



ADAPTATION FUND

ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY:

Country/Region: Libya

Project Title: Increasing resilience to climate-aggravated water scarcity in the agriculture sector in Libya

Thematic Focal Area: Agriculture

Implementing Entity: International Fund for Agricultural Development (IFAD)

Executing Entities: United Nations Office for Project Services (UNOPS)

AF Project ID: AF00000315

IE Project ID:

Requested Financing from Adaptation Fund (US Dollars): 9,997,156

Reviewer and contact person: Camila Florez

Co-reviewer(s):

IE Contact Person:

Technical Summary

The project "Increasing resilience to climate-aggravated water scarcity in the agriculture sector in Libya" aims to increase the climate change resilience of the agriculture sector to water scarcity in Libya. This will be done through the four components below:

Component 1: Participatory prioritization of climate change adaptation options into national, district and community planning for agriculture / livestock development (USD 773,500).

Component 2: Climate resilient investment in concrete activities in the agriculture sector (USD 4,267,500)

Component 3: Climate resilient investment in concrete activities in the livestock sector (USD 2,737,100)

Component 4: 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 (USD 560,542).

Requested financing overview:

Project/Programme Execution Cost: USD 875,327

Total Project/Programme Cost: USD 9,213,969

	<p>Implementing Fee: USD 783,187 Financing Requested: USD 9,997,156</p> <p>The initial technical review raises several issues, such as whether the project is aligned with national standards, lack of overlap with other projects, and the support of concrete adaptation actions, as is discussed in the number of Clarification Requests (CRs) and Corrective Action Request (CAR) raised in the review.</p>
Date:	January 24, 2023

Review Criteria	Questions	Comments	IFAD response
Country Eligibility	1. Is the country party to the Kyoto Protocol or the Paris Agreement?	Yes.	
	2. Is the country a developing country particularly vulnerable to the adverse effects of climate change?	Yes. Libya is vulnerable to increased temperatures, droughts, decreased rainfall, and rising sea levels. This is expected to directly affect the availability and quality of water in the country, thus affecting access to safe drinking water and agricultural production.	
Project Eligibility	1. Has the designated government authority for the Adaptation Fund endorsed the project/programme?	Yes. As per the endorsement letter dated 13/08/2022.	
	2. Does the length of the proposal amount to no more than One hundred (100) pages for the fully-developed project document, and one hundred (100) pages for its annexes?	Yes. CAR1: The document has numerous typos/grammatical errors. It would benefit from a comprehensive copy-editing effort.	CAR1: the document has been copy-edited.

	<p>3. Does the project / programme support concrete adaptation actions to assist the country in addressing adaptive capacity to the adverse effects of climate change and build in climate resilience?</p>	<p>No. The project is designed to respond to climate change risks threatening water resources in the agricultural and livestock sectors of the northwestern region of Libya.</p> <p>CR1: It is unclear if Output 1.1. will include or not a national assessment, in addition to the 13 district assessments. Paragraph 63 states: "Climate change vulnerability assessment will be conducted in agriculture/ livestock areas <i>in the whole of Libya</i> and specifically in 5 target districts in the northwest, 4 target districts in the northeast and 4 target districts in the south", but two sentences after it states: "During the project implementation phase, further detailed climate change vulnerability assessment will be conducted in all 13 target districts." Kindly clarify.</p> <p>CR2: Concerning Component 1, how will the national climate-resilient agriculture/ livestock strategy facilitate mainstreaming climate information into community-level processes? This may be partially explained with more detailed activities (see CR3).</p>	<p>CR1: A clarification is provided in paragraph 67 (previously para 63). Climate change vulnerability assessment will be conducted in agriculture / livestock areas in 5 target districts in the northwest, 4 target districts in the northeast and 4 target districts in the south, totaling 13 districts. By targeting these 13 districts, basically all major agriculture / livestock areas in Libya will be covered. During the project proposal preparation phase, a rapid climate change vulnerability assessment was already conducted to identify the main climate change vulnerabilities in 4 out of the 5 target districts in the northwest, with the purpose to identify concrete adaptation activities needed as proposed under component 2.</p> <p>CR2: A clarification is provided in paragraph 67. Mainstreaming of climate information from the national climate-resilient agriculture/ livestock strategy into district and community-level processes will be facilitated by outlining the governance</p>
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		<p>CR3: In a fully developed proposal, project outputs should be further detailed through project activities. Project activities should indicate specific actions that lead to reaching the project outputs and outcomes. Kindly revise Part II, Section A, Components 1 to 4 to include a list of activities per output.</p> <p>CR4: Regarding the grant packages (Component 2), what would be the conditionality for providing these?</p>	<p>process at local level in the strategy and by using 1-2 district in the north-west of Libya as case studies for this mainstreaming. Considering the traditional systems still in place in Libya, community leaders will be involved in the process. The mainstreaming process will also be facilitated through the knowledge management activities proposed under component 4.</p> <p>CR3: Lists of activities per output are provided in Part II, Section A, Components 1 to 4</p> <p>CR4: A clarification is provided in section II.A</p> <p>The project will apply specific criteria / conditions for providing these, including high exposure to climate change hazards (esp. droughts and saltwater intrusion) poverty (income level), farm size (i.e. small land size), minimum percentages for involvement of women (30%) and youth (30%) and community agreement and previous experience with cultivating proposed crops. The final set of criteria / conditions</p>
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			may be adjusted during the inception of the project.
	<p>4. Does the project / programme provide economic, social and environmental benefits, particularly to vulnerable communities, including gender considerations, while avoiding or mitigating negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?</p>	<p>Yes, but more information is needed. The concept note has identified the productive agricultural and livestock sectors in five districts, whose members are particularly vulnerable to climate change, as its main beneficiary. Overall, the project will have 1,340,019 beneficiaries (direct and indirect) in four target districts, of which between 30-35 percent farmers, 49 percent women, and 25-40 percent youth, depending on the district. Direct beneficiaries are estimated at 57,840. The proposal has included a gender and youth approach based on an initial assessment.</p> <p>CR5: The proposal indicates that for the investment in Components 2 and 3, criteria will be developed to prioritize the poorest and most vulnerable and will define a percentage for women and youth during the project's inception. Please provide an initial set of vulnerability selection criteria (that may be amended during project inception).</p> <p>CR6: The proposal indicates that youth will be targeted as beneficiaries, however, it is unclear their target participation. Concerning Components 2 and 3, how many households will be youth-led? Kindly indicate this figure and the overall youth target in Section B.</p>	<p>CR5: See response to CR4</p> <p>CR6: A clarification is provided in section B.</p> <p>The overall target percentage for youth participation is 30 percent.</p>

