Aug. 2014.
Activity III.2.4: Ecosystems reporting	Ecosystems report, intermediate by Sep. 2013, final by Oct. 2014.
Sub-components III.3: Governance	
Activity III.3.1: Governance architecture	Governance architecture indicator results data, intermediate by July 2013, final by Aug. 2014.
Activity III.3.2: Institutional resilience	Institutional resilience (current) indicator results data, intermediate by July 2013, final by Aug. 2014.

Activity III.3.3: Institutional resilience – projected	Institutional resilience (projected) indicator results data by Aug. 2014.
Activity III.3.4: Enabling environment	Enabling environment indicator results data, intermediate by July 2013, final by Aug. 2014.
Activity III.3.5: Governance reporting	Governance report, intermediate by Sep. 2013, final by Oct. 2014.
Sub-components III.4: Socioeconomics	
Activity III.4.1: Economic dependence on water resources	Economic dependence on water resources indicator results data, intermediate by July 2013, final by Aug. 2014.
Activity III.4.2: Societal well-being	Societal well-being indicator results data, intermediate by July 2013, final by Aug. 2014.
Activity III.4.3: Vulnerability to climate-related natural disasters	Vulnerability to climate-related natural disasters indicator results data, intermediate by July 2013, final by Aug. 2014.
Activity III.4.4: Population density – projected	Population density (projected) indicator results data by Aug. 2014.
Activity III.4.5: Socioeconomics reporting	Socioeconomics report, intermediate by Sep. 2013, final by Oct. 2014.
Sub-components III.5: Deltas	
Activity III.5.1: Deltas assessment	Deltas indicator results data, intermediate by July 2013, final by Aug. 2014.
Activity III.5.2: Deltas reporting	Deltas report, intermediate by Sep. 2013, final by Oct. 2014.
Sub-component III.6: Analysis & reporting	
Activity III.6.1: River basin factsheets	River basin factsheets (intermediate by Sep. 2013, final by Aug. 2014).
Activity III.6.2: Data & information management	Website with indicator results (demo by June 2014, final by Dec. 2014).
Activity III.6.3: Cross-cutting analysis	Inputs to cross-cutting governance and socioeconomic report, by Dec. 2014.
Activity III.6.4: Integrated assessment	Systematic global assessment report on the state of transboundary river basins with provisional outlook projections (Interim Sept. 2013, final report Dec 2014)
Sub-component III.7: Sustainability	
Activity III.7.1: Design and establish periodic assessment framework	An agreed framework for a sustainable periodic assessment process, including a sustainable consortium of partners by Dec. 2014.
Sub-component III.8: Component coordination	
Activity III.8.1: Contract management	Signed contracts
Activity III.8.2: Meeting arrangement	Meeting minutes
Activity III.8,3: Component communication	Updated work plans

