REQUEST FOR PROJECT/PROGRAMME FUNDING FROM THE ADAPTATION FUND

The annexed form should be completed and transmitted to the Adaptation Fund Board Secretariat by email or fax.

Please type in the responses using the template provided. The instructions attached to the form provide guidance to filling out the template.

Please note that a project/programme must be fully prepared (i.e., fully appraised for feasibility) when the request is submitted. The final project/programme document resulting from the appraisal process should be attached to this request for funding.

Complete documentation should be sent to:

The Adaptation Fund Board Secretariat
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MSN P4-400
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ADAPTATION FUND

PROJECT/PROGRAMME PROPOSAL TO THE ADAPTATION FUND

PART I: PROJECT/PROGRAMME INFORMATION

Project/Programme Category:	Regular
Country	Libya
Title of Project/Programme:	Increasing resilience to climate-aggravated water scarcity in the agriculture sector in Libya
Type of Implementing Entity:	Multilateral Implementing Entity
Implementing Entity:	International Fund for Agriculture Development (IFAD)
Executing Entity/ies:	Potential: UNOPS; FAO; Ministry of environment
Amount of Financing Requested:	USD 10 million

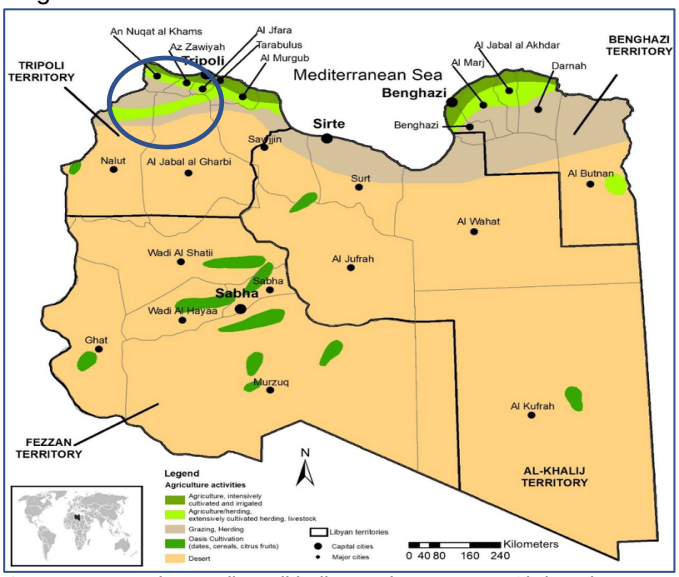
Project Background and Context:

Introduction project approach

1. **Main problem:** Libya has an existing water problem that will be exacerbated by climate change and water demand in the agriculture sector. To avoid the depletion of water resources, heavy investment in desalination and wastewater treatment is needed. However, this will take time and major funding sources, and the country needs to stabilize its electrical grid first. Until then, fossil water and rainfall in the north will remain Libya's primary sources of water, including for the agriculture sector and its lifespan needs to be lengthened.

2. **Project aim:** the aim of this project is to support maximizing the lifespan (i.e., increasing the sustainability) of available water resources by using water as efficient as possible in the agriculture / livestock sector, which is the sector consuming most water, while also being the most heavily impacted by and vulnerable to climate change.

Figure 1 Agriculture areas (in green) in Libya and project target area in the blue circle



Source: Zurqani, Hamdi & Mikhailova, Elena & Post, Christopher & Schlautman, Mark & Elhawej, Azzeddin. (2019). A Review of Libyan Soil Databases for Use within an Ecosystem Services Framework. 10.3390/land8050082.

Geographic, social, economic, and environmental context

3. **Population:** Libya has a total population of about 6.8 million (2020),[1] of which only 21 percent is rural.

[1] World Bank data

Geography: 90 percent of Libya is desert. Over Four regions can be distinguished in Libya: (i) the coastal plains; (ii) the northern mountains that run close to the coastal plains and include the Jabal Nafusah in the west and the Jabal al Akhdar in the east; (iii) the internal areas that cover the centre of Libya and include several oases; and (iv) the southern and western mountains. Only the coastal plains are not regarded as desert areas.

4. **Politics:** The political situation in Libya has been complex since the fall of Muammar Qaddafi. There have been recent transitions, but the UN-brokered road map agreed at the Libyan Political Dialogue Forum in 2021 has faced serious challenges and obstacles. On the short to medium term, the country's political institutions are likely to remain divided and unstable.

5. **Economy:** A combination of political volatility, military conflict, oil output fluctuation has created insuperable challenges in devising and carrying out economic policy. These factors have led to a chronic imbalance between supply and demand for goods and foreign exchange. This was exacerbated by the pandemic in 2020-21 and currently with the crisis in Ukraine, which raises concerns about high food prices and food security. According to the EIU[2], oil and gas output will remain the main driver of economic growth in 2022-26.

6. **Poverty:** It is estimated that the proportion of the population living in multidimensional poverty increased over the past decade while social protection systems remain inadequate to support those most in need. An estimated 800,000 people are in-need of humanitarian assistance in Libya in 2022, which is a decrease compared to 2021.

7. **Agriculture:** 90 percent of Libya's land area is desert while just one per cent is arable (about 2 million ha – **see** Figure 1), which is further threatened by soil erosion and desertification.[3] **Soil salinity along the coast is already high and is expected to increase in the future due to increasing sea levels.** Permanent pastures account for 13.3 million ha, annual crops for 1.72 million ha and permanent crops for only 0.34 million ha.[4] In rural areas, 20% of households are engaged in the agriculture sector[5], often producing crops only for household consumption. Approximately 47 percent of households reported cultivating areas of land of less than one ha; another 45 percent reported areas of 1–10 ha. Tomatoes, peppers, onions, and leafy greens are the most grown crops. Olives and pulses predominate in Al Jabal Al Gharbi (close to Tripoli). In the Fezzan Region (southwestern Libya), barley and fodder cultivation are notable, reflecting the relevance of livestock in those regions. Livestock production predominates in some areas of the interior of the country with 12 percent of the population engaged in the sector, while it is less common along the more urbanized coast. Small ruminants are the most common livestock, with sheep being most frequent, followed by goats. Most of the households involved in livestock production own fewer than 10 small ruminants.

8. **Rangelands**: rangelands in North Africa are subject to severe degradation, primarily because of cropping encroachment, which is responsible for 50 percent of rangeland degradation, versus 26 percent accounted for by overgrazing and 21 percent by fuel wood utilization.[6] In the semiarid steppes, vegetation is sparse. The most found species are saltwort (a plant used in making soda ash) and spurge flax (a shrubby plant), while goosefoot, wormwood, and asphodel also are widespread. Annual grasses grow in the rainy season, and leguminous plants appear in years of good precipitation. Only 0.1 percent of the land in Libya is forest. These forest areas are located along the coast.

9. **Water Resources:** With very limited perennial water resources, Libya relies almost completely on non-renewable groundwater resources. There are no permanent rivers in Libya, only ephemeral rivers or wadis. The total renewable water resources are 700 million m³/year constituting 111.5 m³/year per capita in 2015 **making Libya an extremely water-scarce country**. Around 95.2 percent of water is extracted from groundwater resources and **irrigation takes up around 83.2 percent**. Five major aquifers underlie Libya namely Al Hamada, Al Jefara, Al Jabal Al Akhdar, Murzuq and Al Sarir-Kufra. The coastal aquifer Al Jefara in the north-west is

[2] Economist Intelligence Unit: Global Insight
[3] EU, UN, World Bank, Supporting Peace and Stability in Libya: A Compilation of Existing Analysis on Challenges and Needs, 2019.
[4] FAO (2016). AQUASTAT Profile: Libya.
[5] FAO Libya Humanitarian Response Plan, 2020
6 Youngh, S. And Silvern, S. International perspective on global environmental change - Agricultural Technological and Institutional Innovations for Enhanced Adaptation to Environmental Change in North Africa

shallow and naturally recharged from the rainfall. **Water scarcity and the population concentration along the north coast** triggered the Great Man-made River Project (GMRP) in 1984 aiming to transfer 5-6 million m³/day to the northern cities through over 500 wells. In terms of other water infrastructure, Libya currently has 19 dams in operation with a total storage capacity of about 390 million m³. However, their average annual storage is estimated at less than 61 million m³ due to lower flow records or damage to some dams. In addition, Libya has many desalination plants and the total desalinated water produced in Libya in 2012 was estimated at 70 million m³/year aimed at municipal and industrial water demands and using both thermal and membrane technologies[7].

Table 1 Water use for agriculture in Algeria, Tunisia and Libya

Country	Total amount used, million m^3/year	Agricultural area irrigated (hectares)	Water used per hectare, m^3
Algeria	313	170,000	10,000
Tunis	95	40,000	15,000
Libya	57	40,000	12,275

Source: Source: African Development Bank (2014) Libya Water Sector M&E Rapid Assessment Report

Table 2 Libya water budget in 2012

Water Resources	Quantity (Mm^3/yr)	Sector	Water consumption (Mm^3/yr)
Groundwater (Gefara plain, Jabal Akhdar, Kufra, Murzuk, Sarir, Hamada)	3,650 (3,000 Non-Renewable, 650 Renewable)	Agriculture	4,850 (83%)
Surface water (Dams, springs)	170	Industry	280 (5%)
Desalination	70	Domestic	700 (12%)
Green water estimate	2,350		
Total	**6,240**	**Total**	**5,830**

Source: Source: African Development Bank (2014) Libya Water Sector M&E Rapid Assessment Report

10. **Water Quality**: Since 2011, the quality and general availability of water services have declined notably due to serious damages caused by armed conflict and lack of security, aggravated by political, economic, and institutional instability, along with continuous cuts in power supply and fuel. There is massive leakage in all parts of the system, illegal connections, unstable supply patterns and poor maintenance. Network losses are estimated to be in the range of 50-70%[8]. In 2020, nearly 438,000 people needed access to safe water, hygiene and sanitation services including displaced people, returnees, migrants, and refugees[9].

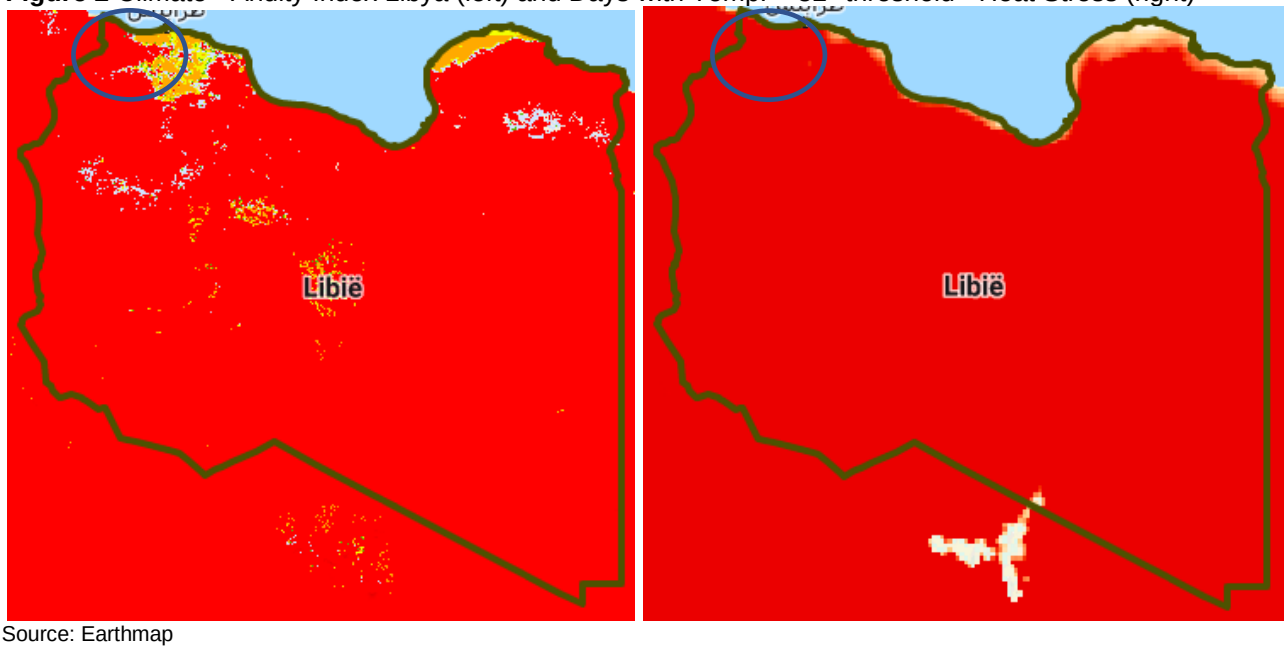
[7] FAO (2016). AQUASTAT Profile: Libya.
[8] UN (2018). Libya Joint Country Assessment 2018. *Pathways towards a Stable and Resilient Libya.*
[9] OCHA (2020). Humanitarian Needs Overview 2021: Libya.

11. Libya had 79 wastewater treatment plants in 2010 for a total capacity of 74 million m³ designed to produce effluents suitable for irrigation. However, out of the 504 million m³ municipal wastewater produced in 2012, only 40 million m³ were treated and directly used in irrigation for 2,900 ha[10]. It is reported that in 2020 only 10 wastewater treatment plants were functioning[11]. Deterioration of the water quality due to untreated municipal wastewater exists. **However, the main concern regarding water quality is related to saline intrusion in the coastal aquifers, where both population and agricultural activities are concentrated. The uncontrolled use of groundwater for agriculture and falling water tables in the coastal aquifers, result in seawater intrusion, with an interface progressing up to two kilometres inlands in the Jefara plains and salinity levels increasing from 150 ppm to over 5000 ppm during the period 1950-1990[12].**

12. **Gender and Youth:** In 2019 the Gender Development Index (GDI) for Libya was 0.98. The index score in the country increased annually from 2015 onwards, indicating worsening gender equality in the fields of education, health, and wealth. The GDI measures the levels of gender parity within societies. It ranges from zero (perfect gender equality) to around one (no gender parity).[13] Due to the crisis, women are now playing a more prominent role in agriculture, one third of households are now estimated to be female headed.[14] Given the relatively high threshold of the official governmental youth category (39 years, compared to 17-35 used by the UN), two thirds of the population is considered as youth[15]. Youth unemployment rates are high, particularly for females (41 percent).

