

PROJECT BRIEF

1. Identifiers

Project Number:

Project Name: Addressing Transboundary Environmental
Issues in the Caspian Environment
Programme

Duration: 3 years

Implementing Agencies: UNDP, UNEP and The World Bank

Executing Agency: UNOPS, UNEP and The World Bank

Requesting Country or Countries: Azerbaijan, Iran, Kazakhstan, Russia,
Turkmenistan

Eligibility: Eligible under para. 9(b) of GEF Instrument

GEF Focal Area(s): International Waters

GEF Programming Framework: Waterbody Based Operational Programme
(#8).

2. Summary

This project represents the GEF contribution to the Caspian Environment Programme (CEP), a regional programme funded by the five riparian countries, GEF, UNEP, The World Bank, and other donors. The overall goal of the CEP is environmentally sustainable development and management of the Caspian environment, including living resources and water quality, so as to obtain the utmost long-term benefits for the human populations of the region, while protecting human health, ecological integrity and the region's economic and environmental sustainability for future generations.

The Caspian Environment Programme is being developed as a comprehensive response to the severe environmental problems facing the region, and is based on extensive consultations with professionals in the regional and international scientific and resource management communities. The CEP represents a partnership between the Caspian Riparian States, private sector (specifically the oil and gas industry), all three GEF implementing agencies (UNDP, UNEP, and The World Bank) and the EU/TACIS, *inter alia*.

The ultimate goals of the present GEF project are:

- 1) The development of a regional coordination mechanism to achieve sustainable development and management of the Caspian environment through institutional framework, capacity building, public awareness, and stakeholder involvement;
 - 2) Completion of a Transboundary Diagnostic Analysis of priority transboundary water-related environmental issues for the Caspian ecosystem to guide prioritization for environmental actions and investments; and
 - 3) Formulation and endorsement of a Strategic Action Programme (SAP) and National Action Plans (NAPs) as the basis for prioritizing actions to be taken, both baseline and additional, on behalf of sustaining the Caspian and its associated natural resources.
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3.	<u>Costs and Financing (Million US\$):</u>		
	GEF:	-GEF Full Project :	USD\$ 7,639,800
		-Project Support Costs :	USD\$ 351,736
		-Total Project Costs :	USD\$ 7,991,536
		-PDF (Allocated) :	USD\$ 349,920
	Overall GEF Expenditure :		USD\$ 8,341,456
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	Co-financing :- IA		
		Government :	USD\$ 1,420,000
		EU/TACIS :	USD\$ 5,831,500
		UNEP :	USD\$ 560,000
		UNDP :	USD\$ 100,000
		World Bank :	USD\$ 1,964,000
		Private :	USD\$ 100,000
	Total Project Cost :		USD \$ 18,316,956
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4.	<u>Associated Financing (Million US\$) :</u>		USD\$ 162,521,982

5. Operational Focal Point Endorsement:

Azerbaijan

Sharifov, Abid

Deputy Prime-Minister, Chairman of the State Commission

Signed:

Dated: 28 August 1998

Islamic Republic of Iran

Hosseini, Pirouz

Director General for International Affairs

Signed:

Dated: 24 August 1998

Kazakhstan

Daukeev, Serikbek

Minister, Ministry of Ecology and Bioresources

Signed:

Dated: 7 August 1998

Russian Federation

Averchenkov, Alexander

Executive Director, National Pollution Abatement Facility (NPAF)

Signed:

Dated: 25 August 1998

Turkmenistan
Khabibulla Atamuradov
Vice Minister of Environmental Exploration and Nature Preservation and
Signed:
Dated: 26 August 1998

IA Contact:
David Vousden
Regional Coordinator
Global Environment Facility, UNDP
One United Nations Plaza
New York, NY 10017
Tel: (212) 906-6402
Fax: (212) 906-5102
e-mail: dvousden@undp.org

Fritz Schlingemann
Director and Regional Representative
United Nations Environment Programme (UNEP)
15, Chemin des Anemones
1219 Chatelaine, Geneva
Tel: (41 22) 917 8111
Fax: (41 22) 917 8024
e-mail: fschlingemann@unep.ch

Michele de Nevers
Sector Leader, Environment Group
Europe and Central Asia Region
The World Bank
1818 H Street, N.W.
Washington, DC 20433
Tel: (202) 473-8607
Fax: (202) 477-3291
E-mail: mdenevers@worldbank.org

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List of Acronyms

BSEP	Black Sea Environmental Programme
BSP	Baltic Sea Programme
CASPAS	Integrated Programme on Hydrometeorology and Monitoring of Environment in the Caspian Sea
CD	Compact Disc
CEP	Caspian Environment Programme
CITES	Convention on International Trade in Endangered Species
CNAP	Caspian National Action Plan
CRTC	Caspian Regional Thematic Center
DSS	Decision Support System
EIA	Environmental Impact Assessment
EIN	Environmental Information Networking
EU	European Union
FAO	Food and Agriculture Organization of UN
GEF	Global Environment Facility
GIS	Geographic Information System
GNP	Gross national product
IAEA	International Atomic Energy Agency
ITCAP&M	Integrated Coastal Area Planning and Management
IMO	International Maritime Organization
IOC	Intergovernmental Oceanographic Commission
ISCC	Intersectoral Coordinating Committee
LEARN	Learning Exchange and Resource Network
MARPOL	International Convention for the Prevention of Pollution from Ships
MEAs	Multilateral Environmental Agreements
METAP	Mediterranean Environmental Technical Assistance Program
NAP	National Action Plan
NEAP	National Environmental Action Plan
NFP	National Focal Point
NGOs	Non-Governmental Organizations
NIS	New Independent States
PCU	Programme Coordination Unit
PDF	Project Development Facility
PHRD	Policy and Human Resources Development Grant (Government of Japan)
PIP	Priority Investment Portfolio
PIR	Project Implementation Review
PPC	Project Preparation Committee
PPER	Project Performance and Evaluation Review
QA	Quality Assurance
QC	Quality Control
SAP	Strategic Action Program
SC	Steering Committee
TACIS	EU Programme for Technical Assistance for the Commonwealth of Independent States
TDA	Transboundary Diagnostic Analysis

TOR	Terms of References
TPR	Tri-partite Review
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNOPS	United Nations Office for Project Services
WHO	World Health Organization
WMO	World Meteorological Organization
WWW	World Wide Web

I. BACKGROUND AND CONTEXT (BASELINE COURSE OF ACTION)

1. Introduction

1. Five countries share the natural heritage of the Caspian Sea. Despite their political and social diversity, the people of the region share a common concern for the Caspian. Today the Caspian faces significant environmental problems, many of a transboundary nature, that arise from both anthropogenic and natural causes. The countries that emerged from the former Soviet Union (Azerbaijan, Kazakhstan, Russia, and Turkmenistan) are confronting difficult economic and administrative adjustments that complicate environmental management and natural resource protection efforts. The five littoral countries share common problems with pollution abatement and control from municipal and industrial sites in the Caspian basin, as well as contributing non-point source contaminants from agricultural sources. All of the littoral countries are urgently seeking to address problems caused by water level change in the Caspian, and all are also grappling with greatly reduced fish catches (especially sturgeon) caused in part by overfishing and illegal poaching.

2. The Caspian Environment Programme (CEP) is a regional umbrella programme established by the Caspian littoral states and aided by the international agencies. Born out of a desire for regional cooperation, expressed through a number of regional agreements (see Annex 12) including the Almaty Declaration on Environmental Cooperation of May, 1994, the CEP was agreed to in June 1995 during a joint mission by The World Bank, United Nations Environment Programme (UNEP), and United Nations Development Programme (UNDP). This mission marked the start of a close partnership between the region and the international community. The mission also cemented the collaborative mechanisms between the GEF implementing agencies.

3. As it now stands, the CEP is a regional programme that encompasses all Caspian States and numerous international agencies, including The World Bank, UNEP, UNDP, the European Union/TACIS (EU/TACIS), and many others. During meetings in the region in May, 1998, the CEP was launched officially. A Steering Committee has been established, and the region agreed that the Concept Paper produced during the previous year in collaboration with The World Bank would form the basis for the CEP. In addition, UNDP-led efforts towards a Global Environment Facility (GEF) project for the Caspian focusing on its priority transboundary issues was endorsed by the region. Since UNDP is the sole major donor unfettered in its interactions with all five countries equally, the UNDP plays a central role in implementation of the CEP, along with the UNEP, The World Bank, and EU/TACIS.

4. UNEP has been active in the region, contributing to drafting and formulation of the Framework Convention for the Protection and Sustainable Management of the Caspian Environment and its Resources, which will be presented in a second draft to the region in Moscow in January, 1999. In addition, the UNEP has produced work products on sea-level rise and climate change. The World Bank played a central role in the NEAP process in the region, as well as development of investments for the region. The World Bank also developed the Concept Paper, which has been accepted as the basis for the CEP.

5. The EU/TACIS has begun implementation of its first tranche of funding for the Caspian Environment Programme, which is being implemented in close collaboration with the UNDP,

UNEP, and The World Bank. The first tranche addresses support for Programme initiation; the second tranche, which is expected to begin in 1999, will focus on Priority Investment Portfolios (PIPs). The EU/TACIS project is one of several contributing to the CEP, collaborating closely with other projects (such as the GEF).

6. Together, the international partners are assisting the Region to initiate this important sustainable management programme for the Caspian. Sustainability is encouraged by close cooperation between the individual projects under the CEP umbrella, and the private sector. In particular, close collaboration between the CEP and the oil and gas industry has been developed during the past two years. The oil and gas industry will collaborate with the CEP through direct funding, data sharing, and participation in many sub-components of the CEP.

7. This partnership between the Caspian riparian states, the international agencies and the private sector (particularly the oil and gas industry) is destined to provide a sustainable programme for environmental management of the Caspian Sea.

2. Environmental Issues

8. The Caspian, surrounded by the five littoral countries, is the largest land-locked body of water on earth. Situated in a natural depression, below mean sea level, it receives water from the Volga, Ural and the Kura rivers and numerous other freshwater inputs, but has no outlet to the world oceans. Water-level fluctuations, a natural cyclic phenomenon, have nevertheless had serious consequences for the region, displacing thousands of persons, destroying investments in industry and infrastructure and causing severe pollution threats via inundation of nearshore waste sites. The isolation of the Caspian basin, its climatic and salinity gradients, have created a unique ecological system. Some 400 species are endemic to the Caspian waters, some of which, notably the sturgeon, are of major economic importance. Bird life is prolific with large populations during migration, when many birds rest and feed in the extensive deltas, shallows and other wetlands. Many Caspian biota are threatened by over-exploitation, habitat destruction and pollution.

9. The Volga River, the largest in Europe, drains 20% of the European land area and is the source of 80% of the Caspian's freshwater inflow. Its overall contribution to the Caspian may have diminished somewhat over the years due to extensive dam construction and its lower reaches are heavily developed with numerous unregulated releases of chemical and biological pollutants. Although existing data is sparse and of questionable quality, there is ample evidence to suggest that the Volga is one of the principal sources of transboundary contaminants to the Caspian.

10. The Caspian basin is rich in commercially developable hydrocarbon deposits. Production of oil and gas is significant and new exploration activity is under way. Oil and oil products generate constant traffic that has been estimated to total approximately 10,000 shipping movements annually. The magnitude of oil and gas extraction and transport activity thus constitutes a risk to water quality. Underwater oil and gas pipelines are constructed or proposed. Commercial activity (fishing fleets, passenger, dry goods and other cargo traffic) utilizes the Caspian enroute to the Black Sea or the Baltic via the Volga-Don canal system. This combined traffic has a number of possible impacts on the Caspian's environmental integrity. For example, the Volga-Don connection poses a threat in the form of introduction of exotic

species through ballast waters *inter alia*, and stringent measures may be needed to prevent this threat. The traditional Caspian sturgeon fishery is well-known due to the economic value of Caspian-derived caviar. At its peak, the Caspian supplied more than 80% of the world's sturgeon stock. In recent years, however, sturgeon landings have decreased dramatically: from 30,000 tons in 1985 to only 5,672 tons in 1995. A quota system, introduced together with a temporary ban on pelagic fishing, does not appear to have been effective in reviving the dwindling fish populations. While fishing methods have clearly become more efficient and overfishing has occurred, a severe impact on the sturgeon and other anadromous species is thought to arise from the construction of numerous dams on the Volga and Kura rivers. The latter structures effectively bar fish from their primary spawning areas. Point and non-point source pollution leads to bio-accumulation of metals and persistent organic pollutants in the sturgeon from these waters. Poaching, dramatically increased during recent years, is also a main cause of sturgeon decline.

3. Social and Economic Issues

11. An estimated human population of approximately 11 million is distributed around the Caspian shoreline. The main urban centres of population are concentrated on the western and southern shores. In the west, Baku, with a population of 1.7 million, is the largest urban centre on the Caspian coast. Coastal provinces in Iran and Azerbaijan, in particular, dominate the demography of the Caspian.

12. The current annual Gross National Products (GNP) per capita of the Caspian States are: Azerbaijan US\$1240; Iran US\$2410; Kazakhstan US\$2030; Russia US\$3470; Turkmenistan US\$1440.

13. Principal economic activities in the Caspian basin include fisheries, agriculture, oil and gas production, and related downstream industries. At their peak, revenues to the riparian countries from sturgeon, including caviar, were as much as US\$6 billion annually. Rice, vegetable cultivation and cattle and sheep husbandry are the prime agricultural activities in the catchment area. Oil exploration and production are increasing along all shelves of the Caspian by all countries, and are already well established in the Baku (onshore and offshore) and Tenghiz (onshore) regions. Oil production is expected to increase dramatically during the next few decades.

4. Legislative Issues

14. An international legal framework for cooperation in protection and sustainable use of the Caspian natural resources is seen as a major, overarching component of regional cooperation at large. An urgent need for a cooperative framework is evident from an ecological point of view, as clearly identified by the littoral states.

15. UNEP has assisted the region in developing the basic elements for a Framework Convention for the Protection and Sustainable Management of the Caspian Environment and its Resources. The Framework Convention is to include pollution prevention, reduction and control; protection, preservation and restoration of the marine environment; procedures to fulfill the obligations contained in a Framework Convention; and formation of the Organization for the Protection of the Sustainable Management of the Caspian Environment and its

Resources. Work is proceeding to develop a final draft Framework Convention for consideration by the Caspian states in January 1999.

5. Institutional Issues

16. The statutory, administrative and procedural capabilities for multi-national regional environmental administration and management in the Caspian are not uniformly strong. Some countries are only now adopting laws for environmental management. Effective implementation of these new standards remains a task for the future. Administrative structures may be biased towards inspection, policing and enforcement rather than education, information and compliance. Strong differences exist between states, with some states (for instance, Iran) comparatively more advanced than others.

17. The Environmental Impact Assessment Process, or its equivalent, is a legal requirement in the majority of the Caspian countries. However, the manner in which it is applied, particularly the scoping process and provisions for follow up, is not systematic between states.

