PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: FULL-SIZED PROJECT
THE GEF TRUST FUND

Submission Date: 4 September 2009
Resubmission date: 28 April 2010

PART I: PROJECT IDENTIFICATION

GEF PROJECT ID[1]: 4029
GEF AGENCY PROJECT ID: 4347
PROJECT DURATION: 48 months
COUNTRY(IES): Russian Federation, Mongolia
PROJECT TITLE: Integrated natural resource management in the Baikal Basin transboundary ecosystem
GEF AGENCY(IES): UNDP, Ministry of Natural Resources and Environment of Russia, Ministry of Environment of Mongolia
OTHER EXECUTING PARTNER(S): UNOPS, UNESCO
GEF FOCAL AREA (S)[2]: IW, BD
GEF-4 STRATEGIC PROGRAM(S): IW-SP3; BD SP-4
NAME OF PARENT PROGRAM/UMBRELLA PROJECT: N/A

INDICATIVE CALENDAR*	
Milestones	**Expected Dates mm/dd/yyyy**
Work Program (for FSP)	June 2010
CEO Endorsement/Approval	December 2010
Agency Approval Date	February 2011
Implementation Start	March 2011
Mid-term Evaluation (if planned)	March 2013
Project Closing Date	March 2015

* See guidelines for definition of milestones.

A. PROJECT FRAMEWORK

Project objective: To spearhead integrated natural resource management of Baikal Lake Basin and Hövsgöl lake ensuring ecosystem resilience, reduced water quality threats in the context of sustainable economic development

Project Components	Type[b]	Expected Outcomes	Expected Outputs	GEF financing[a]		Cofinancing[a]		Total ($) c =a + b
				($) a	%	($) b	%	
1. Strategic policy and planning framework	STA	Root causes to water quality impairment and barriers to a well-functioning aquatic ecosystem are identified and agreed, with recommendations developed for actions to reduce stresses in order to improve the status of water resources and indigenous species. Long-term security for the biodiversity of the –Baikal Basin ecosystem (incl. Hövsgöl lake in Mongolia)ensuring [>2 mil. ha of taiga, tundra, steppe, forest-steppe, and wetland ecosystems].	**(i)** Transboundary Diagnostic Analysis of threats to the Baikal Basin ecosystem including Hövsgöl lake in Mongolia completed. **(ii)** Study on Selenge Delta habitat and water quality issues, including PTS and nutrient loading, water level fluxes and health of sediment and benthic organisms. **(iii)** Support rendered for completion of the ongoing "Assessment of epidemiological Risk to Population Health from the Transboundary Water Pollution of the Territory of the Republic of Buryatia (Russian Federation) and Mongolia". **(iv)** Study on surface / groundwater interactions on the Selenge River basin and assessment of corresponding pollution threats. **(v)** A pollution hot spot assessment for the Basin across both countries, including a prioritized list of projects to be considered for future investment and the development of prefeasibility studies with options for financing. **(vi)** Strategic Action Plan (SAP) under implementation, including joint actions to enhance ecosystem protection. **(vii)** biodiversity conservation standards for tourism, mining, fisheries and livestock management developed, integrated in SAP and local legislation, regional development plans; amendments to EIA policies to address biodiversity risks; **(viii)** Sub-basis watershed management plans development (for Mongolia) and implemented (for Russia).	917,930	31.5	2,000,000	68.5	2,917,930
2. Institutional strengtheni	TA	The Russian Federation and Mongolia have	**(i)** Joint Commission for the Baikal Rift Basin established and capacitated on the basis of the current joint Russian - Mongolian Task Force on Transboundary	751,534	36.6	1,300,000	63.3	2,051,534

[1] Project ID number will be assigned by GEFSEC.
[2] Select only those focal areas from which GEF financing is requested.

Project objective: To spearhead integrated natural resource management of Baikal Lake Basin and Hövsgöl lake ensuring ecosystem resilience, reduced water quality threats in the context of sustainable economic development