Climate Change

Figure 2 Climate - Aridity Index Libya (left) and Days with Temp. > 32° threshold - Heat Stress (right)



Source: Earthmap

13. **Current climate:** Libya is one of the driest countries in the world; less than 2 percent of the country receives enough rain to support agriculture, and only 5 percent of the country receives more than 100 mm of rainfall per year. Libya's climate ranges from a temperate Mediterranean climate in isolated areas on the Mediterranean coast to a tropical desert climate in the vast majority of the country's interior (i.e., high aridity – **see Figure**

[10] FAO (2016). AQUASTAT Profile: Libya.
[11] OCHA (2020). Humanitarian Needs Overview 2021: Libya.
[12] FAO (2016). AQUASTAT Profile: Libya.
[13] Statista
[14] UNFPA, Libyan Female-headed households – hoping to survive.
[15] UN Libya (2022), Common Country Analysis. Link: here

2**)**. The mean annual temperature is 22.67 °C and the mean annual precipitation is 42.46 mm.[16] Heat stress (number of days with + 32°C) is already high in Libya (**see** Figure 2**).**

14. **Trends**: While global temperatures have already increased 1.02°C by 2020 above pre-industrial levels in 1880, temperatures in the southern Mediterranean have increased by 1.5ºC.[17] Precipitation has decreased to 20.92 mm per month since the 1950's.[18]

15. **Projections**:[19] The faster-than-average warming trend is set to continue. By 2040 the increase of temperature will likely be 2.2ºC and could reach approximately 4ºC by the end of the century.[20] The annual precipitation is also expected to reduce, and Libya may lose 7 percent of its rainfall by 2050.[21]

Mean Annual Temperature is expected to rise mid-century (2040-2059)
- SSP1-1.9 Ensemble
  23.69 °C (22.86 °C TO 24.29 °C)
- SSP5-8.5 Ensemble
  24.92 °C (24.27 °C TO 25.58 °C)

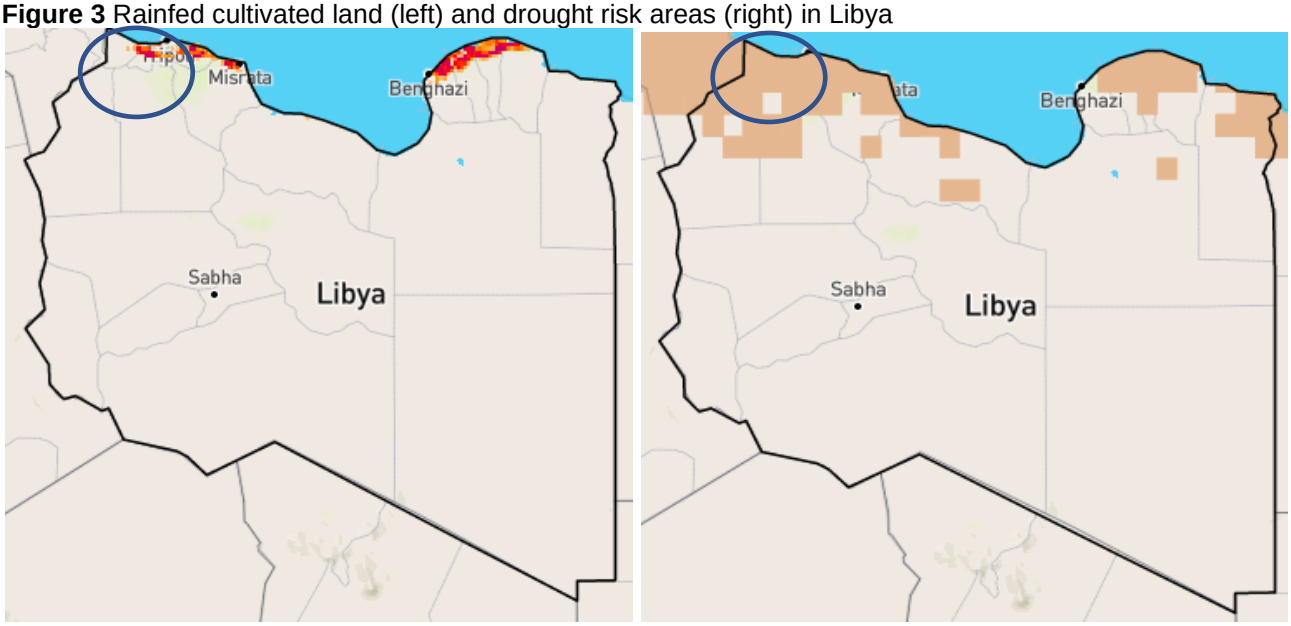
Annual precipitation is expected to reduce mid-century (2040-2059)
- SSP1-1.9 Ensemble
  37.29 mm (10.78 mm to 67.93 mm)
- SSP5-8.5 Ensemble
  37.84 mm (10.78 mm to 67.30 mm)

Main hazards

16. **Droughts**: Yields of rainfed agriculture, which are located in the north / along the coast, are already low but risk to be even lower due to increasing risks of droughts (see **Figure** 3), Libya is also faced with desertification, mainly in the Jefara Plain, located **in the north-western part of the country**. Drought aggravates soil degradation resulting from a combination of climate change, vegetation cover loss from overgrazing, groundwater depletion, over-cultivation, and population growth. As shown Figure **4**, the likelihood of droughts will increase is the future, as well heat waves.

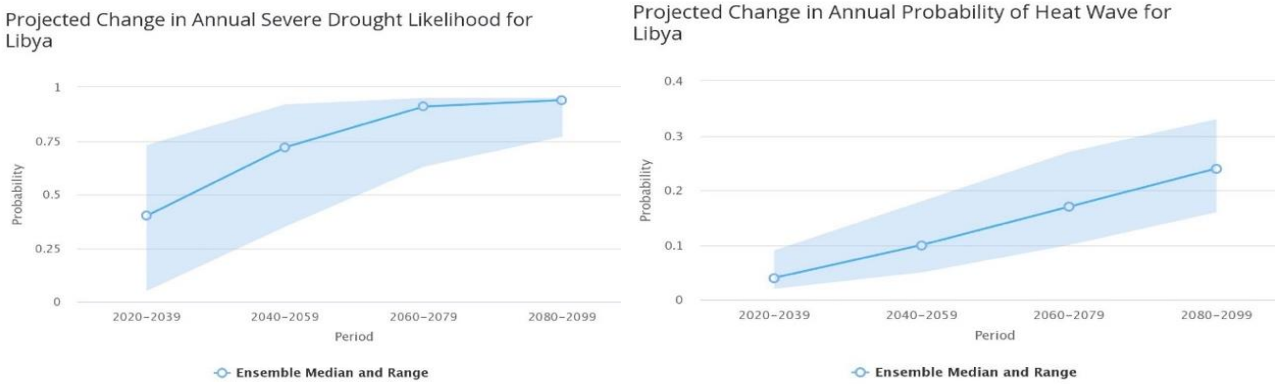
[16] World bank climate knowledge portal
[17] NASA, 2021; Union of the Mediterranean, 2019 in Adelphi (2021) Climate-Fragility Risk Brief: Libya
[18] Idem
[19] NASA, 2021; Union of the Mediterranean, 2019 in Adelphi (2021) Climate-Fragility Risk Brief: Libya
[20] Adelphi (2021) Climate-Fragility Risk Brief: Libya
[20] Idem
[21] Idem

Figure 3 Rainfed cultivated land (left) and drought risk areas (right) in Libya



Source: World Bank knowledge portal

Figure 4 Projected Change in Annual Severe Drought Likelihood (Left) and Probability of Heat Wave (Right) in Libya under RCP 8.5 between 2020 and 2099.

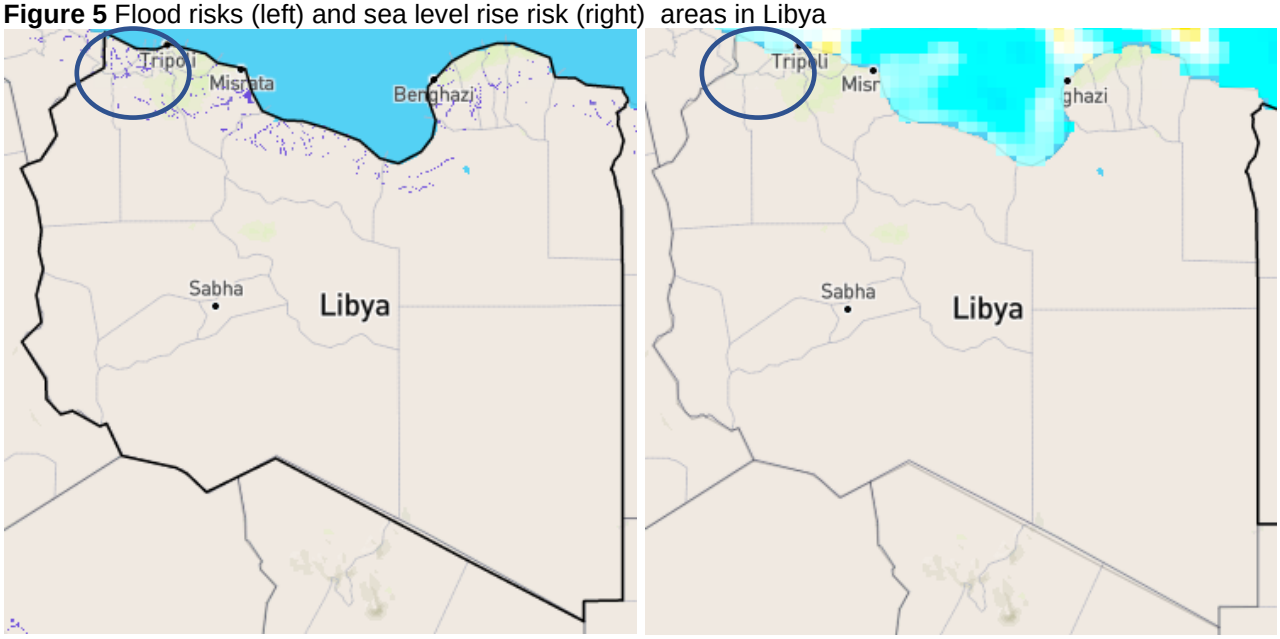


17. **Sandstorms and Dust Storms**: Strong dry wind blowing over the desert raises and carries along clouds of sand and dust that is often so dense that it obscures the sun and reduces visibility to almost zero. Wind speeds are high, often moving dunes and sometimes wiping out roads in flat, dry regions and halting air and road transportation. Sand and dust storms are also responsible for health-related illnesses resulting from the inhalation of dust and chemical contaminants.

18. **Floods**: Flooding is not very common in Libya although flash flooding can be disastrous. In terms of spatial distribution, Libya is considered a flood-prone country with potentially large economic losses[22]. Heavy rainfall during winter often causes flooding in roads and streets within city centers. Occasionally, floods cause loss of life, significant economic damage and loss of crops. Flood damage is aggravated by Libya's poor drainage infrastructure. As shown in **Figure** 5, flood risk areas are along the coast in northern Libya.

[22] Suwihli, S. (2020). Geospatial Analyses of Seismic Hazards and Risk Perception in Libya. *Theses and Dissertations: University of Arkansas.*

Figure 5 Flood risks (left) and sea level rise risk (right) areas in Libya



Source: World Bank climate change knowledge portal

19. **Sea Level Rise:** while global sea levels rose between 20 and 24 cm in the 20th century, the rate of sea level rise in the Mediterranean was faster than global averages.[23] Whereas global sea levels rise 2.5 mm a year, in the Mediterranean it is 6.8 mm per year.[24] Depending on how quickly climate change occurs, the sea could rise over 1 meter by the end of the 21st century[25]. As most Libyans live along the coast, most of the population will be affected, as well as agriculture strips along the coast. Sea level rise risk areas are shown in **Figure** 5**.**

Climate Change risks and Impacts

20. **Decline in water availability and quality:** As mentioned above, Libya already suffers from severe water scarcity and its water demand is far greater than its renewable supply. Climate change is expected to cause a decline in annual precipitation thus decreasing water availability. An anticipated increase in annual drought days on the coast from the current 101 to as many as 224 within the next four decades is expected to also put significant stress on all water sources. Saltwater intrusion into renewable aquifers due to sea level rise also will affect the water quality in those aquifers. The water from the Great Man-Made River project, which feeds Libya's agriculture, cities, and industry, is from non-renewable aquifers that cannot be recharged by rain[26] and are over 500 meters below the surface, leading to high pumping costs.

21. **Lower agricultural and livestock productivity:** Agricultural productivity is already hindered by the limited renewable water resources and poor soil quality. Projected annual temperature increases and reduced precipitation and water availability may lead to crop yield reduction of 30 percent in 2060. According to FAO**[27]**, managed pasture (i.e., gras), rice and wheat may reduce between 2020 and 2032 as follows:

    - ☐ Managed pasture (i.e., gras) from -6% (2020) to -26% (2032)
    - ☐ Rice from +0.6% (2020) to -20% (2032)
    - ☐ Wheat from -6% (2020) to -9% (2032)

22. While rain-fed cultivation is dominant in sparsely populated (semi)arid areas, larger-scale agriculture in the Mediterranean region is dependent on irrigation from non-renewable aquifers. The expected increase in both

[23] Adelphi (2021) Climate-Fragility Risk Brief: Libya
[24] Adelphi (2021) Climate-Fragility Risk Brief: Libya
[25] Idem
[26] USAID (2017). Climate Change Risk Profile: Libya. *Fact Sheet*.
[27] FAO CARD

temperatures and number of drought days will lead to higher extraction rates from these aquifers while rain-fed agriculture and pastoralism may no longer be viable for the rural populations of semiarid Libya. Projected increases in the frequency of extreme weather events such as **floods, sandstorms, and dust storms are likely to damage fields and irrigation infrastructure and further reduce crop yields. Seawater intrusion due to sea level rise is also expected to increase soil salinity and thus affect agricultural production**[28].

23. **Deterioration in coastal areas:** With around 86 percent of the population of Libya living in coastal cities, many Libyans are vulnerable to even slight sea level rise. Due to rising sea-levels, Libya could lose between 3.2 and 12.8 km^2 due to submergence and between 0.31 and 1.9 km^2 due to erosion by the end of the century. The number of people affected by flooding would vary between 3.7 and 131.2 thousand per year. Floods due to increased rain intensity on the coast may increase the rate of coastal erosion and damage drainage and piping infrastructure. Flooding from sea level rise and storms could also salinize soils and renewable aquifers along the coast. As most of the population, agriculture, and industrial activity are centred on the coast, salinization of soils, freshwater contamination and infrastructure damage pose a great risk to the economy. The sea level rise projected by 2100 could cost the country an estimated $1.7 billion.[29]

24. **Increase in diseases:** Health service capacity in Libya has deteriorated due to the ongoing conflict and already suffers from dependence on foreign health workers, an insufficient primary care network, neglected services in rural areas and damage to or inaccessibility of existing health facilities. The projected increase in temperature coupled with the damage to critical water infrastructure will likely increase cases of water-borne illness. In addition, the increase in frequency and duration of heat waves could also lead to heat-related deaths. Increases in dust storms and sandstorms could increase prevalence of illnesses resulting from increased exposure to sand, chemical contaminants, or related particulates, as well as further aggravate existing respiratory conditions. Although Libya is reliant on imports for much of its food, the predicted decline in agricultural productivity due to climate change as mentioned above could result in increased food insecurity and malnutrition and thus negatively impact human health[30].

25. In short, Libya is already water stressed and rising temperatures, saltwater intrusion and a lack of integrated water resource management policy is already leading to inter-communal competition over water resources. Libya may be unable to provide water to its population in the future with the prospect of water exhaustion threatening the agricultural sector.[31]

26. Thus, Libya has a major water problem. It will need to invest heavily in desalination and wastewater treatment to have any chance of managing its future water needs. This will take time and the country first needs to stabilize its electrical grid. Until then, fossil water will remain Libya's primary source of water and its lifespan needs to be lengthened. The most effective way to do so is to rationalize water use in agriculture and to adapt to dryer and saltier conditions, including by introducing salt and drought resilient crops.

27. Livestock already faces challenges due to lack of veterinary services, vaccines, and medicines as well as lack of access to fodder and animal feed. The livestock sector will be negatively affected by climate change due to rising temperate and related declining water availability and increase of animal diseases. Therefore, increasing the adaptive capacity of the sector through climate-resilient rangeland interventions benefitting pastoralists will be key in supporting the livelihoods of the target communities.