	Activity III.8.4: Progress / financial reporting	Quarterly Progress reports / Quarterly Financial reports
	Component IV Objective: To conduct a global comparative by	aseline assessment of LMEs through a formalised consortium of partners, and to establish a
	process for future periodic assessments of LMEs through form	nal partnerships with key institutions and linkage with regular assessment programmes.
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Activities	Objectively Verifiable Indicators		
Sub-component IV.1: Assessment of LMEs and the Pacific Warm Pool			
Activity IV.1.1: LME Thematic assessment	Indicator-based assessment of individual themes completed and results, including appropriate maps and associated data in agreed format, available within specified timeframe		
Sub-activity 1.1.1: Habitats	Habitat indicators quantified, report completed and data produced in agreed format		
Sub.activity 1.1.2: Pollution	Pollution indicators quantified, report completed and data produced in agreed format		
Sub-activity 1.1.3: Fisheries	Fisheries indicators quantified, report completed, and data produced in agreed format		
Sub-activity 1.1.4: Nutrients (with Rivers)	Nutrient indicators quantified, report completed and data produced in agreed format		
Sub-activity 1.1.5: Productivity/SST	Productivity and SST trends updated, report completed and data produced in agreed format		
Sub-activity 1.1.6: Socioeconomics	Socioeconomic indicators quantified, report completed and data produced in agreed format		
Sub-activity 1.1.7: Governance	Governance architecture of transboundary LMEs described and data produced in agreed format		
Sub-activity 1.1.8: Cumulative impact mapping/Ocean Health Index	Report with cumulative impact scores and maps and Ocean Health Index for each LME completed and data produced in agreed format		
Sub-activity 1.1.9: Ranking of LMEs	LMEs ranked according to ecological status based on the thematic assessments		
Sub-activity 1.1.10: Pilot Level 2 assessment- Bay of Bengal LME	Pilot level 2 assessment completed and report and data in agreed format produced		
Activity IV.1.2: Preparation of assessment products	Results of thematic assessments integrated into a single report, validated and peer-reviewed, and finalized for publication; data in agreed format uploaded on DIM system		
Sub-activity 1.2.1: Validation and peer review	Validation of assessment results and peer review of report completed		
Sub-activity 1.2.2: TWAP LME assessment report	Assessment report integrating results from all assessment partners, and other products finalized and published		
Sub-component IV.2: Sustainability of the LME assessment			
Activity IV.2.1: Establishment of a sustainable consortium of partners	Formal agreements signed with partners for their engagement in future LME assessments		

Sub-activity 2.1.1: Working Group coordination (meetings)	At least two working group meetings held within project timeframe		
Activity IV.2.2:Development of a framework for sustainability of the assessment process	Strategy and institutional framework for sustaining the assessment process prepared and agreed by all key stakeholders		
Sub-activity 2.2.1: Participation in stakeholders meetings (Regional Seas, Regular Process, LME consultation, etc)	Appropriate sub-project personnel participate in appropriate meetings to engage with stakeholders		
Sub-activity 2.2.2: Post-TWAP strategy for sustaining periodic assessment	Post-TWAP strategy for periodic LME assessments prepared, reviewed and approved by key partners		
Sub-component IV.3: Assessment Coordination			
Activity IV.3.1: Communication and information dissemination	Communication and information dissemination strategy implemented, including functional website and outreach material prepared		
Activity IV.3.2: Data and information management system	LMEs DIM system functional and integrated with the Open Ocean data infrastructure and linked to TWAP data platform		
Activity IV.3.3: Sub-project coordination	Delivery of all sub-project outputs within sub-project timeframe and budget		
Component V Objective: To undertake a global assessment of the open ocean through a formalized consortium of partners, highlighting global ocean			

Component V Objective: To undertake a global assessment of the open ocean through a formalized consortium of partners, highlighting global ocean environmental issues, their local environmental and human impact, and informing and influencing the development of thematic interventions through informed investments by the GEF and other international organizations, providing a baseline on which to monitor future progress.

Activities	Objectively verifiable indicators			
Sub-component V.1: Assessment of Open Ocean				
Activity V.1.1: Assembly of metrics and indices by theme	Below described in the adjusted OO methodology			
Sub-activity 1: Climate indices	Availability of the climate indices, indicators and metrics			
Sub-activity 2: Ecosystem indices	Availability of the ecosystem indices, indicators and metrics			
Sub-activity 3: Fisheries indices	Availability of the fisheries indices, indicators and metrics			
Sub-activity 4: Socioeconomic indices	Availability of the socio-economic indices, indicators and metrics			
Sub-activity 5: Cumulative mapping/OHI	Availability of the cumulative human impact/OHI products			
Sub-activity 6: Data and information management and interactive display system	Open ocean indicators website available, and data shared with TWAP DIM system			
Activity V.1.2: Expert assessment by theme				
Sub-activity 1: Climate assessment	Written report component on climate			

