ADAPTATION FUND

PRE-CONCEPT FOR A REGIONAL PROJECT

PART I: PROJECT INFORMATION

Project category:	Regular Project
Countries:	Azerbaijan and Iran
Title of Project:	Urbanisation and Climate Change Adaptation in the Caspian Sea Region
Type of Implementing Entity:	Multilateral Implementing Entity (MIE)
Implementing Entity:	United Nations Human Settlements Programme - UN-Habitat (lead) and United Nations Environment Program - UN Environment (co-leading)
Executing Entities:	**Government of Azerbaijan (Azerbaijan):** Ministry of Ecology and Natural Resources (leading), State Committee on Urban Planning and Architecture (supporting). **Government of Islamic Republic of Iran (Iran):** Director General for International Environmental and Sustainable Development Affairs of the Ministry of Foreign Affairs (co-leading), Ministry of Roads and Urban Development as well as Department of Environment (supporting).
Amount of Financing Requested:	14 Million US Dollars
Project duration:	4 years

Project Background and Context

Increasingly, communities along the Caspian Sea shores have been affected by severe climate change hazards, including sea level variation, intensified floods and acute droughts. Simultaneously, urbanization particularly in Azerbaijan and Iran have accelerated, reducing biodiversity, aggravating desertification and lessening agricultural land and water filtration surfaces, putting additional stress on food and water security. The urban heat island effect is also a result of these combined climate change and urbanization phenomena. Hence, the Governments of Azerbaijan and Iran have requested the support of UN-Habitat – in conjunction with the UN system - in addressing the combined impacts of climate change and rapid urbanization, with a specific focus on vulnerable communities.

The Caspian Sea is the world's largest inland water body confined by Azerbaijan, Iran, Kazakhstan, Russia and Turkmenistan. It is climatically diverse encompassing the Volga and Ural river basins in the North, semi-arid and hot arid plains in the east, and humid Caucasus and Elburz mountains in the south-west. The endorheic Caspian Sea spreads around 1,200 km from north to south with an average width of 320 km and covers a region of 390,000 km2 with two deep basins occupying its central and southern areas, leading to horizontal differences in temperature, salinity, and ecology. The water body plays an important role in atmospheric processes, regional water balance as well as microclimate linked to northern Atlantic fluctuations in atmospheric air pressure and variations affecting temperatures, moisture and winter storms across Europe including the Volga basin and rainfall over the Caspian basin. Being a closed water body, considerable fluctuations of the Caspian Sea water level are an intrinsic property. However, climate change and its consequences, including changes in the sea water level, have a significant negative impact on the environment in the Caspian Sea region. The faster the sea level changes, the severer the consequences. This is affecting different sectors of countries' economies such as fisheries, transport and the construction sector, including urban development. Climate change forces them to adapt to changing conditions, which sometimes require significant capital and operating costs. The main climate change hazards and their effects on communities:

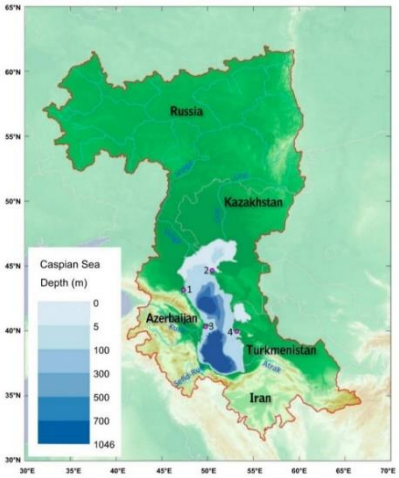

Figure 1: Caspian Sea Depth (GRID-Arendal)

i. Sea level decrease: The Caspian Sea is a complex system of mutual influence of geological, hydro climatic, anthropogenic and space factors (UNFCCU, 2010). Being an endorheic water body, considerable fluctuations of the water level are inherent. Since the 1930, the Caspian Sea level decreased by 3 meters (Panin, 2007), between 1979 – 1995 increased by 12 cm and since 1996, it has been steadily falling by 7 cm per year up to a total of 1.4 meters (Chen et al, 2017). Since 1979, warmer surface air temperature has been registered as a likely result of climate change, with a total rise of 1°C (Chen et al, 2017). Evaporation due to increased temperature contributed equally to seawater decline as well as the combined effects of precipitation and river discharge changes. If the current trend continues, it will take 75 years for the northern Caspian Sea and areas less than 5 meters to vanish. Human factors are responsible for

less than 5% of the sea level variation (Mammadov, 1996). Increased salinity also poses a threat for biodiversity, soil degradation, machinery corrosion, public health risks and subsequent loss of livelihoods along several hundred kilometres around the former coastline.