Climate change adaptation options in Libya

28. Libya has not developed any national strategies on climate change or any national communications to the UNFCCC. Hence, the climate change adaptation and mitigation priorities in Table **3** are adapted from the United Nations Strategic Framework for Libya (2019-2020) and 2023-2025 (with a focus on increasing climate change resilience to water scarcity and environmental degradation. The proposed project is also in line with IFADs

[28] Ibid.
[29] UN (2019). United Nations Strategic Framework for Libya 2019-2020.
[30] USAID (2017). Climate Change Risk Profile: Libya. *Fact Sheet*.
31 Adelphi (2021) Climate-Fragility Risk Brief: Libya

country strategy note for Libya and IFADs Adaptation framework. Activities identified as being relevant for this project are shown in the rights column of **Table 3.**

Table 3 Possible climate change adaptation measures in Libya

Proposed adaptation measures from the United Nations Strategic Framework for Libya	Relevant for this project
Build capacity in terms of data generation and utilization with direct link to disaster risk reduction and climate change action.	Conduct a climate change risks and vulnerability assessment in vulnerable areas (i.e., areas with high share of agriculture / livestock land and vulnerable groups)
Support the development of a National Climate Change Adaptation Framework;	Support the development of a National Climate Change resilient agriculture strategy
Advocate for the mainstreaming of disaster and climate risk management into Libya's national development framework;	Mainstream climate change risks and vulnerabilities into the National Climate Change resilient agriculture strategy
Mobilise policy expertise for orientation and guidance in terms of policy design and technical interventions, also including disaster risk reduction-related support;	See above. Include research institutions / universities
Promote Climate Smart Agriculture (CSA) practices across agricultural areas;	Promote efficient irrigation technology and climate smart rangeland interventions, including efficient technologies for soil and water conservation and management to minimize runoff and soil erosion and improve water retention and infiltration.
Strengthen the management of natural resources, particularly water, land and biodiversity;	
Enhance the protection of arable land and shifting to crops that can resist heat waves / droughts is required;	Identify hazard risk areas and avoid further development in these risk areas; Shift to heat and drought resilient and salt resistant crops
Increase resilience of vulnerable populations to environmental risks and climate change.	Target smallholder farmers / pastoralists, women (female headed households) and youth; income generation activities

Box 1 Details of main climate change adaptation practices, products and technologies considered (and to be further assessed and selected during the full proposal preparation phase through a participatory approach)

- ☐ **Soil and water conservation / harvesting and use:** 'in arid areas, rainfall is rare, unpredictable, and sometimes comes in unexpected violent bursts causing erosion and floods, and quickly evaporating under the dry and hot conditions of the arid environment. Based on experiences in the region, options exist to revive, enhance and promote an old indigenous practice of collecting (harvesting) the runoff water for subsequent use. To retain water, farmers generally use small circular or semi-circular basins or bunds around the trees or the plants. Soil is assembled and raised in such a way as to make a barrier to hold the water, which is therefore collected and made available for agricultural or domestic uses. Water harvesting (WH) proved effective for replenishing the soil water reserve and for the establishment and maintenance of vegetation cover, trees, shrubs or other crops for various uses. Larger catchments are similarly arranged to harvest water and exploited in arid areas by sheep herders to sustain rangeland species. Water harvesting not only provides a much-needed additional source of water for drinking or growing plants for feed and food, but it also raises soil moisture, reduces soil erosion, and contributes to Carbon sequestration and improved soil quality.' This approach can be combined with supplemental irrigation, when only used during critical times.

- ☐ **Salt resistant crops: '**while water harvesting and supplemental irrigation are effective technologies for augmenting and enhancing the value of freshwater resources, these resources are still too limited to cope with the increasing rural and urban user demands that are further exacerbated by unabating climate change. However, there is a potential for other avenues for additional water sources, including brackish water, saline water, and treated wastewater.[1] As wastewater treatment is not a feasible option under this project, using salt resistant crops is a feasible and cost-effective way to address the issues. Where possible, salt resilient crop varieties will be introduced of crop species already in use.

- ☐ **Drought and heat resilient crops:** where feasible, drought and heat resilient crop varieties will be used to reduce water demand.

- ☐ **Integrated crop-livestock-rangeland production systems:** Where feasible, this project will support an approach of integrated systems of crop-livestock-rangeland production systems, including consideration of mobile or transhumant grazing practices that reduce the risk of having insufficient forage in any location, investment in aforementioned water conservation / harvesting and diversification of crops and livestock (agropastoralism)**.** This could include **e.g. cactus to rehabilitate degraded rangelands.** In some countries in North Africa, cactus is successfully associated with water harvesting structures. In combination of well-designed ridges and cactus, farmers are able to meet a large proportion of their fodder requirements. Cactus crop is easy to establish and to maintain and has various utilizations. It produces good quality fruits; it is an excellent fodder; cactus young cladodes (nopalitos) are used as vegetable.

- ☐ **Promoting community-based organizations and empowerment:** The project intends to fully involve relevant institutions and various groups and to empower these. This will be done by supporting community-based planning and decision-making by organizing farmers, pastoralists, women and youth and by involving representatives from authorities and, where possible, researchers. The objective is to develop community development plans which include agreements about operation and maintenance of project activities. The plans should allow for the recognition of local and specific groups present in the areas now-how and equal distribution of project benefits.

Main National barriers identified to adapt to climate change

29. Table **4** provides an overview of the main National barriers identified[32] to adapt to climate change in Libya. In the right column it is explained whether or not addressing these barriers will be the focus of this project.

Table 4 Main National barriers to adapt to climate change in Libya

Main issues / barriers identified	Focus of this project	Explanation / Justification
☐ Lack of available information on climate change risks and vulnerabilities ☐ Limited government and population awareness to understand climate-related hazard risks and vulnerabilities and capacity to respond ☐ Non-existing policy framework / strategies on climate change		☐ Focus on vulnerable agriculture / livestock sector with identification of hazard risks and how to adapt to these;
☐ Weak government coordination on climate change		☐ Focus of FAO programming with coordination mechanism to be established
☐ Limited funding capacities to implement adaptation options ☐ High poverty rate ☐ Dependency on oil economy ☐ Dependence on fresh water from aquifers and the Man-Made River project (with high pumping costs, potential depletion and saltwater intrusion) and underdevelopment desalination and wastewater treatment		☐ Focus on poor and vulnerable groups. ☐ Strengthen the agriculture / livestock sector, which is the most important sector after oil, while a high-water consuming sector, with no regret interventions. ☐ Support lengthening the lifespan of available fresh water sources through efficient water use for agriculture and livestock sector.
		☐ Potential desalination and wastewater treatment activities to be done by development banks and after improvement of the national power grid
☐ Limited technical capacities to implement and maintain adaptation options		☐ Focus on increasing capacities to implement (operate and maintain) and replicate adaptation options
☐ Limited generation and dissemination of relevant knowledge and learning on climate change resilient practices, products and technologies and to replicate these at national, district and community level		☐ Focus on establishing a mechanism to capture and disseminate relevant knowledge and learning on climate change resilient practices, products and technologies and to replicate these as well as developing a National Climate Change resilient agriculture strategy

Climate change vulnerabilities and justification to select project target area

30. Libya is ranked 121 (out of 182) on the country ND Gain index, which summarizes a country's vulnerability to climate change and other global challenges in combination with its readiness to improve resilience and 91 (out of 182) on the vulnerability index. [33]

31. Although the proportion of households in Libya engaged in agriculture is the highest in the districts Wadi Ashshati and Sebha (see **Figure 6**), some of the districts most food insecure are located in the north-west of Libya (see **Figure** 7), besides those in the south (Marzug and Alkufrah). The districts in the north-west can be regarded as highly vulnerable because they are not only highly food insecure, but also face climate change-related risks/ impacts of droughts (see **Figure** 3Error! Reference source not found.), floods, sea level rise (see **Figure** 5**),** including salt water intrusion, while being the areas most dependent on rainfed agriculture (see

[32] IFAD Country Strategy Note for Libya 2022 – 2024
[33] ND Gain

Figure 3). The northwestern districts are also the most populated districts, as shown in **Figure** 8. Further, the districts in the northwest are relatively safe and well accessible.

Figure 6 Proportion of Households in Libya Engaged in Agriculture (2019)

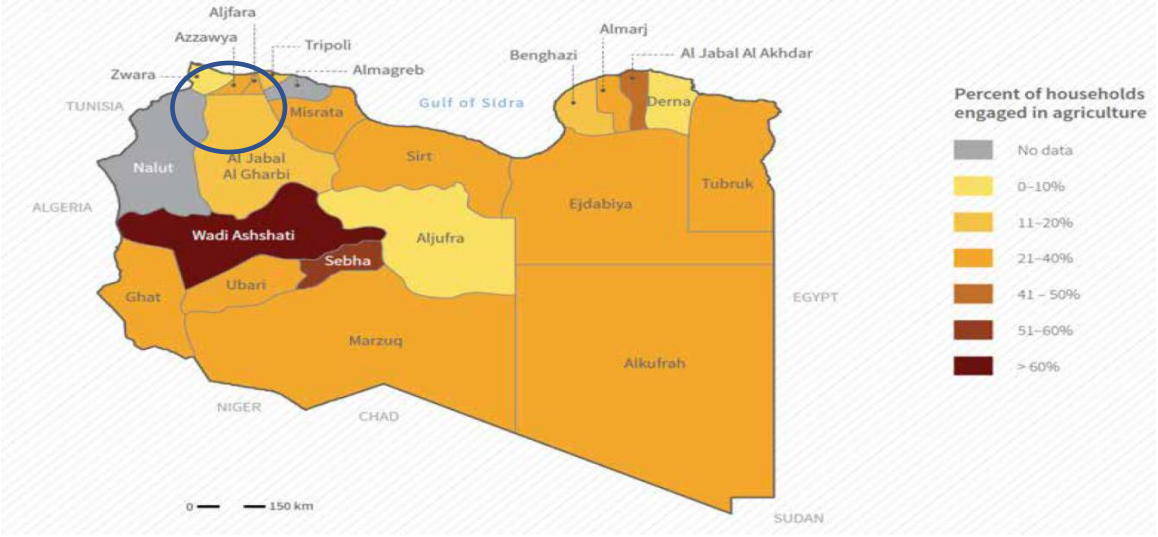
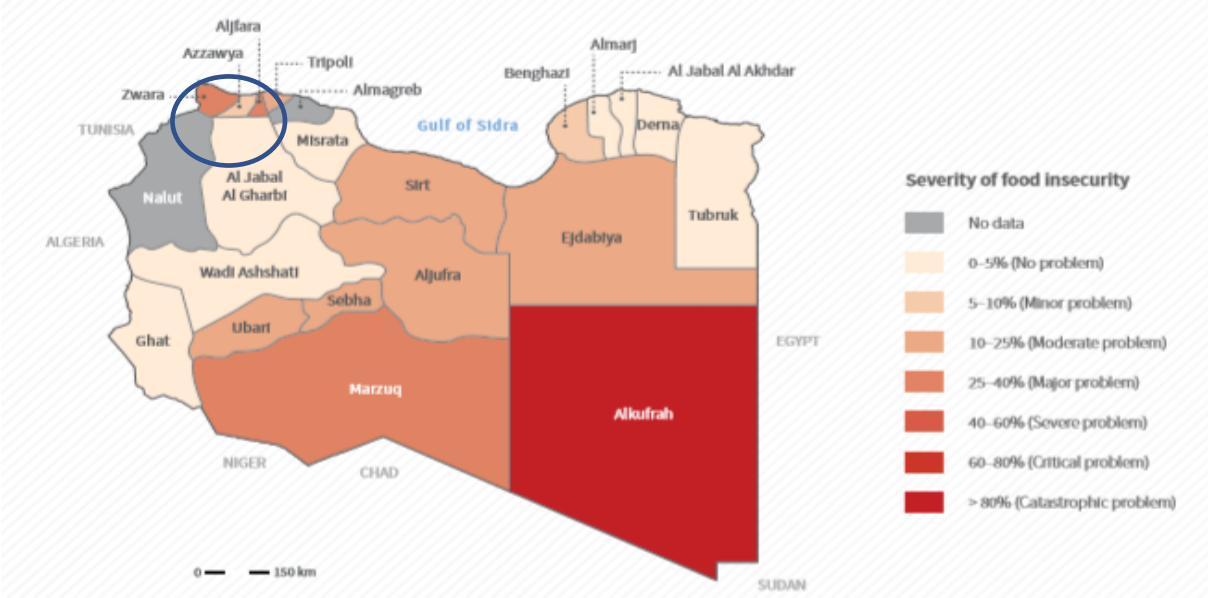
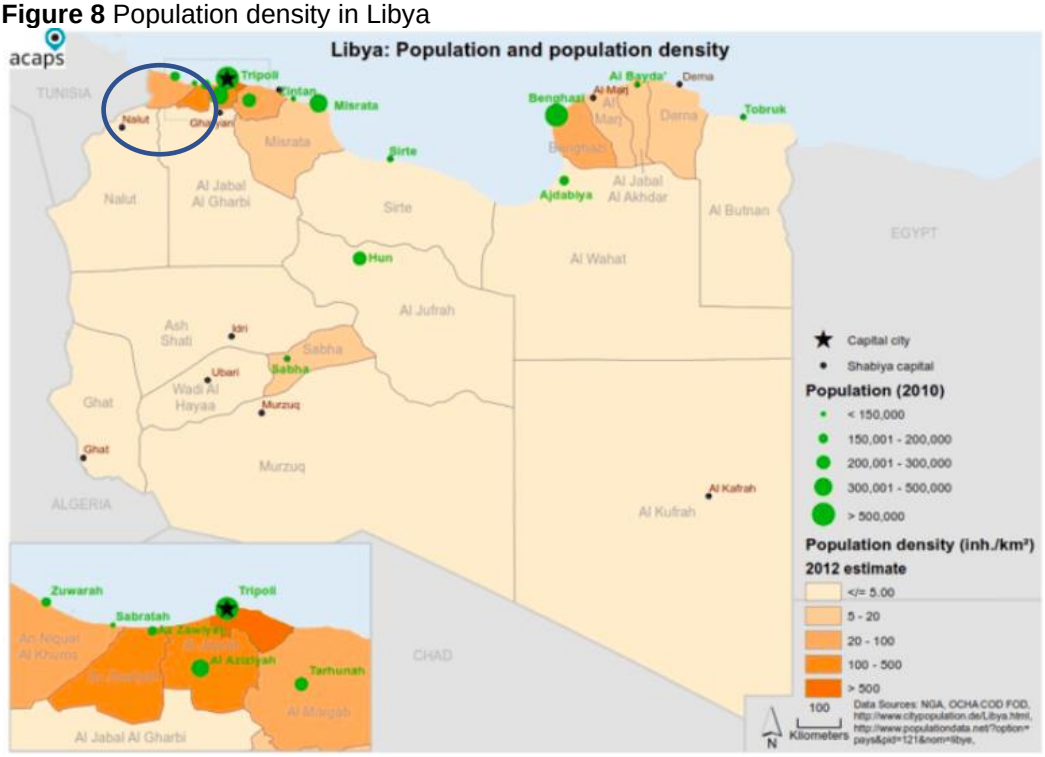


Figure 7 Prevalence of household in Libya with food insecurity



Source: FAO Libya Humanitarian Response Plan 2020

Figure 8 Population density in Libya



Source: Assessment Capacities Project (ACAPS)

32. The final selection of target districts are those in the north-west of Libya, including:

Table 5 Selected project target districts.

Target districts	Focus concrete interventions
Zwara	Climate change resilient crops and irrigation measures
Azzawya	
Alifara	
Nalut	Climate change resilient rangeland interventions
Al Jabal al Gharbi	

*Further selection may be made during the full proposal preparation phase.

33. For the climate change vulnerability assessment and climate change resilience strategy, the districts with main agriculture areas as shown in **Figure 1** are included as well. These are: Benghazi, Al Marj, al Jabal al Akhdar and Damah in the northeast (4 districts) and Wadi al Shale, Wadi Al Hay, Sabha and Murzug in the south (4 districts).

34. A rapid climate change vulnerability assessment has been conducted in four of the five target districts. Further assessments will be conducted during the full proposal preparation phase. As further described in section II.H. districts and municipal-level representatives have been surveyed, including women, youth and farmer representatives. A summary of the results is shown in Table 6. The table provides insight in population / beneficiary numbers, including the percentage of women, youth and farmers and their economic situation (i.e., poverty and average income. Besides that, the main climate change stressors / hazards have been identified, the main effects of these on the communities, barriers for adaptation action and adaptation options

35. The number of farmers is especially high in Alifara, followed by Zuwara. The precntage of people living in poverty ranges between 10 and 30 percent, while the average income is around USD 150 per month.

36. The technologies currently used for irrigation are immersion, drip irrigation, while relying in rainwater and sea-water (desalinated).