Written report component on ecosystems

Written report component on fisheries

Written report component on pollution and contaminants
Written report component on governance
Availability of the final assessment report and tailored communication products
Reports of the meetings
Report of strategy for TWAP OO to be recognized as a contribution to the UN World Ocean Assessment (Regular Process)
Quarterly operational and financial reports, OO Working Group meeting reports
economic aspects of all five transboundary water systems and provide an analysis of economic features of the human-environment interactions as a basis for a issues across them.
Objectively verifiable indicators
Membership and commitment to participate are documented in the minutes of Crosscutting Governance Correspondence Group
Data on governance architecture have been collected by all WGs and are available in a database

Sub-activity 2: Ecosystems assessment

Sub-activity 3: Fisheries assessment

Sub-activity 3: Support WG governance analysis	Data on governance architecture have been analysed by all WGs and results are available in TWAP Project reports
Sub-activity 4: Select linked water systems	Three to five linked water systems have been selected and the rationale for system selection description documented in minutes of the Crosscutting Governance Correspondence Group
Sub-activity 5: Acquire governance data on linked systems	Data on governance architecture in the selected linked systems have been collected, compiled and are available in a database
Sub-activity 6: Analyse governance data on linked systems	Data on governance architecture have been analysed by all WGs and results are available in TWAP reports
Sub-activity 7: Revise governance architecture methodology	Lessons learned in the assessment process and the revised governance assessment methodology documented in a TWAP report
Sub-activity 8: Cross-cutting governance assessment report	Validated, peer-reviewed report, data sets and methods uploaded in the web
Sub-component VI.2: Cross-cutting social and economic issues	
Activity VI.2.1 Assessment of crosscutting social and economic features of human populations dependent on transboundary waters	
Sub-activity 1: Establishment of a Crosscutting Socioeconomic Correspondence Group with membership from each of the five Working Groups	Membership and commitment to participate are documented in the minutes of Crosscutting Socioeconomic Correspondence Group
Sub-activity 2: Identification of input data products including population, and gross domestic product for baseline and projected scenarios	Data sources identified and data distributed to Working Groups in appropriate format
Sub-activity 3: Identification of core crosscutting socioeconomic indicators and harmonized methods of assessment	Agreements on core set of indicators and methods of indicator assessment documented through minutes of Crosscutting Socioeconomic Correspondence Group,
Sub-activity 4: Assessment of baseline crosscutting socioeconomic indicators	Crosscutting socioeconomic indicators assessed at basin level baseline conditions for each water system and ranked along a gradient of transboundary water-dependent vulnerability for each of the five water systems
Sub-activity 5 Assessment of projected crosscutting socioeconomic indicators	Crosscutting socioeconomic indicators assessed at basin level projected conditions
Sub-activity 6: Crosscutting Socioeconomics Assessment Report	Validated, peer-reviewed report, data sets and methods uploaded in the web

Component VII Objective: To organize and present core data and indication used in the assessment in a consistent way, tailored for the use by the TWAP stakeholders and to operate as an authoritative clearing house for transboundary water data and indicators.

Activities	Objectively verifiable indicators			
Sub-component VII.1 – Data and Information Management System				
Activity VII.1.1 – Data and Information management platform				
Sub-activity 1: Define a consolidated strategy for managing TWAP data and information	A consolidated strategy for managing TWAP data and information (document)			
Sub-activity 2: Review and harmonize data standards to facilitate data sharing	Data standards and exchange mechanisms are documented and endorsed by partners			
Sub-activity 3: Build, upgrade and integrate TWAP Data Platform/Portal	Single online access point to relevant data on transboundary water systems has been created and is operational, including mapping of TWAP indicators			
Sub-activity 4: Development of additional technical functionalities and services	TWAP Data Platform supports increasing number of functionalities and services			
Sub-activity 5: Ensure compatibility with other relevant data and information systems	The TWAP Data Platform is linked with the TWAP website and connected with IW:LEARN functionalities			
Activity VII.1.2 – Project website – Interactions with IW:LEARN				
Sub-activity 1: Development of project website	Project website has been developed			
Sub-activity 2: Training and technical support	Project website is maintained			
Sub-activity 3: Ensure compatibility and linking of TWAP Data Portal and IW:LEARN	Project website hosted by IW:LEARN and TWAP Data Portal are compatible and linked			
Sub-activity 4: Content development for TWAP Project website	Project website is up-to-date			
Sub-component VII 2 – Assessment reporting – communication and outreach				
Activity VII.2.1 – Publication and outreach				
Sub-activity 1: Publication of reports	Relevant assessment results and reports are published			
Sub-activity 2: Preparation of outreach material	Other relevant material has been prepared			
Sub-activity 3: Communication and launches	Assessment reports and outreach products are produced, launched and disseminated			

