

Climate change and Caspian Sea level fluctuation

(Note by the interim Secretariat)

Introduction:

Article 16 of the Framework Convention for the Protection of the Marine Environment of the Caspian Sea (Tehran Convention), calls for scientific research and agreed measures and procedures to alleviate the implications of sea level fluctuations of the Caspian Sea.

The Strategic Convention Action Programme, adopted at the second Meeting of the Conference of the Parties to the Tehran Convention, in November 2008, referring to variety of factors causing the considerable sea level fluctuations of the Caspian Sea, included, apart from the development of ancillary instruments and guidelines, the development of sea level fluctuation scenario's that take into account climate change over the next 50 years and reassessments of coastal vulnerability to sea level rise and the consequent potential economic losses.

The Tehran Convention Programme of Work for 2011 -2012 provided for the development of a GEF project on climate change. A project identification form was prepared but no further action was taken in light of challenges to the eligibility of the countries involved.

The international scientific conference "Climate and Water Balance Changes in the Caspian Region", held in Astrakhan, 19-20 October 2010, called for an extension of cooperation of the Caspian States in the field of research of climate and water balance, in particular, between CASPCOM and the Caspian Environment Programme and in providing climatic services for national and international activities in Caspian marine environment protection.

Recently consultations have taken place to reconsider cooperation in the field of climate change and sea level fluctuation and develop a project proposal for submission to the GCF. The proposal would include organizing and deepening the research and linking the scenario's stemming from that to mitigation and adaptation related investments in the coastal zones of the Contracting Parties to the Convention.

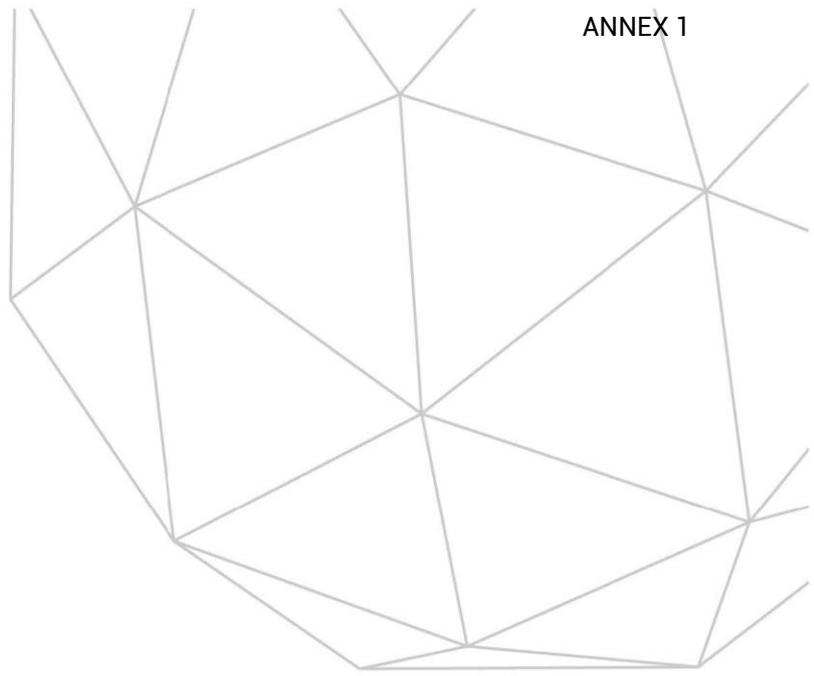
At the interim Secretariat initiative, a Concept Note has been developed which is attached to this Note and which Parties may discuss and review with the view to its further development.

Suggested action:

The meeting is requested to review the Concept Note on Climate Change and Sea level fluctuation, and provide guidance as to further full project development, including on the pathway to be followed and partners which should be involved.



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Concept Note

The Green Climate Fund (GCF) is seeking high-quality projects or programmes.

The Accredited Entity is encouraged to submit a concept note, in consultation with the National Designated Authority, to present a project or programme idea and receive early feedback and recommendation.

