UNDP Project Document

Governments of:
Azerbaijan, Islamic Republic of Iran, Kazakhstan,
Russian Federation & Turkmenistan

United Nations Development Programme

PIMS #4058

The Caspian Sea:
Restoring Depleted Fisheries
and
Consolidation of a Permanent Regional Environmental Governance Framework

"CaspEco"

This project builds upon a solid foundation of regional cooperation for Caspian environmental conservation put in place by the five Caspian states and the Caspian Environment Program over a period of more than 10 years with substantial catalytic support from the Global Environment Facility (GEF). Building on these achievements this project's objective is to strengthen regional environmental governance and apply new thinking to the sustainable management and conservation of the Caspian's bioresources.

The project supports the littoral states' efforts to halt the decline in bioresources and to restore depleted fisheries in the Caspian Sea, through the implementation of agreed actions defined in the Caspian Strategic Action Plan (SAP), and to fully operationalize and make the Caspian Sea's regional environmental governance mechanism sustainable.

In line with the new GEF priorities, the major focus of GEF involvement will be to assist the countries to agree on the political commitments made to ecosystem-based joint action on sustainable fisheries and bioresources and introduce institutions and reforms to catalyze implementation of policies reducing over-fishing and benefiting communities. There are two main components of the project: 1) Ecosystem based management of aquatic bioresources; and 2) Strengthened regional environmental governance.

The key outcomes sought under the two main components are: 1) Improved ecosystem-based aquatic bioresources management; Invasive species mitigation; Implemented policies & measures to increase reproductive success of Caspian's diadromous fish species; Application of circum-Caspian approach to habitat conservation; and increased; Coastal communities participate in and contribute measurably to improved bioresources conservation; and 2) Operational and sustainable Tehran Convention institutions; Coordination and synergy with other projects and activities including effective donor coordination and engagement; Implementation of Strategic Convention Action Plan (SCAP) at regional level and NSCAP at national/sub-national level; Enhanced stakeholders' engagement in the Tehran Convention process and improved public access to information.

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Acronyms

AZ	Azerbaijan
CC	Caspi-Control Environmental Monitoring Organization (Turkmenistan)
CAB	Commission on Aquatic Bioresources (for the Caspian Sea)
CaspEco	Short name for full project name: "The Caspian Sea: Restoring Depleted Fisheries and Consolidation of a Permanent Regional Environmental Governance Framework"
CaspNIRKh	Caspian Scientific Research Institute for Fisheries (Astrakhan, Russian Federation)
CaspMNITz	Caspian Marine Scientific Research Center (Russian Federation)
CISS	Caspian International Seal Survey
CMPA	Coastal Marine Protected Areas
CP	Country Programme
CSCN	Caspian Seal Conservation Network
DSU	Dagestan State University (Russian Federation)
DI	Darwin Initiative
DIAE	Dagestan Institute of Applied Ecology (Russian Federation)
EB	Ecosystem-based
EBM	Ecosystem-based Management
EBRD	European Bank for Reconstruction and Development
EEA	European Environment Agency
EFH	Essential Fish Habitat
EwE	Ecopath with Ecosim ecological modeling software
ERA	Ecological Risk Assessment
FAF	Federal Agency on Fishing, Ministry of Agriculture (Russian Federation)
FAO	Food and Agriculture Organization
FBE	Fisheries and Bioresources Expert
GRID	Global Resource Information Database
GEF	Global Environment Facility
GloBallast	GEF-UNDP-IMO Global Ballast Water Management Programme
GOIN	State Oceanographic Institute (Russian Federation)
IAEA	International Atomic Energy Agency
IFI	International Funding Institutions
IFO	Iranian Fishery Organization
IFRO	Iranian Fishery Research Organization
IMCM	Inter-Ministerial Coordination Mechanism
IMO	International Maritime Organization
IoO	Institute of Oceanology, Russian Academy of Sciences
IR-I	Islamic Republic of Iran
ISRI	International Sturgeon Research Institute (Iran)
IWC	GEF Biennial International Waters Conference
IWEN	International Waters Experience Notes (GEF)
IWRM	Integrated Water Resources Management
JICA	Japan International Cooperation Agency
KMG	KazMunaiGaz (National Oil and Gas Company of Kazakhstan)
KZ	Kazakhstan
LBS	Land-based sources of pollution Protocol to the Tehran Convention
M&E	Monitoring and Evaluation
MNP	Ministry of Nature Protection (Turkmenistan)
MNRE	Ministry of Natural Resources and Ecology (Russian Federation)
MoE	Ministry of Environment (Kazakhstan)
MoENR	Ministry of Ecology and Natural Resources (Azerbaijan)

MoT	Ministry of Transport (Russian Federation)
MPCSA	State Marine Pollution Control Salvage and Rescue Administration, MoT
NFP	National Focal Point
NCAP	National Caspian Action Plan
NC	National Coordinator
NSCAP	National Strategic Convention Action Plan
OPS	Office of Project Services (UN)
OU	Out posted Unit (of the Tehran Convention Interim Secretariat)
OSIR	Oil Spill Incidence Response
OSPRI	Oil Spill Preparedness Regional Initiative
PA	Protected Area(s)
PIMS	Project Information Management System
PNC	Project National Coordinator(s)
PMO	Ports and Maritime Organization, Ministry of Roads and Transportation (IR-Iran)
PTS/POPs	Persistent Toxic Substances/Persistent Organic Pollutants
QA	Quality Assured
RAS	Russian Academy of Sciences
RCU	Regional Coordinating Unit (UNDP-GEF in Bratislava)
RF	Russian Federation
SAP	Strategic Action Programme
SCAP	Strategic Convention Action Programme
SCFI	State Committee on Fish Industry (Turkmenistan)
SC	Steering Committee (of the project)
SCF	State Committee on Fisheries, Ministry of Agriculture (Kazakhstan)
SEIS	Shared Environmental Information System (European Environment Agency)
SPACE	Special Protected Areas of the Caspian Ecosystem
TA	Technical Assistance
TAC	Total Allowable Catch
TC	Tehran Convention or "Framework Convention for the Protection of the Marine Environment of the Caspian Sea"
TCIS	Tehran Convention Interim Secretariat
TCIS-OU	Tehran Convention Interim Secretariat-Out posted Units
TCPS	Tehran Convention Permanent Secretariat
TDA	Transboundary Diagnostic Analysis
TK	Turkmenistan
UEMP	Unified Ecosystem Monitoring Program
UNDAF	United Nations Development Assistance Framework
VNIRO	Russian Federal Research Institute of Fishery and Oceanography
WB	World Bank

SECTION I: ELABORATION OF THE NARRATIVE

PART I: Situation Analysis

1.1 Context and global significance

1. The Caspian Sea is the largest inland closed water body in the world. Straddling the line between Europe and Asia, the Caspian's transboundary waters are shared by five littoral States: Azerbaijan, Kazakhstan, IR-Iran, Russian Federation and Turkmenistan. Nearly twenty-seven meters below the level of the world oceans, the Caspian differs from most other large inland water bodies in its meridian orientation and great 1,200 km length. The result is a large north-south climatic differentiation, from extreme continental climate in the North, to a sub-tropical climate in the South.

2. A large number of inter-connected ecosystems coexist in the Caspian and a unique feature of the Caspian is its extreme diversity of biotopes, biotic and abiotic conditions. For example, the range of salinity around the Caspian sustains freshwater, oligohaline, mesohaline and hyperhaline ecosystems. Freshwater ecosystems are formed in deltas and estuaries of the Caspian influents. Oligohaline ecosystems characterize the Northern Caspian, where the water salinity ranges from 0.5 - 5 grams/liter (gr/l). The waters of the Middle and Southern Caspian comprise a mesohaline ecosystem, with an average water salinity of 12 gr/l. And in the Gulf of Kara-Bogaz-Gol on the eastern shoreline of the Caspian, the water is heavily mineralized – a hyperhaline ecosystem where water salinity is higher than 40 gr/l.

3. Nearly 130 rivers drain into the Caspian with an annual input of approximately 300 km^3. The main rivers are the Volga (80% of annual input), the Ural (5%), the Terek, Sulak, and Samur (combined 5%), the Kura, the Sefi-Ruud, Alborz and others (combined 10%). Combined, these rivers are a critical part of the overall Caspian ecosystem and are estimated to have once sustained millions of hectares of spawning habitat for the Caspian's diadromous fish species.

4. The average breadth of the Caspian from the west to the east is 330 km. The Caspian's surface area is about 436,000 km^2. This sea has three distinct parts: the northern, middle and southern. The shallow northern part of the sea averages 5 m in depth. The middle part has an average depth of 190 m and the deepest part of the Caspian is the southern area with a maximum depth of 1025 m.

5. The 7000 km long Caspian coastline is varied in its physical attributes. The deltas of the Volga, the Ural, the Emba, and the Sagiz rivers create a jagged northern shoreline, whereas the rest of the Caspian shoreline is generally smoother. The length (km) of each littoral state's Caspian coastline is estimated as follows: Azerbaijan (825), I.R. Iran (1000), Kazakhstan (2320), Russian Federation (1460), Turkmenistan (1200). These estimates are subject to variation due to water level fluctuations.

6. Biodiversity includes the variety of living organisms at genetic, species, and higher levels of taxonomy, as well as the variety of habitats and ecosystems and the processes that occur in them. This broad and inclusive definition highlights how actions and impacts at the smaller scale can have follow-on effects at much larger scales. A high level of endemism and a unique combination of ecological processes and systems characterizes the Caspian's aquatic biological diversity.

Intra-species diversity of the Caspian's aquatic biodiversity:

7. Diadromous fish travel between salt and fresh water. There are three types of diadromous fish:
- anadromous: live in salt water, breed in fresh water.
- catadromous: live in fresh water, breed in salt water.
- amphidromous: move between fresh and salt water during life cycle, but not for breeding.

There are at least thirty species of diadromous fish in the Caspian, including 5 species of sturgeon, 3 species of Caspian herring, one species of Caspian salmon.

8. Diadromous species develop genetically distinct intra-specific diversity within species as one race returns again and again to one river[1], developing morphological and other adaptations to the environmental conditions unique to that river system. This intra-specific diversity is anticipated to be considerably high among Caspian diadromous species, given the range of aquatic ecosystems and the number of rivers flowing into the Caspian utilized by these species.

9. Studies have shown genetically distinct sub-populations of most of the five sturgeon species present in the Caspian. Three sub-populations of Beluga sturgeon (*H. huso*) have been identified. Immunological studies show that northern and southern populations of *A. stellatus* are genetically distinct from each other and have distinct spawning periods in spring and winter. A distinct population of *A. persicus* (Persian sturgeon) has been identified in the southern Caspian Sea. Different stocks of Russian sturgeon (*A. gueldenstaedti*) have been identified and immunological analysis of these stocks has revealed a high degree of differences among fish from different geographical regions.

10. These findings are supported by similar findings in other parts of the world. Along the eastern coast of North America, there are genetic differences within Atlantic sturgeon that spawn in rivers less than 160 km apart. A recent status review of Atlantic sturgeon on the Atlantic coast suggests five genetically distinct populations and perhaps more. Some of these are ecologically distinct as well. Green sturgeon spawn in three coastal river systems in western North America and two stocks have been identified as genetically distinct.

11. The Caspian salmon (*S. trutta caspiensis*) must also have had different stocks or genetically distinct units. In the Pacific Northwest of North America, the US FWS has identified over 100 genetically distinct units or races of wild salmon, specifically adapted to individual river conditions and seasonal distinctions. The same level of intra-species diversity may still exist for *S. t. caspiensis*, although this is currently unknown.

Diversity of aquatic species:

12. The biodiversity of the Caspian aquatic environment is a product of thousands of years of isolation from the world's oceans, allowing ample time for speciation.

13. The biological diversity of the Caspian and its coastal zone makes the region one of the most valuable ecosystems in the world. The Caspian harbors some 147 species of fish, 450 species, varieties, or forms of phytoplankton, 87 species of algae, and 315 species of zooplankton. One of the most important features of the Caspian's biodiversity is the relatively high level of endemism among its fauna. Recent studies suggest the actual endemism may be even higher than what is already known. To date, there are 331 known endemic species in the Caspian. They are represented by the following:[2]

Four (4) species of *Spongia*	One (1) species of *Isopoda*
Two (2) species of *Coelenterata*	Sixty-eight (68) species of *Amphipoda*
Twenty-nine (29) species of *Turbellaria*	Nineteen (19) species of *Cumacea*
Three (3) species of *Nematoda*	One (1) species of *Decapoda*

[1] Many diadromous species enter the same river system year after year (or for sturgeon, every 2-5 years, depending on the species). Salmon are famous for doing this, but researchers are discovering that sturgeon repeat patterns as well (D. Erickson, pers. comm.)

[2] Transboundary Diagnostic Analysis for the Caspian Sea. Caspian Environment Programme. September 2002. Baku. www.caspianenvironment.org/newsite/Data-MajorDocuments.htm.

Two (2) species of *Rotatoria*	Two (2) species of *Hydracarina*
Two (2) species of *Oligochaeta*	Fifty-three (53) species of *Mollusca*
Four (4) species of *Polychaeta*	Fifty-four (54) species of fish
Nineteen (19) species of *Cladocera*	One (1) species of marine mammal
Three (3) species of *Ostracoda*	Twenty (20) species of *Mysidacea*
Twenty-three (23) species of *Copepoda*	One (1) species of *Isopoda*
Twenty (20) species of *Mysidacea*	

14. Some of the most well known of the Caspian's bioresources are its sturgeon (see Table 1). Sturgeon are anadromous, as are Caspian herring (3 species) and Caspian salmon (1 species) and others, spawning in the Caspian rivers and feeding throughout the Caspian Sea. The Caspian contains more than 90% of the world resources of sturgeon.

Table 1: Sturgeon species of the Caspian.

Common name	**Scientific name**	**Status**
Beluga sturgeon	*Huso huso*	IUCN Red List "Endangered"
Russian sturgeon	*Acipenser gueldenstaedtii*	IUCN Red List "Endangered"
Persian sturgeon	*Acipenser persicus*	IUCN Red List "Endangered"
Starry sturgeon	*Acipenser stellatus* & subspecies cyrensis	IUCN Red List "Endangered"
Fringebarbel sturgeon	*Acipenser nudiventris*	IUCN Red List "Endangered"

15. The Caspian seal (*Phoca caspica)* is the only marine mammal in the Caspian Sea and is endemic to the Caspian. It will be listed on the IUCN Red List of Threatened Species as Endangered with effect from October 2008, a change from its previous listing as Vulnerable. The Caspian seal feeds on a variety of small fish throughout the Caspian and migrates in the winter to the North Caspian to breed, with the pups being born on the winter ice field. The total number of Caspian seals was estimated at more than a million at the beginning of the 20th century, but was assumed to have fallen to about 350–400 thousand by the late 1980s (Krylov, 1990; KaspNirkh annual reports, 2002–06). Surveys of pup production 2005-2008, and a hindcasting analyses based on these censuses and historical hunting records show that the total number of seals in the Caspian in 2005 had declined to approximately 111,000 seals, with an average annual decline of about 4% over the past 50 years. This has resulted in a total decline of >80% in the fertile female population in the past 3 generations (ca. 50 years) up to 2005.

16. There are three endemic species of Kilka[3] recognized in the Caspian Sea: *Clupeonella caspia – (*Caspian kilka); *Clupeonella grimmi* (Southern Caspian or Big-eye kilka); *Clupeonella engrauliformis* (Anchovy kilka). Each species has its own peculiarities in distribution, food preference, spawning time and other biological and ecological characteristics.

17. The Caspian region is the global center for diversity and endemism of members of the genus Salmo, especially the bull trout (*Salmo trutta*). Caspian salmon (*Salmo trutta caspiensis*) are believed to be the largest of the European salmon, which includes the Atlantic salmon (*Salmo salar*) and brown trout (*S. trutta*). The Caspian salmon is listed in the Red Books of Russia, Kazakhstan, and Turkmenistan. In Azerbaijan and Iran, it is characterized as a sharply declining species.

18. The Caspian lamprey is listed in the Red Books of all littoral states as a Category II species, diminishing within its habitat. It is the only representative of the order lamprey in the Caspian Sea. It

[3] This fish is also known by fishery experts as "tulka" and "tyulka."

spawns in rivers, running for hundreds kilometers upstream, and used to occur along the entire coast north-to-south.

19. There are seven species of herring in the Caspian of which three species are anadromous. The three anadromous species spawn mainly in the Volga: blackback shad (*Alosa kessleri kessleri*), dolginka shad (*Alosa brashnikovi brashnikovi*), Caspian shad (*Alosa caspia caspia*). After damming of the Volga, the populations of these and other species have dwindled considerably. Today, the only species of Caspian herring that is of commercial importance is the black-backed shad, whose spawning grounds are located in the lower stretches of the Volga below the dams.

1.2 Socio-economic Context:

20. The total Caspian coastal population is approximately 16 million people. This figure represents the combined population of the administrative units contiguous to the Caspian Sea in all five littoral states. Iran has the largest Caspian population at 7 million people, though the Azerbaijan's capital Baku has the highest population density. Both Kazakhstan and Turkmenistan have populations of less than 1 million each in the Caspian coastal zone. Russia and Azerbaijan have coastal populations of just over 3 million.

21. The UN's Human Development Report (HDR) measures development by combining indicators of life expectancy, educational attainment and income into a composite human development index, the HDI. The rankings place the five Caspian countries in the High (1-70) and Medium (71-155) Development Categories. To compare economic statistics across countries, the data must first be converted into a common currency. PPP rates of exchange allow this conversion to take account of price differences between countries. By eliminating differences in national price levels, the method facilitates comparisons of real values for income, poverty and expenditure patterns. The five Caspian countries' HDR data are presented in Table 2 below.

Table 2. Human Development Report Index figures for Caspian States

Country	Global Rank	HD Index (HDI)	Per Capita GDP at Purchasing Power Parity (PPP) in $
Russia	67	0.802	10,845
Kazakhstan	73	0.794	7,857
Iran	94	0.759	7,968
Azerbaijan	98	0.746	5,016
Turkmenistan	109	0.713	3,838

22. The socio-economic development of the Caspian region has been significantly impacted by the increasing value of oil, the rise of the oil industry in four of the five littoral states, and the significant decline in the fishing industry in every littoral state. In the past 10 years oil exports from the Caspian region have increased dramatically. On the other hand, nearly every commercial fishery in the Caspian has essentially collapsed. Consider the high value Caspian sturgeon fishery. The total catch for all five species declined from 16.5 thousand tons in 1990 to 920 tons in 2004 -- a 95% decline in 14 years. The kilka fishery is another very important fishery in the Caspian. Catch levels for kilka declined 84% between 2003-2007. Combined, these declines in the two fisheries represent losses of between US$ 2-7 billion/year. Such losses and dramatic changes in the structure of the fishery have caused significant economic hardship among local communities, forcing local fishermen to adapt and seek other ways of producing fish or catching different non-traditional species.

1.3 The problem to be addressed.

23. The loss of biological diversity (as defined above) has disrupted the Caspian ecosystem in fundamental ways. Biodiversity is intimately linked to ecosystem function. Healthy, resilient ecosystems – those that contain natural assemblages of organisms, habitats, interactions and processes – can sustain appropriate levels of exploitation. Disrupted ecosystems can collapse.[4]

24. Concern over the collapse of important Caspian fisheries and the loss of biodiversity and ecosystem resilience in the Caspian Sea is widespread in the region and internationally. The clear threats to some of the economically important fish species (including sturgeon) heighten concern.

25. The Caspian Sea's sturgeon, herring, kilka and some other commercial fisheries have sufferred dramatic declines in the past three decades. In addition to the over 90% decline in sturgeon fishery, two of the three endemic species of Caspian herring too have suffered significant declines. An even bleaker picture can be painted regarding the Caspian salmon, which once was caught in commercial quantities and now barely survives in extremely small numbers. All these species are diadromous, or more specifically, anadromous, meaning they spawn in river sytems and live their lives in the Sea itself.

26. The Caspian seal's numbers are also now declining rapidly. The annual pup production and number of adult seals on the winter ice field have now been accurately surveyed during the four years 2005–2008. Pup production in those years has been approximately 21,000 and 17,000 in 2005 and 2006 respectively[5], but has dropped sharply to around 6,000 and 7,000 in 2007 and 2008 respectively. The total number of breeding and non-breeding seals in the entire Caspian cannot be counted directly, but is estimated from the annual pup production using a population dynamics model. In 2005 the total female population was thereby estimated at 55,000, with the total population approximately double that number[6]. The sharp drop in the number of pups, and therefore also of fertile females, since 2006 suggests that the population decline is now much more rapid than the average 4% per annum over the past 50 years. The number of pups produced, has declined by 60%, and the number of adult seals hauled out on the ice by 30% between 2005 and 2008.

27. These declines among the Caspian's bioresources, starting decades ago and increasing in recent years, appear to be persistent. They raise the very real possibility that the resilience of the Caspian ecosystem has frayed and that the ecosystem itself is approaching a threshold that if crossed, could result in an undesirable and irreversible regime shift resulting in the permanent degradation of the bioresources of the Caspian Sea.

28. The decline of the Caspian fisheries directly affects the livelihoods and food security of the local people, as well as having significant broader socioeconomic impacts due to the extremely high value placed on these bioresources, particularly sturgeon caviar.

1.4 Threats, root causes and barriers analysis.

29. This section analyzes stresses on ecosystem health and resilience, sources of stress, and underlying causes or barriers to address them. For additional detail, please see Section IV, Part IV: "Analysis of Stress on Caspian Sea Ecosystem Health, Sources of Stress and Underlying Causes".

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[4] Helfmann, G. 2007. Fish Conservation. Island Press. Washington, DC. 548 pp.

[5] Härkönen et al. 2008. *Ambio,* Vol. 37 (5) 356-361.

[6] Population size and density distribution of the Caspian seal (Phoca caspica) on the winter ice field in Kazakh waters. Härkönen et al., 2005. Caspian Environment Programme. Tehran. www.caspianenvironment.org/NewSite/DocCenter/Seal/Caspian_seaCISS_main_report_to_CEP%20_Final_June_2005.pdf

30. The Caspian Sea's ecosystem resilience has been diminished over time due to the cumulative effects of human development. This includes the separation of the Caspian's fish from their spawning rivers through the dewatering of some rivers and the damming of others; intensive hatchery programs operating with insufficient numbers of brood stock; the introduction of an invasive species of jellyfish that has modified the appearance of the system and most likely its function, including it's trophic relationships; the input of POPs/PTS from agricultural activities and chronic, low-level pollution from oil exploration over time. The cumulative effects of all of this are manifested most clearly in the dramatic depletion of the Caspian's priority fisheries of sturgeon, herring, sprat and kilka.

31. The loss of biological diversity, at the genetic, species and higher taxonomic levels, and habitats and ecosystems levels has disrupted the Caspian Sea ecosystem and correspondingly the fisheries of the Caspian in fundamental ways. For example, the loss of genetic diversity within a species of sturgeon or salmon and drastically reduced abundances of those species limits the species' role within the ecosystem, which can affect the ecosystem as a functioning whole. Lost species and reduced abundances of individual species degrade the resilience of ecosystems.

32. Although the data on fisheries legal and illegal take in the Caspian are incomplete, it is considered to be excessive - far above the level of sustainable harvest. This is contributing to reduced population numbers and reduced mature breeding fish in the population, which reduces the number of spawners naturally spawning and available as brood stock to hatchery programs. Contributing to this problem is of course inadequate enforcement against poaching. Poachers weigh the risks of poaching versus the benefits of an illegal catch of sturgeon and most of them decide the benefits outweigh the potential costs. Current penalties and enforcement practices are not a sufficient deterrent. Also contributing to this problem is a traditional, narrow approach to fisheries management that focuses on 1 taxon without considering the interconnection between these target fish and the food web and ecosystem around them. This narrow focus manifests itself in the TAC and quota estimates and other traditional fisheries management tools.

33. Genetic degradation of wild genotypes among fish is very likely a significant contributing factor to the Caspian's depleted fisheries. Degraded wild stocks and artificial propagation pose a genetic threat to conservation of naturally spawning populations of fish. Long-term hatchery effects, made worse when basic rules of hatchery genetics are violated, can reduce fitness and lower overall heterozygosity caused by introgressive hybridization, out breeding depression, and modified growth, survival and reproduction**.** Such direct genetic effects on natural populations of fish have the overall effect of accelerating extinction[7] because the genetic degradation is spread through interbreeding among hatchery and wild fish, creating an overall population of less fit hybrids instead of robust wild populations.

34. Hatchery programs worldwide, including those in the Caspian, have operated on the basis of a kind of circular logic. In essence, hatchery program "success" has been measured by numbers of fish stocked, with little regard to documented survival. Any increase in stock abundance was taken as evidence that the stocking was working. Failure of stocks to increase was taken as evidence of the need for even more stocking. Fisheries management accepted that hatcheries were beneficial without knowing whether they caused damage to natural ecosystems or even if they worked at all.

35. Another factor contributing to depleted fisheries and ecosystem resilience is the separation of anadromous fish from their natal river systems in the Caspian. Reduced access to sturgeon spawning sites began in the 1930s with the construction of irrigation weirs, followed by the construction of large dams on the Kura River in the 1950s, the Volga River in the 1960s, and the Sefidrud River in the early 1970s. In the past 50 years, anadromous fish migrations have been blocked to up to 90% of natural spawning grounds on rivers like the Volga and the Kura. As summarized above, anadromous fish such as sturgeon,

[7] Ibid.

salmon or herring develop genetically distinct sub-populations in response to environmental variability. Dams without fish passages block migration up rivers for spawners and down rivers for fingerlings. This loss of connectivity and natural selection cannot be replaced by hatcheries and has had the effect of drastically reducing the biological diversity of the Caspian's fish species and populations. It has led to reduced numbers of fish overall and reduced numbers of genetically distinct populations of fish.

36. Invasive species are also factors thought to be contributing to ecosystem stress, loss of biodiversity and depleted fisheries. Invasive species have been shown the world over to have direct and indirect impacts on many ecosystem components, including productive fisheries and the economy. Ecosystems often contain cascading feeding interactions that respond in unpredictable ways to introductions. Invasive species affect individuals, populations, and assemblages of populations in the ecosystems where they occur. One assemblage-level impact is a substantial shift in relative abundances, resulting in declines and losses among native fishes, for example. This is widely believed to have happened in the Caspian with respect to the native species of fish called the kilka among others. *Mnemiopsis lediyi*, an invasive species of jellyfish, is thought to have affected the cascading feeding interactions that the kilka relied upon, possibly causing the kilka populations to decline dramatically, which in turn is thought to have impacted the Caspian seal, for whom kilka are an important food source. Clearly, to restore depleted fisheries, ecosystems and the processes and interactions that occur within them must be protected.

37. The presence of POPs (in particular pesticides) and PTS from exploitation of oil in some parts of the Caspian Sea is a major source of concern, especially their accumulation in the long-lived species – mollusks, seals, and sturgeons.

38. Factors contributing to the depleted Caspian seal populations include unsustainable juvenile mortality, which means there is very low recruitment to the breeding population, resulting in the current spiraling decline in pupping in recent years. Direct causes of juvenile decline are not fully known, but include hunting of pups in the ice and the accidental drowning of juveniles in fishing nets. Longer-term bio-cumulative effects of PTS/POPs in breeding females, resulting in reduced fertility in older animals, may have accelerated the decline in pupping. Breeding failure might also be caused by a food shortage for breeding females; both commercial over fishing and the effects of *Mnemiopsis* may be contributory factors.

<u>Barriers to reducing these stresses and sources of stress:</u>

39. Barrier #1: Underlying many of these factors is a more fundamental conceptual element that acts as a barrier to the adoption of ecosystem-based management practices – practices that are fundamental to the recovery of sustainable fisheries and bioresource populations in the Caspian.

40. Traditional fishery management worldwide was founded on the assumption that ecosystems tend toward static or steady-state conditions. The overriding goal of management under this assumption has been to achieve the steady state that resulted in optimal production. An underlying assumption of this view has been that humans could exert a sufficient degree of control over natural systems to optimize production from natural systems. Traditional fishery management has been reluctant to recognize the importance of natural environmental variability and complexity as essential features of healthy ecosystems and necessary for sustained fish production and instead viewed natural variability as an impediment to achieving optimal production. This is manifested in the Caspian region in different ways. For example, hatchery programs around the Caspian pay little to no attention to trying to understand and maintain the natural genetic variability within one species of sturgeon. The "optimization" focus of traditional fishery management has also led to an unnatural emphasis on efficiency, which although desireable in industrial systems is often harmful in natural systems. This is manifested in the Caspian

region through the significant budgetary resources that some Caspian states dedicate to "cleaning" river bottoms to enable sturgeon to more easily pass.

41. One of the predominant assumptions of fisheries management worldwide, including in the Caspian, is that ecosystem function lost as a result of development can be replaced by technological solutions to individual problems. Artificial propogation (hatcheries) have been a major technological solution to the damming of rivers and depleted fisheries for over a century worldwide and for fifty years in the Caspian.

42. In more recent times, fishery managers have begun to realize that the assumptions upon which "traditional" fishery management were founded are misguided and that ecosystems supporting fisheries and fish species are dynamic rather than static systems, whose condition and structure are driven by biological and physical processes. These natural processes create spatially and temporally diverse habitats with a high degree of connectivity. Habitat variation in space and time creates a template for development of diverse life histories and locally adapted popualtions. Life history and population diversity are essential for sustaining productivity of anadromous species. Fish conservation and restoration should be directed at the restoration and protection of physical processes that create diverse habitats and the ecological processes such as migration that allow individuals and populations to persist in those habitats.

43. Barrier #2: CEP's recent update of the TDA and the contributing research and studies also indicate that the Sea is still not understood at least as far biodiversity and productivity dynamics are concerned. This is a significant barrier because the restoration of depleted fisheries needs to be undertaken in the broader context of sustainably managing the wider Caspian ecosystem. There is a poor level of understanding of the Caspian ecosystem, particularly the full range of biological diversity and the ecosystem structure and function, particularly with respect to the interactions among native species, invasive species, pollution and habitats. More work is needed to begin building an ecosystem based understanding of:

- Overall status of fish stocks & trophic interactions relevant to and among target species;
- The importance of migration and connectivity for anadromous species in the Caspian, bioresources, pollution, invasive species and habitats including benthic communities;
- Factors contributing to the resilience (or lack thereof) of the Caspian Sea ecosystem and the thresholds to ecosystem change or regime shift.

44. Barrier #3: There is a significant capacity gap with respect to ecosystem-based management and stakeholders' experience and ability to develop and utilize decision support tools for ecosystem-based management. There is also a capacity gap among the Caspian states themselves that hampers effective bioresources management in the Caspian.

45. Barrier #4: CAB, the regional collaboration mechanism for bioresources management, has no legal basis and its operations are not transparent or open for constructive scrutiny. This hampers the authority and effectiveness of the Commission itself and the ability of CAB to build its capacity. With no legal basis, it is difficult for member states to obtain funding from their governments for CAB. This is also hampering the finalization of an inter-governmental agreement on common fishery policy for shared stocks.

46. Barrier #5: Environment/Fisheries management gaps. Traditionally, environmental institutions and fisheries institutions rarely have worked together, one seeking to conserve and the other seeking to utilize. Although the wall or barrier between the two is coming down brick-by-brick, it is still standing in most countries of the world and the Caspian states are no exception. To be sure, restoring the Caspian's depleted fisheries and securing effective regional environmental governance will require this wall between the two to come down even further.

47. This project is designed to enable stakeholders to reduce these stresses on ecosystem resilience, address their underlying causes and overcome the key barriers preventing progress on these issues. The project's two-pronged approach focuses on bolstering bioresource management and regional environmental governance *inter alia* through promoting the development and application of protocols and ecosystem-based management approaches.

