



ADAPTATION FUND

REGIONAL PROGRAMME PROPOSAL

PART I: PROGRAMME INFORMATION

- Title of Programme:** Urbanisation and Climate Change Adaptation in the Caspian Sea Region
- Countries:** Republic of Azerbaijan and Islamic Republic of Iran
- Thematic Focal Area:** Transboundary Water Management; Innovation in Adaptation Finance
- Type of Implementing Entity:** Multilateral Implementing Entity (MIE)
- Implementing Entity:** United Nations Human Settlements Programme - UN-Habitat (lead); United Nations Environment Programme - UNEP (co-leading implementing partner); International Organisation for Migration – IOM (implementing partner)
- Executing Entities:**
Government of Azerbaijan: Ministry of Ecology and Natural Resources (leading), State Committee on Urban Planning and Architecture (supporting).
Government of Islamic Republic of Iran: Director General for International Environmental and Sustainable Development Affairs of the Ministry of Foreign Affairs (co-leading), Ministry of Roads and Urban Development and (supporting), Department of Environment (supporting).
Regional Component: Teheran Convention Interim Secretariat
- Amount of Financing Requested:** 14 Million U.S Dollars
- Project Duration:** 4 years



1. Programme Background and Context

1.1. Summary of Problems and Need

1.1.1. Caspian Sea Region

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 the Republic of Azerbaijan and the Islamic Republic of Iran have accelerated, hereby contributing to the reduction of biodiversity, aggravation of desertification and decrease of 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 the Republic of Azerbaijan and the Islamic Republic of 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 five countries: Republic of Azerbaijan, Islamic Republic of Iran, Kazakhstan, the Russian Federation 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. Recent surveys show that anthropogenic influences are negatively impacting the region's biological diversity, with some species of vegetation and fauna on the verge of extinction and listed as strictly protected (Goodman and Dmitrieva 2016; LUKOIL 2015)

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. In the Caspian Sea, increases in the water temperature and air

temperature over the water are of great importance. The Intergovernmental Panel on Climate Change states that there is a high probability that during this century, temperatures in the Caspian Sea basin will continue to increase on average (IPCC, 2013). The average air temperature increases for the last 50-year and 10-year periods show a slight decrease and are negative for the 2012 – 2016 five-year period, indicating that the warming of the Caspian Sea climate has slowed in recent years (CASPCOM 2017).

As a closed water body, the Caspian Sea has significant sea level fluctuations. While such fluctuations are normal in this sea, global warming has altered its natural rhythm, resulting in dry, warm years for the 1996 – 2015 period, with 2006 – 2015 being especially unfavorable years. The natural rhythm of fluctuations is disturbed by global warming. As a result, the dry years coincided with the warm ones in 1996 – 2015, with the period 2006 - 2015 being especially critical. The faster the change in sea level occurs, the more severe its consequences. This is affecting different sectors of countries' economies such as fisheries, transport and the construction sector, including people working in these sectors and those living in the urban areas. In addition, expected increases in shipping activities and tourism will most likely put further pressure on the environment in the future. Marine litter in the Caspian Sea is yet

another issue, though it receives little attention and there is no reliable information on the volumes of debris discharged into the region's coastal or marine environment.

Climate change and its effects, including sea level fluctuations, pose a significant negative impact on the Caspian Sea region's environment. The existing climate change scenarios do not give a definite answer to the question of sea level change direction. Various sectors of the countries' economies, such as fisheries, agriculture, transport and construction, are affected by different factors, such as fisheries, agriculture, transport and construction. In addition, the volume of greenhouse gas emissions is increasing in the Caspian littoral states, where energy, industry, agriculture and waste are the main contributing sectors. The energy sector, including transport, is the largest source of emissions, accounting for 75 % of total emissions in Azerbaijan (Azerbaijan 2018) and 90 % in the Islamic Republic of Iran (Iran, DoE 2003). Nevertheless, the climate change forces them to adapt to changing conditions, which sometimes require significant capital and operating costs.

1.1.2. Main Climate Change Hazards and Effects on Communities

For the past 10 years, direct and indirect drivers have been causing major changes in the Caspian Sea's biological resources, effecting climate change and sea level fluctuations in the Caspian Sea region, and particularly along the coastal areas, are:

- **Direct drivers:** habitat degradation, population growth, tourism, fisheries and agriculture.
- **Indirect drivers:** urbanization, oil and gas activities, illegal fishing and agricultural activities.

For the purpose of this regional programme, the following climate related hazards will be examined in relation to climate change and urbanization processes, and key interventions will be piloted in selected locations in order to provide evidence for addressing those.

Sea level fluctuations:

The Caspian Sea is a complex system of mutual influence of geological, hydro climatic, anthropogenic and spatial factors (UNFCCC 2010). Being an endorheic water body, considerable fluctuations of the water level are inherent. In the 20th century, the fastest sea level decline was observed between 1931 and 1940. During this period, it amounted to 1.7 m. Sea level rise was the fastest between 1978 and 1995, amounting to about 2.5 m. Since 1996, sea level has been declining. A particularly noticeable drop (almost 1 m) was noted between 2006 and 2015. In 2016 – 2017, sea levels stabilized.¹



Figure 3: Fluctuations of the Caspian Sea level 1900–2017 (source: Teheran Convention (2019), Caspian Sea – State of Environment)

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 just 75 years for the northern Caspian Sea and areas less than 5 meters to vanish. Increased salinity also poses a threat for biodiversity, soil degradation, machinery corrosion, public health risks and subsequent loss of livelihoods along several hundred kilometers around the former coastline.

Water temperature and air temperature rise:

In the Caspian Sea, increases in the water temperature and air temperature over the water are of great importance. Any increase in water temperature is especially significant, as it decreases the area of winter ice cover in the Northern Caspian, weakens vertical water circulation in the deep sea, increases evaporation and activates chemical and biological processes (2nd State of Environment Report). In the last quarter of the twentieth century, the Caspian Sea has been impacted by global warming, with the air temperature over the water increasing by 0.7–0.8°C and the surface water layer by 0.4 - 0.5°C (CASPCOM 2017).

¹ Tehran Convention (2019), State of Environment Caspian Sea (2019).

Increased extreme weather events:

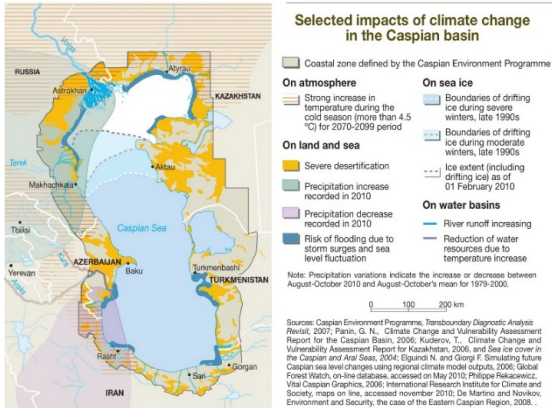


Figure 4: Selected impacts of climate change in the Caspian Sea (source: Teheran Convention (2019), Caspian Sea – State of Environment)

(CDD) that resulted in water shortage at national scale. The Republic of 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. 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 the Republic of Azerbaijan. The increasing temperature will also cause water losses through evaporation and water shortages for the agriculture sector, which at the same time is expected to increase the volume of irrigation water by 10 - 15% (UNFCCC 2010). The loss of place of residence or economic disruption due to extreme weather events results in population displacement. In 2018, 390 persons were displaced due to disasters in the Republic of Azerbaijan (IDMC 2019).

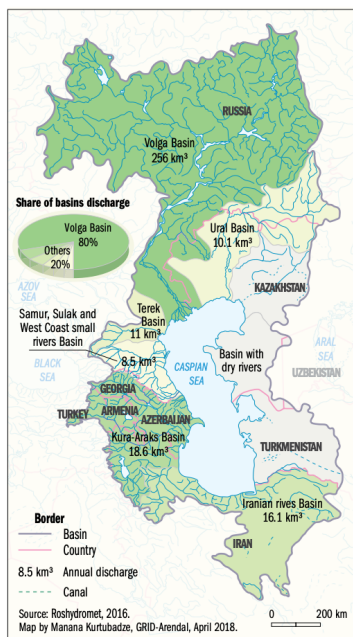


Figure 5: River basin discharge into the Caspian Sea (source: Teheran Convention (2019), Caspian Sea – State of Environment)

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 USD for infrastructure alone. The amount of precipitation decreased in the overall territory of the Republic of Azerbaijan during 1991 – 2010 (UNFCCC 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 the Islamic Republic of Iran during 1975 - 2010 has not been significant, however, there has been an increase in the amount of Consecutive Dry Days

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Flash floods pose a significant threat to the population of the Republic of Azerbaijan and the Islamic Republic of Iran, particularly in the basins and mouth of transboundary rivers of Kura and Aras in Azerbaijan. In August 2001, after heavy rainfall, flash flooding occurred in the Mother-Soo catchment of Golestan when the Islamic Republic of Iran claimed over 300 lives. In 2003, economic loss triggered by floods amounted to 65 million US\$ at Kura river mouth in the Republic of Azerbaijan (Imanov et al, 2009). In 2010, over 70,000 people were affected by a flood and tens of thousands of homes were destroyed near the confluence of the Kura and Araz rivers (Safaraliyev 2015). 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 is present south of Baku, north of Rasht and the coastal area Sari and Gorgan. Moreover, desertification accounts for more than 50% of the Azeri coastline and the interior regions of the Islamic Republic of Iran.

Biodiversity:

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. If the temperature increases by 1.5 - 2.0 degrees Celsius as climate scenarios predict, on average 20% of the animal and plant species will be endangered to become extinct across the Caspian Sea basin and its respective catchment area.

There are four National Parks in the Republic of Azerbaijan with marine coastal ecosystems, namely (i) Gizilaghaj National Park is home to millions of migratory birds; (ii) Absheron National Park aims to protect the Caspian seal; (iii) Shirvan National Park is home to gazelles in the region; and (iv) Hirkan National Park located close to the coast aims to protect relict and endemic plants, with the Hyrcanian forest recently included in the UNESCO World Heritage List by joint transnational nomination by the Republic of Azerbaijan and the Islamic Republic of Iran.

In the Islamic Republic of Iran, several protected areas have been registered under the Ramsar Convention on Wetlands: (i) Anzali Wetland located in an ecologically and economically important region at the South West of the Caspian is largely surrounded by agriculture, natural forests and rangelands; (ii) Bojagh National Park sprawls across 3250 hectares on the Sefid Rud river delta and is a no-hunting zone and a bird watching destination; (iii) Gorgan Bay and Miankaleh Wetlands are considered global Biosphere Reserves, hence, the most important protected areas along the southern coast of the Caspian Sea; and (iv). Gorgan Bay and Miankaleh wetland directly face the fluctuations of the Caspian Sea level. Survival of this coastal wetlands depends on permanent water exchange between the Caspian and the Gorgan Bay. The constant decrease in Sea level can harm seriously the biodiversity and coastal habitat in the future. The recent fluctuations of the Caspian imposed significant threat to the Gorgan Bay and Miankaleh wetland.

Urbanization:

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 centers in the Republic of Azerbaijan, the Russian Federation and the Islamic Republic of Iran. While the metropolitan area of Baku in Azerbaijan represents the largest urban agglomeration, the Iranian coastlines have witnessed rapid unplanned urban sprawl. For example, since 2001, people from rural areas have been increasingly moving to Baku in search of employment opportunities. As a result, rural migrants started to settle in the suburban areas at the fringes of Baku City. Around the same time, the high-income population groups also started building residences in the suburban areas. These processes have resulted in a spatial expansion of the metropolitan area (Allahveranov 2012).

The Iranian coastlines have witnessed rapid unplanned urban sprawl with limited basic urban services available as well as poor management of those contributing to pollution of the Caspian Sea coast, extending a threat to both environment and humans alike.

Moreover, despite variations between the countries, the most significant impacts of rapid planned and/ or unplanned urbanization, amplified economic development and higher levels of consumption are urban heat islands. Further critical impacts are loss or degradation of cropland and the generation of domestic waste and sewage, the reduction of



Figure 6: Population by number in the Caspian Sea region par cities and administrative units (source: Teheran Convention (2019), Caspian Sea – State of Environment)

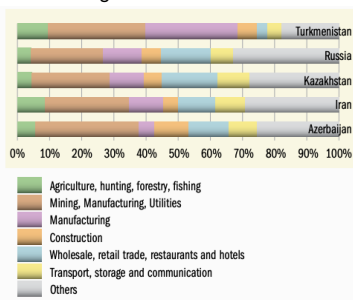
biodiversity and agricultural land both related to desertification as well as rapid land resources consumption due to urban sprawl. Unplanned urbanization is also linked to the reduction of agricultural land affecting food security, and decreased water filtration that results in both increased surface 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. Moreover, the generation and management of waste deteriorates the quality of seawater. The most common means of disposal for solid waste remains landfill sites, where there are limited opportunities to process valuable secondary materials. The generation of both industrial and municipal waste is associated with overall economic development and therefore varies within the region. The Caspian littoral states have introduced urgent measures to solve the waste accumulation issue, such as building waste incineration plants to transform household waste into energy (as in Azerbaijan, where a solid household waste incineration plant with fourth generation technology was commissioned in 2014). In addition to the above mentioned, air pollution has been highlighted by all Caspian littoral states with transport and industrial emissions being the main sources of air pollution, with industrial areas and urban centers as the main concern in terms of air quality. In general, the air quality of large cities along Caspian Sea's coast is critical. Like other regions, environmental pollution in the Caspian Sea is having a negative impact on both the littoral states and individuals.

Pollution:

There are various sources of pollutants to the Caspian Sea from, including river run-off, precipitation, sewage, discharge from ships and oil and gas facilities, and gas and liquid releases from the seabed (the latter is not being addressed by the programme as only indirectly affecting urbanization dynamics in the wider region). River run-off predominantly affects the Northern Caspian. The amount of precipitation falling on the southern coast is five times greater than that which falls on the northern coast, so atmospheric pollutants primarily affect the southern coast. Wastewater discharge is mainly concentrated on the western and southern coasts, where there are large urban settlements and well-developed industrial and agricultural sectors. River run-off, sewage and atmospheric transport are land-based sources of Caspian Sea pollution.

Impacted population, habitats and most vulnerable groups:

Community vulnerability is described by its integrated nature of social, environmental and economic dynamics. Hereby, vulnerable groups are communities and individuals settling in low lying areas and unplanned neighborhoods 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. The most affected are elderly persons and persons with disabilities, women headed households and children. The coast lines of the Republic of Azerbaijan, the Islamic Republic of Iran and the Russian Federation are the most densely populated Caspian Sea shores. It is in these three countries where the impacts of climate change related hazards on urban and rural populations will be higher in absolute numbers. It is estimated that between 80 to 100 million people live in the Caspian Sea region and will be potentially affected by hazards related to climate change (Valentine 2018). More than 4 million Azerbaijan population (UNFCCC 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



Sources: Azstat; UNSD; WB-WDI.
 Graphs by Manana Kurtubadze, GRID-Arendal, April 2018.
 Figure 7: GDP of the Caspian littoral states in 2006 - 2016 (source: Teheran Convention (2019), Caspian Sea – State of Environment)

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 the Republic of Azerbaijan has been affected by those extreme weather events, a sector that represent 5.3% of the GDP and employs over 40% of the population (UNFCCC 2010). In Iran, the agriculture sector accounts for about 18% of the GDP and more than 20% of population employment. Moreover, climate change impact 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.

1.2. Target Areas and Population

1.2.1. Defining Community Vulnerability to Climate Change

Adaptation to climate change anticipates adverse effects of climate change and takes appropriate action to prevent or minimize the damage they can cause. It can also identify advantage or opportunities that may arise from climate change. To save human and financial resources alike, it is vital that climate change adaptation is well planned, takes early action based on short-, medium- and long-term interventions and is inclusive. In order to derive sustainable adaptation measures to climate change, a thorough analysis of root causes and vulnerability to climate change assessment is important.

The IPCC Fifth Assessment Report (AR5) Working Group II defines vulnerability as “the propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.” Moreover, the IPCC AR5 WGII defines contextual vulnerability (starting-point vulnerability) as “a present inability to cope with external pressures or changes, such as changing climate conditions. Contextual vulnerability is a characteristic of social and ecological systems generated by multiple factors and processes (O’Brien et al. 2007).” The IPCC AR5 WGII defines outcome vulnerability (end-point vulnerability) as “vulnerability as the end point of a sequence of analyses beginning with projections of future emission trends, moving on to the development of climate scenarios, and concluding with biophysical impact studies and the identification of adaptive options. Any residual consequences that remain after adaptation has taken place define the levels of vulnerability” (Kelly and Adger 2000; O’Brien et al. 2007).¹

Vulnerability to climate change is a complex and dynamic phenomenon based on the aggregation of different kinds of variables. This regional programme identifies five dimensions of vulnerability at the country level in order to identify the most vulnerable populations and priority climate adaptation measures in target areas for piloting.

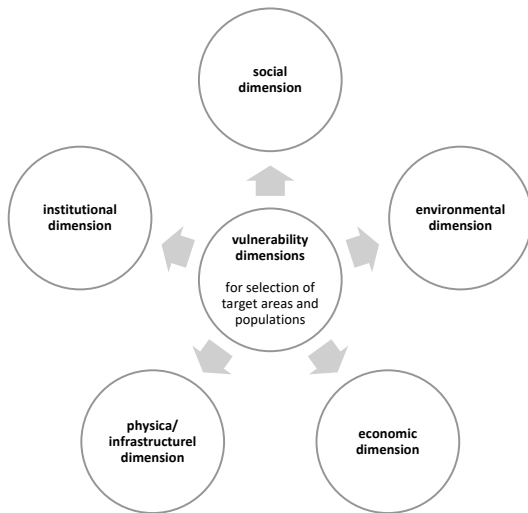


Figure 8: Overview of vulnerability dimensions for selection of target areas and populations

Based on the dimension for resilient communities, these include: (1) social dimension; (2) environmental dimension; (3) economic dimension; (4) physical and infrastructure dimension as well as (5) the institutional dimension. Based on existing data, several indicators have been considered for analyzing vulnerability. They have been carefully evaluated in addition to literature-based assessments and expert assessments through regional, national and local consultations in both the coastal areas of the Republic of Azerbaijan and the Islamic Republic of Iran. A general outline of the vulnerability dimensions are elaborated below, and the specifics for selection of communities in both countries provided in the next section.²

² During the elaboration of the Project Proposal, further assessments on climate change risks and vulnerabilities will be made, looking both at existing and projected climate hazards, taking into account the specific reasons for vulnerability in a given location.

Social dimension of vulnerability to climate change:

Social dimension of vulnerability in the context of climate change is important as some populations may have lower capacity to prepare for, respond to, and recover from climate-related hazards and effects. Such populations may be disproportionately affected by climate change. In order to determine which social and demographic groups across a wide range of geographical locations are the most vulnerable to climate change impacts, four determinants of well-being have been identified: (1) health; (2) safety; (3) food security; and (4) migration. Vulnerability tends to change over time and climate change is expected to exacerbate current underlying determinants of vulnerabilities and inequalities.

For the purpose of this programme, a set of relevant indicators describing social dimension of vulnerability have been established as follows:

- a. *Population (density, growth)*
- b. *Age and intergenerational dimension: elderly population, youth, children*
- c. *Minority groups: disability, ethnic and religious minorities*
- d. *Gender dimension: female population, female-headed households*
- e. *Education dimension: literacy level*
- f. *Household size: large households with higher concentration of children and youth*
- g. *Human rights dimension: accessibility to basic urban services, adequate housing, education and health facilities*

Comparison of social indicators in selected areas at both national and regional level is crucial in order to highlight not only a social but also a spatial inequality.

Environmental dimension of vulnerability to climate change:

Water scarcity and lack of dense vegetation foster environmental dimensions an area vulnerable to climatic change. The environmental vulnerability is accelerated by human pressure (potentially related to poverty).

For the purpose of this programme, a set of relevant indicators describing environmental dimension of vulnerability have been established as follows:

- a. *Extreme weather events: high winds, severe rains/ snowfall, flooding, droughts, desertification*
- b. *Periodic weather occurrences: dry periods, wet periods, hot periods, cold periods*
- c. *Ecosystem: ecosystem imbalances, biodiversity*
- d. *Land use: urban sprawl, coastal settlements, settlement's ecological footprint, agricultural use, intensive farming, fertilizers, pesticides, fishing*
- e. *Vegetation: loss of vegetation cover, forest coverage, habitat fragmentation, degradation*
- f. *Water supply: rain, (sea) water temperature, water quality, renewable water, groundwater discharge, evaporation, per capita water consumption*
- g. *Air: air temperature, air quality*
- h. *Soil: soil pollution*
- i. *Solid and industrial waste: waste production, waste treatment, spills*
- j. *Sewage and sanitation: sewage system, sanitation management*

Economic dimension of vulnerability to climate change:

The economic dimension of vulnerability is defined as the sensitivity of an economy in which individuals and communities are exposed to exogenous shocks. It is in this context that economic resilience is defined as the policy-induced ability of an economy to withstand or recover from the effects of such shocks. Climate change contributed to extreme weather events causing material damages, contributing to marginalization and impoverishment of communities as well as reduction in GDP. Among the factors studied were increased extreme weather events and stresses to low-lying areas due to sea level rise. The impact of climate change would increase income inequalities between and within countries. Various indicators have been introduced to measure the economic vulnerability of societies.

For the purpose of this programme, a set of relevant indicators describing economic dimension of vulnerability have been established as follows:

- a. *Employment status: unemployment rate (gender and age disaggregated)*
- b. *Affordability of adequate housing, including housing prices, ownership status, tenure, social housing, homelessness*
- c. *Average household income level (gender and age disaggregated)*
- d. *Poverty level (gender and age disaggregated, including female headed households)*

- e. *Migration*³ (gender and age disaggregated, rural – urban dimension, seasonal workers, etc.)
- f. *Economic sector: agriculture, fisheries, tourism, service sector, etc.*

Physical or infrastructure dimension of vulnerability to climate change:

The physical and infrastructure dimension of vulnerability to climate change is related to facing more frequent or severe weather events like flooding, droughts and storms. These events bring physical risks that impact environment, society and economy alike. A combination of geographical and socioeconomic circumstance further these vulnerabilities. In order to prioritize, design and implement intervention to adapt to climate change, it is essential to adopt a coherent set of approach, framework and method for examining vulnerability and adaptive capacity.