Project/Programme Title: Climate Change Resilience for the Caspian Sea

Country(ies): Azerbaijan, Iran, Kazakhstan, the Russian Federation and Turkmenistan

National Designated Authority(ies) (NDA): _____

Accredited Entity(ies) (AE): United Nations Environment Programme

Date of first submission/
version number: [YYYY-MM-DD] [V.0]

Date of current submission/
version number: [YYYY-MM-DD] [V.0]

Notes

- The maximum number of pages should **not exceed 12 pages, excluding annexes**. Proposals exceeding the prescribed length will not be assessed within the indicative service standard time of 30 days.
- As per the Information Disclosure Policy, the concept note, and additional documents provided to the Secretariat can be disclosed unless marked by the Accredited Entity(ies) (or NDAs) as confidential.
- **The relevant National Designated Authority(ies) will be informed by the Secretariat of the concept note upon receipt.**
- NDA can also submit the concept note directly with or without an identified accredited entity at this stage. In this case, they can leave blank the section related to the accredited entity. The Secretariat will inform the accredited entity(ies) nominated by the NDA, if any.
- Accredited Entities and/or NDAs are encouraged to **submit a Concept Note before making a request for project preparation support** from the Project Preparation Facility (PPF).
- Further information on GCF concept note preparation can be found on GCF website [Funding Projects Fine Print](#).

A. Project / Programme Information (max. 1 page)			
A.1. Project or programme	<input type="checkbox"/> Project <input checked="" type="checkbox"/> Programme	A.2. Public or private sector	<input checked="" type="checkbox"/> Public sector <input type="checkbox"/> Private sector
A.3. Is the CN submitted in response to an RFP?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, specify the RFP: _____	A.4. Confidentiality¹	<input type="checkbox"/> Confidential <input checked="" type="checkbox"/> Not confidential
A.5. Indicate the result areas for the project/programme	<p><u>Mitigation</u>: Reduced emissions from:</p> <input type="checkbox"/> Energy access and power generation <input type="checkbox"/> Low emission transport <input type="checkbox"/> Buildings, cities and industries and appliances <input type="checkbox"/> Forestry and land use <p><u>Adaptation</u>: Increased resilience of:</p> <input checked="" type="checkbox"/> Most vulnerable people and communities <input checked="" type="checkbox"/> Health and well-being, and food and water security <input checked="" type="checkbox"/> Infrastructure and built environment <input checked="" type="checkbox"/> Ecosystem and ecosystem services		
A.6. Estimated mitigation impact (tCO₂eq over lifespan)		A.7. Estimated adaptation impact (number of direct beneficiaries and % of population)	
A.8. Indicative total project cost (GCF + co-finance)	Amount: USD \$40 million _____	A.9. Indicative GCF funding requested	Amount: USD \$21 million _____
A.10. Mark the type of financial instrument requested for the GCF funding	<input checked="" type="checkbox"/> Grant <input type="checkbox"/> Reimbursable grant <input type="checkbox"/> Guarantees <input type="checkbox"/> Equity <input type="checkbox"/> Subordinated loan <input type="checkbox"/> Senior Loan <input type="checkbox"/> Other: specify _____		
A.11. Estimated duration of project/ programme:	a) disbursement period: 120 months b) repayment period, if applicable:	A.12. Estimated project/ Programme lifespan	60 months

¹ Concept notes (or sections of) not marked as confidential may be published in accordance with the Information Disclosure Policy ([Decision B.12/35](#)) and the Review of the Initial Proposal Approval Process ([Decision B.17/18](#)).