ii. Increased extreme weather events: The amount of precipitation decreased in the overall territory of Azerbaijan during 1991-2010. (UNFCCU, 2010), and calculations according to all scenarios of the General circulation model (GCM) forecast an increase of monthly average temperature of up to 1.58°. While seasonal and annual precipitation variation in Iran during 1975 - 2010 is not significant, however, there has been an increase in the amount of Consecutive Dry Day (CDD) that resulted in water shortage at national scale. Extreme weather patterns are common in the Caspian Sea region, increasingly due to climate change. It is estimated that average annual flood damages in the region will amount to $18 - 25 million for infrastructure alone. On the other hand, Azerbaijan just came out of a prolonged drought with foreseen impact on agriculture in the coming years. In some parts of the country, crops have been damaged beyond recovery and inadequate vegetation of summer pastures negatively impacting the livestock sector (UNDP). At the same time, it is expected that climate change-related droughts will likely reduce water supply by 23% during the next 3 decades in Azerbaijan (UNDP). The increasing temperature will also cause water losses through evaporation and will cause water shortages for the agriculture sector, which at the same time is expected to increase the volume of irrigation water by 10 - 15% (UNFCCU, 2010).

iii. Urbanization and desertification: Urbanization along the shorelines of the Caspian Sea has amplified in recent years, with an ever-increasing pressure on the land-based and marine environment. Population densities along the Caspian Sea shorelines are uneven, and most of the population is concentrated in major urban centres in Azerbaijan, the Russian Federation and Iran. While the metropolitan area of Baku in Azerbaijan represents the largest urban agglomeration, the Iranian coastlines have witnessed rapid unplanned urban sprawl. Despite variations between the countries, the most significant impacts of rapid planned and/ or unplanned urbanisation, amplified economic development and higher levels of consumption are the generation of urban heat islands. Further critical impacts are the reduction of biodiversity and agricultural land both related to desertification as well as rapid land resources consumption due to urban sprawl. Unplanned urbanization is also linked to the reduction of agricultural land affecting food security, and decreased water filtration that results in both increased surface runoff water and subsoil water scarcity. Climate change also poses challenges to local economic development linked to tourism and recreational activities being disrupted by precipitation and temperature variation. Community vulnerability is described by its integrated nature of social, environmental and economic dynamics. Herby, the most vulnerable groups are communities and human activities settling in low lying areas and unplanned neighbourhoods along the coast as well as those dwelling along transboundary rivers and at river mouths. The amount of assets and populations that need to be protected in the future is increasing and so does the magnitude of losses when floods occur. Mostly affected are elderly persons and persons with disabilities, women headed households and children.

Figure 2: Population Density Distribution (GRID-Arendal)

iv. Impacted population, habitats and most vulnerable groups: The coasts of Azerbaijan, Iran and Russia are the most densely populated Caspian Sea shores. It is in these three countries were the impact of climate change related hazards to urban and rural populations will be larger in absolute numbers. It is estimated that between 80 to 100 million people leave in the Caspian See region and will be potentially affected by hazards related to climate change (Valentine, 2018). More than 4 million Azerbaijan population (UNFCCU, 2010) live in coastal areas and would be affected directly or indirectly by sea level fluctuations, increased floods, acute droughts and desertification. In all three countries, sea level decrease will affect the livelihoods of coastal communities, which already experience a drastic decline in economic activities such as fisheries and sturgeon catch. Declining water levels will decrease trade access, the size of vessels that can sail in the sea, access to the Volga river navigation and access to main port infrastructure. The construction sector will also be affected, as main infrastructure in place will be rendered unserviceable, and new infrastructure will need to be progressively put in place. Increased extreme weather events as well as droughts and floods will impact both urban and rural areas, including infrastructure, housing and service provision as well as livelihoods. The agricultural production in Azerbaijan has been affected, a sector that represent 5.3% of the GDP and employs over 40% of the population (UNFCCU, 2010). In Iran, the agriculture sector accounts for about 18% of the GDP and more than 20% of population employment. Moreover, climate change will also pose challenges to economic development linked to tourism and recreational activities, which are already being disrupted by precipitation and temperature variation that trigger phenomena such as the thermohaline circulation of colder water to the surface of the sea, reducing the aptitude of water for recreational activities.

(Flash) floods pose a significant threat to the population of Azerbaijan and Iran, particularly in the basins and mouth of transboundary rivers of Kura and Aras in Azerbaijan. In August 2001 after a heavy rainfall, a flash flooding event in the Mother-Soo catchment of Golestan, Iran claimed over 300 lives. In 2003, economic loss triggered by floods amounted to 65 million US$

at Kura river mouth in Azerbaijan (Imanov et al, 2009). The main reasons for the magnitude of loss related to flash floods in the Caspian Sea region is related to climate change induced increased rain intensity, bare soil in catchment areas, movable material and steep slopes in addition to inappropriate agriculture and development practices, deterioration of pasture and forest land (Sharifi, 2011). Risk of flooding due to storm surges and sea level fluctuation occurs south of Baku, north of Rasht and the coastal area between Sari and Gorgan. Moreover, desertification accounts for more than 50% of the Azeri coastline and interior in Iran.