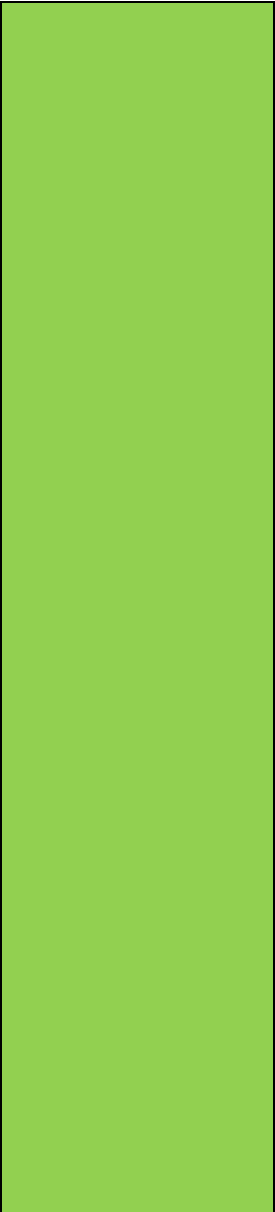
		<p>CR7: Concerning the grant packages of Components 2 and 3, the cost has been estimated at US\$560/household. Will the cost be the same for both types of grant packages? Kindly clarify.</p> <p>CAR2: In paragraph 83, the document indicates that beneficiary numbers are in Table 6. However, Table 6 only provided information on farm area and farmers affected by saltwater intrusion and drought. Please revise.</p>	<p>CR7: A clarification is provided in section B.</p> <p>The cost will be the same for both types of grant packages.</p> <p>CAR2: The link in paragraph 93 (previously 83) has been revised to table 13</p>
	<p>5. Is the project / programme cost effective?</p>	<p>Yes, but further information is needed.</p> <p>The concept note describes the project's potential for avoiding future costs due to climate change impacts and compares that to alternative scenarios.</p> <p>CR8: The proposal would benefit from a more nuanced comparison with alternative (traditional) options that are used to address current challenges (particularly for Components 2 and 3). This analysis may include a comparison of costs (e.g., costs of desalination or wastewater treatment in the country/region). Kindly provide further details in Table 18.</p> <p>CAR3: In Section C, Table 18, Output 2.1, it seems there is a mistake regarding the number of districts (3), as</p>	<p>CR8: More details about cost of alternative solutions are provided in section II.C</p> <p>CAR3: In the sections where three (3) districts were mentioned instead of four (4), this has been revised</p>

		in the rest of the document it is indicated that it will be implemented in 4 districts.	
	6. Is the project / programme consistent with national or sub-national sustainable development strategies, national or sub-national development plans, poverty reduction strategies, national communications and adaptation programs of action and other relevant instruments?	Yes. The concept note describes the lack of climate change policies in Libya. Due to this situation, the project is aligned with the United Nations Strategic Framework for Libya.	
	7. Does the project / programme meet the relevant national technical standards, where applicable, in compliance with the Environmental and Social Policy of the Fund?	No. CR9: The fully developed proposal needs to explain how the project meets the relevant national technical standards identified in Table 21. The project's alignment with technical standards should be considered for each of the project's activities (see CR3). Kindly revise this section.	CR9: In part II.E information has been added about project activity alignment with technical standards.
	8. Is there duplication of project / programme with other funding sources?	No.	
	9. Does the project / programme have a learning and knowledge management	Yes, but further information is needed. Component 4 is fully dedicated to learning and knowledge management,	

	<p>component to capture and feedback lessons?</p>	<p>which are also captured in Components 1 and 2.</p> <p>CR10. However, specific activities of knowledge management are not included. Please amend section G accordingly.</p>	<p>CR10. Specific knowledge management activities have been included in Section G.</p>
	<p>10. Has a consultative process taken place, and has it involved all key stakeholders, and vulnerable groups, including gender considerations in compliance with the Environmental and Social Policy and Gender Policy of the Fund?</p>	<p>No. A consultation process has taken place, involving key stakeholders in Libya. For the project's development, a rapid climate change vulnerability assessment has been carried out to collect data in the selected districts regarding climate hazards and vulnerability dimensions. As part of this process, the project consulted with 6 associations of farmers/breeders in the districts of Al jabal al Gharbi, Zuwara, Nalut and Jafara, 2 youth organizations in Nalut and Aljfara districts, and 3 women's organizations in the districts of Jabal al Gharbi, Nalut and Aljfara. However, it is unclear if marginalized and vulnerable groups have been consulted.</p> <p>CR11: For a fully developed proposal, marginalized and vulnerable groups need to be consulted. Kindly clarify the consultation dates and topics discussed with each of these groups (including internal-displaced persons, farmers and pastoralists of poor and female-headed households).</p>	<p>CR11: In section II.H, information about consultation dates and topics discussed with each group have been added. Topics included identifying main climate change hazards experienced, impact of hazards, adaptive capacity and barriers to adapt, possible adaptation measures and possible concerns if potential measures would be implemented.</p>

		<p>CR12: Table 25 indicates that consultations have taken place in target districts. Are these consultations additional to the rapid climate change vulnerability assessment? The topics to be discussed in a consultation process (such as sharing the objectives and activities of the project, safeguarding processes and outcomes, ownership of the project, sustainability of the project, among others) are not the same as the ones for a rapid vulnerability assessment. Kindly explain and include the detailed report mentioned as an Annex.</p> <p>CR13: Please describe the consultation techniques tailored specifically per target group.</p> <p>CR14: Please indicate the population's concerns during the public consultations in section H.</p> <p>CR15: Kindly explain how stakeholders' views will be heard during project implementation</p>	<p>Impacts, adaptive capacity, barriers and concerns would be specific per group.</p> <p>CR12: In section II.H, additional information is provided on the consultations conducted additional to the rapid climate change vulnerability assessment. Topics of consultations conducted during the full proposal preparation phase include locating specific climate change impacts / issues and response needs and identifying possible risks / concerns of possible interventions and operation and maintenance arrangements required. Detailed reports can be sent separately on request as these do not fit in the proposal within the page limit</p> <p>CR13: In section II.H information about the consultation techniques has been provided</p> <p>CR14: The concerns are indicated in figure 17.</p> <p>CR15: In section II.H information about how stakeholders views and concerns will be heard during project implementation has been included.</p> <p>During the project stakeholders' views and concerns will be heard through the participatory assessment and planning process as national, district and</p>
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			community level with quotas for participation of specific groups where needed.
	11. Is the requested financing justified on the basis of full cost of adaptation reasoning?	<p>Yes, but further information is needed.</p> <p>CR16: The proposal has briefly explained the baseline scenarios and the adaptation reasoning for the proposed project components. Further information is needed to assess the funding required. To this end, it is required that project activities are defined (see CR3), and these are incorporated in the relevant explanation (Table 26).</p>	CR16: More information on proposed project activities has been included in section II.A
	12. Is the project / program aligned with AF's results framework?	<p>Yes.</p> <p>The project is aligned with AF outcomes 1, 3, 5, 6, and 8.</p>	
	13. Has the sustainability of the project/programme outcomes been taken into account when designing the project?	<p>No.</p> <p>The project builds in its knowledge management component (e.g., trainings) to foster the sustainability of the project outcomes. However, the fully developed proposal needs more specific plans to ensure that after the project implementation period is over, the project outputs will continue functioning.</p> <p>CR17: How will the project ensure that the national strategy is adopted and that the vulnerability assessments are used</p>	CR17: A clarification is provided in table 28.