Project Components	Type[b]	Expected Outcomes	Expected Outputs	GEF financing[a]		Cofinancing[a]		Total ($) c =a + b
				($) a	%	($) b	%	
ng for Integrated Water Resource Management (IWRM)		established formal, sustainable mechanisms to jointly protect the Baikal basin. National and local institutional capacities and skills are raised in both countries for integrated basin planning, management, water quality and biodiversity monitoring, law enforcement.	Water Use and Protection. **(ii)** Inter-ministerial committees set at national (and Republic) levels tasked with managing the decision-making process for approval and implementation of integrated sub-basin watershed management plans. **(iii)** Basin-specific capacity self-assessments completed by Mongolia and Russia, focused on achievement of Baikal / Selenga SAP & Commission agreement and linked international commitments (e.g. CBD, UNESCO Heritage Site, RAMSAR Convention). **(iv)** Training program carried out for at least 25 national and 50 local conservation officers and protected area managers on: (a) integrated basin planning and management, (b) GIS & spatial planning, (c) EIAs and industrial site inspections, (d) avoidance and containment of invasive species, (e) environmental monitoring system design and management, (f) enforcement of water quality and biodiversity regulations. **(v)** The harmonized Baikal Basin Water Quality Monitoring program set under implementation, including upgraded monitoring stations.					
3. Demonstrating technologies for water quality and biodiversity main-streaming	TA	Threats to water quality and biodiversity from pollution are minimized. Selenge Delta pollution loading reduced by 20% from the 2008 level. A reduction in the pressures on habitats from unsustainable mining, tourism and recreation, illegal fishing, poaching, unsustainable livestock management. By 2011 stabilization of: **(a)** populations of endemic migratory fish species (*Taimen, Lenok* and *Grayling*); endemic *Nerpa* (*Pusa sibirica*) **(b)** steppe indicator species Tarbagan marmot (*Marmota sibirica*); **(c)** threatened forest birds-of-prey sp. Saker Falcon (*Falco cherrug*); and Greater Spotted Eagle (*Aquila clanga).*	**(i)** Pilot projects in partnership with local industries to improve the storage and handling of persistent toxic substances and avoidance of soil / groundwater contamination. **(ii)** Demonstration and strategy development for (dead) livestock disposal to cease periodic anthrax outbreaks. **(iii)** Technologies implemented at 2 sites for mainstreaming biodiversity into mining (copper and gold), focused on avoidance and mitigation of risks from management of tailings ponds, as well as on setting aside land for wildlife corridors. **(iv)** Nature-based tourism pilots: biodiversity-compatible tourism plans developed for all Baikal districts and adopted in both countries. Russian plans specifically designed to inform decision-making for the "Baikal Special Economic Zone of Tourism and Recreation"; public-private contracts signed with operators to demonstrate sustainable tourism; marketing studies finalized, tourism products identified and marketed; facilities and infrastructure supported; operators and engaged local communities trained to deliver services. **(v)** Enforcement of conservation strengthened: local inspectors capacitated to control illegal fishing, forestry and livestock activities, poaching; pilot program launched to prevent spread of alien species and strengthen Taimen, Lenok and Grayling populations through protection measures for vital spawning grounds and selected hatchery releases **(vi)** Replication set: Lake Baikal Center to support dissemination of pollution-prevention and biodiversity conservation technologies; series of forums for industry interests on sustainable development priorities; support to NGOs rendered.	1,844,174	22.6	6,300,000	77.4	8,144,174
Project management				384,362	26.4	1,070,000	73.6	1,454,362
Total				**3,898,000**		**10,670,000**		**14,568,000**

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

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

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

Sources of Co-financing	Type of Co-financing	Project
Project Government Contribution	In-kind/cash	6,160,000
GEF Agency(ies)	In-kind	220,000
Bilateral Aid Agency(ies)	In-kind/cash	240,000
Multilateral Agency(ies)	In-kind/cash	270,000
Private Sector	Cash	3,200,000
NGO	In-kind	580,000
Total Co-financing*		10,670,000

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

	Previous Project Preparation Amount (a)[3]	Project (b)	Total c = a + b	Agency Fee
GEF financing	120,000	3,898,000	4,018,000	401,800
Co-financing	140,000	10,670,000	10,810,000	
Total	260,000	14,568,000	14,828,000	401,800

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

GEF Agency	Focal Area	Country Name	(in $)		
			Project (a)	Agency Fee (b)[2]	Total c=a+b
UNDP	International Waters	Russia / Mongolia	2,630,000	275,000	2,905,000
UNDP	Biodiversity	Russia	1,268,000	126,800	1,394,000
Total GEF Resources			3,898,000	401,800	4,299,800

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

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

PART II: PROJECT JUSTIFICATION

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

1. Lake Baikal is one of the world's largest freshwater lakes (3.1 million ha of water surface), which contains 20 percent of the Earth's fresh surface water. It is the world's oldest (>25 million years old) and deepest lake (1,637 m). Although the lake is in Russia, the catchment for this vast freshwater reservoir is a transboundary resource extending over 500,000 km2, shared between Russia and Mongolia, with over 300 rivers and streams. Lake Hövsgöl lies at the foot of the Sayan Mountains, 200 km W-SW of Lake Baikal. This ancient Lake, over 2 million years old, is one of the most pristine in the world. Significantly smaller and less deep than Lake Baikal, it nevertheless contains 70% of Mongolia's fresh surface water. Outflow from the Lake feeds the Egiin Gol river, which in turn feeds the Selenge river. The Selenge provides over half of the inflow to Lake Baikal. The two lakes are of critical importance to both countries and to the indigenous peoples (Evenks and Buryats) whose origin and identity are highly connected with the lakes. The lakes and their tributaries are vital for food production, transportation, employment and leisure.