For the purpose of this programme, a set of relevant indicators describing the physical or infrastructure dimension to vulnerability have been established as follows:

- a. *Mobility:*
- b. *Settlement typology: coastal settlement, unplanned and underservices neighborhood, etc.*
- c. *Building typology: prefabricated housing unit, multi-story building, makeshift structure, etc.*
- d. *Occupancy rate: number of households/ persons per residential unit, floor area*
 - e. *Access to basic urban services: access and quality of provision*
 - i. *Deterioration of water, gas and electricity transmission facilities and systems*
 - ii. *Solid waste management scheme: modalities for collection and disposal*
 - iii. *Wastewater treatment*
 - iv. *Water supply: access to water supply system or off the grid solution, quality of water supply*
 - v. *Energy supply: energy efficiency versus energy consumption, access to energy supply system or off the grid solution*
 - vi. *Public transportation (train, bus, etc.), asphalt road, etc.*
 - vii. *Internet technology and communication*

Institutional dimension of vulnerability to climate change:

Given the centralized political structure in the Caspian littoral states, access of local governments to national level decision making and financing is limited. Moreover, climate change considerations (both adaptation and mitigation dimensions) have not necessarily been mainstreamed in national policies neither in local prioritization of action. Institutional capacities are therefore limited, often lacking the ability to deal with future environmental crises. Inadequate laws and regulations, poor implementation, lack of accountability of institutions, lack of organizational transparency, lack of systems and mechanisms of civil participation, inadequacy of monitoring and evaluation mechanisms, etc. are all characteristics that prove managerial and institutional vulnerability.

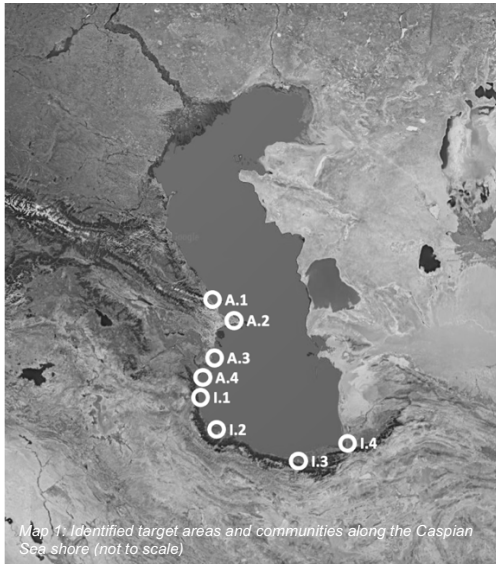
For the purpose of this programme, a set of relevant indicators describing institutional vulnerability have been established as follows:

- a. *Awareness and knowledge of national and local governments on climate change impact at local level*
- b. *Capacity of national and local governments to lead/ coordinate/ manage climate adaptation action at local level*
- c. *Adequate legislation to guide climate adaptation action at local level and effective enforcement mechanisms*
- d. *Public participation in decision-making processes*
- e. *Availability of data to monitor and take informed decisions on policy mechanisms required for climate adaptation action*

³ In 2010, the United Nations Framework Convention on Climate Change's Cancun Adaptation Framework recognized migration as a form of adaptation that should be included in a country's long-term adaptation planning where appropriate. Migration reduces vulnerabilities through the diversification of livelihoods, reduces the pressure on natural resources in the origin communities, improves access to information, leads to accumulation of savings and expands social networks.

1.2.2. Selection of most vulnerable communities and target areas

The identification of the most vulnerable communities and target areas to climate change along the Caspian Sea shore in the Republic of Azerbaijan as well as the Islamic Republic of Iran has been conducted through desk review of national development reports, bilateral conversations with sectoral ministries and local governments, and confirmed by national and local consultations as well as field visits. Four locations have been identified in each country, based on a typology of the target area location as well as a set of indicators that allowed for assessing the dimensions of vulnerability for communities in the respective locations.



- Republic of Azerbaijan (A.#):**
 target area A.1: Siyazan Region
 target area A.2: Greater Baku Region, Pirallahi Island
 target area A.3: Neftchala Region
 target area A.4: Lankaran/ Astara Region
- Islamic Republic of Iran (I.#):**
 target area I.1: Astara Region, Astara City
 target area I.2: Anzali Lagoon and Sefidroud Delta, Bandar Kiashahr
 target area I.3: Haraz River Estuary, Mahmoud Abad
 target area I.4: Gorgan Bay/ Miankale Lagoon, Bandar Turkaman

In order to generate comparability of interventions, the following typologies for selection of the most vulnerable communities and target areas have been considered⁴:

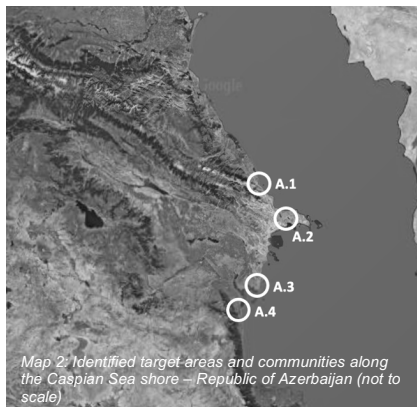
	Target Area: Location Typology	Republic of Azerbaijan	Islamic Republic of Iran
1	Target area represents a typical settlement in the respective region that is located along the shoreline	A.1; A.2; A.3; A.4	I.1; I.2; I.3; I.4
2	Target area represents a typical settlement in the respective region located along a river and/ or close to a river mouth	A.3	I.1; I.2; I.3; I.4
3	Target area represents a typical settlement in the respective region located in a low-lying area	A.2; A.3; A.4	I.1; I.2; I.3; I.4
4	Target area represents a typical settlement in the respective region exposed to regular flood and/ or drought events	A.2; A.3; A.4	I.1; I.2; I.3; I.4
5	Target area represents a typical settlement in the respective region located to a regionally relevant protected area, i.e. forest area	A.1; A.3; A.4	I.1; I.2; I.3; I.4
6	Target area represents a typical settlement in the respective region located in a larger metropolitan area	A.2; A.4	I.1; I.2; I.3
7	Target area represents a typical settlement in the respective region facing rapid urbanization dynamics, including informal expansions	A.2; A.4	I.1; I.2; I.3; I.4
8	Target area represents a typical settlement in the respective region facing declining urbanization dynamics, including informal expansions	A.1; A.3	I.1; I.2; I.3
9	Target area represents a typical settlement in the respective region experiencing in-migration from rural areas, including unplanned urban expansions	A.2	I.3

⁴ Further descriptions on the selected target areas can be found in the respective section of the Annex to the Concept Note.

Target Areas in the Republic of Azerbaijan:

The largest challenge in comparing target areas and respective vulnerable communities is the absence of compatible data. Data made available by the Statistical Committee is assessed at national and regional level only, hence, the vulnerability analysis builds its evidence on localizing national and regional data, to be validated by site visits and stakeholder consultations. For the purpose of this Concept Note, vulnerabilities related to climate change in the Republic of Azerbaijan have been identified. The majority of the communities and target areas along the Caspian Sea shores in the Republic of Azerbaijan that are located outside of the Greater Baku Region and the Absheron Peninsula experience similar challenges. These vary, however, between communities located to the North or South of the metropolitan region. While the problems of poverty and access to income generating opportunities are similar across the country, the specific regions face greater levels of multi-dimensional poverty and inequalities due to varying degrees of urbanization. Faced with extreme weather conditions, including flashfloods and/ or drought events, severe water shortage and access to clean drinking water, salination of rivers. Pollution of the Caspian Sea from land-based sources in the Republic of Azerbaijan is mostly related to the discharge of unfiltered sewage and polluted wastewater. The Kura River, with traces of pollution by domestic and industrial wastewater from neighboring countries as well as the Republic of Azerbaijan, plays a significant role here. In order to prevent the discharge of untreated sewage into the sea, the Republic of Azerbaijan is undertaking a wide range of investments to modernize major sewage treatment plants and construct state of the art treatment plants. The main sources of polluted water discharged into Baku Bay have been eliminated. In addition, to prevent the sea from being polluted by local sources not connected to the sewage system, modular treatment plants have been installed along the Caspian Sea shores and Absheron peninsula.

Climate change adaptation represents an issue concerning all governmental entities and requires planned action. With regard to addressing climate change adaptation in the context of an urbanizing country, one of the main shortcomings in the Republic of Azerbaijan is the limited institutional capacities and coordination mechanism across sectors horizontally as well as various levels of governance, particularly with local governments. Besides, legislative frameworks and sector strategies have not fully embraced the interlinkage between addressing climate change adaptation within the wider development context. At this moment in time, climate change related coordination mechanism across all governance levels is rather weak, causing major delays in localizing and fulfilling global commitments. Especially marginalized and remote communities face general issues of isolation, inequality and exclusion, hereby often not participating in sharing the wider development gains hence, representing the most vulnerable communities to external shocks, such as induced by climate or environmental risks and hazards, at large. While climate change impacts such as droughts induced an increased use of fertilizers, few agriculture specialists are available to advise on appropriate practices. Limited access to water has



resulted in land degradation, contributing to the migration of people from rural areas to urban centers. With the expected temperature increase in the future, experts predict more frequent extreme weather events, which will put further strain on agricultural productivity including farm and off-farm based livelihoods in rural areas. Meanwhile, the major risk for food security in Azerbaijan is climate-sensitive production/ yields. Not only does this risk push many people into poverty, it also disproportionately affects those who are the most vulnerable including women and children.

Four target areas were selected as the most vulnerable communities that the project aims to cover in the Republic of Azerbaijan: (A.1) Siyazan Region; (A.2) Greater Baku Region, Pirallahi Island; (A.3) Neftchala Region; and (A.4) Lankaran/ Astara Region.⁵

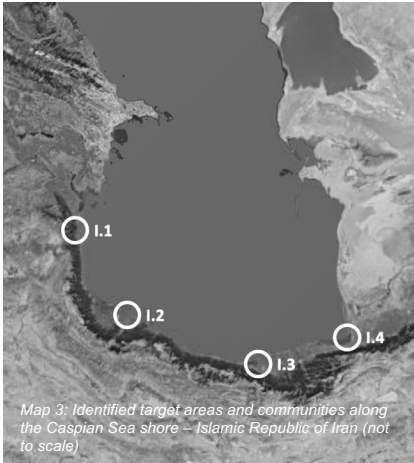
⁵ Community consultations were not possible for this stage of the Concept Note elaboration due to the current Covid19 pandemic that did not allow for the envisaged community and local government engagement. During the elaboration of the Project Proposal, further assessments on climate change risks and vulnerabilities will be made, looking both at existing and projected climate hazards, taking into account the specific reasons for vulnerability in a given location.

Target Areas in the Islamic Republic of Iran:

Settlements in the northern coast of Iran, have special features and investigating this area, from east to west indicates that the settlements have different types of development, in such a way that the western and eastern shores of the Caspian coast have a lower density of settlements than the central area of the country. Also, the level of development of the three provinces on the northern coast of Iran is different, Mazandaran (Central) and Gilan (Western) provinces have a higher level of development than Golestan (Eastern). However, the trend of climate change shows that the highest rate of change in sea level is found to the Eastern part of the Caspian coast. In other words, most of the consequences of climate change are about the least developed part. In order to identify target areas and vulnerable communities to climate change impact, based on previous studies, 4 locations in the southern coast of Caspian Sea have been selected which are exposed most to the consequences of climate change (including sea level fluctuation, drought, floods, thermal islands, etc.).

There are more female-headed households as well as small family size with a large share of elderly population. Moreover, there is a smaller share of the young population in these areas compared to the average of the region and the country. This makes the socio-economic vulnerability of these areas more likely to increase in the coming years. This is also being expected in the employment rates which is already lower than the national and regional average. Undoubtedly, climate change impact can be observed through more frequent droughts and weakening of agricultural production, sea level fluctuations and threats to employment and livelihood such as fishing, etc., along with macro-policies related to the national economy. Only in Haraz River Estuary, unemployment rate is less than regional and national indexes due to being one of the densest urban areas in the province, however, showing a spatial imbalance in the distribution of urban and rural settlements in Mazandaran province. The region is located in an earthquake prone zone, and with poorly constructed housing units vulnerability will be doubled. Therefore, natural hazards, which are likely to occur more frequently and intensely following climate change, will impose significant financial and human costs on these communities.

Given the centralized administrative structure in the Islamic Republic of Iran, the role of local government entities is vital in addressing development requirements of communities in the country. Despite overarching challenges due to human and financial capacities of the institutional system, addressing a future environmental crisis has been placed high on the agenda of policy makers.



Adequate legislation is being reviewed and mechanisms for implementation adjusted, while promoting the participation of communities in decision making for enhanced accountability of institutions and organizational transparency. Limited systems and mechanisms of civil participation, availability and access to data for evidence-based decision making, inadequacy of monitoring and evaluation mechanisms, etc. are being addressed increasingly as they represent characteristics that prove managerial and institutional vulnerability.

Investigating infrastructure vulnerabilities in target locations is challenging due to lack of available and disaggregated data and information. However, one of the important indicators that can describe the vulnerability in the southern coast of the Caspian Sea is the population having access to a municipal sewage system. It can be observed that the informal dumping of solid waste along the Caspian Sea coast is posing a major threat to the fragile ecosystem as well as to human health.

Four target areas were selected as the most vulnerable communities that the project aims to cover in the Islamic Republic of Iran: (I.1) Astara Region, Astara City; (I.2) Anzali Lagoon and Sefidroud Delta, Bandar Kiashahr; (I.3) Haraz River Estuary, Mahmoud Abad; and (I.4) Gorgan Bay/ Miankale Lagoon, Bandar Torkaman.⁶

⁶ Community consultations were not possible for this stage of the Concept Note elaboration due to the current Covid19 pandemic that did not allow for the envisaged community and local government engagement. During the elaboration of the Project Proposal, further assessments on climate change risks and vulnerabilities will be made, looking both at existing and projected climate hazards, taking into account the specific reasons for vulnerability in a given location.

1.2.3. Adaptation areas linked to identified hazards

According to the Intergovernmental Panel on Climate Change (IPCC), there is a tendency for warming in the countries of North and Central Asia that border the Caspian Sea, which in the northern part is combined with an increase in abundant rainfall in the winter. In summer, warming is observed in the central regions along with a decrease in the amount of precipitation. Warming in these areas is higher than the global average, and, according to modelling predictions, extreme precipitation is likely to occur more often.

It should be noted that modelling the changes in these regions is challenging, due to a lack of observation data and difficulties for models to consider the influence of mountain landscapes when calculating climatic parameters. It is assumed that the duration, intensity and frequency of thermal waves are likely to increase in these areas and there is a high probability that temperatures in the Caspian region will continue to rise during this century (IPCC 2013).

The IPCC suggests that “if a system has a high capacity to adapt, it is less at risk.” However, this definition suggests to place risk, vulnerability and adaptive capacity in a hazard-specific context. There are many different kinds of climate hazard, operating over a variety of different timescales and requiring a variety of adaptation responses. Hence, three broad categories of hazard may be identified:

- *Category 1:* Discrete recurrent hazards (such as storms, droughts and extreme rainfall events).
- *Category 2:* Continuous hazards, for example increases in mean temperatures or decreases in mean rainfall, fluctuating sea levels, etc. occurring over a period of time.
- *Category 3:* Discrete singular hazards, for example shifts in climatic regimes associated with changes in ocean circulation.

Adaptation to climate change in urban areas is vital in order to allow cities to adapt to remain livable, functional and prosperous in the future as the climate change progresses. In this regard, adaptation is the process of adjustment to the actual or expected climate and climate hazards, seeking to reduce the negative impacts or exploit beneficial opportunities. Cities need to act now to avoid or reduce weather-related deaths (e.g. due to heat waves) and economic losses from climate-related extremes in the future.

The projected increase in frequency and intensity of climate-related hazards – such as flooding, heatwaves, wildfires and droughts – requires response not only from national governments but also from local authorities. Adaptation is a strongly localized process due to particular geographical, socio-demographic and economic characteristics of the target area and local governments are best placed to steer and address climate adaptation in urban areas. Adapting to climate change at the local level – through avoidance or reduction of risks – makes economic sense. Also, cities that are safe from natural hazards and pleasant to live in, for instance through provision of public green spaces, tend to attract and retain more investment and skilled workforce.

Based on a location specific [Risk and Vulnerability Assessment](#), the regional programme with its national project components has identified the main concerns and objectives for climate change adaptation. Taking into account urbanization processes with their respective spatial dimension, areas surrounding cities and towns have been considered for location specific climate change adaptation planning and associated adaptation actions.⁷ The Risk and Vulnerability Assessment to be conducted for elaboration of the full Project Proposal will address the following principles while applying UN-Habitat’s approach to City Resilience Profiling⁸ and application of the tool: (1) understanding past and present climate impacts; (2) understanding climate resilience and future impacts; (3) identifying vulnerable urban sectors in selected target areas; (4) conducting location specific risk and vulnerability assessments (following, including the importance of surrounding areas and the urban hinterland; and (5) identifying main adaptation concerns and defining objectives.

The preparation of an [Adaptation Action Plan](#) will follow UN-Habitat’s Guiding Principles for City Climate Action Planning⁹, key urban interventions will be refined and elaborated context specific for each target area and vulnerable community. Hereby, the basic principles for interventions will guide the refinement of interventions. All interventions include livelihood, infrastructure and biodiversity components as well as policy/ strategy, legal and financial aspects in addition to capacity and skills development dimensions. Hereby, the local communities’ capacity to adapt to climate change and overcome

⁷ The Risk and Vulnerability Assessment was not fully possible during this stage of the Concept Note elaboration due to the current Covid19 pandemic that did not allow for site visits as well as the envisaged community and local government engagement. During the elaboration of the Project Proposal, further assessments on climate change risks and vulnerabilities will be made.

⁸ Source: <http://urbanresiliencehub.org/wp-content/uploads/2018/02/CRPT-Guide.pdf>

⁹ Source: UN-Habitat (2014), Planning for Climate Change: A Strategic, Value-based approach for Urban Planners Toolkit.

vulnerabilities is core. Green job focused skills development and livelihood condition improvement programs will be established both for local people and migrants alike.

The Project Proposal shall outline adaptation to climate change in urban areas in more detail, while considering the identification, selection and implementation of adaptation intervention options. Suggested options be evaluated against their suitability to the local context, their effectiveness in reducing vulnerability or enhancing resilience and their wider impact on sustainability. Hence, it is important that climate change adaptation is mainstreamed into urban policies and regional as well as urban development plans. Based on the Integrated Coastal Zone Management Plan, a dedicated adaptation strategy and an accompanying action plan for urban areas will be developed both for the Republic of Azerbaijan as well as building on previous work done in this area before as well for the Islamic Republic of Iran. It will link with other sectoral policies.

The Concept Note for the regional climate change adaptation and urbanization programme suggests the following adaptation measures for the identified locations:

- **Sea level fluctuation and potential decrease:** Adaptation measures for coastal zones are the creation of special mode boundaries for economic activities, legislation to limit major construction projects to the environmental carrying capacity, construction of infrastructure solutions to protect low lying locations from water fluctuations and decrease of groundwater level, resettlement of trunk infrastructure, services and facilities to safe areas.
- **Increased floods and more intense droughts:** Adaptation measures to reduce water loss, use of rainwater, purified seawater and recycled water, water flow regulation during droughts, measures forest restoration measures in flood risk regions, construction of small hydropower plants, engineering protective infrastructure in basins and rivers, etc. (UNFCCC 2010).
- **Urbanization:** 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, non-developable and urban land, agricultural land and activities preservation activities, reforestation activities as well as increased nature-based and better managed basic urban service provision will further address
- **Biodiversity:** Adaptation measures in the context of biodiversity are ecosystem-based approaches for adaptation measures for marine and coastal zone are the rehabilitation of natural ecosystems (shallow marine waters, intertidal muddy and sandy shores, coastal lagoons, wetlands, watersheds, estuaries, forests) to increase resilience to climate change and ensure strategic use of ecosystem goods and services.

Besides, the Concept Note highlights three key principles for consideration:

- **Circular economy and climate-resilient livelihoods:** Half of total greenhouse gas emissions and more than 90% of biodiversity loss and water stress come from resource extraction and processing. Circular economy can make a substantial contribution to climate change adaptation and achieving the objectives of the Paris Agreement. Circular economy aims to return products, parts and materials into use several times, based on the principles that products are designed to last, value is maintained for as long as possible, generation of waste and pollution is minimized and renewable energy is used along a value chain, as much as possible. The adoption of circular economy principles creates new business opportunities and higher-skilled jobs in maintenance, repairing and recycling.
- **Migration and climate change adaptation:** Migration can support climate action. In 2010, the United Nations Framework Convention on Climate Change's Cancun Adaptation Framework explicitly recognized migration as a form of adaptation that should be included in a country's long-term adaptation planning where appropriate. Migration reduces vulnerabilities through the diversification of livelihoods, reduces the pressure on natural resources in the origin communities, improves access to information, leads to accumulation of savings and expands social networks. Migrants and their families make critical contribution to the economy in destination and sending communities. They could be entrepreneurs, workers or consumers. When enabling conditions are present, migrant and their families can contribute to and benefit from climate change adaptation.
- **Monitoring and evaluation of climate change adaptation:** In order to ensure that climate change adaptation in the target areas is effective and sustainable over time, the evaluation of planned actions against the actual outcomes and objectives.

Based on initial community consultations in the identified most vulnerable target areas, the following adaptation measures have been proposed and are to be further assessed in the next stages of further programme elaboration.