		<p>at the national, district, and community levels?</p> <p>CR18: How would climate resilient practices continue after the project ends without further grants? Would farmers continue to have access to drought and heat and salt-resistant seeds?</p> <p>CR19: How would the project ensure that communities continue to abide by the agreements about the operation and maintenance of project activities?</p>	<p>Mainstreaming of climate information and the use of the national climate-resilient agriculture/ livestock strategy at district and community-level processes will be facilitated by outlining the governance process at local level in the strategy and by using 1-2 district in the north-west of Libya as case studies for this mainstreaming and use. Considering the traditional systems still in place in Libya, community leaders will be involved in the process. The mainstreaming process will also be facilitated through the knowledge management activities proposed under component 4.</p> <p>CR18: More info on the sustainability of interventions has been provided in section II.J</p> <p>The project aims for farmers to continue to have access to drought resilient and salt resistant crops after the project. This will be done by identifying options a mechanism to stall and multiply the seeds with the support of a research institute and / or to teach farmers how to purchase seeds from abroad through groups / cooperatives.</p> <p>CR19: More info on the sustainability of interventions has been provided in section II.J</p> <p>The project will support (informal) groups, organizations or cooperatives,</p>
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			and households, to develop operation and maintenance plans for the proposed project interventions. This will be done together with municipal authorities. As the involved groups have a stake in maintaining and sustaining the interventions, it is assumed that they will respect the needed operation and maintenance arrangements (identified by themselves, as well as agreed upon).
	14. Does the project / programme provide an overview of environmental and social impacts / risks identified, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?	Yes. The project is classified as Category B. Information regarding the risks and risk management actions are summarized. The proposal includes a gender assessment, an Environmental, Social and Climate risk Management Plan (ESMP) and a Grievance and Redress Mechanism (GRM) in its annexes.	
Resource Availability	1. Is the requested project / programme funding within the cap of the country?	Yes.	
	2. Is the Implementing Entity Management Fee at or below 8.5 per cent of the total project/programme budget before the fee?	Yes.	
	3. Are the Project/Programme Execution Costs at or below 9.5 per cent of	Yes.	

	the total project/programme budget (including the fee)?		
Eligibility of IE	1. Is the project/programme submitted through an eligible Implementing Entity that has been accredited by the Board?	Yes.	
Implementation Arrangements	1. Is there adequate arrangement for project / programme management, in compliance with the Gender Policy of the Fund?	<p>Yes. Implementation arrangements include a description of the roles and responsibilities of the implementing entity, executing entity, and organizations/stakeholders that are involved in the project, and a organization chart showing how they report to each other.</p> <p>CAR4: However, the implementation arrangements do not specify the inclusion of a gender policy expert. How will gender-responsive considerations be included in the implementation arrangements? Kindly specify.</p>	<p>CAR4: Information about how gender-responsive considerations have been included in the implementation arrangements has been included in section III.A</p>
	2. Are there measures for financial and project/programme risk management?	<p>Yes. As outlined on pages 60 – 62.</p>	
	3. Are there measures in place for the management of for environmental and social risks, in line	<p>No. An ESPM is included in Annex I. The document defines roles and responsibilities for ESMP</p>	

	<p>with the Environmental and Social Policy and Gender Policy of the Fund?</p>	<p>implementation. A Grievance Redress Mechanism (GRM) for the project is included.</p> <p>The document states that all proposed project activities have been screened against the 15 AF principles. However, as noted in CR3, the proposed project has no defined activities. Thus, it is difficult to state that a thorough ESPM is in place. After project activities have been defined, a full screening process should follow. Mitigation measures are too general and not adequately addressing the risks.</p> <p>CAR5: Please indicate the mitigation measures per ESP principle (e.g., not together for principles 2 and 3). This information should be nuanced to the principles. Kindly revise.</p> <p>CAR6: Regarding principle 4 (human rights) most of the measures are related to gender; these can be included under principle 5. Further considerations of human rights are needed as well as its mitigation measures. Kindly revise.</p> <p>CAR7: On page 105, it is stated that "This section discusses both the potential environmental and social risks identified directly linked to proposed project activities and the typical potential risks in the context of projects in Syria".</p>	<p>CAR5: More detailed mitigation measures have been indicated in section II.K and Annex 1. Also mitigation measures for principle 2 and 3 have been indicated separately.</p> <p>CAR6: Further details regarding potential human rights risks and mitigation measures have been included.</p> <p>CAR7: This was a typo and has been revised in the dedicated section</p>
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		<p>Please clarify how risks in Syria are relevant to this project.</p> <p>CR20: Kindly clarify whether the ESMP includes opportunities for adaptive management.</p> <p>CAR8: The ESMP section states that budget provisions are under the project execution costs. However, the detailed budget does not indicate these provisions (Part III. Section G). Please amend accordingly.</p>	<p>CR20: The ESMP included opportunities for adaptive management. Additional information about this has been added to section III.C</p> <p>CAR8: Details about how the costs of manage the ESCMP has been sourced is explained in Annex 1.</p>
	4. Is a budget on the Implementing Entity Management Fee use included?	<p>No.</p> <p>The budget does not have a breakdown of the implementing Entity Management Fee.</p> <p>CAR9: Please provide a breakdown of the Implementing Entity Management Fee.</p>	<p>CAR9: A table has been added in section III.G providing a breakdown of the Implementing Entity Management Fee.</p>
	5. Is an explanation and a break-down of the execution costs included?	<p>No.</p> <p>Project execution costs are included on page 81 but several issues need clarification.</p> <p>CAR10: It is unclear what the 'UNOPS indirect costs' entail. Please specify.</p>	<p>CAR10: The budget has been revised in section III.G to specify the UNOPS indirect costs (in a footnote)</p>

		<p>CAR11: On the detailed budget, every project output includes one or more UNOPS staff. Why is this not included in the execution costs? Please clarify.</p> <p>CAR12: Execution costs include the main items supported by the Adaptation Fund for project management. For example, consultant services, communication, travel, and costs related to preparing reports should all be included in the execution costs. Kindly amend accordingly.</p>	<p>CAR11: The distinction between UNOPS staff and technical personnel involved in delivering the outputs has been made in section III.G</p> <p>CAR12: The distinction between what is covered under the execution costs and what is covered under the outputs has been made in section III.G</p>
	6. Is a detailed budget including budget notes included?	<p>No.</p> <p>The proposal includes a detailed budget however, this is not detailed at the project activity level, nor it includes budget notes.</p> <p>CAR13: Please amend detailed budget to specify allocation of resources per activity and include budget notes (also consider CR3).</p>	<p>CAR13: The budget in section III.G has been amended to specify allocation of resources per activity and also budget notes have been included.</p>
	7. Are arrangements for monitoring and evaluation clearly defined, including budgeted M&E plans and sex-disaggregated data, targets and indicators, in compliance with the	<p>Yes, but further information is needed.</p> <p>Arrangements for M&E have been defined in pages 63 to 66.</p> <p>CAR14: However, budget allocations are unclear. Budgets for the mid-term and final evaluations have not been individually indicated. Kindly specify.</p>	<p>CAR14: A budget for the final review was already included in the M & E budget (see table 36). A mid-term review is not required since the project is 3,5 years.</p>