1.5 Stakeholder analysis

48. Please see the detailed description of stakeholders' relevant responsibilities and anticipated roles in the project in the Stakeholder Participation Plan in Section IV.

49. This project marks the third stage of GEF financial support to the Caspian. It also marks a change in focus and a change in the stakeholder mix of the project itself. By focusing on the problem of depleted fisheries and conservation of biodiversity, this project places more emphasis on sustainable development and as such the fisheries sector itself is important. Add to this the fact that regional governance is critical to this project and the three most important stakeholder groups are: Ministries of Foreign Affairs, Ministries of Environment/Natural Resources, and Ministries of Agriculture/Departments of Fisheries and two regional institutions.

Regional Stakeholder Institutions:

50. Tehran Convention Interim Secretariat (TCIS). The UNEP Regional Office for Europe serves as the TCIS until a decision can be taken concerning the seat for a permanent Secretariat. The TCIS will be lead institution for several activities under Component II of the project and will be instrumental in helping to establish intersectoral committees in each country for the Convention and by extension project implementation.

51. Commission on Aquatic Bioresources (CAB). The officials of national fisheries agencies of the Caspian Sea range states are all members of the Commission on Aquatic Bioresources (CAB). Initially the representatives of only four Caspian states (Azerbaijan, Kazakhstan, Russian Federation and Turkmenistan) were members of the CAB. In 1996 the IR-Iran participated as observer at the annual meetings and became an official member in 2002.

52. As the only regional body involved in bioresources management and conservation in the Caspian, CAB will play an important role in the project. It and its member organizations in each Caspian state will be the main partners for most of the project's work under Component 1.

53. The CAB is an inter-agency body. The chairmanship of CAB rotates ever 2-years to the next country, which during that two-year period acts as the CAB Secretariat and is responsible for organizing meetings responsible for all necessary coordination and communication with CAB parties. CAB has the following objectives:

- Coordination among range states on conservation and exploitation of Caspian bioresources;
- Scientific collaboration and data exchange including conducting joint research (stock assessment);
- Regulation of fishing based on scientific data;
- Determination of Total Allowable Catch (TAC), and export quotas of shared stocks.

54. CASPCOM: This is regional network of each Caspian country's meteorological and hydro meteorological agencies. While not directly involved in the activities of the project it is useful to engage the CASPCOM in the reciprocal exchange of information and participation in meetings.

National Stakeholder Institutions:

Table 3: List of major national stakeholder institutions.

Azerbaijan	**Russian Federation**
Ministry of Foreign Affairs	Ministry of Foreign Affairs
Ministry of Ecology and Natural Resources	Ministry of Natural Resources and Ecology
Department of Aquatic Bioresources Enrichment and Protection	Federal Agency for Fisheries
IR-Iran	**Turkmenistan**
Ministry of Foreign Affairs	Ministry of Foreign Affairs
Department of the Environment, Marine Environment Bureau	Ministry of Nature Protection
Ministry of Jihad-Agriculture; Iran Fisheries Organization (IFO)	State Enterprise of Caspian Sea Issues/Office of the President of Turkmenistan
Iran Fisheries Research Organization.	State Committee of Fish Industry
Kazakhstan	
Ministry of Foreign Affairs	
Ministry of Environment	
Ministry of Agriculture, State Committee on Fisheries	

55. Ministries of Foreign Affairs (MoFA): MoFAs play a key role in determining each littoral state's level of participation in regional sustainable development and environmental conservation cooperation in the Caspian Sea. At least one MOFA (Iran) serves as the GEF focal point; another chairs the national committee to oversee implementation of the NCAP (Turkmenistan).

56. Ministries of Environment, Natural Resources, Ecology (MoE): MoE elaborate and implements state policy and normative and legal regulation for environmental protection, including the monitoring, use, reproduction, and protection of natural resources and the environment, including wildlife and their habitats. Usually, they are responsible for specially protected natural areas including many in Caspian region. Most of them serve as the National Focal Point for the Tehran Convention and the GEF Focal Point. Most of them have experience working intersectorally with their fisheries colleagues on activities such as environmental impact assessments and wildlife conservation/protected area management.

57. Ministry of Agriculture and/or Environment & Department of Fisheries (MoA/MoE & DoF): The MoA/DoF represents each littoral state on the CAB. They are often better funded and better equipped then the MoE. They are responsible for bioresources management and the elaboration and implementation of state fishery policy, research and protection activities. Increasingly, MoA/DoF are finding that their work is requiring them to venture into the "environmental" side of issues (i.e. ecosystem-based fisheries management), which is something that is relatively new and unfamiliar. They usually have overlapping statutory responsibility with MoE for aquatic and marine wildlife.

1.6 Baseline analysis

There are two trend lines of interest to this baseline analysis.

Trend line # 1: The trend in status, condition, and management of the bioresources in the Caspian Sea.

58. This trend line is disturbingly downward as described in earlier sections. In a baseline scenario going forward, this trend would likely continue either declining or bottom out with little to no improvement in the near to medium term.

59. The lack of experience and knowledge and other capacity constraints with respect to ecosystem-based management will prevent Caspian states from developing a basic understanding of key ecological relationships such as trophic links among the seal and kilka and other species and applying this understanding to practical resource management decision making. Capacity constraints will hamper the region's ability to develop effective management decision support tools that will enable regional and national institutions to better link bioresources management with bioresources conservation objectives and improve regional collaboration and management actions across the Caspian.

60. In the baseline situation, individual countries will continue with their regular monitoring programs of various environmental and ecological parameters in the Caspian. But this will be done in the absence of an agreement on regional standards and protocols for elemental monitoring of Caspian Sea ecosystem health. This means that the data from each country, because it is collected in different ways and different times, will be difficult to compare and contrast, hampering use of the data in regional bioresources management.

61. With respect to regional bioresources management, the CAB is the only official regional body conducting joint research on bioresources and making decisions on utilization of shared stocks, including sturgeons, kilka and seals. Although the CAB is officially responsible for making decisions based on sound scientific principles of sustainable fisheries management and an ecosystem-based approach, in the baseline situation, two governance trends will continue in the absence of this project:

- Regional cooperation on the sturgeon fishery has improved in recent years. Iran joined the CAB in 2002 and, under a CAB agreement encouraged by the Convention on International Trade in Endangered Species (CITES), the littoral states have agreed to conduct winter and summer stock assessments through joint investigation, using similar research methods, vessels and equipment. The continuing decline of sturgeon numbers and the growing concern of caviar consuming countries will continue to provide a powerful incentive for future collaboration.

- However, in the baseline situation this regional collaboration under the CAB will be significantly hampered. There is no regional bioresources agreement that underlies the work of the CAB. As a result, the CAB will continue to be hampered in its work because it lacks legal status in each country. The absence of a legal basis hampers the ability of the Commission to strengthen its regional organizational capacity and to improve its scientific and technical capacity in ecosystem based management of bioresources, something that is sorely needed in order to support Caspian states' efforts to restore depleted fisheries.

62. The Tehran Convention is the only legally binding commitment among all five Caspian states. Article 14 of the TC requires the sustainable management and conservation of bioresources. In the baseline situation, it is very likely that the CAB will continue to have difficulties capitalizing on the tremendous opportunity for improved regional bioresources governance that is presented by the Tehran Convention and Article 14.

63. In the baseline scenario, the CAB's work will also be hampered by different level of technical capacity among the five Caspian states. Many technical questions regarding the sturgeon fishery have been identified by CITES which need to be addressed. In a baseline situation, the countries will have some difficulty solving these technical questions without assistance and capacity building.

64. Mitigation of invasive species such as *Mnemiopsis* and prevention of future introductions through ballast water issues are inherently a regional problem that must be addressed jointly. Cooperation between CEP-2 and GloBallast resulted in a series of meetings at regional level and a proposed regional roadmap with some management options identified. What is lacking in the region is the agreement on suitable

management measures to prevent such transfers in the future. In a baseline situation, this problem would go unaddressed at the regional level because there was no feasibility study conducted on how to implement these options and no follow up work on securing regional agreement. In a baseline situation, this problem would go unaddressed at the regional level. Some national-level activities may continue related to invasive species, such as some monitoring and some low-level research, but there would be little to no sharing of information or forming of joint regional strategies for mitigation and prevention.

65. The decline in bioresources and biodiversity are closely linked through food chains and feeding patterns. A disturbance in the phytoplankton-zooplankton and benthic communities caused by invasive species for instance may impact species at higher trophic levels, such as sturgeon or seals. With the invasion of ML as well as introductions of other species the naturally occurring food web may have undergone or be undergoing potentially significant disruptions particular when under concurrent stresses.

66. The baseline scenario, Caspian states would continue to apply fishery management practices rooted in assumptions that people can control natural systems and consistently achieve maximum sustainable yields. Bioresources management would continue to emphasize technological fixes and simplification of complex natural systems and processes instead of emphasizing the importance of restoring natural systems and processes to the extent practicable.

67. According to the 2002 CEP TDA, between 1980 and 2000, 55-70 million fingerlings were released into the Volga River alone, and in the late 1990's Azerbaijan and Iran together claim to have released up to 45 million in any one year. However, this additional effort did not halt the fishery's decline. In a baseline scenario, there will continue to the serious problems with the effectiveness of the hatcheries around the Caspian and their ecological "friendliness." There is no regionally agreed system for certifying hatcheries, making it impossible to confirm with any certainty the level of stocking and evaluate the potential stocking deficit.

68. In a baseline situation, major investments will be made in new hatcheries. Turkmenistan is in the late stages of planning a large ultra-modern sturgeon hatchery – its first. Iran is continuing to improve the existing sturgeon hatcheries. Authorities in the Astrakhan and Dagestan plan new hatcheries in addition to the 10 already in existence in the Russian Caspian zone.

69. These hatcheries, especially for sturgeon, will face serious limitations on the availability of brood stock. To date, sturgeon hatcheries in the Caspian have lacked a "best practice" standard for how to ensure that hatchery operations do minimal damage to natural wild genetically distinct populations of fish. Instead, many hatcheries have used fish caught at sea as brood stock without regard to their pheno or genotype, which only further weakens the viability of wild populations.

70. In addition, too little attention will be paid by managers as to how to increase the reproductive success of target fish and other wildlife species through ecologically-based approaches that seek to enhance natural connectivity, enhance the ability of migratory anadromous fish to access spawning grounds above dams and allow their fry to safely pass through the dams en route back to the Sea. Some fisheries reports for Caspian sturgeon and other species have called for huge increase in the number of fingerlings released from hatcheries around the Sea.

71. A total of 31 hatcheries are in operation around the Caspian: 33 hatcheries if one counts the 2 in advanced stages of planning (1 in KZ and 1 in TK). See Table 4 for summary of hatcheries in the Caspian coastal zone. There are at least 12 sturgeon hatcheries: 14 when the two new modern, high-capacity sturgeon hatcheries come on line in Kazakhstan and Turkmenistan. There are at least 4 salmon and 4 carp hatcheries. In Russia there are Oblast-level plans budgeted to build new hatcheries as well, for sturgeon

and Inconnu (a salmonidae), among other species. It is feasible that in the next 3-5 years, there could be a 25% increase in the number of hatcheries around the Caspian.

Table 4: Summary of hatcheries in Caspian coastal zone by country

Country	**# of Hatcheries**	**Breakdown by fish group/species**
Azerbaijan	11	4 – Sturgeon; 3-Salmon; 4-Carp
IR-Iran	9	4 – Sturgeon; 5-Kutum, Oriental bream, Caspian salmon, Perch.
Kazakhstan	1	Sturgeon; 1 other sturgeon hatchery under construction.
Russian Federation	10	Sturgeon, carp, Inconnu,
Turkmenistan	0	1 large sturgeon hatchery under construction.
Total	**31**	**+ 2 in process**

72. In the baseline situation, a significant portion of the overall Caspian fishery management budget will continue to be invested in artificial propogation of sturgeon, as well as other species, with little to no evidence that this support is having a beneficial effect on the sustainability of productive fish populations.

73. This approach is trapped in circular logic that defines the problem as "not enough fingerlings" and therefore the solution is "produce more fingerlings." This approach also fails to recognize that nowhere in the world has a commercial fishery, once collapsed, been revitalized and sustained by hatchery production alone. Any future effort to restore the Caspian fisheries to even a modest degree will need to place vastly more emphasis on re-connecting anadromous fish to the all-important rivers and their natural spawning grounds.

74. In Russia there are signs of increased attention being paid to ecological aspects of bioresource management. The Federal Task Program "South of Russia" proposes the maintenance of fish way channels in a fishery regime of optimal admission of producers of valuable fishes to spawning grounds and provision of conditions for downstream migration of young fish in the Northern Caspian. Similar activities are envisaged in the corresponding sections of the Programme of socio-economic development of Astrakhan oblast.

75. In addition, other States have been taking bold steps to lessen the pressure on the Caspian fishery from too many fishermen. In IR-Iran, the two main programs are capture fisheries and aquaculture. IFO is engaged in a process to decrease the overall catch by Iranian fishermen by decreasing the unit effort of fishing in the Iranian Caspian. To do this, the IFO has dedicated large sums of money to buy out private fishermen's fishing licenses, their boats and their instruments, decreasing the number of boats from 360 in 1998 to 200 in 2008 with plans to buy-out more fishermen in future years. So there is possibility for fishermen to start another business with the money get from government.

76. With respect to invasive species, in the baseline situation, nearly every Caspian state will continue low levels of monitoring of *Mnemiopsis lediyi*. Kazakhstan has initiated scientific monitoring for the purpose of controlling *Mnemiopsis*. IR-Iran transferred *Beroe ovata* from the Black Sea into its research center in the Caspian region as part of its past work with CEP and it plans to conduct additional research on how best to propagate *Beroe* in captivity pending agreement on introduction among all five Caspian states. In the meantime, Iran will continue also with annual monitoring of *Mnemiopsis*, as will the Russian Federation and Azerbaijan. In the absence of this GEF project, however, these activities will continue to be fragmented and uncoordinated and it is unlikely that they will lead to any regional consensus on the way forward to prevent and mitigate invasive species in the Caspian.

77. On the river Volga there are two fish passage facilities. The Volgograd and Saratov hydroelectric dams have fish passage facilities the form of fish-pass canals and a mechanical fish elevator respectively. Both are quite old and have not been updated or modified in many years and their efficiency has not been measured in recent years. Ten years ago fish-pass facilities in the Volgograd and Saratov hydroelectric dams were temporarily closed down because of sharp decrease of fish quantity in lower part of the river. On the Kargalinsky hydroelectric scheme there is a fish ladder proposed for construction for passing of fish (including sturgeons) past the dam. The hydroelectric dam on the Kura River in Azerbaijan does not have fish passage facilities and so all fish passage is effectively blocked.

78. The CEP TDA reports ongoing reductions in sturgeon spawning grounds in the Ural and Volga with approximately 1,700 hectares still remaining in the Volga -- a 90% decrease. In the Ural, which is a free-flowing river, there are estimated 1,110 hectares of spawning grounds remaining. Approximately 343 hectares of spawning grounds are claimed for the Kura-Aras, Terek, and Salak. The status and usage of these grounds is not recorded and there is no assessment of the status of the individual river fisheries. An interesting question to ask would be, "Are the fisheries in those rivers where substantial spawning grounds still exist fairing better or worse than those supported by hatcheries alone?" Also where there are no hatcheries, for example on the Terek and Salak rivers, it is not clear whether the remaining spawning grounds are being fully utilized. This information would provide a better insight into the sustainable sturgeon catch level on the Caspian.

79. It is understood that a bi-lateral project between the Russian Federation and Kazakhstan has been commissioned with the objective of managing and protecting the spawning grounds in the Ural River. In conjunction, work has begun by Kazakh scientists on the development of sturgeon population dynamics on the Ural River, but how will this study contribute to improved management decision-making? A World Bank supported project in Azerbaijan conducted a study of natural spawning grounds on the Kura River in 2002. Similar studies of the natural spawning grounds have been conducted for the upper Kura and Aras rivers by CEP under the WB lead PIPP study.

80. In the baseline scenario, local communities and stakeholders around the Caspian will continue to suffer from the economic consequences of depleted fisheries. Fishermen and women are adapting to the times, shifting their target species or leaving fishing altogether. There are some signs that government programs are seeking to help local communities develop new opportunities for livelihoods linked to the Caspian Sea.

81. The concept of the Federal Task Programme (FTP) "South of Russia (2008-2012)" is to support tourism, recreational, and agricultural projects that will provide high added value and increased rates of economic growth and employment. The FTP calls for the introduction of intensive sturgeon aquaculture in Ikrianoye village of Astrakhan oblast. But overall, there will remain many barriers to local people adopting new livelihoods and participating in regional sustainable development initiatives, including poor communication infrastructure in rural areas and inadequate experience and knowledge of new options such as small-scale aquaculture.

Trend line # 2: The trend for regional environmental governance and collaboration in the Caspian.

This trend line is on solid footing and angling upwards.

82. In recognition of the seriousness of the growing environmental problems in the Caspian Sea region and their impact on social and economic development, the Caspian States approached the international community for assistance in the 1990s. In response, the Caspian Environment Program (CEP) was established as a comprehensive long-term collaborative program for conservation and management of the

Caspian environment, which it has catalyzed for nearly 10 years. The major partners of the CEP included all Caspian States as well as the GEF, UNDP, UNEP, the EU, and the World Bank.

83. After eight years of complex and politically sensitive negotiations, the Caspian Governments, in November 2003, signed the Framework Convention for the Protection of the Marine Environment of the Caspian Sea (Tehran Convention). Having entered into force on 12 August 2006, the Tehran Convention (TC) became the first legally binding agreement ratified by all five Caspian littoral states. The TC serves as an umbrella legal instrument laying down the general requirements and the institutional mechanisms for environmental protection and sustainable management of the Caspian Sea .

84. The Convention goes beyond protection of the Caspian environment from pollution. It supports the protection, restoration and sustainable and rational use of the biological resources of the Caspian Sea. The TC includes provisions for the control of pollution from land-based sources, seabed activities and vessels. The TC covers the prevention and mitigation of invasive species (Art.12), the protection, preservation, restoration and rational use of marine living resources (Art. 14), environmental emergencies (Art. 13), coastal zone management (Art. 15), and sea level fluctuation (Art. 16). The Convention requires the Contracting Parties to apply EIA procedures for activities likely to have adverse environmental effects. The Convention also includes obligations for environmental monitoring, research, and exchange and access to information.

85. Further to the general obligations of the TC, the Parties are required individually or jointly to take all appropriate measures to achieve these objectives and to cooperate with international organizations to that end. Some main principles of international environmental law, such as the precautionary principle, the polluter pays principle and the right to access to information are referred to in the TC as guidelines for proper implementation.

86. The TC contains a set of commitments from the Caspian states to protect and safeguard the marine environment of the Caspian Sea. Complemented by ancillary protocols, the TC will create a web of rules, regulations, standards, recommended practices and procedures with respect to the sustainable and rational use of the Caspian Sea, its protection, preservation and restoration. Being a framework legal instrument, the TC envisages that concrete obligations of the Parties will have to be formulated and implemented through ancillary binding instruments, mainly in the form of protocols (Art. 6). The Protocols will provide substantive guidance and an institutional setting for turning the related provisions in the Convention into operational reality. These instruments will form a cornerstone for regional environmental policy and lay down the basis for national actions for protecting and securing the health of the marine environment of the Caspian Sea.

87. Three of four draft protocols under consideration relate to environment protection activities in particular globally recognized priority areas: pollution from land-based sources, conservation of biodiversity and regional cooperation in cases of oil spill. One protocol concerns environment impact assessment in a transboundary context.

88. The negotiation process for each of the protocols is determined by a number of common factors and circumstances. First, pending a decision on the legal status of the Caspian Sea negotiators have difficulty in defining the scope of application of all protocols, special protected areas for the Biodiversity protocol, zones of response for the purposes of the protocol concerning regional preparedness, response and cooperation in combating oil pollution incidents. Second, international practice shows that complex protocols, which have technical obligations and involve several governmental departments, are difficult to negotiate and ratify. Third, Caspian States seek to promote such provisions of the protocols, which are fully compatible with their existing national legislation. One should also be aware of the fact that the Caspian States have different level of accession to major multilateral environment agreements.

89. In the baseline scenario, the Parties to the Convention would struggle to secure sustainability for the Interim Secretariat and all that this entails. The countries have committed to providing financial support to the Secretariat beginning in 2009, but this will require more work in organizing the institutional setting of the permanent Secretariat and perhaps most importantly, it will require further negotiation in order to reach agreement among all five countries as to the location of the permanent Secretariat. In the absence of this project, such outcomes would be very difficult to bring about.

90. In the baseline scenario, countries would face some difficulty in implementing the four and perhaps five protocols in a coordinated and effective manner. The negotiation of the Protocols has been rapidly advancing, however the negotiation process has reached the stage where more support and alliance of all major stakeholders is needed to finalize the protocols and make them ready for signature. The Secretariat to the TC will play a key role in enabling this and without some catalytic support from GEF, the countries would be hampered in developing intersectoral protocol implementation plans at their respective national levels.

91. In addition, because the TC is a framework convention, it requires a solid action plan for implementation of its important provisions and effective monitoring of that implementation. In the baseline scenario, there would be no resources available to draft such an action plan.

92. At a summit meeting in October 2007, the Presidents of the five Caspian states issued a Declaration in which they *inter alia* recognized the importance of the TC and emphasized the need for the expedited development and approval of the associated Protocols to the Convention. They also stressed the importance of establishing a regional order to protect and maintain biological diversity and to wisely manage and utilize bioresources.

93. Article 14 of the TC provides for the Contracting Parties to co-operate in the development of protocols "in order to undertake the necessary measures for protection, preservation and restoration of marine biological resources" for the Caspian. This provision is a legal foundation for regional cooperation on fisheries conservation measures, and it is at the same time a broader remit.

94. Article 14.1 lists six areas (a-f) where Parties are to "take all appropriate measures on the basis of the best scientific evidence available". Article 14, while clearly covering conservation and management of fisheries, also has a much broader scope. Article 14 recognizes that commercially fished species are just one part of the overall marine ecosystem, albeit a very important part. By including all marine bioresources in its scope and by recognizing the link between humans and nature, it argues for a more comprehensive and integrated approach to the conservation and management of the marine bioresources of the Caspian.

PART II: Strategy

2.1 Institutional, law and policy context

95. For detailed description of roles and responsibilities relevant to the project, please see Part III Stakeholder Involvement Plan.

96. The institutional, sectoral and policy context at the regional level is evolving. As described in the baseline section above, the regional institutional and policy context is quite strong, with the recent ratification of the Tehran Convention by all five states, the creation of an Interim Secretariat and the drafting of four more detailed protocols to the Convention and the potential of a fifth and other protocol under consideration.

97. Negotiations are close to being finalized on four protocols to the Convention:

- on Regional Preparedness, Response and Cooperation in Combating Oil Pollution Incidents
- on Conservation of Biodiversity
- on Land-Based Sources of Pollution
- on Transboundary Environmental Impact Assessment.

Regional level policy gaps include the need to adopt and implement these four protocols. This will require developing protocol implementation strategies at the national level that will then be incorporated into the regional program of work for the Convention. Another important gap relates to the weak legal status for the existing regional cooperation on bioresources management and conservation. A scoping paper has been developed on this issue at the request of the COP-1.

98. One of the most important regional level institutional gaps relates to the need to build the capacity of the TC Interim Secretariat and find a permanent seat for the Secretariat in the Caspian region. Currently the TCIS is in Geneva, with no offices yet in the region. The need is great to establish some out posted units of the Secretariat in the Caspian region to begin implementation of the Convention while the states finalize agreement on the future location of the permanent secretariat. Secondly, an important gap at the regional institutional level is lack of a legal basis for the CAB. It is critical to bolster the work of the CAB in part by lifting the CAB to a higher level of commitment among the five states and introducing it to a broader ecosystem approach.

99. The institutional and sectoral context at the national level is well established and dominated by Ministries of Foreign Affairs, Ministries or Departments of Environment, Ministries of Agriculture and Fisheries, and various research and monitoring institutions attached to Environment and Fisheries. The main institutional and policy gap at the national is the lack of role clarity in the existing coordination mechanism, in particular with regards to bio-resources management issues in some countries, to enable these different Ministries to work effectively together and bring the environmental issues to the fore. The project, as well as the Convention, are not just "environmental" initiatives: they are sustainable development initiatives. Therefore, fisheries, foreign affairs and socio-economic development are critical partners that must help drive these initiatives forward. In Turkmenistan, the President's Office has established an "Inter-agency Commission on Caspian Issues at the President of Turkmenistan" chaired by the Minister of Foreign Affairs.

Legal Framework:

100. In Azerbaijan**,** legislation on the rational use of marine bioresources was adopted predominantly in late 90s and has been recently slightly changed**.** In 2005 following the meeting of the CITES Standing Committee held in 2001, the Cabinet of Ministers approved the "Rules for regulating the use and trade in sturgeon marine resources". The changes increased the charge for taking of sturgeon and other valuable Caspian fish, the amount of administrative fines for illegal fishing, and also established fishing rules, including methods and tools of fishing, catch limits, inspection and control procedures.

101. Relevant provisions on fisheries were included in the National Environment & Sustainable Development Program for the Azerbaijan Republic (2003). A provision to restore natural spawning grounds is included in this program, as is a provision for a national assessment of sturgeon resources and the development of international cooperation in the rational use of fish resources. There is no special program for rehabilitating natural spawning grounds for Caspian fish or for enabling access to inaccessible spawning grounds.

102. The law "On Environmental Protection (2001) provides the framework for biodiversity conservation and addresses wildlife and habitat protection and conservation challenges in a traditional way. It provides

for keeping the Red Data Book of rare and endangered species, for fish propagation and setting up protected areas. The National Reforestation Program for Azerbaijan Republic (2003) calls for the formulation of the national action Plan to combat desertification and for the rehabilitation of the coastal zone including the elimination of unauthorized landfills.

103. The Ecological Doctrine of the Russian Federation (2002) determines the conservation of the integrity of natural systems, and their life-support functions as a strategic goal of the state environmental policy in order to maximize sustainable development, quality of life, and the country's ecological safety.

104. The baseline foundation for the environmental legislation in the Russian Federation is the Federal Law "On Environmental Protection" (2002). This law calls for the establishment of a state environmental monitoring and survey system for the staffing, equipping and functioning of this system.

105. The law "On Fishing and Protection of Aquatic Biological Resources" (2004) requires setting Total Allowable Catch (TAC) for fishery stocks and defines it as "scientifically justified annual catch of aquatic biological resources of particular species in a fishing area." Also highlights the importance of biodiversity to fisheries management and for the first time, creates the statutory basis for the establishment of fish refuges across Russia.

106. The Marine Doctrine of the Russian Federation up to 2020, adopted by the President of the RF (2001), provides the basis for the adoption and provision of strict compliance with measures agreed with other littoral countries and aimed at conservation of valuable fishes and other bioresources in the Caspian Sea as an important part of a sustainable commercial fishery.

107. In IR-Iran – Act on Conservation and Utilization of Bioresources of the IR-Iran (1995); Act on Establishment of the Fisheries Organization of Iran (2006) are the two major pieces of legislation dealing with bioresources management. These are complemented by a plethora of Decisions of the Cabinet of Ministers and that of the Ministry of Jihad-Agriculture that define the strategic objectives and directions of the Bioresources management in the country.

108. In Kazakhstan, laws aimed at fisheries management and biodiversity conservation in an integrated way have not yet been adopted. The Law "On Protection, Reproduction and Use of Wildlife" (2004) provides for the protection of rare and threatened species and their habitats and is also specifically aimed at implementation of international obligations. In particular, it restricts international trade in species listed in CITES Annexes 1 and 2, and requires a Red Data Book.

109. The Law "On specially Protected Areas" (2006) extends protection to valuable habitats. The law has a special chapter that establishes the regime of the protected area in the Northern part of the Caspian Sea, where for the sake of sturgeon protection, strict environmental conditions are imposed upon hydrocarbon development. The following Kazakhstan state-approved and budgeted programs for 2008-2010 are relevant :

110. "On Environment Protection" focuses on relevant activities such as: the estimation of oil and gas impacts on population and migration of fish and benthic fauna in the north Caspian Sea; and ecological zoning of the Caspian region.

111. "On Conservation and rational use of water resources, animal life and development of natural protected areas" focuses on the stocktaking and cadastre of fishery resources, with different priority needs addressed each year. Recent activities have focused upon: the determination of fish productivity of water bodies and development of biological elements of optimal and allowable catches, and; transboundary investigations of fish stocks of the Caspian Sea.

112. “On Science and Research” is designed to investigate ecological and epidemiological issues in the Caspian Sea. Caspian seal populations have declined in part due to disease and this is of great concern in Kazakhstan. The research program includes the following priorities:
- Analysis of environment status, aquatic and land bioresources;
- Field inspection of oil-gas and other ecological threats and sources of contaminants;
- Detection and identification of diseases affecting wildlife and bioresources;
- Development of strategic activities on conservation of bioresources.

113. “On Conservation and Rational Use of Aquatic Resources, Animal life and Natural Protected Area Networks” includes the following priorities for the Ural – Caspian basin:
- “Cleaning” or dredging of Ural and Kigash River deltas in order to facilitate sturgeon passage.
- Biotechnical work on breeding, fishing and mowing natural growth
- Increase survival rates of young fish in order to rehabilitate their quantity in Ural and Kigash Rivers
- Re-establish the state monopoly over the sturgeon and caviar market (export & domestic market).
- Aerial patrolling over the Caspian and tributary rivers as a more efficient way of poaching enforcement.

114. Turkmenistan’s biodiversity legislation provides for most of biodiversity conservation requirements related to this project. In 1999 Turkmenistan published regulations on taking of rare and threatened species. The Action Plan for the Conservation and Sustainable Use of Biodiversity (1997) called for the creation of additional protected areas, measures for conservation of spawning grounds, and monitoring of biological resources.

115. The Plan also provides for improvement of the biodiversity protection legislation, and specifically, it is planned to adopt Regulations on restriction of certain activities during the Species Migration Periods and the law “On access and sharing of profit in respect to biological and genetic resources.” The legislation lacks reference to sensitive areas as a type of area to be individually protected, and there are neither procedures nor other material rules concerning designation and regime of such areas. However, nature reserves are designated as such, should they meet various criteria related to sensitivity and importance.

116. In Turkmenistan laws adopted in the early 1990s regulate fishing. The legislative provisions are developed in regulatory acts of the government. The Regulation on Protection of Fish Stocks and Fishing in the Territorial and Internal Waters (1998) requires the establishment of annual catch quotas and a permitting mechanism for fishing.

117. The State Committee of Fish Industry of Turkmenistan’s activities and work are based upon the National Program entitled “Social, political and economic development of Turkmenistan till 2020,” which includes all spheres of the economy. The State Committee is responsible for the use and management of fish resources in Turkmenistan’s Caspian coastal region. The Committee is making plans to establish a modern, scientific and research department.

2.2 Project Rationale and Policy Conformity

118. Building upon the strengths and the weaknesses of the baseline situation, GEF involvement is critical to 1) help the countries begin to reverse the ongoing decline in transboundary fisheries and bioresources of the Caspian Sea and 2) helping the countries consolidate their achievement with respect to the Tehran Convention and related protocols and secure a sustainable, effective regional environmental governance mechanism.

119. Cooperation on bioresources management in the region is fraught with political sensitivities. It is critical that sustained attention be given through the Tehran Convention process to help the states

integrate bioresource restoration measures into an integrated ecosystem management approach for the Caspian. A GEF-supported co-funded project is key to achieving this goal. Without external support from GEF, it is unlikely that the littoral states will be able to reach agreement on practical measures for sustainable, ecosystem-based bioresources management.

120. Also, while the states have made significant progress with the entry into force of the Convention, continued support from GEF and the international community is needed to assist in the full operationalization and sustainability of a functional Secretariat for the Convention. Without this active support it is likely that the momentum would be lost, and cooperative work on the broad SAP-inspired program would falter.