Table 6 Outcomes of Rapid climate change vulnerability assessment in target districts

Baladiyats	Population	% women	% youth	% farmers	% poverty	% income / Mo	% Agri-cult	% Live-stock	% Other Income / specify	Stressors and Hazards	Main problems due to stressors / hazards	Barriers	Adaptation actions needed
Al jabal al Gharbi	220 000	50	25	10	10	150 USD	25	20	55% private business	1. Droughts 2. Reduction of rain 3. Extreme heat	- Lack of water for cattle - Loss of arable land or degradation rangeland due to desertification - Reduced groundwater - Decreased access to safe drinking water	- Lack of knowledge - Lack of money/ poverty - Lack of plans	- Well water quality protection - Drought resilient crops - Better plans - Efficient irrigation
Zuwara	45 000	45	40	30	30	200 USD	**4**	15	1% of people can benefit from financial services (savings, credit, insurance, remittances)	1. Droughts 2. Reduction of rain **3.** Sea level rise (salt water intrusion)	- Decreased access to safe drinking water - Lack of water for cattle	- Lack of knowledge - Lack of plans	- Water harvesting - Drought resilient crops - Rangeland management - Early warning systems
Nalut	26 054	45 (60% female-headed)	35		30	150 USD	35			1. Droughts 2. Reduction of rain 1. Extreme heat	- Loss of arable land or degradation rangeland due to desertification - Damage to crops - Reduced groundwater	- Lack of knowledge - Lack of information	- Well water quality protection - Drought resilient crops - Better plans - Efficient irrigation
Aljfara	250 000	48	35	65	20	115 USD	40	4	5% government Jobs + self-employees (privet trade and marketing) and 33% free business	2. Droughts 3. Reduction of rain 4. Extreme heat 5. Sea level rise (salt water intrusion)	- Overall decreased agriculture - Lack of wate for cattle - Decreased access to safe drinking water	- Lack of knowledge - Lack of money/ poverty - Lack of plans	- Water harvesting - Drought resilient crops - Rangeland management - Trainings
Total	541 054												

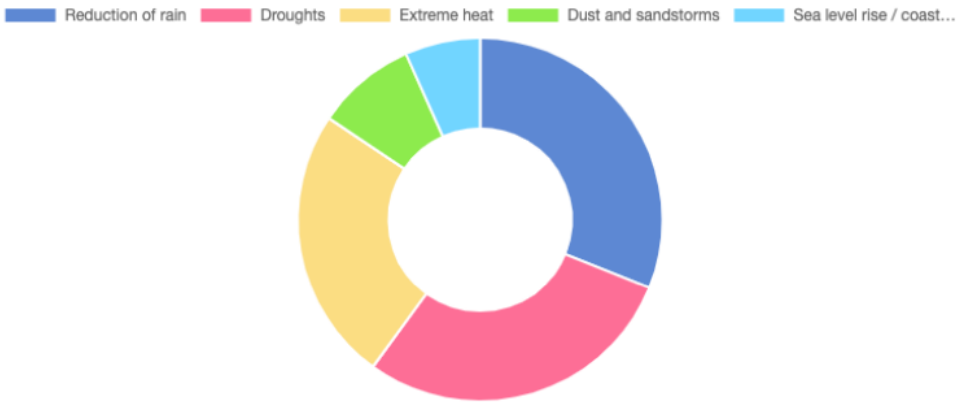
*Remark: In some areas (in the municipalities of Janzour and Suani Ben Adem, People have noticed a change in the taste of drinking water, which is believed due to the rise in sea level. Fresh water sources are gradually becoming salty. In Nalut it was noticed that 60 percent of the households is female-headed. This shows an opportunity to target female-headed households as one of the main beneficiary groups.

37. The type of crops cultivated include mainly wheat and barley. Tree types include olive, figs and palms. Onions, cucumbers, tomatoes, peppers and animal feed are also grown.

38. As for organizations, there are agricultural and animal breeders associations, women and youth associations as well as a cooperative specialized in the field of olives.

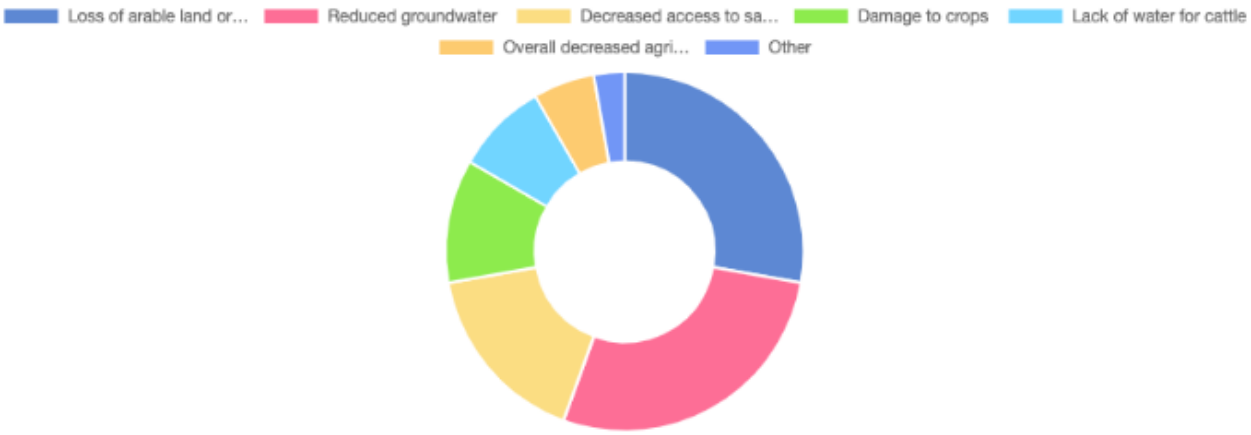
39. The main climate change stressors / hazards identified are droughts, reduction of rain, extreme heat and sea-level rise resulting is saltwater intrusion and dust / sandstorms. There has been some reporting on floods. It is clear that droughts and a reduction of rain are the main issues, while saltwater intrusion due to rising sea levels (and overextraction of groundwater) can be linked to reducing quality of water and the related priority action of protecting water quality (see Figure 12)

Figure 9 Main climate change stressors / hazards experienced



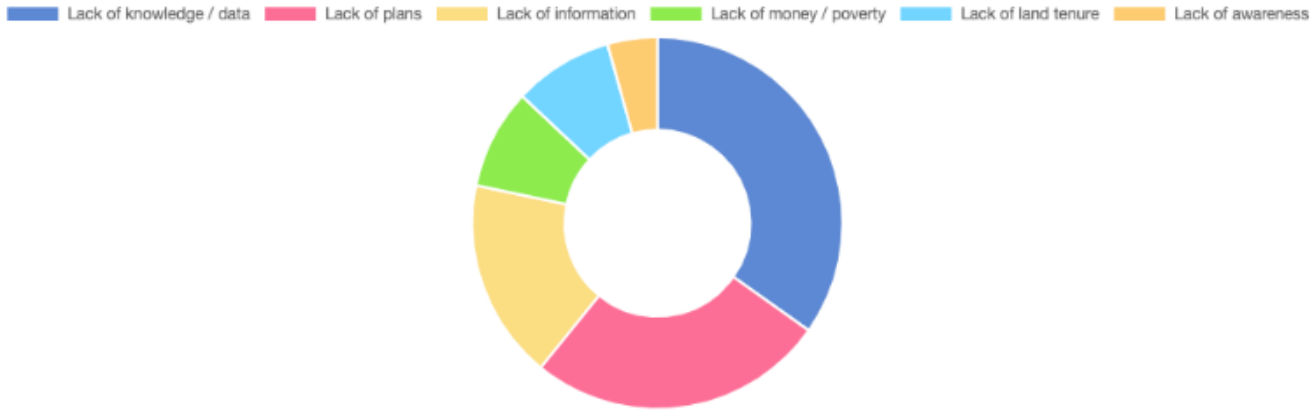
40. The main problems experienced due to the climate change stressors / hazards include loss or arable land, reduced groundwater, decreased access to safe drinking water, damaged crops, lack of water for cattle and an overall decrease of agriculture production.

Figure 10 Main problems experienced due to climate change hazards



41. The main barriers for taking adaptation action include a lack of knowledge and data, a lack of plans, a lack of information, a lack of money /poverty, a lack of land tenure and a lack of awareness. It is clear that there is a need for knowledge and information to respond to the main climate change hazards, including risks (areas) and options to respond. A lack of tenure is an issues for people who want to grow crops but don't own the land.

Figure 11 Main barriers for taking adaptation action

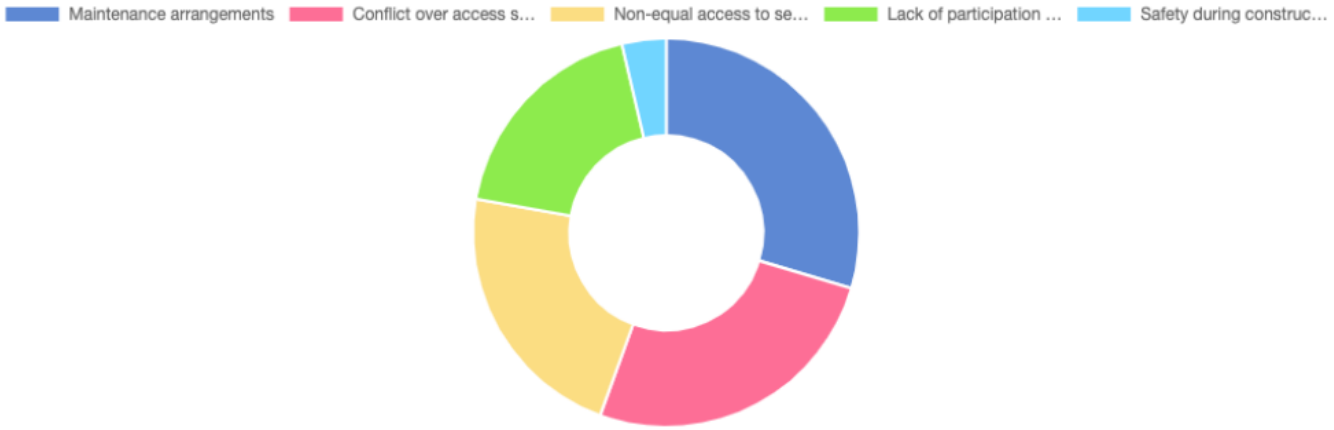


42. Adaptation actions required include well / water quality protection / improvement, drought resilient crops, rangeland management, better plans, efficient irrigation, water harvesting, training and early warnings. The main priorities are introducing drought resilient crop varieties (of already existing crop varieties), rangeland management and dealing with contaminated water. This contamination can be saltwater intrusion or pollution. As for water getting saltier, the introduction of salt resilient crops (of already existing crop varieties) could be a solution besides protecting clean wells.

Figure 12 Priority adaptation actions

43. The main concerns respondents have include a lack of maintenance arrangements, possible conflict over access of services, Potential non-equal access to service, a lack of participation /involvement and safety issues during construction. During the full proposal preparation phase, all maintenance arrangements will need to be detailed and agreed upon. This should be done through decision-making processes with existing organizations /associations. There is a clear concern about equal access and participation. Therefore, a community-based organization and plans are needed, where all group are involved. This will be combined with grant packages specifically allocated to vulnerable groups in an equal manner.

Figure 13 Possible concerns when adaptation actions would be implemented



44. During the full proposal preparation phase, exact target locations and activities will be identified, as well as exact beneficiary grous and numbers.

Project objectives

45. As mentioned earlier, Libya has an existing water problem that will be exacerbated by climate change. To avoid the depletion of water resources, heavy investment in desalination and wastewater treatment is needed. However, this will take time and major funding sources, and the country needs to stabilize its electrical grid first. Until then, fossil water and rainfall in the north will remain Libya's primary sources of water and its lifespan needs to be lengthened.

46. The aim of this project is to support maximizing the lifespan (i.e., increasing the sustainability) of available water resources by using water as efficient as possible in the agriculture / livestock sector, which is the sector consuming most water, while also being the most heavily impacted by and vulnerable to climate change.

47. **Overall goal:**

- ☐ Increasing the climate change resilience of the agriculture sector to water scarcity in Libya.

48. **Overall objective:**

- ☐ Enable the government and vulnerable groups to adapt to climate change in the agriculture/ livestock sector, and especially to water scarcity and land degradation

Table 7 Main climate change adaptation issues/ barriers and proposed project response/ sub-objectives

Main issues / barriers identified	Proposed response / sub-objective	Proposed project component
☐ Lack of available data / information on climate change risks and vulnerabilities ☐ Limited government awareness to understand climate-related hazard risks and vulnerabilities and capacity to respond	1. Increase availability of relevant data on climate change risks and vulnerabilities and increase the awareness of public institutional staff at national and district level and smallholder farmers / pastoralists, women and youth groups of relevant climate change hazard risks and adaptation options and priorities (i.e., practices, products, and technologies) for the agriculture / livestock sector and required capacities to collect data, conduct assessments and plan for adaptation. *In line with AF outcome 1	**Component 1**
☐ Non-existing policy framework / strategies on climate change	2. Improve the mainstreaming of climate change information generated into national, district and	

	community-level planning processes for agriculture / livestock development *In line with AF outcome 7	
☐ Limited funding capacities to implement adaptation options ☐ High poverty rate ☐ Dependency on oil economy ☐ Dependence on fresh water from aquifers / the Man-Made River project (with high pumping costs and potential depletion and saltwater intrusion) and underdevelopment desalination and wastewater treatment	3. Increase the agriculture / livestock land / irrigation and products resilience to climate change hazard risks and increase the sustainability / climate change resilience of agriculture / livestock livelihoods while increasing production, income, and food security, targeting smallholder farmers and pastoralists, women and youth in five (5) districts in the northwest of Libya *In line with AF outcome 5 and 6	**Component 2**
☐ Limited technical capacities to implement and maintain adaptation options	4. Strengthen the capacity of Institutional staff and smallholder farmers / pastoralists, women, and youth to implement (i.e., operate and maintain/ sustain) climate change resilient practices products and technologies *In line with AF outcome 2 and 3	
☐ Limited generation and dissemination of relevant knowledge and learning on climate change resilient practices, products and technologies and to replicate these at national, district and community level	5. Encourage / support the innovation and replication of Climate change resilient practices, products and technologies piloted in the five (5) districts in the northwest of Libya in four (4) districts in the northeast and four (4) districts in south through a national – district – community replication mechanism *In line with AF outcome 8	**Component 3**

Project / Programme Components and Financing:

Table 8 Overview project components and financing

Project Components	Expected Concrete Outputs	Expected Outcomes	Amount (US$)
Component 1 Participatory prioritization of climate change adaptation options into national, district and community planning for agriculture / livestock development	**Output 1.1.** Climate change vulnerability and hazards risks assessment for the agriculture/ livestock sector in Libya, specifically targeting districts in the north-west (5), north-east (4) and south (4) with the participation of vulnerable groups, women and youth	**Outcome 1.1.** Increased awareness of public institutional staff at national and district level and smallholder farmers / pastoralists, women and youth groups of relevant climate change hazard risks and adaptation options and priorities (i.e., practices, products, and technologies) for the agriculture / livestock sector Improved mainstreaming of climate change information generated into national, district and community-level planning processes for agriculture/ livestock development	1 400 000
	Output 1.2 National agriculture/ livestock strategy developed in which climate change hazard risks and adaptation options (i.e., practices, products and technologies) are identified, prioritized and promoted at national and district level, with specific attention to the needs of vulnerable groups, women and youth		94,450

Component Climate resilient investment in concrete activities in the agriculture / livestock sector	**Output 2.1.** (Focus on agriculture) Climate change resilient practices, products and technologies (i.e drought and heat resilient and salt resistant crop varieties) implemented in three (3) districts in the northwest of Libya, including through grant packages to farmer, women and youth groups Relevant public Institutional staff and smallholder farmers, women and youth trained (i.e., workshops) to implement (operate, maintain / sustain) climate change resilient practices, products and technologies and to support the strengthening or creation of community organizations and community development plans	**Outcome 2.1.** Increased agriculture/ livestock land/ irrigation and products resilience to climate change hazard risks and increased sustainability/ climate change resilience of agriculture/ livestock livelihoods and increased production, income and food security, targeting smallholder farmers and pastoralists, women and youth in five (5) districts in the northwest of Libya Strengthened capacity and organization of institutional staff and smallholder farmers / pastoralists, women and youth to implement (i.e., operate and maintain/ sustain) climate change resilient practices products and technologies	3 500 000
	Output 2.2 (Focus on livestock / rangeland production systems) Climate change resilient practices, products and technologies (i.e., water conservation / rangeland production system interventions) implemented in two (2) districts in the northwest of Libya, including through grant packages to pastoralists, women and youth groups Relevant public Institutional staff and pastoralists, women and youth trained (i.e., workshops) to implement (operate, maintain / sustain) climate change resilient practices, products and technologies and to support the strengthening or creation of community organizations and community development plans		2 500 000
Component 3 Capturing and disseminating relevant knowledge and learning on climate change resilient practices, products and technologies and to replicate these at national, district and community level	**Output 3.1.** Mechanism to capture and disseminate relevant knowledge and learning of climate change resilient practices, products and technologies and to replicate these at the national level and to four (4) districts in the northeast and four (4) districts in south and to vulnerable groups, women and youth, including through workshops, guidelines, farmer field schools, a ToT programme and field visits to demo plots.	**Outcome 3.1.** Climate change resilient practices, products and technologies piloted in the five (5) districts in the northwest of Libya are encouraged / supported for replication in four (4) districts in the northeast and four (4) districts in south through a national – district – community replication mechanism	1 000 000
5. Total components			8,494,450
6. Project/Programme Execution cost			719,519
7. Total Project/Programme Cost			9,213,969
8. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)			783,187
Amount of Financing Requested			9,997,156

Projected Calendar:

Table 9 Project calendar

Milestones	Expected Dates
Start of Project/Programme Implementation	July 2023
Mid-term Review (if planned)	
Project/Programme Closing	December 2028
Terminal Evaluation	September 2028

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Project components

49. To achieve the overall project goal' to increase the climate change resilience of the agriculture / livestock sector to water scarcity in Libya' and the overall project objective 'to enable the government and vulnerable groups to adapt to climate change in the agriculture / livestock sector and especially to water scarcity and land degradation,' it is proposed to generate, mainstream and share relevant climate change hazard risks information for the whole agriculture / livestock sector in Libya (components 1) and to strengthen capacities of project beneficiaries to operate, maintain (component 2) and replicate activities (component 3). It is proposed to combine this with a set of concrete 'no-regret' climate change adaptation activities in the agriculture / livestock sector in five (5) target districts in the northwest of Libya, including the introduction of drought and heat resilient crops, salt resistant crops, water conservation / harvesting, rangeland production system interventions and efficient irrigation technology and schemes. For more info on the main concrete climate change adaptation interventions considered see **Box 1** and the outcomes of the rapid climate change vulnerability assessment. Around 70 percent of the funds will be distributed to concrete adaptation measures.