	Gender Policy of the Fund?		
	8. Does the M&E Framework include a break-down of how implementing entity IE fees will be utilized in the supervision of the M&E function?	<p>No.</p> <p>The budget does not have a breakdown of the implementing Entity Management Fee nor includes details of the IE fees for supervision of M&E.</p> <p>CAR15: Kindly provide a break-down of IE fees for supervision of M&E.</p>	<p>CAR15: A break-down of IE fees for supervision of M&E has been included in section III.G</p>
	9. Does the project/programme's results framework align with the AF's results framework? Does it include at least one core outcome indicator from the Fund's results framework?	<p>Yes, but further information is needed.</p> <p>The project's alignment with the AF results framework is outlined in Table 15 on page 92, showing the linkage between project objectives and outcomes to the Fund level outcome and outputs.</p> <p>CAR16: Some of the project outcome indicators need revising and they may include further AF outcome indicators. For example, for project Outcomes 2 and 3, as it supports Fund Outcome 3, it may be useful to also include indicator 3.2 "Percentage of targeted population applying appropriate adaptation responses".</p> <p>CAR17: Concerning Project Outcome 4, the AF Indicator 8.1 (indicated in Table 37 as Indicator 8) is: "8.1. No. of innovative adaptation practices, tools and technologies accelerated, scaled-up</p>	<p>CAR16: In section III.E and III.F some project outcome indicators have been revised or added to better match with AF indicators</p> <p>CAR17: In section III.E and III.F the text has been revised as requested</p>

		and/or replicated". Please revise text for accuracy. CAR18: Please specify the target for AF Core indicator 5.1 on Table 36.	CAR18: the target for AF Core indicator 5.1 has been specified in table 38 (previously table 36)
	10. Is a disbursement schedule with time-bound milestones included?	Yes. As per information on page 83.	



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
1818 H Street NW
MSN P4-400
Washington, D.C., 20433
U.S.A
Fax: +1 (202) 522-3240/5
Email: afbsec@adaptation-fund.org



FULLY DEVELOPED PROPOSAL FOR SINGLE COUNTRY

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme: Increasing resilience to climate-aggravated water scarcity in the agriculture sector in Libya

Country: Libya

Thematic Focal Area: Agriculture

Type of Implementing Entity: Multilateral Implementing Entity

Implementing Entity: IFAD

Executing Entities: UNOPS

Amount of Financing Requested: 9,997,156 (in U.S Dollars Equivalent)

Letter of Endorsement (LOE) signed: Yes No

NOTE: The LOE should be signed by the Designated Authority (DA). The signatory DA must be on file with the Adaptation Fund. To find the DA currently on file check this page: <https://www.adaptation-fund.org/apply-funding/designated-authorities>

Stage of Submission:

This proposal has been submitted before including at a different stage (concept, fully-developed proposal)

This is the first submission ever of the proposal at any stage

In case of a resubmission, please indicate the last submission date: 9/5/2022

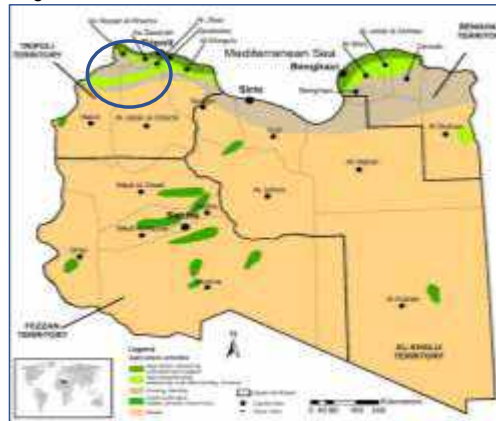
Please note that fully-developed proposal documents should not exceed 100 pages for the main document, and 100 pages for the annexes.

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 may be 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 & Elhaweij, 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.

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 in 2011. There have been recent transitions, but the UN-brokered road map agreed upon at the Libyan Political Dialogue Forum in 2021 has faced serious challenges and obstacles. In 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, and oil output fluctuation have 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 EIU², 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

¹ World Bank data

² Economist Intelligence Unit: Global Insight

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 percent is arable (about 2 million ha – [see Figure 1](#)), which is further threatened by soil erosion and desertification.³ The agricultural sector in Libya suffers from several problems, including the lack of government funding, high prices of production inputs such as fertilizers, pesticides and improved seeds, declining areas of arable land due to population growth and the expansion of the cities, weak agricultural mechanization, the lack of trained manpower, fluctuation in supplies electricity due to instability and, finally, the impact of climate change, especially droughts, sea-level rise and saltwater intrusion and high temperatures. **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 sector⁵, 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](#) [has five major aquifers](#), namely Al Hamada, Al Jefara, Al Jabal Al Akhdar, Murzuq and Al Sarir-Kufra. The coastal aquifer Al Jefara in the north-west is 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 technologies⁷.

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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

⁷ FAO (2016). AQUASTAT Profile: Libya.

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 refugees⁹.
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 ha¹⁰. It is reported that in 2020 only 10 wastewater treatment plants were functioning¹¹. 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**

⁸ UN (2018). Libya Joint Country Assessment 2018. *Pathways towards a Stable and Resilient Libya*.

⁹ OCHA (2020). Humanitarian Needs Overview 2021: Libya.

¹⁰ FAO (2016). AQUASTAT Profile: Libya.

¹¹ OCHA (2020). Humanitarian Needs Overview 2021: Libya.

in seawater intrusion, with an interface progressing up to two kilometres inland in the Jefara plains and salinity levels increasing from 150 ppm to over 5000 ppm during the period 1950-1990¹².

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 youth¹⁵. 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 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 1.5°C.¹⁷ Precipitation has decreased to 20.92 mm per month since the 1950's.¹⁸

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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](#)

¹⁶ World bank climate knowledge portal

¹⁷ NASA, 2021; Union of the Mediterranean, 2019 in Adelphi (2021) [Climate-Fragility Risk Brief: Libya](#)

¹⁸ Idem

15. **Projections:**¹⁹ The faster-than-average warming trend is set to continue. By 2040 the increase of temperature will likely be 2.2°C and could reach approximately 4°C 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

Droughts: The agricultural areas that depend on rain fed systems (in the north of the country are the areas most affected by climate change. 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-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. To give an example: recently, the western highlands of the country were affected by a drought that lasted for four seasons, which led to a severe shortage in the production of the main grains such as wheat and barley (Picture 1), degradation of natural pastures (Picture 2.) It also led to the drying of the olive trees fields which are the main component of the cropping system in those areas (Pictures 3). As shown [Figure 4](#), the likelihood of droughts will increase in the future, as well as heat waves.

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Picture [24](#) A field under the rain-fed system, two months after it was planted with barley and wheat (no germination) due to the lack of rain.