18. In contrast, national capabilities in environmental administration, research, monitoring and data collection are generally adequate throughout the region and, in parts, strong. In the past, some research institutions have operated on their own initiative rather than in response to the needs of policy-makers, planners and managers. There is also a widespread inability to market scientific expertise and to translate scientific results for policy makers. The links between science and policy are presently weak and should be strengthened by a regional program.

II. RATIONALE AND OBJECTIVES

1. Long-term Objective

19. The Caspian Environment Programme (CEP) is being developed as a comprehensive response to the key environmental problems facing the region with GEF helping to address the transboundary issues. As defined in the Concept Paper, the overall goal of the CEP is: *“Environmentally sustainable development and management of the Caspian environment, including living resources and water quality, so as to obtain the utmost long-term benefits for the human populations of the region, while protecting human health, ecological integrity and the region's sustainability for future generations.”*

20. The CEP is designed to draw extensively on positive and negative lessons learned from other regional sea Programmes, such as the Baltic Sea Programme (BSP), the Black Sea Environmental Programme (BSEP), and the Mediterranean Environmental Technical Assistance Programme (METAP). These more mature Programmes have demonstrated that regional environmental Programmes can provide effective fora for regional cooperation among parties to relevant agreements or conventions. Certain features common to these Programmes will be emulated in the CEP while recognizing the unique regional needs and characteristics. The partners recognize that many of the important lessons learned from the more mature regional seas Programmes have resulted from the actual process of working through the Programme, and can be replicated in the Caspian region only by going through similar steps.

2. Specific GEF Project Objectives

21. More specifically the Objectives of the GEF Project are:

- Objective 1: Completion of a Transboundary Diagnostic Analysis (TDA) of priority water-related environmental concerns for the Caspian ecosystem; and
- Objective 2: Formulation and Endorsement of a Regional Strategic Action Programme (SAP) and (5) National Action Plans (NAPs) outlining priority actions, both baseline and additional, to be taken on behalf of sustaining the Caspian and its associated resources.
- Objective 3: Development of a Caspian regional coordination and management mechanism for the sustainable development and management of the Caspian environment through the creation of regional, intersectoral and thematic institutional frameworks, including a regional framework convention.

22. Consistent with the GEF Operational Strategy, such an initial strategic project is often necessary to gain agreement among cooperative countries in identifying priorities for future GEF funded activities. Following such an initial process, GEF would expect to support the agreed incremental costs of measures to address the priority transboundary issues.

23. During the project preparation phase, the Caspian countries, with GEF and other donor support, agreed that the following priority transboundary issues should be considered under the SAP. The final priority setting will be determined through the TDA formulation process. The final list is expected to include several of the following issues identified in the PDF-B phase:

- Degradation of biodiversity, loss of coastal habitats, loss or imminent loss of endangered species and their genomes;

- Possible accidental introduction of exotic species (e.g., *via* shipping through the Volga-Don Canal);
- Unsustainable use of commercial fish stocks (especially sturgeon);
- Degradation of landscape;
- Coastal desertification;
- Poor or unsatisfactory human health quality, unsanitary conditions in many beaches and bathing waters, unsafe drinking water, contaminated fish and fish products, poorly or untreated sewage and industrial discharges to coastal waters;
- Inadequate freshwater resources;
- Damage to coastal habitats and infrastructure from sea level fluctuations; and
- Contamination from point and non-point sources as well from offshore exploration and marine transport.

24. In order to create a framework to begin to address these environmental issues, the following programmatic elements were identified by the countries:

- Effective Regional Intersectoral (public and private sector) Coordination and Environmental Management
- Public Awareness and Involvement in the CEP, SAP and NAPs
- Effective Regional Information and Data Management Systems
- Effective Regional Assessment of Contaminant Levels
- Assessment of Transboundary Biodiversity Priorities
- Strategies for Sustainable Management of Fish Resources and Other Commercially Exploited Aquatic Bioresources
- Strategies for Integrated Transboundary Coastal Area Planning and Management
- Strategies to Live With Water Level Fluctuations
- Strategies for Combating Coastal Desertification and Land Degradation
- Strategies for Sustainable Human Development and Health
- Regional Emergency Response Actions to Non-hydrocarbon Chemical Spills and Other Biohazards and Other Biohazards
- Strengthened Institutional, Legal, Regulatory and Economic Frameworks for SAP implementation
- Strategies to Strengthen Contaminant Abatement and Control Policies and Procedures
- Priority Investment Portfolios for Transboundary Priorities

25. The GEF Project will support the agreed incremental costs of addressing the three primary project objectives, focusing on the priority transboundary issues identified during the TDA formulation process. It will share funding and implementation responsibilities for the GEF project sub-components, particularly with EU/TACIS, UNEP and The World Bank. Other donors are expected to address national objectives, which are expected to contribute to the achievement of CEP basin-wide objectives.

3. Rationale for GEF Financing

26. The transboundary transport and effects of contamination in this international water body and transboundary nature of many of the Caspian's valuable bioresources warrant GEF support. The proposed project will help the riparian countries of the Caspian to overcome institutional and other barriers to collaboration and help them to identify and resolve the

priority transboundary environmental concerns identified in the TDA and SAP processes. The proposed project coordinates among implementing agencies, countries, and other stakeholders, and generates programmatic benefits for the global environment that would not otherwise be achievable. This approach is fully in line with the GEF Operational Strategy for International Waters, as well as for the Waterbody Based Operational Programme (#8). Important characteristics of this Operational Programme are: “a) the focus on addressing a few high priority transboundary impairments of the water body such as reducing eutrophication or toxic substances; b) support for the learning process for countries to work cooperatively and collectively in addressing imminent threats to their transboundary water resources; and, c) identifying and implementing country-specific policy, legal and institutional reforms as well as priority investments to address the transboundary issues.”

27. Based on the experience of the GEF Black Sea Environmental Programme and other regional seas programmes, the Caspian countries consider the GEF to be a key donor for program initiation, focusing on institutional development and capacity building on the international level in an integrated, comprehensive manner and with the emphasis on the identification and implementation of policy and legal reforms. GEF funds will support the identification and ultimate mitigation of transboundary issues that would be neglected if addressed only from a national perspective. The TDA and SAP/NAPs will involve international donors, national and local governmental institutions, industries, and other key stakeholders that have important actions to take in restoring and protecting the Caspian environment.

28. The GEF International Waters Operational Programme referred to above emphasizes “institutional building ... and specific capacity-strengthening measures so that policy, legal and institutional reforms can be enacted in sectors contributing to transboundary environmental degradation.” This project supports institutional capacity building for long-term regional cooperation as well as helping to strengthen regional capacities in environmental management, monitoring of priority pollutants, public awareness and preservation of transboundary living resources.

29. In the Waterbody-Based OP, GEF will play a catalytic role in assisting a group of countries seeking to leverage co-financing in association with national funding, development financing, agency regular Programmes, and private sector action for necessary elements of a comprehensive approach for sustainably managing the international waters environment. In accord with the GEF International Waters Operational Strategy, this project focuses on the transboundary threats to the Caspian ecosystem, an internationally significant waterbody. The considerable transboundary threats seriously impair the functioning of the Caspian ecosystem and even human health.

III. PROJECT COMPONENTS, ACTIVITIES, AND EXPECTED RESULTS

COMPONENT I. PROJECT COORDINATION

A. Programme Coordination Mechanism (Activities led by GEF and supported by EU/TACIS)

30. The first step towards creating a regional management mechanism is to establish the implementation structure for governance, coordination and management of the CEP.

Activity 1. Assist in establishment of CEP Steering Committee, including biennial project reviews and mid-term and final project evaluation;

Activity 2. Develop the coordination information and evaluation mechanisms to ensure that the results and conclusions of the TDA and SAP process lead to relevant actions to be taken on the part of the CEP Steering Committee, the thematic centres and the intersectoral coordinating bodies (including ministries, other government agencies and private sector).

Activity 3. Establish CEP Programme Coordination Unit;

Activity 4. Set-up country Intersectoral Coordinating Committees and Secretariats for the Intersectoral Coordinating Functions; and

Activity 5. Establish Caspian Regional Thematic Centres.

Expected Result: Regional, Intersectoral and Thematic Coordination and Management Mechanisms established and functioning; particular emphasis to be placed on effective coordination with the private sector.

B. Programmatic Support for Caspian Regional Thematic Centres (Activities led by GEF and supported by EU/TACIS)

31. The Caspian Regional Thematic Centres will be responsible for development of a work plan and implementation of activities in respective thematic area, regional coordination within area of competency, development of relevant regional recommendations, guidance and strategy within area of competency, assistance in development of the TDA and PIP, assist in development and implementation of the National Action Plans (NAPs) and Strategic Action Plan (SAP).

Activity 1. Assessment of capacities of Caspian Regional Thematic Centres, nominated by the governments and their technical cooperation needs, including training, equipment, expert consultation;

Activity 2. Provide relevant office equipment; and

Activity 3. Establish a well-functioning system of communications and data transfer within the region using Internet.

Expected Result: Establishment of a network of Caspian Regional Thematic Centres.

C. Intersectoral Coordination (including private sector) and Involvement in SAP, NAP and TDA Formulation Process (Activities led by GEF)

32. The Intersectoral Coordinating Committee in each of the Caspian littoral states will provide guidance and ensure coordination of a wide range of National institutions and organizations directly responsible for the implementation of the Programme at the National level. The Intersectoral Coordinating Function will have a full time, small secretariat (national and donor-supported) reporting to (under the direction of) the National Focal Point, and will serve as the national liaison with the PCU. Through the intersectoral coordination function, both the Steering Committee and the PCU will act to advise national and sub-national public and private sector representatives on the relevant necessary actions required at the legal, institutional and policy level to reflect the findings of the SAP and the TDA. This will provide regional (SAP/TDA) feedback at the national and sub-national level (NAP) to ensure continuity and complementarity in the decision-making process regarding CEP issues.

Activity 1. Set-up and support the secretariat for the national Intersectoral coordination in each Caspian country; and

Activity 2. Follow-up with the national and sub-national public and private sector on the recommendations from the Steering Committee and PCU regarding the actions to be taken in order to reflect the results of the SAP, NAP and TDA. Related activities

supporting this component are established under Component V, I (Formulation and Endorsement of Strategic Action Programme and National Actions Plans for Priority Transboundary Issues). This activity should also coordinate closely with Component III.

Expected Result: Support to the Intersectoral Coordination (including private sector) and Involvement in SAP, NAP and TDA Formulation Process. Strengthening of the ministries of the environment.

COMPONENT II. TRANSBOUNDARY DIAGNOSTIC ANALYSIS (TDA)

C. Effective Regional Assessment of Contaminant Levels (Activities led by GEF)

33. A contaminant and ecological monitoring system will be essential to monitoring the long-term success of SAP and NAP implementation. Data collected during special investigations to fill in the gaps for the regional assessment will help to set priorities for transboundary environmental issues in the region during the TDA process.

- Activity 1. Country committees, consultants, and thematic centres to evaluate existing data sets, needs and data gaps, monitoring programmes and monitoring capabilities in each country and identify and prioritize needs for SAP and NAP actions (e.g., baseline monitoring, compliance monitoring, transboundary impacts);
- Activity 2. Limited regional assessments of contaminants to fill key gaps in TDA needed to formulate strategies and action plans;
- Activity 3. Collaborate with oil and gas industry on their contribution to the regional assessment to the TDA process; and
- Activity 4. Establish or strengthen links between monitoring facilities among monitoring centres throughout the region.

Expected Result: Solid understanding of regional contaminant sources, flows and levels built into TDA. High quality data collected and broadly disseminated. Proposals in SAP for national commitments and donor support to upgrade regional monitoring network.

B. Assessment of Transboundary Biodiversity Priorities (Activities led by GEF)

34. This assessment and recording of living resources, environmental characteristics, and human uses are needed on a comprehensive, regional basis, according to agreed, consistent and compatible procedures. It is also important to establish a biodiversity baseline against which the near-term and future CEP activities can be evaluated, particularly SAP and NAP implementation. This effort centres on establishment and operation of a Caspian Bio-Resources Network as the primary tool for bioresources protection. Working with country Intersector Coordinating Committees, the following tasks would comprise the biodiversity component of the Caspian Environment Programme:

- Activity 1. Support the Caspian Bioresources Network to stress transboundary issues;
- Activity 2. Undertake an initial, rapid ecological survey of the coastal and marine species and habitats, their uses, values, and threats, for each of the five Caspian states. The survey will result in an Inventory of Caspian Ecological Resources, their priority transboundary implications and will be part of the final TDA;
- Activity 3. Collate a Caspian Red Data Book based on existing and revised national Red Data Books, identifying and describing rare, threatened and endangered species that require attention from a regional perspective and that will be included as a priority within the TDA process;

- Activity 4. Evaluate existing Protected Areas and habitats protection status, particularly those with transboundary borders and/or those used by migratory species. Identify and facilitate adoption of SAP and NAP commitments related to protected areas;
- Activity 5. Prepare national reports on the State of Caspian Biodiversity according to an agreed scope and prescription; meld the five national reports into a Regional Overview on the State of Caspian Biodiversity with transboundary priorities to support the TDA and SAP preparation;
- Activity 6. Identify regional and common threats and assess the risks to species, ecosystems and particular habitats and propose and facilitate SAP and NAP actions to manage these risks which include *inter alia* oil spills, overexploitation, desert encroachment, etc;
- Activity 7. Assessment of possible accidental introduction of exotic species and formulation of proposals for interventions under SAP (e.g., *via* shipping through the Volga-Don Canal). This activity is expected to receive significant funding under this component due to the high risk of ecosystem disruption; and
- Activity 8. Establish a country-specific and a joint regional database as the repository for ecological information. The database should form part of the Regional GIS and should be accessible electronically from a number of access points throughout the region and beyond.

Expected Result: Necessary biodiversity data for TDA preparation. Comprehensive knowledge of the status of and threats to Caspian biodiversity; broadly accessible biodiversity databases; agreed-upon national (NAP) and regional (SAP) strategies for biodiversity protection and conservation; identification of possible introduction of exotic species.

C. Effective Regional Information and Data Management (Activities led by GEF and supported by EU/TACIS)

35. Full access to high quality, up-to-date CEP data and information, including the TDA, is essential to multi-sectoral participation in a cooperative regional programme and to decision-making at the national and regional levels. A comprehensive database and information management system will serve as a repository for relevant, available data, act as the technically sound basis for rational decision-making, and serve as a source of information and education for specialists, administrators, educators, and the general public.

- Activity 1. Prepare comprehensive Caspian Bibliography, including science, management, and economics;
- Activity 2. Develop Caspian Information System including data on institutional capacities, scientists, environmental projects;
- Activity 3. Develop Caspian Geographic Information System and hold stakeholders training workshop in the use of GIS/IP applications;
- Activity 4. Upgrade and maintain CEP Home Page on Internet, prepared by The World Bank in 1998; publish TDA, SAP, NAPs;
- Activity 5. Develop Regional Environmental Internet Node, including relevant environmental databases;
- Activity 6. Prepare and hold a Caspian regional workshop for country Intersectoral Coordination Committees relating to environmental information networking (EIN), including standards, tools and techniques for data and information management;

Activity 7. Collation of data by country committees with assistance, where necessary, from consultants in order to contribute to regional transboundary assessment; and

Activity 8. Prepare State of the Caspian Environment Report.