2. Spanning over 20 ecosystem types (from taiga and tundra, to steppes and wetlands) Lake Baikal and Hovsgol support over 90 species of mammals, 400 bird species, over 2,000 species of flora, more than 70% of which are endemic. Among these are the Baikal seal or Nerpa (*Phoca sibirica*) which is the only freshwater seal on earth, and a rare sub-species of the Omul fish (*Coregonus autumnalis migratorius*). Lakes' ecosystems are home to the threatened and near-threatened species: Dhole (*Cuon alpinus*), Leopard (*Panthera pardus*), Snow leopard (*Uncia uncia),* Tarbagan marmot (*Marmota sibirica*), Siberian Crane, (*Grus leucogeranus),* Dalmatian Pelican (*Pelecanus crispus*), Oriental Stork, (*Ciconia boyciana),* Pallas's Fish-eagle (*Haliaeetus leucoryphus),* Eurasian Black Vulture (*Aegypius monachus*), Saker Falcon (*Falco cherrug*), Greater Spotted Eagle (*Aquila clanga),* White-naped Crane (*Grus vipio).* In recognition of the global importance of Lake Baikal, the Selenga Delta, Lake Baikal's largest wetland area, was added to the RAMSAR list of international wetlands in 1994, and the lake and the adjoining Russian territory were declared a UNESCO World Natural Heritage Site in 1996. On the Mongolian side, Lake Hövsgöl was designated in 1992 as a national park, comprising

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

900,000 ha of the southern limit of the Siberian taiga forest. The lake is characterized by high levels of dissolved oxygen, high transparency and low levels of nutrients and organic carbon. Its biodiversity is more modest than Baikal, due its water properties, high elevation and harsh environment. The Lake and its riparian areas are protected as a national park.

3. The Baikal basin ecosystem remains under threat from increased levels of persistent toxic substances (PTS) are now observed in the Selenga Delta and coastal areas, including POPs, heavy metals and suspended solids, as well as nutrients (nitrogen and phosphorus) and pathogens (e.g. E. coli). Lake Baikal as a whole remains relatively clean (due to mixing and the sheer volume of the lake) however localized contamination and eutrophication events are increasing. Water quality impairment from land-based activities, including point and nonpoint sources of pollution, pose an increasing threat to the Baikal aquatic ecosystem. Ore extraction, metals refining, pulp and paper production, livestock and municipal wastewater facilities discharge significant amounts of pollutants into Basin ground and surface waters. Major pollution hot-spots within the Baikal Basin are associated with minerals extraction and refining operations, especially due to inefficient and outdated mining technologies in use, haphazard regulatory enforcement, and rapid expansion. The growth rate for mine extraction in the Republic of Buryatia in 2006 was 101%. In Mongolia as a whole, the share of GDP from mining (extraction and ore processing) expanded from 17.2% in 2004 to 27.5% in 2007. Mining is at the heart of the region's economic development plans and at the core of pollution concerns. Contaminants released from mining include cyanide, mercury, cadmium, lead, zinc, fluorine and chloride. All pose a serious threat to the Baikal Basin ecosystem as well as to human health. Mercury and other poisonous chemicals used in artisanal and small gold mining activities are of special concern, causing water quality impairment in several major rivers crossing Mongolia, especially the Boroo River, one of the main tributaries to the Selenga River. Other land-based activities that introduce contaminants to the Baikal Basin include point source releases such as municipal and industrial waste water from the major conurbations (e.g. Ulan-Ude, Selenginsk, Irkutsk and Ulaan Baator), steel works and wood works and pulp and paper mills.

4. Terrestrial species in the Baikal region are threatened by the mixture of habitat loss, increasing pollution, changing climactic conditions and human activities such as hunting. A third of all terrestrial mammals native to the Basin are listed as endangered in the Russian and Mongolian Red Books. Destruction and/or modification of critical riparian, forest, and steppe habitats are increasing threats to Baikal's biodiversity. Resource exploitation and associated infrastructure within the Baikal Basin is spurring removal of forested areas and wetland marshes. These actions alter the flow dynamics of the watershed, restrict buffering and filtration capacity, compound erosion problems and degrade terrestrial and aquatic habitats, but also destroy nesting habitats of threatened birds-of-prey, such as Greater Spotted Eagle. There is evidence of continued unsustainable logging and poaching across the region (especially for birds-of-prey). Current livestock herding pressures exceed the carrying capacity of the grassland habitats presenting threats to indicator rodent species and associated endemic plant communities and birds. Properly organized tourism has the potential to diversify the local economy while remaining biodiversity-compatible, yet instead, currently wild tourism remains a key disturbance factor, accompanied by of increasing coastal degradation due to poorly treated sewage, erosion and garbage from poorly regulated tourism development. In 2005 the Republic of Buryatia and Irkutsk were visited by 646,000 officially registered tourists, of which 12% (62,600) were foreign. Around Lake Hövsgöl expanding and poorly regulated tourism has resulted in decline of bird populations, has created trash and erosion problems. Around Lake Baikal, tourist site and summer home development has been expanding, often in conflict with conservation requirements and without adequate sanitation systems. This is a growing threat, as forecasts are that tourism will rapidly increase to 1.5 million persons annually traveling to Lake Baikal in the coming years.

