



**PROJECT IDENTIFICATION FORM (PIF)<sup>1</sup>**

**PROJECT TYPE: Full-sized Project**

**TYPE OF TRUST FUND: GEF Trust Fund**

**PART I: PROJECT IDENTIFICATION**

Project Title:	Integrated adaptive management of the West Bering Sea Large Marine Ecosystem in a Changing Climate		
Country(ies):	Russian Federation	GEF Project ID: <sup>2</sup>	
GEF Agency(ies):	UNDP (select) (select)	GEF Agency Project ID:	4485
Other Executing Partner(s):	UNOPS	Submission Date:	September 2011
GEF Focal Area (s):	International Waters	Project Duration(Months)	48 months
Name of parent program (if applicable): ➤ For SFM/REDD+ <input type="checkbox"/>	GEF-Russian Federation Partnership on Sustainable Environmental Management in the Arctic (“Arctic Agenda 2020”)	Agency Fee (\$):	288,990

**A. FOCAL AREA STRATEGY FRAMEWORK<sup>3</sup>:**

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Indicative Financing from relevant TF (GEF/LDCF/SCCF) (\$)	Indicative Cofinancing (\$)
IW-3 (select)	Political commitment, shared vision, and institutional capacity demonstrated for joint, ecosystem-based management of waterbodies and local ICM principles	National inter-ministry committees established; Transboundary Diagnostic Analyses & Strategic Action Programmes; local IWRM or ICM plans	3,051,000	9,000,000
Project management cost <sup>4</sup>			160,000	800,000
<b>Total project costs</b>			<b>3,211,000</b>	<b>9,800,000</b>

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

<sup>2</sup> Project ID number will be assigned by GEFSEC.

<sup>3</sup> Refer to the reference attached on the Focal Area Results Framework when filling up the table in item A.

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

**Project Objective: Sustainable and integrated ecosystem-based management of the West Bering Sea Large Marine Ecosystem in the context of climatic variability and change**

Project Component	Grant Type (TA/INV )	Expected Outcomes	Expected Outputs	Indicative Financing from relevant TF (GEF/LD CF/SCCF) (\$)	Indicative Cofinancing (\$)
<p>1. State of the WBS LME within the framework of the 5 LME modules of productivity, fish and fisheries, pollution and ecosystem health, socioeconomics, and governance</p>	<p>TA</p>	<p>Mutually agreed priority transboundary issues of the WBS LME, their immediate and root causes’.</p> <p>Better understanding of the functioning of the WBS LME and its major problems.</p> <p>Understanding of the climate change impact on the functionality of the WBS LME</p> <p>Identify key knowledge gaps for ecosystem based management of the WBS LME and local ICM plans.</p>	<p>A multi-country technical/scientific assessment (TDA) of TB priority issues, immediate and root causes.</p> <p>A West Bering Sea specific geospatial database within the framework of the 5 LME modules and climatic data</p> <p>Strengthened joint collaborative long term monitoring system of changes in the WBS ecosystem. (co-financing)</p> <p>Ecosystem modelling to forecast changes in species composition and distribution due to changing climate.</p> <p>Scientifically sound Climate change scenarios for the Arctic including potential impacts on the marine living resources and coastal zone.</p>	<p>600,000</p>	<p>1,400,000</p>
<p>2. National and regional, sustainable and integrated ecosystem-based management of the WBS LME and its coastal zone in a changing climate</p>	<p>TA</p>	<p>Appropriate governance reforms (policy, legal, institutional reforms) to address priority TB issues.</p> <p>Improved National inter-sectoral coordination for the sustainable use and management of WBS LME resources and its coastal zone</p>	<p>Multi-country regional Strategic Action Programme for the management of the WBS LME resources and coastal zone.</p> <p>Targeted on the ground regional demonstration projects with relevant budgets and time frame (developed in line with the Russian Arctic NAP)</p> <p>Functioning National Inter-</p>	<p>500,000</p>	<p>1,800,000</p>

		<p>Improved national capacities to increase level of bilateral inter-governmental cooperation and coordination in WBSLME management and assessment</p> <p>Proposal on regional joint management framework for the shared WBS LME.</p>	<p>ministerial Committee.</p> <p>National level policies incorporating ecosystem based management approaches and ICM, new regulations and standards.</p> <p>Sustainability mechanisms to support joint long-term assessment and management of the WBS LME.</p> <p>Public and stakeholder participation mechanisms at national and international level to inform and catalyze decision-making processes.</p>		
3. Targeted demonstration projects.	TA	<p>Innovative solution for the safety of navigation and prevention of environmental degradation from maritime transport in the Bering sea and Bering straits.</p> <p>Innovative approaches for cooperative management of shared resources and coastal zone under the CC scenarios</p> <p>Increased public environmental awareness and education on key environmental issues and adaptation to climate change</p>	<p>Pilot Marine Electronic Highway Bering sea and Bering straits.(jointly with IMO)</p> <p>Sub-regional and local/coastal fisheries management demos, involving key stakeholders including indigenous people and coastal populations</p> <p>Integrated Coastal Zone Management pilots, involving key stakeholders including indigenous people and coastal populations.</p> <p>Environmental awareness and education programs for indigenous people and coastal populations</p>	1,701,000	5,400,000
4. Learning and Knowledge Management	TA	<p>Best practice and experiences shared with similar LME projects, adding to the GEF IW portfolio on LMEs</p>	<p>Transfer of lessons, experiences and best practices with other LME projects through IW:LEARN3 and LME/ICM COP.</p> <p>Functioning website consistent with iwlearn guidance.</p> <p>Participation in IW:LEARN-3 activities and the LME/ICM COP.</p>	250,000	400,000