50. The specific needs and possible concerns of smallholder farmers, pastoralists, women, and youth are currently being identified during the project proposal development phase (concept note and full proposal). Engagement with these groups will continue during project implementation through the three proposed project components.

51. The above approach will be achieved through the following proposed components.

52. **Component 1: Participatory prioritization of climate change adaptation options into national, district and community planning for agriculture / livestock development**

53. In line with AF outcome 1 and government priorities (see section H), this component will focus on:

- ☐ Increasing the awareness of public institutional staff at national and district level and smallholder farmers / pastoralists, women and youth groups of relevant climate change hazard risks and adaptation options and priorities (i.e., practices, products, and technologies) for the agriculture / livestock sector
- ☐ Improving the mainstreaming of climate change information generated into national, district and community-level planning processes for agriculture / livestock development.

54. This will be done through the following outputs:

- ☐ Output 1.1. Climate change vulnerability and hazards risks assessment conducted for the agriculture / livestock sector in Libya, specifically targeting districts in the north-west (5), north-east (4) and south (4) with the participation of vulnerable groups, women, and youth

- ☐ Output 1.2. National agriculture / livestock strategy developed in which climate change hazard risks and adaptation options (i.e., practices, products, and technologies) are identified, prioritized, and promoted at national and district level, with specific attention to the needs of vulnerable groups, women and youth

55. This component is needed to respond to the issues / barriers identified to adapt to climate change:

- ☐ Lack of available data / information on climate change risks and vulnerabilities
- ☐ Limited government awareness to understand climate-related hazard risks and vulnerabilities and capacity to respond.

56. Climate change vulnerability assessment will be conducted in agriculture/ livestock areas in the whole of Libya and specifically in 5 target districts in the northwest, 4 target districts in the northeast and 4 target districts in the south. During the project proposal preparation phase, a rapid climate change vulnerability assessment was conducted to identify the main climate change vulnerabilities in the 5 target districts in the northwest, with the purpose to identify concrete adaptation activities needed as proposed under component 2. During the project implementation phase, further detailed climate change vulnerability assessment will be conducted in all 13 target districts, while avoiding assessments already done in the 5 target districts in the northwest.

57. The climate change hazard risks considered are droughts, extreme heat, coastal flooding/inundation, salinization, an inland flooding, and adaptation options include practices, products and technology. The risk profile/ mapping should include identified areas to be avoided for development due to high risks and safe areas. Besides that, vulnerability profiles will be developed per district with possible climate change adaptation measures and priorities. This will be done with the participation of government staff and smallholder farmers, pastoralist, women and youth.

Component 2: **Climate resilient investment in concrete activities in the agriculture / livestock sector**

58. In line with AF outcome 5, 6 and 2, 3, and government priorities (see section H), this component will focus on:

- ☐ Increasing the agriculture/ livestock land / irrigation and products resilience to climate change hazard risks and increase the sustainability / climate change resilience of agriculture / livestock livelihoods while increasing production, income, and food security, targeting smallholder farmers and pastoralists, women and youth in five (5) districts in the northwest of Libya
- ☐ Strengthening the capacity of Institutional staff and smallholder farmers / pastoralists, women, and youth to implement (i.e., operate and maintain/ sustain) climate change resilient practices, products and technologies.

59. This will be done through the following outputs:

- ☐ Output 2.1. Climate change resilient practices, products, and technologies (i.e., water conservation / harvesting and efficient irrigation technology and schemes and drought and heat resilient and salt resistant crop varieties) implemented in three (3) districts in the northwest of Libya, including through grant packages to farmer, women and youth groups; Relevant public Institutional staff and smallholder farmers, women and youth trained (i.e., workshops) to implement (operate, maintain / sustain) climate change resilient practices, products and technologies and to support the strengthening or creation of community organizations and community development plans
- ☐ Output 2.1. Climate change resilient practices, products, and technologies (i.e., water conservation / harvesting / rangeland production system interventions) implemented in two (2) districts in the northwest of Libya, including through grant packages to pastoralists, women and youth groups; Relevant public Institutional staff and pastoralists, women and youth trained (i.e., workshops) to implement (operate, maintain / sustain) climate change resilient practices, products and technologies and to support the strengthening or creation of community organizations and community development plans

60. The main difference between output 2.1. and output 2.2. is that output 2.1. focuses on agriculture land / areas and output 2.2. focuses on livestock land / areas / rangelands. This component is needed to respond to the issues/ barriers identified to adapt to climate change, including:

    Overall:
    - ☐ Dependency on oil economy
    - ☐ Dependence on fresh water from aquifers / the Man-Made River project (with high pumping costs and potential depletion and saltwater intrusion) and underdevelopment desalination and wastewater treatment

    Specific for target areas:
    - ☐ a lack of knowledge and data
    - ☐ a lack of plans, a lack of information
    - ☐ a lack of money /poverty and funding capacities to implement adaptation options
    - ☐ a lack of land tenure
    - ☐ a lack of awareness
    - ☐ Limited technical capacities to implement and maintain adaptation options

61. As water pumping costs are high, water depletion and saltwater intrusion are serious threats to water available and agriculture production and food security, water demand needs to be reduced. Desalination and wastewater treatment are options but require large investments. Therefore, this proposal focused on no-regret concrete adaptation interventions, including introducing drought and heat resilient crops and salt resistant crops in combination with water efficient irrigation technology and rangeland interventions. These are all introduced to deal with climate change hazards and to reduce water consumption. Under component 3 a mechanism to replicate these adaptation measures to other areas in Libya is proposed.

62. **Component 3: Capturing and disseminating relevant knowledge and learning on climate change resilient practices, products and technologies and to replicate these at national, district and community level**

63. In line with AF outcome 8 and government priorities (see section H), this component will focus on:

    - ☐ Encouraging/ supporting the replication of climate change resilient practices, products and technologies piloted in the five (5) districts in the northwest of Libya in four (4) districts in the northeast and four (4) districts in south through a national – district – community replication mechanism

64. This will be done through the following outputs:

    - ☐ Output 3.1. Mechanism to capture and disseminate relevant knowledge and learning of climate change resilient practices, products and technologies and to replicate these at the national level and to four (4) districts in the northeast and four (4) districts in south and to vulnerable groups, women and youth, including through guidelines, field visits, workshops

65. This component is needed to respond to the issues/ barriers identified to adapt to climate change:

    - ☐ Limited generation and dissemination of relevant knowledge and learning on climate change resilient practices, products and technologies and to replicate these at national, district and community level

66. There is a huge potential to replicate no-regret concrete adaptation activities to other agriculture / livestock areas with the same needs. Based on the outcome of component 1 and lessons from component 2, knowledge and learning will be captured on climate change resilient practices, products and technologies and promoted for replication. This will be done through workshops, guidelines, farmer field schools, a ToT programme and field visits to demo plots.

B. Project economic, social and environmental benefits

67. The proposed project aims to maximize benefits to the most vulnerable groups while maximizing the positive environmental impact and reducing any potential social risk due to sensitivities among the local communities. Women and youth and vulnerable groups to be targeted under this project can be categorized as following:

- ☐ Small-scale farmers and pastoralists (poor households and female-headed households prioritized)
- ☐ Youth willing to engage in agriculture production and have no other income source
- ☐ Internal-Displaced Persons - IDPs and returnees
- ☐ Other vulnerable groups including people with disabilities

For an overview of project beneficiary numbers see table Table 6 Needs and possible concerns of farmers / pastoralists, women, youth have been identified through a rapid climate change vulnerability assessment conducted (see also Table 6) in 4 out 5 off the northwestern target districts. The total number of beneficiaries in the target districts is 541 054, of which between 10-65 percent farmer, 45-50 percent women and 25-40 percent youth, depending on the district. Between 4-40 percent of the population have an income out of agriculture and 4-20 out of livestock.

68. In addition to the target groups mentioned, the direct beneficiaries of each proposed project activity are selected based on vulnerability selection criteria to ensure that the programme is targeting:
A) the most vulnerable households among those who fulfil the technical requirements of the proposed activity;
B) to ensure equity and avoid any social tensions in the local communities.

69. The process of full beneficiaries' identification will be done during the full proposal preparation phase through local committees at the community level. These committees include local leaders, farmers, pastoralists and women and youth groups representatives and are gender balanced to the extent possible. Also, a mapping of ethnic groups will be done, to make sure these are equally nvolved per target area. Such direct engagement of the target local community will ensure communities contribution and participation in applying the criteria to their committees and suggest beneficiaries who are eligible.

70. As part of project compliance to the AF ESP and GP, possible negative environmental and social risks and impacts will be avoided/ mitigated, through participatory assessment, planning and decision-making processes, also during project implementation. Below is a summary of the project benefits:

Table 10 Economic, Social and Environmental benefits

Component	Baseline	With/after project (economic, social, environmental)
Component 1	Beneficiaries have limited awareness of climate change hazard risks and response options. Agriculture / livestock production is threatened by climate change hazard risks and limited water resources. Water pumping is expensive. Populations are vulnerable due to high poverty rates and dependence on vulnerable sectors. Women and youth participation can be regarded as low.	❑ Economic: development in risk areas (with risk of losses) can be avoided; climate change cost-effective measures are identified, once implemented, these can support increase of income ❑ Social: participatory approach will ensure benefits to women, youth and other vulnerable groups through their inclusion in the process ❑ Environmental: agriculture strategy will identify potential threats to biodiversity, natural habitats and people.
Component 2		❑ Economic: climate change resilient cost-effective measures implemented will support increase of income ❑ Social: participatory approach will ensure benefits to women, youth and other vulnerable groups. Specific project activities targeting women and youth will be identified during the full proposal preparation phase. ❑ Environmental: agriculture / livestock activities implemented will apply good practices, avoid land degradation and avoid any increase in use of pesticides; water use will be more efficient.
Component 3		❑ Economic: information on climate change resilient cost-effective measures will be available/ accessible which will yield economic benefits at scale. ❑ Social: information on climate change resilient cost-effective measures will be available/ accessible to women and youth and other vulnerable

		groups and specific lessons on gender and youth mainstreaming strategies will be captured ❑ Environmental: knowledge and information in avoiding negative environmental impacts will also be shared.

71. During the full proposal preparation phase, detailed benefits per project outputs will be described, including for vulnerable groups, women and youth.

C. Cost-effectiveness of the proposed project

Table 11 Proposed interventions cost-effectiveness rationale

Project output/ activity	Alternative interventions and rationale why priority interventions/activities have been selected from a cost-effectiveness perspective
Output 1.1. Climate change vulnerability and hazards risks assessment conducted for the agriculture / livestock sector in Libya, specifically targeting districts in the north-west (5), north-east (4) and south (4) with the participation of vulnerable groups, women, and youth	Without the climate change vulnerability and hazards risks assessment and National agriculture / livestock strategy developed there will be no identified and prioritized climate change adaptation options for agriculture / livestock areas in Libya. This is needed to make people aware of these options, but also to identify / attract and prioritize funding for adaptation activities, also within small communities. Alternative: conventional practices such as development in high risk areas, expensive water pumping, use of high water consumption crops, etc. will continue and are more expensive and will be even more in the future.
Output 1.2. National agriculture / livestock strategy developed in which climate change hazard risks and adaptation options (i.e., practices, products, and technologies) are identified, prioritized, and promoted at national and district level, with specific attention to the needs of vulnerable groups, women and youth	
Output 2.1. Climate change resilient practices products and technologies (i.e., efficient water irrigation schemes and drought and heat resilient and salt resistant crop varieties) implemented in districts in three (3) districts in the northwest of Libya, including through grant packages to farmer / pastoralist, women and youth groups, and; Relevant public Institutional staff and smallholder farmers, women and youth trained to implement (operate, maintain / sustain) climate change resilient practices, products and technologies	Using heat and drought resilient crops and salt resistant crops are cost-effective in comparison with conventional crops , as these crops will grow better and survive extreme conditions. This should be combined with efficient irrigation technology and landscape interventions to capture and store available water to avoid potential cost of water depletion. Alternatively, desalination or wastewater treatment are used, but these are more costly interventions, also per person, and feasibility is limited with existing conditions and available funds. Capacity strengthening to operate and maintain implemented activates is needed to avoid loss of investment if activities are not sustained. Grant packages are cost-effective approach to involve beneficiaries and ensure they do part of the works against (relatively) low fees. Alternatively: Activities are implemented by other service providers without capacity building for communities to be able manage these technologies jeopardizing the sustainability of these investments.
Output 2.1. Climate change resilient practices products and technologies (i.e., climate change resilient rangeland interventions) implemented in two (2) districts in the northwest of Libya, including through grant packages to pastoralists, women and youth groups, and; Relevant public Institutional staff and smallholder farmers, women and youth trained to implement (operate, maintain / sustain) climate change resilient practices, products and technologies	

Output 3.1. Mechanism to capture and disseminate relevant knowledge and learning of climate change resilient practices, products and technologies and to replicate these at the national level and to four (4) districts in the northeast and four (4) districts in south and to vulnerable groups, women and youth, including through guidelines, field visits, workshops	Making knowledge / lessons of tested activities available / accessible to inhabitants of other districts is a cost-effective way to replicate the activities. Alternatively, other funding sources need to be sought to implement adaptation activities in other areas and duplication of pilots/knowledge generation could occur.

72. Altogether, the project will be cost-effective by:
    - ☐ Avoiding future costs associated with damage and loss due to climate change impacts (especially droughts, sea inundation and saltwater intrusion, floodss) and to ensure the interventions are sustainable.
    - ☐ Community involvement with development/construction of concrete interventions and because of community capacity building which will also ensure the sustainability of investments
    - ☐ Having selected the technical / concrete adaptation options based on cost-feasibility and resilience/sustainability criteria, including:
        - Location suitability (Location + suitability)
        - Cost-effectiveness (cost per beneficiary)
        - Comparison to alternative solutions
        - Beneficiaries' vulnerabilities and needs (direct and indirect) + benefits
        - Operation + maintenance needs and arrangements feasibility
        - Sustainability needs and arrangements, incl. replication, upscaling and exit strategy feasibility
        - Limited / manageable environmental and social risks / impacts

73. During the full proposal preparation phase, the cost-effectives of all proposed project outputs will be analyzed, including comparison with alternatives.