Proposed adaptation measures in targeted areas and vulnerable communities both in the Republic of Azerbaijan and the Islamic Republic of Iran respectively are the following:

Policy/ Strategy dimension:

- 1.1. Knowledge and awareness raising on cross-sectoral climate change adaptation
- 1.2. Integrated Coastal Zone Management Approach, including prioritization of concrete climate change adaptation measures
- 1.3. Involvement of municipalities and communities into decision-making process
- 1.4. Incorporation of climate change problems into Master Plans or other Strategic Documents
- 1.5. Harmonization of Climate Change Adaptations with other strategic documents including Agriculture Policy, Water Management Policy, Regional Development Program

Infrastructure measures:

- 1.6. Integrated regional/ city and neighborhood Solid Waste Management Scheme, and piloting of concrete intervention (establishing waste polygon or organizing waste collection to processing plant)
- 1.7. Integrated regional/ city and neighborhood (off the grid) sewage management system, and piloting of concrete intervention
- 1.8. Integrated regional/ city and neighborhood water resource management system, and piloting of concrete intervention
- 1.9. Decreasing the adverse effects of urban heat Islands in public spaces, and piloting of concrete intervention
- 1.10. Integrated regional/city, and neighborhood Low-Carbon transportation development
- 1.11. Climate Change Adaptation mainstreamed building code
- 1.12. Coastal Protection Plan and intervention against sea level rise
- 1.13. Plan and intervention against salinization of rivers and lands
- 1.14. Multi-Hazard/ critical response Early Warning Systems

Biodiversity dimension:

- 1.15. Biodiversity protection program
- 1.16. Energy efficiency schemes and promotion of renewable energies
- 1.17. Restoration of forests through the cultivation of more drought-resistant tree species in the forest ecosystem taking into account the domestic species
- 1.18. Protection of the ecological corridors within Protected Natural Areas and provision of other relevant measures to protect biodiversity, while undertaking economical activities when it is allowed, e.g. in the national park
- 1.19. Restoration of natural ecosystems to reduce coastal flooding, coastal erosion and reduce habitat loss.
- 1.20. Making space for nature – removal of hard man-made riverbanks and blueways as well as greenways through urban areas
- 1.21. Marine protected areas to protect natural aquatic ecosystems to increase their ability to act as natural breakwaters and sustain fish habitat

Livelihoods dimension:

- 1.22. Strengthen climate-resilient income-generating abilities
- 1.23. Create climate-resilient employment opportunities for female-headed families
- 1.24. Create climate-resilient income generating opportunities for urban migrants
- 1.25. Assistance to fishery communities
- 1.26. Preference for the use of heat- and drought-resistant plant species
- 1.27. Establishment of forests protecting the fields and lands
- 1.28. Expansion of the melioration activities against the salinization and erosion of the lands

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1. Programme 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 the Republic of Azerbaijan and the Islamic Republic of 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 in the Republic of Azerbaijan and the Islamic Republic of Iran. They will be upscaled to all Caspian Sea 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:

- Objective 1 (O1):** Strengthened technical and institutional capacity of regional entities, national and local governments 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.)*
- Objective 2 (O2):** Strengthened technical and institutional capacity of national and local governments in selected locations in Azerbaijan and Iran to develop, monitor and manage projects for resilience and climate change adaptation in selected urban areas *(AF outcomes 1, 2 and 7 to increase countries and cities resilience to climate change through the implementation of transformative adaptation measures.)*
- Objective 3 (O3):** Strengthened community and private sector 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.)*
- Objective 4 (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.)*

2. Programme Components and Financing

Programme Components	Expected Outcomes	Expected Outcomes				Amount (US\$)
		Output Area 1: Data for evidence-based decision making	Output Area 2: Capacity development and strengthening of institutional structures	Output Area 3: Policies and strategies, development plans, procedures, legislation and regulations	Output Area 4: Urban resilience and climate (adaptation) action	
COUNTRIES: Caspian Sea littoral countries - regional component						
1. Climate change adaptation planning at regional level	Regional level decision makers in the Caspian Sea region are enabled to define enhanced strategies at the regional and national level aligned with the normative frameworks, urban development and national climate adaptation priorities.	1.1. Collection and assessment report on lessons learnt and good practices on climate adaptation and urban resilience from other regions applicable to Caspian Sea region. 1.2. Establishment of spatially enabled environmental and climate change database, including urbanization dimension, for Caspian Sea region, including data collection on precipitation, severe weather events (surge, storms, droughts), sea surface temperature and chlorophyll distribution based on data gap analysis for Caspian Sea basin. 1.3. Data analysis and knowledge production on climate change consequences, challenges and opportunities towards development of Caspian Sea regional models, scenarios and predictions in particular with regards to sea level fluctuations, precipitation and evaporation in the Caspian Sea region. 1.4. Development of scenarios and short- and long-term perspectives on major elements of climate change including changes in temperature, precipitation and climate events and hazards characteristics and timing and their implications for coastal settlements, developments, agriculture, fisheries, forestry, biodiversity and pollution. 1.5. Inventory of land-based sources of pollution (point sources, diffuse sources, pollution from other activities), and establishment of list(s) of hotspots (Art. 7) in line with the Protocol for the Protection of the Caspian Sea against Pollution from Land-based Sources and Activities ("Moscow Protocol") to the Tehran Convention.	2.1. Regional workshops with key regional, national and municipal stakeholders as well as decision makers to coordinate integrated coastal zone management territorial planning along the Caspian Sea coastline. 2.2. Strengthening of Tehran Convention Interim Secretariat in terms of technical capacity to address land-based pollution and urbanisation in the context of climate adaptation.	3.1. Development of Climate Change Targeted ICZM Regional Guidelines for the Caspian Sea region to be implemented at national level Art. 15 of the Tehran Convention: (1) Formulation of climate change resilient building codes guidelines for coastal settlements; (2) Formulation of climate change resilient pollution control guidelines including settlement waste disposal systems for coastal settlements; (3) Formulation of climate change resilient forest management guidelines including forest fire fight systems for coastal settlements; (4) Formulation of climate change resilient drought management guidelines including virtual water systems for coastal agriculture and settlements; (5) Formulation of climate change resilient biodiversity and fisheries management guidelines with attention paid climate change connect with invasive systems. 3.2. Regional ICZM instruments and toolkit for the Caspian Sea region (i.e. City Resilience Profiling, mainstreaming climate adaptation into National Urban Policy, etc.) aligned with national urban planning, resilience, climate adaptation and environmental protection legislation and policies for national application. 3.3. 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 member states of the Tehran Convention. 3.4. 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.	not applicable	1,000,000
COUNTRIES: Republic of Azerbaijan and Islamic Republic of Iran - national component						
2. Climate change adaptation planning at national level	National and local government institutions 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.	1.6. Report on spatial data collected related to urban planning, implementation and management of climate change adaptation strategies, including data analysis and prioritization of vulnerable areas and respective communities. 1.7. 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.	2.3. On-the-job training for technical staff of sector ministries to assess, develop and implement strategies and projects to reduce climate change related impacts and enhance urban resilience. 2.4. On-the-job training for technical staff of sector ministries to ensure the management and long-term financial feasibility and operation of implemented interventions. 2.5. Peer-to-peer city learning and exchange workshops between locations in the Republic of Azerbaijan and the Islamic Republic of Iran (cross-border).	3.5. Review of national regulations on climate change adaptation and resilience and revision/ alignment of countries institutional and legal frameworks. 3.6. Application of regional integrated coastal and territorial planning instruments, guidelines and toolkit at national and local level along the Caspian Sea coastline in the Republic of Azerbaijan and the Islamic Republic of Iran, building on regional and local risk assessments in selected areas/communities. 3.7. National and local level ICZM Planning for sustainable and climate resilient development of Caspian Sea coastal areas in the Republic of Azerbaijan and the Islamic Republic of Iran building on regional and local risk assessments. 3.8. 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.	4.1. City and neighborhood level participatory workshops identifying priorities and pilot projects for transformative and catalytic climate action interventions. 4.2. Urban resilience framework and implementation plan for each of the selected areas/communities, including the definition of ICZM Plans.	1,500,000
COUNTRIES: Republic of Azerbaijan and Islamic Republic of Iran - local component						
3. Implementation of transformative and catalytic projects at national, city and	Increased adaptive capacity of the built environment and ecosystems resilience	1.8. Link project monitoring to reporting mechanisms for implementation of 2030 Sustainable Development Agenda, Sustainable Development Goals, New Urban Agenda, Paris Agreement and Sendai Framework.	2.6. 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.	3.9. Implementation and management guidelines for urban resilience and climate adaptation interventions at city and neighborhood scale. 3.10. Guidelines for climate adaptation and urban resilience measures at local level, including	4.3. 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.	8,400,000

community level addressing urban resilience and climate change adaptation	through the implementation of climate adaptation projects. Local government and municipal staff as well as communities have acquired the capacity to manage and maintain priority interventions for upscaling.	1.9: Extract lessons learnt from implementation of climate action in coastal areas and link to regional and global platforms (i.e. New Urban Agenda Platform).	2.7: On-the-job training for municipal technical staff and communities to ensure the management and long-term financial feasibility and operation of implemented interventions. 2.8: Peer-to-peer city learning and exchange workshops between locations within the Republic of Azerbaijan and the Islamic Republic of Iran (for each country separately). 2.9: 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.	municipal finance generation, institutional frameworks and local legislation, 3.11: 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).	4.4: Implemented catalytic and transformative climate change adaptation projects/ nature-based solutions at municipal level identified by ICZM 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 urbanization, 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 ¹⁰ 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.	
COUNTRIES: Caspian Sea littoral countries - upscaling component						
4. Urban resilience, climate change adaptation – partnerships, institutional, legal, research cooperation and knowledge	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.	1.10: Strengthen of the Tehran Convention online platform Caspian Environment Information Centre (CEIC) to provide digital evidence base for climate change resilience oriented regional strategies, policies and initiatives climate change at regional and national level. 1.11: Report on lessons learnt from pilot interventions at country and local level as well as list of investment needs for national and local climate adaptation interventions developed for coastal provinces of additional littoral countries of the Caspian Sea. 1.12: Establishment of a Climate Change Information and Knowledge Clearing House (CCICH) within the CEIC to collect/produce/exchange climate change-oriented science, knowledge, information and best practices.	2.10: Guidelines and capacity-building workshops on ICZM in the Caspian Sea region under the Tehran Convention. 2.11: Upgrade CEIC and support for Caspian Environmental Monitoring Programme, 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. 2.12: 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.	3.12: Review of national regulations on climate change adaptation and resilience and alignment between countries institutional, legal frameworks. 3.13: Establishment of regional expert working group on climate change effects and sea-level fluctuation under the Tehran Convention in line with its Article 16. 3.14: Public awareness-raising on climate change and adaptation needs through support to Caspian Day initiatives. 3.15: Web-based Science-Policy Platform on Regional Climate Change Resilience with membership including CASPCOM and national meteorological, environmental and urban agencies. 3.16: Design and implementation of targeted awareness raising and training events within the Caspian Sea Day celebration for beneficiaries and stakeholders including local authorities and communities related inter alia to ICZM, pollution and waste control management, resource management project development and appraisal; climate data collection, analysis and modelling etc. 3.17: Holding a Sustainable Investment Conference within the Caspian Economic Forum to showcase solutions addressing the climate change adaptation challenges and raise funds for the adaptation projects in the Caspian Sea region.	4.5: 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.	800,000
6. Total Programme Cost (financial allocation to programme components)		Output Area 1: Data for evidence-based decision making	Output Area 2: Capacity development and strengthening of institutional structures	Output Area 3: Policies and strategies, development plans, procedures, legislation and regulations	Output Area 4: Urban resilience and climate (adaptation) action	12,810,000
		1,100,000 USD	1,100,000 USD	1,100,000 USD	8,400,000 USD	
		7. Programme Cycle Management Fee charged by the Implementing Entity (8.5%)				1,190,000
		8. Programme Execution cost (9.5%)				1,110,000
		Amount of Financing Requested				14,000,000

3. Projected Calendar

Milestones	Expected Dates
Submission of full project proposal	January 2022
Start of Project/Programme Implementation	June 2022
Mid-term Review (if planned)	August 2024
Project/Programme Closing	May 2026
Terminal Evaluation	August 2026

¹⁰ Example: Climate-resilient livelihoods based on decentralized solid waste collection, recycling and processing in the urban centers generated. Mapping key stakeholders and creating an institutional arrangement for their involvement and partnerships for implementation. Assess waste composition in the selected urban centers and waste collection service level. With municipal authorities, develop incentive schemes and regulations. Map formal and informal waste collectors (including migrant workers) and assess occupational safety and health in formal/informal waste management. Conduct market analysis and market linkages on demand. Develop climate resilient income generating opportunities based on solid waste management including training of trainers of municipalities, and training conducted for skill development. Organize awareness-raising campaigns to communities on waste separation methods, waste collection points, and its impacts on the environment. Strengthen social protection measures for workers, including internal migrants.

PART II: PROGRAMME JUSTIFICATION

A. Regional Approach and Programmen Components

The project proposes a regional (Caspian Sea) 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 programme implementation level, the adaptation measures need to be adopted progressively by all Caspian countries to ensure a high impact and adaptation sustainability. Although the programme proposes to start working with two of the Caspian Sea countries, the long-term goal is to scale up some of the programme findings to the other Caspian littoral countries. The programme supports also the existing knowledge and research institutions focused in the Caspian Sea, such as Tehran Convention, Coordinating Committee on Hydrometeorology and Pollution Monitoring of the Caspian Sea (CASPCOM), Agreement on the Preservation and Rational Use of Aquatic Biological Resources of the Caspian Sea.

Furthermore, infrastructure and/ or ecosystem-based interventions need to be designed and modelled at a regional scale to understand the environmental, social and economic 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. 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 and national strategies as well as 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.

Table 1: Project Development Phases

During full Proposal Development Phase		During Project implementation		After Project implementation
1	2	3	4	5
Alignment with national and local government priorities, develop a framework for selecting and monitoring adaptation interventions based on consultations and AF criteria. Data and evidence-based decision making; selection criteria; establish targets; monitoring framework and tools	Create prioritization list of adaptation interventions built upon data and evidence-based analysis, together with communities, experts and key stakeholder engagement. Reduce exposure to hazards: process of adjustment to actual or expected climate and its effects Adapt to exposure: in human systems, adaptation seeks to moderate harm or exploit beneficial opportunities.	Select low cost/ high impact projects/ prototype solutions (with manageable ES risks)	Monitor, evaluate and learn based on defined targets - Transformative interventions focused on resilient infrastructure, coastal protection and management, with livelihood component - Transformative intervention focused on eco-system restoration and/ or bio-diversity protection and management. with livelihood component - Catalytic community interventions focused on the above, and very localized with livelihood component	5. Replicate in Caspian Sea communities and inter-community scale - Replicate and scale up at district and national level as well across the Caspian Sea region to other littoral countries

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B. Innovative solutions to Climate Change Adaptation

The project promotes new and innovative solutions. Better addressing the spatial perspective of climate change challenges through urban and territorial planning is an innovative methodology to promote sustainable and climate-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 analyze, 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 Programme 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. Moreover, as urban migrants, generally, remain invisible in the climate change adaptation policy and programming at the national and local levels, the programme's special attention will be on enabling the urban migrants and their families to contribute to and benefit from the climate change adaptation. As part of the methodology, policies and normative documents are deduced from concrete projects, providing an innovative approach to understanding and tackling the key barriers for the implementation of urban planning and resilience policies, hereby recognizing urban migrants and their families as one of the key stakeholders in climate change adaptation and enabling them to contribute to and benefit from resilience building and circular economy is innovative.

Table 2: Addressing Challenges of most vulnerable Groups

Transformative and catalytic Interventions	Vulnerable groups ¹¹	Addressing their challenges
Agricultural comprehensive production management	Female-headed households, urban migrants, women, children, elderly	Prevent the destruction of agricultural-related jobs; Prevent soil erosion and pollution; Increase food security; Reduction of diseases caused by pesticides and pesticides in agriculture; Fair and efficient use of water resources; Help create sustainable jobs
Forest Area Rehabilitation and Conservation Program	Women, children, elderly, urban migrants, seasonal workers	Help reduce air pollution; Improving health; Safety and security against fire and its aftermath; Promote food security
Integrated sewage system and solid waste management	Women, children, elderly, urban migrants, patients	Promote public health; Providing vital services and infrastructure; Creating jobs related to waste recycling; Produces clean energy and reduces pollution and disease
Integrated water resource management	Villagers, women, children, elderly, urban migrants	Reduction of groundwater discharge and its risks (land subsidence, etc.); Providing vital services and infrastructure; Promoting food security and providing safe drinking water; Protecting groundwater resources for future generations
Biodiversity protection program	Fishermen, women, children, elderly, immigrants, seasonal workers	Reduction of diseases related to environmental pollution, especially water; Livelihood protection; Poverty reduction (in native biodiversity-related occupations, such as fishing, etc.); Help improve food security; Creating economic benefits (through exports, development of tourism industry, conversion industries, etc.); Reducing poverty and unemployment (by creating jobs in the above cases); Livelihood protection
Mainstreaming climate change into the country's urban planning system	Women, children, elderly, urban migrants, seasonal workers, fishermen	Increased safety against hazards (floods, droughts, earthquakes, etc.); Poverty reduction (through the proposed programs of this plan); Providing social services; Empowering vulnerable groups (and providing social services) against the risks of climate change; Promote food security; Livelihood protection
Green energy development program	Children, elderly, patients, disabled, women	Reducing the risks of air pollution; Promote public safety and health
Generating climate-resilient livelihoods from solid waste management	Urban residents, including urban migrants, villagers, seasonal workers, fishermen, female-headed households	Improving decentralized solid waste management infrastructure and associated work processes; Enabling climate-resilient income generation through shared understanding, mapping and analysis of solid waste management process (including actors), assessing market linkages, capacity development of different actors, supportive regulatory mechanisms, advisory/ extension services and mobilizing finance.

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¹¹ Information on more vulnerable groups to be developed at full proposal stage.

		Improving partnership on circular economy between government institutions, private sector (including workers) and end-users Strengthen social protection measures for workers involved in solid waste management; Awareness raising
Knowledge development and training programs for managers and implementers on the effects of climate change on urbanization	Women, children, elderly, urban migrants, seasonal workers	Improve managers' skills to communicate with vulnerable groups and identify their needs; Familiarity with international methods and strategies for dealing with the effects of climate change on social dimensions and vulnerable groups

C. Economic, social and environmental Benefits

Climate change poses a threat to achieving most of the goals of sustainable development. A large share of population lives in urban as well as rural areas and are engaged in agriculture, which is highly sensitive to rising temperatures, rainfall variability and other outcomes of climate change. With poverty and undernourishment mostly skewed towards rural areas, failing to tackle climate change may result in pushing thousands of families back into poverty and hunger. Agro-ecological problems, which are being experienced currently in the Republic of Azerbaijan and the Islamic Republic of Iran and likely to exacerbate due to threats of climate change in the coming future, require technical support as well as dialogue and management within the country involving multi stakeholders. Moreover, climate change impacts are likely to exacerbate underlying causes of vulnerability, especially for those already facing societal inequities because of their gender, age, class, indigeneity and/or disability. The regional programme will promote economic, social and environmental development in conjunction with regional and national priorities to mobilize resources for implementation by developing transformative climate change adaptation projects that have the potential to act as catalyzers for climate-resilient 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.

D. Cost-effectiveness of the proposed Programme

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 programme and long-term sustainable solutions that 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 Sea trust fund for private sector sponsorship to support small-scale and micro-grant projects on sub-regional and municipal levels. 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 Programme as well as IOM 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.

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E. Consistency with national or sub-national sustainable Development Strategies

The proposed project is supporting the Republic of Azerbaijan and the Islamic Republic of Iran in achieving their respective targets committed to achieving the 2030 Sustainable Development Agenda, particularly Sustainable Development Goals 11, 13 and 15.

- SDG 11: make cities and human settlements inclusive, safe, resilient and sustainable;
- SDG 13: take urgent action to combat climate change and its impacts; and
- SDG 15: protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

Besides that, the programme and its relevant project sub-components at country level is in line with the New Urban Agenda goals. It aligns with the Implementing Entities Strategic Plan 2020 – 2023 and the relevant Domains of Change, most significantly Domain of Change 3 and 4.

- DoC3: Strengthened climate action and improved urban environment; and
- DoC4: Effective urban crisis prevention and response.

At the political level, both the Republic of Azerbaijan and the Islamic Republic of 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 urbanization 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.

Caspian Sea Region:

The project objectives are in line with the Framework Convention for Protection of Marine Environment of Caspian Sea - Tehran Convention. 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:

- Protocol Concerning Regional Preparedness, Response and Co-operation in Combating Oil Pollution Incidents (Aktau Protocol);
- Protocol for the Protection of the Caspian Sea against Pollution from Land-based Sources and Activities (Moscow Protocol);
- Protocol for the Conservation of Biological Diversity (Ashgabat Protocol);
- Protocol on Environmental Impact Assessment in a Transboundary Context.

In addition, other regional agreements were taken into account while developing the concept note:

- Coordinating Committee on Hydrometeorology and Pollution Monitoring of the Caspian Sea (CASPCOM);
- Agreement on the Preservation and Rational Use of Aquatic Biological Resources of the Caspian Sea.

Republic of 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. It will also contribute to address the objectives, outcomes and priorities of the National Adaptation Plan (NAP), which is currently being developed in the Republic of Azerbaijan. Relevant key documents identified are: INDC Azerbaijan (2015); National Caspian Action Plan (2002); 3rd Communication to UNFCCC (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 (1998); Law on Hydrometeorological Activities (1998), Law on Environment Protection (1999), Law on Environmental Safety (1999), Law on Protection of Atmospheric Air (2001).

Unfortunately, there has not been a national level urban policy enacted in the Republic of Azerbaijan. However, the Government has conducted several multi-sector regional and local level territorial planning initiatives, including the Master Plan for the capital city of Baku (<https://arxkom.gov.az/en/bakinin-bas-plani>) envisaging urban and environmental regeneration, including the creation of sustainable urban infrastructure. Several secondary cities in the country are undergoing the development of Master Plans as well as districts engaging in the preparation of district level planning strategies, too. Moreover, the government of Azerbaijan has rolled out a smart cities and smart villages programme across the country, focusing on the implementation of sustainable solutions to housing, manufacturing, social services, “smart agriculture” and alternative energy provision. At the same time this Road Map adopted by the Government in 2016 foresees new approaches to development of infrastructure including electricity, water, waste management and alike for all communities across the country, including the establishment of new governance system in these areas (<https://static.president.az/pdf/38542.pdf> pp 847). The proposed programme will contribute to the realization of strategies and plans at local level.

Islamic Republic of 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 UNFCCC (2017), National Communication (2017), Environmental Policies and National Urban Policy in Iran – Abstract Diagnostic Report (2018), the Green Management Regulations (2019), Integrated Coastal Zone Management (ICZM) Plan (2008).

Environmental Policies and National Urban Policy in Iran (NUP): The 2018 Abstract Diagnostic Report discusses the country's vulnerability to climate change impacts. The following climate change related issues are highlighted: lack of adequate infrastructure; need for awareness on optimal use of water and food resources; fragility of ecosystems and vulnerability of forests; exposure to natural disasters such as floods and droughts; widespread environmental crimes such as changing land use, overgrazing, cutting trees, smuggling soil, illegal well construction; widespread emission of water and soil pollutants due to urban, industrial and agricultural activities; dependence of local economies and the livelihoods of a high percentage of the population to natural resources; lack of financial resources and undesirable economic system; and overall weakness in inter-sectoral collaboration, team-work and public participation in decision-making and implementation of programs. At this moment in time, the final NUP Report with recommendations has not been prepared yet. Hence, all urban planning processes in the Islamic Republic of Iran need to comply with existing legislation and policy directions.