Project management Cost <sup>5</sup>	160,000	800,000
<b>Total project costs</b>	<b>3,211,000</b>	<b>9,800,000</b>

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

Sources of Cofinancing for baseline project	Name of Cofinancier	Type of Cofinancing	Amount (\$)
National Government		In kind	3,300,000
National Agency	NOAA	In kind	6,200,000
Private sector		(select)	TBD
GEF Agency	UNDP	In kind and cash	300,000
Multilateral agency	IMO	in kind	TBD
(select)	WWF	In kind	TBD
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
<b>Total Cofinancing</b>			<b>9,800,000</b>

**C. GEF/LDCF/SCCF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY<sup>1</sup>**

GEF Agency	Type of Trust Fund	Focal area	Country name/Global	Project amount (a)	Agency Fee (b) <sup>2</sup>	Total c=a+b
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
<b>Total Grant Resources</b>				<b>0</b>	<b>0</b>	<b>0</b>

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

<sup>2</sup> Please indicate fees related to this project.

**PART II: PROJECT JUSTIFICATION**

**A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:**

**A.1.1 THE GEF FOCAL AREA STRATEGIES:**

Under the GEF-5 Focal Area Strategies for International Waters, the Project is fully in line with **GEF strategic objective IW-3**: “Support foundational capacity building, portfolio learning, and targeted research needs for joint, ecosystem-based management of transboundary waters systems”. The project will meet the GEF IW-3 expected outcomes by (i) Agreeing on priority transboundary concerns of the WBS LME through a multi-country technical/scientific assessment (TDA equivalent) identifying priority issues, and their immediate and root causes; (ii) Identifying knowledge gaps and improving understanding of the state of the LME’s functioning and in the context of climate change, through

<sup>5</sup> Same as footnote #3.

predictive ecosystem modelling, long-term monitoring (e.g. RUSALCA) and knowledge sharing (e.g. geospatial database); (iii) Catalyzing national and bilateral inter-governmental cooperation and coordination for sustainable and adaptive LME and integrated coastal management through governance reform, the formulation of a multi-state West Bering Sea-specific SAP and the establishment of a national inter-ministerial committee; (iv) Demonstrating and implementing innovative measures through targeted pilot projects, promoting cooperative resource management and safeguarding ecosystem productivity in the context of climate change and variability; and (v) Contributing to the GEF IW portfolio through knowledge sharing with other LME projects through IW:LEARN-3, and participating and coordinating with IW:LEARN-3 activities and the LME/ICM COP.

**A.1.2. FOR PROJECTS FUNDED FROM LDCF/SCCF: THE LDCF/SCCF ELIGIBILITY CRITERIA AND PRIORITIES:**

**A.2. NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSMENTS UNDER RELEVANT CONVENTIONS, IF APPLICABLE, I.E. NAPAS, NAPS, NBSAPS, NATIONAL COMMUNICATIONS, TNAS, NIPS, PRSPs, NPFE, ETC.:**

The SAP for Protection of the Russian Arctic was developed under the Russian NPA-Arctic Phase I Project and was approved by the Maritime Board at the Government of the Russian Federation, setting the goals, tasks, principal activities and targets in the area of protecting the Russian Arctic environment for the period up to 2020, including the prevention and abatement of the environmental pollution, preservation and improvement of the quality of environment and conditions for traditional nature use by indigenous people of the North, and the prevention and reduction of negative consequences of natural and human-caused disasters, including those caused by global climate change. Through analyses and gap-filling exercises, the proposed project will identify key activities to be undertaken in the WBS LME and strengthen institutional capacity through joint regional interventions which are in line with those identified and implemented under the Russian NPA.

The Russian-American Long-term Census of the Arctic (RUSALCA) was a collaborative effort between the Russian Federation and the USA towards joint long-term exploration and scientific research in the Arctic Sea regions, covering both the Bering and Chukchi Seas. The Programme commenced in 2004 and stemmed from the 2003 Memorandum of Understanding for World Ocean and Polar Regions Studies between NOAA and the Russian Academy of Science. RUSALCA's principal aim was to monitor the biological, geological, chemical and oceanographic characteristics of the Bering and Chukchi Seas to establish benchmark information about the region's environmental parameters as well as the distribution and migration patterns of the region's biota in the light of future climate change and variability.

The four-year Marine Electronic Highway (MEH) Programme was first demonstrated by the IMO and GEF in the Straits of Malacca and Singapore in 2006<sup>6</sup>. The programme's main development objectives were to increase the efficiency of marine transport through the Straits, reduce its negative environmental impacts, and strengthen the conservation and management of neighbouring marine and coastal environments. The project had 7 strategic components to address these objectives: (a) Establish the MEH and demonstrate its technical functionalities on navigation safety and marine environment protection for the Straits of Malacca and Singapore; (b) Facilitate the integration of marine environment systems and data flow and information exchange through the MEH system; (c) Develop the operational and administrative mechanisms for the sustainable management of the MEH system; (d) Evaluate the financial, social and economic benefits and legal issues of the MEH system; (e) Promote awareness and participation of relevant stakeholders to support the MEH system; (f) Strengthen national and regional capacity in maritime safety and marine environment protection for the sustainable management of the MEH system; and (g) Implement transitional activities to develop the first phase MEH Full-scale Development Project and assess the feasibility of establishing the second phase MEH system extending to other sea areas in the East and West of the Straits. The program would thus generate coastal development and environmental benefits for the littoral states;

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<sup>6</sup> The concept of a marine electronic highway (MEH) was initiated in Canada in the early 1990s with the application of digital technology to navigation, particularly in the development of electronic navigational charts and the Electronic Chart Display and Information System (ECDIS).

global environment benefits by reducing the pollution of shared marine water bodies; and economic benefits for the international shipping industry and their billions of customers. In the WBS LME increasing trends in the reduction of sea-ice makes the Arctic region more accessible to a range of shipping activities, from cruise liners to commercial vessels. It is therefore proposed that the project will incorporate a MEH Pilot Programme, providing an innovative solution for the safety of navigation and prevention of environmental degradation from maritime transport in the Bering Sea and Bering Strait.