Biodiversity in the Caspian Sea will also be severely affected, as the sea supports many of the unique and ancient species from the Mesozoic era, which live in the shallow areas and use the northern area as spawning grounds, including 90% of the world's sturgeons. Higher temperatures have also contributed to eutrophication, which cuts oxygen levels needed by other organisms. In addition, a trend towards warmer winters seems to be reducing the seasonal ice cover that forms in the northern section, prime breeding habitat for the endemic Caspian seal.

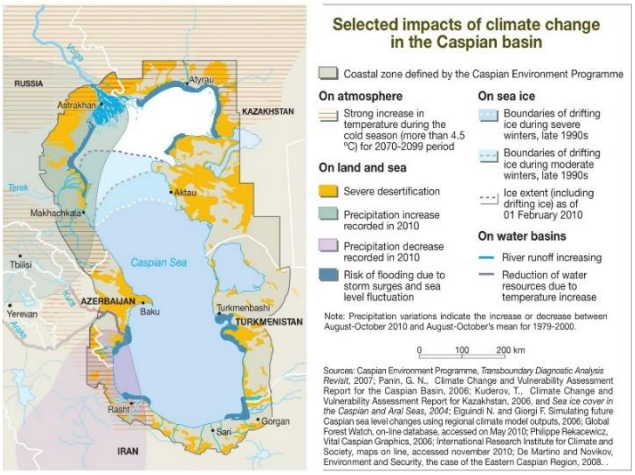

Figure 3: Selected climate change impact in Caspian Sea basin (GRID-Arendal)

Adaptation Areas linked to identified Hazards

i. <u>Sea level fluctuation and potential decrease:</u> Adaptation measures for coastal zones are the creation of special mode boundaries for economic activities, legislation to prohibit major construction projects, construction of infrastructure solutions to protect low laying locations from water fluctuations and decrease of groundwater level, resettlement of trunk infrastructure, services and facilities to safe areas.

ii. <u>Increased floods and more intense droughts:</u> Adaptation measures to reduce water loss, use of rainwater, purified seawater and recycled water, water flow regulation during droughts, measures forest restoration in flood risk regions, construction of small hydropower plants, engineering protective infrastructure in basins and rivers, etc. (UNFCCU, 2010).

iii. <u>Urbanization and desertification:</u> Adaptation measures are adequate territorial planning of urban areas to control urban sprawl, adequate legal and institutional frameworks to ensure the conservation and classification of rural, not developable and urban land, agricultural land and activities preservation, reforestation activities.

Project Objectives:

The project aims at tackling the impacts of the main identified hazards: (i) sea level fluctuation and potential decrease; (ii) increased floods; (iii) more intense droughts; and (iv) desertification in the Caspian Sea coasts, particularly in Azerbaijan and Iran. The proposed adaptation measures for the four main hazards will be considered in relation to urbanization processes and through the integrated approach to spatial and coastal planning, innovation, knowledge sharing, access to resources and management capacity.

The project comprises of regional engagement for national and local climate action based on integrated coastal zone management planning and prioritization of key urban resilience and climate change adaptation measures. Pilot interventions will take place at national and local level in both Azerbaijan and Iran. They will be upscaled to all Caspian littoral states by utilizing the institutions and instruments under the Framework Convention for the Protection of the Marine Environment of the Caspian Sea (Tehran Convention), an international treaty by all five Caspian Sea countries to cooperate on environmental protection in the Caspian region which entered into force in 2006. Hence, the overall project objectives are summarized as follows:

O1: Strengthened technical and institutional capacity of <u>regional entities, national and local governments</u> to develop integrated coastal zone management planning with special focus on climate change adaptation planning for sustainable development of the Caspian Sea region *(AF outcomes 1, 2 and 7 to increase countries and cities resilience to climate change through the implementation of transformative adaptation measures.)*

O2: Strengthened technical and institutional capacity of <u>national and local governments</u> in selected locations in Azerbaijan and Iran to develop, monitor and manage projects for resilience and climate adaptation *(AF outcomes 1, 2 and 7 to increase countries and cities resilience to climate change through the implementation of transformative adaptation measures.)*

O3: Strengthened <u>community and private sector</u> awareness and capacity to implement climate change adaptation and resilience strategies and priority projects, promoting business development and employment as well as municipal revenue-generation based on adaptation measures *(alignment with AF outcomes 2 and 3 to increase countries and cities capacity, awareness and ownership to reduce climate related risks.)*

O4: Improved regional and national partnerships, institutional and legal frameworks, research cooperation and knowledge management mechanisms in the Caspian Region for evidence-based localization of climate change adaptation and resilience strategies. *(AF outcomes 1, 4, 5 and 6 to increase regional, countries and cities resilience to climate change through the implementation of catalytic adaptation projects at local level, by addressing sustainable natural resource and ecosystems management and by applying livelihood approaches.)*