121. Shared legal obligations of countries that are set forth in the Convention can only be met through regional cooperation – not only among environmental officials of the five Caspian states, but also among fisheries, local and regional development organizations, and foreign affairs officials both nationally and regionally. Continued GEF support will ensure that the GEF-catalyzed achievements of the past eight years will serve as the foundation for concerted national and regional actions to protect the unique biodiversity of the Caspian and ensure that coastal communities will still be able to rely on Caspian bioresources to support their livelihoods.

122. More broadly, the project will strengthen the region's institutional capacity for cooperative implementation of the SCAP and NSCAPs through support to the Interim Secretariat, effective donor coordination and stakeholder engagement, and practicable M&E using GEF IW Indicators framework (Process, Stress Reduction & Environmental Status).

123. The project will monitor implementation of the SCAP and the NSCAPs and will assist the countries to revisit and update the SCAP and the NSCAPs in the last year of the project upon being satisfied of implementation progress. In this way the project will provide limited assistance to the states for the key initial regional actions under the TC, which came into force in August 2006. The latter assistance would be for a period of 12-18 months only, and will be phased out during implementation of the project as the Secretariat builds its capacity and becomes financially and operationally self-sustainable.

124. The role and importance of the Caspian Sea region in the global energy and climate change debate is steadily increasing. Continuing environmental cooperation between the littoral states will not only help to manage the increasing anthropogenic pressure, including degradation of water quality and overexploitation of Caspian bioresources, but may also contribute to stability and security in the region and provide an impetus to tackle other regional challenges and problems.

Project consistency with the GEF Strategies and Programs and Portfolio.

Operational Strategy, Focal Area(s), Operational Program, and Strategic Priority.

125. The project fits well with both strategic long-term objectives of the GEF International Waters (IW) focal area, i) to foster multi-state cooperation on priority transboundary water concerns, and ii) to catalyze transboundary action to address these concerns. Furthermore, the proposed project conforms to GEF-4 IW Strategic Programme 1 (SP1): Restoring and Sustaining Coastal and Marine Fish Stocks and Associated Biological Diversity (Caspian Sea and associated river basins). In line with SP1, the proposed project will concentrate on strategically targeted interventions to address the long-term decline in the Caspian's commercial bioresources.

126. The restoration of fish stocks and ecosystem resilience represent an immediate response to the global environmental values defined under the CEP Transboundary Diagnostic Analysis (TDA)/SAP Environmental Quality Objectives (EQO).

Project's Fit within the GEF portfolio.

127. This project fits and complements the GEF portfolio of International Waters projects. First, the project builds upon an impressive country-driven regional environmental framework convention, which the GEF played a key role in bringing to fruition. This will enable the project to generate many useful lessons and to serve as a mature model in this respect to many other fledgling transboundary initiatives in GEF's worldwide portfolio. Secondly, the project is designed to learn from other IW initiatives such as the Benguela Current, the Rio de la Plata, and the Black Sea, benefiting this project and contributing to the strengthening of the overall IW:LEARN portfolio. The project design benefited from IW:LEARN's IWEN and the project will contribute IWEN to IW:LEARN for others to benefit from in the future. GEF funds multiple projects in the Caspian region and this project is designed to complement, benefit from and coordinate with these other GEF projects in the region. It is designed to complement, build upon and benefit from the work of three GEF projects dealing with protected areas around the Caspian: 1) Conservation and sustainable use of globally significant biological diversity in Khazar Nature Reserve on the Caspian Sea Coast; 2) Conservation of globally significant wetland biodiversity in Kazakhstan; and 3) Conservation of Wetland Biodiversity in the Lower Volga Region, Russia. The project's work to build a circum-Caspian network of protected areas, priority habitats and essential fish habitats in each country's coastal zone is intentionally designed to include protected areas being strengthened by the above three GEF projects in the virtual "SPACE" network. The project will also coordinate closely with other GEF projects in the region .

2.3 Project Goal, Objective, Outcomes and Outputs/activities

Rationale

Development Goal: The sustainable use and conservation of the Caspian Sea's bioresources.

Objective:
The five littoral States of the Caspian Sea strengthen regional governance and apply new thinking to the sustainable management and conservation of the Caspian Sea's biological resources.

COMPONENT I. ECOSYSTEM-BASED MANAGEMENT OF AQUATIC BIORESOURCES IN THE CASPIAN SEA.

OUTCOME 1. ECOSYSTEM-BASED MANAGEMENT (EBM) HAS BEGUN TO BE ADOPTED AND PRACTICED BY THE CASPIAN STATES.

Output 1. New analytical models and decision support tools for EBM.

Activity 1. Case Study: Link biodiversity conservation and fishery production objectives to advance EBM in the Caspian Sea.

This case study is designed to promote learning by doing. It will be supported by a well-known "center of excellence" in ecosystem-based management of bioresources. It will be conducted in a way to encourage intersectoral collaboration between fisheries and environment. Up to 2 experts from each Caspian

country's fisheries and environment agencies will be trained through their participation in this case study, including by default experts from organizations that comprise the Commission on Aquatic Bioresources (CAB). This activity will be implemented through the following three steps:

Step 1: Conduct a Caspian Ecoregional Assessment to generate data for ecological modelling tools.

A) Caspian biodiversity review. Conduct a desk-based comprehensive Caspian-wide review of biodiversity assessments and literature to evaluate the present state of knowledge of the full spectrum of Caspian biodiversity (species, habitats, ecosystems) by known population sizes, status/condition, and location. This work will draw extensively upon previous CEP reviews and assessments of national and regional databases as well as biodiversity and contaminant data made available by petroleum company surveys.

B) Caspian fisheries review. Conduct a desk-based comprehensive Caspian-wide review of assessments and literature on target commercial fish species and their associated Catch Per Unit Effort and Essential Fish Habitat (EFH)[8].

C) Compile the best geographically linked quality-assured (QA) data available from steps A, B above. Compile geographically linked data on anthropogenic impacts (areas of lesser and greater fishing effort, areas with higher/lower levels of pollution) and existing designated land-uses (e.g. protected areas; oil platforms).

Information gathered in A/B above should be location specific if possible and recorded in 500/1,000 ha planning/mapping units. This activity will build on CEP mapping, including IMAPS and Coastal Sensitive Sites Inventory.

Step 2: Apply modeling tools utilizing data

TA and training will enable Caspian scientists to create an ecological pathway model utilizing "Ecopath" software, a fisheries-based ecosystem-modeling tool, in order to help stakeholders begin to understand better the complex biological inter-relationships of the Caspian ecosystem.

The "Ecopath" model will be used to investigate energy flow through the Caspian food web focusing on: a) limited number of commercially significant species; b) functional groups of top predators; c) producers (phytoplankton) and a broad aggregate of non-commercial fishes.

This work will build upon the biodiversity data gathered by CEP and CEP partners (*e.g.* the fisheries research institutes in the Caspian region and the Caspian International Seal Survey or CISS) and will involve synthesizing information available in the published and unpublished literature. Targeted field studies co-funded by partners may also be required to supplement this data.

Step 3: Generate priority site selection scenarios and input these scenarios into a fisheries-based ecosystem modeling approach.

Based upon Steps 1 and 2 above, provide TA and training to Caspian stakeholders to enable them to:

- Identify priority conservation areas using software tools that allow the combination of information on species, habitats, ecosystems and threats to the Caspian environment with marine fish targets and fishing effort. This allows for biodiversity and fishery objectives to be jointly accounted for within a single decision support system.

[8] All waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity.

- Input these site-selection scenarios into a fisheries-based ecosystem model (Ecospace) to inform decision making across biodiversity conservation and fishery production objectives.

Output 2. Unified Environmental Monitoring Program operational and data utilized.

Activity 1. Develop unified, integrated, and affordable Caspian ecosystem monitoring program (EMP) among all five Caspian countries.

This activity will be conducted by a working group comprised of one technically qualified expert from one lead agency representing each of the 5 Caspian countries. Ideally, these will be the same lead agencies that have been working with the TACIS Caspian MAP project. Iran was not included into the TACIS project and so a lead agency will be designated by Iran to contribute to this activity.

Work under this activity will build upon TACIS Caspian MAP project, as well as the Regional Environmental Monitoring Program initiated under CEP I and II and upgrade of this nascent monitoring program to agreed international standards for all five countries. Prerequisite "baseline" information is needed to cover Iranian waters not included in the TACIS project. The workgroup will appoint a lead expert from the region. An international monitoring expert will also be recruited to work with the team in finalizing the design of the EMP, which will include specific practical information such as agreed parameters (including socio economic), methods for the inter-calibration of the parameters for monitoring of ecosystem health following int'l QA/QC guidelines, and methods and types of equipment to be used. A regional symposium will be held to endorse and launch the EMP involving all Caspian countries. Following the symposium a joint field mission among Caspian scientists will be conducted to refine monitoring approaches and solidify institutional links.

This activity will be inter-linked with the Caspian Information Center work done under Component 2, Output 7 to establish an internationally accessible database on environmental health parameters in the Caspian Sea.

Activity 2. Conduct Ecological Risk Assessment Training.

Working together with the IAEA Marine Environment Laboratories in Monaco, the project team will develop and implement a training program for the assessment of risks to fish larvae, fingerlings and their foods of the levels of contaminants in waters and sediments that have been measured in Essential Fish Habitat (EFH) such as feeding & nursery areas or spawning grounds.

This activity will develop an online demonstration on how changing one parameter could benefit bioresources. This activity will establish current environmental quality benchmarks in EFH against which to: a) identify optimal pilot sites and b) measure any remedial improvements. This activity will depend upon good QA measurements by regional laboratories, supported by inter-regional comparison exercises.

IAEA funding will support two training courses for 15-20 people from the Caspian region. The first course will be held at the IAEA Laboratory in Monaco and the second follow up training will be held in the Caspian region. The first course will among many things, introduce the principles of ecological risk assessment (ERA) and how to do an ERA, and will enable participants to design and carry out a case study based upon the Caspian. Additional details of IAEA co-funding can be found in Section IV Part V of the project document. The second follow up course will focus on follow up of national-level ERA activities conducted since the first course.

Output 3. Capacity building for bioresource governance and management.

Activity 1. Strengthening regional bioresources management effectiveness and institutional capacity.

a) Bridging the bioresource conservation and management skills gap among Caspian countries.

Utilize regional centers of excellence and international expertise to help bridge the skills gap among the five Caspian states in key bioresource management skills.

Conduct a thorough training needs assessment at project inception. Incorporate the ongoing work on capacity building in this area, *e.g* via the ongoing Darwin Initiative Caspian seal project. Based upon this needs assessment, develop targeted training programs for ecosystem based bioresources management capacity building among key fishery management and research agencies and environmental protection. This could include training in topics like: Field survey techniques; how to process, report and publish data to international peer-reviewed standards; How to apply ecosystem-based management of bioresources; Ecosystem-based fisheries management; Field survey techniques; Use of modern software tools for ecological modeling and data management.

A priority of this gap-filling initiative will be to work with universities and fisheries research institutes and agencies, both in the Caspian region and abroad, to offer training scholarships for young scientists to study skills necessary for biodiversity monitoring and bio-resources management. Such scholarships could combine periods of study at participating institutes outside the region, distance learning, and on-site intensive study to enable a core group of trainees to qualify for undergraduate and/or graduate degrees or academic credits from centers of academic excellence within the region, in partnership with universities and research institutes from outside the region. The project would also work to complement such training opportunities by bringing in guest specialists from non-Caspian countries and development of a basic ecosystem-based bioresources management training curricula.

b) Contribute to the activities of the CAB and its members in integrating the ecosystem approach as provided for under this project.

This will include key EBM-oriented elements such as:

- How to apply modern bio-economic models to the economics of fishing in the Caspian Sea in order to maximize efficiency and sustainability.
- Developing practical guidelines for ecosystem-based aquatic bioresources management, and developing specific time-based targets.
- Investigation of EBM-related questions such as:
  - What are the key trophic linkages and how do they impact on fishery productivity?
  - How has the decline of the kilka fishery impacted top predators such as the Caspian seal and how should their consumption be taken into account when calculating TAC?
  - What is the survival rate of sturgeon fingerlings from hatcheries and natural spawning grounds and how can they be improved?
- Create communication pathways between scientific institutions carrying out research and monitoring of Caspian biodiversity and bioresources.
- The use of international best practices in regional monitoring of bioresources.

OUTCOME 2. INVASIVE SPECIES INTRODUCTION MITIGATED.

Output 4. Recommendations for regional management of ballast water to control invasive species traffic among the Caspian and the Black and Baltic seas.

Activity 1. Establish a Caspian-wide Task Force comprising of two representatives from Ministries of Transport, Environment, and Fisheries in each country.

Activities of the Task Force will include: a) revisit CEP-II IMO report on ballast water to discuss main findings and consider main recommendations; b) establish database on shipping traffic and volume of ballast water exchanged between Caspian and Baltic/Black Seas; c) facilitate review of national legislation and provide examples of best practices for requesting countries; d) develop a set of recommendations for regional management of ballast water in concert with other regional initiatives for the Black and Baltic Seas. Guidelines developed under the IMO Convention on Ballast Water will serve as a useful resource for this work.

Output 5. Regional collaborative process focusing on *Mnemiopsis* control.

Activity 1. Assist the Tehran Convention to refine recommendations for Invasive Species Management in the Caspian Sea in line with the TC protocol on biodiversity.

Work under this output will follow-up on *Mnemiopsis* related work done under CEP/GEF I & II. Follow-up is needed to catalyze more regional cooperation on the basis of the Biodiversity Protocol to the Tehran Convention. Work under this output will seek to catalyze discussions and action at the national and Caspian regional level.

To do this, a working group of eminent scientists from appropriate institutions in Caspian countries will be formed and over a nine-month period, this group will re-visit and build upon CEP/GEF-II recommendations for invasive species management and the possibility of biological control of *Mnemiopsis*. The working group will compile monitoring data from national monitoring surveys of *Mnemiopsis*. Based upon an analysis of this data, recommendations will be formulated and specific action points developed for inclusion into the TC program of work, approval by the COP, and incorporation into each country's respective NSCAP.

OUTCOME 3. CASPIAN STAKEHOLDERS IMPLEMENT POLICIES & MEASURES TO INCREASE REPRODUCTIVE SUCCESS OF CASPIAN'S DIADROMOUS FISH SPECIES.

Output 6. Pilots to improve existing hatcheries efficiency including location consideration, culture techniques.

Activity 1. Provide technical recommendations for Caspian salmon hatchery on Iran's Caspian coast.

Under this activity, GEF funding will support the assessment of a long-standing hatchery program for Caspian salmon and the provision of technical recommendations on improving the efficiency of the hatchery. This will include similar technical assistance described in Activity 1 above, including: improving genetic variability when operating with very limited numbers of brood fish and a review of the complete production cycle from brood stock selection to fingerling release; sharing information on measures to improve restocking efficiency; and provide advice on how to integrate hatchery operations with salmon conservation measures. This work will build upon and collaborate with FAO co-funded work as described in Section IV Part V of this project document.

Activity 2. Clarify the problem of genetic variability and viability within remaining populations of priority Caspian fish species and initiate work to conserve and sustainably utilize the genetic variability of sturgeon stocks.

Organize a workshop to elaborate solutions for addressing and clarifying the genetic problem of the Caspian's sturgeon populations and elaborate the main components of a gene bank program for threatened species of Caspian fish (*e.g.* sturgeon, Caspian salmon). At the same time, initiate work to begin preserving this genetic diversity in different gene banks around the Caspian.

Under this activity, one pilot gene bank will be established at the ISRI to support the conservation and sustainable use of the sturgeon gene pool in Iran. The main objectives of this pilot will be to:

- Outline policies and procedures for artificial breeding/restocking programs based on genetic principles;
- Develop a genetic data bank for each pair of spawners used for artificial breeding and restocking in Iran;
- Introduce specific markers for farmed spawners of each sturgeon species;
- Introduce specific primers for *Acipenser persicus* to assist studies on population genetics and gene pool and its genetic status;
- Determine the genotype of spawners used for aquaculture and for production of farmed caviar;
- Determine the genetic identity of spawners maintained at the ISRI and the Shahid Beheshti Hatchery;
- Determine the genotype of spawners and trace it in farmed fingerlings and caviar.

Output 7. Pilot demonstrations to identify, rehabilitate and/or expand access to natural spawning grounds.

Activity 1. Conduct a Caspian-wide inventory of the natural spawning ground habitat for Caspian sturgeon and Caspian salmon below and above dams.

A working group of no more than 5 leading icthyologists from Caspian countries will conduct this survey together with one international scientist recommended by the IUCN Species Survival Commission. A common survey methodology will be agreed upon to maximize accuracy and minimize cost for conducting this survey.

Activity 2. Assess and develop recommendations on how to improve the quality of wetlands / spawning grounds during the spring-summer floods and on the establishment of buffer/quiet zones around the most valuable natural spawning grounds.

Fisheries and environment stakeholders in Caspian states will identify high priority wetland/spawning habitat in need of rehabilitation and develop specific, affordable proposals on what is required to rehabilitate spawning habitat (e.g. improved water management). GEF funding will support this needs assessment and country co-funding will implement the proposal resulting in improved spawning habitat. This activity will build upon work being done by Kazakhstan and Russia on the Ural River spawning grounds.

Activity 3. Assess fish passages/fish ladders on five dams on the Caspian's main tributary rivers and best practice experience worldwide with the introduction of fish ladders and the improvement in recruitment.

This assessment will consider how such fish passage facilities could be improved or constructed, as the case may be to facilitate passage of sturgeon and other species of diadromous fish to allow access to historically important habitat needed for the recovery of these highly migratory species of the Caspian region. This assessment will generate recommendations for how to modify such passages to enable fish to more easily pass to upstream spawning grounds, and subsequently, back to the Caspian Sea to feed. This activity will catalyze National and Caspian-wide dialogue on this issue and share international best practice with Caspian stakeholders.

A Caspian expert working group will be formed comprised of 1 expert from each country and 2 international experts. The group main tasks will be to:

- Identify top priority dams for improving fish passage using criteria such as: 1) level of institutional interest and financial support for such activities; 2) # of species an improved fish passage could help; 3) estimated impact that the improvement will have on recruitment for each species; 4) condition of existing facilities and estimated costs of recommended improvements.
- Organize a group mission to visit top five priority dams in the Caspian region to assess each dam's fish passage facility or lack thereof. The working group must have ecologists who understand migratory behavior and biological needs of the diadromous species and engineers who understand dam and ladder construction and costs.
- Prepare a report detailing assessments of each criterion above as well as recommendations on how to improve fish passage on each dam visited.
- Summarize 2-3 case studies from around the world where the introduction or improvement in fish passages on a dam led to increased recruitment and/or increased catch levels.
- Present this report to responsible institutions in each country and to the TCIS.

Activity 4. Develop and implement pilot project to modify a fish passage facility to increase the efficiency and effectiveness and return on investment.

Work under this activity will develop a pilot demonstration to implement the recommendations formulated under Activity 4 with at least one dam in the Caspian region. The pilot activity will demonstrate how a fish passage may be modified and modernized to:

- increase fish access to natural spawning grounds and thereby improve recruitment levels.
- allow a greater number of fish and a broader range of species to pass, from sturgeon to Caspian salmon to other diadromous species.
- benefit the genetic health of the fish population.

The pilot will include a well-designed monitoring program to assess and document the impact of fish passage improvements on historic fish passage numbers and recruitment levels.

OUTCOME 4. STAKEHOLDERS APPLY REGIONAL, CIRCUM-CASPIAN APPROACH TO HABITAT CONSERVATION IN THE CASPIAN.

Output 8. Circum-Caspian network of "special protected areas, wildlife habitats and essential fish habitats for Caspian ecosystem" (SPACE).

In conducting the activities described below, the stakeholders will be applying the skills and insights generated under the EBM case study above. The results of the case study will enable them to identify priority areas that will contribute not only to biodiversity conservation, but also contribute to restoring depleted fisheries. The SPACE network will be comprised of five existing special protected areas (one in each Caspian country), 10 to-be-identified priority wildlife habitats (2 in each country) and 10 to-be-identified essential fish habitats (EFH) in each littoral state's coastal area. This output will enable Caspian stakeholders to begin moving from a data-poor to data moderate position by improving understanding of additional threatened species around the Caspian. This work will build upon and benefit from the PA strengthening work underway by the GEF Volga Wetlands project in Russia, the GEF Globally Significant Wetlands Project in Kazakhstan, and the GEF Khazar Protected Area project in Turkmenistan, -- all of which are strengthening protected area management along the Caspian coast.

Activity 1. Establish the SPACE network.

Step 1: Designate the one existing priority protected area in littoral state's coastal area to serve as the anchor of the SPACE network. There are obvious protected areas that should be included in the SPACE

network: Turkmenistan's Khazar Zapovednik, Russia's Volga Delta Zapovednik, and Kazakhstan's Akzhayk protected area in the Ural River delta. The MoENR and DoE will designate the anchor areas for Azerbaijan and IR-Iran respectively.

An effective low-cost virtual network structure will be established, including the designation of a rotating chairperson who will receive modest administrative support from the project and be responsible for organizing the bi-annual meeting among the SPACE directors. In addition, a webpage for the SPACE network developed as part of the web-based TCIS Caspian Information Center.

Step 2: Identify and designate priority wildlife habitats and EFHs.

Stakeholders will utilize the ecoregional assessment and ecological modeling tools developed under Output 1 and to join biodiversity management and fishery management objectives in order to inform the planning and identification of these priority wildlife habitats and the EFH areas, particularly for seals and priority fish species.

Seals will be a priority focus on under Step 2. Kazakhstan is home to most of the Caspian seal's critical winter-ice pupping habitat. The project will provide technical assistance to help conduct the preparatory recommendation work and surveys (biological, natural sciences and economic baseline) required for the establishment by the Government of Kazakhstan of a coastal protected area for seal conservation along Kazakhstan's Caspian coastline.

Most of the priority seal habitats and shore ('haul-out') sites around the Caspian have yet to be fully inventoried and documented. The CISS survey team has assessed the distribution of seal pups and breeding seals on the ice every year since 2005. However, stakeholders do not know the priority seal habitats – nor how many seals currently use particular shore sites or extent of habitat disturbance or degradation. Telemetry work to determine seal foraging hotspots is also needed. Data in future years will be essential to understand the interaction among ice conditions, declining breeding numbers and industrial development. This activity will complement and continue this work together with other private and public partners.

The choice of shore haul-out sites may to some extent reflect the local availability of prey species. The final selection of these sites will be based on habitat types, seal presence, and an analysis of sites with higher and lower fishing effort associated with them.

Caspian salmon will also be a priority focus under Step 2. Together with regional natural resource agencies and academic centers, conduct a review of existing literature and monitoring data in order to compile a status report on the distribution and abundance of all salmon species inhabiting the Caspian Sea and rivers flowing into it, including the Caspian salmon. With this data, experts will identify and map 1-3 of the most important stronghold basins, habitat refugia and spawning habitats for native stocks of salmo species in the Caspian region.

Step 3: Enable SPACE network to conduct collaborative circum-Caspian surveys.
One of the main activities of the SPACE network will be to conduct collaborative Caspian-wide annual migratory fish and seal surveys. This work will build upon the work already being done by the each country's respective fishery agencies with respect to shared fish species. It will also build upon existing trans-boundary wildlife survey work such as the collaboration between Turkmenistan's Khazar Zapovednik and its sister reserve across the border in IR-Iran. The project will provide assistance to continue the CISS nationally based surveys of seal haul out sites in each littoral state. Data from these surveys will feed into the UEMP database established under Outcome 1, Output 2.

Activity 2: Demonstrate results-based state-of-the-art management plan for the Kura River Delta protected area.

Azerbaijan's Kura River Delta is one of the largest and most important river deltas on the Caspian coast. Under this activity, work will be focused upon establishing a protected area in the Kura River Delta. The aim of this activity is to introduce results-based management planning to the area and will draw upon the experience and lessons previously learned in PA management planning of other GEF projects around the Caspian, specifically UNDP-GEF's Khazar Zapovednik project and the Lower Volga Wetlands project.

OUTCOME 5. COASTAL COMMUNITIES INCREASE PARTICIPATION AND CONTRIBUTE MEASURABLY TO IMPROVED BIORESOURCES CONSERVATION IN THE CASPIAN.

Output 9. Matched Small Grants Programme (MSGP)

This small grants program will co-finance small-scale projects at the coastal community level that result in measurable support for improved ecosystem based bioresources management. It is anticipated that the MSGP projects will also contribute to sustainable livelihood at the community level and broaden stakeholder engagement in CaspEco and implementation of the Caspian Strategic Convention Action Programme and the associated national plans. Priority will be given to projects at the coastal community level that aim to reduce pressure on Bioresources and promote sound bioresources management, such as small scale aquaculture, eco-tourism, eco–friendly agriculture practices, innovative protected areas management, and so on. Projects that promote sharing successful experiences across communities within and between countries would also be eligible for co-funding from MSGP.

The program will be implemented in a manner that utilizes the experiences from the previous Caspian Environment Programme MSGPs, MEG and other small grants programs, such as those of UNDP, the World Bank and EU-Tacis. The main features to be incorporated in the CaspEco MSGP include:

- Emphasis on guidance for communities and other project proponents regarding participation in MSGP, and assistance in preparing proposals.
- Streamlined and simplified application, grant disbursement and reporting procedures.
- Broad eligibility, to include any legal entity in a Caspian state (e.g., government agencies and institutions at all levels, academia, private companies, NGOs, CBOs; and partnerships among these); multi-country proposals would also be eligible.
- Requirement for 100% matching contribution in cash or in kind from the proponent.
- Close liaison with GEF Small Grants programme whenever in operation.
- Given the priority for small-scale community-based projects and the limited funds, grant size will range from $10,000 up to $50,000.
- Each project should have a planned implementation period of not more than 12 months.
- Regional and international partner participation in the selection of projects, informed by evaluations from technical specialists.
- One proposal cycle per year for the first two years of CaspEco, followed by an impact assessment of the program. This assessment should coincide with the CaspEco mid-term review, and could form the basis of a regional learning workshop.
- Additional funding for expansion of the grant program will be sought from donors.

Standard typologies of projects for community monitoring, small scale aquaculture and cross-community learning will be developed prior to announcement of the first MSGP grant round. The standard typologies

would provide guidance to project proponents, but proposals would not be limited to these. Preparation of the typologies will be supported by the World Bank Caspian Fisheries Technical Assistance project.

Project Selection Procedure:

- Efforts will be made to ensure broad dissemination of information on MSGP availability throughout the coastal communities and technical assistance will be provided to the potential applicants to develop technically and financially viable proposals.

- MSGP project proposals will be invited by the PMCU structure from the qualified applicants. These will be technically vetted by the PMCU and shared with the countries in due time for their collective consideration and selection either electronically or through a regional event.

- Evaluation Criteria will be drafted by PMCU and shared with the countries during the fist six months of the project. These will include *inter alia*, focus on ecosystem-based management of bioresources, sustainable livelihood of coastal communities; replicability and impact.

- The evaluation /selection process will to the extent possible engage representatives of the coastal communities. The process will also involve inputs from other similar grants programme, in particular the GEF Small Grants Programme when in operation.

- The awardees will be trained in implementation and reporting procedures.

Micro Environmental Grants Programme (MEG): The MSGP will support a MEG with the objective of raising environmental awareness and sensitivity in the Caspian region among target stakeholder groups, including bioresource users such as fishermen's cooperatives, local community leaders, communities around spawning grounds, and so on. MEGs will essentially follow the same aims as MSGP but will be of smaller sizes of up to $5,000 and will not require mandatory matching and will focus on NGOs/CBOs capacity building, environmental awareness raising and learning at the local community level. MEG will have much simpler selection, implementation and monitoring procedures that will involve local authorities in the implementation and support of the program and be detailed during the fist six months of the CaspEco project.

COMPONENT 2. STRENGTHENED REGIONAL ENVIRONMENTAL GOVERNANCE.

OUTCOME 1. INSTITUTIONAL SETTING OF TEHRAN CONVENTION IS FULLY OPERATIONAL AND SUSTAINABLE.

Output 1. National and regional level coordination and institutional support to the Tehran Convention and its Protocols.

Activity 1. Establish national coordination and implementation structures for the implementation of the Convention and its protocols, including the CaspEco project.

The TC is a sustainable development convention addressing the priorities and interests of a wide range of government agencies. In order to engage and ensure broad national support and participation in the implementation of the Convention and its protocols, through the National Strategic Convention Action Plans (NSCAPs) and otherwise, each country will establish an inter-Ministerial Coordination mechanism. TCIS with the support of the PMCU will assist the countries through the development of guideliness, demonstration of best practices and the provision of other forms of technical assistance and advice.

National Focal Points (NFPs) will be nominated by the countries to assist in carrying out and overseeing the implementation of the NSCAPs, including the pertinent elements of the CaspEco project. Each NFP will nominate a highly qualified person as a National Coordinator, who will substantively assist the NFP in carrying out his/her duties and responsibilities and/or act as the day-to-day national implementation laision, monitoring and coordinatoor for the CaspEco project also coordinating the implementation at the national level of the SCAP, NSCAP and CaspEco project.

Activity 2. Establish an Tehran Convention Interim Secretariat (TCIS) Outposted Unit (OU) for area-specific regional cooperation in each littoral country.

The TCIS will have Out-posted Units (OU), one in each country. Each OU will have specific Terms of Reference and a budget approved by the COP II. The TOR will specify activities related to regional cooperation towards implementation of specific protocols/themes as defined in the SCAP based Programme of Work (PoW). Within this context, the budget will cover staff costs, operational costs and activities of the Unit and will be funded by each country as its contribution to the Interim Secretariat. Each OU will report directly to the TCIS. If possible, each OU will be provided with adequate accommodation, means of communication, furniture and office equipment by the host government. The entire OU arrangement will be transitional and will be subject to review by COP III or upon an earlier establishment of the Tehran Convention Permanent Secretariat (TCPS).

Activity 3. Generate adequate financial support by the Caspian littoral states for the administration of the Convention and its Protocols, and promote regional negotiations on the location of the TCPS.

The aim of this activity, which builds upon Activity 2, is for the Caspian littoral states to agree on the arrangements of the TCPC, including location and host organization, and to ensure a fully littoral Governments-financed TCPC in the Caspian region.

At COP I the Ministers decided to continue discussions on institutional arrangements of the Convention with a view to finalize and reach consensus on these issues. In their 25-point declaration on 16 October 2007, in Tehran, the Presidents of the five Caspian Sea countries noted the need to finalize the procedural aspects of the Tehran Convention as soon as possible, especially as regards the location of the permanent secretariat to the Convention.

With the support of the PMCU, the TCIS will undertake and facilitate consultations with and between the candidate countries through missions and at meetings, as well as through the provision of background papers, comparative analyses, cost estimates and options for the possible location and related institutional arrangements of the TCPS, including potential host country - and organization arrangements.

In the context of this activity and building on the experience with the implementation of activity 2, budget estimates will be prepared and discussed with the littoral states, including cost-benefit analyses and other clarification material for the internal discussions in the countries involving Ministries of Finance, with a view to make the countries agree to collectively share the core cost of the TCPS and its work.

Activity 4: Provide advisory services to the national protocol ratification process, and assist in establishing regional protocol management structures.

Supported by the PMCU, the TCIS will organize discussions and provide explanatory notes, including cost-benefit analyses, comparative studies and background material related to the implications of the

ratification and implementation of eligible Convention Protocols, with a view to facilitate and help accellerate the internal approval and ratification processes in the Caspian countries. Bilateral and regional consultations may be organized to exchange views and experiences, thereby helping to overcome bottlenecks in the internal approval and ratiofication processes of the countries.

In the context of activity 2, the TCIS will consult countries and, upon endorsement by COP II prepare and negotiate arrangements for entrusting the management of regional Protocols to the proposed OUs.