A.13. Is funding from the Project Preparation Facility requested?²	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Other support received <input type="checkbox"/> If so, by who:	A.14. ESS category³	<input type="checkbox"/> A or I-1 <input checked="" type="checkbox"/> B or I-2 <input type="checkbox"/> C or I-3
A.15. Is the CN aligned with your accreditation standard?	Yes <input type="checkbox"/> No <input type="checkbox"/>	A.16. Has the CN been shared with the NDA?	Yes <input type="checkbox"/> No <input type="checkbox"/>
A.17. AMA signed (if submitted by AE)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If no, specify the status of AMA negotiations and expected date of signing:	A.18. Is the CN included in the Entity Work Programme?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
A.19. Project/Programme rationale, objectives and approach of programme/project (max 100 words)	Brief summary of the problem statement and climate rationale, objective and selected implementation approach, including the executing entity(ies) and other implementing partners. Climate change is influencing and often exasperating the impacts of the natural and man factors resulting in considerable social and economic damages in the coastal areas. The intended program seeks to define and implement measures at basin, national and local scales to mitigate the effects of climate change on the environment and the economies of the five signatory states of the Tehran Convention. The overall objective of the program is to reduce dependence of the Caspian Sea natural-economic complex on climate-related sea level fluctuations. The program will be coordinated through the Interim Secretariat to the Tehran Convention, UNE, which is an Accredited Entity of the GCF. Executing partners would include, among others, designated ministries of the member states regional organizations such as the Coordinating Committee on Hydrometeorology and Pollution Monitoring of the Caspian Sea (CASPCOM).		
B. Project / Programme details (max. 8 pages)			
B.1. Context and Baseline (max. 2 pages)			
<p>The 1000km-long Caspian Sea is the largest enclosed body of water on Earth. It is a remnant of the ancient ocean Tethys, which around 50 million years ago connected the Atlantic and Pacific, but today it has no connection to these oceans and its waters are only slightly saline. Some 130 large and small rivers feed into the Caspian, the largest being the Volga. The long history and isolation of the Sea has left it with impressive biodiversity and more than 300 endemic species. The Caspian seal is one of only two freshwater seal species in the world. Extensive coastal wetlands offer a popular stop-off during migrations for the profusion of birdlife and the avid eco-tourists who gather to watch it. The Sea already suffers from an enormous burden of pollution from oil extraction and refining, offshore oil fields, radioactive wastes from nuclear power plants and huge volumes of untreated swage and industrial waste introduced mainly by the Volga River.</p> <p>The Caspian Sea is commonly divided into three parts, the North, Middle and South Caspian Sea. The border between the northern and middle part runs along the edge of the North Caspian shelf (the Mangyshlak threshold), between Chechen Island and Cape Tiub-Karagan at Fort Shevchenko. The border between the middle and southern part runs from the Apsheron threshold connecting Zhiloi Island in the west to Cape Kuuli in the east. While the North Caspian Sea with an average depth of only 6.2 m is rather shallow, the middle part has an average depth of 190 m and the South Caspian Sea reaches a maximum depth of 1 025 m. The Caspian differs from most other large inland water bodies in its meridian orientation and 1 200 km length resulting in extreme continental climate in the North and sub-tropical climate in the South. The range of climatic conditions that prevail around the Caspian Sea has lead to a significant degree of</p>			

² See [here](#) for access to project preparation support request template and guidelines

³ Refer to the Fund's environmental and social safeguards ([Decision B.07/02](#))

biological diversity. This is further enhanced by the existence of extensive wetland systems such as the deltas of the Volga, Ural and Kura rivers and the Kara-Bogaz-Gol.

After the collapse of the Soviet Union, the five littoral States of the Caspian Sea region entered a number of non-binding regional agreements that set the stage for the 1998 Caspian Environment Program (CEP). The CEP has served as a regional umbrella program with the aim of halting the deterioration of environmental conditions of the Caspian Sea, and to promote sustainable development in the area for the long-term benefit of the Caspian population.

Since its establishment, the CEP has addressed multiple environmental issues by developing an effective coordinated management structure, Strategic and National Action Plans (NAPS) and various transnational measures to address imminent dangers to the Caspian environment. The CEP has been funded by the littoral states, the European Union and the international community through the GEF and served as a partner to the Caspian States to negotiate and finalize the Tehran Convention.

The Tehran Convention serves as an umbrella legal instrument laying down general requirements and the institutional mechanism for environmental protection in the Caspian Sea region. The Convention not only aims to protect the Caspian environment from all sources of pollution but also the explicit objectives to preserve, restore and protect the marine environment of the Caspian Sea. These objectives are based on a number of internationally acknowledged environmental principles including the precautionary principle, the polluter pays principle and the principle of access to information. The Convention also includes provisions on sustainable and rational use of the living resources of the Caspian Sea, as well as provisions on environmental impact assessment and environmental monitoring, research and development.