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).

Comment	Response
GEF Secretariat Review	·
STAP Scientific and Technical screening	
STAP welcomes this innovative and ambitious project to undertake a global assessment of transboundary water bodies. We note the extensive preliminary methodological work and commend the peer review process used to produce the publications developed during the predecessor Medium Size Project, Development of Methodologies for GEF Transboundary Waters Assessment, GEF ID 3342.	UNEP welcomes STAP's consent to this project and has taken into consideration during project planning the points raised in the STAP Advisory Response.
STAP further notes that the partnerships that have emerged, through which the TWAP project will develop the assessment, are appropriate and have the capacity to deliver the necessary work. While STAP is normally not called upon to comment on project resource allocation, the Panel wishes to point out the significant gap which exists between resources available and the needs identified. STAP also has serious concerns about the limited timescale available for the project, which appears to leave little room for more than one annual cycle of data capture, a strategy that appears to be high risk regarding achievement of an effective and useful set of baselines. Also in view of the reduced resources available, STAP suggests that the project consider reducing the coverage of resource systems, particularly removing the LMEs and the Open Oceans as the resources allocated to these are minimal and will likely not enable adequate work. The small funds allocated would be better given to improve the other resources, however, the timeframe is of greater concern on this project. Assessment experience would show that the order of 4 years is required to do an adequate job at this scale.	UNEP shares STAP's concern regarding "the significant gap which exists between resources available and the needs identified. STAP also has serious concerns about the limited timescale available for the project," but believes that the various partners have adjusted their goals and procedures to meet these significant limitations resulting from the limited GEF funds made available for this project. STAP's third point concerns the issue of the ownership of the assessment and its tools. UNEP is of the view that the assessment methodology is sufficiently robust and practical that it will be easily adapted to and adopted by smaller regional scale assessments as the need arises. Similarly UNEP believes that the issues of scale raised by STAP have been adequately addressed in the final project document which specifies the numbers of systems to be assessed.

Comment	Response
The PIF cites the lack of a Convention for the IW focal area and considers that if it were not for the GEF a global assessment would not attract resources. This raises the important question of ownership of such an assessment and its tools, given that at country level use of assessment tools depends upon the utility of data available and the capacity to use it. Also at country level, assessment needs may differ in needs from transboundary needs. Experience of creation and use of supra-national datasets for management of the Ramsar Convention on Wetlands, for example, appears to indicate that national contributors of data are not necessarily users of the resulting assessments. The project will need to be clear in determining national and supra-national policy and information needs.	
The PIF is vague on detail of the scale of the assessment issues, even though some of the necessary background materials were contained in the MSP TWAP reports e.g., nearly 13,000 TB lake basins in Africa alone.	
From a scientific perspective STAP has no doubt that the TWAP will be capable of making available credible tools for development of an assessment, but is concerned about the sustainability of the assessment and buy-in from GEF's constituency. There may be a need not only for scientific and policy champions of an assessment but also sufficient transboundary buy-in from countries that are to benefit from the assessment and future iterations. The Millennium Ecosystem Assessment (MA) employed sub-regional assessments to elicit greater connections to national science centers, however, one criticism of the MA has been that there may be a science-policy disconnect at this scale. In the PPG phase, the partners within TWAP should consider to what extent the previous GEF-4 Focal Area Strategy commitment to TWAP can translate into policy formulation for the GEF-6 Focal Area Strategy, based on the scientific findings of the project.	Concerning the sustainability of the assessment UNEP would point out that one of the two outcomes envisaged from this project is a formal series of agreements that put in places the necessary assessment architecture and partnerships that will assure the existence of a solid foundation for future assessments.