Through its Marine Programme, WWF Russia is involved with local communities and the fishery sector, including coastal fishing enterprises, regional fishery councils and large industries such as the Alaska Pollock Catchers Association and Kamchatka salmon coastal fisheries, to promote the introduction of responsible fishing practices and ecosystem-based fisheries management (including the reduction by-catch and improvement of operational practices) and to combat Illegal Unreported and Unregulated (IUU) fishing. WWF Russia's Marine Programme agenda is fully in line with the objectives of the fishery component of the WBS LME project. Synergies with WWF programme will be explored during the PPG.

## **B. PROJECT OVERVIEW:**

### **B.1. DESCRIBE THE BASELINE PROJECT AND THE PROBLEM THAT IT SEEKS TO ADDRESS:**

The first UNDP project in the area was initiated in 1999, \$30,000 were invested in the development of the North Pacific Transboundary Fisheries Stock Conservation and Sustainable Management project, unfortunately the FSP project was not approved due to lack of GEF resources at that time.

In 2001-2003 UNDP financed with TRAC a preparatory assistance project (\$28,000). "Sustainable Socio-Economic Development with Indigenous People of the Russian North, Siberia and Far East." The objective of the preparatory assistance project was to prepare an integrated capacity building programme that will contribute to the sustainable socio-economic development of the indigenous communities in the Russian North, Siberia and Far East. The programme was build upon existing experiences of UNDP Russia and within the UNDP network as well as on cooperation with the Russian indigenous people associations (RAIPON and its regional organisations) and international donor community. The preparatory project has delivered the following outputs: Completed analysis of socio-economic environment in the Russian Arctic related to indigenous peoples; analysis of the indigenous livelihoods and potential development options; analysis of the development barriers; draft project document with the Russian Ministry of Economy.

In 2008-2009 UNDP financed (\$50,000) through the Bratislava Regional Centre a study and publication "Integrated climate change strategies for sustainable development of Russia's Arctic regions. Case study for the Murmansk Oblast". This was a scoping study to introduce TACC concept. This publication proposes broad approaches to CC analysis and adaptation in the Arctic for the various sectors including fishery and maritime transport and will be used during the preparation of the pre-TDA for the FSP.

UNDP Russian CO has co-financed the Kamchatka biodiversity conservation portfolio (Bering Sea basin) in the amount of \$50,000: conservation of wild salmon biodiversity, salmon fishery research and management, coastal biodiversity conservation. UNDP also mobilized substantive co-financing to the GEF-funded Kamchatka projects from CIDA (\$4 mln) and UNF/Moore Foundation (\$180,000).

In 2004, project "RUSALCA" started between NOAA and the Russian Academy of Science. The project principal aim was to monitor the biological, geological, chemical and oceanographic characteristics of the Bering and Chukchi Seas to establish benchmark (baseline) information about the region's environmental parameters as well as the distribution and migration patterns of the region's biota in the light of future climate change and variability.

As a follow up of this collaborative effort NOAA, Government of Russian Federation and UNDP are providing substantive financing to this baseline project in light of their long standing partnership in managing the LMEs of the world.

The NOAA Alaska Fisheries Science Center will provide up to \$1,2 million to the baseline project in order to support joint Russia-USA surveys of the West Bering Sea ecosystem on productivity, fisheries, oceanography, fish stock assessment, pollution and ecosystem health, socioeconomic impacts and governance practices analysis, UNDP will provide up to \$50,000 cash and \$50,000 in-kind on the development of the pre-TDA assessment of the status of the WBS ecosystem and organization of the bi-national scientific symposium to share state of the art info on status of the ecosystem as expert input to the TDA process under the FSP.

A firm scientific basis is essential in developing options for mitigating and adaptive actions during the present period of global warming. The LME approach recommends a baseline of information at the LME management scale of changing states of productivity, fish and fisheries, pollution and ecosystem health, and socioeconomic and governance conditions. This time-series information provides for assessment of the extent of overfishing, nutrient over-enrichment, habitat loss, and the progressive warming rates of surface water in LMEs around the globe, against which the success of climate change mitigation and adaptive actions to advance sustainable development of marine goods and services can be measured.

The activities supported jointly by NOAA and UNDP under the baseline project, together with the existing bilateral cooperation of the two countries will form as strong scientific basis for the proposed GEF intervention. The proposed GEF project will therefore aim to extend spatial and temporal measurements compatible with the baseline project to continue to monitor ecosystem status and change in order to inform on the adaptive approach in the sustainable, ecosystem-based management of the WBS LME.

UNDP will also ensure the information flow and best practices exchange between the proposed project and other LME GEF and non-GEF supported interventions through the UNDP financed Water Wiki portal and GEF IW:Learn project.