Further to the general obligations of the Tehran Convention, the littoral States are required to take all appropriate measures to achieve these objectives individually or jointly and to cooperate with international organizations to that end. Four ancillary Protocols to the Convention have been developed, covering the four priority areas of concern namely: 1) Protocol on the Conservation of Biological Diversity (Ashgabat Protocol), 2) Protocol on the Protection of the Caspian Sea against Pollution from Land based Sources and Activities (Moscow Protocol), 3) Protocol concerning Regional Preparedness, Response and Co-operation in Combating Oil Pollution Incidents (Aktau Protocol), and 4) Protocol on Environmental Impact Assessment in a Trans-Boundary Context.

The Protocol Concerning Regional Preparedness, Response and Co-operation in Combating Oil Pollution Incidents ("Aktau Protocol") was adopted and signed at the Third Meeting of the Conference of the Parties in Aktau, Kazakhstan on August 12, 2011.

The Strategic Caspian Action Programme (SCAP) is a set of priority actions has been developed under auspices of the Tehran Convention and endorsed by the member states. The SCAP describes effectively how man-made causes include desertification/deforestation, regulation of rivers, urbanization and industrial development, inadequate agricultural/aquaculture planning and development, poor groundwater management, inadequate recreational development, and land-based and sea-based pollution. It observes that climate change is influencing and often is additive to the impacts of natural and man factors, resulting in considerable social and economic damages in the coastal areas. It notes further that close to 40 percent of the Caspian coastal area is impacted and about 69 percent of this area has undergone desertification in various ways as a result of the combination of man-made causes including climate change.

The SCAP also outlines activities necessary to the development and implementation of strategies for the management of sea level rise. These include:

- Draft and adopt ancillary instruments to the Tehran Convention addressing the implications of the sea level fluctuations of the Caspian Sea.
- Undertake an assessment of coastal vulnerability to sea level rise and potential economic losses.
- Develop a set of sea level fluctuation scenarios that take into account climate change over the next fifty years, and reassess coastal vulnerability to sea level rise and consequent potential economic losses.

- Develop regional guidelines for adaptive management for sea level fluctuation and climate change.

The linkage to hot-spots is also effectively highlighted in the SCAP. The SCAP states that flooded shallow areas at absolute elevations of minus 28.0 m to minus 26.5 m (in future, at elevations as high as minus 25 m), along with numerous islands and peninsulas (the Volga River delta and other deltas, mouths of the Terek and Kura Rivers bays of Astrakhan and Krasnovodsk, etc.) will prevent unimpeded water exchange with the open sea. These areas also will receive pollutants transported from land areas, including organic matter, oil products, pesticides and fertilizers. The result has been to lower oxygen content of water and contamination of bottom sediments and deteriorating habitat conditions for aquatic organisms, including fish. The gravest threat to the ecosystem of the offshore part of the Caspian Sea is possible flooding of some coastal oil-polluted areas (about 80 ha) on the Apsheron Peninsula.

It has now become clear that climate change is influencing and often exasperating the impacts of the natural and man factors resulting in considerable social and economic damages in the coastal areas. Close to 40 percent of the Caspian coastal area is impacted and it is estimated that of this area, about 69 percent has undergone desertification in various ways. Unsustainable coastal area development combined with chronic and acute pollution, and the decline in fisheries has produced undesired human health impacts. Understanding of the concepts of integrated coastal zone and coastal land use planning are critical to addressing these issues.

There is still a lack of sufficient information to determine the full range of the underlying causes, dimensions and impacts of fluctuating Caspian Sea levels. The Sea, and its basin, is experiencing perceptible climate change and it is clear that these changes are contributing to, if not accentuating sea level fluctuations. The Sea has been fluctuating for centuries, but the recent oscillations have been unprecedented in recorded times, and while there is considerable agreement that climate change is a contributor to these changes, teasing out the extent to which this is the case has been elusive. Climate change may also be causing other changes in the environment and life in and around the sea, which are not fully studied and understood.