19 December 2012 - DRAFT 13 Comment Response Switzerland Comments- GEF Council- Feb 2012 (GEF GEF/IS/25) The objective of the proposed project is to undertake a global assessment of transboundary water bodies, through a formalised consortium of partners, to support informed investments by the GEF and other international organizations, and to be sustained through a periodic process in partnership with key institutions aiming at incorporating transboundary considerations into regular assessment programmes. The project design encompasses a global baseline assessment on five different types of transboundary water bodies, namely aguifers, lake basins, river basins, large marine ecosystems and open oceans. An additional project component targets data and information management, networking and monitoring. We acknowledge that the GEF Medium Sized Project (MSP) for a Transboundary Water Assessment Programme (TWAP) of 2009 and 2010 upon which this proposed project expands, has de-veloped and validated system and indicator-based assessment methodologies, and has established a consortium of partners ready to collaborate and share information toward such a global assessment. We also understand that without a global comparative baseline system assessment to determine priority transboundary concerns and priorities for investments, and to track the status of these water systems over time in order to determine whether they are exhibiting improvement or continuing degradation, the GEF and the international community risk spending their scarce financial re-sources in a manner that is not cost-effective. The PIF indicates a co-financing ratio with GEF funds of 1:4.8 which is in line with recommended ratios for GEF IW projects. The co-financing will come from the implementing agency UNEP and various project partners as in-kind contributions and grants. We agree with the STAP in welcoming this innovative and ambitious project. We also agree with the STAP's advisory

not enable adequate work.

response that the project should consider reducing the coverage of resource systems, particularly removing the large marine ecosystems and the open oceans as the resources allocated to these are minimal and will probably

Comment	Response
We also feel that the ownership of the global baseline assessment and by this, the concept for transferring it into an on-going periodic assessment, is not sufficiently clear. We see that GEF it-self could take this ownership role by taking the assessment results as strategic guidance for their future investment decisions.	
Carrying out the global assessment is a different task from developing the assessment methodologies. The robustness and comparability of the assessment results will depend on how far the necessary data collection is standardized, objective and time consistent. Some indicators, such as on detailed governance arrangements, while being of great scientific interest and indispensable for a detailed project design, might not be easily amenable for a robust, periodic and comparable global data collection. We suggest seeking for reduction potential in the foreseen indicator set with a view to facilitate a prompt and continual data collection. We also propose to reevaluate whether the foreseen Com-ponent 6 on data and information management is sufficiently funded and which institutional re-sponsibilities are best suited to assure a timely completion of this task.	UNEP recognises the concerns of the Government of Switzerland (which have been addressed during project preparation) regarding the need to standardise data collection and ensure consistency over time. In response it should be noted that the indicators selected and tested to date have been deliberately selected with these concerns in mind. Every attempt has been made to ensure that the methodology is clear and transparent and that the indicators are robust. In terms of data collection and management each component has included resources required for data collection, validation and subsequent management in such a manner as to be easily melded into a single data portal to be managed by Grid Geneva. Some flexibility has been incorporated into a number of the components to ensure that where data and information are found to be lacking alternative indicators can be adopted.
To foster periodic updating and public perception, linkage to other global water assessments should be sought, particularly with the World Water Development Report.	The present programme has been linked to, and indeed is dependent in some instances on the collaboration of various water assessments programmes and their host institutions and agencies. The full list of (i) lead organisations (6); (ii) core partners (18); (iii) thematic partners (40); and (iv) Data/Expertise Providers (68) is presented in the Table 2 of the project document. Short summaries for lead organisations and core partners are also presented, with additional information relating to some key entities serving as regional, or thematic partners and major data providers. The programme is linked to the World Ocean Assessment (UNGA Regular Process for Global Reporting and Assessment on the State