The critical legal documents in this regard are: the Law of Permanent Provision of Development (LPPD) 2017; Vision Document of IRI (VDI) 2025; General Policies of Iran (Environment-Section, Urbanization -Section) (GPI) 2012 as well as the National Spatial Plan of Iran (NSP 2021, in preparation); Provincial Spatial Plans (PSP 2020, approved) and the Integrated Coastal Zone Management Plan (ICZM 2021, under revision). The main strategies of above laws and policies regarding climate change adaptation are: decentralization of population and economic activities from megacities (ref. LPPD, VDI, GPI); moving toward green and smart cities with a green planning system (ref. LPPD, GPI, NSP, PSP); low carbon industrial and urban development (ref. GPI, ICZM); green job generation and skill development in this regard (ref. NSP, ICZM); knowledge raising and awareness of the priority of environment in all development activities (ref. NSP, PSP, ICZM); empowerment vulnerable groups (ref. VDI, GPI, NSP, PSP, ICZM); and capacity development of administrative bodies and private sectors to be more vigorous in environment friendly activities (ref. NSP, PSP, ICZM). In conclusion, the various facets of the strategies on a concrete community scale are fully consistent and well-supported by climate

adaptation initiatives identified in the Iran programme component. In other words, the proposed intervention would meet the need for local-level adaptation to climate change.

F. Compliance with relevant national technical Standards

Table 3: Compliance with relevant technical Standards – Republic of Azerbaijan

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Expected concrete Output/ Intervention	Relevant rules, regulations, standards and procedures (to comply with AF principle 1)	Compliance, procedures and authorizing offices
Comprehensive agricultural production management	Law on Accelerating of Institutional Reforms in Agriculture (2014); Law on Establishment of "E-agricultural Information System" (XXXX)	Ministry of Agriculture
	State Program on Development of Wine-growing in the Republic of Azerbaijan during 2012-2020 (2012); State Program on Development of Tobacco-growing in the Republic of Azerbaijan during 2017-2021 (2017); State Program on Development of Cotton-growing in the Republic of Azerbaijan during 2017-2022 (2017); State Program on Development of Agricultural Cooperation in the Republic of Azerbaijan during 2017-2022 (2017); State Program on Development of Citrus Production in the Republic of Azerbaijan during 2018-2025 (2018); State Program on Development of Paddy-growing in the Republic of Azerbaijan during 2018-2025 (2018); State Program on Development of Tea Production in the Republic of Azerbaijan during 2018-2027 (2018); State Program on intensive Development of Livestock and efficient Use of Pastures in the Republic of Azerbaijan in 2019-2023 (2019); State Program on the Development of Cocoons and Silkworm Breeding in the Republic of Azerbaijan for 2018-2025 (2018); State Program on Development of Wine-making in the Republic of Azerbaijan during 2018-2025 (2018).	Ministry of Agriculture, FSA
Forest area rehabilitation and conservation	Forest Code (1997); National Forest Program for the Protection and Sustainable Development of Forests in the Republic of Azerbaijan for 2020-2030 (2020); National Strategy on Protection and sustainable Use of Biodiversity in the Republic of Azerbaijan for 2017-2020 (2016)	Ministry of Environment and Natural Resources
Integrated sewage system and solid waste management	Law on Industrial and Household Wastes (1998, 2007); Law on Water Supply and Wastewater (1999); Water Code (1997); Law on Protection of Environment (1999); Law on Safety of Hydrotechnical Installations (2002); Land Code (1999); Law on Environment Impact Assessment (2018); Azerbaijan 2020: Vision to Future Development Concept (2002); State Program for socio-economic Development of the Regions in the Republic of Azerbaijan during 2019-2023 (2019); National Strategy for improving Solid Waste Management in the Republic of Azerbaijan for 2018-2022 (2018).	Ministry of Environment and Natural Resources, Ministry of Economy, Azersu Open Joint Stock Company, local government
Integrated water resource management	Water Code (1997); Law on Protection of Environment (1999); Law on Water Supply and Wastewater (1999); Law on Hydrometeorological Activity (1998); Law on Safety of Hydrotechnical Installations (2002); Law on Environment Impact Assessment (2018); Azerbaijan 2020: Vision to Future Development Concept (2002); State Program for socio-economic Development of the Regions in the Republic of Azerbaijan during 2019-2023 (2019); Action Plan for 2020-2022 to ensure the efficient Use of Water Resources (2020).	Ministry of Environment and Natural Resources, AWF Open Joint Stock Company, Azersu Open Joint Stock Company
Biodiversity protection	Law on Wildlife (1999); Law on Protection of Environment (1999); Law on Specially Protected Natural Areas and Objects (2000); Forest Code (1997); Law on Fishing (1998); Law on Hunting (2004); National Forest Program for the Protection and Sustainable Development of Forests in the Republic of Azerbaijan for 2020-2030 (2020); National Strategy on Protection and sustainable Use of Biodiversity in the Republic of Azerbaijan for 2017-2020 (2016).	
Urban planning system	Initial discussions for the preparation of a National Urban Policy have been on going in the country. Spatial Master Plans are being developed for urban areas and revised at regular basis.	State Committee for Urban Planning and Architecture
Clean energy	Law on Energy (1998); Law on Energy Efficiency (draft); Law on Renewables (draft)	Ministry of Economy, Azerenergy Open Joint Stock Company
Climate-resilient livelihoods and circular economy	To be confirmed	Ministry of Environment and Natural Resources; Ministry of Labor and Social Protection of Population
Knowledge exchange and training on mainstreaming climate change	Law on ecological Education and Awareness of the Population (2002)	Ministry of Environment and Natural Resources, State Committee for Urban Planning and Architecture

adaptation to urbanization		
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Table 4: Compliance with relevant technical Standards – Islamic Republic of Iran

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Expected concrete Output/ Intervention	Relevant rules, regulations, standards and procedures (to comply with AF principle 1)	Compliance, procedures and authorizing offices
Comprehensive agricultural production management	Law on Protection of Natural Resources (1992); Law on Conservation of Gardens and Agricultural Lands (1995); Law on Fair Water Distribution (1985); Law on Preservation and Protection of Natural Resources and Forest Reserves (1992); Law to prevent the fragmentation of agricultural lands (1979); Law on the Establishment of Rural Water and Sewerage Companies (1995); Law on Establishment of the Ministry of Agriculture (2000); Law on approving the Caspian Sea Protection Procedures against Pollution from land-based Resources and Activities (2015)	Ministry of Agriculture-Jahad; Department of Environment; Ministry of Energy
Forest area rehabilitation and conservation	Law on Protection and Exploitation of Forests and Pastures (1967); Law on Protection of Natural Resources (1992); Law on Preservation and Protection of Natural Resources and Forest Reserves (1992); Nature Tourism Regulations (2005)	Department of Environment; Ministry of Agriculture-Jahad; Housing Foundation of Islamic Revolution
Integrated sewage system and solid waste management	Waste Management Act (2004); Law on Determining the Status of Forests and Pastures (1988); Law on Protection of Sea and Border Rivers from Oil Pollution (1975); Law on Establishment of Water and Sewerage Companies (1990); Law on the Establishment of Rural Water and Sewerage Companies (1995); Municipal Law (1955); Law on Approving the Caspian Sea Protection Procedures against Pollution from Land-based Resources and Activities (2015)	Ministry of Interior; Department of Environment; Ministry of Roads and Urban Development
Integrated water resource management	Law on Protection of Natural Resources (1992); Law on Protection of Sea and Border Rivers from Oil Pollution (1975); Law on Protection and Exploitation of Water Resources (1995); Law on Fair Water Distribution (1985); Law on Establishment of Water and Sewerage Companies (1990); Law on Establishment of Rural Water and Sewerage Companies (1995); Law on approving the Caspian Sea Protection Procedures against Pollution from Land-based Resources and Activities (2015); Law on Preservation and Protection of Natural Resources and Forest Reserves (1992)	Ministry of Energy; Ministry of Interior; Ministry of Agriculture-Jahad
Biodiversity protection	Law on Hunting (1967); Law on Protection of Natural Resources (1992); Law on Protection of Sea and Border Rivers from Oil Pollution (1975); Law on Protection, Rehabilitation and Management of Wetlands (2017); Law on Preservation and Protection of Natural Resources and Forest Reserves (1992); Bill of Punishment for Unauthorized Fishing from the Caspian Sea and the Persian Gulf (1979); Law on comprehensive Animal Husbandry System (1975); Nature Tourism Regulations (2005); Law of Agreement on the Protection and optimal Utilization of the Caspian Sea Living Resources (2015) Law on Establishment of Caspian Sea Sturgeon International Research Institute (1997); Law on Punishment of Illegal Fishing in the Caspian Sea (1967)	Department of Environment; Ministry of Foreign Affairs; Ministry of Roads and Urban Development; Ministry of Agriculture-Jahad
Urban planning system	Air Pollution Prevention Law (1995); Built and Coastal Land Law (1975); Law to prevent Fragmentation of Agricultural Land (1979); Law on the Establishment of the Caspian Sea Studies and Research Center (1995); Law on the Establishment of the Supreme Council of Urban Planning and Architecture (1972); Law on Establishment of the Supreme Council for Traffic Coordination in Cities (1993); Law on New Cities (1999); Municipal Law (1955); Law on Name Change of Ministry of Development and Housing to Ministry of Housing and Urban Development (1974); Law of Engineering and Building Control System (1995); Law of the Agreement on the Protection and Optimal Utilization of the Living Resources of the Caspian Sea (2015); Law on Cooperation Agreement on Meteorology of the Caspian Sea (2015); Law on the Caspian Sea Marine Environment Framework Convention (2005)	Ministry of Science, Research and Technology; Ministry of Roads and Urban Development; Ministry of Interior; Department of Environment; Iran Construction Engineering Organization
Green energy	Law on the Establishment of the Caspian Sea Studies and Research Center (1995); Law of Engineering and Building Control System (1995); Law on the Caspian Sea Marine Environment Framework Convention (2005)	Ministry of Energy; Department of Environment, Ministry of Roads and Urban Development; Iran Construction Engineering Organization
Climate-resilient livelihoods and circular economy	Iran Tourism Industry Development Law (1996); Law on the Establishment of Industrial Estates Company (1983); Labor Law and Social Welfare (1990); Law on Punishment of Illegal Fishing in the Caspian Sea (1967)	Ministry of Cooperatives, Labor and Social Welfare;

		Ministry of Science, Research and Technology; Ministry of Education
Knowledge exchange and training on mainstreaming climate change adaptation to urbanization	Law on Environmental Protection and Improvement (1974); Built and Coastal Land Law (1975); Law on the Establishment of the Caspian Sea Studies and Research Center (1995); Law on Protection and optimal Utilization of the Living Resources of the Caspian Sea (2015); Law on Cooperation Agreement on Meteorology of the Caspian Sea (2015); Law on Approving Caspian Sea Protection Procedures against Pollution from land-based Resources and Activities (2015); Law on Caspian Sea Marine Environment Framework Convention (2005); Law on Establishment of Caspian Sea Sturgeon International Research Institute (1997); Law on Punishment of Illegal Fishing in the Caspian Sea (1967)	Ministry of Energy; Department of Environment; Ministry of Roads and Urban Development; Ministry of Interior; Ministry of Foreign Affairs; Iran Construction Engineering Organization

G. Duplication of Programme with other Funding Sources

The programme will avoid overlapping with projects that have been conducted or are ongoing both in [the Republic of Azerbaijan](#) and [the Islamic Republic of 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), National Adaptation Plan (NAP) Support Project for adaptation planning and implementation in Azerbaijan (UNDP, ongoing), EU4Climate (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, planned). Moreover, the programme will closely coordinate with the ongoing projects coordinated by FAO, targeting climate change adaptation and climate resilience at coastal zones. Hereby a particular emphasis will be laid on the components addressing both policy and implementation dimensions related to climate change adaptation and climate resilience planning, building on respective climate change impact assessments on biodiversity and livelihoods mostly in the solid waste, water and sewage sectors. Alongside the work of the whole United Nations Development System in the Caspian Sea region and the programme countries, knowledge and awareness on climate change adaptation will be fostered as well as a harmonization of climate change adaptation to sector policies conducted. It is vital to promote active participation of communities in decision making processes as well as development of climate resilient income generating activities. The following sectors have been highlighted by FAO: biodiversity protection, forest restoration, assistance to fishery communities, forestation and activities against salination and erosion of land. [As International Financing Institutions have commenced engagement in the climate adaptation and urbanization spheres, the programme will ensure that alignment with planned outputs will be ensured in the upcoming elaboration of the full programme document. At this moment in time, these initiatives are being developed and further consultations will have to be made during the elaboration of the full programme document in the next stage.](#)

The programme will be learning from previous [and ongoing](#) 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 analyzed in more detail during the concept and project proposal phases.

Table 5: Relevant Projects, Lessons Learnt and complimentary Potential – Caspian Sea Region

Relevant Projects/ Programme, executing Entity and Budget	Lessons Learnt (relevant for proposed Interventions)	Complimentary Potential and non-Duplication
Framework Convention for the Protection of the Marine Environment of the Caspian Sea (Tehran Convention)	The understanding of the necessity to protect and preserve the Caspian Sea's natural resources for future generations and that this	<u>Complementary:</u> Republic of Azerbaijan, Islamic Republic of Iran, Kazakhstan, Russian Federation and Turkmenistan confirmed their readiness to

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	<p>goal can only be achieved through international cooperation.</p> <p>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.</p>	<p>go the path of sustainable development and to take environmental concerns into account in their development planning.</p> <p><u>Non-Duplication:</u> 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.</p>
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Table 6: Relevant Projects, Lessons Learnt and complimentary Potential – Republic of Azerbaijan

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Relevant Projects/ Programme, executing Entity and Budget	Lessons Learnt (relevant for proposed Interventions)	Complimentary Potential and non-Duplication
Temiz Sheher project/ Ministry of Environment. Public - Private Partnership on establishing waste management facility.	Proper waste and garbage collection mechanism and governance in Greater Baku Area.	Waste management; alternative energy; reducing air pollution; reducing solid waste pollution
Regional and City Plans/ State Committee on Urban Planning and Architecture.	Process of developing city plans for dozens of cities	Coordination of several agency on producing document; identification of priority interventions
State Program on various issues (Poverty reduction; employment; socio-economic development)	Governance in solving problems	Employment strategy; poverty reduction strategy and Targeted Social Assistance Programs on development of underprivileged communities

Table 7: Relevant Projects, Lessons Learnt and complimentary Potential – Islamic Republic of Iran

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Relevant Projects/ Programme, executing Entity and Budget	Lessons Learnt (relevant for proposed Interventions)	Complimentary Potential and non-Duplication
Green Management Regulations	No lessons learned yet, project is still ongoing	<u>Complimentary:</u> water consumption optimization; waste management; green building; energy efficiency. <u>Non-Duplication:</u> transportation; informing and educating employees; use of clean and environmentally friendly technologies
Provincial Spatial Plans: Gilan, Mazandaran and Golestan Provinces (2018)	There is organizational and institutional capacity to prepare and implement integrated plans for coastal provinces. However, many recommendations made by the plan have not been implemented, often due to lacking recourses and financing of offers. Moreover, the political-economic pressures on the country make it difficult to implement the proposed plans and projects. On another note, basic expertise on impact of climate change to the respective areas is available, yet there is need for further improvements. Moreover, the poor economic situation in the region has had adverse effects on aggravating vulnerabilities	<u>Complimentary:</u> emphasis on the protection of coastal capabilities, dealing with impact of climate change, attention to environmental risks, vulnerable urban and rural communities and planning to manage these hazards. <u>Non-Duplication:</u> emphasis on economic development, improving people's livelihoods, assessing types of risks in different locations (including earthquake, flood, desertification, etc.), assess balanced development between different settlements in order to address spatial inequalities.
Sub-regional Comprehensive Plans	Occasionally, there is lack of attention to the recommendations made in Provincial Spatial Plans. Moreover, often times it is challenging to implement priority projects due to the limited capacity to attract financing.	<u>Complimentary:</u> emphasis on protecting the environment and reducing pollution. <u>Non-Duplication:</u> emphasis on economic development based on environmental capabilities.
Urban Comprehensive Plans	The implementation of Urban Comprehensive Plans tends to lack sufficient funding at municipal level. The plans tend to be dominated by economic inclinations and profit ambitions over plan proposals. Spatial planning, however, is vital in order to address urban sprawl. It is one of the factors threatening the environment and intensifying the climate change impact. It is highlighted that	<u>Complimentary:</u> reduction of natural habitat pollution. <u>Non-Duplication:</u> special emphasis on the protection of environmental values, principles of sustainability and promotion of urban resilience.

	there is not sufficient guarantee to enforce rules and regulations of urban planning and construction.	
Integrated Coastal Zone Management (ICZM) Plan	The impact of climate change has increased since the preparation of the ICZM Plan. This can be evidenced, for instance, in cases of sea water recession and the change of green fields to brownfields, etc. In addition, economic challenges hinder the realization of recommended proposals for intervention. It also has to be highlighted that the lack of public awareness and participation has caused a declining trend of living conditions in the Caspian Sea coastal region.	Complimentary: assessment of risks in coastal areas, proposition of various response programs in this regard; specify priority areas for intervention; disposal of solid waste and municipal, industrial and agricultural effluents into the Caspian Sea. Improper exploitation of natural resources; pollution of coastal areas due to lack of land for waste disposal. Sea level change, coastal erosion, decreased biodiversity; pollution from vessels and pipelines offshore; decreased fishery resources and fish stocks; illegal and unregulated construction; Illegal land use change. Low productivity of agricultural activities and improper land utilization. Non-Duplication: extensive and in-depth sectoral studies, with focus on protection of natural coastal ecosystems, in addition to building development capacity conservation, development and rational management of resources. An overall Hazard Assessment (OHA) map has been developed for the Caspian Sea coastal areas.

H. 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. [Below the suggested areas of learning and knowledge management are outlined.](#)

Table 8: Outputs, learning Objectives and Indicators and Knowledge Products

Expected concrete Output/ Intervention	Learning Objectives (LO) and Indicators (I)	Knowledge Products
Data collection on precipitation, severe weather events (surge, storms, droughts), sea surface temperature and chlorophyll distribution based on data gap analysis	(LO) Caspian stakeholders equipped with information related to precipitation, severe weather events (surge, storms, droughts), sea surface temperature and chlorophyll distribution	1. Data gap analysis of the precipitation, severe weather events (surge, storms, droughts), sea surface temperature and chlorophyll distribution
	(I) # of views of maps showing data on precipitation, severe weather events (surge, storms, droughts), sea surface temperature and chlorophyll distribution	2. Maps showing data on precipitation, severe weather events (surge, storms, droughts), sea surface temperature and chlorophyll distribution
Perspective on sea level fluctuations and its implications for coastal settlements developments, agriculture, fisheries, forestry, biodiversity and pollution	(LO) Caspian stakeholders equipped with short and long-time scenarios and implications of the sea level fluctuations for coastal settlements developments, agriculture, fisheries, forestry, biodiversity and pollution	3. Maps of short- and long-term scenarios of the sea level fluctuations
	(I) # of Caspian stakeholders familiarized with the short and long-time scenarios of the sea level fluctuations and its implications for coastal settlements developments, agriculture, fisheries, forestry, biodiversity and pollution	4. Assessments of the implications of the sea level fluctuations on coastal settlements developments, agriculture, fisheries, forestry, biodiversity and pollution

Deleted: At current stage Azerbaijan has several projects implemented that can be used as model for future. The case of building and implementing Garbage Facility plant could be considered as good case example for the large city like Baku. Meanwhile, the governance mechanism especially bringing together all local governments and entities involved. ¶

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Short- and long-term perspectives on major elements of climate change including changes in temperature, precipitation and climate events and hazards characteristics and timing and their implications for coastal settlements developments, agriculture, fisheries, forestry, biodiversity and pollution.	(LO) Caspian stakeholders equipped with short- and long-term perspectives on major elements of climate change including changes in temperature, precipitation and climate events and hazards characteristics and timing and their implications for coastal settlements developments, agriculture, fisheries, forestry, biodiversity and pollution	5. Maps of short- and long-term perspectives on major elements of climate change including changes in temperature, precipitation and climate events and hazards characteristics and timing and their implications for coastal settlements developments, agriculture, fisheries, forestry, biodiversity and pollution 6. Assessments of the implications of on major elements of climate change
	(I) # of Caspian stakeholders familiarized with short- and long-term perspectives on major elements of climate change including changes in temperature, precipitation and climate events and hazards characteristics and timing and their implications for coastal settlements developments, agriculture, fisheries, forestry, biodiversity and pollution	
Inventories of land-based sources of pollution (point sources; diffuse sources; pollution from other activities) along Annex 1 categories, and establishment of list(s) of hotspots (Art. 7) in line with the Moscow Protocol" to the Tehran Convention	(LO) Caspian stakeholders equipped with knowledge regarding land-based sources of pollution	7. Inventories of land-based sources of pollution (point sources; diffuse sources; pollution from other activities) along Annex 1 categories in line with the Moscow Protocol 8. List(s) of hotspots (Art. 7) in line with the Moscow Protocol
	(I) # of Caspian stakeholders familiarized with the Inventories of land-based sources of pollution	
Climate Change Targeted Integrated Coastal Zone Management Regional Guidelines for the Caspian Sea	(LO) Capacity of the Caspian decision makers increased in terms of Climate Change Targeted Integrated Coastal Zone Planning	9. Climate Change Targeted Integrated Coastal Zone Management Regional Guidelines for the Caspian Sea
	(I) # of uptakes of the Climate Change Targeted Integrated Coastal Zone Management Regional Guidelines for the Caspian Sea	
Climate change resilient building codes guidelines for coastal settlements	(LO) Caspian stakeholders equipped with and applying the knowledge generated and reflected in the resilient building codes guidelines for coastal settlements	10. Climate change resilient building codes guidelines for coastal settlements
	(I) # of Caspian stakeholders applying the knowledge generated and reflected in the resilient building codes guidelines for coastal settlements	
Climate change resilient pollution control guidelines including settlement waste disposal systems for coastal settlements.	(LO) Caspian stakeholders equipped with and applying the knowledge generated and reflected in the climate change resilient pollution control guidelines	11. Climate change resilient pollution control guidelines for coastal settlements
	(I) # of Caspian stakeholders applying the knowledge generated and reflected in the climate change resilient pollution control guidelines	
Climate change resilient forest management guidelines including forest fire fight systems for coastal settlements	(LO) Caspian stakeholders equipped with and applying the knowledge generated and reflected in the climate change resilient forest management guidelines	12. Climate change resilient forest management guidelines including forest fire fight systems for coastal settlements.
	(I) # of Caspian stakeholders applying the knowledge generated and reflected in the climate change resilient forest management guidelines	
Climate change resilient drought management guidelines including virtual water systems for coastal agriculture and settlements	(LO) Caspian stakeholders equipped with and applying the knowledge generated and reflected in the climate change resilient drought management guidelines	13. Climate change resilient drought management guidelines including virtual water systems for coastal agriculture and settlements
	(I) # of Caspian stakeholders applying the knowledge generated and reflected in the climate change resilient drought management guidelines	