Sea levels in the Caspian Sea have exhibited strong fluctuations (up to +/- 7 meters) historically which relate to the complex and still not fully understood dynamics of the hydrological cycle in the Caspian drainage basin. The Caspian Sea level fluctuation has been mostly attributed to the water balance of the sea, that is the total inflow and the total evaporation. Of a number of theories put forward to explain the fluctuations, ranging from the sea floor springs to tectonic pressures that result in raising the sea floor to drying out of the Aral Sea – Caspian canal to the engineering works in Garaboghaz Gulf, most seem to agree that the Caspian level is very much impacted by the inflow of Volga which bring in more than 80% of the water and which in turn is affected by the North Atlantic Oscillations: the ratio between the cyclonic and anticyclonic movements over the North Atlantic and the resulting regime of the atmospheric precipitation. Given that Caspian has no outflows and its water basin stretches over an area of close to 2 millions sq.km reaching northern Russian ice-covered areas one finds it convincing that changes in the climate and precipitation in this vast area would directly impact the water inflow and the sea level. There is a need for regional cooperation to collect and generate data, information and analysis on climate change, sea water level fluctuations and related impacts; there is a need for regional and national level measures to adapt to and be better prepared for the impacts of climate change in the Caspian.

While there is virtual scientific consensus on the causes for the fluctuations, the same cannot be said for the predictions of future water levels fluctuations, and so far, despite there being consensus that Caspian Sea level fluctuations are related to climate change within its basin, none of the existing methods of very long term forecasting of those levels and their effects has proven completely correct, and existing climate change scenarios do not give a definite answer to the question of sea level change direction. For example researchers at the Caspian Center in Russian Federation has predicted water consumption in the basin of 35-40 cubic kilometres and that the water levels will continue to rise to -25.52. On the other hand the Kazakhstan Institute of Meteorology has predicted that climate change in the basin may be undetectable until 2020 as Caspian Sea levels have return periods of 100 and 1000 years, and that, in combination with increased water consumption will result in no significant impact. Turkmen scientists arrive at a different

conclusion of sea level rise based on use of different probability rate. Through a search of the literature one can also find predictions of a drop by 6 meters.

While as stated above there are national initiatives in most of the littoral countries to grasp the reasons for and the implications of the climate change and WLF on the coastal areas of the Caspian, the number of baseline transboundary initiatives is small, and limited to what has been carried out under the Caspian Environment Programme (CEP). Studies funded by CEP on the dwindling number of Caspian Seals point to climate change as a cause for melting ice caps in the northern Caspian, and is seen as a major reason for the shorter pupping and molting periods contributing to the threat to the survival of the animal which is already under substantial stress. Recent studies by Russian scientists indicate that the decrease in water level are sharply reducing the relative abundance of Sturgeon juveniles and stressing the rate of replenishment of its population in northern shallow waters. These studies have shown that the -28.5 m is critical for the Sturgeon fisheries and that a further decline would lead to a decrease in fish productivity in the northern parts of the sea. There are indications that climate change is changing the bioresources profile and processes. Formation of a large algal bloom of unprecedented size of hundreds of Sq Km formed in 2005 near Anzali port in Iran was by some scientists attributed to the climate change elements. On the other hand, climate change and WLF have, through increased sea water supply, contributed to the partial revitalization of some wetlands while changing the flora and fauna. There are also a number of limited national studies on the impact of WLF on coastal habitats, but clearly the baseline knowledge is poor and much more is needed to be done to fully understand the impacts, the challenges and the opportunities that climate change and WLF can create.

Please indicate how the project fits in with the country's national priorities and its full ownership of the concept. Is the project/programme directly contributing to the country's INDC/NDC or national climate strategies or other plans such as NAMAs, NAPs or equivalent? If so, please describe which priorities identified in these documents the proposed project is aiming to address and/or improve.

Describe the main root causes and barriers (social, gender, fiscal, regulatory, technological, financial, ecological, institutional, etc.) that need to be addressed.

The sectors that are being affected by climate change in the Caspian region include agriculture, energy, water resources and coastal communities. Root causes include legacy pollution from land based sources, over-fishing, air pollution and, importantly, fluctuating sea levels that affect coastal communities. Within the agricultural sector, women play an important role and thus identifying and implementing climate change adaptive measures in this sector is seen as critically important. Energy exploration in shallow areas of the sea will require an increased level (*need help here with language*).