The WBS LME is a highly productive and species-rich region situated off the northeast coast of the Russian Federation opposite Alaska (US territory), that encompasses the Russian Exclusive Economic Zone (EEZ) and the intensely exploited international waters of the deep Aleutian Basin. The WBS LME supports 450 species of fish, crustaceans and molluscs, many of which are commercially important, a variety of sea birds, 25 species of marine mammals (e.g. polar bears, whales, walrus and sea lions), including the endangered Steller sea lion, estimated at 27,000 including pups in the 1960s, most of which were in the Kuril Islands. The fewest number of Steller sea lions occurred in the northwestern Pacific in the late 1980s and 1990s when only about 13,000 individuals, including pups, were estimated in the entire region. During the 1990s, especially in early 2000, an increasing trend in abundance occurred in most areas. Present estimated abundance of Steller sea lions in Asia is about 16,000 individuals (including about 5,000 pups) about half of which occur in the Kuril islands. The formation and extent of seasonal sea-ice is the key physical factor driving both the high levels of primary production and the life cycle of many marine species, and hence is the major factor determining the productivity of the entire LME.

The magnitude and nature of the WBS LME's biological productivity has provided for both indigenous and non-indigenous communities living in the region's coastal and inland settlements for over 200 years. However, this important ecosystem is now showing signs of stress, which include declines in fishery yields, marine mammals and seabird populations, increased levels of contaminants in the coastal waters, sediments and bio-accumulated in the food chain, and a reduction in the cover of seasonal sea ice. The observed changes in the ecosystem threaten the productivity and biodiversity of this ecosystem and hence the livelihoods, food security and health of the communities that have

remained dependent upon these resources for generations. The purpose of the proposed project is to achieve sustainable and integrated ecosystem-based management of the WBS LME whilst taking into account the increasing need for adaptation to climate change and variability. The project will aim to meet this through identifying the priority concerns affecting the LME's status as well as their underlying root causes, and by integrating these in a national ecosystem-based management framework founded on regional and bilateral coordination and cooperation.

A preliminary assessment of the main threats in the WBS LME<sup>7</sup>, using the modular LME approach (productivity, fish and fisheries, pollution and ecosystem health, socioeconomics, and governance), allowed for the identification of three major perceived problems and issues: (a) decline in commercial fish stocks and unsustainable harvesting of living marine resources; (b) degradation of the quality of marine and coastal environment from land-based and increasingly maritime sources; and (c) uncertainty regarding ecosystem status due to climate change and variability, with secondary effects on fisheries production, increased exposure to persistent toxic substances (PTS) and the socio-economic status of coastal communities.

(a) Decline in commercial fish stocks and unsustainable harvesting of living marine resources: The living marine resources in the WBS LME have been exploited over the past 200 years through commercial whaling, sealing, and fishing by fleets from Russia, the United States, Canada, Japan, (and in recent decades Poland, Korea, Taiwan, and China). Previously, the Bering Sea accounted for between 2 to 5% of global fish (Alaska pollock, Pacific cod, pink and chum salmon, Pacific herring, yellow fin sole, rockfishes, various halibuts and flounders) and shellfish (red king crab, commander squid and shrimps) production and provided the world's largest fish biomass of Alaska pollock and Pacific cod. Although there is a lack of transparency in Russian catch statistics, there are indications that catch levels for some major commercial species in the WBS are unsustainable. Pollock stocks of the WBS in particular have been in decline since the mid-1990s; this same situation is reflected in the international waters of the Aleutian Basin, where the pollock fishery collapsed in 1992 and has not yet recovered, despite a moratorium which has been in place for 18 years<sup>8</sup>.

Some of the factors underpinning the decline in commercial stocks of the WBS LME include: (i) Over-harvesting, due to ineffective management and overcapacity related to continued modernization of Russian and foreign fishing fleets; (ii) Illegal fishing, which is especially the case for Alaska pollock and wild salmon<sup>9</sup> and implies substantial profit-loss for state-run fisheries. It should be mentioned, however, that significant progress has been made through international measures (e.g. the Russian Federation is signatory to the FAO's Port State Measures Agreement, as well as the EU's IUU fishing regulation); and (iv) High levels of by-catch and discarding of seabird, mammals and non-targeted or under-sized fish. For some major commercial species, there is a lack of transparency with regards to fisheries stock assessments and little is known about the accuracy and consistency of the data used for the establishment of fishing quota. In addition, discrepancies between Russian and US fishery regulations, highlight the need for an institutional framework engaging North Pacific nations in cooperation on fisheries management<sup>10</sup>. While progress is being made as a result of international measures and increasingly stringent market requirements (e.g. MSC eco-certification through the Russian Pollock Fisheries Improvement Project (FIP) Partnership), non-compliance and over-exploitation still occur. Furthermore, while some single fisheries may appear to be sustainably fished, a holistic ecosystem-based management approach should be adopted and implemented to safeguard the productivity of the WBS LME as a whole.

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<sup>7</sup> The evaluation was based on previous transboundary assessments, including the Russian-American Long-Term Census of the Arctic (RUSALCA), the Arctic Climate Impact Assessment (ACIA, 2004), and the Arctic Council initiatives AMAP, ACAP and PAME.

<sup>8</sup> Burnett, M. et al. 2008. Illegal fishing in Arctic waters. Catch of today – gone tomorrow? WWF International Arctic Programme, Oslo, Norway. 52 pp.

<sup>9</sup> In the years 2003–2005, the average quantities of annual IUU catches of Russian sockeye salmon were estimated to range from 8000 to 15000 tonnes, representing a value of US\$40–74 million and demonstrating that actual catches are 60–90% above reported levels.

<sup>10</sup> A number of international cooperation bodies do exist, although these are limited in scope and potential; these are the North Pacific Anadromous Fish Commission (NPAFC) and The Convention on the Conservation and Management of the Pollock Resources in the Central Bering Sea.