Expected Result: Necessary data for the TDA preparation and SAP scenario analysis collected and transferred in to a GIS. Globally accessible databases on the Caspian environment, institutions and expertise that enhance capacity of decision-makers to develop, implement and monitor progress of SAP and NAPs.

D. Transboundary Diagnostic Analysis (TDA) (Activities led by GEF and supported by EU/TACIS)

36. The TDA represents a scientific process of setting priorities for transboundary environmental issues from the ecosystems standpoint. It is intended to build the capacity of each country's Intersectoral Coordination Committee to understand the transboundary priorities and to consider those priorities together with neighboring countries as part of a regional assessment. The TDA provides the scientific and technical basis for consideration and evaluation of possible actions to be proposed in the SAP and NAPs.

Activity 1. Utilize the data collected in component II, A ,B and C to develop Draft Transboundary Diagnostic Analysis;

Activity 2. Hold expert meetings and regional workshops with stakeholder involvement (including NGOs and private sector) for priority formulation and the identification of 'root causes' of environmental problems;

Activity 3. Identify, evaluate and fill critical gaps in the Draft TDA; and

Activity 4. Revise, update and finalize the TDA with country Intersectoral Coordinating Committee approval and publish in print and on-line.

Expected Result: A complete TDA identifying transboundary priorities with broad stakeholder involvement.

COMPONENT III. LEGISLATIVE AND REGIONAL CONVENTION

A. Strengthened Institutional, Legal, Regulatory and Economic Frameworks for SAP implementation (Activities implemented by UNEP and supported by GEF and EU/TACIS)

37. Effective environmental management and resource protection derive from a combination of regulatory and non-regulatory actions. Current regulatory authorities and national sector jurisdictions may overlap, may be inadequate, or are perhaps mutually in conflict. Before recommendations can be made, an evaluation of existing national and international regulations, ratification, compliance and enforcement is required. The protection and sustainable use of the natural environment of the Caspian region should be based on appropriate legal and institutional frameworks, both on national and international levels, to ensure concerted and harmonized, environmentally-related activities by the littoral states. The CEP would be implemented under the umbrella of the Framework Convention, once ratified/in force.

Activity 1. Encourage and facilitate, as appropriate, the finalisation and adoption of the Framework Convention for the Protection and Sustainable Management of the Caspian Environment and its Resources as an overarching component of regional cooperation in protection and sustainable use of the Caspian environment;

Activity 2. Develop a strategy for and facilitate integrating relevant transboundary elements of the CEP (SAP and NAP priorities) within the Framework Convention, including, *inter alia*, subsequent sectoral agreements/protocols, as well as the means and mechanisms for their implementation. To encourage and facilitate

- more effective implementation of and compliance with national legislation/regulation and regional and international agreements:
- Activity 3. Survey of ratification and implementation of relevant multilateral environmental agreements (MEAs)
 - Activity 4. Survey and evaluation of national legislation (including compliance and enforcement) and institutions related to the protection and sustainable management of the Caspian environment and its resources, identification of gaps and inconsistencies as well as the needs emanating from the new Convention and proposal of recommendations for follow-up, with a focus on the transboundary priority environmental issues in coordination with the private sector (e.g., oil and gas industry);
 - Activity 5. Provide advice and assistance to lawyers, academia, government officials and other stakeholders involved in environmental policy and law, including organization of national and regional workshops and training seminars to enhance understanding of MEAs and their implementation, and to strengthen and harmonize institutional, legal and regulatory frameworks, Provide advice and assistance in developing effective enforcement and compliance regimes;
 - Activity 6. Assessment of existing economic tools and instruments, including non-compliance fines, charges for pollution within compliance levels, pollution permits, export/import allowances and administrative charges; Development of recommendations for linking economic instruments with environmental solutions in the Caspian; and Assessment of the applicability of the economic instruments at the regional Caspian level;
 - Activity 7. Provide advice and assistance for the harmonious application of the Environmental Impact Assessment process; and
 - Activity 8. Preparation of national and regional reviews, for input to the TDA process, covering economic evaluation of the impact of pollution, biodiversity degradation, losses in fishing and tourism industries.

Expected Result: Adoption and implementation of a Framework Convention for the Protection and Sustainable Management of the Caspian Environment and its Resources. Comprehensive understanding of status of relevant MEAs and national legislation, including compliance and enforcement issues and including the status of the existing economic frameworks for each transboundary priority. Identification of country-specific legal and regulatory reforms to be included by the countries in their NAPs as a result of the TDA and SAP processes. Strengthened capacity for effective implementation of and compliance with national legislation/regulation and regional and international agreements with the objective of improved protection and sustainable use of the Caspian environment. Preliminary proposals for legislative reform (national) and harmonization (regional). Basic economic evaluation of impact of pollution, biodiversity degradation, losses in fishing and tourism industries.

COMPONENT IV. DEVELOPMENT OF PRIORITY INVESTMENT PORTFOLIOS FOR TRANSBOUNDARY PRIORITIES

A. Priority Investment Portfolios (PIPs) (Activities implemented by the WB and supported by GEF and EU/TACIS)

38. The main objective of the "Priority Investment Portfolio" (PIP) component of the Caspian Initiative is, in conjunction with the SAP and NAP processes, to facilitate the identification, selection and preparation of the highest priority investment projects to address the most urgent

transboundary environmental problems in the Caspian region. In order to achieve this main objective, these investment projects will represent a logical reaction to the results and conclusions of the SAP review. This SAP review itself will address national and regional legislative needs, policy requirements, institutional support demands and all regional transboundary issues related to the CEP. The investment projects supported through the PIP process will be designed to address top priority transboundary environmental impacts, while providing models for sustainable development that contribute to improved environmental quality in the Caspian basin and that can be replicated by other Caspian states. It is anticipated that the PIPs will build on ongoing project identification and priority-setting efforts underway in several of the Caspian states (e.g., NAPs). As the Caspian states are at different stages in their planning and execution of environmental investments, it is expected that PIP projects may be identified and prepared for implementation on a schedule that differs from country to country. Investment projects that meet Caspian Environment Program PIP criteria and that have already been identified (and in some cases, funded) will be incorporated into the CEP PIPs where they have transboundary priority implications. The donors will provide funding and technical assistance to develop, on a participatory basis, a portfolio of priority investment projects for each country. The PIPs would be presented by the Caspian states to bilateral donors and international financial institutions for possible funding. In relation to the GEF process, the PIPs will be designed to focus on elements of the TDA.

- Activity 1. Retransmit selection criteria and methodology to serve as consistent guidelines for identification and selection of urgent investment priorities;
- Activity 2. Identify or continue identification and select potential investment projects for the Priority Investment Portfolios (PIP);
- Activity 3. Prepare activity briefs for each identified project;
- Activity 4. Evaluate, rank activity briefs and prepare Priority Investment Portfolios;
- Activity 5. Organize or facilitate one or more regional conferences of donors and Caspian country senior representatives (Finance, Environment, and other sectors), with the objective of matching the urgent investment projects with donor resources for feasibility studies and implementation funding; and
- Activity 6. Liaise with existing donor coordination mechanisms, such as PPC, to enhance PIP matching with donors.

Expected Result: A portfolio of primary Caspian investments that address priority transboundary issues and are linked to SAP, NAPs, and addressing transboundary issues, with national and donor commitments to finance. For countries that are prepared to make investments on an accelerated schedule, implementation of PIP projects, derivation of first lessons learned, and replication of projects in other countries, if appropriate.

COMPONENT V. FORMULATION OF A STRATEGIC ACTION PROGRAMME (SAP) AND NATIONAL ACTION PLANS (NAPs)

A. Strategies to Strengthen Contaminant Abatement and Control Policies and Procedures (Activities led primarily by EU/TACIS, supported by GEF and linked to Component III)

39. A strong abatement program to reduce contaminants at their source will be the most effective method to address coastal and transboundary contamination problems.

- Activity 1. Evaluate national practices and capacities for effective emission control and prevention;
- Activity 2. Develop and disseminate improved methodology for measuring discharges of pollutants and gather data from National authorities regarding discharges;

- Activity 3. Coordinate activities to improve permitting procedures;
- Activity 4. Prepare Regional Approaches to Contamination abatement/prevention;
- Activity 5. Develop/harmonize models on environmental impact and development of scenarios on pollution discharge in order to assist with the establishment of scientific criteria for setting permit levels-emissions standards;
- Activity 6. Identify and prioritize contaminant 'hot spots' with transboundary implications, calculate using World Health Organization (WHO) guidelines, and propose actions to address them; link to PIP process (supported by GEF); and
- Activity 7. Identify necessary reforms on national basis for the oil and gas industry (linked to Component III).

Expected Result: Significantly enhanced national and regional capacities for pollution abatement and control. Achievement of an understanding of priority contaminant 'hot spots'. Arrival at an expected baseline and additional commitments for reduction of high priority transboundary pollution sources.

B. Strategies for Sustainable Management of Fish Resources and Other Commercially Exploited Aquatic Bioresources (Activities led primarily by EU/TACIS and supported by GEF)

40. The most valuable economic fisheries resources by far are the seven species and subspecies of Caspian sturgeon. Restoring the regional sturgeon resource is a top priority from both a biological and economic perspective. To develop sustainable sturgeon yields, a regional approach that addresses the threats to all stages of the sturgeon's life cycle must be developed. This approach will directly affect numerous individuals and organizations now operating in the region and some mechanism to assist affected stakeholders needs to be adopted and implemented. Measures to reduce poaching and sustainably manage the remaining sturgeon fishery are most urgently needed.

- Activity 1. Undertake stock assessment of fish resources and other living aquatic bioresources;
- Activity 2. Facilitate establishment of a regional legal working group representing all Caspian governments, with input from the private sector, to prepare an agreement on the sturgeon fishery, to include closed fishing periods, closed zones, minimum catch size, allowable and forbidden gear, national quotas, important nursery areas to be protected, etc. The result could also include ratification of The Draft Convention for the Conservation and Utilization of the Bioresources of the Caspian (linked to Component III);
- Activity 3. Develop a Regional Strategy for artificial reproduction of aquatic bioresources, revival and expansion of selected hatcheries;
- Activity 4. Facilitate establishing regional coordination of enforcement bodies, equipped for rapid intervention, to deal effectively with poaching and illegal sales; and
- Activity 5. Review of catch and by-catch data; fisheries capitalization; gear; aquaculture capacities, etc with a view towards SAP/NAP actions (Supported by GEF).

Expected Result: Improved regional coordination of sturgeon fishery stakeholders; strategies for enhanced and sustainable sturgeon and other aquaculture; articulate and facilitate commitments to SAP and NAPs.

C. Strategies for Integrated Transboundary Coastal Area Planning and Management (ITCAP&M) (Activities led by GEF)

41. Adoption through SAP and country-specific NAPs of common regional approaches to ITCAP&M results in reduced environmental degradation and loss of coastal habitats for

migratory species and preservation of global biodiversity. This element intends to provide guidance for country focus on wetland habitat protections with transboundary implications.

Activity 1. Review existing national legislation, regarding coastal zone planning, management, and resource use, and evaluate implementation procedures at the national, regional and municipal levels;

Activity 2. Develop draft guidelines and procedures for Integrated Transboundary Coastal Area Planning & Management at national and regional level; and

Activity 3. Prepare a regionally-endorsed Handbook for Integrated Transboundary Coastal Area Planning & Management for the Caspian Coast.

Expected Result: Strengthened national and regional capacities to design, develop and implement ITCAP&M. Regional and national commitments to expand ITCAP&M through SAP and NAPs. Develop effective regional coordination body(s) for legislative, policy and technical compatibility in (ITCAP&M) using the mechanisms established through the intersectoral coordinating function (see Component I, Sub-component C: Intersectoral Coordination (including private sector) and Involvement in SAP, NAP and TDA Formulation Process).

D. Strategies to Live with Water Level Fluctuations (Activities led by EU/TACIS) GEF to support one element (Activity 3)

42. Development of a water-level change strategy will require better understanding of the causes of the water-level fluctuations, transboundary effects and global significance. This regional issue can only be addressed by a cooperative effort.

Activity 1. Evaluate data and the state of knowledge on the Caspian water-level fluctuations, (including inter-annual, long-term and storm-related changes);

Activity 2. Improve the exchange of real time information on the Caspian sea level fluctuations between monitoring centres; Establish a regional agreement for information exchange;

Activity 3. Evaluate influence of water level changes on the regional environment (Supported by GEF);

Activity 4. Assist the ITCAP&M CRTC to develop land and water use guidelines that take into account water level fluctuations as a recurrent, natural phenomenon, including planning for maximum high and maximum low water levels during the course of a century;

Activity 5. Draw on traditional land use practices where relevant to help determine appropriate and inappropriate land uses in flood zones;

Activity 6. Adopt, after extensive discussion and extensive public consultation, an operative strategy for living with Caspian water level fluctuations; integrate into SAP and NAPs; and

Activity 7. Design an evaluation and review process, of the strategy for living with Caspian water level fluctuations (every 5 years) in order to reflect new experience gained, accomplishments, new priorities and changing circumstances.

Expected Result: Enhanced national and regional capacities for living with and/or adapting to water-level fluctuations. NAP and SAP commitments to adaptation activities.

E. Strategies for Combating Coastal Desertification and Land Degradation (Activities led primarily by EU/TACIS and supported by GEF)

43. Upland land use in the Caspian watershed is closely linked to effects on coastal waters. This component will help to better understand the problem of coastal desertification and to

develop the Regional Strategy for Combating Desertification and Land Degradation as part of SAP.

- Activity 1. Establish a Regional network on coastal desertification and land degradation to assist the Thematic Centre;
- Activity 2. Develop a region-wide Inventory of Coastal Land Use addressing erosion, soil saturation, salinisation, desert encroachment and other aspects of land degradation; identify in particular, those practices that have an impact on Caspian water quality, agriculture, public health, transportation, and settlement (Supported by GEF);
- Activity 3. Organise a Regional Workshop on Combating Coastal Desertification and Land Degradation;
- Activity 4. Collate a compendium of indigenous and traditional ways to conserve land and combat desertification and develop the compendium into a Handbook for Wise Land Use; and
- Activity 5. Develop the Regional Concepts as part of SAP for Combating Desertification and Land Degradation, protecting deserts and stabilising human requirements.

Expected Result: Strengthen national and regional capacities and conceptual approaches for combating coastal desertification and land degradation. SAP and NAP commitments to interventions related to desertification and land degradation.

F. Strategies for Sustainable Human Development and Health (Activities led primarily by EU/TACIS and supported by GEF)

44. This component will facilitate the compilation of a region-wide inventory of the environmental health hazards in the Caspian coastal area including climatic extremes and natural disasters, occupational health practices, solid and liquid waste hazards, food contamination, malnutrition, and access to safe drinking water. This component will seek to strengthen the national environmental epidemiology capacity through regional training courses and information exchange.