Where relevant, and particularly for private sector project/programme, please describe the key characteristics and dynamics of the sector or market in which the project/programme will operate.

B.2. Project / Programme description (max. 3 pages)

Describe the expected set of components and activities to address the above barriers identified that will lead to the expected outcomes.

With SCCF funding the project will:

1. Develop an understanding of the impacts of climate change on the Caspian Sea region, in particular water level fluctuation (WLF) and collect, synthesize, format and present this knowledge in ways and forms that support decision making at regional, national and local levels;
2. Build and strengthen the institutional, legal, financial and management frameworks at the national and local levels and assist with development of planning instruments;
3. Support two adaptation demonstration projects in each of the four Caspian countries; and

4. Establish a regional (Tehran Convention countries) climate change-based research and information center.

The more specific outcomes of the project/programme in the Financing by Component section of this CN template.

In terms of rationale, please describe the theory of change and provide information on how it serves to shift the development pathway toward a more low-emissions and/or climate resilient direction, in line with the Fund's goals and objectives.

The Theory of Change (TOC) for the project/programme is *Reduced dependence of the Caspian Sea natural-economic complex on climate-related sea level fluctuations*. This will be accomplished by gaining (and further sharing) of regional international experience in adaptation to climate change of uncertain and multidirectional nature and will contribute to climate change mitigation through using solutions ensuring energy saving and lower material consumption.

While the individual member states of the Tehran Convention are taking various climate change related actions across sectors, there has been little coordination and collaboration and not much communication among sectors and among countries. There is however a recognition among them that unilateral solutions will not succeed in the long term, and that they must cooperate to adapt to and mitigate as necessary current and future climate change effects on key sectors such as agriculture, energy generation and water resources. This is true across Central Asia and the portion of the Russian Federation that borders the Caspian Sea, and its importance has been highlighted in the ongoing WB/GCF project for the Aral Sea. It is especially true for the countries that share the Caspian Sea ecosystem. Regional cooperation is necessary in formulating, elaborating and harmonizing rules, standards, recommended practices and procedures consistent with the Tehran Convention. There is explicit recognition among Tehran Convention member states that the components of a GCF sponsored program and its related activities depend upon the development of regional mechanisms to harmonize procedures for climate change related environmental impact assessment to ensure co-operation, establish monitoring programmes, encourage research and development, and guarantee the exchange of and access to information and plan and execute adaptation and mitigation measures.

Describe how activities in the proposal are consistent with national regulatory and legal framework, if applicable.

Describe in what way the Accredited Entity(ies) is well placed to undertake the planned activities and what will be the implementation arrangements with the executing entity(ies) and implementing partners.

The Tehran Convention Secretariat is under the aegis of and located in the offices of UNE/Regional Office for Europe in Geneva. As the UNE will be the AE for the project/programme, and the Convention Secretariat will be the Executing Agency, the alignment of AE, the proposed Executing Agency, and the participating countries and other regional organizations who are stakeholders for the project/programme are in excellent alignment. To facilitate project/programme implementation there will be a Steering Committee comprised of the AE, the Executing Agency, representatives from each of the member states of the Convention and the CASPCOM. A Project/Programme coordination Unit (PCU) will be established within the region, at a location to be determined upon GCF approval of the Project/Programme. This set of institutional arrangements has been instituted by the UNE for a large number of projects and programmes that it has overseen, and has proven to be an effective and efficient mechanism for ensuring successful project implementation.

Please provide a brief overview of the key financial and operational risks and any mitigation measures identified at this stage.

As the financial and operational aspects of the proposed project/intervention will be overseen by the UNE, with its long established and successful record of project/programme management, the financial and operational risks are seen as negligible.

B.3. Expected project results aligned with the GCF investment criteria (max. 3 pages)

The GCF is directed to make a significant and ambitious contribution to the global efforts towards attaining the goals set by the international community to combat climate change, and promoting the paradigm shift towards low-emission and climate-resilient development pathways by limiting or reducing greenhouse gas emissions and adapting to the impacts of climate change.