The adoption of such an ecosystem-based approach is of particular importance considering the effects of unsustainable harvesting on ecosystem resilience, due to the alteration of functional pathways and food availability for top predators. The livelihoods of the indigenous populations, for whom the traditional economy is based on subsistence harvesting of fish and marine mammals, are also increasingly threatened by overfishing. Furthermore, the decline of fish stocks has repercussions on employment and profit of local fishermen, resulting in increased migration into cities. One of the key outcomes of the proposed project will therefore be the development of a multi-country regional Strategic Action Programme (SAP) outlining the necessary measures for integrated and ecosystem-based management of the WBS LME and promoting the establishment of a regional, joint management framework for the LME. Furthermore, best practice in ecosystem-based fisheries management will be demonstrated through a number of targeted pilot projects implemented in cooperation with WWF Russia (to be further developed during the PPG)

(b) Degradation of the quality of marine and coastal environment from land-based and marine sources: Pollution in the WBS LME is primarily related to land-based sources, oil and gas exploration and maritime transport, and the long-range transboundary transport of PTS via atmospheric and oceanic pathways. The contamination resulting from these activities has led to rising levels of PCBs, DDT, Dioxins and heavy metals in sediments, sea-ice, marine organisms and humans. The increased levels of contaminants combined with habitat loss, degradation or destruction, has amplified the pressure on populations of some already vulnerable species, (e.g. the Steller sea lion, White-Winged scoter, and polar bear). The bioaccumulation of such contaminants in commercial fish stocks, including salmon, plaice, cod and pollock, poses a further threat to fishery yields and profits, which has implications for employment and economic well-being, and is likely to affect both the commercial fishers and the indigenous populations.

With climate warming and receding sea ice, oil and gas activities as well as ship transport are likely to increase. In addition to the risk from oil spills (accidental, operational or by illegal dumping), shipping activities are also associated with the risk of introducing alien species through ballast water releases or from ship hulls. Oil and gas exploration in itself may result in discharges of drilling chemicals, oil spills, pipeline leaks and physical destruction of benthic habitats such as deep-water coral reefs and kelp forests (“blue forests”).

Some of the aforementioned issues are being or have been addressed by a number of international initiatives<sup>11</sup>. However, with regards to the WBS LME, there is a lack of a coordinated and strategic approach to tackle these anticipated concerns in the context of ecosystem-based management and adaptation to climate change.

(c) Climate variability and change: The Arctic is highly vulnerable to climate change. Seasonal sea ice supports primary productivity, provides a critical habitat for a number of marine mammals (e.g. breeding and feeding grounds), and exerts a major influence on the distribution patterns of numerous commercially important fish species. Although the extent of sea-ice cover within the Arctic has been marked by inter-annual and inter-decadal fluctuations, thick multi-year sea ice has decreased by 35 percent in the last five years and observations and models indicate that the ongoing changes in the global climate will potentially result in an ice-free Arctic Ocean during summer by 2040. This trend is likely to imply changes in seasonal distribution, ranges, migration patterns, nutritional status, reproductive success and ultimately the species composition and ecosystem structure of the LME. Furthermore, increases in sea-ice melting rates result in pulse releases of contaminants captured in the ice over multiple years.

Continued sea ice reductions are likely to lengthen the navigation season in the WBS LME and increase access to the Arctic region’s natural resources by activities such as oil and gas exploration, tourism and commercial fishing. Not only will these activities put further pressure on the resources of

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<sup>11</sup> The project “Russian Federation: Support of the National Programme of Action for the Protection of the Arctic Marine Environment (Russian NPA-Arctic - Phase I)” has been implemented by the Government of the Russian Federation in partnership with UNEP/GEF. The 2nd phase of this project “Phase II of the Russian NPA-Arctic” is anticipated to commence in January 2011 and will focus on public-private partnerships models and investments for environmental rehabilitation of “hot spots” and clean-up projects.

LME, but also increase the likelihood of operational and accidental pollution, especially in the light of increasing climate variability and extreme weather conditions. In order to address these concerns, the proposed project intends to pilot a Marine Electronic Highway for the Bering Sea and Bering straits, in cooperation with the IMO and focusing on the adoption of new technologies and management systems to enhance navigational safety and minimize pollution risk. Finally, another predicted consequence of climate change is ocean acidification caused by anthropogenic emission of CO<sup>2</sup>. While the long-term effects of ocean acidification are still relatively uncertain, it is an emerging problem which may have significant impacts on the WBS LME in the future and should therefore be incorporated into an ecosystem-based management framework.

Overall, there is still much uncertainty about the extent and nature of the impacts climate change will have on the WBS LME and the Arctic region as a whole. While existing data and predictive modelling may provide some guidance, ongoing monitoring and regional cooperation and coordination will be crucial in understanding and addressing climate change impacts on the LME's functioning and status, as well as the socio-economic implications which include infrastructure protection, transportation and community resilience. A vital part of this process will be the adoption of innovative approaches for cooperative management of shared resources. The proposed project will enable this through sub-regional and local/coastal resource management demos, involving key stakeholders including indigenous people and coastal populations.

The future health and productivity of the West Bering Sea Large Marine Ecosystem, and hence the food security, well-being, and socio-economic development of the indigenous peoples and coastal communities that are reliant upon its resources, are dependent upon restoring ecologically sustainable conditions within the LME and maintaining these in the context of anticipated climate change and variability. The proposed project will promote broad stakeholder participation at national and international level, and build upon and coordinate with existing initiatives to create a bilateral cooperative framework for the integrated, adaptive and ecosystem-based management of the LME, aimed at reducing the unsustainable harvesting of fishery resources, reducing the risk of future degradation of the quality of the marine and coastal environment, and exploring and helping to implement adaptive management measures to the anticipated changes in the global climate.