- Activity 1. Compile a region-wide inventory of the environmental health hazards in the Caspian coastal area including climatic extremes and natural disasters, occupational health practices, solid and liquid waste hazards, food contamination, malnutrition, access to safe drinking water, etc.;
- Activity 2. Assessment of transboundary aspects of environmental problems affecting human health (Supported by GEF as a part of TDA);
- Activity 3. Evaluate using formal Risk Assessment approach the chronic impact on human health and well-being of the exposure to atmospheric contaminants, radioactive particles, polluted water and food and other hazards known to have been prevalent in past years;
- Activity 4. Evaluate existing health and environmental information systems which are able to monitor and assess the relationship between environment and health and which can act as an early warning system;
- Activity 5. Strengthen the national environmental epidemiology capacity through regional training courses, information exchange and improved access to medical/scientific literature; and
- Activity 6. Develop a Regional Environmental Health Action Plan that will be a part of the CEP SAP.

Expected Result: Strengthened national and regional environmental epidemiology capacities, regional environmental health action plan.

G. Regional Emergency Response Actions to Non-hydrocarbon Chemical Spills and Other Biohazards (Activities led by GEF)

45. This component will evaluate regional capacities for effective emergency response; prepare risk assessment to identify potential high-risk sources, along with information on sensitive habitats, working closely with the countries and the private sector.

Activity 1. Evaluate regional capacities for effective emergency response assess regional contingency plans and regional cooperation; and

Activity 2. Prepare risk assessment to identify potential high-risk sources that could represent a major threat for transboundary changes, along with information on sensitive habitats that need to be protected near those sources.

Expected Result: Evaluation regional emergency contingency planning for non-hydrocarbon chemicals and other biohazards as a part of TDA and SAP processes. Proposals for SAP/NAP actions in the area.

H. Public Awareness and Involvement in CEP, SAP and NAPs (Activities led by GEF and supported by EU/TACIS)

46. The CEP anticipates broad-based participation by the general public, private sector associations (especially oil and gas companies), academic and research institutions, non-governmental organizations and local community groups. The Programme will identify key stakeholders, particularly effective NGOs, bring them together to strategize and discuss common issues, link them together for the enhanced exchange of information and strategies, and involve them in the SAP and NAP formulation processes done on country-specific and regional bases.

Activity 1. Facilitate socio-economic assessment of country-specific local population and the identification of key stakeholders;

Activity 2. Build the capacity of the country Intersectoral Coordinating Committees to undertake public involvement activities;

Activity 3. Create public awareness and environmental education campaign through participatory regional events publicized by popular media, NGO newsletters, and school-based environmental curricula development;

Activity 4. Sponsor and organize annual NGO forum for NGOs to network, identify priorities and responsibilities, and share data and information;

Activity 5. Create and administer a small grants program for NGOs and community organizations to fund small scale activities related to the rehabilitation and improved management of Caspian resources related to CEP recommendations;

Activity 6. Involve scientifically based NGOs and the private sector in TDA, SAP and NAP processes;

Activity 7. Assist in the preparation and distribution of education/awareness media on the Caspian; and

Activity 8. Publish and disseminate a twice-annual newsletter describing ongoing activities of CEP, production of posters and handouts.

Expected Result: Broader stakeholder involvement in and awareness of the environmental problems of the Caspian and activities of the CEP, both nationally and regionally.

I. Formulation and Endorsement of Strategic Action Programme (SAP) and National Action Plans (NAPs) for Priority Transboundary Issues

47. The intent of the SAP and NAP processes are to obtain agreement regionally on priorities for transboundary issues. To determine harmonized approaches for policy, legal and institutional reforms for addressing those top priority transboundary issues (SAP) and to translate these reforms and priority investments into country-specific, expected baseline and additional actions in the NAPs. The Intersectoral Coordination Committee in each country plays a key role in the implementation among countries at the regional level and with sub-national entities and stakeholders nationally to ensure policy reforms and priority investments are actually implemented. Close interaction with private sector involvement in oil and gas issues and the Convention and Legal Framework component is important to ensure that the stage is set for follow-up of this initial project through strong national commitments to specific reforms and investments.

- Activity 1. PCU provides guidance, assistance and facilitation in coordination among all sub-components contributing to the SAP and in supporting the Intersectoral Coordinating Committee in each country to undertake its role;
- Activity 2. Use TDA and scenario analysis to test, evaluate and determine (i) priority national policy, legal and institutional reforms; (ii.) priority investments and; (iii.) regional actions to be included in the SAP and NAPs;
- Activity 3. Assist countries in the preparation of draft Caspian National Action Plans (NAPs), involving stakeholders and donors in close cooperation with Component IV;
- Activity 4. Draft, refine and finalize regional Strategic Action Programme (SAP) including identification of expected baseline and additional actions in the proposed SAP (link baseline identification to PIP process). Process will include all countries, the stakeholders, donors and external experts as required;
- Activity 5. Assist countries to refine and finalize NAPs at highest governmental level;
- Activity 6. Hold ministerial conference for SAP and NAP endorsement at highest governmental level;
- Activity 7. Publish (print and on-line), broadly disseminate and publicize SAP; and
- Activity 8. Host donor conference to facilitate financing of baseline and additional actions and investments as outlined in each country's NAP.

Expected Result: Completed and endorsed SAP and NAPs, consistent with NEAPs and other national strategic planning programmes; National and donor commitments to SAP and NAP implementation of financing so that transboundary priority problems will be addressed.

IV. RISKS AND SUSTAINABILITY

1. Constraints and Risks

48. The long-term success of regional water body management Programmes such as the CEP depends, *inter alia*, on the political willingness of the Countries to cooperate and on the availability of national and international financial resources. The latter in turn depend on changing economic, political and social conditions at the individual country level. The Caspian region presents several difficult issues that may hinder implementation of Programme objectives. The former Soviet Caspian states¹ are undergoing difficult political, social and economic transitions and may not uniformly rank environmental protection among their

¹ Azerbaijan, Kazakstan, Russia, and Turkmenistan

highest national priorities. Several have, however, evidenced sufficient concern about the health and economic impacts of continued environmental degradation to undertake significant national environmental programmes, often including projects financed externally as well as from national budgets. All of the littoral states have expressed a willingness to collaborate together and with international partners to address the Caspian environment. Ongoing negotiations regarding the legal status of the Caspian must be acknowledged as important, but the littoral states have consistently indicated a willingness to address the environmental problems of the region even in the absence of a broader agreement on the legal status.

49. However, risks due to policy changes resulting from the turnover of key government officials can not be ignored. Impacts from economic changes and failures are much harder to predict; the four CIS countries are in the difficult process of shifting towards a market economy and the state of individual economies varies among the countries. In this regard, countries that are under economic stress during the transition period may focus their investment priorities away from environmental concerns to the potential detriment of achieving regional objectives. On the other hand, the expected growth in financial and economic linkages between the four countries due to both historical and geographic factors may help to diminish impacts from any short-term economic lapses experienced by individual countries during the project period.

2. Sustainability

A. Government Commitment

50. The explicit commitments made by each of the five Caspian states and actions they have already undertaken, are the best indication of the sound foundation for this Programme. Implementation of the CEP is one step toward guaranteeing that the activities and systems established by the Programme will endure beyond the life of it.

51. In 1993, the five littoral states founded the Organization for the Cooperation of the Caspian Coastal Neighboring Countries. Environmental protection and wise use of resources were among the areas identified for cooperation. Difficulties regarding the Caspian's legal status and the extent of national sovereign territories delayed progress but there is a consensus that this issue could be set aside for the time being in order to achieve progress on those aspects which are not contentious. Some concern has been expressed regarding the prudence of the international community getting involved in the problems of the Caspian environment before the Caspian riparian countries have reached agreement on the management and use of the region's vast oil resources. Other GEF projects (e.g. East Asian Seas) have enjoyed success in making rapid, substantive progress in addressing multi-country, transboundary marine environmental issues even in the absence of multi-national agreements on hydrocarbon resource management. This proposal is submitted with the expectation that multi-country collaborative projects such as the one proposed could in fact help facilitate a dialogue to reach agreement on larger and more divisive issues.

52. At Almaty in May 1994, the littoral states adopted the Declaration on Environmental Cooperation in the Caspian, through which they affirmed their desire to cooperate constructively in environmental management and their commitment to cooperate fully in the preparation and implementation of Programmes of joint activities for the protection of the Caspian environment, with the financial and technical assistance of the international community.

53. A joint statement by the Caspian littoral states in April, 1995, reiterated their concern regarding the deterioration of the Caspian environment; renewed their commitment to work together on this issue; and renewed their invitation to the UN system to support regional and national Programmes for the protection and sustainable management of the Caspian.

54. As a further demonstration of the national commitment, the first meeting of the Interim Steering Committee of CEP, held in Ramsar (Iran) in May 1998, provided agreement on the following:

- The meeting adopted the draft CEP Programme Brief as the technical basis for the implementation of the CEP, which combines the contributions of EU/TACIS, GEF, The World Bank, and other sponsors.
- The meeting adopted the structure proposed for governance, coordination and national implementation for the CEP (Annex 5). In particular, the meeting noted the need for strong intersectoral and inter-donor coordination.
- The meeting adopted the Terms of Reference and composition for the Steering Committee, the Intersectoral Coordinating Committee, the PCU and the Caspian Regional Thematic Centres (Annex 6-9).
- The meeting agreed that the Steering Committee should determine its own procedures and modalities, with particular attention to involving the private sector and the NGO community. The Steering Committee will investigate the modality of a Trust Fund to assist with sustainability of the CEP.
- The meeting requested the UNDP to work with the Countries and donors to develop detailed rules and procedures for the Steering Committee for their consideration.
- The meeting accepted the Framework for the Transboundary Diagnostic Analysis as agreed at the TDA Experts meeting.
- The countries agreed upon the locations of the PCU and Caspian Regional Thematic Centres.

55. The countries ownership of the project is also shown by the endorsement of the present project brief. All countries are committing significant financial resources in support of the project, in-kind contribution by providing office space to host the regional Thematic centres, and Intersectoral coordination secretariats, salaries for their staff members. The governments will also provide to the project necessary scientific expertise from the national organizations and if necessary provide ship time and meeting space. The countries themselves have requested that the CEP should achieve a fundamental level of activity, in each country and on a regional basis, rather than merely an identification of the overall problems. They desire that the results and recommendations of the SAP and TDA process be translated into real actions and responses on both a national and international basis. This is reflected in those components of the project which address programme coordination, intersectoral coordination and involvement in the Sap as well as SAP/NAP formulation and endorsement (see Component 1 A and B and Component 5).

B. Private Sector Commitment

56. The private sector has been closely involved in the CEP since prior to its conception. The oil and gas sector assisted in early environmental activities in the region, throughout the 1990s. The May, 1995 joint UNDP, UNEP and World Bank mission to the Caspian met with

representatives from the private sector. Since that time, the UNDP and the World Bank have kept in constant contact with the oil and gas sector, including frequent briefings, formal presentations at large industry gatherings, invited talks with various environmental subcommittees within the Caspian oil and gas industry, etc. Since the expected oil reserves are the most significant of the past few decades, oil and gas exploration and exploitation present potential environmental concern. The participation of the industry is essential to the success of the CEP.

57. Though no single industry group speaks on behalf of the entire Caspian oil and gas sector, the GEF and The World Bank have met with industry environmental consortia within Azerbaijan, Iran, Kazakhstan, and Turkmenistan. Industry participation is expected to include cash contributions, data sharing, training in specific areas of competence, participation in various sub-components and activities of the CEP/GEF project, and other areas. The GEF/UNDP has begun discussions on the feasibility of having an Environment Fund established by the oil and gas sector to provide sustainability of the CEP following completion of early phases of international agency activities.

58. In addition to the oil and gas sector, other major industries include the caviar industry and the marine transportation industry. Preliminary discussions with the caviar industry demonstrate their willingness to participate in the CEP activities. To date, the CEP has not approached the marine transport industry to solicit their participation.

59. The degree of private sector activity in the Caspian region distinguishes the CEP from other regional programmes that have faced significant financial challenges as they attempted to evolve to sustainability (e.g., the BSEP). The CEP can take advantage of these increasing revenue streams to assist in operating the CEP on a sustainable basis. In order to fully exploit this advantage, specific measures will be taken under Component I, Sub-component C, develop an effective, two-way coordination between the project and the private sector.

C. Financial Sustainability

60. The comprehensive context that will be created by this Programme is expected to attract bilateral and other sponsors of discrete regional activities. Support to the World Bank has already been received in the form of a grant from the Japanese Government (PHRD) and further support has been promised from a number of other sources.

The project is designed to identify and stimulate investments in the region through feasibility studies and the Priority Investment Portfolio. The project will also evaluate the use of various financial instruments as a mechanism to generate revenue to sustain, *inter alia*, the regional coordination mechanisms developed during the project. The Private Sector is expected to contribute to financial sustainability. The CEP Steering Committee has already begun investigation of a Private-Sector Environmental Fund. The oil and gas industry could play a significant role in assuring sustainability of the CEP. Discussions have already begun with the private sector regarding their cash and in-kind contributions to the CEP, including participation in an Environmental Fund.

V. STAKEHOLDER PARTICIPATION AND IMPLEMENTATION ARRANGEMENTS

1. Stakeholders' Commitment and Participation

A. Public Participation

61. In parts of the Caspian region, the concept of community participation is still relatively weak. However, some exceptions are seen, with groups involved in, or working with, local communities and elaborating participatory mechanisms for the public in decision-making.

62. Two major opportunities exist for public participation in the Caspian region. The first is applicable to those societies in which at least some traditional systems of resource use are still practiced. These include the pastoral and semi-pastoral societies and forest dwellers, collective and cooperative fishing communities, rural/agricultural communities, and those who have locally-adapted ways of coping with the sea, such as the inhabitants of the raised settlements. Most of these will be found in rural areas of each of the Caspian States.

63. The second opportunity for public participation involves primarily those who live in urban and industrial areas, usually lacking traditional structures and ways of resource use.

2. Programme Implementation and Institutional Framework (Annex 5-9)

A. Regional Institutions

64. The CEP Steering Committee was composed during the PDF-B phase of representatives from Caspian countries at the level of Deputy Ministers of Environment or equivalent rank, individuals and representatives of international organizations, bilateral programs, and other organizations that actively support the CEP.

65. The Regional Steering Committee for the Programme will be responsible for approving strategic decisions and annual workplans, setting program direction, reviewing CEP progress, and identifying new and additional funding related to implementation of projects under the Caspian Environment Programme. Representatives of private sector and other organizations that contribute to the CEP would be encouraged to participate in the Steering Committee. The Steering Committee will provide policy-level liaison to national governments, through Intersectoral Coordination in each country, regarding implementation of the program on the country level, and will provide direction to the Programme Coordination Unit (PCU) regarding preparation of the Caspian Regional Strategic Action Programme (SAP).