Picture [12](#) An image in the Western Mountain region showing the deterioration of natural pastures.



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

Picture 3 An image showing the drying up of olive fields in the Western Mountain region

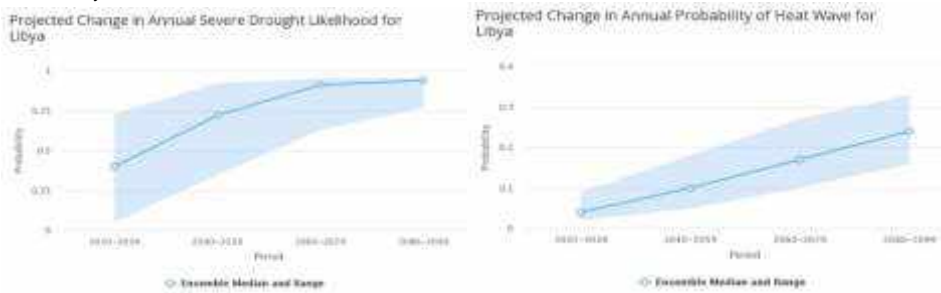


Figure 3 Rainfed cultivated land (left) and drought risk areas (right) in Libya



Source: World Bank knowledge portal

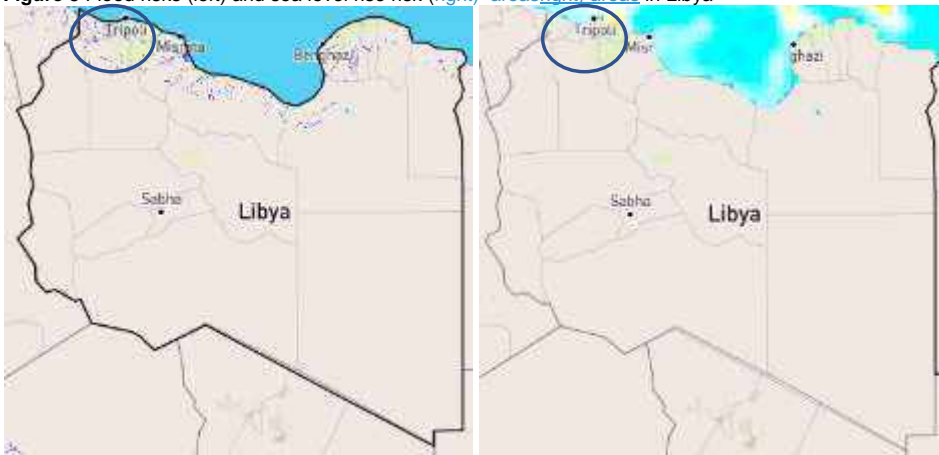
Figure 4 Projected Change in Annual Severe Drought Likelihood (Left) and Probability of Heat Wave (Right) in Libya under RCP 8.5 between 2020 and 2099.



16. **Sandstorms and Dust Storms:** Strong dry wind blowing over the desert raises and carries along clouds of sand and dust that [are](#) 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.
17. **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 losses²². 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 of northern Libya.

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



Source: World Bank climate change knowledge portal

18. **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 century²⁵. 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](#).

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Climate Change risks and Impacts

19. **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

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

²³ Adelphi (2021) [Climate-Fragility Risk Brief: Libya](#)

²⁴ Adelphi (2021) [Climate-Fragility Risk Brief: Libya](#)

²⁵ Idem

agriculture, cities, and industry, is from non-renewable aquifers that cannot be recharged by rain²⁶ and are over 500 meters below the surface, leading to high pumping costs.

20. **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 FAO²⁷, managed pasture (i.e., [grasgrass](#)), rice and wheat may reduce between 2020 and 2032 as follows:

- Managed pasture (i.e., [grasgrass](#)) from -6% (2020) to -26% (2032)
- Rice from +0.6% (2020) to -20% (2032)
- Wheat from -6% (2020) to -9% (2032)

21. 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 temperatures and [the](#) 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.

22. **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 km² due to submergence and between 0.31 and 1.9 km² 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

23. **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 [the](#) 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 health³⁰.

24. In short, Libya is already water-stressed and rising temperatures, saltwater intrusion and the fact that the National Strategy for Integrated Water Resources Management (2000 – 2025) (NSIWRM) is quite old leads 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

25. 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

²⁶ USAID (2017). Climate Change Risk Profile: Libya. *Fact Sheet*.

²⁷ FAO [CARD](#)

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](#)

lengthened. The most effective way to do so is to rationalize water use in agriculture and to adapt to the dryer and saltier conditions, including by introducing salt and drought-resilient crops.

26. Livestock already faces challenges due to a 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 temperature and related declining water availability and an increase in 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

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

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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
<u>Mobilise</u> Mobilize 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;	Identify hazard risk areas and avoid further development in these risk areas; Shift to heat and drought resilient and salt resistant crops
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 44 Details of main climate change adaptation practices and products relevant for this project

- 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 and women 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

28. **Table 4** provides an overview of the main National barriers identified³² to adapting 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.

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

Main issues / barriers identified	Focus of this project	Explanation / Justification
<input type="checkbox"/> Lack of available information on climate change risks and vulnerabilities <input type="checkbox"/> Limited government and population awareness to understand climate-related hazard risks and vulnerabilities and capacity to respond <input type="checkbox"/> Non-existing policy framework / strategies on climate change		<input type="checkbox"/> Focus on vulnerable agriculture / livestock sector with identification of hazard risks and how to adapt to these;
<input type="checkbox"/> Weak government coordination on climate change		<input type="checkbox"/> Focus of FAO programming with coordination mechanism to be established
<input type="checkbox"/> Limited funding capacities to implement adaptation options <input type="checkbox"/> High poverty rate <input type="checkbox"/> Dependency on oil economy <input type="checkbox"/> 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		<input type="checkbox"/> Focus on poor and vulnerable groups. <input type="checkbox"/> Strengthen the agriculture / livestock sector, which is the most important sector after oil, while a high-water consuming sector, with no regret interventions. <input type="checkbox"/> Support lengthening the lifespan of available fresh water sources through efficient water use for the agriculture and livestock sector.
<input type="checkbox"/> Limited technical capacities to implement and maintain adaptation options		<input type="checkbox"/> Potential desalination and wastewater treatment activities to be done by development banks and after improvement of the national power grid <input type="checkbox"/> Focus on increasing capacities to implement (operate, maintain and sustain) and replicate adaptation options
<input type="checkbox"/> 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		<input type="checkbox"/> Focus on establishing a mechanism to capture and disseminate 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

29. Libya is ranked 125 (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, 93 (out of 182) on the vulnerability index and 170 on the readiness ranking.³³

30. 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 3**), floods, sea level rise (see **Figure 5**), including saltwater intrusion, while being the areas most dependent on rainfed agriculture

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³² IFAD Country Strategy Note for Libya 2022 – 2024