Activity 5: Finalize draft protocols, promote preparation of protocol implementation plans, and develop new protocols.

Four ancillary Protocols in priority areas are in the process of being finalized: (i) Protocol on Biodiversity Conservation; (ii) Protocol concerning Regional Preparedness, Response and Cooperation in Combating Oil Pollution Incidents, (iii) Protocol for the Protection of the Caspian Sea against Pollution from Land based sources of Pollution and Activities; (iv) Protocol on Environmental Impact Assessment in a Transboundary Context. TCIS Outsposted Units will be made responsible for advancing and servicing further negotiations and activities in preparation and anticipation of Protocol ratification and implementation. Upon the adoption and signature of these Protocols OU under the supervision of the Head of the TCIS will be made responsible for advancing their implementation, through the preparation and adoption of implementation plans, and for advancing regional cooperation in anticipation of their ratification and entry into force. Specific Terms of Reference specifying related activities as well as a budget for the implementation are up for approval by COP II.

At least one new protocol is expected to be negotiated upon request of COP II.

Activity 6: Monitor and evaluate progress and organize and report to ordinary and extraordinary COPs.

This activity will be implemented by the TCIS and its OUs with the support of the PMCU and the countries offering to host the meetings of the COP. It will consist of regular indicator-based reporting by the TCIS and OUs on the progress made on the implemenation of the PoW to be complemented with reports by NFPs /National Coordinators on progress made at the national level on the SCAP , NSCAP and CaspEco.

OUTCOME 2: COORDINATION AND SYNERGY WITH OTHER CASPIAN PROJECTS AND ACTIVITIES.

Output 2. Convention Executive structure, donor coordination and thematic partnerships established and in operation.

Activity 1. Support the establishment and operation of a Convention Executive body that will include representatives from the Parties, international partners, relevant donors and relevant IFIs.

At the CEP Steering Committee (SC) meeting in February 2008, the Caspian littoral countries agreed to schedule the preparatory meetings of the COPs and the meetings of the SC back-to-back. With the time bound CaspEco project focusing largely on support to EBM and the Tehran Convention process and the expectation that COP II will decide to have the COP in future meet every two years in stead of every year, the need for an executive body, integrating the institutional setting and work of CaspEco and other externally funded projects with that of the Convention and its Protocols in between the COPs, has become apparent. COP II may request the Convention interim Secretariat to meet and consult with the CaspEco SC to review matters of common concern and prepare a proposal for an all-inclusive intersessional Executive body.

The TCIS and the CaspEco project PMCU will facilitate the necessary consultations, prepare the documentation and service the intersessional meetings of the TC and the CaspEco SC, with a view to integrate the information on the implementation of the CaspEco project in the documentation for COP III, prepare the proposal for an all-inclusive Executive body for approval by the SC and COP III, and service the Executive body and its meetings from COP III onwards.

Donor coordination, which during the CaspEco project takes place as part of the SC process, will be formalized in support to and as part of the meetings and decision making of the COP and the intersessional Executive body to the Convention.

Activity 2. Initiate thematic partnerships and joint programmes in support of the Convention and protocol implementation.

The preparation process of the protocols and discussions on potential new protocols, has highlighted a strongly increased need to exchange views and build upon the expertise and experience gathered in similar institutions and organizations, including the IMO, FAO, EU/EEA, Espoo Convention; UNEP Regional Seas Program, UNEP/GPA, Black Sea Secretariat, WB, UNDP, CITES and UNESCO. Collaborative arrangements will be explored with the UNEP Regional Seas Programme and the Black Sea institutions. Thematic partnerships will be explored, negotiated and established in the area of LBS (UNEP/GPA), fisheries management (FAO, WB), oil pollution prevention/mitigation (IMO), capacity building on EIA in a trans-boundary context (Espoo Convention), SEIS (EEA and UNESCO), and conservation of marine species (CBD, CITES). In case COP II decides to provide for follow up of decision of COP 1 concerning the scoping paper on the interrelationship between the fisheries and the protection of the marine environment of the Caspian Sea, support will be provided to this activity.

Output 3. Partnerships with private sector, including an effective process /mechanism to promote identification and financing of investment projects in the region.

Discussions will explore the possibility of engaging the private sector for the identification and financing of investment projects in the region, in close collaboration with IfI's, including the WB and EBRD. To that end the TCIS will undertake consultations with representatives of the DABLAS Task Force and of other relevant regional sea's investment fora and institutions in preparation of a proposal for a Caspian Seas investment forum. It will furthermore explore with potential thematic partners the possibility of putting together investment portfolios, and call a meeting with relevant public and private sector actors to consider the portfolio together with the proposals for a Caspian Sea investment forum.

Outcome 3. Littoral States Implement Strategic Convention Action Programme (SCAP) as adopted by the COP-II at regional level and approve and implement NSCAP at national/sub-national level.

Output 4. Updated knowledge-based and enforceable SCAP and NSCAPs developed, initiated, and monitored for enforcement.

Activity 1. Develop standard reporting formats for the primary types of technical (quantitative) data and programmatic (qualitative) data required under each protocol.

This activity will complement the project's monitoring work under Component 1, Output 2. Working closely with relevant government institutions, the TCIS will put in place a system of harmonized data collection and analysis in order to ensure adequate monitoring of protocol and SCAP/NSCAP implementation.

Protocols require collection of specific information and reporting in accordance with a format that will be developed by the TCIS. For example, the Biodiversity protocol calls for the monitoring of alien species, ecological systems, habitats, and biological characteristics of sensitive areas. Harmonized data will allow countries to apply common approaches and criteria to the implementation of TC protocols.

Activity 2. Develop NSCAPs to facilitate national-level implementation of the Tehran Convention and its protocols.

Under this activity each littoral country will review and adjust the existing National Caspian Action Programmes (NCAPS) developed under the CEP-II project to align the NCAPS with the objectives and requirements of the SCAP and the protocols. The review process will be under the responsibility of each Contracting Party and will be coordinated under the umbrella of the inter-ministerial coordination structure as described under output 1 above. Technical and financial assistance will be provided by the TCIS.

Activity 3. Assist countries upon request to strengthen their national capacity for the implementation of the Convention and its protocols.

Timely and efficient implementation of the Convention and its protocols might require further strengthening of the national legal and institutional frameworks. Under this activity the TCIS, together with the OUs and the PMCU, will organize workshops and provide technical assistance at the regional and national levels to strengthen the countries' capacity to implement Convention protocols effectively. Capacity building will be provided through, *inter alia*, a) protocol-specific training workshops; b) reviews of national legislation to enable stronger protocol implementation; c) Preparation of protocol implementation guidelines.

Output 5. Effective regional M&E framework.

Activity 1. Develop regional M&E framework to track implementation of regionally agreed measures (Protocols, CAP, NCAP) using a suite of measurable indicators, including the GEF 4 SP-1 Indicators.

Under this activity, the TCIS will work closely with the MoFA and MoE/DoE in each Caspian state to develop and align indicators essential for the monitoring and evaluation of the implementation of the protocols and selected partnerships in specific thematic areas.

The purpose of this is to clarify specific results-based targets for the region to move towards and to improve compliance and enforcement of regionally agreed measures. The indicators will enable the countries to focus their reporting and enable the TCIS to better monitor and evaluate progress and provide regular progress reports on the implementation of the Convention and the Protocols.

OUTCOME 4. ENHANCED STAKEHOLDERS' ENGAGEMENT IN THE TC PROCESS AND IMPROVED PUBLIC ACCESS TO INFORMATION ON THE STATUS OF THE CASPIAN SEA ENVIRONMENT.

Output 6. Creation of solid regional NGO partnerships engaged in the implementation of the Tehran Convention and its protocols.

Activity 1. Align and streamline the existing CEP public participation strategy (PPS) to better support the requirements of the Convention and its protocols.

This activity will focus on adapting and aligning the existing PPS to the requirements of the Convention and its protocols with the overall objective to strengthen the involvement of the civil society in the Caspian Sea region in the implementation of the Tehran Convention. The existing PPS will be reviewed in light of the requirements of the Tehran Convention and the protocols with the view to prepare simplified and practical guidelines for civil society stakeholders' engagement in the Tehran Convention process. The guidelines will be subject to intergovernmental review by the Contracting Parties and will provide basis for further regional efforts to strengthen stakeholders' presence and involvement in the Convention process.

Activity 2. Creation of Caspian "Virtual Partnerships"

The need for solid and efficient regional NGO networks, encompassing national ones, has been voiced at several occasions in the context of the Caspian Environment Programme. The same needs are being brought forward in the context of the Convention process and ample attention will have to be given to those concerns. The first step for enhanced involvement of the civil society in the Convention process are structured, well-defined and efficient NGO partnerships that would allow for adequate and coordinated representation of the civil society in the context of the Convention and Protocol implementation.

Concrete support to the creation and maintenance of such partnerships will be provided on the basis of a website-based "virtual partnerships" that would be part of the overall Caspian Information Center as described below under output 7. The Virtual Partnerships will include a website and an email list-serve. It will encourage the membership of community-based organizations (CBOs) and NGOs (registered and non-registered). The virtual partnership will be working in all regional languages as well as English, with country-specific content managed in each country respectively. The primary focus of the partnership will be to raise the visibility of local/national/regional NGOs in the Convention process through the implementation of small, well-defined pilot projects that concentrate on attainable joint regional actions, including regional NGO activities in support of the Caspian Day celebrated every year on the 12th August.

Activity 3. Regional NGO meetings

Further support to the strengthening of the civil society engagement in the Convention process will be provided through regular regional NGO meetings that will allow the regional NGO community to exchange experiences, strategize and coordinate their input to the Convention process. Those meeting will be primarily held in conjunction with the Meetings of the Conference of the Parties, but also at other occasions as deemed necessary.

Output 7. Data/information sharing web-based Caspian Information Centre (CIC) incorporating Caspian environment status data.

Activity 1. Enhance data and information sharing through the establishment of a web-based CIC, incorporating available environment status data

This activity will promote data collection, monitoring, analysis, harmonization and public communication. It will build upon work done to create the Unified Environmental Monitoring Program under Component I, Output 2, Activity #1 and work done to harmonize environmental reporting under Component 2, Output 4. This activity will make harmonized data and related environmental reports from the Convention available on the Internet -- accessible and transparent for public – as a critical element to facilitating good regional environmental governance and to meet the requirements of the

Tehran Convention, in particular Art. 21. Upon request of the COP, the CIC will also be the host to a Tehran Convention website and to the above mentioned "Virtual NGO Partnership".

Activity 2. Prepare the biennial report on the state of the environment of the Caspian Sea and a Biodiversity Atlas for the Caspian.

Public education is key element for enhanced public awareness of the conditions, challenges and threats to the environment of the Caspian Sea. Adequate education is relevant to all concerned stakeholders at all levels in the civil society. This activity will aim at ensuring and improving the availability of regular comprehensive reports providing accurate, up-to-date and accessible information about environmental conditions of the Caspian Sea and thereby enhancing the consciousness of the civil society.

The report will be prepared in close collaboration with main stakeholders and on the basis of scientific assessment. The activity will also contribute to the preparation of other relevant information/education materials including the Biodiversity Atlas of the Caspian Sea

All materials will be accessible through the CIC and will be widely distributed to the public.

OUTCOME 5: ADAPTIVE MANAGEMENT OF THE CASPECO PROJECT.

Output 8. Project Coordination & Management Unit (PCMU)

Activity 1: Support to establish the PCMU in Astana including office equipment, provision of capacity building training.

Work under this activity will entail establishing the PCMU in Astana, Kazakhstan. This will require the hiring of an international Chief Technical Advisor (CTA), national professionals and support staff, and CaspEco project coordinators in each of the other four Caspian countries. The CTA will organize training events for PCMU staff to ensure effective teamwork among the PCMU. The Government of Kazakhstan will provide modern office space, furniture and office equipment to the new PCMU.

Activity 2: Transfer of CEP-SAP project assets in Tehran to new PCMU venue in Astana.

The CaspEco project is designed to build upon what has been done to date by CEPI and II. This will require some careful transfer of CEP project assets from the current PMCU in Tehran to the new PCMU venue in Astana, including the CEP library, the Caspian Information System, the Technical Documents Unit, and the transfer of CEP website content into a new Caspian Information Center website with new hosting and web-design services tailored to support the Tehran Convention. The website will be consistent with IW:LEARN guidance and cost norms.

Output 9. Adaptive management process.

Activity 1. Conduct annual Steering Committee (SC) Meetings, regular monitoring, & participate in each GEF Biennial International Waters Conference (IWC).

Annual steering committee meetings will be held. These meetings will coincide with the meeting of the annual meeting of the TC Executive Body as a cost-saving measure since most of the members in both bodies will be the same. At each meeting, the project director will report on the project's progress in achieving the project's Strategic Results Framework (SRF) indicators of success as well as benchmark indicators for the project's day-to-day work. Each annual workplan submitted to the SC will be linked to SRF indicators.

To facilitate adaptive management, the project CTA will be required to provide to the SC an assessment of the project's implementation successes and struggles to date along with recommendations for how the project can build on success and learn from difficulty as part of its ensuing annual work planning process. In addition, project staff will actively participate in GEF IW:LEARN activities and at least one project and two country officials will participate in each GEF Biennial IWC and produce an exhibit for the IWCs.

A mid-term progress review will be conducted by one outside expert at the project's halfway mark. This will focus on assessing the project's progress to date with achieving SRF indicators and providing specific recommendations for how to maximize the achievement of indicators in the remaining 2nd half of the project implementation period. A final or terminal evaluation will be conducted as per GEF and UNDP Terminal Evaluation guidelines.

2.4 Project Indicators, Risks and Assumptions

Risk	Risk Rating	Risk Management Measures
The establishment and smooth functioning of the permanent TC Secretariat presents several risks, including the possible delay on agreement by the states on its location and fulfillment of their funding commitments for Secretariat costs.	L-M	These risks are managed in several ways: i) through initial support to establish the Secretariat based on international best practice with appropriate managerial and technical skills for coordination of the regional program. ii) The project is helping TCIS apply a proactive, cost-effective step-by-step approach to the countries becoming full financing partners of the TC Secretariat. This approach first enables countries to support the TCIS through their annual contributions by supporting Out-posted Units of the TCIS in their own country as a transitional measure, leading to full funding of a permanent Secretariat as the next step.
The protocols to the Tehran Convention may not to be ratified in a timely fashion by the countries.	L-M	The project emphasizes helping countries prepare for the ratification of the protocols through assessments of each country's respective law and policy framework to enable a more informed and efficient consideration and rapid approval by respective national bodies. This risk is assessed to be on the low end because these protocols are called for under the already ratified TC and the five Presidents requested their rapid development and entry into force part of their regional meeting on Caspian sea issues.
Insufficient organizational capacity to address the environmental issues on an ecosystem-based approach		The Tehran Convention process, including planned support for ecosystem-based bioresources management instruments, is designed to mitigate the political and institutional risks.
Environmental perturbations could affect conservation and sustainable use results.	M-S	The project's success indicators are designed to account for these perturbations. The project emphasizes data-driven adaptive management, which will help the bioresource managers to discern the difference between impacts from environmental changes and anthropogenic impacts and respond accordingly.
Poor inter sectoral coordination in particular poor intersectoral approach to bioresources management.	H	The TC is not an environmental convention – it is a sustainable development convention – and this reality provides the regional legal basis for lowering the barriers among environment and fisheries and resource use in order to develop joint proactive programs. This project takes two main approaches to this: The process and institutional side emphasizes intersectoral, inter-Ministerial Coordination

		mechanisms be established to oversee and facilitate TC implementation and project implementation at the national and regional levels. At the technical level, the project introduces the ecosystem-based approach to bioresource management, which is rooted in applying a intersectoral approach to resource management and conservation.
Baseline Gov't funding may continue only to support basic management of bioresources.	L-M	The project emphasizes enabling stakeholders to work with resources at hand and build effective conservation practice step-by-step by applying a multiple-level approach to conservation and monitoring work.
Caspian bioresource management staff may have difficulty overcoming years of habit and organizational culture in order to change their approach from being reactive to proactive in bioresources management and conservation.	S-M	The project places a high priority on capacity building through *in-situ* training, personnel exchanges with and study tours to areas with similar challenges and very different management proscriptions.
Support from donors & private sector for regional partnerships on environmental issues may suffer due to the complexity and variety of the political issues related to each littoral state.	M	The project mitigates this risk because its work is a regional endeavor and is not focused on any one country. Secondly, the project is focused on non-political ecological and sustainable development issues.
Poor access to data and information may constrain the project's work with monitoring and resource conservation.	M-H	The project mitigates this risk in three ways: First, the project enables each country to contribute information and data at its own "comfort level" and to increase this level of comfort as trust builds and experience allows. Secondly, the project seeks to build its work on data and information needs that are not considered sensitive by the countries. Thirdly, the project will build upon years of information and data generated by CEP work in order to allow the countries to continue building a collectively owned regional database on Caspian ecosystem health parameters.
Climate change: marine and coastal ecosystems are most susceptive to climate change impacts	M	The project's ecosystem-based approach emphasizes the importance of bolstering ecological resilience in the Caspian by better linking fisheries and conservation objectives. The full project will include climate change resilience analysis in the marine and coastal PA monitoring programme. Through the TDA/SAP process the project will also assist the littoral countries to the build management flexibility needed to adapt to the most severe climate change scenarios.
Inflationary pressures and falling value of the US$ could place significant stress on the project's bottom-line, hampering its ability to hire and keep good staff and fund activities at planned levels.	M-H	Budget estimates in the project document are anticipating some additional decline in the dollar's value and competitive salary rates will need to be re-assessed on an more frequent basis in order for the project to be able to retain top-level staff. The project team will need to be prepared to adapt to changing circumstances if necessary.

2.5 Incremental reasoning and expected global, national and local benefits

128. Under the baseline scenario (in the absence of this GEF incremental investment) the Caspian states will face significant bioresources management challenges in light of the depleted fisheries and related problems affecting the region. In the baseline scenario, Caspian states will proceed as best they can with traditional fishery management practices. But these efforts will be hampered by a weak transboundary

bioresources management body, by a significant capacity gap among the five Caspian states, by knowledge and experiential barriers related to ecosystem management and ecosystem resilience, and by steadily eroding biological diversity in the aquatic Caspian environment. The Tehran Convention is a rare and fragile flower that is not ready yet to survive on its own without some cultivation and irrigation. Under the baseline scenario, the countries will struggle to finalize and adopt 4-5 protocols to the Convention and to build the Convention Secretariat into a sustainable, regionally based entity.

129. The GEF alternative provides sustained attention through the Tehran Convention process to help the states integrate bioresource restoration measures into an integrated ecosystem management approach for the Caspian. A GEF-supported co-funded project is key to achieving this goal. Without external support from GEF, it is unlikely that the littoral states will be able to reach agreement on practical measures for sustainable, ecosystem-based bioresources management. Without the incremental support from GEF and the targeted co-funding support of the project's partners, it is unlikely that the littoral states will be able to consolidate their impressive achievements related to the Tehran Convention by adopting and implementing the key protocols and secure a sustainable permanent Secretariat.

Expected Global Benefits

- Improved management and understanding of the Caspian Sea, one of the world's unique transboundary closed water bodies.
- Improved management of depleted transboundary fisheries shared by five countries;
- Strengthened capacity for transboundary bioresources management.
- Strengthened Tehran Convention and its Secretariat enable sustainable trans-boundary environmental governance.
- Improved management and strengthened resilience of the Caspian's five species of sturgeon, which as one of the oldest genera in the world and occupies a unique place in the biological history of the planet.
- Conservation of the Caspian seal, an endemic species.
- Improved management and conservation of other endemic species of fish in the Caspian, such as the three species of Caspian herring and the Caspian salmon. The Caspian region is a center of endemism globally for brown trout. This project will bring some much-needed attention to the Caspian salmon, a highly threatened species. The genetic diversity of the locally adapted races of brown trout in the Caspian region are of great value because of their intrinsic value, their ecological role in freshwater ecosystems, their value as a source of genetic diversity for salmon hatchery programs worldwide, and because—due to their ability to survive in warmer water conditions than other European races of *S. trutta* -- their increased resilience to the environmental effects of global warming. These traits are very valuable to protect in a warming world.
- Improved understanding of the resilience of the Caspian Sea ecosystem and the importance of ecosystem resilience in the face of global climate instability.

Expected National & Local Benefits

- National benefits will include assistance in restoring one of the world's most fisheries - sturgeon.
- National fishery organizations will benefit from improved hatchery efficiency and strengthened resilience of non-sturgeon commercial fisheries.
- National organizations will benefit from the potential revitalization of one of the most sought-after sport fish in the world – the Caspian Sea salmon.
- National organizations will benefit from training programs and from strengthened capacity in ecosystem-based management and the use of newly developed decision support tools for EBM.
- Local benefits will include improved awareness of environmental issues among targeted groups of local stakeholders

2.6 Country Ownership: Country Eligibility and Country Drivenness

130. All five proposed recipient countries -- Azerbaijan, Kazakhstan, Islamic Republic of Iran, Russian Federation and Turkmenistan – are eligible under paragraph 9 (b) of the GEF Instrument. All five countries have signed and ratified the Convention on Biological Diversity (CBD): four of the five countries have signed the Convention on International Trade in Endangered Species (CITES). Both Conventions are highly relevant to the management and conservation of bioresources in the Caspian Sea. All five countries have committed to the implementation of the principles of the FAO Code of Conduct for Responsible Fisheries.

131. The proposed project will build on the growing national and political commitment shown by the Caspian littoral states to engage in effective regional environmental cooperation. The five Caspian States achieved a major milestone and demonstrated an impressive level of ownership with the entry into force of the Tehran Convention in 2006 and the convening of the 1st Conference of Parties in May 2007.

132. The Caspian States have also made significant progress in NCAP implementation, including integration of the NCAPs into national development strategies and budget planning. Given the important competing development priorities and political sensitivities in the region, however, cooperation on transboundary environmental problems, including issues of global significance such as shared bioresources, biodiversity, invasive species, and organic pollutants, is not automatic. Shared legal obligations of countries that are set forth in the Tehran Convention can only be met through regional cooperation – not only among environmental officials of the five Caspian states, but also among fisheries, local and regional development organizations, and foreign affairs officials both nationally and regionally. Continued GEF support will ensure that the GEF-catalyzed achievements of the past eight years will serve as the foundation for concerted national and regional actions to protected the unique biodiversity of the Caspian and ensure that coastal communities will still be able to rely on Caspian bioresources to support their livelihoods.

133. The national and regional concerns regarding the status of the Caspian environment and the need to collaborate regionally and internationally to address these environmental challenges facing the Sea are well captured in Points 11 and 12 of the *Caspian Presidents' Tehran Declaration of October 2007*:

> *Point 11: The Parties, recognizing their responsibilities to the present and future generations to protect the Caspian Sea and the integrity of its environmental system, emphasize the importance of extending cooperation to address environmental issues including coordination of national policies to protect the environment and collaboration with the international environment protection organizations in order to establish a regional order to protect and maintain biological diversity and to wisely utilize, propagate and culture bioresources.*
>
> *Point 12: The parties accept that the environmental conditions of the Caspian and its sturgeon stocks call for extended and speedy collaborative efforts to avoid undesirable environmental consequences. In this connection the parties will continue to establish priority legal-contractual basis that are required for the regional cooperation to protect the environment of the Caspian on the basis of the Caspian Legal Regime Convention.*

134. The countries' respective national biodiversity conservation and sustainable use action plans all highlight the Caspian region as a priority. The National Strategy for Biodiversity Conservation in Russia, in force since 2002, refers to the Caspian Sea ecosystems as being critical ecosystems and the Caspian Sea itself – to the list of "Unique natural complexes, centers of endemism and regions of key significance for conservation of global and national biodiversity…". Turkmenistan's Action Plan for the Conservation and Sustainable Use of Biodiversity (1997) calls for the conservation of biodiversity of the Caspian Sea.

Project link to the CP/GCF/RCF and UNDAF.

Country:	UNDAF Outcome(s)/Indicator(s):	Expected Outcome(s) /Indicator (s):	Expected Output(s)/Indicator(s):
Azerbaijan	Natural environmental protection and natural resources management.	Same as UNDAF	Mechanism placed for management of international waters.
Islamic Republic of Iran	Global environmental concerns and green development integrated in national development frameworks through commercially based approaches to sustainable natural resource use, capacity building, and the removal of economic, legal, institutional, technology barriers.	Same as UNDAF	Tackling coastal pollution with priority given to the Caspian Sea.
Kazakhstan	Comprehensive approach to SD integrated into national development planning and linked to poverty reduction.	Same as UNDAF	Increased capacity of the national Council of SD" and "expanded cooperation of private sector and other stakeholders in natural resources management.
Russia	NA	Improved environmental sustainability of development /environmental dimension in development policy.	Conserved ecosystems are considered as important resource for sustainable development.
Turkmenistan	A comprehensive approach to environmentally sustainable principles and practices is implemented into policies at all levels and into community development and is linked to improved social well-being'.	Same as UNDAF	Environmental and natural resources policies/implementation are aligned with global environmental commitments and national development priorities.

2.7 Relevance to UNDP mandate.

135. The project is designed to maximize its relevance to the UNDP mandate within GEF. Capacity development in ecosystem-based bioresources management is key element of the project's work. Governance is the other key element of the project's work in its support of the Tehran Convention's maturation and transition to sustainability. The project aligns with and falls within the Regional and Global Cooperation on Transboundary Waters strategic priority of UNDP's corporate Water Governance Strategy. Overcoming barriers to participation and knowledge transfer at the local level is also an important element of the project's approach. Approximately 10% of the project's budget will be committed to a matched small grants program that will focus on strengthening ecosystem resilience at the local level by enabling local monitoring of environmental parameters, by improving public awareness among target groups of local stakeholders, and by helping local people to overcome knowledge and

financial barriers to piloting new livelihood generation activities that also have the effect of reducing pressure (fishing or other) on priority bioresources (e.g. small scale aquaculture).

2.8 Sustainability

136. The potential for sustainability of project-inspired approaches is high for the following reasons:

137. Environmental: The project's whole approach is to enable the Caspian countries to develop and apply a bioresources management and conservation approach that focuses on ecosystem health and ecosystem resilience. Depleted fisheries cannot be restored using technological solutions alone: natural processes must be better understood and restored as well in order to achieve environmental sustainability. A resilient ecosystem is best able to withstand and absorb climate instability.

138. Social/institutional: The project is building upon and working through the Tehran Convention - an extremely impressive regional governance framework ratified by all five Caspian countries – and the only binding legal commitments among all five countries. Very few regional projects have such a solid legal and institutional basis and this has significant implications for sustainability given that countries have obligated themselves to support and further regional environmental improvements.

139. Financial: a) Significant national investments have been and are being made in each country. These investments are tracked as implementation of the NCAPs, and would be expected to accelerate as the SCAP and Convention protocols enter into force.

140. b) The countries have committed themselves to providing financial support to the Tehran Convention Secretariat in the amount of $360,000/year beginning in 2009. The project is designed to help the Interim Secretariat of the Convention (TCIS) begin to implement key articles and protocols to the Convention in the Caspian region beginning in 2008, providing 12-18 months of support to the TCIS as it transitions to full support from the countries themselves. The cost-effectiveness of the project's work also bodes well for the sustainability of the proposed approach. The value of the Caspian's bioresources, particularly the sturgeon, demand that serious investments continue to be made in new and improved approaches for bioresources management of the kind that the project will enable the states to establish.

2.9 Replicability

141. The proposed project has the potential to provide lessons that can be adapted to other regions of the world, particularly those aiming to adopt ecosystem-based management approaches to bioresources conservation and management and those seeking to establish a truly country-owned and driven regional framework convention and governance process. The project will document these lessons in a form that facilitates their replicability, and will actively participate in GEF and other activities that seek to promote replication and share experiences, such as IW:LEARN and the Biennial GEF IW Conferences. The project will also draw on lessons learnt from other GEF IW projects in particular: the Black Sea project on donor coordination; the Rio de la Plata project on enhancing usefulness of websites and other communication tools and on pilot networks for the exchange of information; the Benguela Current project on "state of the ecosystem" reporting, bridging skills gaps among different countries, and shared stocks management. The anticipated cost of such knowledge sharing and replication-related activities is approximately US$70,000 or about 1.5% of the project budget. See "Learning and Knowledge Sharing" section under Table 5 below for more detail.

PART III: Management Arrangements

142. The project will be implemented by UNDP with UNOPS as the Executing Agency.

143. A Project Management and Coordination Unit (PMCU) will provide the day-to-day management and coordination function for project activities. A Chief Technical Advisor (CTA) will oversee the PMCU. The CTA will have strong project management experience, multidisciplinary skills, fluency in English and at least one of the Caspian country languages, and will preferably have experience in the Caspian region and a background in natural resources management and environmental management. The CTA will report to the UNDP-GEF Regional International Waters Advisor located in Bratislava.

144. The core of the PMCU will be located in the offices of the Ministry of Environment in Astana, Kazakhstan, and staffed by a Fisheries and Bioresources Expert (FBE), a Finance and Administrative Affairs Officer (FAAO), a Civil Society Participation Officer (CSPO), and one Operations & Logistics Assistant (OLA) providing support to the CTA and the FAAO. All PCMU staff will be recruited at the national UN contracting level. The Government of Kazakhstan (GoK) and GEF will co-fund the PMCU. The GoK will provide modern office space, furniture and equipment necessary for the functioning of the PMCU, including computers, copy machines and other materials as needed and appropriate. The GEF will fund PMCU staff costs.

145. Five out-posted, regionally-recruited project staff will also be part of the PMCU and will report to the CTA: one Project National Coordinator (PNC) will be hired in each of the five Caspian states to enable project implementation at the national level and assist the NFP. This PNC will liaise closely with the Out-posted Unit of the Tehran Convention Interim Secretariat (TCIS) to be located in each Caspian state, as well as the Inter-Ministerial Coordination Mechanism (IMCM) in each Caspian state.

146. The PMCU will need to be able to exercise a considerable degree of financial independence for it to operate effectively, particularly with respect to local contracting and the executing agency will design the necessary administrative arrangements to support this. International and regional consultants, selected from agreed rosters, will also support the PMCU.

147. The project will be guided by a Steering Committee (SC) comprised of representatives from each of the five participating states, international partners and other stakeholders. The SC will provide adaptive management guidance based upon project progress assessments and related recommendations from the PMCU. The SC will review and approve annual project reviews and workplans, technical documents, budgets and financial reports. The SC will provide general strategic and implementation guidance to the PMCU. It will meet annually, make decisions by consensus, and liaise closely with the TCIS and its Executive Body. The specific rules and procedures of the SC will be decided upon at the project inception meeting.

148. Country-funded National Focal Points (NFP) in each of the five Caspian states will be encouraged to establish an IMCM where none currently exist, to ensure policy streamlining and facilitate in-country implementation of the project and the Tehran Convention and its protocols. Another important role of the NFP will be to ensure coordination of relevant national projects (government and donor funded) with the UNDP-GEF project and to liaise with the TCIS and its Out-posted Units.

149. The success of the project implementation is dependent upon strong project guidance, coordination and advocacy from the SC. The PMCU which will be responsible for arranging SC meetings, providing materials to members prior to the meeting, and delineating a clear set of meeting objectives and sub-objectives to be met.

150. A regional Stakeholder Participation Group (SPG) will be established and supported to facilitate civil society participation in regional bioresource issues and Tehran Convention implementation. Stakeholders from a wide array of groups with diverse interests and concerns will be invited to serve on

the SPG. They may include representatives from coastal communities, NGOs, oil, fishing and tourist industries, conservationists, the media, educators, and others. The members will receive training on the Tehran Convention and the ecosystem based management approach. The SPG will convene prior to or subsequent to SC Meetings to provide feedback, recommendations, comments and critique on project developments. To cultivate accountability, the feedback from the SPG will be presented to the SC in an un-filtered manner to allow the SC members to take this into account as they provide adaptive and strategic guidance to the PMCU. The SPG inputs will also be into project implementation and workplanning, including NSCAP design and pilot projects.