66. The Programme Coordination Unit, once formed, would provide a coordination and management structure for the development and implementation of the Caspian Environment Programme in accordance with the rules and procedures of GEF/UNDP and EU/TACIS consistent with directions provided by the Steering Committee. Specific attention will be given to the development of a regional intersectoral coordination initiative so as to fully involve the private sector in the Caspian Environment Programme. This regional intersectoral coordination function will liaise closely with those national institutions and agencies which have been designated responsibility for such intersectoral coordination (see National Institutions below).

67. Caspian Regional Thematic Centres shall be based upon existing institutions with the best available regional expertise in selected thematic areas. They will be responsible for: development of a work plan and implementation of activities in respective thematic area, regional coordination within area of competency, relevant regional recommendation development, guidance and strategy within area of competency, assistance in development of the TDA and UIP, assist in development and implementation of the National Action Plans (NAPs) and Strategic Action Plan (SAP).

B. National Institutions

68. Intersectoral Coordinating Committees in each of the Caspian littoral states will provide guidance and ensure coordination of a wide range of National institutions and organizations directly responsible for the development and implementation of the Programme at the National level. The Intersectoral Coordinating Committee will have a full time, small secretariat (national and donor-supported) reporting to (under the direction of) the National Focal Point, and will serve as the national liaison with the PCU. Representation by the government will be expected at the deputy minister level.

69. As was done during the design of the framework TDA during the PDF-B, the governments of Caspian countries will nominate National TDA Experts for finalization of the Transboundary Diagnostic Analysis. These experts will assist the Intersectoral Coordination Committee in each country and advise the Programme on background information, transboundary environmental problem analysis, root causes, and needed sectoral and institutional changes for the successful management of Caspian resources.

C. Project Implementation

70. The UN Office for Project Services (UNOPS) served as Executing Agency during the PDF-B phase and will continue to serve as Executing Agency for the UNDP-implemented portion of the Project. The World Bank and UNDP will coordinate execution of their respective project components.

VI. PROJECT COSTS

71. Project Costs (See Table 1, page 23) Incremental Costs are defined in Annex 1.

Table 1: VI. PROJECT COSTS

Component	Sub-component	Increment (A-B)						
		Gov	GEF	EU	UNEP	UNDP	WB	Private
I. Project Coordination	A. Programme Coordination Mechanism	200,000	1,574,000	78,480		100,000	300,000	100,000
I. Project Coordination	B. Programmatic Support for Caspian Regional Thematic Centres	1,220,000	616,800	313,920			50,000	
I. Project Coordination	C. Intersectoral Coordination (including private sector) and Involvement in SAP, NAP and TDA Formulation Process		134,000	0				
II. TDA	A. Effective Regional Assessment of Contaminant Levels		325,000	0			994,000	
II. TDA	B. Assessment of Transboundary Biodiversity Priorities		350,000	0			75,000	
II. TDA	C. Effective Regional Information and Data Management		300,000	152,600			20,000	
II. TDA	D. Transboundary Diagnostic Analysis		325,000	196,200				
III. Legislative Framework & Convention	A. Strengthened Institutional, Legal, Regulatory and Economic Frameworks for SAP Implementation		615,000	43,600	560,000			
IV. PIPs	A. Priority Investment Portfolios for Transboundary Priorities		2,000,000	1,449,700			250,000	
V. Formulation of SAP & NAP	A. Strategies to Strengthen Contaminant Abatement and Control Policies and Procedures		135,000	1,068,200				
V. Formulation of SAP & NAP	B. Strategies for Sustainable Management of Fish Resources and Other Commercially Exploited Aquatic Bioresources		60,000	1,024,600			200,000	
V. Formulation of SAP & NAP	C. Strategies for Integrated Transboundary Coastal Area Planning and Management		300,000	0				
V. Formulation of SAP & NAP	D. Strategies to Live With Water Level Fluctuations		25,000	381,500				
V. Formulation of SAP & NAP	E. Strategies for Combating Coastal Desertification and Land Degradation		50,000	795,700				
V. Formulation of SAP & NAP	F. Strategies for Sustainable Human Development and Health		25,000	54,500				
V. Formulation of SAP & NAP	G. Regional Emergency Response Actions to Non-hydrocarbon Chemical Spills and Other Biohazards		200,000	0			75,000	
I. Project Coordination	H. Public Awareness and Involvement in CEP, SAP and NAPs		300,000	98,100				
V. Formulation of SAP & NAP	I. Formulation and Endorsement of Strategic Action Programme (SAP) and National Action Plans (NAPs) for Priority Transboundary Issues.		305,000	174,400				
	Total:	1,420,000	7,634,800	5,831,500	560,000	100,000	1,964,000	100,000

PDF:	349,920
Project Support Costs:	351,736
Total Project Costs:	18,316,596

The Total budget is divided between the implementing agencies as follows:

UNDP: 5,099,800 UNEP: 615,000 World Bank: 2,000,000

VII. MONITORING, EVALUATION & DISSEMINATION

1. Monitoring and Evaluation

71. Project objectives, sub-components and emerging issues will be regularly reviewed and evaluated at annual meetings of the Programme Steering Committee. The project will be subject to the various evaluation and review mechanisms of UNDP, including PPER (Project Performance and Evaluation Review), TPR (Tri-partite Review), mid-term Independent Evaluation and an external Evaluation and Final Report prior to the termination of the project. The project will also participate in annual PIR (Project Implementation Review) exercise of the GEF.

72. In addition, standard GEF indicators for monitoring and evaluation purposes will be developed during the project for application in subsequent stages of the CEP. They will consist of process indicators, stress reduction indicators, and environmental status indicators.

2. Lessons Learned and Technical Reviews

73. This project will be involved from the start in the new GEF International Waters Learning Exchange and Resource Network (IW: LEARN) program. IW: LEARN is a distance education program whose purpose is to improve global management of transboundary water systems. IW: LEARN will provide structured interactive conferencing capacity across the portfolio of GEF International Waters projects which will allow participants to share learning related to oceans, river basins, and coastal zone management. For environmental professionals working on GEF-financed projects, IW: LEARN will greatly expand opportunities for peer-to-peer consultation, collaborative research with physically distant colleagues, opportunities to exchange best practices and training modules among projects, and the delivery of short courses.

VII. LIST OF ANNEXES

Required:

- I. Incremental Cost
- II. Log Frame Matrix
- III. STAP Roster Technical Review
- IV. Listing of Expected Baseline Activities Associated with SAP

Optional Annexes, available upon request

- V. Analysis of Root Causes
This annex provides specific information on main root causes of environmental degradation of the Caspian. Those root causes were identified during the preparation of the Framework for the TDA, in the PDF-B phase.
- VI. CEP Organizational Structure
This annex illustrates the organizational structure for the CEP, including governance, coordination, management and implementation modalities.
- VII. Terms of Reference – Steering Committee
This annex describe the structure and responsibilities of the Regional Steering Committee, accountable for approving strategic decisions and annual work plans, setting program direction, reviewing CEP progress, and identifying new and additional funding related to implementation of projects under the Caspian Environment Programme.
- VIII. Terms of Reference – Programme Coordination Unit
This annex describe the structure and functions of the PCU, responsible to provide a coordination and management structure for the development and implementation of the Caspian Environment Programme in accordance with the rules and procedures of GEF/UNDP and EU/TACIS consistent with directions provided by the Steering Committee.
- IX. Terms of Reference – Caspian Regional Thematic Centres
This annex describe the structure and functions of the CRTCs, responsible for: development of a work plan and implementation of activities in respective thematic area, regional coordination within area of competency, relevant regional recommendation development, guidance and strategy within area of competency, assistance in development of the TDA and UIP, assist in development and implementation of the National Action Plans (NAPs) and Strategic Action Plan (SAP).
- X. Terms of Reference – Intersectoral Coordinating Committees

This annex describes the structure and functions of the country-specific ISCC, responsible to provide guidance and ensure coordination of a wide range of National institutions and organizations directly responsible for the development and implementation of the Programme at the National level. The Intersectoral Coordinating Function will have a full time, small secretariat (national and donor-supported) reporting to (under the direction of) the National Focal Point, and will serve as the national liaison with the PCU. The ISCC will consist of officials at the deputy minister level.

XI. Framework TDA

This annex is the Framework for the Caspian Transboundary Diagnostic Analysis, prepared during the PDF-B phase of the project. It represents a pioneering effort by the Caspian riparian countries to identify perceived transboundary problems, their root causes and areas where actions should be proposed.

XII. Historic Regional Agreements

This annex documents several regional agreements born out of a desire for regional cooperation. The Almaty Declaration on Environmental Cooperation of May, 1994 is included.

XIII. Copies of GEF Operational Focal Point Endorsement Letters

This annex includes English and Russian translations of each of the letters from each of the Caspian riparian countries endorsing the GEF project.

ANNEX I

INCREMENTAL COST ANALYSIS

Broad Development Goals

Five countries share the immense natural heritage of the Caspian. Despite their political and social diversity, the people of the region share a common concern for the Caspian. Today the Caspian faces significant environmental problems that arise from both anthropogenic and natural causes. The five littoral countries share common problems with pollution abatement and control from municipal and industrial sites in the Caspian basin, as well as contributing non-point source contaminants from agricultural and other sources. All of the littoral countries are urgently seeking to address problems caused by water-level change in the Caspian, and all are also grappling with greatly reduced catches of fish (especially the valuable sturgeon). The major perceived problems of the Caspian Sea can be summarized as follow:

- 1) Degradation of biodiversity, loss of coastal habitats, loss or imminent loss of endangered species and their genomes
- 2) Unsustainable use of commercial fish stocks (especially high value species)
- 3) Degradation of landscape
- 4) Desertification
- 5) Poor or unsatisfactory human health quality, unsanitary conditions in many beaches and bathing waters, unsafe drinking water, contaminated fish and fish products, poorly or untreated sewage and industrial discharges to coastal waters
- 6) Inadequate freshwater resources
- 7) Damage to coastal habitats and infrastructure from sea level fluctuations

The countries that emerged from the former Soviet Union (Azerbaijan, Kazakstan, Russia, and Turkmenistan) are confronting difficult economic and administrative adjustments that complicate environmental management and natural resource protection efforts.

An international legal framework for cooperation in protection and sustainable use of the Caspian environment is seen as a major overarching component of regional cooperation at large. An urgent need for a cooperative framework is evident from the ecological point of view and the need has been clearly pronounced by the littoral states.

In February 1998 a meeting of experts of the Caspian riparian states on the preparation of a Framework Convention was held in Moscow. The meeting discussed a new draft of the Framework Convention and considered further actions in order to assist in developing such a legal document. The participants of the meeting agreed with the proposed draft in general. The Caspian countries agreed to continue further negotiations on the Framework Convention.

Baseline

The need for protection and management of the Caspian environment and its resources has always preoccupied the Caspian States and since the dissolution of the former Soviet Union (1991), there has been heightened awareness of such a need. Important milestones in regional cooperation on the Caspian environment since 1991, include:

- A draft Convention on the Conservation and Utilisation of Bioresources of the Caspian;
- The Baku Resolution of June, 1991;
- The Tehran Communiqué of October 1992;
- The Astrakhan Communiqué of October 1993;
- The Declaration on Environmental Cooperation in the Caspian, Almaty, May 1994;
- The Protocol of the Meeting on Programmes for the Protection of the Environment in the Caspian Region, Almaty, 1994;
- The report of the joint meeting of the task force and TDA experts, Almaty, 1997;
- National reports on the state of the Caspian, 1998;
- Report of TDA Experts Meeting (including Framework TDA), Tehran, April, 1998;
- The decisions of the First meeting of the Interim Steering Committee of the CEP, Ramsar, 1998.

Besides these activities the countries are engaged in a number of national, donor and Implementing Agency (UNDP) financed activities which are directly or indirectly related to the Caspian; some of these activities represent 'baselines' in the context of the current project (see Incremental Cost matrix). These activities can be summarised as follow:

- All of the countries have or are developing National programmes which address the Caspian issues, some countries have some form of institutional framework for the protection of their own coastal and marine environments.
- Each country is elaborating National Environmental Action Plan, which will later produce the State of the Environment Report, in which a section on the Caspian will be present. These Action Programmes will specifically address domestic problems;
- With assistance from UNEP, all countries are actively involved in the preparation of Caspian Framework Convention on the Protection and Sustainable Management of the Caspian Environment and its Resources
- In each country a National data centre and a mechanism for data exchange exist in some form;
- In some countries, with donor support, modern equipped monitoring laboratories are established, in other countries monitoring capacities are weak and poorly focused;
- Most of the countries are financing or planning to finance the development of nature reserves, protection of biodiversity, preparation (if not available) of Red Data books describing endangered species etc.
- In all the countries national legislation on the exploitation of bioresources exist, but in most countries enforcement is lacking. All the countries are cooperating on the development of a regional legal mechanism;

- Each country is putting substantial efforts to the development of its coastal zone, special regulations have been developed in some countries, and are developing in others.
- Human health issues are of the first priority in most of the countries due to severe problems occurring in the region. The implementation of regulations and legislation is usually weak. Governments for the next three years allocate substantial financing.
- The national emergency response capabilities are poorly reinforced, legislation exists but is inadequately implemented.

The explicit commitment by each of the five Caspian states and actions they have already undertaken, are the best indication of the sound foundation for this Programme and a guarantee that the activities and systems established by the Programme will endure beyond International funding support to it.

In 1993, the five littoral states founded the Organisation for the Cooperation of the Caspian Coastal Neighbouring Countries. Environmental protection and wise use of resources were among the areas identified for cooperation. Difficulties regarding the Caspian's legal status and the extent of national sovereign territories slowed down progress. There seemed to be a consensus that this could be set aside for the time being in order to achieve progress on those aspects which are not contentious.

At Almaty in May 1994, the littoral states adopted the Declaration on Environmental Cooperation in the Caspian, through which they affirmed their desire to cooperate constructively in environmental management and their commitment to cooperate fully in the preparation and implementation of Programmes of joint activities for the protection of the Caspian environment, with the assistance of the international community.

In Ramsar in May 1998, the Caspian Environment Programme was launched; the countries have agreed on the location of the Programme Coordination Unit and the division of SAP thematic areas for the CEP. The littoral states also adopted the framework for the Transboundary Diagnostic Analysis.

Global Environmental Objective

The global environmental objective of the proposed project is: Environmentally sustainable development and management of the Caspian environment, including living resources and water quality, so as to obtain the utmost long-term benefits for the human populations of the region, while protecting human health, ecological integrity and the region's sustainability for future generations.

The GEF intervention in the Caspian will be mainly based on the following assumptions:

- The public good characteristic of the Caspian provides littoral countries with an incentive to use and abuse. Regional cooperation will be of the essence to address the external costs of pollution; countries have little incentive to apply abatement measures unilaterally. Thus though technical solutions might exist, an enabling policy, institutional and structural framework is lacking

- Even if countries were to taken unilateral action, hanging threats would continue to degrade the Caspian. A comprehensive approach is thus warranted involving all countries.
- High transactions costs impede regional cooperation to address waterbody degradation; these include the costs of communications between countries, building the basis of trust, convening multi-stakeholder forums, learning about current and emergent environmental problems, obtaining regional consensus on the need to intervene, and finessing regional agreements regarding pollution quotas, fishery takes etc.
- A thorough analysis of the determinants of degradation is lacking, including the transboundary impacts of sectoral activities. While much data already exists, these need to be collated and/or interpreted to uncover and prioritise root cause issues that could be addressed through SAP implementation; the lack of such information poses the risk that interventions will be wrongly targeted, undermining their efficacy.