Climate change resilient biodiversity and fisheries management guidelines with attention paid climate change connect with invasive systems	(LO) Caspian stakeholders equipped with and applying the knowledge generated and reflected in the climate change resilient biodiversity and fisheries management guidelines	14. Climate change resilient biodiversity and fisheries management guidelines with attention paid climate change connect with invasive systems
	(I) # of Caspian stakeholders applying the knowledge generated and reflected in the climate change resilient biodiversity and fisheries management guidelines	
Agricultural comprehensive production management	(LO) Upgrading the technical skills and expertise of employees and staff in the field of land and agriculture.	15. Creating a database of successful national and international experiences 16. Provide intelligent monitoring system 17. Map of high-risk areas 18. Applicable list of evaluation and monitoring indicators 19. Establish a comprehensive information management system 20. Prioritization of maps of vulnerable areas and communities 21. Prioritization plans for planting crops in combination with vulnerability Database Manuals
	(I) # of training courses, number of trained experts per year	
	(LO) Increasing farmers' knowledge and awareness about the harms of different types of fertilizers and poisons used and information about using of bio-fertilizers	
	(I) # of brochures prepared, number of joint meetings of local officials with farmers and local communities, NGOs, number of advertising programs, etc.	
	(LO) Upgrading the expertise of employees and managers, developing a comprehensive monitoring and evaluation system, preparing evaluation checklists, developing monitoring indicators, etc.	
	(I) # of training courses, number of trained experts per year	
Forest area rehabilitation and conservation	(LO) Increasing the level of managerial knowledge, public awareness and sense of local belonging for the active protection and regeneration of forest areas	22. Prioritize action maps for forests in areas of vulnerability and increased safety
	(I) # of brochures prepared, number of joint meetings of local officials with local communities, NGOs, number of advertising programs, etc.	
Integrated sewage system and solid waste management	(LO) Awareness of new methods of waste collection and disposal, improving the knowledge and skills of experts, increasing the level of public awareness about the value of municipal waste and methods to reduce waste production	23. Development of a comprehensive waste management system for vulnerable communities 24. Action prioritization map 25. Wastewater Treatment programs and plans 26. Manuals
	(I) # of training courses, number of trained experts per year, Number of brochures prepared, number of joint meetings of local officials with local communities, NGOs, number of advertising programs, etc.	
	(LO) Raising awareness of people (and especially farmers) and managers about the importance of treated wastewater and places of using them	
	(I) # of brochures prepared, number of advertising programs, festivals, training courses and etc.	
Integrated water resource management	(LO) Strengthen the knowledge of national and local experts in the field of design, implementation and repair and optimization of water supply network in order to reduce the loss of water resources	27. Analytical maps of the water supply network in the studied communities Situation analysis reports 28. Map of high-risk areas 29. Map and information of wells for illegal extraction of groundwater 30. Prepare a database
	(I) # of training courses, number of trained experts per year	
	(LO) Raising awareness of people (and especially farmers) and managers	
	(I) # of brochures prepared, number of advertising programs, festivals, training courses and etc.	
	(LO) Creating public awareness of the dangers of over-harvesting and pollution of groundwater and strengthening the sense of indigenous belonging to the issue	
	(I) # of training courses for experts and managers, number of joint meetings of local officials with farmers and local communities, NGOs, etc.	

Biodiversity protection	(LO) Creating and promoting scientific and skill resources in the two-way relationship between biodiversity and urban planning, improving the level of knowledge of experts in responsible institutions in this field	31. Creating a new perspective on the country's urban planning system, which is related to global and regional conservation approaches 32. Database of endangered plant and animal species (statistics and maps) 33. Action prioritization plans based on existing risks to biodiversity 34. Create a database of non-native species Action plan for management
	(I) # of specialized resources produced, number of interdisciplinary endings, number of training courses and staff participating in these courses	
	(LO) Familiarity of experts and local communities with endangered species, introduction of different conservation methods and how to deal with illegal hunting of species	
	(I) # of training courses, number of trained experts per year, Number of brochures prepared, number of joint meetings of local officials with local communities, NGOs, number of advertising programs, etc.	
	(LO) Increasing the awareness of indigenous peoples and experts about the characteristics and harms of non-native species in various fields	
	(I) Number of training courses, number of trained experts per year, Number of brochures prepared, number of joint meetings of local officials with local communities, NGOs, number of advertising programs, etc.	
Mainstreaming climate change into urban planning systems	(LO) Familiarity with new methods of urban adaptation to climate, teaching new methods of urban and regional planning in accordance with climate change, improving the expertise of government employees and engineers active in this field	35. Updating the comprehensive urban planning system of the country 36. Change metropolitan policies to better adapt to climate and climate change updated ICZM programs for Caspian Sea Coastal Areas 37. Create a strong and documented database for use on a regional scale and facilitate international decision-making
	(I) # of training courses, number of research projects on adaptation to climate change and urban planning, number of related university courses, number of related dissertations	
	(LO) Training and upgrading the technical knowledge and skills of consultants in preparing and updating integrated coastal management programs, the possibility of using experiences in the international arena, using the experiences of other countries in this field	
	(I) # of training courses for consultants, managers and experts, number of projects reviewed in the first 3 years	
Clean energy development	(LO) Strengthening the knowledge and skills of the expert staff working in the management and executive body	38. Prioritized list and map for action 39. Prioritize areas for energy production according to the needs and potentials of each settlement produces clean and environmentally friendly energy
	(I) # of training courses, number of trained experts per year	
	(LO) Knowledge of the most up-to-date, cheapest and most efficient methods of energy production from waste, strengthening knowledge and expertise	
	(I) # of research projects, Number of training courses, number of trained experts	
	(LO) Educate and encourage people to use clean energy, increase the level of knowledge and managerial and expert skills	
	(I) Number of training courses, number of trained experts per year, Number of brochures prepared, number of joint meetings of local officials with local communities, NGOs, number of advertising programs, etc.	
Generating green and climate resilient livelihoods	(LO) Increasing the level of shared understanding skills, entrepreneurship, technical, expertise and managerial knowledge	40. Accurate and comprehensive knowledge of vulnerable groups, type and severity of vulnerabilities 41. Co-identify needs and priorities and co-develop plan with local communities 42. Creating a database of successful national and international experiences 43. (Vocational) training curricula for green and climate resilient jobs
	(I) # of training courses, number of trained experts per year (gender disaggregated)	
	(LO) Knowledge of different methods of circular economy in adaptation to climate change	
	(I) # of brochures prepared, # of podcasts and vlogs, # of joint meetings of local officials with local communities, NGOs, number of advertising programs, etc.	

	<p>(LO) Educate citizens about citizenship rights, crisis management and control methods, acquire the necessary skills to increase their resilience and their living environment in times of danger, crisis prevention methods, etc.</p> <p>(I) # of training courses, # of podcasts and vlogs, # of brochures prepared, number of joint meetings of local officials with local communities, NGOs, number of advertising programs, etc.</p> <p>(LO) Familiarity with successful global experiences in this field and localizing them to the specific country context</p> <p>(I) # of research projects, Number of training courses, number of trained experts</p> <p>LO) Increasing awareness of stakeholders about the role of urban migrants in circular economy and natural based solutions</p> <p>(I) report and brochure on migrants and circular economy, number of urban migrants participating in training on climate resilient livelihoods</p>	
Knowledge exchange and training programs for mainstreaming climate change adaptation into urbanization	<p>(LO) Promoting the expertise of employees and managers, developing a comprehensive monitoring and evaluation system</p> <p>(I) # of training courses, number of trained experts per year</p> <p>(LO) Increasing the level of skills, technical, expertise and managerial knowledge</p> <p>(I) # of training courses, number of trained experts per year</p> <p>(LO) Strengthening educational and research institutions to play a role in improving adaptation of urbanization and climate change, awareness of up-to-date methods and technologies</p> <p>(I) # of dissertations, research projects, training courses, etc.</p>	<p>44. Situation Analysis Report</p> <p>45. Facilitate action in urban planning and climate change adaptation programs</p> <p>46. Comprehensive and rich knowledge base</p>
Lessons learnt from pilot interventions at country level	<p>(LO) Identification of lessons learnt and making recommendation for future climate change adaptation related project</p> <p>(I) # of recommendations made for future climate change adaptation related project</p>	<p>47. Report on lessons learnt from pilot interventions in the Republic of Azerbaijan and the Islamic Republic of Iran</p>
Investment needs for national and local climate adaptation interventions developed for coastal provinces of Kazakhstan, Russian Federation and Turkmenistan.	<p>(LO) Identification and analyses of the investment needs for national and local climate adaptation interventions for coastal provinces of Kazakhstan, Russian Federation and Turkmenistan build upon the experience of the interventions held in the Republic of Azerbaijan and the Islamic Republic of Iran</p> <p>(I) # of the investment needs for national and local climate adaptation interventions for coastal provinces of Kazakhstan, Russian Federation and Turkmenistan identified</p>	<p>48. List of investment needs for national and local climate change adaptation interventions developed for coastal provinces of Kazakhstan, Russian Federation and Turkmenistan.</p>
Collection and overview of proven good practices on climate change adaptation and urban resilience from other Regional Seas areas applicable to the Caspian Sea region	<p>(LO) Identification and analyses of the good practices on climate change adaptation and urban resilience that could be easily applied in the Caspian Sea region</p> <p>(I) Recommendation made for concrete transfer of solutions and technology to the Caspian Sea region</p>	<p>49. Report on good practices on climate change adaptation and urban resilience from other Regional Seas areas applicable to the Caspian Sea region</p>
Climate Change Information and Knowledge Clearing House (CCICH) within the CEIC	<p>LO: Collect/ produce/ exchange climate change-oriented science, knowledge, information and best practices through the Climate Change Information and Knowledge Clearing House (CCICH)</p> <p>I: Number of items uploaded in the Climate Change Information and Knowledge Clearing House (CCICH)</p>	<p>50. Climate Change Information and Knowledge Clearing House (CCICH) within the CEIC</p>

I. 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 the Republic of Azerbaijan and the Islamic Republic of Iran as well as with the Secretariat of the Tehran Convention and scientific entities (November 2018 – December 2020); [a listing of all consultations at regional, national and local level has been made in Annex 4: Overview of Consultations, including Objectives, Outcomes and Conclusions.](#) The 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 refine the selection of target areas and respective interventions. 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.

Table 9: Planned Consultations for the full Proposal Development Stage

Regional, national and local dimension	Date	Stakeholder	Consultation Objective
Caspian Sea Region	Q.2 – Q.4 2021	Regional Center of Excellence in Split, Croatia – Mediterranean Sea on Integrated Coastal Zone Management Planning	- Good Practices for Integrated Coastal Zone Management in the Mediterranean Region and adaptation to Caspian Sea Region - Outlining of training programme for sector Ministries in Caspian Sea littoral states
	Q.3 2021	Regional Steering Committee	- Refinement of programme implementation modalities - Engagement of sector ministries in Caspian Sea littoral States - Review of (draft) Project Proposal
	Q.4 2021	Regional Steering Committee	- Review of (final) Project Proposal and approval for submission
Republic of Azerbaijan	Q.2 – Q.4 2021	Consultations with municipalities and local communities	- Final confirmation on most vulnerable communities - Consultations on priority climate change adaptation interventions at community level
	Q.2 – Q.4 2021	Relevant Sector Ministries	- Refinement of sector input to regional programme, with focus on climate change adaptation interventions at community level and needed review of national policies
	Q3. – Q.4 2021	Private sector entities	- Definition of concrete priority climate change adaptation interventions at community level, in close collaboration with municipalities and local communities
	Q.3 – Q.4 2021	Vocational training centers	- Outlining of vocational skills development programme for green and climate resilient jobs, in close collaboration with private sector and relevant ministries
	Q.3 – Q.4 2021	United Nations Resident Coordinator Office and United Nations Country Team (including specific entities)	- Alignment of Project Proposal with previous, ongoing and planned activities - Lessons Learnt from similar programmes and projects - Refinement of project implementation modalities
	Q3 2021	National Steering Committee	- Refinement of project implementation modalities - Review of (draft) Project Proposal
	Q.4 2021	National Steering Committee	- Review of (final) Project Proposal and approval for submission
Islamic Republic of Iran	Q.2 – Q.4 2021	Consultations with municipalities and local communities	- Final confirmation on most vulnerable communities - Consultations on priority climate change adaptation interventions at community level
	Q.2 – Q.4 2021	Relevant Sector Ministries	- Refinement of sector input to regional programme, with focus on climate change adaptation interventions at community level and needed review of national policies
	Q3. – Q.4 2021	Private sector entities	- Definition of concrete priority climate change adaptation interventions at community level, in close collaboration with municipalities and local communities
	Q.3 – Q.4 2021	Vocational training centers	- Outlining of vocational skills development programme for green and climate resilient jobs, in close collaboration with private sector and relevant ministries

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Q.3 – Q.4 2021	United Nations Resident Coordinator Office and United Nations Country Team (including specific entities)	- Alignment of Project Proposal with previous, ongoing and planned activities - Lessons Learnt from similar programmes and projects - Refinement of project implementation modalities
Q3 2021	National Steering Committee	- Refinement of project implementation modalities - Review of (draft) Project Proposal
Q.4 2021	National Steering Committee	- Review of (final) Project Proposal and approval for submission

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J. Justification for Funding Request

The proposed programme components, outcomes and outputs fully align with national and local government priorities and gaps identified, with identified community and vulnerable groups needs and with the Adaptation Fund outcomes as stated in the Adaptation Fund results framework. This alignment has resulted in the design of a comprehensive approach in which the different components strengthen each other and in which outputs and activities are expected to fill identified gaps of the Republic of Azerbaijan and the Islamic Republic of Iran's current climate change response. The project aims at maximizing the funding amount for the concrete adaptation component directly benefitting local communities in the two countries. Funding allocation to the other (softer) components is required to support the effective execution and sustainability of those components and to share knowledge and lessons learned across the Caspian Sea region and littoral states.

In the further elaboration of a full project proposal, a full justification for funding requested, focusing on the full cost of adaptation reasoning will be elaborated, by showing the impact of AF funding compared to no funding (baseline) related to expected project outcomes.

K. Sustainability of the Programme Outcomes

Sustainability is paramount for the long-term impacts and benefits of the programme, beyond its implementation time frame. Hence, this programme will work on increasing institutional and communities' capacities and ownership, facilitating economic opportunities and financial mechanisms, and strengthening technical expertise.

Institutional sustainability: The programme will pave the way for the national and local government, but also communities, in the Republic of Azerbaijan and the Islamic Republic of Iran and other Caspian Sea littoral states, to replicate, up-scale and sustain 'tested' concrete interventions and develop strategic spatial and land use plans, including risk mapping in other areas affected by coastal hazards by using the 'portfolio' of effective low-cost interventions, the 'urban lab' and by adjusting the institutional and legal framework, where necessary, to sustain this coastal management approach.

Social sustainability: By fully engaging communities, women, youth and other vulnerable groups in country and local level project activities, including, assessments (during the project development phase), the development of plans/ strategies and monitoring, the programme at achieving long-lasting awareness and capacities of these communities. Besides that, community households will be trained to construct and self-maintain the proposed interventions and to enhance their livelihood options in a sustainable and resilient way. Moreover, lessons and approaches will be shared and replicated among communities, also beyond the target areas and in other countries of the region.

Economic sustainability: Investing in increasing the resilience of coastal areas, vulnerable assets and ecosystems is a sustainable economic approach. It will not only avoid future costs related to climate change and environmental hazard impacts, but it will also enhance livelihood options. Besides that, the strategic spatial and land use plans will also avoid future costs related unsustainable urbanization and to climate change hazards by identifying the high-risk areas and sustain or open-up investment options in the 'suitable' areas.

Environmental Sustainability: The protection and or enhancement of ecosystems will be sustained through spatial and land use (as well as environmental protection) plans and other institutional and legal adjustments where needed. At the community level, awareness raising campaigns and trainings related to ecosystem protection and revenue-generating activities will support the sustainability of ecosystem-related interventions.

Financial sustainability: This programme is designed to identify and replicate low-cost building with nature coastal protection and livelihood enhancement interventions. Through the spatial and land use plans (with identified high and low risk areas) governments and the private sector will be able to develop business cases for focused protection and development of priority areas. Besides that, the institutional and legal framework will allow and promote interventions where they are more needed.

Technical sustainability: The 'portfolio' of interventions will be attractive for national and local governments and communities because solutions will be low-cost and nature-based and promote the building with circular economy dimensions for coastal protection and livelihood enhancement. Besides that, interventions concerning increasing the resilience of certain assets, will be developed using resilience and building back better principles. This will enhance the durability and sustainability significantly. Besides that, the proposed interventions will be maintained in partnership with local governments, public utilities and communities. This will ensure that after the project, interventions are will be properly maintained and remain operation

Regional dimension:

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.

National dimension:

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. Involving local people (and especially vulnerable groups) in projects and making them directly benefit from the benefits of the projects can sustain its achievements. This issue can be considered as important as involving all stakeholders on national and local scale.

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 the Islamic Republic of Iran which may hamper financial transactions to and from the country. Moreover, the recent conflict in the Nagorno-Karabakh Region might have an impact on the capacities of the Republic of Azerbaijan as national development priorities might shift.

L. Environmental and Social Impacts and Risks identified

The proposed regional programme with its project components seeks to fully align with the Adaptation Fund's Environmental and Social Policy (ESP) as well as the Gender Policy (GP). For the Concept Note, the entire programme, 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 developed further during the Project Proposal phase.

Table 10: Project Components, Expected Outputs and potential Risk Areas triggered (and further Assessment required)

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Project Components	Expected Outputs	Principle possibly triggered and further Assessment required during full proposal development phase
1. <i>Climate change adaptation planning at the regional level</i> (Regional component)	Development of Climate Change Targeted Integrated Coastal Zone Management Regional Guidelines for the Caspian Sea countries to implement Art. 15 of the Tehran Convention. Capacity related workshops, Strengthening of Teheran Convention Interim Secretariat	<i>Triggered principles: 1, 6, 8, 9, 10, 11, 12, 15</i> <i>In this component, the project focuses on environmental issues, so its social effects are not clear and need further assessment. In order to consider the following principles: 2, 3, 4, 5, 7, 13, 14</i>
2. <i>Climate change adaptation planning at national, city and community level</i> (National component: Republic of Azerbaijan and Islamic Republic of Iran)	Review of national regulations. Development of integrated coastal and territorial planning instruments and local adaptation plans. National and local level Integrated Coastal Zone Management Planning. City and neighborhood level participatory workshops On-the-job training for city leaders and municipal technical teams.	<i>Triggered principles: 1, 8, 9, 10, 11, 12, 14, 15</i> <i>In this component, given that the project focuses on the preparation of territorial and integrated coastal management plans, it is expected that ESP Principles will be considered, but a further assessment on the following principles seems necessary: 2, 3, 4, 5, 6, 7, 13</i>
3. <i>Implementation of transformative and catalytic projects at national, city and community level addressing urban resilience and climate change adaptation</i> (Local component)	Implementation and management guidelines for urban resilience and climate adaptation. Financial mechanisms for municipal finance. Involvement of key stakeholders. Trust fund geared towards private sector sponsorship. Peer-to-peer city learning and exchange workshops, seminars and field visits. On-the-job training for municipal technical staff. On-the-job training for city leaders and municipal technical teams.	<i>Given that the focus of the project in this component is on local communities, consideration of the principles of social sustainability and resilience is seen more in it and most of the following principles are triggered.</i>
4. <i>Urban resilience, climate change adaptation – partnerships, institutional, legal, research cooperation and knowledge</i> (upscaling component)	Review of national regulations on climate change adaptation and resilience and alignment between countries institutional, legal frameworks. Forming a web-based Science-Policy Platform. Design and implementation of targeted awareness raising and training events within the Caspian Sea Day celebration for beneficiaries and stakeholders. Holding a Sustainable Investment Conference.	<i>In this component, the focus of the project is on creating international cooperation, and from this approach, attention to social and environmental principles is evident. However, its activities do not have direct social and environmental effects.</i>

Table 11: Checklist of environmental and social Principles

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Checklist of environmental and social Principles	No further assessment required for Compliance	Further Assessment required for Compliance (during the full Proposal Development Phase)
1. Compliance with the Law	Partially fulfilled	Yes, further refinement based on additional assessment and analysis needed
2. Access and Equity	Partially fulfilled	Yes, further refinement based on additional assessment and analysis needed
3. Marginalized and Vulnerable Groups	Vulnerability criteria have been outlined, partially fulfilled	Further community consultations are required to provide evidence for contribution of concrete climate adaptation measures to reduce vulnerabilities of selected communities
4. Human Rights	Project concept note has mainstreamed human rights agenda	Further assessment and analysis recommended to refine human rights agenda in full project document

5. Gender Equity and Women's Empowerment	Project concept note has mainstreamed gender equity and women's empowerment agenda	Further assessment and analysis recommended to refine gender equity and women's empowerment agenda in full project document
6. Core Labor Rights	Partially fulfilled	Yes, further assessment and analysis recommended to refine core labor rights agenda in full project document needed
7. Indigenous Peoples	Project concept note has taken into consideration concerns of indigenous peoples	Not applicable
8. Involuntary Resettlement	The project will not engage in involuntary resettlement practices.	Not applicable
9. Protection of natural Habitats	Partially fulfilled	Yes, further refinement based on additional assessment and analysis needed
10. Conservation and Biological Diversity	Partially fulfilled	Yes, further refinement based on additional assessment and analysis needed
11. Climate Change	Partially fulfilled	Yes, further refinement based on additional assessment and analysis needed
12. Pollution Prevention and Resource Efficiency	Partially fulfilled	Yes, further refinement based on additional assessment and analysis needed
13. Public Health	Partially fulfilled	Yes, further refinement based on additional assessment and analysis needed
14. Physical and Cultural Heritage	Partially fulfilled	Yes, further refinement based on additional assessment and analysis needed
15. Lands and Soil Conservation	Partially fulfilled	Yes, further refinement based on additional assessment and analysis needed

PART III: IMPLEMENTATION ARRANGEMENTS

A. Arrangements for Programme Management at regional and national Level

Offices (RCOs) both in the Republic of Azerbaijan and the Islamic Republic of Iran. UN-Habitat will be the lead implementing entity, technically supported by UN Environment Programme (co-leading) as well as the IOM (supporting), both implementing partners of the initiative. Moreover, the regional programme will in its country level project components closely coordinate with the respective United Nations Country Teams and closely collaborate with specific relevant UN agencies, such as the United Nations Development Programme as well as the Food and Agriculture Organization of the United Nations. The cooperation between UN-Habitat and the Tehran Convention Interim Secretariat (UN Environment Programme) will be reinforced through a Memorandum of Understanding.