Project Components and Financing

Project Components	Expected Outcomes	Expected Outputs	Amount (US$)
1. Climate change adaptation planning at regional and national level **(regional component)**	Regional, national and local level decision makers in the Caspian Sea region are enabled to define enhanced strategies at the national and local level aligned with the normative frameworks, urban development and national climate adaptation priorities.	Data/ information: ○ Spatially enabled environmental and climate change database, including urbanisation dimension ○ Collection and assessment of good practices on climate adaptation and urban resilience from other regions applicable to Caspian Sea region Capacity: ○ Regional workshops with key regional, national and municipal stakeholders as well and as decision makers to coordinate integrated coastal zone management territorial planning along the Caspian Sea coastline. ○ Strengthening of Teheran Convention Interim Secretariat in terms of technical capacity to address land-based pollution and urbanisation in the context of climate adaptation Policies/ plans, procedures and regulations: ○ Regional integrated coastal and territorial planning instruments, guidelines and toolkit (i.e. City Resilience Profiling, Integrated Coastal Zone Management Planning) aligned with national urban planning, resilience, climate adaptation and environmental protection legislation and policies for national application. ○ Criteria for prioritization of concrete resilience/ climate adaptation interventions ("adaptation projects") with regional perspective at national and local level established within the framework of the Teheran Convention. ○ Regional guidelines for infrastructure, urban and ecosystem-based adaptation measures (i.e. integration and establishment of coastal and marine protected areas) in line with the criteria developed under the Tehran Convention and Convention on Biological Diversity.	800,000
2. Climate change adaptation planning at national, city and community level **(national component: Azerbaijan and Iran)**	National, local government institutions and communities are capacitated to anticipate and respond to climate change related hazards. Local communities are more resilient and experience reduced exposure to climate change related hazards.	Data/ information: ○ Report of collected and spatial data related to urban planning and climate change adaptation strategies, including data analysis and prioritisation. ○ Link data to national monitoring and reporting mechanisms for implementation of 2030 Sustainable Development Agenda, Sustainable Development Goals, New Urban Agenda, Paris Agreement and Sendai Framework. Capacity: ○ On-the-job training for city leaders and municipal technical teams to assess, develop and implement strategies and projects to reduce climate change related impacts and enhance urban resilience. ○ On-the-job training for municipal technical staff and communities to ensure the management and long-term financial feasibility and operation of implemented interventions. ○ Peer-to-peer city learning and exchange workshops between locations in Azerbaijan and Iran. Policies/ plans, procedures and regulations: ○ Review of national regulations on climate change adaptation and resilience and alignment between countries institutional, legal frameworks. ○ Application of regional integrated coastal and territorial planning instruments, guidelines and toolkit at national and local level along the Caspian Sea coastline in Azerbaijan and Iran, building on regional and local risk assessments in selected locations/ cities. ○ Development of integrated coastal and territorial planning instruments and local adaptation plans in alignment with national legislation to address urbanization challenges related to climate change adaptation in Azerbaijan and Iran. ○ National and local level Integrated Coastal Zone Management Planning for sustainable and climate resilient development of Caspian Sea coastal areas in Azerbaijan and Iran building on regional and local risk assessments. Urban resilience and climate (adaptation) action: ○ City and neighbourhood level participatory workshops identifying priorities and pilot projects for transformative and catalytic climate action interventions.	1,500,000