151. The Tehran Convention Interim Secretariat (TCIS) is fundamental to the project's work on environmental governance. The project's management arrangements and the institutional arrangements for the nascent TCIS have been designed to be as complementary and collaborative as possible.

152. In line with the decision of the first Meeting of the Conference of the Parties (CoP) to the Tehran Convention (TC), the United Nations Environment Programme/Regional Office for Europe is acting as the TCIS pending a decision of the Contracting Parties on the arrangements and location of the TC Permanent Secretariat (TCPS). The Interim Secretariat will place Out-posted Units (OU) of the TCIS in each of the Caspian littoral state with the mandate to implement part of the TC Programme of Work and in particular to provide regional leadership on the implementation of specific protocols or themes. The OU are being created in order to strengthen the capacity of the TCIS, ensure adequate regional presence and country ownership of the Convention process, and to engage the Caspian littoral States in the implementation of the TC and its protocols in a cost effective manner. The arrangement should be seen as an interim institutional arrangement for the TC, pending the decision by COP on the location of the TCPS.

153. OU staff and office space will be funded through each respective country's annual contribution to the Convention Secretariat's work. Each of the five OU will have at least one officer and will work under the supervision of the Head of the TCIS as an integrated part of the TCIS. Each OU will have specific ToR and a budget approved by the COP II. Activities conducted by each OU will be funded by GEF within the context of the agreed programme of work. The TCIS and OU will coordinate closely with the project SC and PMCU to ensure the harmonized and efficient implementation of inter-related activities. In the performance of the day-to-day activities the OU will maintain a close dialogue with the National Coordinators of the CaspEco project in particular on issues related to the implementation of the SCAP and NSCAPs. As a cost saving measure, SC meetings will be held in conjunction with the meetings of the (future) TC Executive body. In similar way the project will ensure that the CoP of the TC is adequately informed about the implementation of the CaspEco project and its implications for the Convention process. The long-term purpose of this cooperation between the Convention process and the CaspEco project is to integrate the two processes and ensure adequate continuation of CaspEco-inspired initiatives under the umbrella of the TC process once CaspEco is completed.

154. In order to accord proper acknowledgement to GEF for providing funding, a GEF logo should appear on all relevant GEF project publications, including among others, project hardware and vehicles purchased with GEF funds. Any citation on publications regarding projects funded by GEF should also accord proper acknowledgment to GEF. The UNDP logo should be more prominent -- and separated from the GEF logo if possible, as UN visibility is important for security purposes."

PART IV: Monitoring and Evaluation Plan and Budget

155. Project monitoring and evaluation will be conducted in accordance with established UNDP and GEF procedures by the project team and the UNDP-GEF Regional Coordinating Unite (RCU) in Bratislava. The Strategic Results Framework Matrix provides impact and outcome indicators for project

implementation along with their corresponding means of verification. The M&E plan includes: inception workshop and report, project implementation reviews, IW Results Template, GEF-4 IW Results Tracking Tool, quarterly operational reports, and a mid-term and final evaluation. .Table 5 outlines indicative cost estimates related to M&E activities. The project's Monitoring and Evaluation Plan will be presented and finalized at the Project's Inception Meeting following a collective fine-tuning of indicators, means of verification, and the full definition of project staff M&E responsibilities.

Project Inception Phase

156. A Project Inception Workshop will be conducted with the full project team, relevant government counterparts, co-financing partners, the RCU, as well as UNDP-CO and GEF (HQs) as appropriate. A fundamental objective of this Inception Workshop will be to assist the project team to understand and take ownership of the project's goals and objectives, as well as finalize preparation of the project's first annual work plan on the basis of the project's logframe matrix. This will include reviewing the logframe (indicators, means of verification, assumptions), imparting additional detail as needed, and on the basis of this exercise finalize the Annual Work Plan (AWP) with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the project. Additionally, the purpose and objective of the Inception Workshop (IW) will be to: (i) introduce project staff with the UNDP-GEF *expanded team* which will support the project during its implementation, namely OPS and responsible RCU staff; (ii) detail the roles, support services and complementary responsibilities of OPS and RCU staff vis à vis the project team; (iii) provide a detailed overview of UNDP-GEF reporting and monitoring and evaluation (M&E) requirements, with particular emphasis on the Annual Project Implementation Reviews (PIRs) and related documentation, as well as mid-term and final evaluations. Equally, the IW will provide an opportunity to inform the project team on UNDP project related budgetary planning, budget reviews, and mandatory budget rephasings. The IW will also provide an opportunity for all parties to understand their roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. And finally, the IW will invite and include other partners to facilitate coordination of complementary programs and projects in the Caspian region. The Terms of Reference for project staff and decision-making structures will be discussed again, as needed in order to clarify for all, each party's responsibilities during the project's implementation phase. Rules of procedure for SC meetings will also be discussed and agreed.

Monitoring responsibilities and events

157. A detailed schedule of project reviews meetings will be developed by the project management, in consultation with project implementation partners and stakeholder representatives and incorporated in the Project Inception Report. Such a schedule will include: (i) tentative time frames for Steering Committee Meetings, or other relevant advisory and/or coordination mechanisms and (ii) project related Monitoring and Evaluation activities.

158. Day to day monitoring of implementation progress will be the responsibility of the CTA based on the project's Annual Work Plan and its indicators. The Project Team will inform UNDP of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion. The CTA will fine-tune the progress and performance/impact indicators of the project in consultation with the full project team at the Inception Workshop with support from the RCU. Specific targets for the first year implementation progress indicators together with their means of verification will be developed at this Workshop. These will be used to assess whether implementation is proceeding at the intended pace and in the right direction and will form part of the Annual Work Plan. The local implementing agencies will also take part in the Inception Workshop in which a common vision of overall project goals will be established. Targets and indicators for subsequent

years would be defined annually as part of the internal evaluation and planning processes undertaken by the project team.

159. Periodic monitoring of implementation progress will be undertaken by the RCU through quarterly telephone meetings with the project local implementation group, or more frequently as deemed necessary. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities. The RCU will conduct yearly visits to projects that have field sites, or more often based on an agreed upon scheduled to be detailed in the project's Inception Report/Annual Work Plan to assess first hand project progress. Any other member of the Steering Committee can also accompany, as decided by the SC. A Field Visit Report will be prepared by the RCU and circulated no less than one month after the visit to the project team, all SC members, and UNDP-GEF.

160. Annual Monitoring will be ensured by means of the project Steering Committee meetings[9] being the highest policy-level meeting of the parties directly involved in the implementation of a project. SC meetings will be held at least once every year. The first such meeting will be held within the first twelve months of the start of full implementation. The project implementation team will prepare a harmonized Annual Project Report and Project Implementation Review (APR/PIR), IW Results Template (RT) and the GEF-4 IW Results Tracking Tool and submit it to UNDP-CO and the UNDP-GEF regional office at least two weeks prior to the SC for review and comments. The APR/PIR will be used as one of the basic documents for discussions in the SC meeting. The project proponent will present the APR to the SC, highlighting policy issues and recommendations for the decision of the SC members. The project proponent also informs the participants of any agreement reached by stakeholders during the APR/PIR preparation on how to resolve operational issues. Separate reviews of each project component may also be conducted if necessary.

Project Monitoring Reporting

161. The Chief Technical Advisor (CTA) in conjunction with the UNDP-GEF extended team will be responsible for the preparation and submission of the following reports that form part of the monitoring process.

162. A Project Inception Report will be prepared immediately following the Inception Workshop. It will include a detailed First Year Work Plan divided in quarterly time frames detailing the activities and progress indicators that will guide implementation during the first year of the project. This Work Plan would include the dates of specific field visits, support missions from the RCU or consultants, as well as time frames for meetings of the project's decision making structures. The Report will also include the detailed project budget for the first full year of implementation, prepared on the basis of the Annual Work Plan, and including any monitoring and evaluation requirements to effectively measure project performance during the targeted 12 months time-frame. The Inception Report will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of project related partners. In addition, a section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may effect project implementation. When finalized the report will be circulated to project counterparts who will be given a

9 A SCM mechanism as such is similar to the Tripartite Review (TPR) formally required for the UNDP/GEF projects, and differs from the latter only in the composition of the review panel, which, in case of the SC, is broader that that of the TPR.

period of one calendar month in which to respond with comments or queries. Prior to this circulation of the IR, the RCU will review the document.

163. The APR/PIR is an annual monitoring process mandated by the GEF[10]. It has become an essential management and monitoring tool for project managers and offers the main vehicle for extracting lessons from ongoing projects. It also forms a part of UNDP's central oversight, monitoring and project management, as well as represents a key issue for the discussion at the Steering Committee meetings. Once the project has been under implementation for a year, an APR/PIR must be completed by the RCU together with the project implementation team. The APR/PIR can be prepared any time during the year (July-June), prior to the SC meeting. The APR/PIR should then be discussed at the SC meeting so that the result will be an APR/PIR that has been agreed upon by the project, the executing agency, and the key stakeholders. The individual APR/PIRs are collected, reviewed and analysed by the RC prior to sending them to the focal area clusters at the UNDP/GEF headquarters.

164. Quarterly Progress reports: Short reports outlining main updates in project progress will be provided quarterly to the RCU by the project team based upon a standard format to be provided by UNDP-GEF.

165. As and when called for by UNDP, UNDP-GEF or the Implementing Partner, the project team will prepare Specific Thematic Reports, focusing on specific issues or areas of activity. The request for a Thematic Report will be provided to the project team in written form by UNDP and will clearly state the issue or activities that need to be reported on. These reports can be used as a form of lessons learnt exercise, specific oversight in key areas, or as troubleshooting exercises to evaluate and overcome obstacles and difficulties encountered. UNDP is requested to minimize its requests for Thematic Reports, and when such are necessary will allow reasonable timeframes for their preparation by the project team.

166. During the last three months of the project the project team will prepare the Project Terminal Report. This comprehensive report will summarize all activities, achievements and outputs of the Project, lessons learnt, objectives met, or not achieved, structures and systems implemented, etc. and will be the definitive statement of the Project's activities during its lifetime. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the Project's activities.

Independent Evaluation

167. The project will be subjected to at least two independent external evaluations as follows:

168. An independent Mid-Term Review will be undertaken at the mid of the second year of implementation. The Mid-Term Review will determine progress being made towards the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term review will be prepared by the PMCU based on guidance from the RCU and UNDP-GEF.

169. An independent Final Evaluation will take place three months prior to the terminal Steering Committee meeting, and will focus on the same issues as the mid-term evaluation. The final evaluation

10 The GEF M&E Unit provides the scope and content of the PIR. In light of the similarities of both APR (standard UNDP requirement) and PIR (GEF format), UNDP/GEF has prepared a harmonized format - an APR/PIR.

will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The Final Evaluation should also provide recommendations for follow-up activities. The Terms of Reference for this evaluation will be prepared by the PMCU based on guidance from the RCU and UNDP-GEF.

Audit Clause

170. The project will be audited in accordance with UNDP Financial Regulations and Rules and Audit policies.

Table 5: Project Monitoring and Evaluation Plan and Budget

Type of M&E activity	Responsible Parties	Budget US$ *Excluding project staff time*	Time frame
Inception Workshop & associated arrangements	▪ CTA ▪ UNDP CO ▪ UNDP GEF	Indicative cost: 15,000	Within first two months of project start up
Inception Report	▪ Project Team ▪ UNDP CO ▪ Consultancy support if needed	Indicative cost 5,000 (stakeholder consultations, consultancy translation)	Immediately following IW
Measurement of Means of Verification for Project Purpose Indicators	▪ CTA will oversee the hiring for specific studies and institutions, delegate responsibilities to relevant team members, and ▪ Ensure hiring outside experts if deemed necessary	To be finalized in Inception Phase and Workshop. Indicative cost 12,000	Start, mid and end of project
Measurement of Means of Verification for Project Progress and Performance (measured on an annual basis)	▪ Oversight by Project GEF Technical Advisor and CTA ▪ Measurements by regional field officers and local IAs	To be determined as part of the Annual Work Plan's preparation. Indicative cost 12,000	Annually prior to APR/PIR and to the definition of annual work plans
APR/PIR; GEF-4 IW Tracking Tool	▪ Project Team ▪ UNDP-CO ▪ UNDP-GEF	Indicative cost: 0	Annually
Steering Committee Meetings and relevant meeting proceedings (minutes)	▪ CTA ▪ UNDP CO	Indicative cost: 46,000 (travel costs for relevant project stakeholders)	Following Project IW and subsequently at least once a year
Quarterly status reports	▪ Project team	Indicative cost: 0	To be determined by Project team and UNDP CO
Technical reports	▪ Project team ▪ Hired consultants as needed	Indicative cost: 30,000	To be determined by Project Team and UNDP-CO
Project Publications (e.g. technical manuals, field guides)	▪ Project team ▪ Hired consultants as needed	Indicative cost: 40,000	To be determined by Project Team and UNDP-CO
Mid-term External Review	▪ Project team ▪ UNDP- CO ▪ UNDP-GEF RCU ▪ External Consultants (i.e.	Indicative cost: 18,000	At the mid-point of project implementation.

Type of M&E activity	Responsible Parties	Budget US$ *Excluding project staff time*	Time frame
	evaluation team)		
Final External Evaluation	▪ Project team, ▪ UNDP-CO ▪ UNDP-GEF RCU ▪ External Consultants (i.e. evaluation team)	Indicative cost: 42,000	At the end of project implementation
Terminal Report	▪ Project team ▪ UNDP-CO ▪ External Consultant	Indicative cost: 5,000	At least one month before the end of the project
Lessons learned	▪ Project team ▪ UNDP-GEF RCU (suggested formats for documenting best practices, etc)	Indicative cost: 14,000	Yearly
Audit	▪ UNDP-CO ▪ Project team	Indicative cost: 18,000 (average $6000 per year)	Yearly
Visits to field sites (UNDP staff travel to be charged to IA fees)	▪ UNDP Country Office ▪ UNDP-GEF RCU (as appropriate) ▪ Government representatives	Indicative cost: 16,000 (average one visit per year)	Yearly
TOTAL INDICATIVE COST Excluding project team staff time and UNDP staff and travel expenses		US$ 283,000	

LEARNING AND KNOWLEDGE SHARING

1. Results from the project will be disseminated within and beyond the project intervention zone through a number of existing information sharing networks and forums. In addition:

2. The project will participate, as relevant and appropriate, in UNDP/GEF sponsored networks, organized for Senior Personnel working on projects that share common characteristics. UNDP/GEF, IW:LEARN etc. have established a number of networks, such as IWRM, lake and river basin management, Integrated Ecosystem Management, eco-tourism, and co-management that will largely function on the basis of an electronic platform. The project will contribute to IW experience note (IWEN) preparation. Development and maintenance of the project's website will be done following the guidance of IW:Learn. And finally, the project has allocated funds to support the participation of the Project CTA and (2) country representatives in IW Conferences. Approximately 1.5% of the project budget will be spent on these IW:Learn associated activities.

3. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned.

4. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects. Identifying and analyzing lessons learned is an on- going process, and the need to communicate such lessons as one of the project's central contributions is a requirement to be delivered not less frequently than once every 12 months. UNDP/GEF shall provide a format and assist the project team in categorizing, documenting and reporting on lessons learned. To this end a percentage of project resources will need to be allocated for these activities

PART V: Legal Context

171. For all five participating countries, Azerbaijan, I.R. Iran, Kazakhstan, Russian Federation and Turkmenistan, this Project Document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement (SBAA) between these governments and the United Nations Development Programme, signed by the parties previously. The host countries' implementing agencies shall, for the purpose of the SBAA, refer to the governments' cooperating agencies described in that Agreement.

172. The following types of revisions may be made to this Project Document with the signature of the Principal Project Resident Representative (PPRR) only, provided he or she is assured that the other signatories of the Project Document have no objection to the changes:

a) Revision of, or addition to, any of the annexes to the Project Document;
b) Revisions which do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation;
c) Mandatory annual revisions which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility; and
d) Inclusion of additional annexes and attachments only as set out here in this Project Document

SECTION II: STRATEGIC RESULTS FRAMEWORK AND GEF INCREMENT

PART I: Incremental Reasoning

173. Baseline Scenario – a summary of the situation as it would be in the absence of the project.

174. Knowledge based decision-making promoted and capacitated for ecosystem-based bioresources conservation. In the Baseline scenario, Caspian countries will continue to invest substantial sums in bioresources management and monitoring. However, these activities will not be regional in nature, will be limited to a small number of commercially important taxa and will not be ecosystem-based. Improved bioresource management in the Caspian region will be hampered by a very low level of knowledge about practical EBM decision support tools and how to use them in order to integrate fishery management and biodiversity conservation objectives. In the baseline scenario, the littoral states will have difficulty generating QA data at an international standard. Countries will also struggle to apply this data to adaptive management of the Caspian environment in practical ways, such as through ecological risk analyses or by assessing trends with respect to Caspian ecosystem health over time.

175. Invasive species introduction mitigated. Cooperation between CEP-2 and GloBallast Pilot project resulted in a series of meetings at the regional level in the Caspian and a proposed regional roadmap. In the baseline scenario, what is lacking is agreement on a suitable management measure to prevent invasive species transfers in the future. In the baseline scenario, reaching an agreement of this kind will be hampered by the absence of a detailed feasibility study on the top-ranked management options identified in the CEP-Phase 2 study and in weak capacity for compliance and enforcement in the context of the IMO/BWM Convention. Invasive species and in particular *Mnemiopsis ledyii* (ML) will continue to be monitored by disparate groups around the region. For example, in Turkmenistan, the Khazar Reserve monitors ML monthly from four different stations around Turkmenbashi Bay. However, a regional approach to this monitoring and to developing recommendations for joint regional action will be absent.

176. Caspian stakeholders implement measures to increase reproductive success of Caspian's diadromous fish. Many of the Caspian's most valuable commercial fish species and most threatened are diadromous species. In the baseline scenario, most of the programmatic attention and investment in restoring these depleted fisheries will be focused upon "traditional" remedies such as hatcheries and

improved enforcement. Little attention will be paid to critical ecological elements to restoring depleted fisheries in the Caspian sea: Little attention will be paid to EBM and improving the littoral states' understanding of the ecological needs of these species and how to improve their reproductive success by enhancing natural spawning capacity.

177. Stakeholders apply circum-Caspian approach to habitat and EFH conservation in the Caspian. In the baseline scenario, national approaches will continue to be applied with respect to conservation of biodiversity in each littoral state's coastal zone. Conservation will be focused in the littoral states' respective national coastlines of the Caspian and will not be identified from a "whole Caspian" ecosystem perspective. Conservation efforts will be tend to be focused more on wildlife habitat and less on essential fish habitat and priorities.

178. Coastal communities increase participation and are enabled to contribute to improved bioresources conservation in the Caspian region. Under the baseline scenario, coastal communities throughout the Caspian region will continue to face financial and informational/communication barriers to increasing their participation in environmental conservation and to increasing their contribution to an improved regional understanding and consensus on environmental issues.

179. Regional Environmental Governance. In the absence of this project, the Tehran Convention process would falter. The Convention process with its interim Secretariat would lack sufficient resources to secure and provide the basis and incentives for making regional cooperation for the protection of the marine environment of the Caspian Sea fully operational and sustainable. In the baseline scenario, the Convention process with its interim Secretariat can be likened to a small seedling, that without continued care and watering will not survive long enough to grow into a mature tree, or in this case, into a solid legal instrument with operational commitments in the form of protocols, a permanent Secretariat and sustainable financing. The countries, while committed to the Convention, would be severely hampered in their efforts to come together on a regional level to further discuss, develop and finalize the necessary collaborative and corporate arrangements for a regional environmental management regime

Global Environmental Benefits

180. The project is designed to address the IW focal area strategic program #1: Restoring and sustaining coastal and marine fish stocks and associated biodiversity. The project is designed to contribute to the achievement of the SP's expected outcomes and indicators.

181. The project will address the decline in fisheries in the Caspian Sea in a broader context of ecosystem-based understanding of the complex interactions between factors such as biodiversity, pollution, invasive species and habitats. The strengthening of the institutional capacity for cooperative implementation of the SAP (and in the future the SCAP) through promoting the development and application of protocols and EBM approaches for bioresources will enable commitments to be made by the littoral states to joint, EBM-oriented action to mitigate the increasing anthropogenic pressures manifested in the depleted fisheries of the Caspian Sea.

182. The global environmental benefits from this project will include the improved regional management and understanding of the Caspian Sea, one of the world's unique transboundary closed water bodies. Global benefits will also include the improved EBM of depleted transboundary fisheries shared by five countries and the strengthened resilience of the Caspian's five species of sturgeon, which as one of the oldest genera in the world and occupies a unique place in the biological history of the planet. The project's support for EBM will bring an improved understanding of the resilience of the Caspian Sea ecosystem and the importance of ecosystem resilience in the face of global climate instability.

183. The biological diversity of the Caspian and its coastal zone makes the region one of the most valuable ecosystems in the world. The Caspian harbors some 147 species of fish, 450 species, varieties, or forms of phytoplankton, 87 species of algae, and 315 species of zooplankton. One of the most important

features of the Caspian's biodiversity is the relatively high level of endemism among its flora and fauna. Endemic species are a distinct global benefit. Recent studies suggest the actual endemism among animal and plant life in the Caspian may be even higher than what is already known. To date, there are 331 known endemic species in the Caspian. The project will contribute to the conservation of all these species, through its focus on overall ecosystem health and it will contribute specifically to the conservation of such well-known endemic species such as the Caspian seal, and three species of Caspian herring and the Caspian salmon.

184. The Caspian is a center of endemism globally for brown trout. This project will bring some much-needed attention to the Caspian salmon, a highly threatened species. The genetic diversity of the locally adapted races of Caspian salmon are of great value because of their intrinsic value, their ecological role in freshwater ecosystems, their value as a source of genetic diversity for salmon hatchery programs worldwide, and because—due to their ability to survive in warmer water conditions than other European races of *S. trutta* -- their increased resilience to the environmental effects of global warming. These kinds of traits are very valuable to protect in a warming world. The project's strengthening of the Tehran Convention and its Secretariat will enable sustainable trans-boundary environmental governance.

Incremental Reasoning

185. In the absence of GEF involvement, Caspian countries will continue to invest substantial sums in bioresources management and monitoring. However, these activities will not be regional in nature, will be limited to a small number of commercially important taxa and will not be ecosystem-based. Improved bioresource management in the Caspian region will be hampered by a very low level of knowledge about practical ecosystem-based management decision support tools and how to use them in order to integrate fishery management and biodiversity conservation objectives.

186. In the absence of this project, the Tehran Convention process would falter. The Convention process with its interim Secretariat would lack sufficient resources to secure and provide the basis and incentives for making regional cooperation for the protection of the marine environment of the Caspian Sea fully operational and sustainable. In the baseline scenario, the Convention process with its interim Secretariat can be likened to a small seedling, that without continued care and watering will not survive long enough to grow into a mature tree, or in this case, into a solid legal instrument with operational commitments in the form of protocols, a permanent Secretariat and sustainable financing. The countries, while committed to the Convention, would be severely hampered in their efforts to come together on a regional level to further discuss, develop and finalize the necessary collaborative and corporate arrangements for a regional environmental management regime

187. The Caspian Environment Programme (CEP), with critical and catalytic support from GEF since 1998, has had three major achievements, namely: the successful TDA/NCAP/SAP process; the establishment of the Tehran Convention, a regional *environmental dialogue and governance mechanism* that entered into force in 2006 and its interim Secretariat; and *resource mobilization initiatives* encouraging considerable environmental investment by the littoral countries and development partners and modest investment by the private sector.

188. Building upon this solid foundation, GEF incremental involvement is critical to: 1) help the countries begin to reverse the ongoing decline in transboundary bioresources and to restore depleted fisheries in the Caspian Sea; and 2) enable the countries to consolidate their achievement with respect to the Tehran Convention (TC) and related protocols and secure a sustainable, fully operational and effective regional environmental governance mechanism.

189. Cooperation on fisheries management in the region is fraught with political sensitivities. As in every region of the world, the bulk of investment and funding in the Caspian supports national-level fisheries and conservation-related work: little goes towards regional, trans-boundary issues and shared resources. While other donors do contribute with some short-term technical assistance, it is critical that sustained

attention be given through the TC process to help the States integrate fisheries recovery measures into an integrated ecosystem management approach for the Caspian. A GEF-supported project is key to achieving this goal. Without external support from GEF, it is unlikely that the littoral states will be able to reach agreement on practical measures for sustainable, ecosystem-based management of shared bioresources. Also, while significant progress has been made by the States with the entry into force of the TC, continued support from GEF and the international community is needed to assist in the full operationalization and sustainability of a functional Secretariat for the TC. Without this support the momentum would likely be lost, and cooperative work on the program outlined in the SAP would falter.

Co-financing

Stakeholders have identified and secured parallel, cash and in-kind co-financing amounting to $42,643,000 from a range of sources. This is detailed in Table 6 below. In addition, each of the five littoral states has identified a total of $293 million in SAP-inspired baseline funding for sustainable development and environment work in the Caspian coastal zone.

Table 6: Sources of Co-funding

Source of Co-financing	**Type**	**Amount**
Government Contributions		
Azerbaijan	Parallel[11]	3,000,000
	Cash	821,000
Islamic Republic of Iran	Parallel	6,500,000
	Cash	876,000
Kazakhstan	Parallel	7,000,000
	Cash/In-kind	1,094,000
Russian Federation	Parallel	8,000,000
	Cash & In-kind	612,000
Turkmenistan	Parallel	$7,500,000
	Cash	839,000
GEF Agencies		
- UNDP	In-kind	500,000
Bi-lateral and Multi-lateral Agencies		
- EU	In-kind	3,596,000[12]
- FAO	In-kind	300,000
- WB	In-kind	830,000
- IAEA	In-kind	120,000
- UNEP	In-kind	205,000
Private Sector		
British Petroleum	In-kind	150,000
OSPRI	In-kind	700,000
Total		**42,643,000**

[11] Parallel funding for activities to conserve and sustainably utilize the Caspian environment in each littoral state.
[12] Calculated at exchange rate of €1 = $1.24

Part II: Strategic Results Framework.

Project Strategy	**Objectively Verifiable Indicators**				
Goal	***Indicator***	*Baseline*	*Target*	***Sources of verification***	***Risks and Assumptions***
Objective: To support the littoral states' efforts to restore depleted fisheries in the Caspian Sea and to fully operationalize and make sustainable the Caspian's regional environmental governance framework.	1) Tehran Convention Strategic Convention Action Plan (SCAP). 2) National Strategic Convention Action Plans (NSCAPs) by EoP.	Not approved/ adopted.	Approved/ Adopted & in use by EoP (End of Project)	COP Minutes; NFP endorsement letter.	Regional collaboration on bioresources management and conservation is in its nascent stages in the Caspian region.
	3) Financial sustainability of Tehran Convention Secretariat (TCS);	No funding from countries.	Annual contributions of 72K by EoY1. (End of Year 1)	TCS budget reflects up-to-date country contributions.	Countries are not used to contributing financially to regional bodies such as the TCIS, which may slow actual disbursement of funds.
	4) Strengthened institutional status of Caspian Aquatic Bioresources Commission (CABC) 5) # of protocols to TC ratified by all 5 countries.	No legal status. No protocols ratified.	Legal status obtained under TC umbrella. At least 3 by EoP At least four protocols ratified by the EoP	CABC institutional status agreement; Protocol ratification notifications.	
	6) # of additional MPA in Caspian;	TBD	At least 1 additional EoP;	APR documents; Country legal designation or management program change documents.	
	7) # of Essential Fish Habitat (EFH) properly assessed and mapped	No EFH	At least 6 EFH by year 3 of the project	EFH maps and habitat assessment document; fish stock assessment recommendations.	

Component 1	Strengthening Regional Capacity for Ecosystem-based Management of Aquatic Bioresources in the Caspian Sea.				Disagreement among countries on the legal status of the Caspian could hamper improved shared bioresources management.
Outcome 1: Ecosystem-based management (EBM) has begun to be adopted and practiced by the Caspian States.	1) New stock assessment methodology recommended for consideration by CABC (or endorsed by CABC) and used in # of countries	Stock assessment method unchanged in over 10 years.	Recommended by EoY 1 and used in all five Caspian countries by EoP	Results of stock assessment workshop and FAO report;	Country support for the improvement of existing stock assessment methods.
	2) # of TCS & country partners using ecosystem modeling tools and supporting data for bioresources conservation and management.	No model, no use	Model in use by at least five users by EoY1	TCS report to COP; COP PoW; APR; Regional Conservation Assessment;	Institutions in the region will take ownership of ecosystem-based planning and management approaches.
	3) % improvement in knowledge of key technical aspects of ecosystem-based bioresources management; # of people trained in bio-economic modeling # of people trained in ecosystem management; # of people trained in ecological monitoring and risk assessment	Knowledge level TBD at beginning of trainings; 0 0 0	At least 30% improvement At least 15; At least 15; At least 15 by EoP.	Before/after skills tests. Training records; APR/PIR	
	4) Level of cooperation between TCS and CABC. Number of joint activities or actions.	None	MoU by end of Year 1. At least three each year or EoP	Signed Memo of Understanding. APR/PIR	Fisheries are a sensitive topic and obtaining agreement on all issues by all five countries is possible, but problematic.
	5) Number of national institutions using the unified environmental monitoring system	None	Five by EoY 2	COP minutes; Endorsement letter.	The timing is right for national environmental monitoring institutions to collaborate effectively, given improved levels of funding, improved equipment and staff capacity.
	6) # of ecological risk assessments done by Caspian states based upon	Zero	At least 2 by EoY 1; 4 by EoP		

	environmental monitoring data.				
Outcome 2: Invasive species introduction mitigated.	1) Regional Action Plan (RAP) on Invasive Species Control and Prevention Endorsed by COP III and MoT Russian Federation;	Does not exist	Endorsed by EoP	COP-III decision minutes. Official policy statement from Ministry of Transport, RF.	Russia is ready to consider in more detail the issue of ballast water treatment for Caspian-bound ships.
	2) # of ships passing the Volga-Don Canal with all necessary BW paperwork.	TBD	No decrease/ increase.	BW database from MoT in Russia.	
Outcome 3: Caspian stakeholders implement policies & measures to increase reproductive success of Caspian's anadromous fish.	1) # of hatcheries adopting improved efficiency and more biodiversity-friendly practices by end of project	None	2 (need confirmation from Phaedra/Amy)	Project reports; Field visits; Hatchery program reports.	Fishery Management Agencies and Min of Environment will be able to collaborate effectively in each country.
	2) Strategy for maintaining genetic robustness in support of fisheries resilience endorsed by CABC.	No strategy; no implementation.	Implementation of the strategy begins in year 2 of the project	The strategy document and Minutes of CABC Meeting.	
	3) # of hectares of land/# km or rivers under improved natural spawning habitat management practices by end of project.	TBD	TBD	Field visits; Pilot project reports; Official policy papers/regulatory notices in relevant countries.	
	4) # hectares of wetlands with improved flooding regimes on the Volga.	TBD	TBD	Official policy papers/regulatory notices.	
	5) # of fish passages improved around dams in Caspian rivers to enable sturgeon to pass upstream of the dam to other spawning grounds.	None	At least one by EoP		
Outcome 4: Stakeholders apply	1) # hectares of coastal area under increased protection by end of	TBD	At least 25,000 ha additional by EoP	Caspian Information Center;	

regional, circum-Caspian approach to habitat conservation around the Caspian Sea.	project.			IMAPS.	
	2) # of circum-Caspian collaborative coastal surveys conducted among those priority areas in the SPACE network by end of project.	Zero	At least 2 by EoP	Survey reports; PIR/APR for years 2 & 3 of the project.	
	3) Frequency of communication among CSPA staff around Caspian improved over existing baseline levels via email list serves and web blogs.	No regular organized communication.	At least 5 queries/month; Regular blog postings	Email list-serve history; web blog postings & info exchange.	
Outcome 5: Local coastal communities contribute measurably to improved bioresources conservation in the Caspian.	1) # of projects funded that result in measurable support for bolstering the resilience of the Caspian Sea social and ecological system in the form of: - Improved transboundary public participation; - Increased employment & reduced stress in terms of # of former fishers employed by aquaculture; - Increased awareness among target groups.	None	6-8 by EoP		

Component 2:	**Strengthened Regional Environmental Governance.**				Complicated political relationships in the Caspian could stymie important progress on regional environmental collaboration.
Outcome 6. Operational and sustainable Tehran Convention Secretariat (TCS) and at least 4 protocols under implementation.	1) TCS budget reflects financial contributions up to date from all riparian countries.	$0.00/country/ year	At least $72,000 per country/year by EoY 2	TC Secretariat budget/income report.	Countries willing to commit necessary resources for TC and TCS sustainability.
	2) Agreement of the countries on the location of TC Secretariat.	Interim Sec located in Geneva.	Permanent Sec located in the Caspian region.		
	3) Number of protocols approved by COP and ratified by all five countries.	0 protocols approved by COP and 0 ratified by all 5 countries.	Two protocols approved at COP-II; Two protocols approved by COP-III; four protocols ratified by all 5 countries by EoY 3.	Depository of the Protocol informs all countries and the Secretariat of the receipt of each ratification document from each country.	
	4) # of Inter-Ministerial Caspian Committees established.	1 in Caspian region (TK)	Total of 4 (AZ, IRI, KZ, RF) by project inception.	Project inception report; APR-PIR report from year 1.	
	5) # of partnerships between TC and donor community.	Zero	At least one by EoP.	TCS report to COP; Interviews with TCS and Donors.	
Outcome 7. Littoral States Approve and Implement Strategic Convention Action Programme (SCAP) at regional level and approve and implement NSCAP at national/sub-national level.	1) SCAP endorsed by COP-II. 2) # of NSCAPs w/country-specific protocol implementation strategy under implementation.	Not endorsed; no NSCAPs	Implementation of SCAP begins in year 1 of the project; 2 NSCAPs by EoY2. 4 by EoP.	Minutes of Second Conference of Parties; Meeting reports; NSCAP documents	
Outcome 8. Enhanced stakeholder access to information on the status	1) Existence and operational ability of CIC & # of queries handled by the CIC annually	Not established	Established & operational by end of year 1.	APR-PIR report for year 1; Actual website.	

of the Caspian Sea environment.			At least 100 by EoP.		
	2) # of website hits made by Caspian states stakeholders' accessing the Caspian Information Center (CIC	Zero	Increasing levels during years 2 and 3 of project.	Web site reports.	
	3) # of organizations around Caspian using the first of an annual "State of the Caspian Sea Environment" report in Russian & English (Universities, libraries, Local and national government offices, Management entities; and Schools) in each Caspian state.	Report does not exist.	Published by EoY2; At least 100 distributed to 40 institutions by EoP; At least 10 downloads by EoP of PDF/country/yr.	Report itself; List of orgs who have received doc; PDF available on web in Rus/Eng languages.	
	4) # NGO activities supported by project.	No NGO activities.	At least 15 by EoP, including NGO forum, matched small grants.	Meeting records;	
	5) Number of organizations and partners involved in the functioning "Friends of Caspian Sea" network	Zero	At least 5 by year 1, at least 10 by EoP	List of network members; Records of network activities.	