5. Overall, the region has witnessed a reduction in the species numbers. There is evidence of increasing spread of alien invasive fish and plant species as a result of the suppression of indigenous species. With respect to aquatic species, high toxicity levels are present in the Baikal seal population (Nerpa), which experienced massive mortalities between 1997 and 1999. Fish species at highest risk include the Baikal Sturgeon, the Frolikh Char, the Baikal White Grayling, the Taimen and Tench (all listed in the Russian Red Books of endangered aquatic species). The Frolikh Char has not been caught in Baikal waters for 40 years, and the Sturgeon has been the focus of more than half a century of breeding efforts yet remains significantly threatened, and the Taimen has witnessed catastrophic reductions in population in recent years. Studies suggest that climactic and human-induced changes have significantly impaired fish populations in the Baikal tributaries in Mongolia. Some rivers in the Selenga basin, where alluvial gold is mined and where considerable silting has occurred, no longer provide suitable conditions for Taimen, Lenok and Siberian Grayling spawning. There is also evidence of declines in the population of the zooplankton species: *Epischura baicalensis*, in some coastal areas. This tiny indigenous shrimp provides a key link in the food chain and is a vital cog in the Lake's filtration system.

6. Looming on the horizon is the threat that climate change will have significant impacts on the - Baikal basin and Hövsgöl ecosystem. There has already been an observed warming trend in Baikal lake temperatures over the past 60 years (+1.21 deg centigrade since 1946). During the last 40 years, average temperatures in Mongolia have increased 2^{o} C and the growing season has lengthened by a month. The changing climate has had significant effects on the Hövsgöl basin as

well, with increased thawing of permafrost and a likely factor in the severe 2002-2004 Asian Gypsy moth outbreak that devastated Larch saplings in area forests.

7. Baseline. The Russian Federation has a special law which is setting the framework for the conservation and sustainable use of Lake Baikal. Russia declared a large portion (33 %) of the lake's basin as protected areas. In Russia this is the area immediately adhering to the lake, which includes two large strict reserves and a collection of scattered regulated reserves. In Mongolia 8.5% of the lake's catchment is within the PA estate, which is found (unlike in Russia) mainly along the periphery of the catchment. Most unique ecosystems are represented on the PA networks in both countries.

8. In 1996, the GEF funded a $20 million Biodiversity Conservation Project in the Russian Federation, implemented by the World Bank. One of the results of the project was development of a Lake Baikal Biodiversity Conservation Strategy, providing a political and institutional context for expanding Protected Areas and developing watershed plans. The effort helped develop new regulations for implementing the Federal Law "on Lake Baikal Protection;" it set up a framework for coordinating biodiversity conservation and regional socio-economic development policies; and region-specific watershed-based biodiversity conservation programs were designed and completed in three sub-basins (Goloustnaya Watershed / Irkutsk, Khilok Watershed / Chita Oblast, Tugnuy-Sukhara Watershed / Buryatia). Based on the project experience, a multi-stakeholder inter-regional governance structure (Baikal Council) was proposed to ensure the long-term sustainability of the Baikal conservation effort. Since 1999 the Russian Government has been earmarking budget resources for targeted water quality and conservation programs in Baikal, supporting primarily the protected area system, scientific monitoring, information and awareness raising. The 1989 "Territorial Comprehensive Scheme for the Protection of Nature in the Area of Lake Baikal", allowed for the creation of a central protection zone around the lake and buffer zones in the watershed. In 1993, Russia established the Baikal Commission to coordinate policies between the three sub-federal governments in the region. In 1999, the Baikal Law identified the key land use problems, the maximum allowable levels of pollutants in some areas and three core zones. In 2008 Baikal was declared by the Russian Government as one the "7 Wonders of Russia", which raised interest of the public to the lake.

9. In 1999 the Government of Mongolia launched a National Program for Water Issues and established a National Committee with responsibilities to manage, regulate and control the Program. More recently, a new government agency for water resources was established. Mongolia revised in 2004 its Law on Water, detailing the responsibilities of the new water agency. Currently the German Federal Ministry of Education and Research is managing the Integrated Water Resources Management Mongolia (MoMo) Project. Their model catchment project is the Kharaa River Basin and the city of Darkhabn, which fall within the Baikal Lake Basin catchment area.

10. Progress towards initiating transboundary management of the basin has had variable success. Both countries regularly share information, exchange visits, have in place a scheme of cooperation in emergencies. In 1995 Russia and Mongolia signed a Bilateral Agreement on the "Protection and Use of Transboundary Waters". The working group (Task Force) for this agreement recently extended the list of polluting substances to be monitored by both sides (e.g. heavy metals, oil products, mercury). The group has prepared a bilateral program "Assessment of transboundary parts of Selenga River, its tributaries and risk for human health in Russia and Mongolia", but the implementation of this program has stalled. Both countries perform hydro-meteorological monitoring, albeit using data protocols that remain non-harmonized.