D. Project consistency with national or sub-national sustainable development strategies

74. The proposed project is designed to be consistent with international, national and sub-national development strategies, plans and goals. From an international perspective, the project directly supports targets under SDG 13 (climate change adaptation & DRR) and indirectly under environmental-related SDG 6 (increasing safe and clean water) and SDG 15 (reducing land degradation and improve sustainability of natural resource management). The project also indirectly supports targets under SDG 1 (reducing poverty), SDG 2 (increasing food security) SDG 3 (improving good health and well-being), SDG 5 (improving gender equality), SDG 9 (improving innovation and infrastructure), SDG 10 (reducing inequalities), SDG 11 (increasing the sustainability of communities) and SDG 16 (enhancing social cohesion).

75. As per below, the project directly supports IFADs priorities:

Strategic Objective 3 (IFAD Strategic framework 2016-2025)	Strengthen the environmental sustainability and climate resilience of poor rural people's economic activities
Strategic Objective 1 (IFAD Strategic framework 2016-2025)	Increase poor rural people's productive capacities
Development result (IFAD11 Results Management Framework)	By 2025 – 24 million people with greater resilience

76. Libya is party to the United Nations Framework Convention on Climate Change. In 2016, Libya has signed the Paris Agreement but has not yet ratified it. Libya did not develop any national strategies on climate change or any national communications to the UNFCCC.

77. The Libyan Environment General Authority (EGA) has attempted to work with international partners to improve its reporting capacity and, in 2020 the first inter-ministerial climate change committee was established. However, there is still no communication to the UNFCCC and function of the committee questionable.

78. Due to the lack of any national strategy, the UN follows the United Nations Strategic Framework for Libya, which identified adaptation measures as shown in **Table 3.** Besides that, **Table 12** provides a brief overview of the available government strategies and plans and how this project aligns with these. The project also aligns with the forthcoming UNSDCF Libya 2023 – 2025 IFADs country strategy note for Libya and IFADs Adaptation framework

Table 12 Project alignment with National priorities

Strategies and plans	Year submitted / ratified	Relevant priorities the project is aligned with
☐ The government follows the SDGs and African Water vision 2025 as a vision / framework for the water sector		☐ The project will support reducing water demand while increasing the use of efficient water use technologies
☐ National Strategy for Sustainable Development	2008	☐ The project will support sustainable approaches, products and technologies
☐ National Strategy for Integrated Water Resources Management (2000 – 2025) (NSIWRM) and annual sector plans	2006	☐ The project will support the ultimate objective of the strategy, which is to stop continuing water deficits and quality deterioration and set a base for sustainable development

79. During the full proposal preparation phase, all relevant strategies will be included in the above table, including showing the alignment with all project activities.

E. Project compliance with relevant national technical standards

80. The proposed project is designed to meet all relevant international and national technical rules, regulations, standards, and procedures. During the preparation phase, all the relevant rules, regulations and standards have been identified, including steps / procedures to comply per proposed activities / interventions.

81. Regarding any environmental and social risks screening and impact assessments and related approvals required by Libyan law, the following mechanism is in place to obtain environmental approvals for projects:

82. The environment general authority is an independent autonomous institution which exercises its duties in accordance with the environmental law no. 15 of 2003 to protect and improve the environment. The law specifies public duties and the other related parts towards preserving the environment in the following fields:

- ☐ General Provision (Articles 1 – 8)
- ☐ Air Pollution (Articles 10 – 17)
- ☐ Protection of Sea and Marine wealth (Articles 18 – 38)
- ☐ Protection of Water Sources (Articles 39 – 47)
- ☐ Protection of Foodstuffs (Articles 48 – 50)
- ☐ Environmental Hygiene (Article 51)
- ☐ Protection from Common Animal Diseases (Article 52)
- ☐ Protection of Soil and Plants (Article 53 – 55)

- ☐ Protection of Wildlife (Article 56 – 57)
- ☐ Biological Safety (Article 58 – 63)
- ☐ Penalties (Articles 64 – 76)
- ☐ Final Provisions (Articles 77 – 79)

83. Process of EIA: The Environment Impact Assessment includes the following stages:

Table 13 Steps Environment Impact Assessment in Libya

Steps	Responsibilities
1. Project preparation	Usually made by the developer (owner) and the consultant.
2. Notification to EGA	The developer will notify EGA about the plan (field survey, activity type, etc)
3. Screening and scoping	The field survey (data acquisition) and the data arrangement in the office will be made by the consultant according to the owner plan
4. Environmental studies	The studies will be achieved and completed.
5. Submission to EGA / EIA dept	EIA, EBS studies are submitted to EGA .
6. Reviewing and evaluation of studies	The evaluation is done by the EIA dept. staff
7. Consultation with EIA manager	Discussion with the manager about the permission condition depending on the evaluation of the introduced study
8. Final decision	The final decision will be issued by EIA Manager or EGA secretary

84. According to EGA, Environmental Impact Assessment report should include the following:

- ☐ Executive Summary
- ☐ General information
- ☐ Legislation
- ☐ Description of the proposed project
- ☐ Description of the surrounding environment and current situation
- ☐ Description of the environmental impacts of the proposed project
- ☐ Description of environmental impact assessment
- ☐ Description of mitigation actions
- ☐ Description of alternatives
- ☐ Environmental Management Plan

85. All proposed project activities fall below the threshold where environmental and social impact assessments (ESIAs) are required by national law. Thus, there are no EIA required by national law during the preparation or implementation of the project. This will be confirmed by the ministry of environment during the full proposal preparation phase. Although ESIA are not required by national, a risks screening and impact assessments will be conducted in line with the Environmental and Social Policy (ESP) and Gender Policy (GP).

86. International conventions Signed by Libya:

- ☐ Convention on Preservation of Fauna and Flora in their Natural State (London, 1933)
- ☐ African Convention on the Conservation of Nature and Natural Resources (Algeria, 1968)
- ☐ Convention on Wetlands (Ramsar, 1971)
- ☐ World Heritage Convention (Paris, 1972)
- ☐ Convention on International Trade in Endangered Species of Fauna and Flora (CITES Washington, 1973)
- ☐ Convention for the Protection of the Mediterranean Sea against Pollution (Barcelona, 1976)
- ☐ Convention on the Conservation of Migratory Species of Wild Animals (Bonn, 1979)
- ☐ United Nations Convention on the Law of the Sea (UNCLOS) (Montegoby, 1982)
- ☐ The Basel Convention on the Transboundary Movement of Hazardous Wastes and their Disposal (Basel, 1989)
- ☐ Bamako Convention on the Ban of the Import Into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes Within Africa (Mali,1991)
- ☐ Convention on Biological Diversity (Rio, 1992)

- ☐ 16th November 1994. Libya has signed but not yet ratified the convention
- ☐ Cartagena Protocol on Biosafety to the convention on biological diversity (Montreal, 2000)
- ☐ Framework Convention on Climate Changes (FCCC).

87. **Gender**. Libya is party to several international instruments that provide for gender equality under the law, including the convention on the elimination of all forms of discrimination against women (cedaw), which libya ratified in 1989. In practice, however, much of women's legal status is defined by gaddafi-era family and personal status laws that are in part derived from the maliki school and include provisions for marriage, divorce and inheritance. Article 7 of the 2017 constitutional proposal represents a strong step forward for gender equality in libya. Nevertheless, the libyan legal system does not adequately protect women against domestic violence, honour crimes or rape[34]

88. **Youth.** The legal and policy environment for youth is mixed. The draft constitution of 2017 has not been ratified, so libya operates without a legitimately enacted constitution. Some laws, if they were implemented, might have positive effects on youth. These include the legal right to equal pay for men and women ("law 12"), the 10 percent quota for women in elective office proposed in the draft election law, and the decentralization law ("law 59").

Table 14 Overview project compliance with relevant national technical rules, regulations and standards

Project output/ activity	Relevant rules, regulations, standards (to comply to AF principle 1)	Authorizing offices and procedure / steps to comply and authorizing offices
Output 1.1. Climate change vulnerability and hazards risks assessment conducted for the agriculture / livestock sector in Libya, specifically targeting districts in the north-west (5), north-east (4) and south (4) with the participation of vulnerable groups, women, and youth	Not relevant	In coordination with ministry of environment, ministry of agriculture, and ministry of water resources
Output 1.2. National agriculture / livestock strategy developed in which climate change hazard risks and adaptation options (i.e., practices, products, and technologies) are identified, prioritized, and promoted at national and district level, with specific attention to the needs of vulnerable groups, women and youth	Not relevant	In coordination with ministry of environment, ministry of agriculture, and ministry of water resources
Output 2.1. Climate change resilient practices products and technologies (i.e., efficient water irrigation schemes and drought and heat resilient and salt resistant crop varieties) implemented in districts in three (3) districts in the northwest of Libya, including through grant packages to farmer / pastoralist, women and youth groups, and; Relevant public Institutional staff and smallholder farmers, women and youth trained to implement (operate, maintain / sustain) climate change resilient practices, products and technologies	Irrigation and drainage: none existing International standards will be used Water allocation: - Law 3 year 1982 on regulating the utilization of water resources - General People's committee memo no 612 / year 1993 on Manmade River water allocation - Law 15 year 2003 on environmental protection and enhancement Water quality and national drinking	Level 1: Ministry of Water Resources, Level 2: Ministry of Agriculture and Ministry of Environment Ministry of Environment for environmental protection and to estimate needs

[34] UN Women (2020). The economic and social impact of conflict on Libyan women.

Output 2.1. Climate change resilient practices products and technologies (i.e., climate change resilient rangeland interventions) implemented in two (2) districts in the northwest of Libya, including through grant packages to pastoralists, women and youth groups, and; Relevant public Institutional staff and smallholder farmers, women and youth trained to implement (operate, maintain / sustain) climate change resilient practices, products and technologies	Water - Law 3 year 1982 on regulating the utilization of water resources - Libyan standard 82 year 1992 drinking water standards - Law 106 / 1976 on health - Law 15 year 2003 on environmental protection and enhancement	Level 1: Ministry of Heath Level 2: quality control / checks Ministry of Environment for environmental protection
Output 3.1. Mechanism to capture and disseminate relevant knowledge and learning of climate change resilient practices, products and technologies and to replicate these at the national level and to four (4) districts in the northeast and four (4) districts in south and to vulnerable groups, women and youth, including through guidelines, field visits, workshops	N/A	In coordination with ministry of environment, ministry of agriculture, and ministry of water resources

89. During the full proposal preparation phase, for each project output, all rules, regulations and standards will be identified, including procedures to comply and authorizing offices.

F. Duplication of project with other funding sources

Table 15 Other projects in Libya, avoidance of overlap and lessons used

Relevant projects/programme (incl. amount and impl agency)	Summary / focus	Geographical focus (i.e. avoiding overlap)	Complimentary potential and using lessons learned
GCF readiness project Libya 2017: Preparation of Libya to climate finance through GCF country programming and the establishment of the GCF designated national authority	Strengthen focal point and Strategic Engagement Framework with the Fund	No geographic focus	Project was limited to focal point strengthening and Strategic Engagement Framework with the GCF Fund
FAO and AICS and MoWR 2021-23 (USD 1,004,843$) Monitoring, evaluation and rationalization of water use for the agriculture sector in Libya	Build national capacities for Monitoring, evaluation and rationalization of water use for the agriculture sector	Country-wide capacity building with focus Fezzan region.	The project in underway; This project can build on capacities strengthened to rationalize water
FAO 2021-24 (USD 288,000$) Evaluation of irrigation, infrastructure crop mapping and estimation of agricultural water use-ICAWU	Method developed and tested to evaluate 'performance' of irrigation infrastructure and water consumption crops	Nation-wide with some test locations in the south	Cooperation with FAO on results and potentially on component 1, to align the activities.
WFP Facilitation of the Agriculture Information Networking among smallholder farmers in eastern and southern Libya (including Sebha) through WhatsApp groups.	Providing agriculture information	Eastern and southern Libya	Successful information sharing methods could be replicated,

IFAD – AF "Economic, Social and Solidarity Insertion for Resilience in the Governorate of Kairouan-IESS-Adapt" in Tunisia	Includes rangeland management with the purpose of avoiding land degradation and efficient water use	Tunisia (No geographical overlap but similar geographical context)	Similar approach to rangeland interventions with the purpose of avoiding land degradation and efficient water use is used. Lessons from the project will be used in this project.
IOM regional research project in Libya and Sudan with the purpose to get a better understanding of the linkages between climate change and environmental degradation, community cohesion, gender dynamics and mobility decisions from a regional perspective	Research in Libya focuses on water use	Research project so no concern of overlap	x

90. During the full proposal preparation phase, project mapping will continue to ensure all relevant projects are mapped, overlap avoided, and lessons learned used.

G. Learning and knowledge management component to capture and disseminate lessons learned

91. Effective knowledge management – including the collection, generation and dissemination of information – is an important component of climate change adaptation. Learning from adaptation activities and being able to transform knowledge into products that are targeted at various audiences is essential to effective climate change adaptation. Component 3 will compile and disseminate project information, experiences and results on an on-going basis. Dissemination of information will be through field visits, workshops and seminars, guidelines, a website, social media (YouTube, Facebook, Instagram etc.), posters and leaflets. In addition, engagement with relevant academic and research institutions will be explored in order to capitalize on their technical knowledge and ensure they absorb the lessons learned/best practices from the project. Finally, the project will ensure that knowledge management responsibilities are included in the Terms of Reference of at least one of the project staff.

Table 16 Learning objectives and knowledge products

Project output/ activity	Learning objectives (lo) & indicators (i)	Knowledge products
Output 1.1. Climate change vulnerability and hazards risks assessment conducted for the agriculture / livestock sector in Libya, specifically targeting districts in the north-west (5), north-east (4) and south (4) with the participation of vulnerable groups, women, and youth	Learning objectives: - Identify and understand climate change hazards risks - Identify adaptation measures and priorities Indicators: - No of assessment conducted (in districts) - No of maps	- Climate change vulnerability and hazards risks assessment - Risk maps - Vulnerability maps and data

Output 1.2. National agriculture / livestock strategy developed in which climate change hazard risks and adaptation options (i.e., practices, products, and technologies) are identified, prioritized, and promoted at national and district level, with specific attention to the needs of vulnerable groups, women and youth	Learning objectives: - Accessible information on climate change hazard risks, vulnerabilities, and adaptation options Indicators: - No of Agriculture strategy	- Agriculture strategy
Output 2.1. Climate change resilient practices products and technologies (i.e., efficient water irrigation schemes and drought and heat resilient and salt resistant crop varieties) implemented in districts in three (3) districts in the northwest of Libya, including through grant packages to farmer / pastoralist, women and youth groups, and; Relevant public Institutional staff and smallholder farmers, women and youth trained to implement (operate, maintain / sustain) climate change resilient practices, products and technologies	Learning objectives: - Understand feasible, cost-effective climate change adaptation options in the agriculture / livestock sector - Understand operation and maintenance requirements and practices Indicators: - No of training workshops to support above	-Training workshops - Vocational trainings
Output 2.1. Climate change resilient practices products and technologies (i.e., climate change resilient rangeland interventions) implemented in two (2) districts in the northwest of Libya, including through grant packages to pastoralists, women and youth groups, and; Relevant public Institutional staff and smallholder farmers, women and youth trained to implement (operate, maintain / sustain) climate change resilient practices, products and technologies		
Output 3.1. Mechanism to capture and disseminate relevant knowledge and learning of climate change resilient practices, products and technologies and to replicate these at the national level and to four (4) districts in the northeast and four (4) districts in south and to vulnerable groups, women and youth, including through guidelines, field visits, workshops	Learning objectives: - Understand replication techniques of above Indicators: - No of tools / supporting products for replication	- Field visits - Workshops - Guidelines - Website - Social media (YouTube, Facebook, Instagram etc.) - Posters and leaflets.

H. Consultative process

92. The proposed project has been designed based on inputs from key stakeholders in Libya and project beneficiary groups, including farmers, pastoralists, women, and youth. During project preparation, five types of consultations / inputs shaped the proposal:

1. To align with National priorities, including with the ministry of environment, the ministry of agriculture and the ministry of water resources. The target areas and project activities have been selected together.
2. To align with District-level and community priorities, including with district representatives and vulnerable groups, women and youth.