³³ <https://gain.nd.edu/our-work/country-index/rankings/>

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

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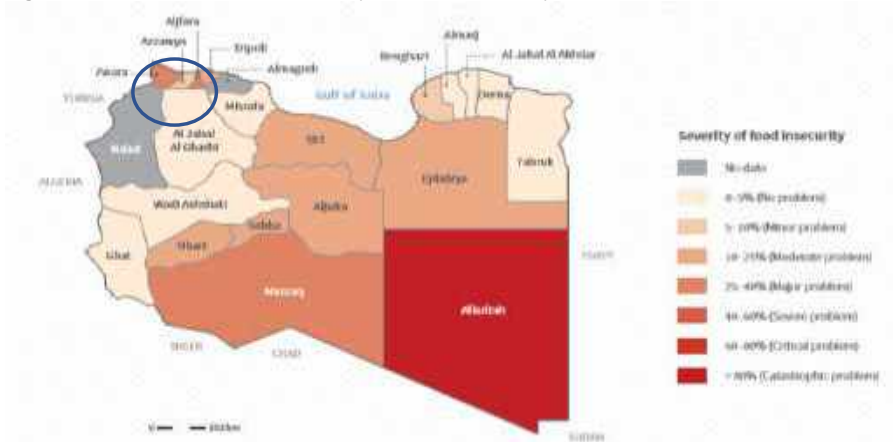
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Figure 6 Proportion of Households in Libya Engaged in Agriculture (2019)

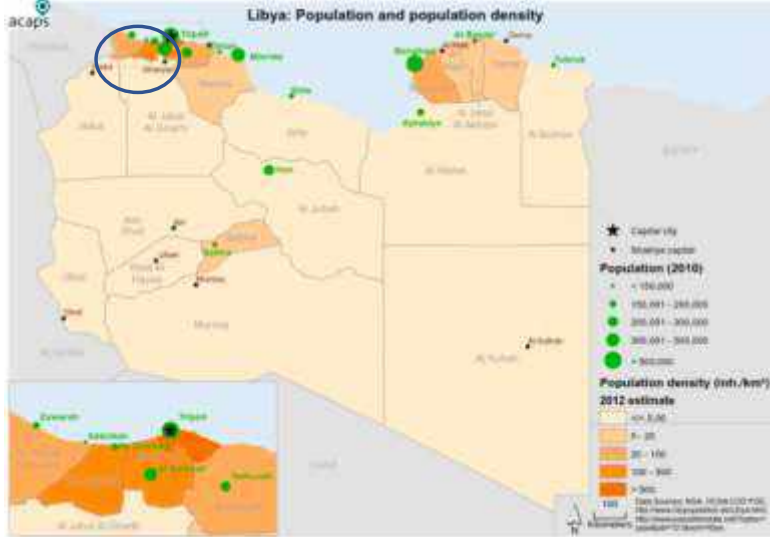


Figure 7 Prevalence of household in Libya with food insecurity



Source: FAO Libya Humanitarian Response Plan 2020

Figure 8 Population density in Libya



Source: Assessment Capacities Project (ACAPS)

31. 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
Zuwara	Climate change resilient crops
Aljbara	
Nalut	Climate change resilient rangeland interventions
Al Jabal al Gharbi	

32. For the climate change vulnerability assessment and climate change resilience strategy (component 1), 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).

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33. A rapid climate change vulnerability assessment has been conducted in four target districts in the north-west of Libya. 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 **Outcomes of the rapid climate change vulnerability assessment conducted**.

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33-34. **Table 13** **Table 6**. The table provides insight into 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.

34-35. A detailed climate risk analysis including **the** predicted impact on some crops in the target areas is available in annex 5.

Detailed information on the project target areas

Annex 5 to OPG Amended in October 2017

35-36. **Table 6** provides an overview of the number of farm areas (hectares) and number of farmers in the project target areas. The average size of owned land per farmer is **estimated** at 4.72 ha and the percentage of female farmers is estimated at 13 percent. For details on cultivated and produced trees and crops, see annex 4.

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Table 6 Farm area (hectares) and number of farmers (male and female) affected by the saltwater intrusion and drought in the districts of Nalut, Al-Jabal Al-Gharbi, Zwara, Al-Jafara, Al-Zaweya.

Name of the district	Area of Farms (ha)	Number of Farmers (own private farm land)		
		Male	Female	Total
Nalut	30074	4932	256	5188
Al-Jabal Al-Gharbi	89096	14069	954	15023
Zwara	72299	14976	1220	16196
Al-Jafara	154349	33647	3185	36832
Total	345818	67624	5615	73239

Source: - Bureau of Statistics and Census, 2007.

36-37. **Table 7** provides an overview of the farm animals in the project target areas. Sheep are by far the animals most held, followed by goats and camels.

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Table 7 Numbers of farm animals in the districts affected by the saltwater intrusion and drought in the districts of Nalut, Al-Jabal Al-Gharbi

Name of the district	Sheep	Goats	Camels
Nalut	148430	70802	6161
Al-Jabal Al-Gharbi	268807	98550	5843
Zwara	200316	40329	10523
Al-Jafara	612642	53194	10211
Total	1230195	262875	32738

Source: - Bureau of Statistics and Census, 2007.

37-38. **Table 8** provides an overview of the water requirements for agricultural crops and fruit trees in Libya. Chickpeas consume the least, followed by fresh beans, dry peas, winter tomatoes, wheat and barley. Alfalfa and citrus trees consume most water.

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Table 8 Water requirements for agricultural crops and fruit trees (cubic meters per hectare per year)

Crop	Ministry of Agriculture estimates	Estimates from other sources.	Mean
Wheat	4800	7000	5900
Barley	4800	7000	5900
Corn	10000	11000	10500
Millet	8000	11000	9500
Tobacco	7000	-	7000
Peanuts	9000	11000	10000
Alfalfa	12000	23500	17250
Sesame	7000	-	7000
Chickpeas	4000	-	4000
Fresh beans	4800	-	4800
Dry Peas	4800	-	4800
Spring potatoes	4800	8000	6400
Onion	8000	-	8000
Cabbage	8000	-	8000
Water Melon	10000	12000	11000
Pepper	10000	-	10000
Winter tomatoes	4800	6000	5400
Summer tomatoes	9000	10000	9500
Aubergine	10000	-	10000

Citrus trees	13800	18500	16150
Olive trees	8000	-	8000
Date Palm trees	10000	-	10000
Grapevine trees	9000	-	9000

Source: Ministry of Agriculture.

38-39. [Table 9](#) and [Figure 9](#) provide an overview of the areas / municipalities most affected by saltwater intrusion in the regions of Zuwara and Al-Jafara. Out of the 16 municipalities affected, [the](#) most affected ones are highlighted in green due to proximity to the sea.

Table 9 Municipalities most affected by the problem of saltwater intrusion in Zuwara and Al-Jafara regions

Number on the map	Name of the municipality	Number on the map	Name of the municipality
1	Zelten	9	Al-Zaweya
2	Zuwara	10	Al-Nasereya
3	Regdaleen	11	Al-Amereya
4	Al-Jamail	12	Al-Zahra
5	Al-Ajailat	13	Al-Mamora
6	Sebrata	14	Al-Maya
7	Sorman	15	Ganzur
8	Al-Zaweya Al-Gharb	16	Al-Sawani

Figure 9 Municipalities most affected by the problem of saltwater intrusion in Zuwara and Al-Jafara regions.