The proposed project will address the above through four inter-related components, managed through the project coordination unit:

**Component 1: State of the WBS LME within the framework of the 5 LME modules of productivity, fish and fisheries, pollution and ecosystem health, socioeconomics, and governance.** Three major outcomes will be achieved under this component. Priority transboundary issues of the WBS LME, in relation to the sustainable development of goods and services including productivity, fish & fisheries, pollution and ecosystem health, and sustainability within the boundaries of both EBS LME and WBS LME will be agreed upon through multi-country technical/scientific assessment which is TDA equivalent. The project will thus aim to gain a better understanding of the functioning of the WBS LME and maintain this by creating a West Bering Sea specific geospatial database within the framework of the 5 LME modules and climatic data, as well as a strengthened joint long-term programme for monitoring changes in the WBS ecosystem. This will further strengthen bilateral cooperation and contribute to our understanding of the climate change impact on the LME's functionality, which will be supported by predictive ecosystem modelling of species composition and distribution in changing climatic conditions and by the development of climate change scenarios for the WBS with predicted impacts on the marine living resources and coastal zone. A key outcome of this component will be the identification of any knowledge gaps which need to be addressed in order to create a sound basis for ecosystem-based and adaptive management of the WBS LME.

**Component 2: National and regional, sustainable and integrated ecosystem-based management of the WBS LME and its coastal zone in a changing climate.** Based on the outcomes under Component 1, a multi-country regional Strategic Action Programme will be developed for the management of the WBS LME resources and coastal zone. In combination with targeted joint regional interventions (in line with those identified under the Arctic NAP) and established stakeholder participation mechanisms, this will enable appropriate governance reforms, at policy, legal and institutional level, to address the priority transboundary issues identified under Component 1. By the

establishment of a functioning National Inter-Ministerial Committee, with national policies, regulations and standards incorporating ecosystem-based management approaches and ICM, and with the necessary sustainability mechanisms in place, the proposed project will aim for improved national inter-sectoral coordination allowing the sustainable use and management of WBS LME resources and its coastal zone. The outcomes of this component will thus lay the foundations for a regional, joint institutional framework for the management of the shared resources of the LME (the establishment of which is not included in the scope of this project).

**Component 3: Targeted demonstration projects.** In the light of increasing climate change and variability, it will be crucial to develop innovative and adaptive solutions ensuring the continuous protection of WBS LME resources, while increasing awareness and enabling the sustained socio-economic development of the LME's indigenous populations and coastal communities. The proposed project will therefore include a number of demonstration and awareness projects at sub-regional and local level, addressing issues such as fisheries management, integrated coastal management and adaptation to climate change, and involving the key stakeholders including the indigenous people and coastal populations. An important aspect of this component will be the development of a Pilot Marine Electronic Highway programme for the Bering Sea and Bering Strait in cooperation with the IMO. This programme will provide an innovative solution for the safety of navigation and the prevention of environmental degradation from maritime transport in this region.

**Component 4: Learning and Knowledge Management.** The outcome of this component is to contribute to the GEF International Waters portfolio on Large Marine Ecosystems. This will be achieved through the transfer of lessons, experiences and best practices with other LME projects through IW:Learn-3. A functioning website will also be created, which is consistent with IW:Learn guidance and which will enable the project's participation in IW:Learn-3 activities and the LME/ICM COP.

**B. 2. INCREMENTAL /ADDITIONAL COST REASONING: DESCRIBE THE INCREMENTAL (GEF TRUST FUND) ACTIVITIES REQUESTED FOR GEFN FINANCING AND THE ASSOCIATED GLOBAL ENVIRONMENTAL BENEFITS (GEF TRUST FUND) TO BE DELIVERED BY THE PROJECT:**

The baseline situation as described in Section B.1 shows that a number of different initiatives address issues such as resource management and pollution reduction. However, the overall picture is fragmented, with a lack of coordination and transparency, at national and bilateral level. Despite the willingness of the Russian Federation to participate in international agreements and organisations, the WBS LME and its associated stakeholders are not benefitting from the concerted approach, know-how and technical and institutional capacity that is vital to an effective integrated, adaptive and ecosystem-based management mechanism. The proposed project organises a national and bilateral partnership of all stakeholders, decision makers and scientists towards a framework of ecosystem-based and adaptive management of the WBS LME, promoting full transparency, coordination and cooperation with the international community. Without the proposed GEF project the existing pressures on the LME are likely to continue or exacerbate. In combination with anticipated climate change and the lack of a bilateral cooperative framework the aforementioned pressures are likely to lead to reduced ecosystem productivity and resilience with detrimental consequences for the indigenous and coastal communities of the region, including reduced food security and regional stability, as well as increased poverty levels. The project is fully in accordance with the targets identified at the WSSD, and its global environmental benefits include increased global food security, protection of biodiversity of global importance, regional social and political stability, and improved and sustained socio-economic development of indigenous and coastal communities. Finally, through experience and knowledge sharing, the project will act as a valuable source of information for the GEF IW portfolio, with particular emphasis on issues relating to transboundary fishery management and adaptation to climate change in Arctic environments.