Provide an estimate of the expected impacts aligned with the GCF investment criteria: paradigm shift, sustainable development, needs of recipients, country ownership, and efficiency and effectiveness.

Impact Potential: What is expected to be the overall mitigation and adaptation impact of a project?

GCF funding will help ensure that, in the shorter term, investments in critical sectors become resilient to climate change and enhanced awareness, capacity, evidence, and institutional frameworks are built for a longer-term climate-resilient development pathway within the Central Asian countries, thus providing a catalyst for further investment. The Project/Programme has the capacity to be transformational because currently there is no institutional platform within the region to support regional cooperation on climate change across a broad range of sectors. Since climate challenges transcend the borders of any single country, and given the ecosystemic reality of the Caspian Sea, there is much to gain from a coordinated and integrated approach, which can bring benefits larger than unilateral actions alone

Paradigm Shift Potential: Will the impact go beyond a “one-off” project/program investment?

The Regional Climate Knowledge Services component, with financing from GCF and co-financing from the countries and regional organizations and other sources, will strengthen the knowledge and capacity base for climate action and facilitate regional dialogue and coalition building for an effective climate response at basin scale. This component will provide training at both the regional and national levels to develop a more unified, integrated regional analytical platform for climate resilient development through improved data, information, knowledge for climate assessments, and tools for decision-support. Although this information platform will be managed at the regional level, national agencies and other stakeholders (e.g., academia, local communities and civil society organizations) in each member country will also have access to this system.

Sustainable Development Potential: Will there be wider benefits and priorities (economic, social and environmental)?

The Project/Programme will add to and build upon the substantial work that has begun under auspices of the Tehran Convention, the protocols to the Convention and ongoing implementation of the SCAP. As the Project/Programme will bring together a variety of stakeholders and make available a range of information sources, lessons learned and best practices will be incorporated not only at national level by way of necessary policy creation and changes in existing policy, but also at local level through such mechanisms as local ordinances and other best practices. Through the planned climate knowledge services, this information will be shared with national policy makers and other interested parties, that will have access to new data and analyses of livelihood, land management, and climate change issues, as well as regionally via collaborative knowledge networks developed under the program. More broadly, capacity of a wide range of stakeholders will be developed at regional and national levels through training, technical assistance, and information sharing. Providing input to institutions and climate policy via these mechanisms will enhance the probability of long-term sustainability of project interventions and support.

Needs of the Recipient: Will the project/program proposal address vulnerability and financing needs of the beneficiary country and population?

An important first step in assisting the member countries to address vulnerability is identifying the specific vulnerabilities the Caspian Sea region faces due to climate change, and most specifically the effects that climate change will have and is already having on fluctuating Caspian Sea levels. Identification will lead to a program of actions that, as described above, will lead to necessary policy formulations and adaptation activities at multiple levels. The five years of GCF finance will enable the countries to build in continuing finance for the measures that have been identified and initially implemented as a result of the Project/Programme.

Country Ownership: Will there be clear and compelling evidence of beneficiary country ownership of and capacity to implement a funded project or program?

The member countries, through their joint efforts to implement the provisions of the Convention and the SCAP offer evidence of country support for acting at regional level to address problems of mutual concern. The countries have also explicitly voiced their support for a Project/Programme that is envisioned in this Concept Note. The extent of member country, regional organization and public sector co-finance is also strong evidence of country support for the proposed actions and for utilizing existing and making provision for future capacity to build in climate change related activities into the ongoing programs of the Tehran Convention and the domestic agendas of the member states.

Efficiency and Effectiveness: Is the project/program designed to maximize economic and financial soundness?

As mentioned earlier in this Concept Note, UNE, in its role as the provider of the Convention Secretariat, will ensure effective and efficient project/programme implementation. There will be a Steering Committee comprised of the AE, the Executing Agency, representatives from each of the member states of the Convention and the CASPCOM. A Project/Programme coordination Unit (PCU) will be established within the region, at a location to be determined upon GCF approval of the Project/Programme. This set of institutional arrangements has been instituted by the UNE for a large number of projects and programmes that it has overseen, and has proven to be an effective and efficient mechanism for ensuring successful project implementation.