3. To collect data and information on climate change risks, vulnerabilities, and target beneficiaries (through research, surveys and university involvement.
4. To avoid duplication with other projects, including with government, UN agencies, etc.
5. To identify potential environmental and social risks and impacts, in line with AF policies (to be completed during the full proposal preparation phase)

93. During the concept note preparation phase, a technical working group was established to support the preparation of this proposal. Representatives from the following intuitions / organization are part of the working group: the ministry of environment; the ministry of agriculture; the ministry of water resources; UNOPS; FAO; universities. Also, a rapid climate change vulnerability assessment was conducted through consultations / surveys with the purpose to collect data in the five northwestern target districts (managed to get info on four districts so far) on the population, vulnerable groups and climate change hazard risks, main problems experienced due to hazards, barriers to respond / adapt and possible adaptation measures. For outcomes see Table 6 and the paragraphs before.

94. As part of the rapid climate change vulnerability assessment, representatives of the following were surveyed:

Table 17 Served as part of the rapid climate change vulnerability assessment

Al jabal al Gharbi	Ghiryan munciplity	Yosef Bediri (Ghiryan mayor)
	Ministry of Agriculture & Farmers' Welfare Gharyan	Osama Al-Tayeb Al-Qunfud
	Agriculture office	Ashur Swiss
	Agriculture Bureau	Haitham Abdullah Arhouma
	Women's Support and Empowerment Office	Saeda Alamr
Zuwara	Zuwara Municipality	Sanousi Hamoud
	Zuwara Municipality (Farmers representative)	Ali NZDIF
Nalut	Nalut Municipality (The authority of youth, the municipality's youth office)	Muhammad Omar Abu Saw
	Nalut Municipality	Abdulwahab Al-Hajam (the mayor)
	Agriculture and Livestock Office	Mohamed Kunis
	For You Libya Group	Najua Eiad Elhijam
Aljfara	Ministry of Youth Branch Janzour	Mahmoud Ghnidi
	Municipality of Janzour	Farai Aban
	Women's Support and Empowerment Office	Huda Al Hadi Shuwaikh
	Agriculture and Livestock Sector (Suani Ben Adem)	Abdul Mawla Abu Ghanima

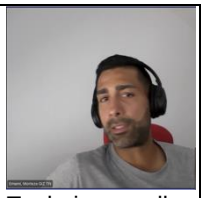
95. Table 18 provides an overview of actors consulted and how outcomes have been incorporated in the project proposal design.

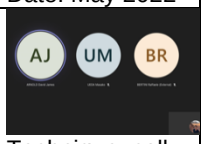
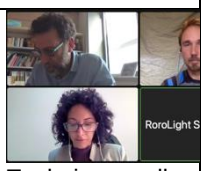
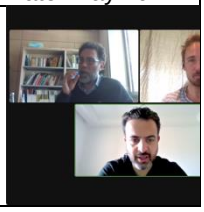
96. During the full proposal preparation phase, further consultation will be conducted to shape the exact project activities (i.e., to be fully identified) and to identify any specific interest and concerns of vulnerable groups and women and youth to inform the environmental and social risks screening and the development of the ESMP.

Table 18 overview of outcomes of consultations and how these have been incorporated in the project design

Stakeholder	Outcome / conclusion		Proof

Main	Sub		Incorporation in project design	
Ministry of environment	Ahmed Abdulqader Alsoudani AF NDA	- Different ministries have different geographical priorities. To ensure the involvement of all three ministries, activities covering not only the north-west, but the north, east and south are included - Agreed project target area and interventions.	- Components 1 and 3 cover the northwest, northeast and south, ensuring the involvement of all three ministries	Multiple e-mails and calls
Ministry of water resources	Fathe Abubker Director of International cooperation Office Rep: Rashid elfutaisi			 Technique: call Date: July 2022
Ministry of Agriculture, Livestock and Marine Resources	Hana Aghel, Director of International cooperation Office Rep : Sadiq Kamuka			Through e-mail. To be completed during full proposal preparation phase
Ambassy of Libya in Rome	Dr Ali Kafu	- Support coordination between IFAD and ministries in Libya		Multiple e-mails and meetings in Rome
Target districts considered west of Tripoli	Zwara	To be completed during the full proposal preparation phase		
	Azzawya	For details see description about the rapid climate change vulnerability assessment.		
	Aljfara			
Target districts considered South-west of Tripoli	Nalut (focus on north)			
	Al jabal al Gharbi (focus on north)			
FAO	Helen Sow Faycel Chenini	- FAO uses an innovative methodology to analyze water consumption of different crop systems and damage of irrigation infrastructure through current projects and will test the methodology - FAO is establishing a national coordination mechanism between Ministry of agriculture, water, meteorological center Lessons learned: - Reached only 3 % women of target - Limited farmer association; women unions	- IFAD to work with FAO on component 1 to align / build upon FAO activities. - Ensure women involvement targets are feasible - Support establishment of associations / organizations, if needed	 Technique: call Date: May 2022

Germany / GIZ	Anke Scholtz
	Emami Morteza
		- Youth (17-35) centers have been established in selected municipality –
		- Main challenges of projects
		  ○ Involvement government
		  ○ Travel / logistics with companions required for women
			- Involve youth centers where possible
			- Minimize travel as much as possible
				
				Technique: call
				Date: May 2022

IOM	David Arnold Masako Ueda Raffaele Bertini Genevieve Lavoie	- IOM will have a regional research project targeting Sudan and Libya focusing on linkage between climate change and mobility / displacement. Expected result: baseline info on the topics	- Coordinate on data producton and sharing - Use-baseline information / tool / report for CCVA and visa-versa	 Technique: call Date: June 2022
UNDP	Mathew Brubacher	- According to UNDP, project priority should be: water rationalization (as aquifers may run out and pumping is very costly Challenges: - Limited maintenance and funding desalination plants and wastewater treatment	- Focus on efficient water use - Avoid focus on desalination plants and wastewater treatment as this is not feasible (to costly and basic infrastructure not present)	 Technique: call Date: May 2022
UNFPA	Salman Khalid	- UNFPA focuses on the following activities in Libya: - Sexual and reproductive health - Gender-based violence (GBV) prevention and response - Youth - Covid-19 response		Technique: e-mail exchange Date: June 2022
UN Women		Planned for the full proposal preparation phase		
UNOPS	Claudia Rosano Nathalie Angibeau Sylvain Cote	- Partnership with IFAD in Libya	- UNOPS to support proposal preparation on the ground potential execution concrete interventions	 Technique: call Date: May 2022
USAID	Kelsey Dunn Rabab Shamayleh	- USAID focuses on economic growth and some climate change mitigation measures through support of renewable energy.		 Technique: call Date: May 2022
WFP	Shaker Alozzi	- IFAD became member of the Food security Cluster, which coordinates on food security in Libya: WFP activities include: - Food distribution		

		- Response to seasonal flooding in the south and east - Post humanitarian agriculture and fishery activities in Fezzan region.		Technique: call Date: May 2022
World Bank	Henriette von Kaltenborn-Stachau Lyad Rammal	WB main focused is on the water sector and (future) activities include: - Nationwide desalination and institutional capacity building – coordinate on desalination for salt resilient crops - Improving data management (and help the water and wastewater company to prepare and a request for Bid), water emergency plan for Tripoli and capacity building and training on the procurement and contract management.	- Avoid focus on desalination plants and wastewater treatment	Technique: e-mail exchange Date: May 2022
University of Tripoli Faculty of Engineering	Dr Khaled Dedesh Solar Energy and Climate change	- Proposed target areas and interventions are relevant and priorities - Suggestions were made to include other areas as well - Any technical studies to be shared during the full proposal preparation phase	- Expert from university may be involved to conduct detailed studies during the full proposal preparation phase.	 Technique: call Date: July 2022
University of Tripoli Soil and Water Department, Agriculture Faculty	Prof Ahmad Ibrahim Kamaj Water Sci, Irrigation and Water resource management			

I. Justification for funding requested

Table 19 Overview of impact of AF funding compared to no funding (baseline) related to expected project outcomes

Project output/ activity	Baseline (without AF)	Additional (with AF) and alternative adaptation scenario
Output 1.1. Climate change vulnerability and hazards risks assessment conducted for the agriculture / livestock sector in Libya, specifically targeting districts in the north-west (5), north-east (4) and south (4) with the participation of vulnerable groups, women, and youth	Beneficiaries are not aware of climate change hazard risks and response options. There is no evidence-based and policy framework to respond to climate change impacts / vulnerabilities in the vulnerable agriculture / livestock sector.	The climate change vulnerability and hazards risks assessment and National agriculture / livestock strategy will allow beneficiaries to identify risks and adaptation options and act within a relevant policy framework. Alternative: conventional practices such as development in high risk areas, expensive water pumping, use of high water consumption crops, etc. will continue, which may result in a loss of yields, income and threated food security, while conventional practices are also more expensive and will be even more in the future.
Output 1.2. National agriculture / livestock strategy developed in which climate change hazard risks and adaptation options (i.e., practices, products, and technologies) are identified, prioritized, and promoted at national and district level, with specific attention to the needs of vulnerable groups, women and youth		

Output 2.1. Climate change resilient practices products and technologies (i.e., efficient water irrigation schemes and drought and heat resilient and salt resistant crop varieties) implemented in districts in three (3) districts in the northwest of Libya, including through grant packages to farmer / pastoralist, women and youth groups, and; Relevant public Institutional staff and smallholder farmers, women and youth trained to implement (operate, maintain / sustain) climate change resilient practices, products and technologies	Agriculture / livestock production and related income and food security is threatened by climate change hazard risks, including conventional / high water consuming crops, irrigation methods and technologies and management of land Populations are vulnerable due to high poverty rates. Women and youth participation can be regarded as low There is limited capacity to operate and maintain climate change resilient agriculture / livestock approaches, products and technologies.	Using heat and drought resilient crops and salt resistant crops are cost-effective and sustainable solutions in comparison with conventional crops , as these crops will grow better and survive extreme conditions. Efficient irrigation technology and landscape interventions to capture and store available water will allow farmers / pastoralist to have a more sustainable approach towards water use, reducing risks. Alternative: conventional practices such as the use of high water consumption crops, etc. will continue, which may result in a loss of yields, income and threated food security. Desalination and wastewater treatment solutions are possible but are not feasible from a timeline and cost-effective perspective. Capacity strengthening to operate and maintain implemented activates is needed to avoid loss of investment if activities are not sustained.
Output 2.1. Climate change resilient practices products and technologies (i.e., climate change resilient rangeland interventions) implemented in two (2) districts in the northwest of Libya, including through grant packages to pastoralists, women and youth groups, and; Relevant public Institutional staff and smallholder farmers, women and youth trained to implement (operate, maintain / sustain) climate change resilient practices, products and technologies		
Output 3.1. Mechanism to capture and disseminate relevant knowledge and learning of climate change resilient practices, products and technologies and to replicate these at the national level and to four (4) districts in the northeast and four (4) districts in south and to vulnerable groups, women and youth, including through guidelines, field visits, workshops	Knowledge and learning of climate change resilient practices, products and technologies and replication of these is limited	Making knowledge / lessons of tested activities available / accessible to inhabitants in other districts will support the replication of these activities Alternatively, other funding sources need to be sought to implement adaptation activities in other areas.

J. Sustainability of the project/programme

Long-term sustainability of the project is ensured by i) emphasising the active participation of communities in the implementation and management of project interventions; ii) strengthening the community-level technical capacity to ensure stakeholders have adequate knowledge and skills to maintain the benefits of the project interventions; iii) training communities extensively on used techniques; and iv) the maintenance of technology and basic business management skills.

97. The project ensures sustainability through the participatory approach promoted throughout all project activities, that allow local communities and authorities to build ownership of the project results. Long-term sustainability will be ensured through institutional development and capacity building programmes designed to create a critical mass of efficient practitioners, and among all actors – from institutional to grassroots. In addition, the development of the National Climate Resilient Agriculture strategy will ensure that these practices are integrated into the policy process which ensure sustainability of these interventions and also upscaling at the national level.

98. Replicability will be further ensured through the dissemination of lessons learnt in the field demonstration sites in the five north-western districts. The dissemination of climate-resilient agricultural practices, products and

technologies will be supported through workshops, guidelines, farmer field schools, a ToT programme and demo plots. This will ensure that there will be scope for extensive training opportunities for the local communities and will support the continuous transfer of knowledge between trainers and farmers. It will also foster collaboration between local farmers attending the field schools, further supporting the transfer of knowledge and skills throughout local communities.

99. During the full proposal preparation phase, details on maintenance requirements, needs and responsibilities will be provided per proposed project outputs.

K. Overview of the environmental and social impacts and risks identified as being relevant to the project / programme.

100. The proposed project seeks to fully align with the Adaptation Fund's Environmental and Social Policy (ESP), and its 15 safeguard areas, as well as its Gender Policy (GP). Further to Section II.E on compliance with regulations/ standards, outlined below is a summary of the findings of the initial screening process to identify and evaluate potential environmental and social risks and impacts of proposed interventions and based on that, of the entire project. With this information, the entire project has been categorized.

101. Because of the scope of the proposed project activities, which are numerous and localized, and, where possible, managed by communities who have a stake in avoiding environmental and social risks and impacts, potential direct impacts will be minimal and indirect impacts and transboundary impacts are highly unlikely. Given this, cumulative impacts are also unlikely. As a result, the entire project is regarded as a **medium risk (Category B)** project. Under IFAD categorization this would match 'substantial.'

102. The project is designed to generate positive economic, social, and environmental impacts, using inputs from especially farmers/ pastoralists women and youth in target communities and by incorporating best practices from other projects. The adaptation measures proposed will be selected in full agreement with all beneficiary groups, making sure they are culturally appropriate and local.

103. The environmental and social risks screening presented in the table below provides a brief overview of the risk screening conducted during the project proposal concept note development phase.

104. During the full proposal preparation phase, further screening will be conducted, impacts quantified (if required) and potential risks mitigation measures proposed. An Environmental, Social and Climate risk Management Plan (ESCMP) will be prepared to manage any risks and impacts identified then. An ESCMP format example has been included in the annex. The same accounts for the gender approach and baseline / plan.

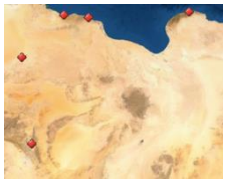
105. In addition, the project will comply to IFAD's updated 2021 SECAP guidelines including the development of the Environmental, Social and Climate Management Plan (ESCMP) and a Grievance and Redress Mechanism (GRM).

Table 20 Overview of the environmental and social impacts and risks

Checklist of environmental and social principles	No further assessment required during project implementation for compliance	Explanation	Potential impacts and risks – further assessment and management required for compliance
1. *Compliance with the Law*	X	The project complies with all relevant national and international standards and laws.	