		○ Urban resilience framework and implementation plan for each of the selected cuties/ urban areas, including the definition of integrated coastal zone management planning.	
3. Implementation of transformative and catalytic projects at national, city and community level addressing urban resilience and climate change adaptation **(local component)**	Increased adaptive capacity of the built environment and ecosystems resilience through the implementation of climate adaptation projects, identified and prioritized at national and municipal levels. Local government and municipal staff as well as communities have acquired the capacity to manage and maintain priority interventions for upscaling. Increased adaptive capacity of the built environment and ecosystems resilience through the implementation of local scale projects, identified and prioritized in Resilience Framework for Action at city and neighbourhood level. Increased local socio-economic development by community-based projects. Local government and municipal staff as well as communities have acquired the capacity to manage and maintain priority interventions for upscaling.	<u>Data/ information:</u> ○ Link project monitoring to reporting mechanisms for implementation of 2030 Sustainable Development Agenda, Sustainable Development Goals, New Urban Agenda, Paris Agreement and Sendai Framework. ○ Extract lessons learnt from implementation of climate action in coastal areas and link to regional and global platforms (i.e. New Urban Agenda Platform) <u>Capacity:</u> ○ On-the-job training for city leaders and municipal technical teams to assess, develop and implement strategies and projects to reduce climate change related impacts and enhance urban resilience. ○ On-the-job training for municipal technical staff and communities to ensure the management and long-term financial feasibility and operation of implemented interventions. ○ Peer-to-peer city learning and exchange workshops between locations in Azerbaijan and Iran. Workshops, seminars and field visits on innovative and successful technologies and approaches used to address floods, erosion, planned city extensions and urban densification as well as on innovative and successful technologies and approaches used to address floods, erosion, biodiversity and ecosystem protection, drainage networks, basic urban service and public space provision. <u>Policies/ plans, procedures and regulations:</u> ○ Implementation and management guidelines for urban resilience and climate adaptation interventions at city and neighbourhood scale. ○ Guidelines for climate adaptation and urban resilience measures at local level, including municipal finance generation, institutional frameworks and local legislation. ○ Financial mechanisms for municipal finance, implementation and management of strategic and catalytic projects at national and municipal levels (including land tenure and readjustment guidance for climate change adaptation). <u>Urban resilience and climate (adaptation) action:</u> ○ Assessment, integration and establishment of coastal and marine protected areas as ecosystem-based adaptation measures considering the requirements under the Tehran Convention and the Convention on Biological Diversity. ○ Implemented catalytic and transformative climate adaptation projects/ nature-based solutions at municipal level identified by Integrated Coastal Zone Management Plan utilizing a participatory planning approach and involvement of key stakeholders (including local government, community with contributions of civil society and private sector). These could include: legislation and institutional frameworks for urbanisation, coastal and marine protected areas; special mode boundaries for economic, social and environmental activities; for major construction projects, construction of infrastructure solutions, resettlement of trunk infrastructure, services and facilities; rainwater harvesting; water recycling and flow regulation; control unplanned urban expansion and guide urban regeneration, including public spaces, parks and urban forests; climate adaptation in buildings, land conservation, etc. ○ Trust fund geared towards private sector sponsorship for small-scale and micro-grant climate change adaptation projects developed within the framework of the Caspian Economic Forum.	8,400,000
4. Urban resilience, climate change adaptation – partnerships, institutional, legal, research cooperation and knowledge **(upscaling component)**	National and municipal institutional, legal, finance and monitoring policies and frameworks are reviewed and updated to include lessons learnt from pilot interventions in selected locations in	<u>Data/ information/ knowledge:</u> ○ Strengthen of Caspian Urban and Environmental Observatory and monitoring system to provide evidence base for urban policy at regional and national level on advancement of strategy implementation, sharing of lessons and scientific research in the Caspian Sea. ○ Report on lessons learnt from pilot interventions in Azerbaijan and Iran and inclusion into regional, national and municipal institutional, legal policies and frameworks. <u>Capacity:</u> ○ Guidelines and capacity-building workshops on Integrated Coastal Zone Management in the Caspian Sea region under the Tehran Convention.	1,000,000

	Azerbaijan and Iran. Related coordination on knowledge sharing activities between Caspian littoral states enhanced and research platform for increased studying of the effects of climate change and sea-level fluctuation in the Caspian Sea region formed considering the implementation of the Tehran Convention.	○ Upgrade of Caspian Environment Information Centre as well as support for Caspian Environmental Monitoring Programme, Working Group on Monitoring and Reporting under the Tehran Convention to provide evidence base for urban policy makers at regional and national level on advancement of strategy implementation, sharing of lessons and scientific research in the Caspian Sea. Indicators for measuring the implementation of relevant SDGs integrated. ○ Support for implementation of Protocol on Monitoring, Assessment, Reporting and Information Exchange under the Tehran Convention to include data related to Integrated Coastal Zone Management. <u>Policies/ plans, procedures and regulations:</u> ○ Review of national regulations on climate change adaptation and resilience and alignment between countries institutional, legal frameworks. <u>Partnerships/ cooperation:</u> ○ Established regional expert working group on climate change effects and sea-level fluctuation under the Tehran Convention in line with its Article 16.. ○ Public awareness-raising on climate change and adaptation needs enhanced through support to Caspian Day initiatives.	
Total components			11,700,000.00
Project Execution Cost (9.5%)			1,110,000.00
Total Project Cost			12,810,000.00
Total Project Cycle Management Fee charged by the Implementing Entity (8.5%)			1,190,000.00
		Amount of Financing Requested	**14,000,000.00**

PART II: PROJECT JUSTIFICATION

Regional Approach and Project Components

The project proposes a regional approach required to shed further evidence on the current sea level dynamics of the Caspian Sea, which needs a holistic understanding of evaporation dynamics but also water inflows from the different watersheds in the different countries. The adaptation policies, strategies and projects to be implemented need to be deducted from a regional perspective, with an understanding of the dynamics of the Caspian countries and their influence towards the system as a whole. Additionally, the regional approach is also needed to understand in perspective the phenomena of urban sprawl, floods, droughts, desertification, salinization and migration. Both at the policy level and at the project implementation level, the adaptation measures need to be adopted progressively by all Caspian countries to ensure a high impact and adaptation sustainability. Although the project proposes to start working with two of the Caspian Sea countries, the long-term goal of the project is to be scaled up to the additional countries of Russia, Kazakhstan and Turkmenistan, supporting the existing knowledge and research institutions focused in the Caspian Sea, such as Coordinating Committee on Hydrometeorology and Pollution Monitoring of the Caspian Sea (CASPCOM), the Tehran Convention and its related protocols.