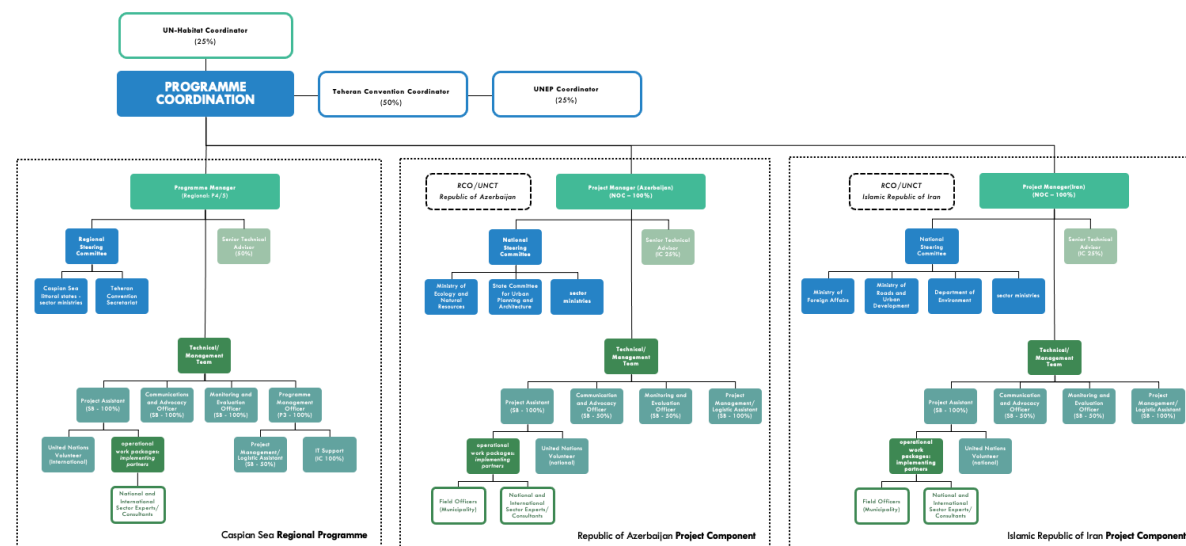


Image 1: Overview Implementation Modalities for overall Regional Programme with Country Level Project Components in the Republic of Azerbaijan and the Islamic Republic of Iran (This represents an overview only and will be explained in more detail during the next paragraphs.)

The regional programme will establish a project office both in Baku, Republic of Azerbaijan as well as Teheran, Islamic Republic of Iran. The latter will closely coordinate with the UN-Habitat country office located there. Based on the initial steering of the regional programme from UN-Habitat's global

in place and/ or lengthy contracting process, incl. negotiations with execution entities			timelines to avoid delays in commencing the programme.	
2. Loss of Government support for programme, project and activities due to elections and related functions due to lack of prioritisation of AF project activities or different pace of execution of activities	1 – Low	3 – medium	Technical staff at execution level in sector ministries and local governments to be engaged in all aspects of programme development and implementation; utilize role of UNRCO and UNCT in ensuring consistency of programme implementation.	Core project implementation functions and role of Steering Committee outlined (y/n) National Technical Experts engaged in project team (y/n)
3. Lack of coordination between and within national government Ministries and Departments and municipalities.	2 – Low	3 – medium	National Steering Committee to address coordination of sector ministries towards enhanced collaboration to achieve expected accomplishments.	Terms of Reference for Steering Committee outline coordination mechanisms and indicate mitigation measures (y/n)
4. Capacity constraints of executing entities, local institutions, communities and the private sector may limit the effective implementation of interventions	1 – Low	3 – medium	Capacity assessment of executing entities, local institutions, communities and the private sector and programmatic response to address	Capacity assessment addresses constraints of executing entities, local institutions, communities and the private sector (y/n)
5. Communities may not adopt activities during or after the AF project, including infrastructure maintenance	2 – Low	4 – High	Identify potential threats to adoption challenge in sustainability strategy for climate change adaptation measures to address livelihood dimension and maintenance components.	Sustainability strategy outlines sustainability of livelihood generation and maintenance components for climate change adaptation interventions at community level (y/n)
Financial management and Requisite Institutional Capacity				
6. Complexity of financial management and procurement. Administrative processes could delay the project execution or could lack integrity or needed capacity.	2 – Low	2 – Low	Challenges to delay of project execution to be assessed at the onset of the programme implementation and measures adopted in financial management and procurement strategy.	Financial management and procurement strategy outlines mitigation measures for potential implementation challenges (y/n)
7. Inflation and instability of the national currency leading to budget issues and increased prices for infrastructure delivery.	3 – Medium	1 – Low	Monitoring of potential threats to stability of national currency as part of the UN Development System, systemic response to this challenge recommended.	Financial management and procurement strategy
Physical				
8. Covid-19 protocols restrict movement to and in the target areas	3 – Medium	4 – High	Programme will have to assess and outline a Covid-19 engagement strategy with national, regional and local partners.	Covid-19 Partner Engagement Strategy developed (y/n)

C. Monitoring and Evaluation Arrangements

The Monitoring and Evaluation (M&E) arrangements for this regional programme will be in compliance with the Adaptation Fund M&E Guidelines as well as the Environmental and Social Policy (ESP) and Gender Policy (GP). Moreover, it will follow the principles for M&E as outlined in UN-Habitat's Evaluation Policy (2013) and Evaluation Manual (2018). They adhere to the UN system standards and norms for evaluation, which are in line with the OECD/DAC criteria for evaluation.

Based on the Adaptation Fund Result Framework and Theory of Change, the regional programme will establish a M&E Framework and Plan, with country level M&E project components, including the following key considerations: (1) baseline data and targets; (2) programme and project milestones; (3) financial data; (4) procurement data; (5) risk assessment; (6) ESP compliance; (7) GP compliance; (8) programme and project indicators; and (9) lessons learnt. The M&E of progress in achieving programme and project results will be based on targets and indicators.

The M&E Framework takes into account the early stages of implementation of the programme and its respective country and regional project components. There are three levels of evaluation recommended:

Deleted: <#>Environmental and Social Risk Management

Note: to be completed in Project Proposal

Annual Programme and Project Performance Reports (PPRs) will include a section on the status of implementation of any Environmental and Social Management Plan, including those measures required to avoid, minimize or mitigate environmental and social risks. The reports shall also include, if necessary, a description of any corrective actions that are deemed necessary.

Mid-term Evaluation: As the programme is envisaged to be implemented over the period of 4 years, a Mid-term Evaluation will be conducted after the completion of the second year. It will be conducted by an independent team of consultants (composed of international and national experts) who will critically assess the initial outputs and results of the programme and respective project components. This will enable an assessment of the quality of programme implementation. Major changes to the objectives and expected outcomes of the programme will be communicated to the AF Secretariat.

Final Evaluation: The programme will conduct a Final Evaluation after the end of its implementation. The evaluations will be undertaken independent of programme and/ or project management. It will assess, at a minimum, the following: (1) achievements of programme and project outcomes; (2) evaluation of risks to sustainability; and (3) processes influencing achievement of results, including financial management. Moreover, the Final Evaluation will include an evaluation of the project's performance with respect to environmental and social risks. The cost of Mid-term and Final Evaluations will be covered by the programs M&E Framework.

UN-Habitat will ensure timely and high-quality M&E by keeping oversight of the process and providing guidance to the Project Execution Entities and national government partners through full briefings of M&E requirements. Where possible, the M&E process will be participatory, involving key stakeholders at regional, national, local and community levels. Programme and project activities will be monitored and endorsed by the regional programme and national project steering committees and comply with the AF ESP and GP. Audits of the programme/ project financial management will follow AF regulations and rules and applicable audit policies. The M&E Plan will be implemented as proposed in the table below.


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

A. Record of endorsement on behalf of the government¹⁴

- **Republic of Azerbaijan** - Mr. Emin Garabaghli, Head - Division for International Cooperation, Ministry of Ecology and Natural Resources: Endorsement letter 01 issued on 31 July 2019; Endorsement letter 02 issued on 28 January 2021.
- **Islamic Republic of Iran** - Mr. Sayed Alimohammad Mousavi, Director General - Environmental and Sustainable Development Affairs, Ministry of Foreign Affairs: Endorsement letter 01 issued on 04 August 2019; Mr. Mohsen Esper, Director General for International Environmental Affairs and Sustainable Development, Ministry of Foreign Affairs: Endorsement letter 02 issued on 16 January 2021.

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B. Implementing Entity certification

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans, especially the Republic of Azerbaijan 2015 INDCs and Vision 2020 as well as Islamic Republic of Iran 2017 INDC, and subject to the approval by the Adaptation Fund Board, <u>commit to implementing the programme in compliance with the Environmental and Social Policy of the Adaptation Fund</u> and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
 Mr. Raf Tuts Director Global Solutions Division, United Nations Human Settlements Programme (UN-Habitat) - Implementing Entity Coordinator	
Tel. +254 20 76 23 726, Email raf.tuts@un.org	Date: 15 January 2021
Project Contact Person: Ms. Katja Schaefer, Inter-Regional Advisor – Programme Development Branch, Global Solutions Division	
Tel. +254 20 76 24 738, Email katja.schaefer@un.org	

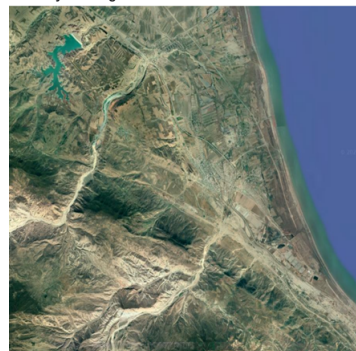
¹⁴ For further reference, please see Letter of Endorsement who has been provided in a separate document.

ANNEXES

ANNEX 1: COASTAL DYNAMICS AND AREA SELECTION

A1. Table 1: Coastal Dynamics and Area Selection – Republic of Azerbaijan

A.1: Siyazan Region



The Siyazan district is located around 100 km north of the capital city of Baku. It is considered one of the poorest areas in the county. The population of around 42,000 people is distributed in one major intermediary sized town of the same name and 34 villages. Over the past 10 years, there has been a population increase by around 5,000 persons. Both male and female populations are equally split; 27,000 people or 65% of the district are urban populations. The major settlements are located right off the Caspian Sea shores; hence, sea water fluctuations have a major impact on the communities. In 2018, the average income of the population has been 267 manats (equating 150 USD) per month, being relatively low compared to other regions. The major source of income is generated through self-employment and remittances. The region does not seem to have a sufficiently well managed solid waste scheme; hence, the solid waste is informally disposed along the Caspian Sea shores. Potential water shortage affecting agricultural productivity will have a major impact on the region.

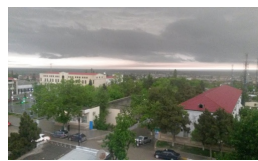


Image A.1-1: Siyazan town frequently faces extreme weather events causing flash floods¹⁵



Image A.1-2: Agricultural fields along the Caspian Sea coast are threatened by land degradation¹⁶



Image A.1-3: Outskirts of Siyazan town with encroachments on agricultural land¹⁷



Image A.1-4: Siyazan protest over high prices, unemployment and a currency devaluation¹⁸

A1. Map 1: Identified target areas and communities along the Caspian Sea shore – Republic of Azerbaijan: target area A.1 – Siyazan Region (not to scale)

A.2: Greater Baku Region, Pirallahi Island



Pirallahi Island is located off the northeastern shore of the Apsheron Peninsula, within the boundaries of Greater Baku Metropolitan region. The island is 11 km long and 4 km wide. Administratively, the island belongs to the Pirallahi district of Baku. Thei district was established in 2012 and separated from Surakhani district; the decision behind this administrative division is due to prioritizing the development issues of the island. The government's plans foresee a dedicated tourism zone for the region, and has allocated major investment projects in the area. Moreover, in 2016 an Industrial Park was established and a High-Tech Park was announced shortly after by the Ministry of Construction. Hence, the island and district became one of the prioritized islands since the government's policy was to populate this area. Within the period of the past 4 years, a new bridge connecting the mainland and the island was constructed. Furthermore, the President allocated further resources for building construction with the intention to relocate communities to adequate housing solutions. In 2017, the President inaugurated the Pirallahi solar power plant aiming at ensuring power supply to the population and social facilities in the district through local alternative and renewable energy sources.



Image A.2-1: Housing situation on Pirallahi Island¹⁹



Image A.2-2: Local boys repairing fishing nets²⁰



Image A.2-3: The site has been area of extensive oil exploitation and left with many dilapidated equipment²¹



Image A.2-4: Basements of some residential buildings in Pirallahi district are flooded²²

A1. Map 2: Identified target areas and communities along the Caspian Sea shore – Republic of Azerbaijan: target area A.2 – Absheron Peninsula/ Greater Baku Region (not to scale)

¹⁵ source: <https://rakus.az/siyezen-icra-bascisinin-gorusu-sehv-gostenir-fakt/>

¹⁶ source: <https://azertag.az>

¹⁷ source: <https://wikimedia.org/wiki/pedia>

¹⁸ source: <https://eurasianet.org/azerbaijan-wielding-a-stick-while-searching-for-carrots>

¹⁹ source: <http://gsaz.az>

²⁰ source: <https://chai-khana.org/en/story/572/fish-fantasies-on-azerbaijans-pirallahi-island>

²¹ source: <https://twitter.com/silkwaytravels/status/462103913521373184>

²² source: <https://medium.com/@ChaiKhana/fish-fantasies-on-azerbaijans-pirallahi-island-5f319ac3abc7>

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A.3: Nefchala Region



A1. Map 3: Identified target areas and communities along the Caspian Sea shore - Republic of Azerbaijan: target area A.3 - Nefchala Region (not to scale)

The Nefchala district has been identified as a priority development region for the Government of the Republic of Azerbaijan. Located along the coastal area at the mouth of the river Kura, the impact of climate change is very visible. The area is exposed to flooding during heavy rains and higher water tables of the Caspian Sea while facing salinization when drought occur as well as declining water levels of the Caspian Sea. The absence of fresh water and salinization of Kura River during the 2020 summer made the site the zone of an emergency. Currently, the government is constructing a large scale infrastructure project in order to pipe the necessary drinking water to the location and address th elimited accessibility to fresh drinking water and for agricultural purposes. The Nefchala district is considered a priority area of the governments development efforts due to its strategic location, proximity to national parks, as well as livelihoods depending on access to both the river Kura and the Caspian Sea. This fragile ecosystem is threatened as well as community vulnerabilities exposed.



Image A.3-1: Typical multi-story building in Nefchala without access to water during drought (source: Anar Vallyev)



Image A.3-2: Irrigation canal washing salinity from agricultural fields into the Kura river catchment area (source: Anar Vallyev)

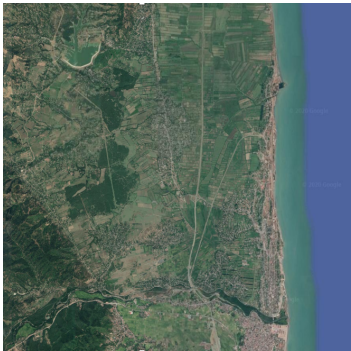


Image A.3-3: Informal Solid Waste dumping site next to a river bed in Nefchala region (source: Anar Vallyev)



Image A.3-4: Images of Kura river during summer period drought²³

A.4: Lenkaran/ Astara Region



A1. Map 4: Identified target areas and communities along the Caspian Sea shore - Republic of Azerbaijan: target area A.4 - Lenkaran/ Astara Region (not to scale)

The city is located in proximity to the border with the Islamic Republic of Iran. This region hosts the highest percentage of an ethnic minority, the Talysh. The main economic sector is agriculture and farming, with a large proportion of the region's households living in rural areas being engaged in subsistence agriculture. As a result, these communities are extremely vulnerable to erratic climate events. Reduction in land productivity or lower than seasonal rainfall has direct implication on the income they generate and food they consume, which is also reflected in other socio-economic indicators such as schooling rates of children. Small-scale farmers are extremely vulnerable to climate change and water shortages in the region which is expected to be exacerbated by time. Based on previous studies conducted and analysis of the hydrometeorological trends in the Republic of Azerbaijan, increase in temperature, decrease in precipitation coupled with changes in snow cover extent are among the identified changes resulting from climate change. Hydrological processes have an enormous impact on available water resources, agricultural productivity and community vulnerability. Potential water shortage affecting irrigation and agricultural productivity is has been highlighted in the regions of Ganikh, Lenkaran, Eastern Lower Kur and Samur.



Image A.4-1: Informal Solid Waste dumping site in Astara region (source: Anar Vallyev)



Image A.4-2: People in region depend on the trans-border trade for their own consumption or business (source: Anar Vallyev)



Image A.4-3: Azerbaijan-Iranian border. Iran is destination not only for food, but for medical services too²⁴

²³ source: <https://www.turan.az/ext/news/2020/7/free/interview/en/125715.htm>

²⁴ source: <https://iwpr.net/global-voices/azerbajanis-flock-iran-food-medicines>

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L1: Astara Region, Astara City



A1. Map 5. Identified target areas and communities along the Caspian Sea shore – Islamic Republic of Iran: target area I.1 – Astara Region (not to scale)

Astara is a common border region located between the Islamic Republic of Iran and the Republic of Azerbaijan. Due to the environmental, economic and social ties of this region, it is necessary to pay attention to it in an integrated manner and with common considerations. The region has seen population growth in recent years due to opportunities created by the border economy. However, its density is not yet comparable to the central parts of the Caspian Sea coast in the Islamic Republic of Iran. The structural form of settlements' location is linear due to the land form between the sea and the mountains in this area. One of the prominent features of this area is the unplanned growth of settlements within an emerging metropolitan region, however without any urban centres but rather spreading like a carpet of rural housing typologies along the coast. Moreover, the coastal line is changing rapidly, both through fluctuating sea levels as well as increase urbanization. Satellite images show the progress of sea water on the west coast, especially in Astara and Tavelesh townships.



Image A.4-1. Unplanned urbanization pattern in Astara region



Image I.1-2. Astara Region – coastal zone in 2016 (source : google earth)



Image I.1-2. Astara Region – coastal zone in 1984 (source : google earth)

L2: Anzali Lagoon and Sefidroud Delta, Bandar Kiasahr



A1. Map 6. Identified target areas and communities along the Caspian Sea shore – Islamic Republic of Iran: target area I.2 – Anzali Lagoon and Sefidroud Delta (not to scale)

The Anzali Lagoon and Sefidroud Delta as well as Bandar Kiasahr are among the most vulnerable locations to the impact of climate change along the northern coastal areas in the Islamic Republic of Iran. Many measures have been undertaken to rehabilitate this fragile wetland, and it continues to require attention. The density of settlements in this area is scattered, with Anzali Port being the largest urban agglomeration. Climate change and its aftermath, such as sea level fluctuations, will have a significant impact on both Anzali Lagoon, one of the world's most important wildlife habitats, and the region's habitats and economies, especially for local fishermen. Due to the coastal location of Anzali Port, the reduction of sea water levels will – if not well managed – expose land for unplanned construction activities rather than protecting and expanding the ecosystem protection.



Image I.2-1. Aerial View onto Bandar Kiasahr



Image I.2-2. Toxins entering wetland in Bandar Kiasahr



Image I.2-3. Azolla plant and damage to the lagoon



Image I.2-4. Wooden Bridge in Bandar Kiasahr

I.3: Haraz River Estuary, Mahmoud Abad



A1. Map 7. Identified target areas and communities along the Caspian Sea shore – Islamic Republic of Iran. target area I.3 – Haraz River Estuary (not to scale)

The Haraz River Estuary is one of the most densely populated areas along the Iranian northern coast line. The largest cities of Mazandaran province are located here as well as scattered village areas. The existence of both industrial employment and luxury entertainment centers have caused increasing demand for housing in this area. One of the most serious challenges in this area is the lack of a well managed sewage and waste disposal system which can withstand the high levels of consumption. In recent years, signs of heat islands have been seen in its larger cities such as Amol and Mahmoud Abad.



Image I.3-1: Mahmoud Abad



Image I.3-2: Mahmoud Abad



Image I.3-3: Garbage dump on the shores of Mahmoud Abad

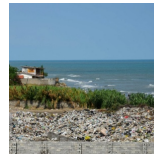


Image I.3-4: Garbage dump on the shores of Mahmoud Abad

I.4: Gorgan Bay/ Miankale Lagoon, Bandar Torkaman



A1. Map 8. Identified target areas and communities along the Caspian Sea shore – Islamic Republic of Iran. target area I.4 – Gorgan Bay/ Miankale Lagoon (not to scale)

Gorgan Bay and Miankale Lagoon locations are characterized by small cities and villages that expand in an unplanned manner along the coast line. Moreover, this area is one of the most exposed locations to the impact of climate change in terms of being a backwater, frequent flood occurrence, warmer sea water, etc. Most affected are the townships of Gomishan, Aqqola, Kordkuy, Gaz Port and Torkaman Port of Golestan Province as well as Galugah and Behshahr townships of Mazandaran Province.