11. The long-term solution sought by the project is to have a highly functioning / Baikal/ Hövsgöl ecosystem that ensures local economic development without compromising biodiversity, the quality and resilience of ecosystems. This solution is currently hampered by the following main types of barriers: (a) outstanding policy and regulator gaps, (b) institutional weaknesses, and (3) lack of demonstrated technologies.

Barrier (a). Outstanding policy and regulatory gaps: Despite decades of scientific explorations, evidence of ecosystem threats have not yet led to significant changes in regional decision-making mechanisms. The regulatory basis for ecosystem conservation and water-pollution prevention in Baikal has not yet been completed. The regulatory and policy mechanisms needed for the implementation of the Strategic Action Program, as well as sub-basin watershed management plans are lacking. Several scientific components for SAP development and implementation remain yet to be completed, particularly with regard to the extent of groundwater / surface water interconnectivity in the region, especially along the Selenge River; and accumulation of persistent organic pollutants in lake bottom and in biota. The picture of water quality threats from industrial and mining sites remains incomplete; and measures on how best to handle residual pollution problems from abandoned mining sites have not been defined in policies. EIA procedures do not properly address biodiversity risks; and sectoral programs are operating without standards for minimization or reduction of impacts to biodiversity.

Barrier (b). Institutional weaknesses: None of the existing bodies set up at bilateral and national levels (the Joint Task Force, the Baikal Commission (Russia) and the Baikal Council (Russia)) have the authority, budget and cooperative

framework necessary to reduce threats / barriers to water quality and biodiversity objectives. The Baikal Commission in Russia created for Baikal Lake has received inconsistent levels of support, its capacity to develop and enforce regulations and standards remains weak. Transboundary cooperation to unify protocols for data gathering and sharing are not yet in place. Capacities of local inspectors to control poaching, illegal fishing and grazing, are weak. Local administration and environmental inspectors are not capacitated to integrate biodiversity concerns into regional development plans; use of GIS technologies for biodiversity mapping is non-existent; knowledge of ways to control invasive species is poor. Finally, the capacities of local experts to properly monitor the quality status and biodiversity dynamics of the ecosystem remain insufficient for the data to be used in decision-making.

Barrier (c). Lack of demonstrated technologies: There is plenty of scientific literature on ways to minimize impacts on water quality and ecosystems, yet very few of these have been tested for their conservation efficiency or budget efficiency. In fact, in the biodiversity area, none of the key threatening sectors (mining, tourism, livestock management) have been piloting biodiversity risk avoidance or mitigation technologies/approaches. As an example, Russia has declared the buffer zone of the lake as a "Baikal Special Economic Zone of Tourism and Recreation", yet the ecosystems are fragile and the tourism infrastructure has not been expanded to effectively cope with the anticipated growth. The establishment of the zone has spurred proliferation of tourism in the pursuit of economic gains, at the cost of biodiversity. Theoretical approaches to "greening" tourism in fragile ecosystems are well-known; but their local efficiency has not been tested. As a result, there remain obvious conflicting economic and environmental imperatives.

12. In order to address the above barriers, the project proposes a 3-component approach. The objective of the project is to spearhead integrated natural resource management of / Lake Baikal Basin including Lake Hövsgöl in Mongolia ensuring ecosystem resilience and reduced water quality threats in the context of sustainable economic development The project design builds from GEF transboundary waters and biodiversity focal area experience. Included will be outcomes and outputs aimed at developing Transboundary Diagnostic Analyses and Strategic Action Plans as well as the mainstreaming of biodiversity standards into economic activities in the region. The brief description of the components follows:

Component 1 Transboundary Analysis and Planning: The project will perform a transboundary diagnostic analysis which will identify threats to the bi-lateral lake ecosystem. It will support a series of dedicated studies to identify strategies to deal with the water quality risks unattended so far, such as: the PTS and nutrient loads in Selenge Delta ecosystems; assessment of the epidemiological risks to population in Buryatia and Mongolia; surface and ground water interactions within the Selenge river basin and assessment of corresponding pollution threats; pollution hot-spot assessment in both countries. Based on the studies, a comprehensive Strategic Action Program will be elaborated and set under implementation. EIA policies will be amended to address biodiversity risks. Biodiversity conservation standards will be developed for tourism, mining, fisheries and livestock management, and integrated in the SAP, local legislation, regional development plans. Finally, sub-basin watershed management plans, that incorporate water quality and biodiversity issues, will be developed for Mongolia and set under implementation in Russia.