Furthermore, infrastructure and/ or ecosystem-based interventions need to be designed and modelled at a regional scale to understand the environmental implications of the interventions. Particularly, coastal erosion dynamics are transboundary and need to be understood both at the regional and at the national scales to be able to propose long-term adaptation strategies. There is a need to understand clearly which are the effects of climate change that can be successfully reverted, and which ones are part of larger scale geological transformations. Through a regional approach the project can avoid overlap of actions or even harmful effects of national interventions in neighbouring countries. Hence, all Caspian littoral states need to work together in a coordinated manner, at the technical and political levels. The regional dimension of the project and the involvement of existing institutions like the Tehran Convention also ensures proper uptake and long-term sustainability of the project activities.

Considering this transboundary condition, component 1 addresses regional national strategies and normative measures, component 2 national capacity. Component 3 tackles city and local scale transformative and catalytic projects to generate coordinated and large-scale resilience interventions as well as scaling down of such interventions at local level through community-based projects. Adaptation to climate change and resilience will be ensured by these interventions at different levels not just by reinforcing the built and natural environment, but also by strengthening the socio-economic dynamics. The other project components play a key role in this socio-economic aspect as they are the supporting tools to properly analyse and understand the challenges, adequately define the strategies and priorities, and implement projects in an integrative manner.

Promotion of new and innovative Solutions and Cost-Effectiveness

The project promotes **new and innovative solutions.** Spatialization of climate change challenges through urban planning is an innovative methodology to promote sustainable and resilient development that has been successfully applied. Hence, territorial planning focusing on coastal areas while linking urban and maritime planning is a powerful tool to analyse, understand and propose concrete strategies and projects to climate change adaptation challenges in an integrative manner. Population growth, coastal erosion, spatial development, watershed management, biodiversity and waste management, among others are inherent

layers of such Integrated Coastal Zone Management planning processes. In this regard, the UN-Habitat and UN Environment partnership provides support to national and municipal governments in the development and implementation of bankable projects that promote the linkages between sustainable urban and maritime development and thematic areas such as planning for adaptation to climate change, disaster risk reduction, urban and environmental regeneration and management innovation. As part of the methodology, policies and normative documents are deducted from concrete projects, providing an innovative approach to understanding and tackling the key barriers for the implementation of urban planning and resilience policies.

The development of Integrated Coastal Zone Management Plans and implementation requires the mobilization of resources and stakeholders across different scales (intra-regional, national, sub-national and local) to propose effective initiatives. These can only be achieved through a regional scope project and long-term sustainable solutions will only be possible by developing a resource mobilization strategy that benefits from economies of scale. One such proposed solution is the establishment of a Caspian trust fund for private sector sponsorship to support small-scale and micro-grant projects on sub-regional and municipal levels under activity 3.3. Considering the envisaged cooperation with the biennial Caspian Economic Forum the fund holds great potential for innovative, specific and sustainable climate change adaptation projects. From a strategic point of view, the **cost-effectiveness** of planning and managing urban and maritime development as well as adaptation to climate change strategies in advance is proven to be more cost effective rather than being responsive to natural hazards or once informal urban sprawl has occurred. In relation to cost-effectiveness of project management, the presence of UN-Habitat and UN Environment at country and regional scales, supported by the Resident Coordinator's offices in addition to the existence of on-going projects by various development partners ensure that human and financial resources will be managed in the most cost-effective manner, building on a solid know-how and networks of professionals to develop project activities.

Consistency with national or sub-national Strategies

At the political level, both Azerbaijan and Iran have taken up the challenge and in their Intended Nationally Determined Contributions (INDC) have outlined targets for adaptation contributions. Azerbaijan has committed to addressing adaptation measures for decreasing or minimizing the losses that may occur at national, local and community levels per sector in addition to guiding the urbanisation process, including the land-use change towards preservation of agricultural land, open spaces and increased biodiversity, while addressing the impacts of droughts, floods and heat island effect. In Iran, public and private investments are steered towards contributing to sustainable water management, environmental conservation and the protection of natural resources in addition to innovations in the agricultural, forestry, water and industrial sectors as well as the introduction of early warning and monitoring systems for climate observation. The proposed project aligns with regional, national and local policy priorities, strategies and plans. It aims to contribute to the localization and furthering the implementation of elements of those.