Comment	Response
	of the Marine Environment) in the case of the marine components and the World Water Assessment Programme and the World-wide Hydrogeological Mapping and Assessment Programme in the case of freshwater.
We recognise the importance of the targeted ecosystems, their transboundary character, the relevance of the project objectives and their consistency with GEF strategies and strategic pro-grams. We recommend continuing with project preparation while taking into account the issues raised above.	
France Comments- GEF Council- Feb 2012 (GEF GEF/IS/25)	
The project aims at undertaking a global assessment of transboundary water bodies. It concerns aquifers, lake basins, river basins, large marine ecosystems and open ocean. We globally support the proposal, but we think that the project should consider these two points: • The project covers a too broad spectrum (subjects, geographic areas) with regards to the limited time available, in particular as it is based on a very great number of partnerships; • Who is the project for? One issue is also the local ownership, which means that data produced by the national contributors for the project must be consistent with data used at national level.	As noted above the project is based on the agreement to participate of over 120 Institutions, organisations and programmes. Whilst UNEP recognises the complexity of the task of managing this network, it is nevertheless confident that within the project time frame of 24 months a solid formal network can be established. One of the planned outputs of the project is the formalisation of the network of organisations, institutions and programmes in order to provide a solid institutional infrastructure from which to undertake future assessments.
Opinion: favourable	

ANNEX C: CONSULTANTS TO BE HIRED FOR THE PROJECT USING GEF/LDCF/SCCF/NPIF RESOURCES

Position Titles	\$/ Person Week*	Estimated Person Weeks**	Tasks To Be Performed		
For Project Management					
Project Manager	2,885	96	Overall coordination and management of the project through the work of the PCU.		
For Sub-Projects Managemen	t				
Local					
Component 1 - Regional coordinators	500	360	Coordinate the execution of the assessment at the regional level		
International					
Component 1 - Project Coordinator	1,250	64	Coordinate the TBA and SIDS assessment, including liaison with all partners and Implementing Agency		
Component 2 - International Consultant (Coordinator)	1,667	24	In cooperation with local project manager, develop and coordinate transboundary lake basin expert group meetings, and ensure ILBM assessment protocol is properly implemented, results analyzed and appropriately reported;		
Component 3 - International consultants (Assessment coordination)	2,097	31	Coordinate the assessment of transboundary river basins including liaison with all partners and Implementing Agency		
Component 4 - Project Coordinator	2,500	8	Project coordination and progress reporting		
Component 5 - Coordination within component activities	2,500	10	Project co-ordination and reporting		
Component 5 - Coordination of cross-component activities	2,500	8	Coordination of cross-component activities		
Justification for travel, if any: For Technical Assistance	N/A				
Local					
Component 1 - Local consultants for TDA and SIDS assessment	500	220	Collect existing data and information at the national/regional level		
Component 2 - Local Consultants	781	64	In cooperation with international consultant, provide needed expertise in application of ILBM assessment protocol and interpreting results, and identify and prioritize transboundary lake basins at risk.		
Component 4 - DIM system expert	1,250	12	Assist with development of DIM system		
International					
Component 1 - Senior advisor	1,000	70	Provide advice and guidance throughout the execution of the assessment, and to the establishment of a mechanism for periodic follow-up assessments		
Component 1 - Communication and outreach officer	758	33	Prepare the project communication strategy and disseminate results		