SECTION III: TOTAL BUDGET AND WORKPLAN

Award ID:		00051102								
Award Title:		PIMS 4058 IW FSP "The Caspian Sea; Restoring Depleted Fisheries & Consolidation of a Permanent Regional Environmental Governance Framework"								
Business Unit:		KAZ10								
Project Title:		PIMS 4058 IW FSP "The Caspian Sea; Restoring Depleted Fisheries & Consolidation of a Permanent Regional Environmental Governance Framework"								
Project ID: PIMS 4058		00063473								
Implementing Partner:		UNOPS								
GEF Outcome / Atlas Activity	**Responsible Party / Implementing Agent**	**Fund ID**	**Donor Name**	**Atlas Budgetary Account Code**	**ATLAS Budget Description**	**Amount Year 1 (USD)**	**Amount Year 2 (USD)**	**Amount Year 3 (USD)**	**Total (USD)**	**Line #**
OUTCOME 1: Output 1: New analytical models and decision support tools for EBM.		62000	GEF	71200	Int'l Consultants	20,000	20,000	16,000	56,000	1
				71300	Local Consultants	27,000	22,000	23,000	72,000	2
				71600	Travel	0	0	0	0	3
				72100	Contractual Services	30,000	20,000	0	50,000	4
				72200	Equipment	10,000	0	0	10,000	5
				74500	Misc - Training	15,000	15,000	15,000	45,000	6
				74500	Misc - Services	4,000	4,000	2,000	10,000	7
				Total Outcome 1:		**106,000**	**81,000**	**56,000**	**243,000**	**8**
Output 2: Unified Environmental Monitoring Program		62000	GEF	71200	Int'l Consultants	26,000	27,000	27,000	80,000	9
				71300	Local Consultants	38,000	30,500	30,500	99,000	10
				71600	Travel	0	0	0	0	11
				72100	Contractual Services					12
				72200	Equipment	10,000			10,000	13
				74500	Misc - Training	15,000	75,000		90,000	14
				74500	Misc - Services	4,000	4,000	2,000	10,000	15
				Total Outcome 2:		**93,000**	**136,500**	**59,500**	**289,000**	**16**
Output 3:		62000	GEF	71200	Int'l	12,000	21,000	15,000	48,000	17

Bioresources governance capacity building					Consultants					
				71300	Local Consultants	15,000	15,000	15,000	45,000	18
				71600	Travel	10,000	5,000	5,000	20,000	19
				72100	Contractual Services					20
				72200	Equipment					21
				74500	Misc - Training	25,000	25,000	25,000	75,000	22
				74500	Misc - Services	4,000	4,000	2,000	10,000	23
				Total Outcome 3:		**66,000**	**70,000**	**62,000**	**198,000**	**24**
OUTCOME 2: Output 4: Joint Action Plan for Ballast Water		62000	GEF	71200	Int'l Consultants		5,000	5,000	10,000	25
				71300	Local Consultants	30,000	30,000	15,000	75,000	26
				71600	Travel	0	0	0	0	27
				72100	Contractual Services					28
				72200	Equipment					29
				74500	Misc - Training	15,000	15,000	15,000	45,000	30
				74500	Misc - Services	4,000	4,000	2,000	10,000	31
				Total Outcome 4:		**49,000**	**54,000**	**37,000**	**140,000**	**32**
Output 5: Regional Collaborative process for invasive species control		62000	GEF	71200	Int'l Consultants			21,000	21,000	33
				71300	Local Consultants	15,000	30,000	30,000	75,000	34
				71600	Travel		0	0	0	35
				72100	Contractual Services					36
				72200	Equipment					37
				74500	Misc - Training		15,000	20,000	35,000	38
				74500	Misc - Services	4,000	4,000	2,000	10,000	39
				Total Outcome 5:		**19,000**	**49,000**	**73,000**	**141,000**	**40**
OUTCOME 3 Output 6: Pilots to improve hatchery		62000	GEF	71200	Int'l Consultants	20,000	20,000	16,000	56,000	41
				71300	Local Consultants	15,000	15,000	15,000	45,000	42
				71600	Travel					43

efficiency				72100	Contractual Services	40,000	30,000		70,000	44
				72200	Equipment					45
				74500	Misc - Training	15,000	15,000	15,000	45,000	46
				74500	Misc - Services	4,000	4,000	2,000	10,000	47
				Total Outcome 6:		**94,000**	**84,000**	**48,000**	**226,000**	**48**
Output 7: Pilot to identify, rehabilitate or expand access to natural spawning grounds		62000	GEF	71200	Int'l Consultants	20,000	40,000	8,000	68,000	49
				71300	Local Consultants	45,000	60,000	38,000	143,000	50
				71600	Travel	5,000	10,000	5,000	20,000	51
				72100	Contractual Services	60,000	40,000	20,000	120,000	52
				72200	Equipment					53
				74500	Misc - Training	15,000	15,000	15,000	45,000	54
				74500	Misc - Services	4,000	4,000	2,000	10,000	55
				Total Outcome 7:		**149,000**	**169,000**	**88,000**	**406,000**	**56**
OUTCOME 4 Output 8: SPACE network		62000	GEF	71200	Int'l Consultants	24,000	24,000	10,000	58,000	57
				71300	Local Consultants	45,000	87,000	75,000	207,000	58
				71600	Travel	10,000	5,000	5,000	20,000	59
				72100	Contractual Services	60,000	40,000		100,000	60
				72200	Equipment					61
				74500	Misc - Training	15,000	15,000		30,000	62
				74500	Misc - Services	4,000	4,000	2,000	10,000	63
				Total Outcome 8:		**158,000**	**175,000**	**92,000**	**425,000**	**64**
OUTCOME 5 Output 9: Increased participation in improved bioresources conservation and awareness		62000	GEF	71200	Int'l Consultants				0	65
				71300	Local Consultants	33,000	33,000	33,000	99,000	66
				71600	Travel	5,000	5,000	5,000	15,000	67
				72100	Contractual Services	200,000	150,000		350,000	68
				72200	Equipment					69
				74500	Misc - Training	15,000	15,000	15,000	45,000	70

				74500	Misc - Services	4,000	4,000	2,000	10,000	71
				Total Outcome 9:		**257,000**	**207,000**	**55,000**	**519,000**	**72**
TOTAL Component 1		62000	GEF	71200	Int'l Consultants	122,000	157,000	118,000	397,000	73
				71300	Local Consultants	263,000	322,500	274,500	860,000	74
				71600	Travel	30,000	25,000	20,000	75,000	75
				72100	Contractual Services	390,000	280,000	20,000	690,000	76
				72200	Equipment	20,000	0	0	20,000	77
				74500	Misc - Training	130,000	205,000	120,000	455,000	78
				74500	Misc - Services	36,000	36,000	18,000	90,000	79
				Total Component 1		**991,000**	**1,025,500**	**570,500**	**2,587,000**	**80**
OUTCOME 1: National & Regional Coordination		62000	GEF	71200	Int'l Consultants	25,000	25,000	22,000	72,000	81
				71300	Local Consultants	35,000	35,000	25,000	95,000	82
				71600	Travel	10,000	10,000	10,000	30,000	83
				72100	Contractual Services	55,000	55,000	55,000	165,000	84
				72200	Equipment	10,000	10,000		20,000	85
				74500	Misc - Training	15,000	15,000	15,000	45,000	86
				74500	Misc - Services	3,000	3,000	3,000	9,000	87
				Total Outcome 1:		**153,000**	**153,000**	**130,000**	**436,000**	**88**
OUTCOME 2: Coordination and Synergy. Output 2. Donors Coordination		62000	GEF	71200	Int'l Consultants	10,000	15,000	10,000	35,000	89
				71300	Local Consultants					90
				71600	Travel	10,000	10,000	5,000	25,000	91
				72100	Contractual Services	25,000	25,000	25,000	75,000	92
				72200	Equipment					93
				74500	Misc - Training					94
				74500	Misc - Services					95
				Total Outcome 2:		**45,000**	**50,000**	**40,000**	**135,000**	**96**

Output 3: Partnership with Private Sector		62000	GEF	71200	Int'l Consultants	12,000	12,000	12,000	36,000	97
				71300	Local Consultants	0	0	0	0	98
				71600	Travel	2,000	2,000	2,000	6,000	99
				72100	Contractual Services	10,000	10,000	10,000	30,000	100
				72200	Equipment					101
				74500	Misc - Training					102
				74500	Misc - Services	2,000	2,000	2,000	6,000	103
				Total Outcome 3:		**26,000**	**26,000**	**26,000**	**78,000**	**104**
OUTCOME 3: Output 4: Updated Knowledge base SCAP/NSCAP		62000	GEF	71200	Int'l Consultants	17,000	21,000	18,000	56,000	105
				71300	Local Consultants	20,000	20,000	20,000	60,000	106
				71600	Travel	5,000	10,000	5,000	20,000	107
				72100	Contractual Services	15,000	15,000	20,000	50,000	108
				72200	Equipment					109
				74500	Misc - Training	15,000	15,000	15,000	45,000	110
				74500	Misc - Services	2,000	2,000	2,000	6,000	111
				Total Outcome 4:		**74,000**	**83,000**	**80,000**	**237,000**	**112**
Output 5: Effective Regional M&E		62000	GEF	71200	Int'l Consultants	14,000	14,000	14,000	42,000	113
				71300	Local Consultants	3,000	3,000	3,000	9,000	114
				71600	Travel					115
				72100	Contractual Services		25,000		25,000	116
				72200	Equipment					117
				74500	Misc - Training	15,000	15,000	15,000	45,000	118
				74500	Misc - Services	2,000	2,000	2,000	6,000	119
				Total Outcome 5:		**34,000**	**59,000**	**34,000**	**127,000**	**120**
OUTCOME 4: Enhanced stakeholder engagement.		62000	GEF	71200	Int'l Consultants	9,000	9,000	10,000	28,000	121
				71300	Local Consultants	23,000	17,000	17,000	57,000	122

Output 6: Regional NGO Partnership				71600	Travel					123
				72100	Contractual Services		20,000	25,000	45,000	124
				72200	Equipment					125
				74500	Misc - Training	25,000	25,000	25,000	75,000	126
				74500	Misc - Services	2,000	2,000	2,000	6,000	127
				Total Outcome 6:		**59,000**	**73,000**	**79,000**	**211,000**	**128**
Output 7: Data / Information Sharing		62000	GEF	71200	Int'l Consultants				0	129
				71300	Local Consultants	20,000	20,000	20,000	60,000	130
				71600	Travel	10,000	10,000	10,000	30,000	131
				72100	Contractual Services	0	50,000	50,000	100,000	132
				72200	Equipment	10,000	10,000	0	20,000	133
				74500	Misc - Training	0	15,000	15,000	30,000	134
				74500	Misc - Services	2,000	2,000	2,000	6,000	135
				Total Outcome 7:		**42,000**	**107,000**	**97,000**	**246,000**	**136**
OUTCOME 5: Adaptive management of project. Outputs 8 &9		62000	GEF	71200	Int'l Consultants	12,000	18,000	42,000	72,000	137
				71300	Local Consultants	8,000			8,000	138
				71600	Travel	30,000	15,000	30,000	75,000	139
				72100	Contractual Services	12,000	12,000	13,000	37,000	140
				72200	Equipment					141
				74500	Misc - Training	10,000			10,000	142
				74500	Misc - Services	5,000	6,000	5,000	16,000	143
				Total Outcome 8:		**77,000**	**51,000**	**90,000**	**218,000**	**144**
TOTAL Component 2		62000	GEF	71200	Int'l Consultants	99,000	114,000	128,000	341,000	145
				71300	Local Consultants	109,000	95,000	85,000	289,000	146
				71600	Travel	67,000	57,000	62,000	186,000	147
				72100	Contractual Services	117,000	212,000	198,000	527,000	148
				72200	Equipment	20,000	20,000	0	40,000	149

				74500	Misc - Training	80,000	85,000	85,000	250,000	150
				74500	Misc - Services	18,000	19,000	18,000	55,000	151
				Total Component 2		**508,000**	**605,000**	**575,000**	**1,688,000**	**152**
TOTALS Components I and II		62000	GEF	71200	Int'l Consultants	219,000	274,000	244,000	738,000	153
				71300	Local Consultants	372,000	417,500	359,500	1,149,000	154
				71600	Travel	97,000	82,000	82,000	261,000	155
				72100	Contractual Services	507,000	492,000	218,000	1,217,000	156
				72200	Equipment	40,000	20,000	0	60,000	157
				74500	Misc - Training	210,000	290,000	205,000	705,000	158
				74500	Misc - Services	54,000	55,000	37,000	145,000	159
				Total Components		**1,499,000**	**1,630,500**	**1,145,500**	**4,275,000**	**160**
Project Management Costs		62000	GEF	71200	Int'l Consultants	24,000	24,000	24,000	72,000	161
				71300	Local Consultants	100,000	100,000	106,000	306,000	162
										163
				71600	Travel	11,000	12,000	12,000	35,000	164
				72100	Contractual Services					165
				72200	Equipment					166
				74500	Misc - Training					167
				74500	Misc - Services	4,000	4,000	4,000	12,000	168
				Total Project Management Costs		**139,000**	**140,000**	**146,000**	**425,000**	**169**
GRAND TOTALS		62000	GEF	71200	Int'l Consultants	243,000	298,000	268,000	809,000	170
				71300	Local Consultants	472,000	517,500	465,500	1,455,000	171
				71600	Travel	108,000	94,000	94,000	296,000	172
				72100	Contractual Services	518,000	504,000	230,000	1,252,000	173

				72200	Equipment	40,000	20,000	0	60,000	174
				74500	Misc - Training	220,000	280,000	170,000	670,000	175
				74500	Misc - Services	58,000	59,000	41,000	158,000	176
				Total Component 2		**1,638,000**	**1,770,500**	**1,291,500**	**4,700,000**	**177**

Budget Annotations:

Line #	Budget Notes
1	CTA technical input (56K)
2	Local consultants to support EBM (21 weeks); FBE (7 months); PNC-PMCU (10 months)
3	Not Applicable (NA)
4	Expert input to developing EBM tools/models (17 weeks).
5	Software for EBM
6	Three EBM regional workshops
7	Mapping services, translation costs.
8	NA
9	29k CTA tech input; 51 K for international monitoring expert (17 weeks).
10	Nat'l expert working group on environmental monitoring - 1 from each country (60 weeks). FBE(8 months). PNC-PMCU (10 months).
11	NA
12	NA
13	Database equipment updates; logistical support.
14	Inter-comparison laboratory ERA exercises in support of ecological risk assessment training with IAEA & training courses on this work in the Caspian region (64K); Two 5-country round-table discussions/training on UEMP (30K).
15	Logistical support for workshops.
16	NA
17	10,000 CTA. Fisheries Economist expert in bioeconomic modeling working with CAB (8 weeks). Training needs assessment expert (8 weeks).
18	National expert support for bioeconomics modeling (5 months). PNC-PMCU (10 months)
19	Travel for int'l expert; national experts with CAB.
20	NA
21	NA
22	Short-term training scholarships for lower capacity countries.
23	Translation, printing, distribution of needs assessment and translation for training workshops.
24	NA
25	CTA input.
26	1 Working group of 10, four weeks each (40 weeks). PNC-PMCU (15 months or 45K).
27	NA

28	NA
29	NA
30	GloBallast Water training workshop; 1 regional training workshop.
31	Translation, printing, distribution of ballast water report and translation for training workshops.
32	NA
33	CTA input.
34	1 Working group of 10, four weeks each (40 weeks). PNC-PMCU (15 months or 45K).
35	NA
36	NA
37	NA
38	2 regional workshops to discuss/present findings on invasive species.
39	Translation, printing, distribution of invasive specis report and translation for training workshops.
40	NA
41	20,000 CTA input; Int'l hatchery/fish genetics expert (12 weeks or 36K).
42	PNC- PMCU (15 months or 45K).
43	NA
44	Contract for work to clarify genetic variability and viability of Caspian sturgeon populations.
45	NA
46	Regional workshops to communicate results of hatchery efficiency and genetic variability work.
47	Translation, printing, distribution of genetic variability report and translation for training workshops.
48	NA
49	20,000 CTA input; Sturgeon/salmon spawning behavior expert (16 weeks or 48K).
50	5 member working group for spawning ground inventory prioritization (40 weeks); Needs assessment for restoring degraded spawning grounds (40 weeks). 5 member working group on fish ladder inventory & assessment for improving passage of priority species – (12 weeks each or 60 weeks). PNC-PMCU (15 months or 45K).
51	Travel within region in support of these activities.
52	Sub-contract for assessing prospects for improving connectivity between river and Sea for Caspian's anadromous fish species: Fish migration/fish passage behavior expert & fish passage construction engineering expert (40 weeks).
53	NA
54	2 regional workshops to present findings of spawning ground and fish passage recommendations.
55	Translation, printing, distribution of fish passage report and translation for training workshops.
56	NA
57	10,000 CTA; Salmonid expert to work with working group on identifying salmonid strongholds (16 weeks).
58	10 member working group (120 weeks); 3 member working group for Kura River PA work (36 weeks). PNC-PMCU (30 months or 90K).
59	Travel within region in support of regional activities.
60	Subcontracts for: Web-page development for virtual SPACE network (20K); Priority seal site surveys (75K).
61	NA

62	2 regional workshops to present SPACE network, results of Kura PA management planning & recommendations.
63	Translation, printing, distribution of SPACE report and related materials and translation for training workshops.
64	NA
65	CTA input;
66	Technical oversight of Civil Society Participation PCU staff member (18 months or 54K). PNC-PMCU (15 months or 45K).
67	Travel within region in support of these activities.
68	Small matched grants and micro grants.
69	NA
70	3 regional workshops for training of community outreach and sharing of community experiences.
71	Translation, printing, distribution of matched small grants materials and related materials and translation for training workshops.
72	NA
73	Sub-totals for Component I
74	Sub-totals for Component I
75	Sub-totals for Component I
76	Sub-totals for Component I
77	Sub-totals for Component I
78	Sub-totals for Component I
79	Sub-totals for Component I
80	Sub-totals for Component I
81	27K CTA; Consultant support for technical input to finalize draft protocols (15 weeks or 45K)
82	45K PNC-PMCU; technical/expert support for protocol review and approval process (50 weeks or 50,000)
83	Travel in support of solidifying regional governance framework.
84	Sub-contract for regional governance/Tehran Convention support; UNEP ROE
85	Outposted Units – basic equipment.
86	3 regional workshops.
87	Translation, printing, distribution of protocol and related materials and translation for workshops.
88	NA
89	CTA input
90	NA
91	Travel for Convention executive structure & formation of thematic partnerships.
92	Sub-contract for support to Tehran Convention's work in solidifying it's governance structure and forming thematic partnerships.
93	NA
94	NA
95	NA
96	NA
97	CTA input;
98	NA
99	Travel to solidify private partnerships.

100	Sub-contract for support to Tehran Convention's work in forming partnerships with private sector.
101	NA
102	NA
103	Translation, printing, distribution of private partnership materials (For Russian private sector, for example).
104	NA
105	CTA input (35K); Int'l Consultant for development of protocol reporting criteria and formats (7 weeks or 21K)
106	Development of NCAPs; Finalizing protocol data collection and reporting formats.
107	Travel to provide support for countries in developing and finalizing NSCAPs
108	Sub-contract for support to Tehran Convention's work in creating and implementing a results-based approach to Convention implementation through the protocols.
109	NA
110	3 regional workshops for strengthening capacity of countries to implement Convention protocols.
111	Translation, printing, distribution of SCAP and NSCAPs and related materials and translation for workshops.
112	NA
113	30K CTA; IC for development of measurable indicators for M&E & training (4 weeks).
114	FBE of PMCU work with IC on indicator development and M&E (3 months);
115	NA
116	Sub-contract for support to Tehran Convention's work creating effective M&E.
117	NA
118	Regional workshops training on M&E
119	Translation, printing, distribution of M&E guidelines and related materials and translation for workshops.
120	NA
121	10K CTA input; IC for aligning existing PPS to Convention requirements. IC for facilitating regional NGO meetings. (3 weeks each).
122	Work with IC on aligning PPS to Convention requirements (8 weeks). Web-site expertise in designing virtual network in relevant languages and participatory/interactive format (20 weeks). PCMU Civil Society officer (12 months or 36K).
123	NA
124	Subcontract for support to Tehran Convention's work to institutionalize transparency and stakeholder participation.
125	NA
126	NGO round-tables and virtual network training exercises.
127	Translation, printing, distribution of stakeholder/NGO participation and outreach materials and translation for workshops.
128	NA
129	NA
130	Establishing & maintaining web-based CIC in Russian and Farsi (24 weeks or 24K); FBE of PMCU (12 months or 36K).
131	Annual participation in sharing of lessons learned conferences and information sharing exercises.
132	Sub-contract to prepare the first "State of the Caspian Environment" report; Sub-contract to prepare biodiversity and fisheries Atlas of the Caspian Sea.
133	Necessary electronic equipment for data sharing capacity of PMCU/Convention.
134	Training in use of CIC for PMCU & Tehran Convention Secretariat.

135	Translation, printing, distribution of data and information to be shared and translation of web-pages.
136	NA
137	CTA (12K). Mid Term Review (18K) & Terminal evaluation (42K)
138	Transfer of CEP website and library - 8 weeks.
139	1 annual project SC meeting. Travel to two IW-LEARN IWC Biennial Meetings for at least 3 stakeholders from region.
140	Subcontract: Hosting of CaspEco/TC new website - 36 months.
141	NA
142	Training for PMCU staff;
143	Misc costs associated with moving CEP office from Tehran – Astana, Audits in support of adaptive management.
144	NA
145	Sub-totals for Component II
146	Sub-totals for Component II
147	Sub-totals for Component II
148	Sub-totals for Component II
149	Sub-totals for Component II
150	Sub-totals for Component II
151	Sub-totals for Component II
152	Sub-totals for Component II
153	Sub-totals for Components I & II w/out Management Costs
154	Sub-totals for Components I & II w/out Management Costs
155	Sub-totals for Components I & II w/out Management Costs
156	Sub-totals for Components I & II w/out Management Costs
157	Sub-totals for Components I & II w/out Management Costs
158	Sub-totals for Components I & II w/out Management Costs
159	Sub-totals for Components I & II w/out Management Costs
160	Sub-totals for Components I & II w/out Management Costs
161	16% of CTA time.
162	PMCU Management Staff (16% of time) including PNCs
163	NA
164	Management oversight and other management-related travel in the region.
165	NA
166	NA
167	NA
168	Translation costs related to CTA interactions in Kazakhstan and the region when needed; Small office supply costs.
169	NA
170	**Grand Totals**
171	**Grand Totals**
172	**Grand Totals**

173	**Grand Totals**
174	**Grand Totals**
175	**Grand Totals**
176	**Grand Totals**
177	**Grand Totals**

Quarterly Workplan CaspEco

Quarterly work plan	**Q4 (08)**	**Q1 09**	**Q2**	**Q3**	**Q4**	**Q1 10**	**Q2**	**Q3**	**Q4**	**Q1 11**	**Q2**	**Q3**	**Q4**
Activity													
Component 1. Ecosystem based management of aquatic bioresources.													
Outcome 1. Ecosystem-based management (EBM) has begun to be adopted and practiced by the Caspian States.													
Output 1, Activity 1. Case Study: Develop new analytical models and decision support tools for EBM.													
Output 2, Activity 1. Develop unified, integrated, and Caspian ecosystem monitoring program (EMP).													
Activity 2. Conduct Ecological Risk Assessment Training.													
Output 3, Activity 1a. Strengthen regional bioresources management effectiveness and capacity by bridging the bioresource management skills gap among Caspian countries.					-	-	-	-	-	-	-	-	-
Activity 1b) Contribute to the activities of the CAB and its members in integrating the ecosystem approach.								-	-	-	-	-	-
Outcome 2. Invasive species introduction mitigated.													
Output 4, Activity 1: Develop recommendations for regional management of ballast water in concert with GloBallast.						-	-	-	-	-	-	-	-
Output 5, Activity 1. Assist the Tehran Convention to refine recommendations for invasive species management in the Caspian Sea in line with the TC protocol on biodiversity.							-	-	-	-	-	-	-
Outcome 3. Caspian stakeholders implement policies & measures to increase reproductive success of Caspian's diadromous fish species.													
Output 6. Activity 1. Provide technical recommendations for Caspian salmon hatchery on Iran's Caspian coast.							-	-					
Activity 2. Clarify the problem of genetic variability and viability within remaining populations of priority Caspian fish species and initiate work to conserve and sustainably utilize the													

Quarterly work plan	**Q4 (08)**	**Q1 09**	**Q2**	**Q3**	**Q4**	**Q1 10**	**Q2**	**Q3**	**Q4**	**Q1 11**	**Q2**	**Q3**	**Q4**
genetic variability of sturgeon stocks.													
Output 7, Activity 1. Conduct a Caspian-wide inventory of the natural spawning ground habitat for Caspian sturgeon and Caspian salmon below and above dams.					-	-							
Activity 2. Assess and develop recommendations on how to improve the quality of spawning grounds.													
Activity 3. Assess fish passages/fish ladders on five dams on the Caspian's main tributary rivers and best practice experience worldwide with the introduction of fish ladders and the improvement in recruitment.													
Activity 4. Develop and implement pilot project to modify a fish passage facility to increase the efficiency and effectiveness and return on investment.											-	-	-
Outcome 4. Stakeholders apply regional, circum-Caspian approach to habitat conservation in the Caspian.													
Output 8, Activity 1. Establish the SPACE network.									-	-	-	-	-
Activity 2: Demonstrate results-based state-of-the-art management plan for the Kura River Delta protected area.					-	-	-	-	-	-			
Outcome 5. Coastal communities increase participation and contribute to improved Caspian bioresources conservation.													
Output 9, Activity 1. Implement Matched Small Grants Programme in coastal areas of Caspian littoral states.													
Component 2. Strengthened Regional Environmental Governance.													
Outcome 1. Institutional setting of Tehran Convention is fully operational and sustainable.													
Output 1. Activity 1. Establish national coordination and implementation structures for the implementation of the Convention, its protocols, and the CaspEco project.				-	-	-	-	-	-	-	-	-	-
Activity 2. Establish an Tehran Convention Interim Secretariat (TCIS) Outposted Unit (OU) for area-specific regional cooperation in each littoral country.				-	-	-	-	-	-	-	-	-	-
Activity 3. Generate adequate financial support by the Caspian littoral states for TC administration and promote regional negotiations on the location of the TCPS.													
Activity 4: Provide advisory services to the national protocol ratification process, and assist in establishing regional protocol management structures.					-	-	-	-	-	-	-	-	-
Activity 5: Finalize draft protocols, promote preparation of protocol implementation plans, and develop new protocols.			-	-	-	-	-	-	-	-	-	-	-
Activity 6: Monitor and evaluate progress and organize and													

Quarterly work plan	**Q4 (08)**	**Q1 09**	**Q2**	**Q3**	**Q4**	**Q1 10**	**Q2**	**Q3**	**Q4**	**Q1 11**	**Q2**	**Q3**	**Q4**
report to ordinary and extraordinary COPs.													
Outcome 2: Coordination and synergy with other Caspian projects and activities.													
Output 2. Activity 1. Establish and operate a Convention executive body including representatives from the Parties, international partners, relevant donors and IFIs.			-	-		-	-	-		-	-	-	
Activity 2. Initiate thematic partnerships and joint programmes in support of the Convention and protocols.			-	-		-	-	-		-	-	-	
Activity 3. Establish private sector partnerships and an effective process to identify and finance investment projects in the region.			-	-		-	-	-		-	-	-	
Outcome 3. Littoral States implement SCAP as adopted by the COP-II and approve/implement NSCAP at national level.													
Output 4. Activity 1. Develop standard reporting formats for the quantitative and qualitative data required under each protocol.													
Activity 2. Develop NSCAPs to facilitate national-level implementation of the Tehran Convention and its protocols.						-	-	-	-	-	-	-	-
Activity 3. Assist countries to strengthen their national capacity for implementing the Convention and its protocols.	-	-		-	-	-		-	-	-		-	-
Output 5. Activity 1. Develop regional M&E framework to track implementation of regionally agreed measures (Protocols, SCAP, NSCAP) using a suite of measurable indicators, including the GEF 4 SP 1 Indicators.						-	-	-		-	-	-	
Outcome 4. Enhanced stakeholders' engagement in the TC process and improved public access to information on the status of the Caspian Sea environment.													
Output 6, Activity 1. Align the existing CEP public participation strategy (PPS) to better support the requirements of the Convention and its protocols.													
Activity 2. Create solid regional NGO partnerships and virtual NGO network.			-	-		-	-	-		-	-	-	
Activity 3. Regional NGO meetings.													
Output 7, Activity 1. Enhance data and information sharing through the establishment of a web-based CIC.													
Activity 2. Prepare the biennial report on the state of the environment of the Caspian Sea and a Biodiversity Atlas for the Caspian.													
Outcome 5: Adaptive management of the CaspEco project.													
Output 8, Activity 1: Establish and organize the PCMU in Astana.													
Activity 2: Transfer of CEP-SAP project assets in Tehran to new PCMU venue in Astana.													