**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). AS A BACKGROUND INFORMATION, READ MAINSTREAMING GENDER AT THE GEF.**

The proposed project will create socio-economic benefits at national and local levels through building the institutional capacity to stem the loss in ecosystem goods and services. The project will promote

the mainstreaming of gender into WBS LME and ICM governance at national, regional and local levels. The project will analyse the specific needs of both women and men in the proposed project initiatives and incorporate targeted interventions to enable women and men to participate in and benefit equally from the project outcomes and outputs. The education and training course provided through the project will advocate the direct involvement of both women and men, and will incorporate the provision of training in the development and harmonization of gender-balanced policies and legislative frameworks. To ensure that the gender perspective is successfully incorporated into the proposed interventions a gender audit will be conducted during the PPG, to help identify potentially gender sensitive issues and to incorporate gender considerations into the project design.

**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:**

Risks which could affect the success of the project’s objectives are outlined in the table below with their corresponding mitigating measures. The project’s achievements will depend on a number of factors, including the degree of cooperation between the major countries involved, i.e. the Russian Federation and the USA, and the degree of public and stakeholder participation in decision-making processes. Furthermore, the durability of the project’s outcomes will depend on the political will of the RF to ensure financial sustainability beyond the life of the project. Finally, while this is difficult to predict, the rate and extent of climate change may affect the political and economic stability of the countries involved with direct consequences for the project’s success. All the above risks are low to moderate in nature and can or have been mitigated for.

<b>Risk</b>	<b>Level</b>	<b>Mitigation</b>
Stakeholder countries and organizations/ institutions are unwilling to cooperate and share information in a transparent way	Low	The need for bilateral cooperation is recognised by the project’s main stakeholder countries, i.e. the Russian Federation and USA. Previous and existing initiatives such as RUSALCA and the Convention on the Conservation and Management of the Pollock Resources in the Central Bering Sea provide proof that there is political and financial support for this.
Political commitment to ensure financial sustainability beyond the life of the project	Moderate	Assistance provided through the proposed project will allow the Russian Federation the opportunity to develop and demonstrate novel mechanisms that promote various economic tools and incentives, and the formation of public-private partnerships, to ensure the sustainability of the LME management framework and key activities.
Limited public and stakeholder participation in the management of resources in the BSLME	Low	The potential lack of public involvement and stakeholder participation in decision-making processes would be resolved by the development of a suitable participation plan to establish effective public and stakeholder consultation at both national and regional level.
Uncertainty regarding climate change impacts on political and economic status of involved countries	Moderate	The proposed project will incorporate the issue of climate change into the management framework. By promoting knowledge sharing, by supporting joint scientific research and monitoring, and by demonstrating adaptive measures, the project will enable the participating countries to meet the anticipated challenges.

**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:**

At the international level the project will engage with the Arctic Council and its keystone programmes – AMAP, ACAP, CAFF and PAME. The project will also work with USA-Russia bilateral bodies such as the Russian American Pacific Partnership (RAPP) and other foras established in the

framework of the U.S.-Russia Bilateral Presidential Commission (BPC). RAPP is a bilateral forum engaging the private-sector and governments to identify and address barriers to business and commerce between the Russian East and the United States (the latest meeting held in July 2011 in Petropavlovsk-Kamchatsky, Russia). State and private sector stakeholders from Canada, Japan, China, Korea will also be outreached through the project. At the national level the project will be engaging a variety of government stakeholders both international cooperation, policy level and line ministries. In Russia the main government stakeholders include the Ministry of Economic Development, Ministry of Natural resources and Environment (with its subordinate Roshydromet – climate studies, and Rosprirodnadzor – environmental controls), the Federal Fishery Agency, Ministries of transport, energy, foreign affairs, regional development, federal border service. At the sub-national level the project will work with the Governments of the Kamchatsky Kray and Chukotsky Autonomous Okrug. The private sector stakeholders will be engaged since the early phases including shelf oil & gas industries, transportation and fishery businesses and associations (e.g. Alaska Pollock Catchers Association). The primary NGO partners are: WWF (with their extensive activities in the Bering Sea region focusing on fisheries), Wild Salmon Centre (pacific salmon conservation programmes), RAIPON (Russian association of the indigenous peoples of the North and their partner associations in the U.S.). Finally the project will engage the Russian Academy of Science (climate change vulnerability studies) and sectoral research institutes (fisheries/VNIRO, etc.).

**B.6. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:**

The project is submitted in the framework of the Arctic 2020 Programme and will be coordinated with the initiatives included into this programme framework. The project will be building upon the outcomes of the Arctic NAP Phase 1. It will also liaise with and utilize lessons from the on-going and completed GEF-supported initiatives, including:

Project Title	Implementing Agency and Other Executing Agencies	Stage of implementation and role
MCPAs. Strengthening the marine and coastal protected areas in Russia.	UNDP/GEF, Ministry of natural resources and environment of Russia	On-going. The project’s work at the Commander Island Biosphere Reserve is directly relevant to the suggested IW proposal through pilot interventions in Bering sea biodiversity (fish, marine mammals) monitoring, protection and enforcement as well as support to indigenous communities. The knowledge management component of the project will deliver lessons and solutions on invasive species, oil spills mitigation and early action, fisheries, etc.
CASPECO. The Caspian Sea: Restoring Depleted Fisheries and consolidation of a Permanent Regional Environmental Governance Framework Project	UNDP/GEF, Ministry of natural resources and environment of Russia	On-going. The project generates important lessons on fishery management and conservation and pollution abatement in the Caspian LME. Transboundary cooperation and coordination arrangements, stakeholder engagement and specific threat removal solutions delivered by the project will be utilized during the development and implementation of the proposed Bering Sea project.
ECORA. Integrated ecosystem approach to conserve biodiversity and minimize habitat fragmentation in the Russian Arctic.	UNEP/GEF	Completed. The Chukotka pilot site of the project addressed marine mammals monitoring and conservation programmes.
Kamchatka Salmon. “Conservation and sustainable use of wild salmon biodiversity in Russian kamchatka Peninsula”	UNDP/GEF	Completed. The project worked closely with leading Russian fishery research institutes, federal and regional fishery management agencies and the Wild Salmon Centre to set up wild salmon population baseline, feeding and spawning grounds, fishery practices, threats to salmon biodiversity and mitigation solutions.