Component 2 Institutional Strengthening for IWRM: Capacity building will occur at the transboundary, national and local levels in support of Russian and Mongolian efforts to establish effective structures and mechanisms for protecting water resources and biodiversity through integrated basin management. The Joint Commission for the Baikal Rift Basin will be established and capacitated. Inter-ministerial committees will be set at national and republic levels tasked with managing the decision-making processes for approval and implementation of integrated sub-basin watershed management plans. Basin-specific National Capacity Self-Assessments will be carried out and used to identify highest priority training and management support at the regional and basin level. Training services will be delivered to key stakeholders on the topics of: environmental impact assessment (EIA) development, industrial and mining site inspection, intercalibration of water quality / aquatic system laboratories and training in bioassay techniques, and utilization of geographic information systems (GIS) for mapping threats to ground and surface water resources, and habitats and wildlife corridors, enforcement of water quality and biodiversity regulations. Country protocols for the Baikal Water Quality Monitoring Program will be harmonized and set in use using upgraded monitoring stations.

Component 3 Mainstreaming ecosystem services: Pilot projects will be launched in partnership with local industries to demonstrate techniques for improving water quality and mainstreaming biodiversity conservation into sustainable economic development. On the water quality and epidemiological side this will include pilots on improved storage and handling of persistent toxic substances, avoidance of soil and groundwater contamination, dead livestock disposal to cease periodic anthrax outbreaks. On the biodiversity side, two pilots will be carried at copper and gold mining sites to demonstrate avoidance and mitigation of biodiversity risks, primarily focusing on tail pond management, and setting aside land for wildlife corridors. Further pilots will deal with "greening" the tourism sector, designed to inform the decision makers within the Baikal Special Zone of Tourism on biodiversity-compatible tourism opportunities (ecotourism and agrotourism). In parallel to demonstration activities, the project will support local environmental inspectors with better

enforcement capacities, enabling them to better control illegal fishing, logging, unsustainable livestock activities and poaching. Techniques for controlling the introduction of alien fish species will be tested, alongside with support to strengthen native fish populations. Finally, in order to trigger replication and ensure the sustainability of results, the project will set a Baikal Center for Technology Dissemination, conduct a series of forums for industries, and support local NGO actions.

13. In terms of global environmental benefits, the project will enhance protection of the unique Baikal Basin ecosystem, which is a UNESCO World Heritage site and RAMSAR site. Long-term security will be established for over 3 million ha of freshwater lake ecosystems, and over 2 million ha of associated taiga, tundra, steppe, forest-steppe, and wetland habitats. The project will achieve stabilization of populations of threatened and near-threatened species outside protected areas, including fish species (*Taimen, Lenok* and *Grayling*); endemic *Nerpa* (*Pusa sibirica*), steppe indicator species Tarbagan marmot (*Marmota sibirica*), threatened forest birds-of-prey sp. Saker Falcon (*Falco cherrug*); and Greater Spotted Eagle (*Aquila clanga)*. The project will suppress threats to biodiversity and water quality, originating form unsustainable industrial development and agriculture, as well as illegal resource extraction through logging and poaching. Thus, the project can become a model of a truly integrated TDA/SAP which takes into account surface and groundwater aspects on the one hand, while removing stresses to threatened aquatic flora and fauna on the other. Furthermore, apart from contribution to the IW and biodiversity focal areas, the research within the TDA on persistent organic particles [and subsequent incorporation of the results in the SAP] will contribute to elimination of POP threats in the bi-lateral lake ecosystem.

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

14. The Russian National Biodiversity Conservation Strategy and Action Plans include Baikal Lake in the list of priority conservation hot-spots. A special Federal Law "On protection of the Baikal Lake" was adopted in 1999 and revised in 2004, and this GEF proposal is considered by the Government of Russia as a key instrument in the finalization of the policies and regulations in support of the Law, and implementation of on-the-ground conservation measures in Lake Baikal's ecosystems outside protected areas. The project addresses the challenges of the 1999 Integrated Water Quality Issues Program of Mongolia and the 2004 Law on Water, helping the country to build capacities at the national and local levels to implement this Program. The project corresponds to both countries' priorities to strengthen the Joint Commission on Lake Baikal, in line with the 1995 Bilateral Agreement on the "Protection and Use of Transboundary Waters".

C. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH GEF STRATEGIES AND STRATEGIC PROGRAMS:

15. The Project is aligned with GEF strategic objectives and priorities for the International Waters and Biodiversity focal areas. In line with SP-3 in International Waters, the project is designed to balance conflicting uses of water resources in transboundary surface and groundwater basins in the – Baikal- Hövsgöl basin. The project will reduce the threat that conflicting uses of regional water resources will result in irreparable damages to these linked unique ecosystems. To do that, the project relies on the classic IW tools: it will finalize the Transboundary Diagnostic Analysis and adopt a Strategic Action Program (Component I), build capacities of key stakeholders in integrated water resources management and enhance functioning of the Russia / Mongolia Task Force on Transboundary Waters (Component II); test water quality technologies in Component III. At the same time, the project addresses BD SO-2 SP-4 *Strengthening the Policy and Regulatory Frameworks for Biodiversity Mainstreaming*. It amends policies on Environmental Impact Assessment and introduces biodiversity conservation standards for mining, tourism, livestock management (Component I), trains environmental inspectors in conservation law enforcement (Component II), demonstrates risk avoidance and mitigation approaches in copper and gold mining, as well as pilots green tourism (Component III).