The potential global and regional benefits that will accrue if these problems are comprehensively addressed will likely be substantial, including the protection of vital ecological services, maintenance of productive uses of bioresources, safeguarding biological diversity, human health, recreation etc. Inaction would lead to loss of these benefits.

GEF Alternative

This would be accomplished by GEF provision of catalytic support for incremental costs associated with the formulation of the Transboundary Diagnostic Analysis (TDA) and a Strategic Action Programme (SAP) for the Caspian, which provides a sound technical basis for a prevention-oriented project to address priority transboundary issues, consistent with the guidance for GEF Operational Programme Number 8, “Waterbody-based Operational Programme.” The goal of this Operational Programme is to assist countries in making changes in the ways that human activities are conducted in different sectors so that the particular waterbody and its multi-country drainage basin can sustainably support the human activities. Projects in this OP focus mainly on seriously threatened waterbodies and the most imminent transboundary threats to their ecosystems as described in the Operational Strategy. Consequently, priority is placed on changing sectoral policies and activities responsible for the most serious root causes needed to solve the top priority transboundary environmental concerns.

The GEF alternative would support a proposed project to:

- 1) Develop a regional mechanism for the sustainable development and management of the Caspian environment through institutional framework, capacity building, public awareness, and stakeholder training;
- 2) Complete a Transboundary Diagnostic Analysis of priority water-related environmental concerns and root causes for the Caspian ecosystem; and
- 3) Formulate and endorse a Regional Strategic Action Programme and (5) National Action Plans outlining priority actions (baseline and additional) to be taken on behalf of sustaining the Caspian and its associated resources.

This would be accomplished through GEF support to facilitate key measures for formulation of the SAP, combined with additional resources from a large number of domestic and international sources. The participation of GEF would provide support for incremental costs needed to prepare the TDA and formulate the SAP, including additional transaction costs for joint planning activities, development of common approaches to sectoral policies, data collection and analyses, and co-ordination of efforts among the participating countries.

Consistent with the objectives of the GEF, the proposed project supports complementary policy and technical measures on a regional basis for the reduction of contamination and prevention of new types of pollution; development of effective regional information and data management systems; protection of biodiversity; sustainable management of fish resources; public awareness in environmental decision-making process; support for Integrated Transboundary Coastal Area Planning and Management to protect the critical interface between the terrestrial and marine environments; strengthening institutional, legal, regulatory frameworks, human health and emergency response preparedness; and development of priority investment portfolios.

The proposed project, consistent with GEF guidance, would contribute significantly to the “reduction of stress to the international waters environment” in this region and support co-operating countries in “making changes in their sectoral policies, making critical investments, and developing necessary programmes” to achieve these objectives. The support of GEF will play an important catalytic role in the project, and the participation of the European Community, international financial institutions, donors and the private sector (especially oil companies) will also contribute to this multi-country and multi-stakeholder effort. The emphasis in the individual project components on the evaluation of sustainable mechanisms for self-financing of a number of activities would contribute to the long-term financial sustainability of project initiated actions.

The GEF alternative would support a regionally led initiative to promote the management and conservation of the coastal and marine resources of the Caspian. It would greatly facilitate the abilities of co-operating countries to address transboundary environmental issues and common natural resources management concerns at the regional level. The GEF alternative would allow for the realisation of a dynamic action oriented work programme for the preparation of the SAP, to be undertaken on an accelerated basis with support from a variety of sources. These goals would be realised through support for the following specific project objectives:

1. Programme Coordination Mechanism

This project component will establish the implementation structure for the CEP, including the Steering Committee (responsible for providing overall policy direction to the Programme), Programme Coordination Unit (responsible for providing a coordination and management structure for the development and implementation of the Caspian Environment Programme) and ISCC coordination roles.

2. Programmatic Support for Caspian Regional Thematic Centres

This project component will establish and strengthen Caspian Regional Thematic Centres (responsible for implementing activities in their respective thematic area), based upon existing institutions with the best available regional expertise in selected thematic areas.

3. Intersectoral Coordination (including private sector) and Involvement in SAP, NAP and TDA Formulation Process

This project component will establish the Intersectoral Coordination (responsible for providing guidance and ensuring coordination of a wide range of national institutions and organizations directly responsible for the implementation of the Programme at the national level).

4. Effective Regional Assessment of Contaminant Levels

This component will evaluate existing data sets in order to provide solid understanding of regional contaminant sources, flows and levels built into TDA. High quality data collected will be collected and broadly disseminated. Proposals in SAP for national commitments and donor support to upgrade regional monitoring network.

5. Assessment of Biodiversity Priorities

This component will help to undertake an ecological survey of the coastal and marine species and habitats, their uses, values, and threats, for each of the five Caspian states. The survey will result in an Inventory of Caspian Ecological Resources. As part of the SAP, strategies will be developed for the management of transboundary biodiversity, including threatened or endangered migratory species. This component will greatly contribute to the protection of regional biodiversity as well as the reinforcement of species and habitats of global significance. Biodiversity data, necessary for TDA preparation, will be collected. This component will result in comprehensive knowledge of the status of and threats to Caspian biodiversity, broadly accessible biodiversity databases, agreed-upon national (NAP) and regional (SAP) strategies for biodiversity protection and conservation, and identification of actions to mitigate threats from possible introduction of exotic species.

6. Effective Regional Information and Data Management

This component is designed to develop important regional information management tools for the decision-making and public awareness process. This will include preparation of a Caspian Information System, regional environmental Internet node and comprehensive bibliography. Special attention will be drawn to the development of a Geographic Information System.

Specialised workshops and training programmes will be organised within this component. This component will enhance capacity of decision-makers to develop, implement and monitor the SAP and NAPs.

7. Transboundary Diagnostic Analysis (TDA)

This component will facilitate the preparation of the TDA based on the preliminary elements of the Caspian TDA which were identified during the PDF-B phase of the project. This preparatory work will be fully utilized for the development of the full scale TDA, identifying major perceived problems, root causes, hot spot identification, stakeholder involvement, and possible avenues for improvement. Information from the TDA will play a specific role in assisting countries in the identification of their PIPs (see 18 below)

8. Strengthened Institutional, Legal, Regulatory and Economic Frameworks for SAP Implementation

This component will facilitate the finalisation and adoption of the Framework Convention for the Protection and Sustainable Management of the Caspian Environment and its Resources. This component will encourage and facilitate the process of review and assessment of national legislation aimed towards harmonisation at the regional level in SAP. It will provide assistance to the region, education and training, to understand various international environmental conventions, so countries can make informed decisions about endorsing them and establishing appropriate legal, regulatory and institutional frameworks for their implementation. Economic and other financial instruments will be identified and assessed for sustainability of the regional environment programme.

9. Priority Investment Portfolios for Transboundary Priorities

This component will select criteria and a methodology to serve as consistent guidelines for identification and selection of urgent investment priorities; Potential investment projects for the Priority Investment Portfolios will be identified and selected. Priority Investment Portfolio, linked to SAP and NAPs, will be prepared addressing regional transboundary issues, with national and donor commitments to finance.

10. Strategies to Strengthen Contaminant Abatement and Control Policies and Procedures

This component will evaluate national practices and capacities for effective marine contaminant reduction and mitigation. A regional quality assurance system will be designed and established. Support will be provided to upgrade the regional monitoring network. Strengthen capacities through training and other measures as appropriate; prepare Regional Approaches to Contamination abatement/prevention. Identification in NAPs and SAP adequate actions for contamination abatement and control.

11. Strategies for Sustainable Management of Fish Resources and Other Commercially Exploited Aquatic Bioresources

This component will help to develop the preparation, under uniform guidelines, of inventories of fisheries and other valuable bioresources stocks and fishing fleets. To develop a common approach for the exploitation of aquatic bioresources, this component will facilitate the establishment of regional coordination to deal with poaching and illegal sales. This component will also evaluate existing aquaculture facilities as well as identify their needs and effectiveness. Support will be provided to develop an institutional framework for regional cooperation in the management and conservation of transboundary resources as an integral part of SAP.

12. Strategies for Integrated Transboundary Coastal Area Planning and Management

This component will review existing national plans and facilitate the adoption through SAP, of common regional approaches to ITCAP&M results in reduced environmental degradation and loss of coastal habitats for migratory species and preservation of global biodiversity. This activity will also strengthen national and regional capacities to design, develop and implement ITCAP&M. Regional and national commitments to expand ITCAP&M will be addressed in the SAP and NAPs.

13. Strategies to Live With Water Level Fluctuations

This component will facilitate better understanding of the causes of sea level fluctuations, transboundary effects and the global significance. The NAPs and SAP will identify commitments to adaptation activities.

14. Strategies for Combating Coastal Desertification and Land Degradation

This component will help to better understand the problem of coastal desertification and to develop the regional strategy for combating desertification and land degradation as part of the SAP.

15. Strategies for Sustainable Human Development and Health

This component will facilitate the compilation of a region-wide inventory of the environmental health hazards in the Caspian coastal area, including climatic extremes and natural disasters, occupational health practices, and solid and liquid waste hazards, food contamination, malnutrition, access to safe drinking water. National environmental epidemiology capacity will be strengthened through regional training courses and information exchange. A Regional Environmental Health Action Plan will be developed as part of the CEP Strategic Action Programme.

16. Regional Emergency Response Actions to Non-hydrocarbon Chemical Spills and Other Biohazards

This component will evaluate regional capacities for effective emergency response. Risk assessments will be prepared to identify potential high-risk

sources, along with information on sensitive habitats, working closely with the countries and other oil companies. Regional emergency prevention and contingency planning will be evaluated as a part of the TDA and SAP processes. Proposals for SAP/NAP actions in the area.

17. Public Awareness and Involvement in CEP, SAP and NAPs

This component will promote broad-based public awareness initiatives in NAPs and SAP, and facilitate dialogues among local environmental NGOs, community groups, private sector (especially oil and gas industries) and the Governments.

18. Formulation and Endorsement of Strategic Action Programme and National Action Plans for Priority Transboundary Issues.

Based on the TDA and country priorities addressed by NEAPs and other studies, key areas to be addressed by NAPs and SAP will be identified. Special efforts will be made to help the countries to prepare NAPs, refine and finalise regional SAP, including identification of baseline and incremental costs of proposed SAP actions.

System Boundary

The time boundaries for this project are the three-year project period during which it will be implemented. Some of the benefits will clearly continue to accrue beyond this time boundary. However, all the listed benefits will be achieved during the three-year implementation period.

The geographic boundary of the project will be the entire Caspian Sea and its drainage basin. Major rivers, especially Volga, as a main source of pollution, will be addressed with their lower reaches as a priority and the rest only as much as possible.

The issues to be dealt with within the boundary of the project are:

- (a) inadequate institutional capacity for the management of transboundary environmental issues;
- (b) contamination abatement;
- (c) protection of biodiversity
- (d) exploitation of living marine resources;
- (e) coastal habitat destruction and environmental degradation;
- (f) human health;
- (g) low public awareness and participation in environmental and resource management; and
- (h) lack of recognised regional methodology for ITCAP&M.

Incidental Domestic Benefits

Over the long-term, a variety of domestic benefits would occur through implementation of the proposed project. The most valuable domestic benefits to be gained from the project are associated with substantially strengthened institutional and human capacity in integrated water management, increased technical knowledge and public awareness of Caspian environmental issues, and improved national capacities in environmental legislation and enforcement. Each Caspian Regional Thematic Centre would receive

domestic benefits in the form of improved national capacities in the Thematic Centre area of expertise. In addition, eventual implementation of the National Action Plans would, by definition, deliver both national and global/regional benefits.

Costs

Baseline: 161,101,982 \$ US

Alternative: 178,592,282 \$ US

Incremental: 18,316,596 \$ US

Annex 1: Incremental Cost Matrix

Component	Sub-component	Cost Category	Cost (\$ million)	Domestic Benefits	Global Environmental Benefits
I. Project Coordination	A. Programme Coordination Mechanism	Baseline	9,037,500	Some countries in the Caspian Region have some form of institutional framework for the protection of their own coastal and marine environments, but national efforts are usually insufficient to mitigate threats to the regional Caspian ecosystem.	All countries are actively involved in the preparation of Caspian Framework Convention. No regional coordinating mechanisms, absence of regional legal documents.
		Alternative	11,439,980	Effective coordination and implementation of national activities, integration of these environmental activities into national policies and investment programmes. Strengthened institutional and human capacity through training and active involvement of national experts in the TDA and SAP preparation.	Strong regional body and regional cooperation, enhanced stakeholders coordination and communication at the regional level.
		Increment	200,000 (Gov) 1,574,000 (GEF) 78,480 (EU) 100,000 (UNDP) 300,000 (WB) 100,000 (Private)		
I. Project Coordination	B. Programmatic Support for Caspian Regional Thematic Centres	Baseline	9,037,500	No specific thematic centres dealing with Caspian problems in the countries (except few cases)	Almost no interaction and cooperation between different institutions in the Caspian countries after the collapse of the Soviet Union
		Alternative	11,338,220	Strengthened institutional and human capacity through training and active involvement of national experts in the TDA and SAP preparation.	Strong cooperative institutional network to address Caspian transboundary problems.
		Increment	1,220,000 (Gov) 616,800 (GEF) 313,920 (EU) 50,000 (WB)		

Annex I: Incremental Cost Matrix (continued)

Component	Sub-component	Cost Category	Cost (\$ million)	Domestic Benefits	Global Environmental Benefits
I. Project Coordination	C. Intersectoral Coordination (including private sector) and Involvement in SAP, NAP and TDA Formulation Process	Baseline	0	Some countries have established intersectoral coordination on Caspian environmental problems, ministries of environment usually weak.	Some form of regional cooperation between Ministries of Environment
		Alternative	134,000	Strong coordination between involved sectors. Strengthen role of the Environmental Ministries.	Effective coordination and interaction between Caspian Countries, involvement in SAP process.
		Increment	209,000 (GEF)		
II. TDA	A. Effective Regional Assessment of Contaminant Levels	Baseline	4,829,250	Existing National monitoring capabilities are usually weak and poorly focused. No common standards or guidelines developed. Few countries have well equipped monitoring laboratories and do not systematically use QA/QC practices.	Regional monitoring network destroyed after USSR dissolution; poor regional interaction. Countries developed a regional monitoring programme CASPAS, but no financial commitments for its implementation have been made. No regional monitoring network available. Absence of regional legal agreement to mitigate contamination
		Alternative	6,148,250	Fully operational, upgrade and strengthened national monitoring system in each country. Highly qualified trained staff. Ratification and implementation of international conventions by each Caspian state.	Network of monitoring centres throughout the region. Reliable data to catalyze reduction of existing and prevention of new types of contamination. Development and ratification of the international convention to protect Caspian from pollution.
		Increment	325,000 (GEF) 994,000 (WB)		