2. *Access and Equity*	X	The project design supports equal access to project benefits through a participatory approach, taking into account vulnerable groups needs and concerns (smallholder farmer, pastoralist) and women and youth.	All interests / needs and concerns to be identified during full proposal preparation phase, including mechanism to ensure participation and equal access
3. *Marginalized and Vulnerable Groups*	X	The project specifically targets marginalised and vulnerable groups with an integrated gender and youth approach	
4. *Human Rights*	X	Any agreement / contract for the project will include reference to human rights treaties and to respect these. As per principle 8, the project will not allow any involuntary resettlement. Treaties not ratified in Libya include: - CAT-OP - optional protocol of the convention against torture - CCPR-OP2-DP - second optional protocol to the international covenant on civil and political rights aiming to the abolition of the death penalty - CED - convention for the protection of all persons from enforced disappearance - CED, art.32 - interstate communication procedure under the international convention for the protection of all persons from enforced disappearance	During the full proposal development phase, any potential risk of human rights violation during project activities will be further assessed.
5. *Gender Equity and Women's Empowerment*	X	The project has specific gender targets and budget allocations	During the full proposal preparation phase, a Gender approach and baseline will be fully developed. An example format is included in the proposal annex
6. *Core Labour Rights*	X	Any agreement / contract for project works signed will include reference to compliance with ALL ILO labour standards, also those not ratified Relevant standards not ratified in Libya include: Fundamental: **C155** - Occupational Safety and Health Convention, 1981 (No. 155) **C187** - Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187) Governance: **C129** - Labour Inspection (Agriculture) Convention, 1969 (No. 129) Technical: **C184** - Safety and Health in Agriculture Convention, 2001 (No. 184)	During the full proposal preparation phase, risk mitigation measures will be identified to ensure health and safety is ensured in any project-related employment in the agriculture/ livestock sector.
7. *Indigenous Peoples*	X	The inhabitants of the project target areas are not indigenous people but rather ethnic groups namely: Arab-Berber and Berber. However, the Amazigh people live in many areas including the town of At-Wilul at Zwara district which	During the full proposal development phase, potential unequal distribution between ethnic groups and potential conflicts will be identified and measures implemented to avoid this. An assessment will be conducted

		the project is not targeting specifically (the district is targeted but not the town).	during the full proposal to identify if Amazigh people may be impacted by the project (positive and negative) and if so, if there are any concerns about equal access to project benefits.
8. *Involuntary Resettlement*	X	Owners of private land in project target areas agree with project interventions. People without land title can be selected as project beneficiaries without risk of losing investment / land. Resettlement as a result of project activities will be avoided at all time.	During the full proposal development phase, all land ownership (private-public) will be identified, as well as (informal) use of project target area and all beneficiaries will need to agree with proposed interventions. An arrangement of involving beneficiaries without land without any risk of losing investment or land should be identified in case any beneficiaries without land titles are selected.
9. *Protection of Natural Habitats*	X	As per Ramsar there are no vulnerable natural habitats in the five north-western target districts. There are only two in Marj and Derna districts. As per UNESCO there is one biosphere reserve (Ashaafean) in the Nafusa mountains in the target districts of Nalut and Al jabal al Gharbi. No project interventions will take place in these reserve	Natural habitats in Marj and Derna districts will be considered in the CCVAs.
10. *Conservation of Biological Diversity*	X	As per IUCN Red List From the 21 critically endangered and 24 endangered species, 3 are potentially located in the five north-western target districts: the Thorectes puncicollis, the saker Falcon and the Egyptian Vulture.  Drought and heat resilient and salt resistant crop varieties will be varieties of crops already in use	Although it is highly unlikely, the Thorectes puncicollis, the saker Falcon and the Egyptian Vulture will be impacted by project activities, potential presence in the target area will be assessed during the full proposal preparation phase. If present, project activities will be avoided in these areas. During the full proposal preparation phase it will be assessed if all possible introduced crops are indeed varieties of already existing crops. If not, risk mitigation measures will be proposed to avoid / reduce any risk if negative impacts of invasive crops types
11. *Climate Change*	X	The project will not support any activities that will increase energy use, such as an increase of water pumping, unless energy use is compensated with renewable energy use.	During the full proposal preparation phase, any potential use of energy as part of project activities will be mapped
12. *Pollution Prevention and Resource Efficiency*	X	The project is designed to efficiently use energy and materials and to avoid any produce of additional waste.	
13. *Public Health*	X	The project is expected to have an overall beneficial impact on the public health with improved access to climate-proofed yields and increase quality of produce;	

		Any increase of the use of pesticides as part of project activities will be avoided	
14. Physical and Cultural Heritage	X	As per UNESCO there are 5 cultural heritage sites in Libya ▪ Archaeological Site of Cyrene (1982) ▪ Archaeological Site of Leptis Magna (1982) ▪ Archaeological Site of Sabratha (1982) ▪ Old Town of Ghadamès (1986) ▪ Rock-Art Sites of Tadrart Acacus (1985) Although two are located in the five north-western target districts, these are protected structures and there is no risk of project activities negatively impacted these. 	
15. Lands and Soil Conservation	X	In the five north-western target districts there are some soils at the margin of a desert area and coastal soils. These are at risk of degradation under the current circumstances. The project is designed to avoid any negative effects on any soil or lands and only have positive effects through improvement of soil or reducing degradation.	

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

A. Record of endorsement on behalf of the government[35]

Ahmed Alarabi Alsoudanij, Director of Geographical information systems Department Ministry of Environment	Date*: 05/07/2022*

A new letter of endorsement will be provided with the new title of the CN: Increasing resilience to climate-aggravated water scarcity in the agriculture sector in Libya

دولة ليبيا
State of Libya
حكومة الوحدة الوطنية
Government of National Unity

وزارة البيئة
Ministry of Environment

التاريخ: 14 / / هـ
الموافق: 2022/07/5 م

الرقم الإشاري .....
رقم الملف .....

ADAPTATION FUND

Letter of Endorsement by Government

[Ministry of Environment, Government of National Unity]

[LIBYA-5/07/2022]

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

Subject: Endorsement for the project 'Increasing the climate change resilience of the agriculture sector in Libya.'

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

Accordingly, I am pleased to endorse the above grant proposal with support from the Adaptation Fund. If approved, the project will be implemented by the International Fund for Agriculture Development (IFAD). All executing entities will be identified during the full proposal development phase.

Sincerely,

[AHMED ALARABI ALSOUDANI]
[National Focal Point for the Adaption Fund / Director of Geographical Information Systems Department, Ministry of Environment, Libya]

(021) 487 0266 (021) 487 3761 83618 الغيران - طرابلس

[6] Each Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

دولة ليبيا
State of Libya
حكومة الوحدة الوطنية
Government of National Unity
وزارة البيئة
Ministry of Environment

الرقم الإشاري: بلا
رقم الملف:

التاريخ: / / 14هـ
الموافق: 2022/08/13م

ADAPTATION FUND

Letter of Endorsement by Government

[Ministry of Environment, Government of National Unity]

[LIBYA-13/08/2022]

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

Subject: Endorsement for the project 'Increasing resilience to climate-aggravated water scarcity in the agriculture sector in Libya'.

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

Accordingly, I am pleased to endorse the above grant proposal with support from the Adaptation Fund. If approved, the project will be implemented by the International Fund for Agriculture Development (IFAD). All executing entities will be identified during the full proposal development phase.

Sincerely,

[AHMED ALARABI ALSOUDANI]
[National Focal Point for the Adaptation Fund/ Director of Geographical Information Systems Department, Ministry of Environment, Libya]

(021) 487 0266 (021) 487 3761 83618 الغيران - طرابلس

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 and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
Implementing Entity coordinator: Mr Tom Mwangi Anyonge *Director a.i* *Environment, Climate, Gender and Social Inclusion Division*	
Date: _08 August 2022_____	e-mail: ecgmailbox@ifad.org
Ms Janie Rioux Senior Technical Specialist (Climate change), ECG Division	email: j.rioux@ifad.org
Project contact person: Mr Walid Nasr, Regional Climate and Environment Specialist (a.i.)	
e-mail: w.nasr@ifad.org	
Mr Philippe Rémy, IFAD Libya Country Director	
e-mail: p.remy@ifad.org	

ANNEXES.
***Note: below will be completed / filled during the full proposal preparation phase

ANNEX 1: ESMP format example (to be completed during full proposal development phase)

Content:

- ☐ Allocated roles and responsibilities environmental and social risk management / implement of the ESMP
- ☐ Opportunities for adaptive management
- ☐ Arrangements to supervise executing entities (ministry of environment and agriculture) for implementation of ESMP
- ☐ Budget provision to manage environmental and social risks / implement of the ESMP
- ☐ Overview of potential risks, impacts and measures to avoid, minimize, or mitigate potential risks
- ☐ Risks monitoring system / indicators
- ☐ Grievance mechanism
- ☐ Consultation and Public Disclosure

Allocated roles and responsibilities for environmental and social risk management / implementation of the ESMF/P

Table 21 Roles and Responsibilities

Actor	Roles	Responsibilities
IFAD		
Ministry of environment		
Ministry of agriculture		
Ministry of water		
Etc.		

Include minimum requirements and standards to be included in standard clauses of contracts

Opportunities for adaptive management

Include. When changes in project activities or additional activities are required, these will need to go through a new risks screening and impact assessment process in compliance with AF, IFAD and national policies and standards.

Table 22 Arrangements to supervise executing entities for implementation of ESMP

Executing entity	Skills and expertise existing	Specific requirements execution entities for compliance	Capacity building needs

Budget provision to manage environmental and social risks / implement of the ESCMP

Include budget requirements to implement the ESCMP (in line with what is in the proposal)

Table 23 Overview of potential risks, impacts and measures to avoid, minimize, or mitigate potential risks

ESP principle	Initial environmental or social risks present Y/N	**Environmental/Social and climate Impacts**	**Recommended Mitigation/Enhancement measures**	**Public Consultation Activities**	**Responsible Institution In Implementation Phase**	**Means of Verification (Monitoring and reporting)**	**Frequency of Verification**	**Cost Estimate**
1 - Compliance with the law								
2 - Access and equity								
3 – Marginalized and vulnerable Groups								
4 – Human rights								
5 – Gender equality and women's empowerment								
6 – Core labour rights								
7 – Indigenous peoples								
8 – Involuntary resettlement								
9 – Protection of natural habitats								
10 – Conservation of biological diversity								
11 – Climate change								
12 – Pollution prevention and resource efficiency								
13 – Public health								
14 – Physical and cultural heritage								
15 – Lands and soil conservation								

Risks monitoring system / indicators

Action	Indicator and method	Responsibility and frequency
e.g. Monitoring of capacity execution entities to comply	- E.g. Guidelines and action plans shared - E.g. Monitoring reports comply to requirements	
e.g. Implementation of grievance mechanism	- E.g. Grievance mechanism information is at target locations (buildings, etc.) - E.g. Grievance mechanism information is shown on website	
e.g. Monitoring of measures to avoid or mitigate risks / impacts per output		

Grievance mechanism

Use above and agree with key stakeholders. The Grievance Mechanism to be developed at the full proposal in compliance with the Adaptation Fund policies and IFAD's SECAP as well as IFAD's Framework for Operational Feedback from Stakeholders: Enhancing Transparency, Governance and Accountability, 2019

Consultation and Public Disclosure
The plan for consultation and public disclosure of the ESCMP will be recorded here. The plan will be for:
(a) Consultations for preparation and implementation of ESCMP
(b) Consultation with women of the village community
(c) Notification to village community when will the activities be implemented
(d) Disclosure of Monitoring and Sub-Project Completion report

ANNEX 2: Gender and youth approach and baseline format example (**to be completed during full proposal development phase)**

Purpose
The purpose of this specific 'gender annex' is to demonstrate (in an overview) how this project will comply to the AF GP. A gender approach and data baseline has been established, which is necessary at the project start against which implementation progress and results can be measured.

In line with IFADs SECAP, the approach includes the identification and of promotion of economic, social and environmental benefits and opportunities for women and youth for each project activity (which can be seen as an additional safeguard area).

During project preparation a 'gender assessment' has been conducted to identify potential project gender equality and women's and youth empowerment issues, but also opportunities. The outcomes are summarized below, as well as arrangements that will be taken during project implementation to comply to the AF GP, including to show how the project contributes to improving gender equality, the empowerment of women and youth and the project interventions' suitability to meet the adaptation needs of targeted women and men and youth.

Methodology
During the project preparation phase, potential gender equality and women's and youth empowerment challenges and opportunities have been identified through initial data analysis / desk research, surveys and focus group discussions with women, youth and other groups. Through these methods, specific women and youth needs and perceptions were identified, as well as potential gender-related risks and impacts, including possible concerns regarding proposed project activities.

Specific considerations and phases

1. **Determinants for gender-responsive stakeholder consultations**

Table 24 Stakeholders consulted to develop gender approach

Type of stakeholder	Specific stakeholder
UN agencies and NGO's	- UN Women - Other
Community level	- Community consultations and focus group discussions with women and youth

*See also part II.I

2. Initial Gender Assessment

a. Data baseline – overview of disaggregated data (beneficiaries) in target areas.

Table 25 Data baseline – women and youth

Project components	Direct		Indirect	
	Women	Youth	Women	Youth
1				
2				
3				

b. Context:

Table 26 analysis of gender-specific legal and cultural / religious context

Analysis of legal status of women	Libya has ratified the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW).

c. Differentiated climate change impacts on men and women and their differentiated capacities do adopt to these, gender division of labour and gender-based power structures.

Climate change has a strong impact on agricultural production systems. Rural communities are in the front lines in the battle to improve food security. At the same time, these communities must also cope with changing climate conditions. Gender is one critical dimension of this diversity. It shapes men's and women's roles and opportunities, and consequently determines their access to the resources and processes needed for dealing with climate change. Accurate climate information and the ability to interpret it allows farmers to plan and make better decisions on how to adapt to climate change. Women usually have lower access to production inputs, resources and information. This what makes women more vulnerable in time of crisis and climate change.

Table 27 Differentiated climate change impacts on men and women

Sector / Livelihood relevant to the project	Climate change impact	Gender and youth equality and empowerment issues, incl. specific Vulnerabilities / barriers to adapt	Capacity to adapt and opportunities for promoting a 'women' and 'youth' as agents of change
Agriculture			
Livestock			
Water			

d. Capacity gaps affecting GP compliance

Table 28 Capacity of potential executing entities to carry-out gender responsive activities.

Potential executing entity	Skills and expertise to provide gender	Specific requirements execution entities for compliance	Capacity building needs

	mainstreaming inputs		
	Yes (UN core value)	- Appoint ESP a compliance and gender focal point (present in country office) - Capacity to comply to the AF ESP and implementation of the ESMP guided IFAD - Capacity to comply to the AF GP	- Awareness on requirements - Share guidelines for execution entities to comply and to ensure 'opportunities' are identified and exploited
	Limited (as government entity)	- Appoint ESP a compliance and gender focal point: x - Capacity to comply to the AF ESP and implementation of the ESMP guided by IFAD - Capacity to comply to the AF GP	- Awareness on requirements - Share guidelines for execution entities to comply and to ensure 'opportunities' are identified and exploited - Support development baseline and approach before project start + reporting requirements

e. Opportunities for promoting a 'women' and 'youth' as agents of change

The project aims to target women (and youth) in community level skill building and trainings and to especially target women-headed households. Opportunities include:

Gender:

- ☐ Engage women in the early stages of planning and in project implementation
- ☐ Community-level awareness-raising programmes targeting both men and women should be developed and implemented to address restrictive social norms and negative gender stereotypes, including the association of a woman's worth as a person with her honour. Existing community engagement models that challenge patriarchal stereotypes of women should be used as a foundation for engaging women and girls as well as men and boys.

Youth

- ☐ Help build youth assets by supporting them to set up income-generating activities.
- ☐ Support the development of locally appropriate platforms for youth that enable them to identify and prioritize their needs, how those needs might be addressed through engagement, and how they can lead initiatives to address needs throughout the process.
- ☐ Develop a dedicated youth civic engagement activity, as well as working to integrate youth into existing activities.

3. Project planning and design.

Table 29 Gender baseline, goals and activities. A detailed action plan will be developed at inception phase

Project outputs	Disaggregated beneficiaries, gender specific issues and needs / baseline	Key gender goals (to improve equality)	Entry points (to integrate gender considerations / empower women / youth)	Suitable interventions to meet specific needs and built on women and youth skills and knowledge	Additional activities needed to ensure gender perspective, incl. potential risk mitigation measures	Specific 'gender' output Indicator	Specific 'gender' targets	Budget required and allocated
1.1.								
1.2.								
2.1.								
2.2.								
3.1.								

4. Project implementation

IFAD aims to have a gender responsive and adaptable management approach in place which, when needed, allows adjustment based on learning from earlier decisions and interventions and received feedback. This is done through having gender expertise and focal points in place, whom should identify challenges, barriers or restrictions that arise during project/programme implementation, which might hinder the equal participation of men and women in activities.

Execution entities will be supported to ensure gender is mainstreamed and to identify any challenges that may arise during project/programme implementation, which might hinder the equal participation of men and women in activities. This requires appointing a gender focal point and having quota targets for women and youth participation in project activities. Gender focal points from the government will be part of the steering committees.

The project Grievance mechanism established will be capable to accept grievances and complaints specifically related to gender equality and women's empowerment

5. Performance Monitoring and Evaluation

The gender responsive management approach includes gender responsive monitoring and evaluation, which is participatory and where 'gender disaggregated data' will be collected and analysed. Where possible, women and youth will be encouraged to participate in monitoring activities.

6. Knowledge Management, Information Sharing and Reporting

IFAD aims to have a gender responsive knowledge management approach in place, where specific gender considerations are highlighted through reporting on the project/programme's commitment to gender equality and women's empowerment in all outreach, communication and information sharing efforts.