C. Indicative financing / Cost information (max. 3 pages)

C.1. Financing by components (max ½ page)

Please provide an estimate of the total cost per component and disaggregate by source of financing.

Component	Indicative cost (USD)	GCF financing		Co-financing		
		Amount (USD)	Financial Instrument	Amount (USD)	Financial Instrument	Name of Institutions
Capacity Development	3,000,000	2,000,000	Grant	1,000,000	Grant	Government, Regional Organizations
Environmental Science and Information with major emphasis on development of	6,000,000	3,000,000	Grant	3,000,000	Grant	Government, Regional Organizations

applied climate science						
Enhanced, comprehensive understanding of climate change science in the Caspian region	7,000,000	4,000,000	Grant	3,000,000	Grant	Governments, Regional Organizations
Integration of climate change and WLF into coastal policy and planning	4,000,000	2,000,000	Grant	2,000,000	Grant	Governments, Regional Organizations
Investment programmes defined and implemented to increase the resilience of community development plans from climate change-induced risk	14,000,000	6,000,000	Grant	8,000,000	Grant	Governments, Industry
Program Management	3,000,000	1,000,000	Grant	2,000,000	Grant	Governments, UNE
Indicative total cost (USD)	37,000,000	18,000,000	Grant	19,000,000	Grant	

For private sector proposal, provide an overview (diagram) of the proposed financing structure.

C.2. Justification of GCF funding request (max 1 page)

Explain why the Project/ Programme requires GCF funding, i.e. explaining why this is not financed by the public and/ or private sector(s) of the country.

Describe alternative funding options for the same activities being proposed in the Concept Note, including an analysis of the barriers for the potential beneficiaries to access to finance and the constraints of public and private sources of funding.

While member state and other co-finance will underwrite much of the national level work to be undertaken during Project/Program implementation, this is essentially, and of necessity given the international nature of the Caspian Sea, regional project where the costs are incremental to addressing narrower, national priorities.

Justify the rationale and level of concessionality of the GCF financial instrument(s) as well as how this will be passed on

to the end-users and beneficiaries. Justify why this is the minimum required to make the investment viable and most efficient considering the incremental cost or risk premium of the Project/ Programme (refer to Decisions B.12/17; B.10/03; and B.09/04 for more details). The justification for grants and reimbursable grants is mandatory.

In the case of private sector proposal, concessional terms should be minimized and justified as per the Guiding principles applicable to the private sector operations (Decision B.05/07).

C.3. Sustainability and replicability of the project (exit strategy) (max. 1 page)

Please explain how the project/programme sustainability will be ensured in the long run and how this will be monitored, after the project/programme is implemented with support from the GCF and other sources.

The prospects for long term sustainability of the Project/Programme is enhanced by the commitment of the UNE to serve as the seat of the Tehran Convention Secretariat over an indefinite period of time. A specific task of the Project/Program Coordination Unit will be formulation of a costed, long-term sustainability plan which would include, among other things, long-term finance, transition plans to assure as seamless as possible a transition to an ongoing entity, such as a planned Environmental Resource Center which would be staffed by a mix of nationals from the member states to the Convention.

For non-grant instruments, explain how the capital invested will be repaid and over what duration of time.

C.4 Engagement among the NDA, AE, and/or other relevant stakeholders in the country (max ½ page)

Please describe how engagement among the NDA, AE and/or other relevant stakeholders in the country has taken place and what further engagement will be undertaken as the concept is developed into a funding proposal.

D. Supporting documents submitted (OPTIONAL)

- Map indicating the location of the project/programme
- Diagram of the theory of change**
- Financial Model
- Pre-feasibility Study
- Evaluation Report of previous project

Self-awareness check boxes

Are you aware that the full Funding Proposal and Annexes will require these documents? Yes No

- Feasibility Study
- Environmental and social impact assessment or environmental and social management framework
- Stakeholder consultations at national and project level implementation including with indigenous people if relevant
- Gender assessment and action plan
- Operations and maintenance plan if relevant
- Loan or grant operation manual as appropriate
- Co-financing commitment letters

Are you aware that a funding proposal from an accredited entity without a signed **AMA** will be reviewed but not sent to the Board for consideration? Yes No