- *Regional:* Framework Convention for Protection of Marine Environment of Caspian Sea - Tehran Convention. By ratifying the Convention, the five Parties Azerbaijan, Iran, Kazakhstan, Russia and Turkmenistan confirmed their readiness to go the path of sustainable development and to take environmental concerns into account in their development planning. Having entered into force in 2006, the Tehran Convention is the first regional legally binding instrument signed by all five Caspian littoral states. It serves as an overarching governance framework which lays down the general requirements and the institutional mechanism for environmental protection and sustainable development in the Caspian Sea region. Under its umbrella the Parties have developed additional Protocols on priority areas of common concern. The effective implementation of the Tehran Convention and its Protocols will support the protection of the marine environment and with it of the livelihoods, health and well-being of present and future generations around the Caspian Sea.
- *Azerbaijan:* the project will help achieving the goals of Azerbaijan's INDC which is based on the reduction of vulnerabilities of Azerbaijan towards climate change impacts, particularly developing relevant adaptation measures for decreasing or minimizing the losses that may occur at national, local and community levels. More specifically, it addresses the objectives, strategies and priority actions specified by national development plans, National Climate Change Adaptation, Disaster Risk Reduction, Environmental and Urbanization Strategies. Relevant key documents identified are: INDC Azerbaijan (2015); National Caspian Action Plan (2002); 3rd Communication to UNFCCU (2010,) Azerbaijan 2020, Law of the Republic of Azerbaijan on Fundamentals of Urban Development (1999); and Law of the Republic of Azerbaijan on Architectural Activity.
- *Iran:* the project will help achieving the goals of Iran's INDC which is based on the reduction of vulnerabilities of Iran towards climate change impacts, particularly developing relevant adaptation measures for decreasing or minimizing the losses that may occur at national, local and community levels. More specifically, it addresses the objectives, strategies and priority actions specified by national development plans and resolutions, National Climate Change Adaptation, Disaster Risk Reduction, Environmental and Urbanization Strategies. Relevant key documents identified are: INDC Iran (2015); 3rd Communication to UNFCCU (2017), National Communication (2017), Environmental Policies and National Urban Policy in Iran – Abstract Diagnostic Report (2018).

Learning and Knowledge Management

Learning and knowledge management at regional, national and local levels is vital, with focus on awareness raising and knowledge sharing of climate change adaptation strategies and from **concrete** initiatives. This will ensure the uptake of knowledge and tools developed during the project, and it will strengthen the co-operation among countries in the Caspian Sea region by enabling

lessons learnt from the project to be applied in other regional and national initiatives as well as policy recommendations through platforms such as the Tehran Convention and its web-based hub Caspian Environment Information Centre. Moreover, the project will apply a **capacity development** approach at in relation to resilience and climate change adaptation. Building on the experience from the nearby Aral Sea region as well as the Dead Sea, a "community of practice" across the Caspian littoral states will bring together a community of urban development and resilience experts to provide technical support and jointly develop bankable projects for climate change adaptation alongside policy support.

Consultative Process

A consultative process is central to respond to development needs of all key stakeholders with special attention to communities and local population. In order to define the scope of the project various consultations have taken place with key stakeholders both in Azerbaijan and Iran as well as with the Secretariat of the Tehran Convention and scientific entities (November 2018 - August 2019). This approach will be expanded during the implementation of the project, including with national and local governments, the Caspian Economic Forum, the Commission on Aquatic Bioresources (CAB), CASPCOM, communities and civil society entities, regional think tanks, universities and academia, private sector and other relevant stakeholders including development partners and United Nations Country Teams, in order to select target areas for intervention areas. A major focus will be on communities along the coastal belt and feeding rivers as well as their delta areas. Additional consultations will be conducted under the framework of the Tehran Convention to engage all Caspian littoral states for regional learning and up-scaling.

Sustainability

The sustainability of the project is linked to the involvement of regional initiatives, such as the Tehran Convention, the Caspian Economic Forum, CAB, CASPCOM, national and local governments, local communities and civil society entities, regional think tanks, universities and academia, private sector and other relevant stakeholders during the processes. This will ensure that priorities are aligned with the visions and objectives of partners, and that strategies and projects are aligned to regional and national priorities, and large-scale funds for urban, regional coastal development and resilience.

The project activities directly contribute to envisaged measures for the implementation of the Tehran Convention which the Caspian states have legally committed to. The development of Integrated Coastal Zone Management plans in Azerbaijan and Iran and the related capacity-building activities on the national and regional levels support the implementation of the Protocol Against Pollution from Land-Based Sources and Activities (Moscow Protocol). The consideration of ecosystem-based adaptation measures in the sphere of biodiversity protection such as the establishment of coastal and marine protected areas advances the implementation of the regional Protocol on the Conservation of Biological Diversity (Ashgabat Protocol) as well as the global Convention on Biological Diversity. The project activities geared towards identifying and collecting environmental indicators and data for urban and spatial planning support the work of the Working Group on Monitoring and Assessment and the implementation of the Environmental Monitoring Program under the Tehran Convention. And in addition, it will further the Caspian countries' efforts to implement the Protocol on Monitoring, Assessment, Reporting and Information Exchange. Sound and reliable information is a prerequisite for effective climate and environmental policies, which is why the upgrade of the Caspian Environment Information Centre will benefit both the Caspian countries' capacity to adapt to climate change as well as to implement other environmental protection efforts under the Tehran Convention.