Quarterly work plan	**Q4 (08)**	**Q1 09**	**Q2**	**Q3**	**Q4**	**Q1 10**	**Q2**	**Q3**	**Q4**	**Q1 11**	**Q2**	**Q3**	**Q4**
Output 9, Activity 1. Conduct annual Steering Committee (SC) Meetings, regular monitoring, & participate in each GEF Biennial International Waters Conference (IWC).			-	-	-		-	-	-		-	-	

SECTION IV: ADDITIONAL INFORMATION

PART I: Letters of Endorsement and Financial Commitment.

Attached as a separate document.

PART II: Terms of Reference for Key Project Staff

The core PMCU will be located in the offices of the Ministry of Environment in Astana, Kazakhstan with one staff person located in each Caspian littoral state.

The PMCU will be staffed by the following positions:

Internationally Recruited:

- Chief Technical Advisor (CTA)

Regionally recruited:

- Finance and Administrative Affairs Officer (FAAO)
- Operations & Logistics Assistant (OLA)
- Fisheries and Bioresources Expert (FBE)
- Civil Society Participation Officer (CSPO)

Nationally recruited

- Project National Coordinator (PNC) (1 based in each country)

Chief Technical Advisor
Astana, Kazakhstan

The project Chief Technical Advisor (CTA) shall be responsible for providing critical technical input to project implementation and overall management and supervision of the GEF project. He/she will manage and provide overall supervision for all GEF staff in the Project Management and Coordination Unit (PMCU). He/she shall liaise directly with the Regional Coordinator UNDP-GEF, National Focal Points (NFPs) and project partners in order to develop the annual work plan for the project.

He/she will report to the UNDP-GEF Regional International Waters Advisor located in Bratislava. He/she shall consult with, and coordinate closely with, the Principal Project Resident Representative, senior representatives of partner agencies as well as the respective UNDP officers in all Caspian Countries.

Duties:

The CTA will have the following specific duties:

Management:

- Supervise and coordinate the project to ensure its results are in accordance with the Project Document and the rules and procedures established in the UNDP Programming Manual;

- Provide manage leadership of the CaspEco project - both organizational and substantive matters – budgeting, planning and general monitoring of the project, the PMCU, its staff located in five countries, its budget and its imprest fund.

- Ensure adequate information flow, discussions and feedback among the various stakeholders of the project;

- Prepare annual work plans and implementation of project activities in full consultation with the SC and the Tehran Convention Interim Secretariat. The work plan will provide guidance on the day-to-day implementation of the project document noting the need for overall coordination with other projects and on the integration of the various donor funded parallel initiatives.

- Catalyze the adaptive management of CaspEco by actively monitoring progress towards achievement of project objectives vis-a-vis the agreed progress indicators and applying the resulting insights to the project's ongoing work; Ensure adherence to the project's work plan, prepare revisions of the work plan, if required;

- Assume overall responsibility for the proper handling of logistics related to project workshops and events;

- Prepare GEF quarterly project progress reports, as well as any other reports requested by the Executing Agency and UNDP;

- Guide the work of consultants and subcontractors and oversee compliance with the agreed work plan;

- Monitor the expenditures, commitments and balance of funds under the project budget lines, and draft project budget revisions;

- Assume overall responsibility for the meeting financial delivery targets set out in the agreed annual work plans, reporting on project funds and related record keeping;

- Liaise with project partners to ensure their co-financing contributions are provided within the agreed terms;

Technical Input:

- Provide critical and significant environmental/natural resource-related technical input to project implementation based upon professional background and experience. This technical input to be agreed and detailed with UNDP at project inception.

- Provide overall technical guidance and consistency of vision for project's ecosystem-based management approach as manifested through the development of related sub-contracting documents;

- Effectively and efficiently implement the project activities towards full achievement of its stated objectives and for all substantive, managerial and financial reports from the Project.

- Engage in a constructive dialogue with the NFPs and project partners worldwide to maximize consistency and synergy between the various project components.

- Provide technical input to and be responsible for preparation of the development of Terms of Reference for consultants and contractors.

- Arrange for the timely recruitment and procurement of quality services and equipment and for implementation of project activities of in accord with applicable rules, regulation and standards;

- Foster and establish technical best-practice links with other related Caspian initiatives and, where appropriate, with other regional International Waters programmes.

- Interact on a technical, substantiative level with the Tehran Convention Interim Secretariat and its Executive Body in order to maximize sustainability of project-inspired outcomes under the long-term umbrella of the TCIS.

- Catalyze the development private sector partnerships for complementary technical activities and to improve sustainability of project-inspired actions.

- Provide overall technical guidance to maintain and develop the project web-site seeking and incorporating data and information from all project partners;

- Provide overall technical guidance to development of web-based Caspian Information Center and the PMCU's Technical Documents Unit;

- Represent the project at the Steering Committee meetings, technical meetings and other appropriate fora.

- Undertake any other actions related to the project as requested by UNDP.

<u>Skills and Experience Required</u>

Post-graduate degree in environmental management or a directly related field, e.g. applied marine science, natural resources economics; at least fifteen years experience in fields related to the assignment including ten years of experience at a senior project management level. Must be able to demonstrate ability to make significant technical and management contributions to project implementation under both Components 1 and 2. Demonstrated diplomatic and negotiating skills; familiarity with the goals and procedures of international organizations, in particular those of the GEF partners; excellent knowledge of English; familiarity with the coastal countries, knowledge of one of their languages is an asset.

Duty Station: Astana, Kazakhstan
Duration: Three years on a fixed-term contract
Suggested Grade: TBD

Finance and Administrative Affairs Officer (FAAO)
Astana, Kazakhstan

Under the supervision of the Project Chief technical Advisor (CTA), the FAAO will manage the day to day operations of the PMCU, particularly with respect to finances, technical services, procurement and personnel matters, all to be carried out in close cooperation with the counterpart staff of UNOPS and the UNDP Field Office in Astana. The post holder will be the principal line of liaison between the PMCU and the UNOPS PMO in all financial and administrative matters.

Duties
The FAAO will have the following specific duties:

- Ensure the proper day-to-day functioning of the PMCU by supervising the provision of all necessary supplies and services including maintenance contracts, office supplies and communications. He/she will personally supervise the OLA. He/she shall be responsible for the proper running and upkeep of the PMCU hardware including the computers, copiers, etc.

- Prepare draft budget revisions and working budgets in consultation with the UNOPS and CTA;

- Administer the petty cash and imprest account on behalf of the CTA and prepare relevant documents including monthly cash statements, requests for replenishment and budget reviews and revisions. He/she shall oversee the work of the Administrative Assistant regarding financial issues. The FAAO shall also be responsible to arrange for due payments.

- Assist the CTA to prepare special budget and financial statements for Steering Committee and Donor meetings, etc) and to regularly brief the CTA on the financial status of the project.

- Assist all the PMCU staff with personnel matters relevant to the performance of official duties. This work, with support from the OLA, will include the obtaining of visas for official missions and assistance to newly arriving or departing staff for shipment of their personal effects, opening bank accounts, etc. The incumbent will also supervise keeping records of time and attendance and informing staff of vacation periods and any other UNDP-related administrative functions as required by the CTA.

- Undertake all duties relevant to local procurement, with support of the OLA. He/she will maintain records of suppliers, obtain competitive bids for the consideration of the CTA and complete the relevant documentation including that pertinent to the tax status of the PMCU. He/she will arrange for customs clearance if required. He/she will maintain precise records of all goods purchased and for maintaining proper equipment inventories as well as for ensuring the proper labeling and recording of equipment delivered to the field.

Skill and Experience Requirements
Degree in administration or a directly relevant field; three years proven experience in administration and budget management; fluency in English and Russian; proven experience in the management of computer or other office technology equipment; good knowledge of UNDP policies and regulations.

Duty Station: Astana
Duration: three years
Suggested level /grade: TBD

Operations & Logistics Assistant (OLA)
Astana, Kazakhstan

Under the supervision of the project Chief Technical Advisor (CTA) the Operations & Logistics Assistant (OLA) will provide support to the CTA and assist the FAAO to perform his/her tasks.

Duties

The OLA will have the following specific duties:

- Provide general administrative support to ensure the smooth running of the PMCU.
- Project logistical support to the FAAO and CTA and project consultants in conducting different project activities (trainings, workshops, stakeholder consultations, arrangements of study tour, etc.).
- Prepare and maintain the local records of project accounts, particularly those pertaining to the imprest fund. He/she shall prepare all relevant documents for administering the imprest account for final approval by the CTA, in conformity with the stipulations of the financial regulations of the executing agency. He/she shall prepare bank reconciliation and records of total project expenditure including, where possible, full records of counterpart contributions to the project.
- Monitor Project expenditures with reference to the approved budget. He/she will prepare budget proposals and also attend to all financial and budgetary aspects of the implementation of the programme including the following specific duties.
- Monitor expenditures entailing monitoring the Interagency agreements, review of the executing agency finance records of expenditures against MODs and budget lines.
- Assist the project staff to prepare budgets for meetings and activities and to review incoming authorizations to ensure adequate recording against budget lines.
- During the visits of foreign experts, bear the responsibility for their visa support, transportation, hotel accommodation etc.
- Assist the control of budget expenditures by preparing payment documents, and compiling financial reports.
- Maintain the project's disbursement ledger and journal & keep files with project documents, expert reports.
- Develop, edit and electronically publish on website a regular information bulletin on the project activities including updated events calendar
- Provide English translation as required.
- Draft correspondence and documents; finalize correspondence of administrative nature; edit reports and other documents for correctness of form and content.
- Arrange duty travel.

- Act on telephone inquiries, fax, post and e-mail transmissions, and co-ordinate appointments.

- Perform any other administrative/financial duties as requested by the CTA.
- Organize and coordinate the procurement of services and goods under the project.

Skills and Experience Required
Degree in a directly relevant field; proven experience in accounting; fluency in English and Russian; proven experience in the management of computer or other office technology equipment; good knowledge of UNDP policies and regulations.

Duty Station: Astana
Duration: three years
Suggested level /grade: TBD

Fisheries, Bioresources & Data Management Expert (FBE)
Astana, Kazakhstan

The Fisheries, Bioresources and Data Management Expert (FBE) shall be responsible for overseeing and providing technical input to the project's ecosystem-based bioresources management-related activities and related data and information management work. This will include information capture, exchange and networking between a wide range of participants in the project including government officials, international partners, scientists, non-governmental organizations and the public at large. He/she will work closely with institutional focal points, project partners, international and national NGOs, industry, academia and public and will cooperate with and encourage activities of other partners in this field. He/she shall work under the direct supervision of the Project Chief Technical Advisor (CTA) within the Project Management and Coordination Unit (PMCU), which will be established in Astana.

Duties

He/she will have the following specific duties:

- Work closely with the CTA in the project's work with ecosystem-based management, monitoring, capacity building and habitat conservation.

- Take the lead in cultivating and building solid working relationships with bioresource management colleagues in all five Caspian states in an open and even-handed manner.

- Assume responsibility for overseeing implementation of the bioresources-related activities under the project's annual workplan.

- Develop and maintain the EBM-bioresource management elements of the project website building fully upon CEP website materials and coordinating closely with the TCIS in this regard.

- Provide significant technical input and guidance to the project's work with all five Caspian countries in developing a Unified Environmental Monitoring Program (UEMP) and work closely with regional and international experts to this end.

- Identify data & information sources and arrange for collection, storage, updating, and maintenance of same in electronic and hard forms copy forms as applicable.

- Facilitate and supervise data exchange and the maintenance of the bioresources data communications network among cooperating institutions in all five countries.

- Supervise the development of a Technical Documents Unit at the PMCU.

- Liaise with project partners, donors, specialized UN agencies, international and national NGOs, academia, industry and other stakeholders on ecosystem-based management of bioresources.

- Lead and effectively participate in IT capacity building activities under the project including organizing training initiatives.

- Assist with the administration of other information-related technical issues where required by the CTA.

Skills and Experience Required

Post-graduate degree in bioresources, fisheries or marine science or a directly related field; at least five years experience in similar international posts dealing with sustainable use and conservation of bioresources/biodiversity; proven experience with computer data bases, GIS. Web site design experience helpful. Experience in training other specialists and fully fluent in English and Russian including a proven writing and editing ability; familiarity with the problems and opportunities of the Caspian region would be a major advantage.

Duty station: Astana, Kazakhstan
Duration: Thirty months
Suggested Grade: TBD

Civil Society Participation Officer (CSPO)
Astana, Kazakhstan

The CSPO will be responsible for the project elements designed to facilitate civil society participation and strengthen capacity of civil society through the project's work supporting an NGO network, the Matched Small Grant Programme (MSGP) and a Public Participation Strategy aligned with the Terhan Convention.

He/she will work closely with Governmental, NGOs, Caspian local authorities and communities, industry, media and will liaise with corresponding activities of other project partners in this field, especially at the regional governance level with the TCIS.

He/she shall work under the supervision of the Project Chief Technical Advisor (CTA) and will be a critical part of the team comprising the Project Management and Coordination Unit (PMCU) in Astana. He/she will coordinate closely with the Fisheries and Bioresources Expert (FBE) in the dissemination of all information and with respective PNC around the Caspian region.

Duties
The MPP Manager will have the following specific duties:

- Provide leadership on the implementation of key civil society related activities under CaspEco, particularly under Component I, Outcome 5 (Output 9) and Component 2, Outcome 4 (Output 6).

- Provide leadership and work closely with WB and other partners on the development and implementation of the Matched Small Grants and the Micro Environmental Grants programmes.

- Work closely with the CTA and the TCIS and other project partners, to adapt and align the CEP public participation strategy to the requirements of the Tehran Convention.

- Actively reach out to and liaise with NGOs in all five Caspian countries and provide leadership in the creation of the web-based NGO network and the organization of related workshops and round-table discussions to that end.

- Establish and coordinate technical support and capacity building initiatives targeted at the local communities and authorities and Caspian NGOs including the effective implementation of micro grants under the public participation strategy.

- Working closely with each PNC, arrange for and participate in MSGP outreach to the potential beneficiaries; prepare materials and documentations including announcements, flyers, application package, evaluation criteria for MSGP and micro grants; arrange for and participate in evaluation and award of grants including technical review for pre-selection of proposals for consideration by the MSGP Evaluation Committee; closely monitor implementation of awarded grants.

- Closely cooperate with the FBE to share out information on project in general and on the project and MSGP in particular to the Caspian stakeholders and others.

- Liaise with other project partners (i.e. The World Bank) on the implementation of projects that support public participation/ public awareness in the Caspian region.

Skills and Experience Required

Degree in environmental studies, economics, finance or a directly related field; at least two years direct experience with the establishment and management of NGOs; familiarity with the problems and opportunities of the Caspian; and full fluency (spoken and written) in English and Russian. Knowledge of Farsi is an advantage.

Duty station: Astana, Kazakhstan
Duration: Three years
Suggested level /grade : TBD

Project National Coordinator (PNC)
(in all five countries)

Successful implementation of a regional project like CaspEco, to a large degree depends on effective implementation and ownership of project-inspired work at the national and local levels. Each Project National Coordinator (PNC) will be the CaspEco project's staff person on-the-ground in each Caspian littoral state. The PNC will be responsible for effective project implementation at the national level, including: enhanced stakeholders participation; capacity building; and effective resources mobilization.

He/she will report to the CTA. The PNC will work full time at the facilities provided by the NFP. He/she will liaise closely with his/her colleagues at the PMCU, as well as his/her respective UNDP Country Office, and the Outposted Unit of the Tehran Convention in his/her country.

Duties

PNC will have the following specific duties:

- Oversee project implementation at his/her respective national level. This will involve the following critical responsibilities:
    - Working with the CTA, develop national-level workplan for CaspEco and ensure all relevant national partner organizations are in support of this workplan.
    - Monitor project implementation at the national level through assessing progress against established indicators; identify opportunities,
- Working closely with the NFP, facilitate project implementation at the national level with respect to managing the national consultant recruitment process on budget and on-time according to UNDP rules and procedures, and coordinating scheduling of joint work with important Government and civil society partners, and ensure timely delivery of required and contracted national inputs, outputs and outcomes.
- Assist NFP and national officials in working with the PMCU to ensure best possible intersesctoral co-ordination between the various Ministries towards effective bioresources management. To this end, support the work of the IMCM
- Communicate effectively and regularly with the CTA and colleagues at the PMCU, with his/her respective NFP, with international partner organizations based in his/her respective country.
- Working as an effective member of the PMCU team, facilitate the PMCU staff members' work in his/her respective country with respect to civil society participation, data and information management and small grants management.
- Working closely with the CTA and the Civil Society Participation Officer in designing and overseeing an effective MSGP and MEG structure in his/her country. If relevant, this may involve working closely with the UNDP/GEF Small Grants Programme at the national level.
    - Catalyze the development of the NGO network in-country and the participation of this network in regional-level consultations and capacity building exercises under CaspEco.

- Establish and coordinate technical support and capacity building initiatives targeted at the local communities and authorities and Caspian NGOs including the effective implementation of micro grants under the public participation strategy in his/her country of assignment.

- Catalyze outreach activities to the potential beneficiaries for MSGP and micro grants; actively engage is encouraging grant applications from local authorities, communities and NGOs; assist in establishing grant awards to awardees, and closely monitor implementation of awarded grants.

- Closely cooperate with the FBE to share out information on project in general and on the project and MSGP in particular to the Caspian stakeholders and others.

- Assist NPF in his/her official responsibilities in project facilitation and oversight at the national level.

- Provide and/or arrange for capacity building events, training and guidance for the participants in the project implementation processes.

- Cooperate fully with Tehran Convention partners in the initiation and development of Caspian related project proposals; draft protocols and regional agreements.

- Assist project partners towards collection of data and information for project research, studies and activities and for updating of project web-site; and cooperate fully with project partners towards completion and /or revisiting of strategic studies including the SCAP and NSCAP.

- Assist project partners, in particular the NFP, and in resource mobilization activities towards implementation of SCAP and NSCAP.

- Assist the NFP in intersectoral and inter-ministerial co-ordination activities including organizing meetings and providing timely reports on same to the PMCU.

Skills and Experience Required:

Degree preferably in an environmental field. Experience in management coordination, public relations and administrative work. Knowledge of computers and common computer applications. Knowledgeable in use of fax, email, and internet. Good written/spoken English language skills.

English speaking ability required. Excellent Russian language abilities in FSU countries and Farsi in Iran.

Duty Station: One in each of the Caspian littoral countries.
Duration: Three years
Suggested Grade: TBD

PART III: Stakeholder Involvement Plan

A) Summary of information dissemination, consultation, and similar activities that occurred during preparation/PPG.

Stakeholders were very much involved in project preparation and implementation of the PPG.

First, a questionnaire was translated and sent out to stakeholders in each of the five Caspian states in advance of the inception workshop for the PPG. Second, an inception workshop was organized in the region, in Baku, hosted by the Ministry of Environment of Azerbaijan, where stakeholders presented and discussed the questionnaire replies and the project as a whole. Third, in-country consultations were held with key stakeholders in environmental, fisheries, transportation and ports, and foreign affairs ministries, baseline program offices in biodiversity and fisheries management, and so on. Fourth, PPG consultations with country fishery management officials were appended to already scheduled technical workshop on ecosystem based fisheries management with FAO in Rome. Fifth, draft sections of the project document were circulated for comment and additional input prior to translation and circulation of full draft project. Sixth, the full draft project was circulated for review and in-country consultations prior to the final wrap up workshop. Seventh, a final wrap-up workshop was held in the region to discuss the project draft, resolve outstanding issues and secure the basis for country endorsement of the project document.

B) Stakeholder identification -- list of stakeholder groups and the types of their involvement in the proposed project.

RUSSIAN FEDERATION (RF)

Name of Institution	Responsibilities Relevant to CaspEco's Outcomes/Outputs[13]	Roles in the CaspEco Project
Ministry of Foreign Affairs (MoFA)	Responsible for negotiating the Tehran Convention and its associated protocols. Plays a key role in determining Russian participation in regional sustainable development and environmental conservation cooperation in the Caspian Sea.	Country representative on the TC Exec Committee. Chair of to-be-established National Coordination Mechanism for TC and CaspEco. Co-lead role in the following outputs: Component 2: #1: Regional and national multi-sectoral institutional and financial support to the TC. #2: Donor Coordination Group #5: M&E Framework for regionally agreed measures.
Ministry of Natural Resources and Ecology (MNRE)	Elaborates and implements state policy and normative and legal regulation for environmental protection, including the monitoring, use, reproduction, and protection of natural resources and the environmental, including wildlife and their habitats. Responsible for network of federally specially protected natural areas in Russia including many in Caspian region. Serves as the National Focal Point for TC.	Member of National Coordination Mechanism for TC, CaspEco. Lead agency on following outputs under Component 1: #2 Unified Ecosystem Monitoring Program (UEMP); Co-lead with FAF or MoT under Component 1: #1 Linking biodiversity conservation and fishery production objectives in CS. #4: Joint Action Plan for Ballast Water management. #5 Regional collaborative process on Mnemiopsis. #7: Natural spawning grounds access improvement. #8: SPACE network. Component 2: #2: Donor Coordination Group formed. #5: M&E Framework for regionally agreed measures. #6: Strengthened network of civil society stakeholders. #7 Web- based data and information sharing mechanism.
-Int'l Cooperation Dept, Conventions and Int'l Organizations Division	Responsible for liaising with MoFA and international organizations on relevant international conventions and international projects. Main liaison between MNRE and the TCIS.	Will play a lead role in: - Russian delegation to the Conference of Parties to the Tehran Convention and associated work on protocols and action plans; - Liaising with CaspEco project.

[13] The present material is prepared as for May 23, 2008. Revisions to the Regulation on the MNRE will be commented individually at a later stage.

Name of Institution	Responsibilities Relevant to CaspEco's Outcomes/Outputs[13]	Roles in the CaspEco Project
- Federal Service for Hydrometeorology and Environmental Monitoring	Maintains the state water cadastre for surface water bodies, as well as monitoring of surface water, air, continental shelf, and the exclusive economic zone. Determines requirements for environmental surveys and maintains the Unique State Data Fund on the state of the natural environment.	Outputs: #2 Unified Ecosystem Monitoring Program (UEMP);
- Federal Environmental Protection Agency (Rossprirodnadzor)	Control and surveillance in the field of: protection, use and reproduction of wildlife and their habitats; Operates the national system of federal protected areas.	#1 Linking biodiversity conservation and fishery production objectives in CS #7: Natural spawning grounds access improvement. #8: SPACE network.
- Federal Agency for Water Resources	Management and control of federal water resources; Develop and implement: river basin agreements on rehabilitation and protection of the water bodies; Oversight of water quality control; State monitoring of water bodies;	Unclear – maybe not relevant.
Astrakhan State Biosphere Reserve	This is the largest reserve in the Russian Caspian region with the highest level of capacity.	Central org in RF for: #8: SPACE network – it will be an anchor PA.
State Natural Reserve «Dagestansky»		Central org in RF for: #8: SPACE network – it will be an anchor PA.
State Oceanographic Institute (GOIN-SOI); Caspian Marine Scientific Research Center (CaspMNITz)		Lead agency for RF on following outputs: #2 Establishment of Unified Ecosystem Monitoring Program (UEMP); Collaborating agency with GOIN on #2.
Ministry of Agriculture	Responsible for the elaboration and implementation of the state fishery policy and regulations in fishery management, study, and protection; fish processing, and aquatic and marine bioresources.	
Federal Agency for Fishing (FAF)	Responsible for the rational use, study, conservation, and reproduction of aquatic bioresources and their habitats; integrated study of aquatic bioresources including stock assessments; Represents Russia on the CABC;	- Member of National Caspian Committee for TC and GEF project. - Lead and co-lead organization (together with MNRE) on several project Outputs (#) under Components 1 and 2: <u>Component 1: Lead role</u>: #3: Joint review of stock assessment methods used in Caspian.

Name of Institution	Responsibilities Relevant to CaspEco's Outcomes/Outputs[13]	Roles in the CaspEco Project
	Conducts fundamental and applied scientific studies connected with fisheries and fishing; Monitoring of aquatic bioresources and survey of activity of fishery vessels; Artificial reproduction of aquatic bioresources; Rehabilitation of aquatic resources and their habitats destroyed as the result of natural disasters and other causes; Implementing decisions made by international fishing commissions and organizations.	#6: Increasing hatchery efficiency; #8: Identifying essential fish habitats (EFH) <u>Component 1 Co-lead role:</u> #1: Linking biodiversity conservation and fishery production objectives. #3: Capacity building for CABC participation in trainings and helping to bridge the skills gap. #7: Improving the quality of wetlands/spawning grounds in Russia for sturgeon and other diadromous fish in the Caspian. <u>Component 2:</u> #1: Regional and national multi-sectoral support to the TC & protocols.
- Federal Research Institute of Fishery and Oceanography - (VNIRO)		#3: Joint review of stock assessment methodologies in use in Caspian. #3: Capacity building for CABC participation in trainings and helping to bridge the skills gap.
- Caspian Scientific Research Institute for Fisheries CaspNIRKh		#3: Joint review of stock assessment methodologies in use in Caspian.
Ministry of Transport	Responsible for elaborating state policy on and for managing and maintaining transportation infrastructure. Activities include: inspection, design, construction, renovation, maintenance of waterways and canals, marine and river ports.	
State Marine Pollution Control, Salvage & Rescue Administration (MPCSA)	Responsible for issues related to oil spill mitigation, search and rescue, and ecological control at marine transport ventures, including issues related to ballast water and invasive species.	Will serve as the lead agency for RF on #4: Joint Action Plan for Ballast Water management.
Russian Academy of Sciences (RAS)	Institute of Water Problems, Institute of Oceanology A. N. Severtsov Institute of Ecology and Evolution	Contributing organization to the following outputs: #1: Linking biodiversity conservation and fishery production objectives. #2 Unified Ecosystem Monitoring Program (UEMP). #3 Capacity Building for Caspian region. #5 Regional collaborative process focusing on *Mnemiopsis*.

Name of Institution	Responsibilities Relevant to CaspEco's Outcomes/Outputs[13]	Roles in the CaspEco Project
Various Universities:	Moscow State University Dagestan State University Astrakhan State Technology University Astrakhan State University Kalmykia State University Institute of Applied Ecology, Republic of Dagestan	Universities/centers of excellence that may be tapped by the project under Output #4.
NGOs and CBOs		Involvement of the coastal NGO/community in the process of implementation of project, in particular with regards to Components/Outputs: <u>Component 1, Outputs:</u> #8: SPACE network; priority protected areas and habitats; #9 Matched Small Grants Programme. <u>Component 2: Outputs:</u> #6: Strengthened network of civil society stakeholders and public education. #7: Web- based Caspian Information Center (CIC).

AZERBAIJAN

Name of Institution	Responsibilities Relevant to CaspEco's Outcomes/Outputs	Possible roles in the CaspEco Project
Ministry of Foreign Affairs; International Law and Treaties Department	Responsible for negotiating the Tehran Convention and its associated protocols. Plays a key role in determining Azerbaijan's participation in regional sustainable development and environmental conservation cooperation in the Caspian Sea.	Country representative on the TC Exec Committee. Chair of to-be-established National Coordination Mechanism for TC and CaspEco. Co-lead role in the following outputs: <u>Component 2:</u> #1: Regional and national multi-sectoral institutional and financial support to the TC. #2: Donor Coordination Group #5: M&E Framework for regionally agreed measures.
Ministry of Ecology and Natural Resources	Serves as the National Focal Point for TC. GEF Focal Point	Lead agency and National Project Director for CaspEco. Member of National Coordination Mechanism for TC, CaspEco.

Name of Institution	Responsibilities Relevant to CaspEco's Outcomes/Outputs	Possible roles in the CaspEco Project
(MENR)		Lead agency for RF on following outputs: #2 Unified Ecosystem Monitoring Program (UEMP); Co-lead with or MoT on: #1 Linking biodiversity conservation and fishery production objectives in CS #4: Joint Action Plan for Ballast Water management. #5 Regional collaborative process on Mnemiopsis. #7: Natural spawning grounds access improvement. #8: SPACE network.
Department for Reproduction and Protection of Aquatic Bioresources	Responsible for fisheries management, including hatcheries. Responsible for reproduction and protection of aquatic bioresources, and also for management of their use.	- Member of National Caspian Committee for TC and GEF project. - Lead organization for AZ under Component 1 on several project Outputs; and co-lead together with MENR on other outputs. #3: Joint review of stock assessment methodologies in use in Caspian Sea (CS). #1: Linking biodiversity conservation and fishery production objectives in CS. #3: Capacity building for CABC participation in trainings and helping to bridge the skills gap. #6: Increasing hatchery efficiency; #7: Improving the quality of wetlands/spawning grounds in Russia for sturgeon and other diadromous fish in the Caspian. #8: Identifying essential fish habitats (EFH).
Fisheries Research Institute, Ministry of Ecology and Natural Resources	Responsible for habitats and commercial fish stock assessment survey	#3: Joint review of stock assessment methodologies in use in Caspian Sea (CS). #1: Linking biodiversity conservation and fishery production objectives in CS.
Department of Conservation of Biodiversity and Development of Specially Protected Nature Areas, Ministry of Ecology and Natural Resources.	Responsible for SPA management and development, biodiversity conservation, studies on biodiversity conservation in water basin, including the Caspian Sea.	Lead department for AZ on following outputs: #8 Identifying priority habitats and improving PA management.
Caspian Complex	Focuses its monitoring work on the Caspian area	Co-lead department for AZ on following outputs:

Name of Institution	Responsibilities Relevant to CaspEco's Outcomes/Outputs	Possible roles in the CaspEco Project
Environmental Monitoring Department	of Azerbaijan, its coastal zone, and also on facilities and objects in the sea and floating crafts.	#2 Establishment of Unified Ecosystem Monitoring Program (UEMP);

ISLAMIC REPUBLIC OF IRAN

Name of Institution	Responsibilities Relevant to CaspEco's Outcomes/Outputs	Roles in the CaspEco Project
Ministry of Foreign Affairs; **International Economic Affaires and Specialized Agencies.** **Secretariat for Caspian Sea Affairs**	Serves as the GEF Focal Point in IR-Iran. Responsible for negotiating the Tehran Convention and its associated protocols. Plays a key role in determining Iranian participation in regional sustainable development and environmental conservation cooperation in the Caspian Sea.	Chair of the national coordination mechanism in Iran for CaspEco and TC. Representative of Iran on the TC Exec Committee. Co-lead role in the following outputs: Component 2: #1: Regional and national multi-sectoral institutional and financial support to the TC. #2: Donor Coordination Group #5: M&E Framework for regionally agreed measures.
Department of Environment (DoE)	Elaborates and implements policy and normative and legal regulations for environmental protection, including environmental monitoring. Wildlife management, marine environment conservation and management, protected area management, environmental monitoring and enforcement. Serves as the National Focal Point for TC.	Lead agency for Member of National Caspian Committee for TC and GEF project. Lead agency for IRI on following outputs: #2 Establishment of UEMP; #5: Regional collaborative process on Mnemiopsis control; #8: SPACE network; priority protected areas and habitats; Co-lead with IFO/IFRO, PSO: #1: Linking biodiversity conservation and fishery production objectives. #3: Capacity building for CABC participation in trainings and helping to bridge the skills gap. #4: Joint Action Plan on Ballast Water with Globallast.