II. TDA	B. Assessment of Transboundary Biodiversity Priorities	Baseline	11,181,600	Risk assessment information on vulnerable habits and biodiversity threats is lacking, limited or out of date in most countries. Most of the countries have Red data books of endangered species and plans for protected areas, but capacity for enforcement is weak in most cases.	Urgent need for the comprehensive overview on the state of Caspian Biodiversity. No regional strategy for the protection of Caspian biodiversity exist. Bilateral agreements in place, but implementation are weak.
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Annex I: Incremental Cost Matrix (continued)

Component	Sub-component	Cost Category	Cost (\$ million)	Domestic Benefits	Global Environmental Benefits
		Alternative	11,606,600	National biodiversity conservation programmes in accordance with NEAP's. Institutional strengthening through training. Prioritize threats and measure to avoid threats to biodiversity.	Conservation of habitats and species of global significance. Regional network of protected areas as a part of global one.
		Increment	350,000 (GEF) 75,000 (WB)		
II. TDA	C. Effective Regional Information and Data Management	Baseline	2,157,750	Countries in the region have national environmental data centres, some have GIS. Data stored in different institutions are difficult to access. No information or decision support system available.	Data and information exchange is weak after the collapse of the Soviet Union. No regional data centres. No regional quality assurance. Data management activities proposed by CASPAS, but no financial support available.
		Alternative	2,630,350	Strengthening or creation of national environmental data centres and institutions through provision of equipment, training and networking. Easy and reliable access to electronic means of communication, data and information exchange. Stakeholders trained and willing to use GIS and Information systems.	Regional Caspian Networking Information System including data on Institutional capacities, scientists, environmental projects, environmental data sets in the region and GIS, accessible via Internet to the world community. High quality, reliable data on Caspian environmental issues. Improved regional capacity for data collection, integration, analysis and use in decision making.
		Increment	300,000 (GEF) 152,600 (EU) 20,000 (WB)		
II. TDA	D. Transboundary Diagnostic Analysis	Baseline	780,062	State of the Environment Reports, including national coastal and marine areas. Lack of transboundary approach to the Caspian environmental problems.	Lack of regional understanding to coordinate joint actions to reduce or prevent transboundary impacts
		Alternative	1,301,262	Identification of root causes of environmental degradation in the Caspian Region and possible mitigation actions.	Establishment of regional scientific and technical framework for addressing transboundary impacts
		Increment	325,000 (GEF) 196,200 (EU)		

Annex I: Incremental Cost Matrix (continued)

Component	Sub-component	Cost Category	Cost (\$ million)	Domestic Benefits	Global Environmental Benefits
III. Legislative Framework & Convention	A. Strengthened Institutional, Legal, Regulatory and Economic Frameworks for SAP Implementation	Baseline	1,465,350	All countries in the Region have some form of legal framework for the protection of their own coastal and marine environments but enforcement is poor.	All countries are actively involved in the preparation of Caspian Framework Convention. No regional coordinating mechanisms exist, absence of regional legal documents.
		Alternative	2,683,950	Policy, legal, economic framework for addressing transboundary problems established, institutions strengthen through training in environmental planning and management.	Framework convention ratified. Existing national and international laws and conventions surveyed.
		Increment	615,000 (GEF) 43,600 (EU) 560,000 (UNEP)		
IV. PIPs	A. Priority Investment Portfolios for Transboundary Priorities	Baseline	78,780,000	Insufficient financial support for the protection and rehabilitation of the Caspian Environment.	No regional investment strategy developed.
		Alternative	82,279,700	Improved national capacities, priority investment projects developed for each country.	Priority Investment Portfolios prepared and donors identified.
		Increment	2,000,000 (GEF) 1,449,700 (EU) 250,000 (WB)		
V. SAP & NAPs	A. Strategies to Strengthen Contaminant Abatement and Control Policies and Procedures	Baseline	4,829,250	Existing National capacities for effective marine contaminant reduction and mitigation are usually weak and poorly focused. No common standards or guidelines developed. Few countries use QA/QC practices.	Lack of Regional capacities for effective marine contaminant reduction and mitigation; poor regional interaction.

		Alternative	5,957,450	Strengthen national capacities for effective marine contaminant reduction and mitigation.	Regional system of effective marine contaminant reduction and mitigation. Regional quality and assurance system established.
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Annex I: Incremental Cost Matrix (continued)

Component	Sub-component	Cost Category	Cost (\$ million)	Domestic Benefits	Global Environmental Benefits
		Increment	135,000 (GEF) 1,068,200 (EU)		
V. SAP & NAPs	B. Strategies for Sustainable Management of Fish Resources and Other Commercially Exploited Aquatic Bioresources	Baseline	7,652,850	Stocks assessment information is lacking, limited or out dated in most countries. National fisheries legislation exists in all countries but capacity for enforcement is weak in most cases.	Assessment of transboundary stocks is practically non-existent. No regional fisheries agreements or convention in place. Threatened and endangered migratory species are protected on a very small scale.
		Alternative	8,937,450	Increased baseline information and strengthened national capacity for sustainable aquatic resource management.	Sustainable use of transboundary stocks building on sound stocks assessment, region-wide monitoring and management plans. Conservation of threatened and endangered species emphasising public awareness and participation.
		Increment	60,000 (GEF) 1,024,600 (EU) 200,000 (WB)		
V. SAP & NAPs	C. Strategies for Integrated Transboundary Coastal Area Planning and Management (ITCAP&M)	Baseline	4,987,500	Uncoordinated development of valuable coastal zones predominates in most countries of the Region and institutional capacity to address these issues is weak.	No Regional approaches developed.
		Alternative	5,287,500	Strengthened institutional and human capacity in each country to develop and implement national ITCAP&M.	Adoption of common regional approaches to ITCAP&M results in reduced environmental degradation and loss of coastal habitats for migratory species and global biodiversity; by catalysing the development and implementation of national ITCAP&M through regional training, exchange of lessons learned and sustainable financing secured.

		Incremental	300,000 (GEF)		
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Annex I: Incremental Cost Matrix (continued)

Component	Sub-component	Cost Category	Cost (\$ million)	Domestic Benefits	Global Environmental Benefits
V. SAP & NAPs	D. Strategies to Live With Water Level Fluctuations	Baseline	1,602,375	National land and water guidelines that take into account level fluctuations are lacking or poorly developed.	No Regional strategy developed. Exchange of information and data on the level changes are poor and inefficient.
		Alternative	2,008,875	Adopted well-defined plans to live with water fluctuations, according National and regional requirements.	Better understanding of the causes of the level fluctuations, transboundary effects and global significance
		Increment	25,000 (GEF) 381,500 (EU)		
V. SAP & NAPs	E. Strategies for Combating Coastal Desertification and Land Degradation	Baseline	1,996,125	Some countries have institutional framework for combating coastal desertification	Implementation of Convention on desertification is weak.
		Alternative	2,841,825	National and regional desertification plans developed, countries and donors commitments for implementation	Ratification and implementation of Desertification Convention
		Increment	50,000 (GEF) 795,700 (EU)		
V. SAP & NAPs	F. Strategies for Sustainable Human Development and Health	Baseline	6,150,000	Severe human health problems in some countries, poor implementation of national legislation.	No regional agreements, framework or coordination.
		Alternative	6,229,500	Strengthen national environmental epidemiology capacity through regional training courses, information exchange and improved access to medical/scientific literature.	Regional Environmental Health Action Plan which will be a part of the CEP Strategic Action Programme.
		Increment	25,000 (GEF) 54,500 (EU)		

V. SAP & NAPs	G. Regional Emergency Response Actions to Non-hydrocarbon Chemical Spills and Other Biohazards	Baseline	4,275,000	National network for emergency response weak and insufficiently equipped, contingency plans developed in some countries but the implementation is poor.	Regional coordination for chemical spill response remains underdeveloped.
		Alternative	4,550,000	National marine pollution preparedness, response and contingency plans enforced.	Major reduction in risks of regional environmental degradation. Caspian Regional contingency plan, Strong regional network of responsible authorities.
		Increment	200,000 (GEF) 75,000 (WB)		
I. SAP & NAPs	H. Public Awareness and Involvement in CEP, SAP and NAPs	Baseline	1,303,845	Few countries have active environmental NGOs. Public participation in resource management and coastal development decisions is weak.	Awareness programmes in the individual countries rarely cover regional issues.
		Alternative	1,701,945	Increased environmental awareness at the national and community levels. Local environmental NGOs and community groups obtain grants to carry out projects.	Increased public awareness and support for regional environmental issues. Enhanced overall effectiveness of environmental awareness programmes through the organisation of concerted region-wide activities, and exchange of lessons learned through an active regional network of NGOs and community groups.
		Increment	300,000 (GEF) 98,100 (EU)		
V. SAP & NAPs	I. Formulation and Endorsement of Strategic Action Programme (SAP) and National Action Plans (NAPs) for Priority Transboundary Issues	Baseline	11,036,025	National Environmental Action Plans address selected domestic Caspian problems.	Poor coordination of NEAPs between countries.
		Alternative	11,515,425	National Caspian Action Plans endorsed and implemented and coordinated with regional SAP.	Regional Strategic Action Plan with countries and donor commitments baseline and incremental interventions identified.

		Increment	305,000 (GEF) 174,400 (EU)		
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Annex I: Summary Incremental Cost Matrix

Component	Sub-component	Baseline (B)	Alternative (A)	Increment (A-B)						
				Gov	GEF	EU	UNEP	UNDP	WB	Private
I. Project Coordination	A. Programme Coordination Mechanism	9,037,500	11,439,980	200,000	1,574,000	78,480		100,000	300,000	100,000
I. Project Coordination	B. Programmatic Support for Caspian Regional Thematic Centres	9,037,500	11,338,220	1,220,000	616,800	313,920			50,000	
I. Project Coordination	C. Intersectoral Coordination (including private sector) and Involvement in SAP, NAP and TDA Formulation Process	0	134,000		134,000	0				
II. TDA	A. Effective Regional Assessment of Contaminant Levels	4,829,250	6,148,250		325,000	0			994,000	
II. TDA	B. Assessment of Transboundary Biodiversity Priorities	11,181,600	11,606,600		350,000	0			75,000	
II. TDA	C. Effective Regional Information and Data Management	2,157,750	2,630,350		300,000	152,600			20,000	
II. TDA	D. Transboundary Diagnostic Analysis (TDA)	780,062	1,301,262		325,000	196,200				
III. Legislative Framework & Convention	A. Strengthened Institutional, Legal, Regulatory and Economic Frameworks for SAP Implementation	1,465,350	2,683,950		615,000	43,600	560,000			
IV. PIPs	A. Priority Investment Portfolios for Transboundary Priorities	78,780,000	82,279,700		2,000,000	1,449,700			250,000	
V. SAP & NAP	A. Strategies to Strengthen Contaminant Abatement and Control Policies and Procedures	4,829,250	5,957,450		135,000	1,068,200				
V. SAP & NAP	B. Strategies for Sustainable Management of Fish Resources and Other Commercially Exploited Aquatic Bioresources	7,652,850	8,937,450		60,000	1,024,600			200,000	
V. SAP & NAP	C. Strategies for Integrated Transboundary Coastal Area Planning and Management	4,987,500	5,287,500		300,000	0				
V. SAP & NAP	D. Strategies to Live With Water Level Fluctuations	1,602,375	2,008,875		25,000	381,500				
V. SAP & NAP	E. Strategies for Combating Coastal Desertification and Land Degradation	1,996,125	2,841,825		50,000	795,700				
V. SAP & NAP	F. Strategies for Sustainable Human Development and Health	6,150,000	6,229,500		25,000	54,500				
V. SAP & NAP	G. Regional Emergency Response Actions to Non-hydrocarbon Chemical Spills and Other Biohazards	4,275,000	4,550,000		200,000	0			75,000	
V. SAP & NAP	H. Public Awareness and Involvement in CEP, SAP and NAPs	1,303,845	1,701,945		300,000	98,100				
V. SAP & NAP	I. Formulation and Endorsement of Strategic Action Programme (SAP) and National Action Plans (NAPs) for Priority Transboundary Issues	11,036,025	11,515,425		305,000	174,400				
Total		161,101,982	178,592,282	1,420,000	7,639,800	5,831,500	560,000	100,000	1,964,000	100,000

PDF:	349,920
Project Support Costs:	351,736
Total Project Costs:	18,316,596

ANNEX II. LOGFRAME MATRIX

Component	Intervention Logic	Objectively Verifiable Indications	Sources of Verification	Assumptions and Risks
	Long-term Objectives: To ensure environmentally sustainable development and management of the Caspian environment, including living resources and water quality, so as to obtain the utmost long-term benefits for the human populations of the region, while protecting human health, ecological integrity and the region's sustainability for future generations.	<p>A framework and coordination for regional and national interventions; establish Steering Committee;</p> <p>Rehabilitation and sustainable management of the Caspian environment;</p> <p>Multi-sectoral participation in the management of Caspian environment.</p>	<p>Steering Committees (SC) annual reports; PCU documents;</p> <p>PCU and CRTCs reports;</p> <p>Intersectoral Coordinating Committees (ISCC) annual reports.</p>	<p>Assume continued national commitment to the regional program at each sector level, including offer of resources. The ability of the SC and PCU to formulate and implement community-based solutions relies on the support of national agencies through coordinated (but independent) actions. The GEF project will create a model that can be adopted in the future as a permanent activity of the individual national sectors.</p> <p>Clearly articulated and specified achievable goals must be identified at the start of the program; maintaining a tight focus on these goals needs to be a program priority. Diffuse and ever-changing goals will guarantee inaction.</p> <p>A direct and continuous communication between the Steering Committee and the ISCC will be essential for the various sectors to recognize the value (to them) of a regional approach. Self-interest and short-term national priorities are realities that need to be incorporated into CEP recommendations.</p>

	<p>Project purpose: Formulation of a Transboundary Diagnostic Analysis (TDA) and a Strategic Action Programme (SAP) to manage coastal resources and achieve sustainable development for the Caspian</p> <p>Develop a mechanism to objectively measure effects of management actions</p>	<p>Final TDA prepared and agreed;</p> <p>Strategic Action Programme (SAP) formulated and endorsed at ministerial level in each country;</p> <p>Improved national and regional capacities for pollution monitoring;</p> <p>Caspian National Action Plans (CNAPs) for each country.</p>	<p>TDA published and broadly disseminated;</p> <p>Countries endorse SAP;</p> <p>National and donor commitments to financing SAP and CNAP implementation;</p> <p>PCU and CRTC reports.</p>	<p>The TDA addresses the management issues of importance to the national agencies (sectors) and is prepared with their input and in terms that are relevant to them.</p> <p>A non-technical synthesis of the SAP, will be presented for ministerial approval with input from each state. Multiple reports are required to meet different needs; overly long and overly technical documents risk failure at the ministerial and at the donor level.</p> <p>Remedial actions can be costly and/or unpopular in some sectors. A well-designed monitoring program will provide objective technical information with which to assess the success (or failure) of specific management actions and can be used to adjust future actions.</p>
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ANNEX II. LOGFRAME MATRIX (continued)

Component	Sub-component	Objectively Verifiable Indications	Sources of Verification	Assumptions and Risks
I. Project Coordination	A. Programme Coordination Mechanism	Steering Committee begins to function; Programme Coordination Unit (PCU) established and operational.	Steering Committee Terms of Reference (TORs) and meeting reports; PCU TOR's, staff hired, PCU documents.	The "Regional Management Network" will permit 2-way communication between the various national sectors and the regional program. The program (i.e., SC and PCU) must effectively communicate the issues and the suggested remedies to the national sectors and be responsive to national real and perceived needs.
I. Project Coordination	B. Programmatic Support for Caspian Regional Thematic Centres	Caspian Regional Thematic Centres (CRTC's) established and operational.	CRTC's and TORs work plan and reports.	The CRTC's will form a network permitting communication of important programme achievements to the governments and public.
I. Project Coordination	C. Intersectoral Coordination (including private sector) and Involvement in SAP, NAP and TDA Formulation Process	Secretariats for the Intersectoral Coordinating Committees established and operational.	TOR for ISCC, annual reports.	The ISCC must effectively communicate the issues and the suggested remedies to the national sectors and be responsive to national real and perceived needs.
II. TDA	A. Effective Regional Assessment of Contaminant Levels	High quality data collected and broadly disseminated; Donors and country commitments to the regional monitoring network implementation.	Monitoring data reports, annual reports; Letters of intent/commitment from countries and donors.	A well-designed monitoring program will provide objective technical information with which to assess the success (or failure) of specific regional management actions and can be used to guide future actions. A strong program of contaminant abatement and control will reduce marine contamination at its source, which is the most effective way to address this issue. Such a program needs to identify costs of environmental remediation and clean-up as well as capital costs of new infrastructure in order to fairly explain full costs. In-country and international sources of support will need to be identified and secured to ensure acceptance and implementation.