In addition, the project is conceived as an articulation of different revenue-generating activities to be developed and adopted by communities and in collaboration – partnership with the private sector, such as the trust fund under activity 3.3. The establishment of required management and maintenance mechanisms in the developed projects at the different levels would ensure that human and financial resources are allocated to the projects until they are able to reach a break-even point.

Risks for the project implementation involve the often difficult and slow enforcement and execution mechanisms within the Caspian Sea countries as well as the international sanctions imposed on Iran which may hamper financial transactions to and from the country.

Economic, social and environmental Benefits

The project will promote economic, social and environmental development in conjunction with regional and national priorities to mobilize resources for implementation by developing transformative climate adaptation projects that have the potential to act as catalysers for job creation and economic activities. In addition, the sustainable development of coastal zones will safeguard these economic hubs at regional and national scales. This will contribute to food security, supporting the most vulnerable communities who have natural resource-based livelihoods. Environmental benefits appear also at different levels. At the national scale, the project will deduct specific recommendations for climate change adaptation frameworks and at local levels, spatial and marine planning will define adaptation strategies and concrete initiatives positively impacting biodiversity, preservation of agricultural and environmental areas, coastal protection against erosion and floods and sea level rise adaptation through anticipation and construction of infrastructure. Additional environmental benefits would be the adequate management of watersheds through drainage networks, waste management schemes and reforestation of coastal areas linked to a more efficient and compact utilization of urban land.

Compliance with Adaptation Fund Environmental and Social Policy

The proposed project seeks to fully align with the Adaptation Fund's Environmental and Social Policy (ESP). For the concept note, the entire project, project components and activities will be screened to identify potential environmental and social risks and impacts using the 15 Adaptation Fund Principles. For the potential risks and impacts identified, mitigation measures will be proposed. Compliance will be further developed during the concept and project proposal phases.

Overlap with other Funding Sources

The project will avoid overlapping with projects that have been conducted or are ongoing both in Azerbaijan and Iran and seek complementarity in the climate change adaptation and disaster risk reduction field as well as addressing environmental and urban challenges, such as the International Climate Finance for Eastern Europe, the Caucasus, and Central Asia (EECCA, 2016,)UNDP Managing droughts and floods in Azerbaijan (UNDP), the Increasing Representation of effectively managed marine ecosystems in Azerbaijan (UNDP GEF, 2012), Integrating Climate Change Risk Management in Azerbaijan (UNDP, ongoing), the Ecosystem-based adaptation Programme. For Iran, current ongoing initiatives to coordinate and integrate with this proposal are Reducing Vulnerability to Climate Change in the Lake Bakhtegan Basin (UNDP, AF not approved status).The proposed regional project will be learning from previous initiatives in the relevant sectors and will complement them by addressing the challenge of coastal erosion along the Caspian Sea shores. However, the proposed components in the project present a more specific and unique approach to action, based on spatial and maritime planning and implementation of concrete adaptation initiatives. It promotes an integrative and multi-sectoral approach to climate change adaptation and resilience, and it will be more distinctively focused on urban planning and design as a key tool to address the described challenges at regional and local level. Considering coastal area challenges are essentially related to the use of land, population growth and spatial development, this approach becomes crucial. Further possible overlaps will be analysed in more detail during the concept and project proposal phases.

PART III: IMPLEMENTATION ARRANGEMENTS

The proposed regional project will be supported by the United Nations Resident Coordinator Offices (RCOs) both in Azerbaijan and Iran. UN-Habitat will be the lead implementing entity, technically supported by UN Environment co-leading and the respective United Nations Country Teams. The cooperation between UN-Habitat and the Tehran Convention Interim Secretariat (UN Environment) will be reinforced through a Memorandum of Understanding. The regional project will establish office in Baku, Azerbaijan where the regional project management unit will be hosted and where staff of UN-Habitat and the Tehran Convention Interim Secretariat (UN Environment) will coordinate implementation. It will closely coordinate with the UN-Habitat Iran country office based in Tehran. Moreover, the project would leverage the existing networks and resources available in both countries, and in Iran would reinforce the resources of the team by hiring further staff that would oversee the implementation and monitoring of the project.

PART IV: ENDORSEMENT BY GOVERNMENTS AND CERTIFICATION BY THE IMPLEMENTING ENTITY

Both "A. Record of endorsement on behalf of the government" and "B. Implementing Entity certification" have been provided alongside the initial submission of the Pre-Concept Note on 5 August 2019.