39-40. [Table 10](#) and [Figure 10](#) provide an overview of the areas / municipalities most affected by drought in the regions of Zuwara and Al-Jafara. The ones highlighted in green are most affected due to low levels of rain and groundwater.

Table 10 Municipalities most affected by the problem of drought in [the](#) Zuwara and Al-Jafara regions.

Number on the map	Name of the municipality
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1	Al-Azezeya
2	Al-Zaweya Al-Janub
3	Al-Jalaida

Figure 10 Municipalities most affected by the problem of drought in Zuwara and Al-Jafara regions.



40-41. Table 11 and Figure 11 provide an overview of the areas / municipalities most affected by drought in the region of Nalut. The ones highlighted in green are most affected due to low levels of rain and groundwater.

Table 11 Municipalities most affected by the problem of drought in the Nalut region.

Number on the map	Name of the municipality
1	Wazen
2	Nalut
3	Al-Hawamed
4	Baten Al-Jabal
5	Kabaw
6	Al-Haraba
7	Seanawen
8	Derj

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Figure 11 Municipalities most affected by the problem of drought in Nalut region.



41-42. [Table 12](#) and [Figure 12](#) provide an overview of the areas / municipalities most affected by drought in the region of Al-Jabal Al Gharbi. The ones highlighted in green are most affected due to low levels of rain and groundwater.

Table 12 Municipalities most affected by the problem of drought in the Al-Jabal Al-Gharbi region.

Number on the map	Name of the municipality	Number on the map	Name of the municipality
1	Al-Rohaibat	11	Kekla
2	Jadu	12	Al-Assabaa
3	Al-Rujban	13	Gerian
4	Al-Zentan	14	Al-Orban
5	Al-Rayayena	15	Al-Shagaiga
6	Al-Owaineya	16	Mezda
7	Dhaher Al-Jabal	17	Nessma
8	Yefren	18	Al-Garyat
9	Al-Gelaa	19	Al-Shwairaf
10	Al-Gawaleesh		

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Figure 12 Municipalities most affected by the problem of drought in Al-Jabal Al-Gharbi region.



Outcomes of the rapid climate change vulnerability assessment conducted.

Table 13 Outcomes of Rapid climate change vulnerability assessment in target districts

Baladiyats	Population	% women rural	% 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
Zuwara	269 553 Avg HH: 5.3 with approx 6 for rural	49.41	40	32 of which 7.5 % women	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
Aljbara	693 750 Avg HH: 5.7 with approx 6 for rural	49.03	35	30 of which 8.7 % women	20	115 USD	40	4	5% government Jobs + self-employees (privet trade and marketing) and 33% free business	1. Droughts 2. Reduction of rain 3. Extreme heat 4. Sea level rise (salt water intrusion)	- Overall decreased agriculture - Lack of water 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
Nalut	87 772 Avg HH: 5.9 with approx 6 for rural	48.88	35	35 of which 5 % women	30	150 USD	35			1. Droughts 2. Reduction of rain 4. 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
Al jabal al Gharbi	288 944 Avg HH: 5.9 with approx 6 for rural	49.48	25	30 of which 6.3 % women	10	150 USD	25	20	55% private business	1. Droughts 2. Reduction of rain 5. 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
Total	1 340 019												

*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 a large percentage of the households is female-headed. This shows an opportunity to target female-headed households as one of the main beneficiary groups.

42-43. The number of farmers is especially high in Nalut, while the percentage of female farmers is highest in Aljbara. The percentage of people living in poverty ranges between 10 and 30 percent, while the average income is around USD 150 per month.

43-44. The technologies currently used for irrigation are immersion, drip irrigation, while relying on rainwater and sea-water (desalinated).

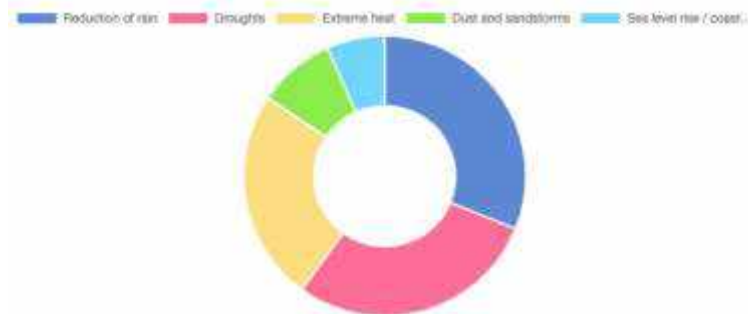
44.45. The type of crops cultivated include mainly wheat and barley. Tree types include olive, figs and palms. Onions, cucumbers, tomatoes, peppers and animal feed are also grown.

45.46. 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.

46.47. The main climate change stressors / hazards identified are droughts, reduction of rain, extreme heat and sea-level rise resulting in 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 the quality of water and the related priority action of protecting water quality (see Figure 16 Figure 12)

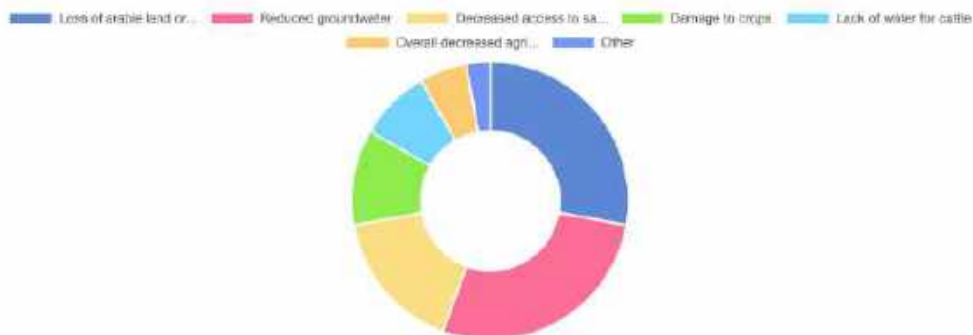
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Figure 13 Main climate change stressors / hazards experienced



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

Figure 14 Main problems experienced due to climate change hazards



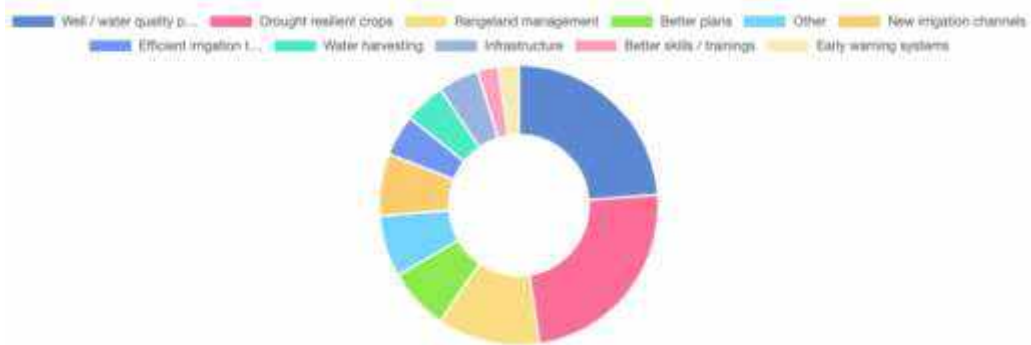
48.49. The main barriers for taking adaptation action include a lack of knowledge and data, a lack of plans, a lack of information, a lack of money /poverty, a lack of land tenure and a lack of awareness. It is clear that there is a need for knowledge and information to respond to the main climate change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

Figure 15 Main barriers for taking adaptation action



49-50. 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 16 Priority adaptation actions



51. The main concerns respondents have include included 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. The main maintenance arrangements have been agreed upon. 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.