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

16. The project seeks to utilize the GEF Trust Fund resources for scientific research and technical assistance. A grant is appropriate as the financing vehicle for the project of this type. It can be expected that some of the outcomes, for example developing prefeasibility studies based on the analysis of pollution hot spots, will lend themselves to the use of loans in the future.

E. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

17. In 1996, the GEF funded a $20 million Biodiversity Conservation Project in the Russian Federation, implemented by the World Bank. One of the results of the project was development of the Lake Baikal Biodiversity Conservation Strategy. The Strategy was built upon an assessment of the state of Baikal biodiversity, and provided a political and institutional context for expanding Protected Areas and developing watershed plans. The biodiversity components of the proposed project support implementation of the plans developed in the previous project, in particular implementation of three sub-regional watershed management plans. The UNESCO World Heritage Committee regularly monitors the state of environment in the Baikal watershed UNESCO is implementing a project on sustainable development education in the

Baikal Lake area aiming to create the Baikal world model territory for sustainable development. The EU TACIS program has supported an initiative on sustainable land management in the Russian portion of the Baikal Basin. The US Agency for International Development (USAID) recently funded an effort to promote low-impact tourism at Lake Baikal by developing the "Great Baikal Trail".

18. In Mongolia, this proposed project follows a UNDP/GEF sustainable land management project under development in the areas of community land management. A closely related project is the German-financed Integrated Water Resources Management Project for Central Asia: Model Region Mongolia (MoMo); designed to develop and implement Integrated Water Resources Management (IWRM) in Mongolia. This "model" IWRM project is focused on the River Kharaa catchment, with the results then to be transferred to other catchments in Mongolia and elsewhere in Central Asia. Starting in 1995, the US National Science Foundation has provided funding for several research institutions, including the Mongolian National Academy of Sciences and the National University of Mongolia, to conduct joint biodiversity research in the Hövsgöl Lake watershed. During PPG the project will establish cooperation with on-going projects and institutions working in the BLB, including local NGOs and international/bilateral organizations. In particular, the proposed project will establish linkages with the Baikal Economic Forum, established in Russia in 2000. The Forum has become a significant venue for provincial, national and international cooperation in economic and sustainable development projects including conservation initiatives.

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

19. The sources of the pollution of the Baikal watershed are transboundary in nature. Since 1992 the GEF has demonstrated world-wide the value of establishing transboundary actions addressing threats to water resources shared by multiple countries. The development and implementation process for integrated basin management planning helps countries to recognize their mutual self-interest, and agree on joint environmental protection measures. The outcomes of the proposed project will contribute to the protection and preservation of habitat for over 1,500 endemic species of fauna and flora. The preservation of the ecosystem's integrity will preserve the system for alternative livelihoods (including development of the tourism industry), which is an important upcoming economic sector within the Basin. Besides helping to preserve globally significant biodiversity, the project will catalyze greater and more effective trans-boundary dialogue and cooperation in the region. In the absence of continued GEF support, the technical and political inter-sectoral networks established may not be formalized and their potential as instruments to direct reforms and investments within integrated water resources management approaches in the project area may not be realized. Despite the considerable baseline investments these will then get implemented from a narrow sectoral perspective and without a regional, transboundary focus, thereby limiting opportunities for knowledge sharing, cross-fertilization of best practices and technologies, and IWRM approaches. In addition, with out the GEF contribution, there is likely to be insufficient attention placed on the environmental risks arising from the rapid expansion of the mining industry in both countries, as well as a rapidly expanding tourism sector. In both cases, cost-effective mitigation strategies are needed, that provide necessary biodiversity safeguards. Without the GEF support and global recognition it entails, the risks of unplanned, ill-considered growth in this unique and globally significant basin will be considerably higher. Finally, the project is being proposed during a global economic downturn, which is putting an economic strain on both partner countries and creating pressures to expand natural resource exploitation. The project can help to ensure that long term environmental protection measures are taken into account when decision-makers take action to lesson short term economic pressures.

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

Risk	Level	Mitigation
Difficulties in revising national legislation and normative acts to comply with agreements made as part of the integrated basin management development process.	M	The Government of Russia has already established an inter-agency governmental commission on Lake Baikal, which should help mitigate this risk for Russia. Mongolia has in place a National Committee to manage its National Program for Water Issues. Under Component II, the project dedicates substantial resources to capacitating both committees to ensure effective policy and regulation development, set in motion its implementation, monitor and enforce it.
Competing economic interests can oppose the implementation of basin management plans and mainstreaming technologies if they are seen to add costs to industrial activities such as minerals extraction.	M	The project will include pilots on sustainable mining, livestock management and eco-tourism that demonstrate alternative, cost-effective techniques for sustainable economic development. The project will dedicate resources to setting a replication plan for the results of the pilot activities, through the Baikal Center for Technology Transfer and multiple forums with industry representatives

Risk	Level	Mitigation
Climate change risk: The continuing rise in global temperatures due to elevated global carbon levels may threaten the Baikal and Hövsgöl ecosystems through warming of water temperatures and reduced permafrost, with consequent impairment to the viability of indigenous aquatic species and increased opportunities for incursions of alien species	M	Climate change impacts are aggravated by habitat degradation threats and pressures caused by humans. Under the Component's III demonstration activities, the project is concentrating on reducing anthropogenic threats, habitat fragmentation and degradation. It is thus removing or reducing external stressors on the ecosystems and increasing its resilience to pending climate change.