Image I.4-1: Bandar Torkaman

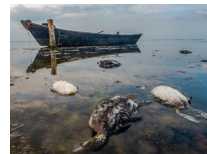


Image I.4-2: Biodiversity Loss in Bandar Torkaman



Image I.4-3: Seawater retreat in Bandar Turkmen



Image I.4-4: Seawater retreat in Bandar Turkmen

ANNEX 2: OVERVIEW OF LOCALIZED CLIMATE CHANGE IMPACTS/ HAZARDS AND EFFECTS, UNDERLYING VULNERABILITIES, BARRIERS TO ADAPT AND RESILIENCE BUILDING NEEDS

A2. Table 1: Overview of localized Climate Change Impacts/ Hazards and Effects, underlying Vulnerabilities, Barriers to adapt and Resilience Building Needs – Republic of Azerbaijan

District and Communities	Population/ Beneficiaries	Main Climate Change Impact/ Hazards	Effects on Communities	Underlying Vulnerabilities	Barriers to adapt	Identified Climate Resilience Building Needs
A.1: Siyazan Region	Total Population: 42,000 Rural Population: 15,000 Urban Population: 27,000 Women: 21,000 Above 65 or below 15: 15,120	Coastal erosion; coastal flooding; flash floods/ rain; limited access to water/ water shortage	Socio-economic: increased poverty, destruction of key assets (infrastructure, housing, etc); rural-urban migration; loss in agricultural production; disease outbreak Environmental: coastal retreat, ecosystem and biodiversity loss, environmental degradation; inundation in settlements	- low quality drainage system - sanitation challenges - low density of population - poor agricultural practices	Unsustainable development: - weak government support due to limited capacities - inadequate/ insufficient funds - inadequate access/ funding for collection of waste, disposed informally disposed of in coastal areas or burnt	Reduce hazard exposure: - Protect people, assets and livelihoods from flooding, erosion and impact of sea level fluctuation Increase community resilience: - provision of sustainable livelihoods - raising awareness on climate change and environmental management - capacity building - provision of waste disposal and collection - creation of green jobs - hygiene awareness
A.2: Greater Baku Region, Pirallahi	Total Population: 21,000 Rural Population: Not applicable Urban Population: 21,000 Women: 9,800 Above 65 or below 15: Not known	Fluctuating sea level; environmental degradation	Socio-economic: declining agricultural production (limited employment opportunities and food shortage); increased poverty, unemployment, migration, decline in human health conditions Environmental: coastal retreat, water shortage, ecosystem and biodiversity loss, environmental degradation	- pressure on ecosystems - tenure insecurity and land conflict - pollution/ waste challenge	Environmental degradation: - soil erosion - land degradation	Capacities: - vision and know how - new innovative approaches - climate adaptation and good urban governance - financial resources
A.3: Neftchala Region	Total Population: 89,000 Rural Population: 47,000 Urban Population: 42,000 Women: 44,500 Above 65 or below 15: 40,000	Fluctuating sea level; salinization of river; droughts; soil erosion; soil salinization; floods	Socio-economic: increased poverty, unemployment, migration, decline in human health conditions Environmental: coastal retreat, ecosystem and biodiversity loss, environmental degradation	- limited livelihood opportunities and unemployment - increasing poverty levels - declining safety and increasing crime levels	Lack of coping capacities: - lack of knowledge/ technical skills - inadequate information and communication on hazards (ie. floods) - low awareness and community enforcement of sanitation and hygiene - absence of urban and climate change adaptation challenge comprehension	
A.4: Lankaran/ Astara Region	Total Population: 109,000 Rural Population: 76,000 Urban Population: 33,000 Women: 54,500 Above 65 or below 15: 38,150	Decline in biodiversity; droughts; high chances of floods	Socio-economic: declining agricultural production (limited employment opportunities and food shortage); increased poverty, unemployment, migration, low level of female participation; limited opportunities for younger generations; decline in human health conditions Environmental: coastal retreat, ecosystem and biodiversity loss, environmental degradation	- vulnerabilities to external shocks (Covid19)		

A2. Table 2: Overview of localized Climate Change Impacts/ Hazards and Effects, underlying Vulnerabilities, Barriers to adapt and Resilience Building Needs – Islamic Republic of Iran

District and Communities	Population/ Beneficiaries	Main Climate Change Impact/ Hazards	Effects on Communities	Underlying Vulnerabilities	Barriers to adapt	Identified Climate Resilience Building Needs
I.1: Astara Region, Astara City	Total Population: 291,906 Rural Population: 150,732 Women: 144,635 Above 65: 17,464	Fluctuating sea level in particular seawater intrusion	Unemployment; endangered coastal construction; psychological problems among region's youth	Poverty; economic downturn; lack of vital services and infrastructure; waste disposal; lack of drainage systems (flooding of roads); female-headed households	Lack of public awareness; weak expert knowledge; political-economic pressures at the national level; weak management and monitoring system; lack of skills; insufficient social and skills training; poor government support	Hazardous areas; vulnerable groups; financial capacity to implement programs
I.2: Anzali Lagoon and Sefidroud Delta, Bandar Kishahr	Total Population: 208,881 Rural Population: 62,781 Women: 104,477 Above 65: 19,654	Declining sea water level	Threats to people's livelihoods (e.g. fishermen); loss of valuable environment of Anzali wetland; threat to tourism industry; conversion of lands around the wetland to agricultural lands; indigenous biodiversity loss; unemployment	Disposal of industrial waste and effluents to Anzali wetland; lack of management; environmental pollution; uncontrolled and unregulated tourism; low level of health; lack of system for waste collection and disposal; uncontrolled urbanization; lack of social services	Lack of public awareness; weak expert knowledge; political-economic pressures at the national level; weak management and monitoring system; lack of skills; insufficient social and skills training; poor government support	Hazardous areas; vulnerable groups; financial capacity to implement programs
I.3: Haraz River Estuary, Mahmoud Abad	Total Population: 816,799 Rural Population: 333,237 Women: 402,525 Above 65: 57,230	Heat islands	Increasing class gap; disappearance of indigenous culture; loss of natural habitats (based on unplanned urban growth); increased diseases caused by heat and air pollution; flooding of roads; sea level rising	High level of environmental pollution; uncontrolled tourism; lack of a comprehensive water resources management system; lack of integrated sewage disposal and waste collection systems; lack of social services (especially for lower middle-class people)	Lack of public awareness; weak expert knowledge; political-economic pressures at the national level; weak management and monitoring system; lack of skills; insufficient social and skills training; poor government support	Hazardous areas; vulnerable groups; financial capacity to implement programs
I.4: Gorgan Bay/ Miankale Lagoon, Bandar Torkaman	Total Population: 607,731 Rural Population: 269,200 Women: 300,912 Elderly: 38,109	Sea water retreat; flood occurrence; sea water warming; drought; rising temperature; reducing agricultural capacity	Threats to people's livelihoods (e.g. fishermen); demolition of houses, passages and infrastructure; biodiversity loss (impact on livelihoods); reduced level of public health; increasing poverty and crime; unemployment; threats to food security	Poverty; economic downturn; lack of integrated sewage disposal and waste collection systems; weakness of natural drainage systems; lack of social services	Lack of public awareness; weak expert knowledge; political-economic pressures at the national level; weak management and monitoring system; lack of skills; insufficient social and skills training; poor government support	Hazardous areas; vulnerable groups; financial capacity to implement programs

ANNEX 3: NATIONAL PRIORITIES ANALYSIS

A3 Table 1: National Climate Change Priorities Analysis – Republic of Azerbaijan

Climate Change Strategic Focus Areas	Relevant Programme Areas	Relevant Policy Actions
Agriculture and Food Security	Governance approach to problem solving	Building and implementing of intergovernmental mechanism for decision making
Disaster Preparedness and Response	Disaster preparedness at the local level	Enforcing and empowering local governments to have local plan for disaster prevention and management
Natural Resource Management	Vision and strategy is needed for managing non-oil natural resources; scheme of dividing local resources with municipalities; proper taxation	Plan and strategy for non-oil sector natural resource management
Equitable Social Development	National programs on development of regions; social development; employment etc	Alignment and harmonization of national programs with international practice
Energy, Industrial and Infrastructure Development	Alternative energy; green development and economy	Alignment and emphasis on sustainable energy and infrastructure development

A3 Table 2: National Climate Change Priorities Analysis – Islamic Republic of Iran

Climate Change Strategic Focus Areas	Relevant Programme Areas	Relevant Policy Actions
Agriculture and Food Security	Review and development of macro-level policies for mainstreaming climate change adaptation into the agricultural sector	- Development of policy refinement and decision-making process - Development of program for managing agricultural inputs and products based on greater compatibility and productivity
	Empowerment (technical, economic, social and cultural) of key stakeholders to take climate change adaptation action	- Enhanced economic, social and cultural capacities - Review and development of technical programs, education and research with the aim of developing the ability to adapt to climate change in the agricultural sector
	Enhanced international interactions	- Planning to develop cross-border agriculture and crop exchange
Disaster Preparedness and Response	Securing villages	Identification of villages at risk of natural disasters with the cooperation of responsible agencies and the participation of people and local institutions
	Increase the safety and resilience of society, prevent and reduce the risks of accidents	- Helping to maintain and promote social capital by empowering people to actively participate in key areas of decision making concerning their lives. - Development and strengthening of the country's disaster preparedness and response. - Enhance public awareness, especially public education, to reduce risks and increase the resilience of society. - Provide sustainable resources in the field of disaster risk management.
Natural Resource Management	Regional and rural climate-oriented development	- Development of alternative and adaptive livelihood promotion programs in local and rural communities. - Review of regional development policies in terms of climate change adaptation principles. - Climate change adaptation sensitive nature tourism.
	Establishment of a management system compatible with climate change	- Complete studies, evaluate and review policies and regulations. - Improve and develop biological resource conservation measures to adapt to climate change. - Completion of the country's environmental monitoring system. - Establishment of a sustainable development system in the exploitation of natural resources. - Integrated management of compatible ecosystems.
	Establish a system of compensatory and supportive measures	- Provide a program for the management of natural resources and biodiversity of the country. - Develop macroeconomic and social development plans.
	Development of research, extension, cultural, public education and training of human resources	- Upgrading the level of expertise of the country. - Public awareness. - Targeted development and alignment in research projects.
	Development of regional and international cooperation	- Creating specialized joint working groups. - Attracting international attention and support.
Equitable Social Development	Benefit of society from women's human capital in the process of sustainable and balanced development	- Strengthening the organizational position of women's affairs. - Applying a gender justice approach.
	Economic growth and development based on justice	- Exploring innovative pathways for generating employment. - Skills development and professional knowledge promotion. - Support for small and home-based businesses. - Supporting knowledge-based jobs
	Regional balance, rural development and empowerment of vulnerable groups	- Allocation of 3% of export revenue from crude oil and net gas condensate exports of natural gas, respectively, third to oil-rich and gas-rich provinces and two-thirds to less developed regions and cities.
Energy, Industrial and Infrastructure Development	Green management program	- Management of energy consumption, water, raw materials, equipment and paper, reduction of waste materials and their recycling in buildings and vehicles, in all executive bodies and public non-governmental organizations and institutions within the framework of relevant laws. - Expand research and development.
	Upgrading the level of technology in the country's industries and achieving advanced and strategic technologies	- Support the generation of innovation potential in the country through supportive systems. - Strengthen the cooperation of scientific, educational, research and industrial centers of the country. - Constructive interaction with advanced scientific and industrial centers of the world. - Assess existing comparative advantages and discover and create new comparative and competitive advantages.

A3 Table 3: Regional Climate Change Priorities Analysis – Caspian Sea Region

Climate Change Strategic Focus Areas	Relevant Programme Areas	Relevant Policy Actions
Water Sea Level Fluctuations	Scientific research on the implications of the sea level fluctuations of the Caspian Sea	- Science Policy platform on the climate change adaptation - Clearing House Mechanism on Climate Change related information
Biodiversity Protection	Measures and procedures to alleviate implications of the sea level fluctuations of the Caspian Sea.	- Climate Change Integrated Coastal Zone Management Guidelines
Combating Land-based source of Marine pollution	Natural ecosystems restoration of the coastal zones	- Ecosystem based coastal planning
Climate Change related data and information	Prevention, control, reduction and elimination of land-based source of pollution	- Improved management of the solid waste - Improved management of the sewage system
	Regional programme to improve the climate change related knowledge in the Caspian Sea region	- Science Policy platform on the climate change adaptation - Clearing House Mechanism on Climate Change related information

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Considered concrete climate adaptation interventions at neighbourhood and community level can be categorized according to the following:

Zero-Option: do nothing but awareness raising, training and territorial planning measures.

Hazard Reduction: Interventions that reduce causes of erosion, flooding and related hazards.

Hazard Response: Interventions to counter erosion, flooding dynamics and its related hazards.

Hazard Adaptation: Interventions to alleviate the impacts of coastal erosion, flooding and its related hazards.

A3 Table 1: Climate Change Adaptation Intervention Principles

For all interventions it is necessary to know the causes of erosion, flooding and other negative effects of sea level rise and storms, etc. along the coastal areas. In order to identify key intervention for piloting, UN-Habitat and UNEP are closely collaborating with key experts in the respective substantive areas as well as academic institutions with relevant expertise. ... [2]

ANNEX 4: OVERVIEW OF CONSULTATIONS, INCLUDING OBJECTIVES, OUTCOMES AND CONCLUSIONS

A.3. Table 1: Stakeholder Consultations - Republic of Azerbaijan

Date	Stakeholder	Consultation Objective	Outcome	Conclusion
October 2018 – December 2020	Ministry of Ecology and Natural Resources (national government)	Focal point role to AF and lead of National Steering Committee; raising awareness about project idea and explore areas of synergy; provide input and feedback on Pre-Concept Note and Concept Note; discussions on vulnerability criteria and site selections	Instrumental part of the project at all levels, both at Caspian Sea regional scale as well as national and local components	Recommendation for signature of Memorandum of Understanding to institutionalise the relations at executive level of both the Ministry and UN-Habitat
January 2019 – December 2020	State Committee for Urban Planning and Architecture (national government)	Building awareness about project idea and explore areas of synergy; provide input and feedback on Pre-Concept Note and Concept Note; discussions on vulnerability criteria and site selections; discussion on potential interventions	Instrumental part of the project at all levels, both at national and local scale; implementation of Baku Master Plan support	Recommendation for signature of Memorandum of Understanding to institutionalise the relations at executive level of both the Ministry and UN-Habitat
October 2018 – December 2020	United Nations Resident Coordinator	Discussion about possible involvement; political/ diplomatic dimension of engagement; UN coordination and collaboration – alignment with UN system-wide strategy on sustainable urbanisation	Cooperation and support ensured	More active involvement especially using their connections with sector ministries and government
August 2019 – December 2020	United Nations Food and Agriculture Organization	Discussion about possible involvement; alignment with ongoing projects	Cooperation and support ensured	More active involvement especially using their connections with sector ministries
August 2019 – December 2020	United Nations Development Programme	Discussion about possible involvement; alignment with ongoing projects	Cooperation and support ensured	More active involvement especially using their connections with sector ministries
August 2019 – December 2020	International Organization for Migration	Discussion about possible involvement; implementing partner for nature-based solutions and livelihoods/ skills development component	Cooperation and support ensured; initial ideas for local interventions and approach discussed	More active involvement especially using their connections with sector ministries
December 2019 – April 2020	World Bank	Discussion about possible involvement; alignment with ongoing projects	Cooperation and support ensured	More active involvement especially using their connections with sector ministries
October 2018 – December 2020	ADA University (research/ academia)	Discussion about possible involvement; alignment with ongoing projects	Cooperation and support ensured; clear picture on the project; interest to be part of the project; involvement of faculty of policy analysis and economics to the project	More active involvement especially using their connections with academia; support to the project; willingness to be hub for the project; recommendation for signature of Memorandum of Understanding to institutionalise the relation
January – April 2020	Albert Spear and Partner (private sector)	Discussion about possible involvement; alignment with ongoing projects	Cooperation and support ensured	More active involvement especially using their connections with sector ministries and Greater Baku region
January – February/ August 2020	Port Baku (private sector)	Discussion about possible involvement; alignment with ongoing projects; feedback on involvement of the Port	Cooperation and support ensured; involvement to the project; readiness to assist	More active involvement especially using their connections with government and private sector entities; willingness to be part of the project
2 October 2020	Ministry of Agriculture	Building awareness about project idea and explore areas of synergy; provide input and feedback on Pre-Concept Note and Concept Note; discussions on vulnerability criteria and site selections; discussion on potential interventions	Instrumental part of the project at all levels, both at national and local scale; implementation of rural-urban components and land management	More active involvement especially using their connections with national and local level decision makers
July - August 2020	Representatives of 4 regions where project is intended to be carried out	To explain them about the projects and get their feedback	Ready to help; interested in such project; would be ready to support to have at least some employment opportunities for their respective communities; interested in the innovative nature of the project in terms of local development	More explanations at local/ municipality level about the benefits of the project needed in order to confirm local interventions and climate change adaptation measures
2 August 2020	Academy of Science (research/ academia)	Description of the project; presentations on major outcomes of the project; getting feedback on the vulnerability criteria and target area selection	Involving various institutions of the Academy; getting advice on site selections; formulating better picture of the project	Support and encouragement for the project; support for future initiatives; recommendation for signature of Memorandum of Understanding to institutionalise the relation
16 November 2020	Temiz Sheher, Garbage Processing Plant in Baku	Discussion about problems of garbage collection in Baku and surrounding areas	Supportive of any garbage collection initiatives	Involve them more at higher level; they have good experience

A.4. Table 2: Community Survey – Republic of Azerbaijan

Location	Date	Name	Sex	Occupation	Comment
A.1: Siyazan Region	June – December 2020	Mr. Kanan Karimli	Male	Head of 3 rd Regional Department of Ministry of Environment	Due to the prevailing travel and contact limitations to and within the respective communities and municipal areas in the Republic of Azerbaijan, only informal conversations could be held. For the upcoming planned elaboration of the Project Proposal further consultations will have to be held to refine the Concept Note findings.
	June – December 2020	Mr. Senen Mustafayev	Male	Local resident	
	2 November 2020	Ms. Gulnar	Female	Housewife	
2 November 2020	Ms. Nazakat	Female	Housewife		
A.2: Greater Baku Region, Pirallahı	June – December 2020	Mr. Rufat Makhmud	Male	Advisor, State Committee on Urban Planning and Architecture	
	June – December 2020	Mr. Elkhan Aliyev	Male	Deputy Head of Pirallahı Municipality	
	3 December 2020	Mr. Laili	Male	Taxi driver	
	3 December 2020	Mr. Mehman	Male	Former fisher, unemployed	
A.3: Neftchala Region	June – December 2020	Mr. Kanan Karimli	Male	Head of 3 rd Regional Department of Ministry of Environment	
	June – December 2020	Mr. Hikmat Aliyev	Male	Local resident	
	17 October 2020	Ms. Sabina	Female	Teacher	
	17 October 2020	Mr. Mukhtar	Male	Pensioner	
A.4: Lankaran/ Astara Region	June – December 2020	Mr. Kanan Karimli	Male	Head of 3 rd Regional Department of Ministry of Environment	
	June – December 2020	Mr. Tapdig	Male	Unemployed	
	24 October 2020	Mr. Echin	Male	Farmer	
	24 October 2020	Mr. Yaver	Male	Trader	

A.5. Table 3: Stakeholder Analysis – Republic of Azerbaijan

Stakeholder Category	Stakeholder Description	Role in Project	Stakeholder Requirements	Importance	Involved Stage
National government	Ministry of Ecology and Natural Resources	Leading Executive Entity	Lead of National Steering Committee	High	All stages
	Ministry of Foreign Affairs	Supporting Executive Entity	Institutional support	High	Implementation
	State Committee for Urban Planning and Architecture	Supporting Executive Agency	Technical support and member of the National Steering Committee; Beneficiary of project capacity development	High	All Stages
	Ministry of Internal Affairs	Collaborator/ Executive	Technical support and coordination with local governments	Medium	All Stages
	Ministry of Finance	Financing, Supporting Decision Making	Technical support	Medium	Implementation
	Ministry of Labour and Social Protection	Awareness, Supporting Decision Making	Technical support and member of the National Steering Committee; Beneficiary of project capacity development	High	All stages
	Ministry of Social Affairs	Awareness, Supporting Decision Making	Technical support and member of the National Steering Committee; Beneficiary of project capacity development	High	All stages
	Ministry of Energy	Collaborator/ Executive	National Steering Committee; Beneficiary of project capacity development	High	Proposal, Implementation
	Ministry of Agriculture	Collaborator/ Executive	National Steering Committee; Beneficiary of project capacity development	High	Proposal, Implementation
	Ministry of Culture	Supporting Decision Making	Technical support	Medium	Proposal
Ministry of Economy	Financing, Supporting Decision Making	Technical support	Low	Proposal	

	Azerbaijan Hydrometeorological Service	Capacity Building, Data Transfer, Supporting Decision Making	Technical support and member of National Steering Committee	Medium	Concept Note, Proposal
	Ministry of Emergency Situations	Supporting Decision Making, Awareness	Technical support	Medium	Concept Note, Proposal
	Ministry of Youth and Sports	Supporting Decision Making, Awareness	Technical support	Low	Proposal, Implementation
	Ministry of Defence	Supporting Decision Making	Technical support	Low	Proposal
	Ministry of Education	Awareness, Capacity Building, Knowledge Transferring	Technical support	Medium	Proposal, Implementation
	State Statistical Committee	Supporting Decision Making, Knowledge Transferring	Technical support	Medium	All Stages
Academia and Research	ADA University	Capacity Building, Supporting Decision Making, Knowledge Transferring	Technical support	Medium	Proposal, Implementation
	Academy of Science	Capacity Building, Supporting Decision Making, Knowledge Transferring	Technical support	Medium	Proposal, Implementation
Private Sector	Albert Speer and Partner	Financing, Partnership, Development	Technical support, implementation partner	Medium	All Stages
	Port Baku	Financing, Partnership, Development	Technical support, implementation partner	Medium	Implementation
Non-governmental organizations	British Petroleum	Financing, Partnership, Development	Technical support, implementation partner	Low	Implementation
	International Dialogue for Environmental Action	Awareness, Supporting Decision Making	Technical support, implementation partner	Medium	All stages
Local government	Municipality of Greater Baku Region	Capacity Building, Supporting Decision Making, Knowledge Transferring	Technical support, implementation partner; Beneficiary of project capacity development	High	All Stages
	Local Executive Authorities	Capacity Building, Supporting Decision Making, Knowledge Transferring	Technical support, implementation partner; Beneficiary of project capacity development	High	All Stages
Local communities	Vulnerable Groups (Elders, Disables, low-income people, unemployed, etc.)	Affected Groups, need to be strengthened, supported, advocated	Technical support, implementation partner; Beneficiary of project capacity development	High	All Stages
	Women (Household head, disable, etc.)	Awareness, Supporting Decision Making	Technical support, implementation partner; Beneficiary of project capacity development	High	All Stages
	Agriculture workers, Fishermen, Seasonal Workers, Tourism sector workers	Awareness, Supporting Decision Making	Technical support, implementation partner; Beneficiary of project capacity development	High	All Stages
	Tourists	Awareness, Supporting Decision Making	Technical support, implementation partner; Beneficiary of project capacity development	High	All Stages
	Migrants, Refugees	Awareness, Supporting Decision Making	Technical support, implementation partner; Beneficiary of project capacity development	High	All Stages
Service providers	Azersu for water supply and waste management, Azerishiq and Azerenerji for electricity, Azerigaz for natural gas, Azeristiltekhizlat for district heating	Collaborator/ Executive	Technical support, implementation partner; Beneficiary of project capacity development	High	All Stages
	Resident Coordinator	Institutional support		High	All Stages
United Nations	United Nations Development Programme (UNDP)	Collaborator	Coordination, technical support and alignment of programming; implementing partner	High	All Stages
	United Nations Food and Agriculture Organization (FAO)	Supporting Decision Making	Coordination, technical support and alignment of programming; implementing partner	High	All Stages
	International Organization for Migration (IOM)	Collaborator	Coordination, technical support and alignment of programming; implementing partner	High	All Stages
International Financing Institutions	World Bank	Financing, technical support	Upscaling and financing of interventions	High/ medium	All Stages
	European Bank for Reconstruction and Development (EBRD)	Financing, technical support	Upscaling and financing of interventions	Medium	Implementation
	Kreditanstalt für Wiederaufbau (KfW)	Financing, technical support	Upscaling and financing of interventions	Medium	Implementation