Component 2 - International Consultants	2,352	52	Assist in developing transboundary lake basin case studies and interpreting results, and develop reports of hydrologic linkages, prioritization procedure, and defining 'transboundary' lake basins, including the assessment and management implications.	
Component 3 - Senior Advisor	2,800	25	Support sub-project implementation	
Component 4 - Technical expert (coordinator)	2,500	16	Assist with validation and peer review, preparation of post-TWAP strategy, assessment report preparation	
Component 4 - Socioeconomic expert	2,500	8	Provide socioeconomic indicators, assessment, reporting	
Component 4 - Pollution expert	2,500	12	Coordinate pollution assessment and reporting	
Component 4 - Oceanography expert-1	2,750	2	Update time series of sea surface temperature, assessment, reporting	
Component 4 - Oceanography expert -2	2,500	13	Update time series of primary productivity and chlorophyll a, assessment, reporting	
Component 5 - Communications expert	2,000	35	Support scientific experts in writing assessment result ways effective for target audience, communication of results	
Compontne 5 - Publications expert	2,000	4	Visual communication support material	
Component 5 - Scientific review expert - climate	2,500	15	Desktop review article on high uncertainty / potentially high impact issues in climate	
Component 5 Scientific review expert - ecosystems	2,500	15	Desktop review article on high uncertainty / potentially high impact issues in ecosystems	
Component 5 - Socioeconomic expert	2,500	8	Provision of socioeconomic indicators	
Component 5 - Pollution expert	2,500	4	Coordination of updating of GESAMP report on open ocean pollution issues	
Component 6 - Socioeconomic expert	2,500	16	Coordination of Socioeconomic correspondence working group and preparation of reports	
Component 6 - Governance expert	2,500	24	Coordination of governance correspondence working group and preparation of reports	

^{*} 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.

The PPG activities were designed to help elaborate the PIF into a Project Document. Two face to face meetings were held following the approval of the the Project Preparation Grant (PPG). The first meeting to launch the activities for PPG was held 3-4 May 2012, UNESCO Headquarters, Paris, France and the second and final meeting was held back to back with the GEF International Waters Science Conference (GEF-IWSC-2012) on 27 September 2012 in Bangkok, Thailand to review inputs submitted by the Component Coordinators and the Consultants, determine the remaining activities and, as appropriate, reach final agreement on the work plan to finalize the UNEP Project document and CEO endorsement package. Both meetings were attended by key project partners including the implementing agency, executing agencies, GEF Secretariat and selected consultants. The following specific activities were undertaken during the preparatory phase: 1) Partnership modalities- A protocol to codify partners contributions and related co-financing has been prepared; 2) Adjustment of methodologies and indicators as well as the scaling down to level one assessment only for all the five main componennts; 3) Data and information management system component was prepared to organize and present core data and indicators used in the assessment in a consistent way, tailored for the use by the TWAP stakeholders and to operate as an authoritative clearing house for transboundary water data and indicators. 4) A periodic assessment process - all the components have included a framework and modalities to make TWAP a periodic and sustainable assessment process including buy-in by the GEF constituency and from countries which will benefit from the assessment process and its successive iterations, and building on existing regular assessement mechanisms. 5) Institutional arrangement for the FSP - Monitoring and Evaluation process- a detailed project organigram and decision flow chart outlining the role and responsibilities of the different project partners and execution arrangement mechanims including related Terms of Reference has been prepared and included in the project documentation. In addition there is monitoring and evaluation arrangements for the project, including a detailed project management and result framework with SMART indicators and detailed financial breakdown of GEF and non GEF resources.

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:

		GEF	GEF/LDCF/SCCF/NPIF Amount (\$)			
Project Preparation Activities Approved	Implementation Status	Amount Approved	Amount Spent Todate	Amount Committed	Un- committed Amount*	Co- financing (\$)
Partnership modalities	Completed	31,000	31,000	31,000	0	60,000
Review and refinement of the 5 MSP assessment methodologies	Completed	24,000	24,000	24,000	0	50,000
Data and	Completed	10,000	10,000	10,000	0	30,000

information management system						
FSP/CEO documentation preparation	Completed	75,000	75,000	75,000	0	100,000
PPG coordination consultation	Completed					60,000
	(Select)					
	(Select)					
	(Select)					
Total		140,000	140,000	140,000	0	300,000

^{*} 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 (if non-grant instrument is used) - N/A

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