H. DESCRIBE, IF POSSIBLE, THE EXPECTED COST-EFFECTIVENESS OF THE PROJECT:

20. In order to consolidate the sustainability of long-term, comprehensive commitments jointly agreed by both countries, the project aims to provide support to build capacity and institutional strengthening for a coordinated management regime of the shared water basin and to mainstream biodiversity conservation requirements into sectoral policies and activities. The project will capacitate a diverse range of key institutions in both countries to come together in order to coordinate, exchange, and harmonize cross-sectoral/ministerial actions to provide for ecosystem based management approaches for the basin. The "water-basin SAP + biodiversity mainstreaming approach", promoted by the project, is argued to be more cost-effective than "hot-spot remediation combined with protected area designation". While remedial action resolves the past pollution loads, it does leave capacities to deal with on-going and future threats. At the same time, given the current close-to-optimal PA representativity, including further basin territory into the PA systems in both countries will be cost-effective for just a few more percent; larger PA creation would entail losses to local economy and social well-being that would be difficult to justify and too expensive to compensate. Furthermore, the development of this project as a two-focal-area effort will increase the economies of scale and raise cost effectiveness by enabling a holistic approach to the protection of the Baikal and Hövsgöl ecosystem, covering land and water-based threats and proposing mainstreaming measures that will better safeguard biological diversity at the same time. The PPG will elaborate the cost-effectiveness analysis in more detail.

I. JUSTIFY THE COMPARATIVE ADVANTAGE OF GEF AGENCY:

21. Within UNDP's effective water governance area over 80 program countries have water projects, with a total portfolio value of over $300 million. In terms of international advocacy, UNDP has championed the global water crisis and stressed the importance of water for life and water for livelihoods in its 2006 Human Development Report titled "Beyond scarcity: Power, poverty and the global water crisis". In accordance with the GEF Agencies Comparative Advantages paper, UNDP will build upon its comparative advantages in capacity building and technical assistance to support beneficiary governments in project development and implementation, specifically in the areas of integrated policy development, institutional strengthening and community participation.

22. In implementing this project UNDP will specifically build upon (i) profound experience, presence and networks in the regions of the Russian Federation (provinces) acquired through implementation of its GEF – funded biodiversity and CC portfolio, (ii) partnerships with leading corporate sector and UNDP Russia's role as a facilitator of the Russian Network of the UN Global Compact; (iii) UNDP's experience in implementing 32 GEF – funded projects in biodiversity conservation in the region through its network of 26 Country Offices. Globally, UNDP-GEF is supporting efforts to mainstream biodiversity in production systems through biodiversity projects covering an area of 54,952,198 hectares in terms of demonstration activities, and indirectly, through reform of policies, strategies and institutional structures, an area of 115,309,990 hectares. Under mainstreaming, UNDP-GEF activities aim to modify production methods by piloting and adapting production measures that satisfy both development and conservation fundamentals, or that do so at acceptable levels of tradeoff; (iv) lessons from GEF regional environmental programs in the Black Sea and Caspian Sea led by UNDP; (v) the work on strengthening governance for extractive industries undertaken by UNDP's Oslo Governance Centre; and (v) the UNDP Country Program in the Russian Federation (2008-2010) which outlines biodiversity conservation among key priorities, and has over 10 years of experience in supporting technical assistance and investment biodiversity projects, both GEF and other donor-funded.

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

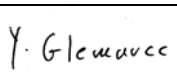
A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):

(Please attach the country endorsement letter(s) or regional endorsement letter(s) with this template).

NAME	POSITION	MINISTRY	DATE *(Month, day, year)*
Igor I. Maidanov	Director of International Cooperation Department	Ministry of natural resources and environment of the Russian Federation	April 10, 2009
Altangerel Enkhbat	Director General	Sustainable Development and Strategic Planning Department, Ministry for Nature and Environment for Mongolia	April 17, 2009

B. GEF AGENCY(IES) CERTIFICATION

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

Agency Coordinator, Agency name	**Signature**	**Date *(Month, day, year)***	**Project Contact Person**	**Telephone**	**Email Address**
Yannick Glemarec UNDP/GEF Executive Coordinator		28 April 2009	Vladimir Mamaev	+421 2 59337 267	vladimir.mamaev@undp.org