Name of Institution	Responsibilities Relevant to CaspEco's Outcomes/Outputs	Roles in the CaspEco Project
		#7: Pilots to identify, rehabilitate, expand access to natural spawning grounds.
Ministry of Agriculture and Jihad	Home ministry of IFO and IFRO.	
- Iran Fisheries Organization (IFO) Deputy of fishing and fishing harbors Deputy of Rehabilitation of fish resources Security fish guard Fishery directors in Gilan, Mazandaran and Golestan provinces.	IFO is responsible for managing all fisheries in Iran's Caspian region. (Add some relevant detail here)	- Member of National Caspian Committee for TC and GEF project. - Lead organization in Iran under Component 1 on several project Outputs; and co-lead agency together with DoE on other outputs. #1: Linking biodiversity conservation and fishery production objectives. #3: Joint review of stock assessment methodologies in use. #3: Capacity building for CABC participation in trainings and helping to bridge the skills gap. #6: Increasing hatchery efficiency; #7: Improving the quality of wetlands/spawning grounds in Iran for Caspian sea salmon and other diadromous fish. #8: Identifying essential habitats
- Iran Fisheries Research Organization (IFRO)	Operation all research projects, like stock assessment or Mnemiopsis leidyi, Gen bank and etc.	#3: Joint review of stock assessment methodologies in use in CS. #1: Linking biodiversity conservation and fishery production objectives. #2: UEMP #3: Capacity building for CABC participation in trainings and helping to bridge the skills gap. #6: Increasing hatchery efficiency; #7: Improving the quality of wetlands/spawning grounds in Iran for diadromous fish. #8: Identifying essential fish habitats (EFH)
- International Sturgeon Research Institute	Premier sturgeon research and reproduction center in Iran located on Iran's Caspian Coast.	#3: Joint review of stock assessment methodologies in use in CS. #2: UEMP #3: Capacity building for CABC participation in trainings and helping to bridge the skills gap. #6: Increasing hatchery efficiency;
Ministry of Roads and Transportation Port and Maritime Organization (PMO)	PMO will Joint Action plan with the Black sea and Baltic sea in partnership with globallast to control IS traffic between the seas.	PMO will also be a member of the national Caspian Committee for the TC. PMO will be the lead organization for Iran on Output #4 dealing with ballast water.
Ministry of Energy	Responsible for managing dams and water released from dams. Would be responsible for providing adequate	Cooperator with the project on assessment of hydroelectric dams' fish ladders or fish ladder potential under Output 7 of the project.

Name of Institution	Responsibilities Relevant to CaspEco's Outcomes/Outputs	Roles in the CaspEco Project
	water supply in necessary time in river pilot plan.	
NGOs, CBOs (Fishermen cooperatives);	Seal conservation, River pilot project, and natural spawning ground.	Involvement of the coastal NGO/community in the process of implementation of project, in particular with regards to Components/Outputs: Component 1, Outputs: #8: SPACE network; priority protected areas and habitats; #9 Matched Small Grants Programme. Component 2, Outputs: #6: Strengthened network of civil society stakeholders and public education materials. #7: Web- based Caspian Information Center (CIC).

KAZAKHSTAN

Name of Institution	Responsibilities Relevant to CaspEco's Outcomes/Outputs	Roles in the CaspEco Project
Ministry of Foreign Affairs	Responsible for negotiating the Tehran Convention and its associated protocols. Plays a key role in determining Kazakh participation in regional sustainable development and environmental conservation cooperation in the Caspian Sea.	Participate in National Coordination Mechanism for TC and CaspEco. Participate in the following outputs: Component 2: Output #1: Regional and national multi-sectoral support to the TC and its protocols.
Ministry of Environmental Protection (MOEP)	State monitoring and control of the environment, expertise of projects. Serves as the National Focal Point for TC. GEF Focal Point for Kazakhstan.	Member of National Caspian Committee for TC and GEF project. Lead agency for KZ on following outputs: #2 Establishment of Unified Ecosystem Monitoring Program (UEMP); Co-lead with FC and FHC on: #1: Linking biodiversity conservation and fishery production objectives. #3: Capacity building for CABC participation in trainings and helping to bridge the skills gap. #5 Regional collaborative process on Mnemiopsis.

Name of Institution	Responsibilities Relevant to CaspEco's Outcomes/Outputs	Roles in the CaspEco Project
		#8: SPACE network; protected areas/ habitats;
Ministry of Agriculture		
Fishery Committee (FC)	State monitoring, control and management of fishery resources of the Ural – Caspian basin.	- Member of National Caspian Committee for TC and GEF project. - Lead organization for KZ under Component 1 on several Outputs; and co-lead together with MoEP on other outputs. #3: Joint review of stock assessment methodologies in use. #1: Linking biodiversity conservation and fishery production objectives. #3: Capacity building for CABC participation in trainings and helping to bridge the skills gap. #6: Increasing hatchery efficiency; #8: Identifying essential fish habitats (EFH)
Forestry and Hunting Committee (FHC)	State monitoring, control and management of bioresources of the Ural – Caspian basin, except fish resources (migratory birds); Responsible for national network of protected area management, except marine areas.	Will play key role in providing data and information related to project outputs: #1 Linking biodiversity conservation and fishery production objectives. #8: Identifying essential fish habitats (EFH)
Republic State Enterprise "KazHydromet"	State hydro-meteorological monitoring	Will play lead role in Output: #2 Unified Ecosystem Monitoring Program (UEMP);
Akimats of Atyrau and Mangystau oblasts	Planning the environmental protection messages, including the biodiversity. Study of fishery resources	Development of suggestions to the Strategic Convention Action Plan for Kazakhstan. Participation in the implementation of pilot projects, submission of data and information. Participation in an estimation of fishery resources Estimation of sturgeon natural breeding effectiveness.
Republic State communal enterprise "Atyrau sturgeon plan"	Breeding the sturgeons	Participation in preparation and realization of pilot projects on development of commodity sturgeon production.
Academy of Sciences: Institute of Geography Institute of Botany Institute of Zoology	Scientific investigations on issues of rational use and protection of natural resources, including biological resources of the Caspian Sea.	Participation in preparation and fulfillment of scientific investigations.
Kazakh Agency of Applied Ecology	Estimation of biological resources of the Caspian Sea and development of fish catchments evaluation.	To rent a scientific and research vessel Organization and fulfillment of field investigations.

Name of Institution	Responsibilities Relevant to CaspEco's Outcomes/Outputs	Roles in the CaspEco Project
Other private companies (on competition base)	Monitoring and estimation of bioresources status	Participation in preparation of realization of pilot projects.

TURKMENISTAN

Name of Institution	Responsibilities Relevant to CaspEco's Outcomes/Outputs	Roles in the CaspEco Project
Ministry of Foreign Affairs	Minister of Foreign Affairs serves as the chair of Turkmenistan's newly established Interagency Commission on Caspian Issues at the President of Turkmenistan. Implementation of the NCAP. MoFA is also responsible for negotiating the Tehran Convention and its associated protocols.	Country representative on the TC Exec Committee. Chair of to-be-established National Coordination Mechanism for TC and CaspEco. Co-lead role in the following outputs: Component 1: Assistance in the matter of involvement of the State Committee of fish industry to participation in "CaspEco" project, as supervising body. Component 2: #1: Regional and national multi-sectoral institutional and financial support to the TC and its protocols. #2: Donor Coordination Group #5: M&E Framework for regionally agreed measures.
State Enterprise for Caspian Issues (SECI) under the President of Turkmenistan	Responsible for coordinating intersectoral work in the Caspian coastal zone and for promoting integrated coastal zone management.	Key participant in:
Ministry of Finance	Distribution of finance for NCAP activities realization. The transfer of the money resources allocated for ecological actions in the Caspian region and the transfer of financing for Teheran Convention secretariat functioning.	Component 2: #1: Regional and national multi-sectoral support to the TC and its protocols. #2: Donor Coordination Group formed.
State committee of Fish Industry of Turkmenistan	The State Committee is responsible for Turkmenistan's fishery management and fishing operations along the Caspian coastline. Its primary goal is to supply fish to Turkmeni public. The SCFI is responsible for the management of fish-	Key participant in development of the TC protocol on Fisheries; ▪ Capacity building work of the project to begin to bridge the capacity gap among countries; ▪ Serves as chair of the CABC and as such is a critical partner for CaspEco's bioresource management and conservation work.

Name of Institution	Responsibilities Relevant to CaspEco's Outcomes/Outputs	Roles in the CaspEco Project
	breeding and fish production enterprises. Establishing a new research institute and managing newly acquired fishing capacity.	▪ Provision of information on fish catch, information related to the fish protection, etc.; ▪ Development and application of new methodologies on sturgeon catch, between Caspian states.
Fishery Inspection Service	The primary goal of Fishery Inspection Service is to enforce fishing laws and protect fish stocks in Turkmeni waters, including the Caspian. The FIS is part of efforts to increase fish stocks and improve artificial cultivation/aquaculture.	FIS is an important project partner in strengthening fishery management in the productive sector of the coastal zone. Providing necessary information regarding fish catch, the state of fish, their wintering and fatting places, activity on protection works, etc. ;
Ministry of Nature Protection	Serves as the National Focal Point for TC. GEF Focal Point for Turkmenistan.	Lead agency for Member of National Caspian Committee for TC and GEF project. <u>Lead agency on following outputs</u>: #2 Establishment of UEMP; #5: Regional collaborative process on Mnemiopsis control; #8: SPACE network; identifying priority protected areas and habitats; <u>Co-lead on</u>: #1: Linking biodiversity conservation and fishery production objectives. #3: Capacity building for CABC participation in trainings and helping to bridge the skills gap. #4: Joint Action Plan on Ballast Water with Globallast. #7: Pilots to identify, rehabilitate and expand access to natural spawning grounds.
Caspian Ecological Control (CaspeControl)	Responsible for the monitoring of the environmental health of the Turkmenistan's coastal waters.	Will play a lead role in the following Outputs: <u>Component 1:</u> #2 Establishment of UEMP and taking part in Ecological Risk Assessment training. <u>Component 2:</u> Involvement in implementation of the TC protocol for the Protection of the Caspian Sea against Pollution from Land-Based Sources Activities.
Khazar State Reserve	Manages hundreds of thousands of protected hectares along Turkmenistan's Caspian Sea coastline, which includes	- Will be a leader in the SPACE network and in helping to establish a circum-Caspian biodiversity monitoring network among key protected areas. - Involvement in the process of development of Agreement on measures of

Name of Institution	Responsibilities Relevant to CaspEco's Outcomes/Outputs	Roles in the CaspEco Project
	prime migratory bird habitat, Caspian Seal haul out and feeding habitat, and key Essential Fish Habitats for feeding and nursery functions. Currently are involved in collaborative survey with Iran's Mazandaran Province on migratory birds.	Biocontrol of ML; development of Regional Action Plan on Invasive Species Management, etc; Involvement in implementation of the TC protocol on
National Institute of Deserts, Flora & Fauna	Lead scientific institute for ecology and wildlife biology in Turkmenistan.	Direct involvement in: ▪ Strengthening the information baseline on biodiversity; ▪ Provision of experts for project implementation; ▪ Involvement in implementation of the TC protocol on biodiversity conservation.
Turkmen Maritime & River Lines	Responsible for all shipping and port management on the Turkmenistan Caspian coast.	▪ Involvement in establishment of sub-regional Task Force to identify areas of common interest and develop a Joint Action Plan for invasive species traffic between seas; ▪ Revision IMO report on invasive species and update it with recommendations; ▪ Involvement in implementation of the TC on oil spill response.
Balkanbalyk (BB) – "State Fishery Production Association"	Operate a ship to conduct the Regional program of pollution monitoring, namely of carrying out of sea research: sampling of water and bottom sediments.	Involvement in Outcome 3 in terms of serving as a market for fisher cooperatives harvest as well as providing expertise in fish marketing and processing.
Ministry of Water Resources	Responsible for the normal condition of natural spawning area. It is engaged in regular clearing Adjiyap water basin and adjoining spawning area.	▪ Provision of measures to rehabilitate natural spawning grounds; ▪ Participation in the projects on restoration of natural spawning grounds and river ecosystems.
Turkmen-kartographyya	Official mapping organization. It prepares all maps for government operations and is expert in the sue of GIS and other mapping software.	▪ Will provide mapping services and other expertise to prepare maps for zoning and experts for working groups.
Emerol Oil (private company)	Output 4	Will contribute data on environmental parameters in Turkmenbashi and Saymonov Bays as part of Turkmenistan's work under Output #3.
Dragon Oil (private company)	Output 4	Will contribute data on environmental parameters as part of Turkmenistan's work under Output #3
City administration of Balkan region	Outcome 6,7, 8	Partner in strengthening special protected areas.

	Output 7, 8, 9, 10	
Non-governmental organizations (NGOs)/ Community-based Organizations (CBOs)	NGOs capacity in the region varies with each country. There are a growing number of NGOs and CBOs concerned about and involved with conservation and environmental issues around the Caspian.	Involvement of the coastal NGO/community in the process of implementation of project, in particular with regards to Components/Outputs: Component 1, Outputs: #10 Matched Small Grants Programme. Component 2: Outputs: #6: Strengthened network of civili society stakeholders and public education materials. #7: Web- based Caspian Information Center (CIC).

INTERNATIONAL PARTNERS

Name of Institution	Responsibilities Relevant to CaspEco's Outcomes/Outputs	Roles in the CaspEco Project
Food and Agriculture Organization (FAO) / World Bank (WB)	Partner in supporting bioresources management work in the Caspian region through workshops, technical assistance, and training. WB and FAO are co-funding these activities.	Will play a lead or contributing role under the following outputs: #1: Joint review of stock assessment methodologies in use in Caspian. #4: Bioresources governance capacity building for CABC; TA to help bridge the skills gap. #7: Pilots to improve existing hatcheries efficiency. #8: Pilots to identify, rehabilitate and/or expand access to natural spawning grounds.
United Nations Environment Programme Regional Office for Europe	UNEP's work with regional environmental governance is very relevant to the project and UNEP has been deeply involved in the Caspian region with the CEP I and CEP II GEF projects. UNDP in Geneva is acting as the Tehran Convention Interim Secretariat.	UNEP will play a lead role in Component 2 of the project under every Output. It will be both a co-funder and a provider or expertise.
- Tehran Convention Interim Secretariat		Co-lead role with Member States for every Output under Component 2:
International Atomic Energy Agency Marine Environment	IAEA MEL is the only marine laboratory within the UN system. Its unique nature means that, besides carrying out an IAEA-focused core programme, IAEA-MEL is	IAEA will be a both a co-funder and a provider of expertise in the area of ecological risk assessment. Will play a lead role under Outputs:

Name of Institution	Responsibilities Relevant to CaspEco's Outcomes/Outputs	Roles in the CaspEco Project
Laboratories (MEL)	designed to respond to regular requests for technical assistance from other UN agencies and programmes. IAEA has played an important role in pollution monitoring in past GEF projects, including the CEP.	#3 Establishment of Unified Ecosystem Monitoring Program (UEMP). Activity 3: Ecological Risk Assessment; #4 Bioresources governance capacity building.
Caspian Seals Survey **Darwin Initiative's** **Caspian Seal Project** **Caspian Seal Conservation Network (CSCN)** **Darwin Initiative (CSCN)**	The CSCN was adopted as a working network at the Darwin Seal Project's initial meeting in Baku in September 2006. It is a network of scientists from around the Caspian region and abroad collaborating on seal surveys and conservation activities.	Partners in the development of the Caspian seal habitat necklace under the SPACE network, Component 1, Output #9.

C) Stakeholder participation -- long-term involvement in decision-making and implementation;

The indicative roles and responsibilities of relevant stakeholders in project implementation is described above. Long-term involvement in decision making and implementation will be driven by the requirements of the Tehran Convention and country support and participation in the implementation of articles and protocols to the Convention. For example each Caspian state will establish an Inter-Ministerial Coordination Mechanism (IMCM) to engage and ensure broad national support and participation in the implementation of the project and the Convention and its protocols.

Other stakeholder participation activities will complement this IMCM. Regular meetings of NGO and civil society representatives will be organized concurrent with Steering Committee and COP meetings. This will enable the NGO community to exchange experiences and coordinate their input to the project implementation process as well as the Convention process. The intent is for this to become an integrated part of the CoP's long-term practice beyond the life-span of the GEF project.

D) Social issues -- impacts on beneficiaries and vulnerable groups, especially indigenous communities, women, and displaced households. Describe how the marginal groups are going to be involved in the project implementation.

The project will have no impact upon indigenous communities and displaced households. Women have played an essential role in the implementation of previous GEF/CEP initiatives and will continue to do so as part of CaspEco. Women will be involved in the project implementation in several ways: First, normal UNDP hiring practices emphasizes the importance equality in hiring practices and women will be equally represented among project staff and expert consultants. Secondly, women will continue to be essential contributors to their own governments' contributions to CaspEco in the form of expert input and guidance as part of their official capacity. Thirdly, women's groups will be well represented among the grantees as part of the matched small grants and micro grants program under Component I of the project.

Part IV: Analysis of Stress on Caspian Sea Ecosystem Health/Sources of Stress and Underlying Causes.

Overall Problem: Loss of biodiversity and reduced ecosystem resilience

Sector	Stress	Source	Underlying Cause/Barriers
1. Fisheries	*1.1 Genetic degradation of wild genotypes.* - *Introgressive hybridization.* - *Outbreeding depression.* - *Modified growth, survival, reproduction behavior.* *Reduced fitness due to inbreeding depression and lowered overall heterozygosity in offspring.*	Hatcheries	⇒ Violation of the basic ecological rules of hatchery genetics in part by using small numbers of brood fish. ⇒ Hatcheries mix up genetically distinct wild populations, leading to hybridization and reduced fitness. ⇒ Assumption that hatcheries can successfully replace natural spawning grounds and sustain a healthy fishery. ⇒ There is no hatchery certification system, which not only hampers oversight, but also hampers the sharing of new and more efficient/ecologically friendly practices.
	1.2 Reduced population numbers and reduced breeders in the population. *-- an imbalance in trophic hierarchy of the Caspian Sea.* *-- a reduction in the spawning #s and thus resilience of a priority fish species to other disruptions caused by invasive species, etc...*	Excessive capture of fish both legal and illegal.	⇒ Lack of integrated or ecosystem based approach to fisheries management (e.g. single taxon of commercial fisheries management that does not take into account the interconnection between fish stocks and the food chain.) ⇒ Weak capacity of regional management bodies and significant capacity gap among 5 Caspian states in bioresources management hampers effective cooperation. ⇒ Fishing quotas not based on up-to-date, accurate population assessments of target species. ⇒ Fishery management focussed on maximizing production of one species/stock and not ecosystem health. ⇒ Fish meat and caviar are two of the most cash-convertible natural resources available to local communities and organized poaching groups. ⇒ Minimal deterrent for illegal fishing/poaching in terms of legal punishments or other disincentives.

Sector	Stress	Source	Underlying Cause/Barriers
			⇒ Rapid decline in socio-economic conditions post Soviet Union. Coastal populations faced almost complete unemployment because of the closure of state-owned agriculture farms ("kholkozes").
	1.3 Reduced resilience to climate change; reduced capacity of fish populations to adapt to changing environments.	Homogenized genetic differences between/among wild populations and hatchery populations.	⇒ Single taxon-oriented, production-oriented, fishery management practices do not consider the ecological context or implications of actions taken.
2. River water management	**2.1 Reduced #s of genetically distinct sub-populations and reduced success rates for natural reproduction/spawning of fish species.** *Reduced genetic diversity within a species reduces egg output, hatching success, survival rate and population size in fishes.*	Loss of connectivity and natural selection processes means reduced #s of genetically distinct populations. Blocked migration up/down rivers & **access to aquatic spawning habitat** for diadromous species in the Caspian.	⇒ Stream passage in priority rivers blocked by dams w/no fish ladders have inadequate fish passage designs, effectively eliminating extremely valuable natural spawning habitat upstream by blocking fish passage. ⇒ Low level of awareness that old fish passage facilities on old dams must be designed and/or retrofitted to allow for passage of different species, including sturgeon. ⇒ Maintaining natural riparian ecosystems is not a priority for fish and environmental management authorities; ⇒ Riparian ecosystems are misunderstood by local authorities; minimal to no understanding of rivers as natural, living systems inextricably tied ecologically to the Caspian Sea. ⇒ In some streams, water pollution laws are not enforced, degrading water quality. ⇒ In-stream flow for some rivers during spawning time is non-existent.
3. Shipping & Resource Exploitation in the Sea and along the Coastline	**3.1 Altered ecosystem function and integrity;**	**Invasive species** Major impact on ecosystem function and steady state variability. Can cause trophic cascade and force ecosystem over regime threshold into a fundamental regime shift.	⇒ There is no consensus on how to prevent additional introductions of invasive species to the Caspian or on exactly what the "problem" is with respect to ballast water entering the Caspian from other water bodies. ⇒
	3.2 Disturbance of wildlife in		⇒ Some disturbance is unavoidable.

Sector	Stress	Source	Underlying Cause/Barriers
	priority habits hampers ability to rest or feed or birth.		⇒ Particularly harmful disturbance could be due to the an inadequate demarcation of priority habitats for Caspian biodiversity and for inadequate protections for those habitats, albeit seasonal or permanent.
	3.3 Chronic or catastrophic oiling and hazardous material spills.	Short/immediate term: Mortality from oiled feathers or fur or deadly poisoning. Long-term and chronic impacts: Slow poisoning: a) reduces the reproductive potential of adult individuals, b) affects the natural sex ratios of offspring, c) reduces infant survival rates, and d) changes the availability of prey and food resources.	⇒ Human error. All oil exploration in the Caspian is required to adhere to the most modern environmentally sound practices. But almost certainly at one point in time, there will be a mistake made and a spill caused. ⇒ Old leaking from abandoned wells from decades past (a diminishing problem).

4. Agriculture & Industry	**4.1 Altered aquatic animal and plant community dynamics.** • Altered aquatic plant community dynamics. • Reduced reproductive success rates in fish larvae; altered sex ratios. • Slower growth of fish larvae and increased mortality of benthic and fish fauna.	Pollution from herbicides/ pesticides/ industrial compounds. Many pesticides known to be in use are very toxic for aquatic organisms and environment; Many pesticides are found to be "highly dangerous" for water.	⇒ Pesticides can be classified as acceptable from human health perspective but can still be toxic to aquatic organisms. Testing standards for pesticides in Littoral States do not adequately take into account ecosystem health parameters. ⇒ Inappropriate use/Excessive use of pesticides; ⇒ Barrier: No understanding of integrated pest management or economic damage threshold principle for managing pests and minimizing pesticide use and cost. ⇒ Weak enforcement of pesticide regulations in littoral states due to inadequate decentralized capacity from central ministries to regional authorities.

Part V: Parallel Co-funded Partner Activities.

UN Food and Agriculture Organization (FAO) 300,000

Regional Technical Cooperation Programme (TCP) project "Capacity building for the recovery and management of the sturgeon fisheries of the Caspian Sea" (TCP/INT/3101)

Overall Activity 1: Caspian countries and FAO conduct a joint review of existing sturgeon stock assessment methodologies.

FAO will conduct a stock assessment workshop together with CITES and CAB members to review existing stock assessment methodologies and if required, identify and develop changes to current stock assessment and methods used to calculate total allowable catches (TAC). The meeting report will be submitted to the CITES Animals Committee before the next meeting. If an improved methodology is recommended by FAO, it may be tested in the waters of at least one Caspian country if requested and co-funded by that country.

Overall Activity 2: Provide technical recommendations on improving efficiency of sturgeon hatcheries in each Caspian country.

FAO will work with hatchery experts in each of the participating Caspian countries to: (i) provide technical guidelines for restocking hatcheries to improve biotechnical practices including improving genetic variability when operating with very limited numbers of brood fish (e.g. complete production cycle from brood stock selection to fingerling release); (ii) share information on measures to improve restocking efficiency (e.g., size of fingerlings at release, place and timing of release, tagging, non-lethal egg extraction); (iii) share information on financing hatchery operations, ownership models, marketing of products; (iv) provide advice on making hatcheries more ecologically and biodiversity friendly

Overall Activity 3: Strengthen regional cooperation in the fight against illegal fishing and trade in sturgeon products.

FAO and CITES will cooperate in organising a workshop with participation of fisheries and law enforcement representatives from the Caspian region and international experts. The workshop will review international experiences in combating IUU fishing and illegal trade, with the view to identify new methods that could be applied in the Caspian region.

International Atomic Energy Agency (IAEA)
Marine Environment Laboratories in Monaco $120,000

Relevant to CaspEco project Component 1, Output 2, Activity 2. Conduct Ecological Risk Assessment Training.

Working together with the IAEA, the project team will develop and implement a training program for the assessment of risks to fish larvae, fingerlings and their foods of the levels of contaminants in waters and sediments that have been measured in Essential Fish Habitat (EFH) such as feeding & nursery areas or spawning grounds.

This activity will develop online demonstration on how changing one parameter could benefit bioresources. This activity will establish current environmental quality benchmarks in EFH against which to: a) identify optimal pilot sites and b) measure any remedial improvements. This activity will depend upon good QA measurements by regional laboratories, supported by inter-regional comparison exercises.

IAEA contribution

1) 1st year: training course in ecological risk assessment in Monaco for 15-20 people; costing to cover return travel and stipend: $60, 000.

This training course for national trainers will include the following;
a) introduction to the principles of ecological risk assessment (ERA),
b) how to do ERA on water and sediment contaminant data with regard to fish, fish larvae and their foods,
c) ERA case studies for different categories of pollutants (organics, metals etc.) with regard to fish habitat, spawning sites,
d) ERA case study for Caspian Sea, based on existing contaminant data,
e) Use of ERA in environmental management for small databases,
f) development and design of national projects in ERA for Caspian Sea states (additional funding to support these project will be sought from IAEA and Oil companies),
g) provision of ERA software to participants.

2) 2nd year: follow-up workshop in ecological risk assessment in the region, 15-20 people: $60, 000.

This training course for national trainers will include the following;
a) ERA based on tissue residue levels in fish, fish larvae and their foods (activity 3 will support this activity)
b) reports on national ERA projects and national trainers activities.

Other activities will be included following the first training course, when regional needs are better assessed.

World Bank (WB)
"Caspian Fisheries Management" Project $300K

Trust Fund for Environmentally & Socially Sustainable Development (TFESSD)

The project development objective is to assist the recovery of Caspian sturgeon, promote the sustainable management of the fishery, and to introduce economically attractive alternatives to unsustainable fishery practices at the community level.

The proposed project will a) support analysis of the Commission on Aquatic Bio-resources (CAB) and stakeholders to address policy level issues that are limiting the effectiveness of sturgeon fishery management; b) provide support to the CAB to develop technical capacity for use of genetics for sturgeon management; and c) introduce new community-based monitoring approaches and economic alternatives to reduce poverty and pressure on fisheries. audiences include CAB and its member fisheries agencies, scientific institutes, other government officials and parliamentary representatives, Caspian coastal communities and their local governments, and World Bank management and other donors.

Audience: CAB and its member fisheries agencies, Ministries of Environment, scientific institutes, other government officials, Caspian communities and donors.

Timing: June 2007 to mid-2010

WB - Technical Assistance for Caspian Fisheries (under preparation) **Seeking $1 million preparatory financing.**

Focus: Support to Iranian Fisheries Organization's Comprehensive Fisheries Plan.

Objective: Analysis to define sector strategy and investment plan.

TORs Developed:

1. Sturgeon Aquaculture
2. Introduction of Marine Aquaculture
3. Evaluation of Credit Available to the Fishing Sector
4. Enhancement of the Alternative Livelihoods Program
5. Redefining and Strengthening the Role of Fisheries Unions

Status: Seeking $1.0m bilateral financing to conduct studies and prepare full-size investment proposal.

WB - Governance Partnership Facility – Project Proposal under consideration Approx $2 million

New World Bank grant facility (Governance Partnership Facility) to promote good governance and related capacities, including those relevant to natural resources and the environment.

Grant will fund: advisory services, workshops, study tours, as well as Bank staff time, travel costs (i.e., one objective is to deepen WB understanding and expertise in governance as a way to better serve clients); intended for multi-stakeholder participation, not just for government counterparts.

Status: Decisions on approval expected in early Nov 2008.

JICA Anzali Wetland Restoration IR-Iran $2.7 million
JICA Sefidrood River Integrated Water Resources Management $1.27 million

The JICA/IR-Iran "Anzali Wetland Ecological Management Project" is to be implemented for two years from mid-2007 to 2010. This project will focus on the establishment of a necessary mechanism for the implementation of the Master Plan. Expected results of the project are 1) to establish a basic institutional structure for integrated wetland management; 2) to establish monitoring procedures for wetland management; 3) to determine zones and to draft management strategies for each zone considering the socio-economic status of the area; 4) to develop the basis for environmental education, using the Environmental Education Center; and 5) to develop a basis for ecotourism.

Following a scoping paper on the water resources of the Sefidrood, JICA is funding a IWRM planning project together with the Water Resources Management Company, Ministry of Energy IR-Iran for the Sefidrood River watershed. The Sefidrood is a tributary river to the Caspian Sea. The project's two main objectives are to: 1) formulate a master plan for integrated water resources management for Sefidrud River Basin; and 2) To transfer relevant skills and technologies to personnel concerned with the Study.

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Countries: Azerbaijan, Islamic Republic of Iran, Kazakhstan, Russian Federation, Turkmenistan.

UNDAF Outcome(s)/Indicator(s): AZ: Natural environmental protection and natural resources management.; IRI: Global environmental concerns and green development integrated in national development frameworks through commercially based approaches to sustainable natural resource use, capacity building, and the removal of economic, legal, institutional, technology barriers.; KZ: Comprehensive approach to SD integrated into national development planning and linked to poverty reduction; RF: NA; TK: A comprehensive approach to environmentally sustainable principles and practices is implemented into policies at all levels and into community development and is linked to improved social well-being'.

Expected Outcome(s)/Indicator (s):AZ: Same as UNDAF; IRI: Same as UNDAF; KZ: Same as UNDAF; RF: Improved environmental sustainability of development /environmental dimension in development policy; TK: Same as UNDAF.
(CP outcomes linked to the SRF/MYFF goal and service line)

Expected Output(s)/Indicator(s): AZ: Mechanism placed for management of international waters; IRI: Tackling coastal pollution with priority given to the Caspian Sea. KZ: Increased capacity of the national Council of SD" and "expanded cooperation of private sector and other stakeholders in natural resources management; RF: Conserved ecosystems are considered as important resource for sustainable development; TK: Environmental and natural resources policies/implementation are aligned with global environmental commitments and national development priorities.
(CP outcomes linked to the SRF/MYFF goal and service line)

Implementing partner: UNDP
(designated institution/Executing agency)

Other Partners:

Programme Period:_____
Programme Component:_____
Project Title: "CaspEco – The Caspian Sea: Restoring Depleted Fisheries and Consolidation of a Permanent Regional Environmental Governance Framework."
Project ID: 00063443
Project Duration: 2009 - 2011
Management Arrangement: UNOPS

Total budget: _____
Allocated resources: _____
- Government _____
- Regular _____
- Other:
  - Donor _____
  - Donor _____
  - Donor _____
- In kind contributions _____

Agreed by (Government of Azerbaijan): _____

Agreed by (Islamic Republic of Iran): _____

Agreed by (Government of Kazakhstan): _____

Agreed by (Government of Russian Federation): _____

Agreed by (Government of Turkmenistan): _____

Agreed by (Implementing partner/Executing agency): ___UNOPS _____

Agreed by (UNDP):_____