A4. Table 4: Stakeholder Consultations – Islamic Republic of Iran

Date	Stakeholder	Consultation Objective	Outcome	Conclusion
October 2016 – December 2020	United Nations Resident Coordinator	Discussion about possible involvement; political/ diplomatic dimension of engagement; UN coordination and collaboration – alignment with UN system-wide strategy on sustainable urbanisation	Cooperation and support ensured	More active involvement especially using their connections with sector ministries and government
August 2019 – December 2020	United Nations Food and Agriculture Organization	Discussion about possible involvement; alignment with ongoing projects	Cooperation and support ensured	More active involvement especially using their connections with sector ministries
August 2019 – December 2020	United Nations Development Programme	Discussion about possible involvement; alignment with ongoing projects	Cooperation and support ensured	More active involvement especially using their connections with sector ministries
August 2019 – December 2020	International Organization for Migration	Discussion about possible involvement; implementing partner for nature-based solutions and livelihoods/ skills development component	Cooperation and support ensured; initial ideas for local interventions and approach discussed	More active involvement especially using their connections with sector ministries
7 October 2020	Representatives of Steering Committee: - Ministry of Roads and Urban Development - Department of Environment - Ports and Marine Organization - Ministry of Foreign Affairs - National Committee for Human Settlements	- Familiarize stakeholders with the nature and process of the project - Obtain stakeholder feedback on executive and managerial challenges - Awareness of stakeholder suggestions on selecting target areas - Recognize the existing challenges from specialized perspectives (based on the experience and knowledge of each representative) - Awareness of stakeholder suggestions for better understanding of vulnerable groups and other stakeholders	- More accurate understanding of vulnerable communities - Complete the list of stakeholders - Use the experiences and achievements of ICZM in the project	- Pay attention to the project implementation challenges - Prevent the creation of a parallel organizational structure for the project (use of existing structures and working groups) - Need to approve the achievements of the project in the Supreme Council of Urban Planning and Architecture (in order to have an executive guarantee)
12 July and 3 August 2020	Department of Environment	- Explain the goals and components of the project - Survey of local officials on the challenges and bottlenecks in the Caspian Sea coastal areas - Coordination of Steering Committee Meeting - Awareness of management experiences and concerns in the field of environmental hazards at the coast	- Contribute to a deeper understanding of the challenges and risks of environmental issues - Assist in selection of target communities and vulnerable groups	- Prepare a questionnaire to prioritize challenges and proposed measures and distribute it among local authorities
9 June and 7 July 2020	Ministry of Foreign Affairs	- Explain the goals and components of the project - Awareness of the conditions and work process of the ministry for coordination in the regional component	- Facilitate project implementation mechanisms in the regional component	- Coordinating the steering committee meeting - Announce the readiness of the ministry to cooperate fully to advance the project
15 June, 1 July and 28 September 2020	Ministry of Roads and Urban Development	- Explain the goals and components of the project - Awareness of current plans and programs of this ministry in the target communities - Understanding executive mechanisms and management system for project preparation and implementation - Awareness of the experiences and opinions of national and local officials in the field of urban planning challenges and its relationship with climate change - Awareness of the adaptive actions and policies of this ministry in relation to urbanization and climate change adaptation	- Clarifying the challenging link between urbanization and climate change on the Caspian Sea coast - Recognize the obstacles and challenges of implementation at the local and national scale - Awareness of past experiences and existing expert knowledge	- Determining the date, goals, place and invited members for the Steering Committee meeting - Establish a relationship between the consultant supporting the drafting of the Concept Note and other stakeholders on a national and local scale
28 October 2020	Director of Integrated Coastal Zone Management Studies	- Explain the goals and components of the project to the officials - Building on achievements of ICZM Project in identifying vulnerable communities, types of environmental hazards, risk rating, etc.	- Assist in risks analysis in the target areas - Assist in refining criteria for selection of target areas and vulnerable communities - Review vulnerability criteria and help refine identification of vulnerable communities - Outline future scenarios if no action is taken to address urbanization and adapt to climate change - Awareness of managerial and executive challenges	- Prepare a summary of ICZM studies for use in the project

A4. Table 5: Community Survey – Islamic Republic of Iran

Location	Date	Name	Sex	Occupation	Comment	
1.1: Astara Region, Astara City	3 September 2020	Mr. Salim	Male	Paddy worker	Due to the prevailing travel and contact limitations to and within the respective communities and municipal areas in the Islamic Republic of Iran, only informal conversations could be held. For the upcoming planned elaboration of the Project Proposal further consultations will have to be held to refine the Concept Note findings.	
	3 September 2020	Ms. Marjan	Female	Market trader		
1.2: Anzali Lagoon and Seldroud Delta, Bandar Kishahr	3 September 2020	Ms. Azdas	Female	Social worker		
	2 September 2020	Mr. Mohammad Reza	Male	Labourer		
1.3: Hirasz River Estuary, Mahmoud Abad	2 September 2020	Ms. Salimeh	Female	Labourer at shipping industry		
	30 July 2020	Mr. Morad	Male	Labourer at entertainment company		
1.4: Goran Bay/ Miankale Lagoon, Bandar Torkaman	30 July 2020	Ms. Tayyiba	Female	Agri-cultural worker		
	30 July 2020	Mr. Asghar	Male	Paddy worker		
1.4: Goran Bay/ Miankale Lagoon, Bandar Torkaman	29 July 2020	Ms. Nazyer	Female	Weaver		
	29 July 2020	Ms. Diba	Female	Weaver		
	30 July 2020	Mr. Farooq	Male	Labourer		
		Ms. Rezvan	Female	Housewife		

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A4 Table 6: Stakeholder Analysis – Islamic Republic of Iran

Stakeholder Category	Stakeholder Description	Role in Project	Stakeholder Requirements	Importance	Involved Stage
National government	Ministry of Foreign Affairs	Leading Executive Entity	Lead of National Steering Committee	High	All Stages
	Ministry of Roads and Urban Development	Supporting Executive Agency	Technical support and member of the National Steering Committee; Beneficiary of project capacity development	High	All Stages
	Department of Environment	Supporting Executive Agency	Technical support and member of the National Steering Committee; Beneficiary of project capacity development	High	All Stages
	Ministry of Interior	Collaborator/ Executive	Technical support and coordination with local governments	Medium	All Stages
	Planning and Budget Organization	Collaborator/ Executive	Technical support	Medium	Implementation
	Vice Presidency for Woman and Family Affairs	Awareness, Supporting Decision Making	Technical support and member of the National Steering Committee; Beneficiary of project capacity development	High	All stages
	Ministry of Energy	Collaborator/ Executive	National Steering Committee; Beneficiary of project capacity development	High	Proposal, Implementation
	Ministry of Agriculture	Collaborator/ Executive	National Steering Committee; Beneficiary of project capacity development	High	Proposal, Implementation
	State Welfare Organization of Iran	Supporting Decision Making	Technical support	Medium	Proposal
	Ministry of Industry, Mine and Trade	Supporting Decision Making	Technical support	Medium	Proposal
	Iran Fisheries Organization	Supporting Decision Making	Technical support	Medium	Proposal
	Housing Foundation of Iran	Collaborator/Executive	Technical support	Medium	Proposal, Implementation
	Ministry of Cultural Heritage, Handicrafts, and Tourism	Supporting Decision Making	Technical support	Medium	Proposal
	Ministry of Economic Affairs and Finance	Financing, Supporting Decision Making	Technical support	Low	Proposal
	Geological Survey and Mineral Exploration of Iran	Capacity Building, Data Transfer	Technical support	Low	Proposal
	Meteorological Organization of Iran	Capacity Building, Data Transfer, Supporting Decision Making	Technical support and member of National Steering Committee	Medium	Concept Note, Proposal
	National Disaster Management Organization of Iran	Supporting Decision Making, Awareness	Technical support	Medium	Concept Note, Proposal
	Ministry of Sport and Youth	Supporting Decision Making, Awareness	Technical support	Low	Proposal, Implementation
	Ministry of Defense and Armed Forces Logistics	Supporting Decision Making	Technical support	Low	Proposal
	Ministry of Education	Awareness, Capacity Building, Knowledge Transferring	Technical support	Medium	Proposal, Implementation
	University of Tehran	Capacity Building, Supporting Decision Making, knowledge Transferring	Technical support	Medium	Proposal, Implementation
	University of Gilan	Capacity Building, Supporting Decision Making, knowledge Transferring	Technical support	Medium	Proposal, Implementation
	University of Mazandaran	Capacity Building, Supporting Decision Making, knowledge Transferring	Technical support	Medium	Proposal, Implementation
	University of Gorgan	Capacity Building, Supporting Decision Making, knowledge Transferring	Technical support	Medium	Proposal, Implementation
	Roads, Housing and Urban Development Research Center	Capacity Building, Supporting Decision Making, knowledge Transferring	Technical support	Medium	Proposal, Implementation
University of Science and Technology	Capacity Building, Supporting Decision Making, knowledge Transferring	Technical support	Medium	Proposal, Implementation	
Private Sector	G. G. M Chamber of Commerce, Industries, Mining and Agriculture	Financing, Partnership, Development	Technical support, implementation partner	High	All Stages
	Private Banks	Financing, Partnership, Development	Technical support, implementation partner	Medium	Implementation
	Motazafan Foundation and Execution of Imam Khomeini's Order	Financing, Partnership, Development	Technical support, implementation partner	Medium	Implementation
	Society of Students Against Poverty (Imam Ali)	Awareness, Supporting Decision Making	Technical support, implementation partner	Medium	Proposal
	Mahafarhaneh Javan Institute (Golestan)	Awareness, Partnership	Technical support, implementation partner	Medium	Proposal
	Sustainable Development Institute (Mazandaran)	Awareness, Partnership	Technical support, implementation partner	Medium	Proposal
	Woman Against Pollution (Gilan)	Awareness, Partnership	Technical support, implementation partner	Medium	Proposal, Implementation
	Woman Against Pollution (Mazandaran)	Awareness, Partnership	Technical support, implementation partner	Medium	Proposal, Implementation
	Governor of Gilan, Mazandaran, Golestan	Capacity Building, Supporting Decision Making, knowledge Transferring	Technical support, implementation partner; Beneficiary of project capacity development	High	All Stages
	G. G. M Administration of Road and Urban Development	Capacity Building, Supporting Decision Making, knowledge Transferring	Technical support, implementation partner; Beneficiary of project capacity development	High	All Stages
Local government	G. G. M Administration of Environment	Capacity Building, Supporting Decision Making, knowledge Transferring	Technical support, implementation partner; Beneficiary of project capacity development	High	All Stages
	G. G. M Administration of Regional Water Authority	Capacity Building, Supporting Decision Making, knowledge Transferring	Technical support, implementation partner; Beneficiary of project capacity development	High	All Stages
	Parliament Representative	Supporting Decision Making, knowledge Transferring	Technical and institutional support	Medium	Proposal
	Municipalities and City Councils	Capacity Building, Supporting Decision Making, knowledge Transferring	Technical support, implementation partner; Beneficiary of project capacity development	High	All Stages
	Representative of Supreme Leader of Iran	Capacity Building, Supporting Decision Making, knowledge Transferring	Technical and institutional support	Medium	Proposal
	Village Governors and Councils	Capacity Building, Supporting Decision Making, knowledge Transferring	Technical support, implementation partner; Beneficiary of project capacity development	High	All Stages
	Imam Khomeini Relief Foundation	Financing, Partnership	Technical and institutional support	Medium	Proposal
	Vulnerable Groups (Elders, Disabled, low-income people, unemployed, etc.)	Affected Groups, need to be strengthened, supported, advocated	Technical support, implementation partner; Beneficiary of project capacity development	High	All Stages
	Women (Household head, disabled, etc.)	Awareness, Supporting Decision Making	Technical support, implementation partner; Beneficiary of project capacity development	High	All Stages
	Agriculture workers, Fishermen, Seasonal Workers, Tourism sector workers	Awareness, Supporting Decision Making	Technical support, implementation partner; Beneficiary of project capacity development	High	All Stages
Service providers	Tourists	Awareness, Supporting Decision Making	Technical support, implementation partner; Beneficiary of project capacity development	High	All Stages
	Migrants, Refugees	Awareness, Supporting Decision Making	Technical support, implementation partner; Beneficiary of project capacity development	High	All Stages
	To be identified	Collaborator/ Executive	Technical support, implementation partner; Beneficiary of project capacity development	High	Implementation
United Nations	Resident Coordinator	Coordinator	Institutional support	High	All Stages
	United Nations Development Programme (UNDP)	Collaborator	Coordination, technical support and alignment of programming; implementing partner	High	All Stages
International Financing Institutions	United Nations Food and Agriculture Organization (FAO)	Supporting Decision Making	Coordination, technical support and alignment of programming; implementing partner	High	All Stages
	International Organization for Migration (IOM)	Collaborator	Coordination, technical support and alignment of programming; implementing partner	High	All Stages
To be confirmed	To be confirmed	Awareness, Supporting Decision Making	Upscaling and financing of interventions	High/ medium	All stages

A4 Table 7: Stakeholder Consultations – Caspian Sea Region

Date	Stakeholder	Consultation Objective	Outcome	Conclusion
6 February 2020	Ms. Zeljka Skaric, Priority Actions Programme Regional Activity Centre (PAPIRAC), Croatia	- explore lessons learnt from Integrated Coastal Zone Management relevant to the Mediterranean region - discuss adaptability of lessons learnt to Caspian Sea region	- Principal activity of PAPIRAC is Integrated Coastal Zone Management. This approach to managing coastal zones is recognised as the way forward for the sustainable development since the 1992 Rio Conference for its ability to provide solutions to the complex environmental, social, economic and institutional problems of the coastal zones. - PAPIRAC's experience in the Mediterranean region has been applied to the Red Sea and the Black Sea regions - Training centre in Split, Croatia offers training courses for peers on Integrated Coastal Zone Management processes from national and local governments; the training centre would be very interested in working out an applied training programme for the Caspian Sea stakeholders to support countries on their path towards sustainable coastal development - Caspian Sea regional programme on urbanization and climate change education can draw experiences from Mediterranean Strategy for Sustainable Development (MSSD)	- PAPIRAC offers support to Caspian Sea littoral states on their path towards sustainable coastal development. - Support could be realized through activities: (1) on-the-ground activities (Coastal Area Management Programmes - CAMPs, coastal or ICZM plans, national ICZM strategies, etc.); (2) capacity building (different trainings, workshops, consultations, conferences, on-the-job trainings related to particular projects, as well as through MedCoast - PAPIRAC's on-line training on ICZM); (3) awareness raising (different awareness-raising activities in the framework of the on-the-ground projects); and (4) development of methodologies, providing support to development of regional and national policies and preparation of legal documents.
25 February 2020	Regional Steering Committee - Tehran Convention Secretariat (National Liaison Officers and focal points of sector ministries from the Caspian Sea littoral States)	- Familiarize the National Convention Liaison Officers with the pre-concept note "Urbanization and Climate Change in the Caspian Sea region" and receive their feedback	The meeting participants received information on major elements of the project including: 1. Scope of the project concept, including information related to three geographical scopes of the project. 2. Objectives of the project concept to tackle the impacts of the main identified climate change related hazards. 3. Proposed climate change adaptation measures for highlighted hazards will be considered in relation to urbanization processes and through the Integrated Coastal Zone Management. 4. Main streams of work under the regional components in the framework of the Tehran Convention (Aide Memoire annexed is to Concept Note).	The meeting participants were familiarized with the project concept note. Some of the initial questions were raised with regard to the project objective and its implementation. The meeting participants were also requested to liaise with the relevant officials in their respective countries to seek additional feedback on the Concept Note.
28 July 2020	Regional Steering Committee - Tehran Convention Secretariat (National Liaison Officers and focal points of sector ministries from the Caspian Sea littoral States)	The objective of this consultation was to seek additional feedback from the National (Tehran) Liaison Officers and other relevant officials regarding the regional components under the Tehran Convention which are contained in the Concept Note.	The meeting participants were well familiar with the objective of the Concept Note. The regional part of the Concept Note was found accurate and the previously received written comments were integrated in the new version of the Concept Note (Aide Memoire annexed is to Concept Note).	In general, the participants found the presented regional part of the Concept Note well drafted and acceptable. It was also agreed to share the more advanced draft Concept Note containing the information on the national interventions planned in the Republic of Azerbaijan and Islamic Republic of Iran with the meeting participants.

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AZƏRBAYCAN RESPUBLİKASI
EKOLOGIYA VƏ TƏBİİ SƏRVƏTLƏR
NAZİRLİYİ



MINISTRY OF ECOLOGY
AND NATURAL RESOURCES OF
REPUBLIC OF AZERBAIJAN

Az1073 Azərbaycan, Bakı, B.Ağayev Küç. 100A
Tel: (99412) 492-59-07, Faks (99412) 492-59-07

B.Aghayev Str: 100A, Az1073 Baku, Azerbaijan
Tel: (99412) 492-59-07, Fax (99412) 492-59-07

№ 4/175-08

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The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Subject: Endorsement for Project "Urbanisation and Climate Change Adaptation in the Caspian Sea Region".

Dear Madame/Sir,

In my capacity as designated authority for the Adaptation Fund in Azerbaijan, I confirm that the above regional project proposal is in accordance with our national and Caspian sea regional priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the Caspian sea region.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by the United Nations Human Settlements Programme (UN-Habitat) and executed by the Ministry of Ecology and Natural Resources (leading) and the State Committee on Urban Planning and Architecture (supporting).

Sincerely,

Emin Garabaghli

Head

Division for International Cooperation



ADAPTATION FUND

**Letter of Endorsement by Government of the
ISLAMIC REPUBLIC OF IRAN**

16 Jan. 2021

To: The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Subject: Endorsement for Urbanization and Climate Change Adaptation in the Caspian Sea Region

In my capacity as designated authority for the Adaptation Fund in the Islamic Republic of Iran, I confirm that the above regional project proposal is in accordance with the government's national and regional priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the Caspian region.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by UN-HABITAT (lead) and executed by Ministry of Road and Urban Development, (lead) on behalf of the Government of the Islamic Republic of Iran.

Since the UN-HABITAT has an operational office in Tehran, and therefore coordinating measures by the implementing agency would be easier and more practical, we strongly suggest that the project office to be established in Tehran.

Sincerely,



Mohsen ESPERI

Director General for International Environmental
Affairs and Sustainable Development
and Designated Authority for the Adaptation Fund



Project Formulation Grant (PFG)

Submission Date:
18 January 2021

Adaptation Fund Project ID: ASI/MIE/Urban/2019/PPC/1

Country/ies: Republic of Azerbaijan and Islamic Republic of Iran

Title of Project/Programme: Urbanization and Climate Change Adaptation in the Caspian Sea Region

Type of IE (MIE): Multilateral Implementing Entity

Implementing Entity: United Nations Human Settlements Programme - UN-Habitat (lead)

Executing Entities: *United Nations:* United Nations Environment Programme - UNEP (co-leading implementing partner); International Organisation for Migration – IOM (implementing partner)

Government of the Republic of Azerbaijan: Ministry of Ecology and Natural Resources (leading), State Committee on Urban Planning and Architecture (supporting).

Government of the Islamic Republic of Iran: Director General for International Environmental and Sustainable Development Affairs of the Ministry of Foreign Affairs (co-leading), Ministry of Roads and Urban Development and (supporting), Department of Environment (supporting).

A. Project Preparation Timeframe

Start date of PFG	1 April 2021
Completion date of PFG	Submission date for programme document during 1st quarter 2022

B. Proposed Project Preparation Activities (\$)

Describe the PFG activities and justifications:

List of Proposed Project Preparation Activities	Output of the PFG Activities	USD Amount
Background study on climate change related drivers and impact of rural – urban migration in the Republic of Azerbaijan and the Islamic Republic of Iran	Questionnaire and Analysis; Background Report	(1 background study/ 2 countries: 1 x 2.500 USD x 2) 5.000 USD

Continue to refine vulnerability of target communities and conduct area level and vulnerable groups consultations in at least four communities in the Republic of Azerbaijan and four communities in the Islamic Republic of Iran (taking into consideration the travel restrictions posed by the Covid-19 pandemic)	Workshops Reports, including vulnerability maps; Mission Reports; Minutes of Meeting	(1 mapping/ 4 communities/ 2 countries: 1 x 4 x 750 USD x 2) 6.000 USD
Outline community level climate change adaptation measures in the identified communities in the Republic of Azerbaijan and the Islamic Republic of Iran in four sectors	Workshop Reports; Mission Reports; Background Papers (one per sector identified)	(1 climate change adaptation measure/ 4 communities/ 2 countries: 1 x 4 x 2.500 USD x 2) 20.000 USD
Feasibility studies of identified climate change adaptation measures at local level in the Republic of Azerbaijan and the Islamic Republic of Iran in four sectors	Workshop Reports; Background Papers (one per sector identified)	(1 climate change adaptation measure feasibility study/ 4 sectors/ 2 countries: 1 x 4 x 5.000 USD x 2) 30.000 USD
Conduct sector study on climate resilient skills development for 4 identified sectors in the Republic of Azerbaijan and in the Islamic Republic of Iran	Workshop Reports; Background Papers (one per sector identified)	(1 study/ 4 sectors/ 2 countries: 1 x 4 x 1.500 USD x 2) 12.200 USD
PSC	8.5%	6.800 USD
Total Project Formulation Grant		80.000 USD

C. Implementing Entity

This request has been prepared in accordance with the Adaptation Fund Board's procedures and meets the Adaptation Fund's criteria for project identification and formulation

Implementing Entity Coordinator, IE Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Rafael Tuts		15 January 2021	Katja Schäfer	+254 757 628 691	katja.schaefer@un.org