Annex II: Log Frame Matrix (continued)

Component	Sub-component	Objectively Verifiable Indications	Sources of Verification	Assumptions and Risks
II. TDA	B. Assessment of Transboundary Biodiversity Priorities	<p>Definition and assessment of Caspian Biodiversity;</p> <p>Measures to prevent accidental introduction of exotic species developed;</p> <p>Regional Caspian Red Data Book (threatened and endangered species), developed.</p>	<p>National reports and regional assessment on the status of Biodiversity published; Biodiversity CRTC report;</p> <p>Ballast water treatment agreement;</p> <p>Red Data Book published and on-line.</p>	Biodiversity is a catch-all term that needs to clearly focus on specific regional issues on which effective actions can be taken (e.g., exotic species). Protection of natural gene pools (including non-commercial species which support economically valuable resources) by a variety of mechanisms will be needed to address this issue.
II. TDA	C. Effective Regional Information and Data Management	<p>Regional Caspian Information System including meta-level data developed and used by various stakeholders;</p> <p>Caspian Geographic Information System developed;</p> <p>Caspian Environment Programme activities and data broadly disseminated via Internet.</p>	<p>On-line system on WWW, reports;</p> <p>GIS published on CD;</p> <p>Regional Environmental Internet Node with CEP home page on Internet.</p>	Full access to CEP data and information is essential to national sector participation in a cooperative regional program. Data and interpreted information, <u>in a form relevant and useful to each national sector</u> , is necessary to achieve full "information access". Use of electronic media (i.e., WWW, CD, GIS, etc.) is growing rapidly in all parts of the world and this can be expected to be a primary route of information exchange in the near future; hard copy reports remain essential during this transition period. The CEP should assist national sectors with the acquisition of hardware/software to use electronic media and to catalyze training in its use.

II. TDA	D. Transboundary Diagnostic Analysis (TDA)	<p>Draft Transboundary Diagnostic Analysis developed;</p> <p>Expert meetings and regional workshops for TDA revision, priority formulation and identification of 'root causes' of environmental problems;</p> <p>TDA finalized and broadly disseminated.</p>	<p>Draft TDA made available for comment in region;</p> <p>Meeting reports and revised TDA;</p> <p>TDA published and available on-line; non-technical summary also disseminated.</p>	<p>Early preparation of a draft TDA will serve as a guide and help the national sectors to conceptualize the scope and direction of the regional cooperative response. Open discussion and national sector participation in TDA development will provide a "sense of ownership" that is essential for long-term international cooperation.</p>
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Annex II: Log Frame Matrix (continued)

Component	Sub-component	Objectively Verifiable Indications	Sources of Verification	Assumptions and Risks
III. Leslative Framework and Convention	A. Strengthened Institutional, Legal, Regulatory and Economic Frameworks for SAP Implementation	<p>Framework Convention finalized and ratified;</p> <p>Current national and international legal/enforcement mechanisms reviewed;</p> <p>Harmonious application of the Environmental Impact Assessment established;</p> <p>Stakeholders trained.</p>	<p>Legal/enforcement mechanisms status report;</p> <p>Selected reports and studies;</p> <p>Report, stakeholders involved.</p>	Effective environmental management and resource protection derives from a combination of regulatory and non-regulatory actions. Current regulatory authorities and national sector jurisdictions are not based on natural system scales and probably overlap and are perhaps mutually in conflict. Before recommendations for effective regulatory changes can be made, a survey of existing national and international regulations needs to be made.
IV. PIPs	A. Priority Investment Portfolios for Transboundary Priorities	<p>Priority Investment Portfolios prepared;</p> <p>Feasibility study on economic instruments completed.</p>	<p>Summary report on PIP;</p> <p>Progress reports.</p>	Financial support for recommended actions needs to be integrated into CEP recommendations from the beginning. While international and national government support is anticipated, private commercial and industrial activities will also supply substantial funds to the Programme.
V. Formulation of SAP and NAPs	A. Strategies to Strengthen Contaminant Abatement and Control Policies and Procedures	This component of the Programme will be primarily supported by EU/TACIS		

Annex II: Log Frame Matrix (continued)

Component	Sub-component	Objectively Verifiable Indications	Sources of Verification	Assumptions and Risks
V. Formulation of SAP and NAPs	B. Strategies for Sustainable Management of Fish Resources and Other Commercially Exploited Aquatic Bioresources	Regional working group on the sturgeon fishery established; Common methodology for the exploration of aquatic bioresources developed and agreed; Regional coordination to deal effectively with poaching and illegal sales established; Identify and secure resources (funding, loans, re-training) to shift some portion of the fishing industry to other economic areas.	Working group reports; Countries agreement Progress reports.	Maintenance of sustainable fish populations will require the reduction of system stresses, including chemical contamination and fishing pressure. Such remedial actions directly affect individuals or organizations now doing business in the region and early identification/ education of stakeholders will be necessary for compliance with these actions. Some mechanism to compensate the affected stakeholders must be found to gain their cooperation. Displacement of current economic activities that now result in stress to valuable fishery populations cannot be achieved through regulation alone.
V. Formulation of SAP and NAPs	C. Strategies for Integrated Transboundary Coastal Area Planning and Management	Regional organizational framework for integrated coastal zone management established; Guidelines and procedures for Integrated Coastal Area Planning & Management developed.	Progress and ITCAP&M CRTC reports; Guidelines published and translated to national languages.	Regional, trans-national resource management problems cannot be resolved by uncoordinated national actions. Regional solutions must be developed and implemented via multi-national cooperation.
V. Formulation of SAP and NAPs	D. Strategies to Live with Water Level Fluctuations	This component of the Programme will be primarily supported by EU/TACIS		
V. Formulation of SAP and NAPs	E. Strategies for Combating Coastal Desertification and Land Degradation	This component of the Programme will be primarily supported by EU/TACIS		
V. Formulation of SAP and NAPs	F. Strategies for Sustainable Human Development and Health	This component of the Programme will be primarily supported by TBD		

Annex II: Log Frame Matrix (continued)

Component	Sub-component	Objectively Verifiable Indications	Sources of Verification	Assumptions and Risks
V. Formulation of SAP and NAPs	G. Regional Emergency Response Actions to Non-hydrocarbon Chemical Spills and Other Biohazards	Regional marine pollution preparedness, response and contingency plan developed.	Emergency response CRTC reports; regional contingency plan implemented.	Pollution emergencies do not recognize national borders and regional response is necessary. Development of contingency plans and adequately equipping and training of responders is essential. Enforcement of pollution abatement is an essential component of this sub-component.
V. Formulation of SAP and NAPs	H. Public Awareness and Involvement in CEP, SAP and NAPs	Key stakeholders identified and involved in project activities, including public sector and private groups; Public awareness and environmental education on Caspian environmental issues enhanced; Strong Regional NGO's network established.	Report on stakeholder analysis, stakeholders consultation reports; Public awareness and environmental education materials (print and on-line); Reports from annual NGO forum, NGO directory (print and on-line).	All recommendations made by the CEP regional program for remedial and resource protection action will require trade-offs and will negatively affect someone. To gain cooperation and compliance, the rationale for action and the real costs incurred need to be fully understood by the affected groups. CEP needs to actively assist these groups in finding support to attenuate the negative effects of resulting changes.
V. Formulation of SAP and NAPs	I. Formulation and Endorsement of Strategic Action Programme (SAP) and National Action Plans (NAPs) for Priority Transboundary Issues	Draft Caspian National Action Plans prepared, based on TDA and reports; Ministerial Conference held; SAP broadly disseminated and publicized; Donors and countries committed to financing SAP implementation.	Caspian National Action Plans published; Final SAP with baseline and incremental costs endorsed; Published SAP and on-line; Letters of intent/commitment from countries and donors.	A SAP, which explicitly includes estimated total costs (level of effort) and clearly indicates sectors responsible for each recommended action, is a prerequisite for national endorsement and implementation. Thorough preparation <u>prior to</u> the Ministerial Conference is necessary to fully apprise each national sector of the content and costs of the SAP that they will be asked to endorse. Program support from outside the national sectors is an essential "carrot" to help persuade endorsement.

ANNEX III:
STAP REVIEW OF THE GEF CASPIAN ENVIRONMENT PROGRAMME
PROJECT BRIEF

1. Overall Impression

The potential use of any coastal zone in particular enclosed and land-locked seas such as the Caspian Sea require joint and coordinated action programmes by the riparian states. Such seas often function as a waste receiving place for wastes produced by coastal countries as well as wastes produced by human activities outside the area crossing its geographic boundaries through natural transport mechanisms such as rivers, atmospheric transport etc. The ambient water quality can affect various human activities, such as commercial fishing, harbor activities, exploration of oil, recreation; negative changes of water quality often provides the needed public pressure for initiating a well defined management action as in the case of the Caspian Sea.

2. Relevance & Priority

Considering the immense environmental problems, which the region faces, and the need for urgent solutions, this is a well-timed project.

3. Approach

The general approach of the project is appropriate; during the execution stage the outcome of the GEF Black Sea Environment Project should be utilized.

4. Objectives

If the main goal of the project is to obtain sustainable development and management of the Caspian environment, the objectives stated in the project document are valid and well defined.

5. Background & Justification

It is evident from the observations that the Caspian Sea receives large quantities of domestic and industrial wastewater mostly in untreated forms. In addition the hydrological cycles of the region's rivers, whose run-offs are detrimental to the basic ecological characteristics of the basin, are being manipulated strongly. Furthermore, biotic and abiotic phenomena, which develop in marine areas, cannot be limited by national boundaries and the Caspian Sea is a good example to illustrate this fact.

6. Activities

Activities related to the Programme Co-ordination Mechanism (Component I and Component III) are all well defined, realistic and easy to implement. Transboundary Diagnostic Analysis (Component II) requires skilled manpower, outside expertise and furthermore concerted action between coastal states. Implementation of this component should be coordinated with care.

7. Project Funding

Not enough data. However comparing the expected aims, coverage and timeframes with the GEF Black Sea Environment Project, the suggested funding might be enough.

8. Time Frame

Taking the outcome of GEF Black Sea Environment Project and going through the project activities carefully, the suggested time frame looks realistic.

9. Rationale for GEF Support

As indicated in the project brief the proposed project is well within the scope of "Waterbody Based Operational Programmes" and I strongly recommend GEF support for this important and timely project.

Annex IV: Listing of Expected Baseline Activities Associated with SAP

<u>Project Output</u>	Azerbaijan	Iran	Kazakstan	Russia	Turkmenistan	Total Project Component
1) Programme Coordination Mechanism	150,000	1,050,000	1,275,000	15,600,000	0	18,075,000
3) Effective Regional Information and Data Management	300,000	1,050,000	750,000	0	57,750	2,157,750
4) Effective Regional Assessment of Contaminant Levels.	675,000	1,706,250	2,250,000	104,250	93,750	4,829,250
5) Assessment of Biodiversity Priorities	6,750,000	1,312,500	1,500,000	1,222,500	396,600	11,181,600
6) Transboundary Diagnostic Analysis (TDA)	90,000	525,000	78,750	60,000	26,312	780,062
7) Priority Investment Portfolios for Caspian Environmental Problems	18,000,000	3,937,500	22,500,000	0	34,342,500	78,780,000
9) Public Awareness and Involvement in CEP, SAP and NAPs	75,000	1,050,000	150,000	0	28,845	1,303,845
10) Strategies to Strengthen Institutional, Legal, Regulatory and Economic Frameworks for SAP Implementation	150,000	1,050,000	150,000	0	115,350	1,465,350
11) Strategies to Strengthen Contaminant Abatement and Control Policies and Procedures	675,000	1,706,250	2,250,000	104,250	93,750	4,829,250
12) Strategies for Sustainable Management of fish Resources and Other Commercially Exploited Aquatic Bioresources.	0	1,312,500	1,500,000	4,725,000	115,350	7,652,850
13) Strategies for Integrated Transboundary Coastal Area Planning & Management	0	2,625,000	450,000	1,912,500	0	4,987,500
14) Strategy to Live with Water Level Fluctuations	37,500	1,050,000	450,000	0	64,875	1,602,375
15) Strategies for Combating Coastal Desertification and Land Degradation	37,500	1,050,000	750,000	0	158,625	1,996,125
16) Strategies for Sustainable Human Development and Health.	0	1,050,000	3,225,000	0	1,875,000	6,150,000
17) National and Regional Emergency Response Actions to Non-hydrocarbon Chemical Spills	0	3,675,000	600,000	0	0	4,275,000
18) Strategic Action Programme and National Action Plans Formulated and Endorsed at Highest Government Level	150,000	2,100,000	8,250,000	0	536,025	11,036,025
TOTAL	27,090,000	26,250,000	46,128,750	23,728,500	37,882,733	161,101,982

Note: Outputs # 2 and #8 are not reflected here because they do not involve any baseline cost and are purely a GEF alternative.

- Preparation of National Reports on the state of the Caspian environmen