AMAP, ACAP, PAME	Arctic Council	On-going. Monitoring and protection of the Arctic marine environment and pollution abatement.
RUSALCA. The Russian-American Long-term Census of the Arctic	Russia, USA	Completed. See section A.2.
IW:Learn3. "Strengthening IW Portfolio Delivery and Impact",	UNDP/GEF	On-going. See sections A.2., C.

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

UNDP's Strategic Plan for 2008-2013 approved by the UNDP Executive Board includes *Managing Energy and the Environment for Sustainable Development* (Goal 4), and includes the outcome *Strengthened national capacities to mainstream environment and energy concerns into national development plans and implementation systems*. UNDP has taken further internal steps to operationalize the mainstreaming elements of the Strategic Plan at a subsidiary level through its **Water Governance Strategy** endorsed by the UNDP Management Group in 2007. The Water Governance Strategy for includes as one of its three Strategic Priorities **Regional and Global Cooperation** and the associated Outcome, *Enhanced regional and global cooperation, peace, security and socio-economic development through adaptive governance of shared water and marine resources*, and the principal Output, *Assist countries to develop and implement cooperation on transboundary waters through multi-country agreements on priority concerns, governance reforms, investments, legal frameworks, institutions and strategic action programmes*.

Notably, UNDP's work on improving governance of shared water and ocean resources incorporates both freshwater and marine waterbodies and has for some time applied a "ridge-to-reef" approach recognizing the freshwater-marine continuum and important linkages between upstream water and land management and the health and integrity of downstream coastal and marine ecosystems.

The UNDP Environment and Energy Group is partner to the Global Environment Facility, other UN agencies, intergovernmental organizations, and US-NOAA in providing capacity building and scientific and technical assistance in 75 developing countries executing ten Large Marine Ecosystem (LME) projects in Asia, Africa, Latin America, and Europe. Through these and other projects, UNDP also provides technical support to strengthen the capacities of developing coastal countries bordering LMEs to adapt to the effects of climate change on vital LME resources.

In managing its LME and transboundary fisheries programmes, UNDP's Ocean Governance Programme ([www.undp.org/water/ocean-coastal-governance.shtml](http://www.undp.org/water/ocean-coastal-governance.shtml)) draws on a wide range of staff expertise in marine ecosystems, fisheries and marine/coastal resources management at HQ, in its Regional Centers, and through its network of Country Offices. Senior advisors at HQ and in regional centers all have relevant Ph.D.'s (fisheries economics, marine biology, environmental management/policy, marine resource economics, etc.). UNDP's cumulative LME portfolio, working in 11 different LMEs in all 5 UNDP regions covering over 100 countries, represents \$528 m. in total financing from GEF, UNDP, governments, donor partners and others. This represents the largest investment of any kind in advancing the sustainable, integrated, ecosystem-based management of LMEs, from which over 85% of the world's fisheries are harvested, which contribute \$12.6 trillion/year in goods and services to the global economy, and which provide livelihoods for nearly half a billion people, many in the world's poorest countries.

In terms of implementing GEF IW projects, UNDP has consistently delivered results through a broad range of international transboundary water interventions including the high-level adoption of 17 SAPs (8 in LMEs), eight of which are currently being implemented. In addition to providing vital technical, financial and capacity building support for the establishment of the world's first post UN Fish Stocks conservation and management organization for highly migratory fish stocks, the Western and Central Pacific Fisheries Commission (WCPFC), UNDP has strengthened or established 20 multi-country marine/coastal, river and lake basin management agencies or commissions including establishment of the world's first two LME commissions, the Benguela Current and Guinea Current LME Commissions.

**C.1. INDICATE THE CO-FINANCING AMOUNT THE GEF AGENCY IS BRINGING TO THE PROJECT:**

The expected co-financing of UNDP to the project will be \$300,000 over the project lifetime. This will consist of the staff time of UNDP office in Moscow, time of the UNDP water analyst in Bratislava and the overall support of the UNDP Bratislava Regional center.

**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:**

UNDP's mission is to promote sustainable development, and the proposed project fits with UNDP's Strategic Plan 2011-2015, and the four development focus areas: (i) Poverty reduction and the MDGs; (ii) Democratic Governance; (iii) Crisis Prevention and Recovery and (iv) Environment and sustainable development. UNDP became a recognized global leader assisting the countries bordering the LMEs to protect and sustainably manage their joint resources through the implementation of several GEF LME projects. Recently UNDP is embedding the results of this work in its regular Water Strategy, and is recruiting a full time staff in HQ to deal with LME and knowledge management issues within UNDP.


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

**A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):**  
 (Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this template).

NAME	POSITION	MINISTRY	DATE (MM/DD/YYYY)
Rinat Gizatulin	Deputy Minister	Ministry of Natural Resources and Environment of the Russian Federation	09/02/2011

**B. GEF AGENCY(IES) CERTIFICATION**

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

Agency Coordinator, name	Signature	Date	Project Contact Person	Telephone	Email Address
Yannick Glemarec, Executive Coordinator, UNDP-GEF		Sept 7, 2011	Vladimir Mamaev Regional Technical Advisor	+421 25 9337 267	vladimir.mamaev@undp.org