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Figure 17 Possible concerns when adaptation actions would be implemented

52. In short, the main issues in the project target areas include:

- Droughts / water scarcity / lack of water resources
- Dependence on agriculture while having low productivity
- Degradation of land and low quality soil (light soil, high salinity, esp. close to the coast)
- Poverty
- Limited adaptive capacity
- Concerns of operation and maintenance and non-equal access

53. Possible solutions include:

- Focus on drought resilient crops and winter crops
 - o Field crops (Barley, Wheat, Oat, Chickpea, Lentils)
 - o Fruit crops (olive, date palm, fig, Pomegranate, Grapes)
- Focus on salt resistant crops
 - o Field crops: barley, wheat, soybeans, beans and sweet sorghum
 - o Vegetable crops (tomatoes, spinach, cabbage, cantaloupe, Broccoli)
 - o Fruit crops (date palms, olive, figs, pomegranate, grapes)
- Use (traditional) water conservation and harvesting techniques
 - o Contour ridges
 - o Semicircular bunds
 - o Contour bench terraces
 - o Underground water tanks
- Manage soil and irrigation
 - o Drip irrigation
 - o Construction of soil dams
 - o Contour plowing, plowing before start of the winter, use of chisel plows
 - o Use of organic fertilizer
 - o Pest management
 - o Management by cooperative societies
- Specific for rangeland management / livestock
 - o Rotational grazing system
 - o Use catci for animal feed
 - o Food / milk processing support
- Equal participation and access and to maintain and sustain:
 - o Involvement community leaders and quotas for women, youth and vulnerable groups
 - o Involvement cooperatives and organizations
 - o municipalities to supervise operation and maintenance

Project objectives

50-54. 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.

54-55. 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.

52-56. Overall goal:

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

53-57. 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 14 Main climate change adaptation issues/ barriers and proposed project response/ sub-objectives

Main issues / barriers identified	Proposed response / sub-objective	Proposed project component
<ul style="list-style-type: none"> <input type="checkbox"/> Lack of available data / information on climate change risks and vulnerabilities <input type="checkbox"/> Limited government awareness to understand climate-related hazard risks and vulnerabilities and capacity to respond <input type="checkbox"/> Non-existing policy framework / strategies on climate change 	<p>1. Increase the awareness of public institutional staff, farmers / pastoralists and women groups of relevant climate change hazard risks and adaptation options and priorities for the agriculture / livestock sector and improved mainstreaming of this information into planning processed</p> <p>In line with AF outcome 1</p>	Component 1
<ul style="list-style-type: none"> <input type="checkbox"/> Limited funding capacities to implement adaptation options <input type="checkbox"/> High poverty rate <input type="checkbox"/> Dependency on oil economy <input type="checkbox"/> 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 <input type="checkbox"/> Limited technical capacities to implement and maintain adaptation options 	<p>2. Increase the climate change resilience and sustainability of agriculture livelihoods, including strengthened secure sources of income and ownership of adaptation measures, benefitting farmers, women and youth in four (4) districts in the northwest of Libya</p> <p>3. Increase the climate change resilience and sustainability of pastoralist livelihoods, including increased natural / asset resource production system resilience and ownership of adaptation measures, benefitting pastoralist and women in two (2) districts in the northwest of Libya</p> <p>In line with AF outcome 3 and 6</p>	Component 2 and 3
<ul style="list-style-type: none"> <input type="checkbox"/> 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 	<p>4. Climate change resilient practices and products piloted in the four (4) districts in the northwest of Libya and encouraged / supported for replication in one (1) district in the northwest, four (4) districts in the northeast and four (4) districts in south through a national – district – community replication mechanism</p> <p>*In line with AF outcome 8</p>	Component 4

54-58. Key assumptions: Achieving these objectives is based on a number of assumptions. The main assumption in the Libyan context is that any emerging issues related to the political and security situation do not negatively impact the project's execution or cause instability in the project target areas. Similarly, the project assumes that targeted communities have the incentive to collaborate with the project to increase their adaptive capacity and no intra-communal conflict would interfere with the project's progress based on win-win solutions provided by the project. The project also assumes that the political will to develop the climate change policy environment and institutions in the agriculture sector will remain. To achieve gender mainstreaming throughout the project, the project is assuming that traditional views of women's role in family and society can be changed through tailored interventions and a strict targeting strategy.

55-59. The project assumes that despite capacity challenges in the country, sufficient and capable executing service providers trusted by communities and able to operate in the target districts after obtaining the necessary security clearances. Given the current global macro-economic situation and predictions, the project assumes that the budget provided for each output will remain sufficient to reach the number of beneficiaries estimated during the project's lifetime. This includes inflation, tax changes, exchange rate and other economic and financial factors.

Project / Programme Components and Financing:

Table 15 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 assessments conducted for the agriculture/ livestock sector in Libya, specifically <u>Libya, specifically</u> targeting districts in the north-west (5), north-east (4) and south (4), with the participation of vulnerable groups and women	Outcome 1 Increased awareness of public institutional staff, farmers / pastoralists and women groups of relevant climate change hazard risks and adaptation options and priorities for the agriculture / livestock sector and improved mainstreaming of this information into planning processes	633,000
	Output 1.2. National climate resilient agriculture / livestock strategy developed in which climate change hazard risks and adaptation options are <u>options are</u> identified, prioritized and promoted at national and district level, with specific attention to the needs of vulnerable groups and women	In line with AF eputecomeoutcome 1	140,500
Component 2 Climate resilient investment in concrete activities in the agriculture sector	Output 2.1. Climate change resilient crops (i.e., drought /heat resilient and salt resistant crop varieties) implemented <u>implemented in</u> four (4) districts in the northwest of Libya, including through around 5900 grant packages (of USD 560 each) to farmer, women and youth groups.	Outcome 2 Increased climate change resilience and sustainability of agriculture livelihoods, including strengthened sources <u>sources</u> of income and ownership of adaptation measures, benefitting farmers, women and youth in four (4) districts in the northwest of Libya	3,800,000
	Output 2.2. Relevant public Institutional staff, farmers <u>staff, farmers</u> and women trained to implement, maintain and sustain climate change resilient crops and to support the strengthening or creation of community organizations and community development plans	In line with AF outcome 3 and 6	467,500

Component 3 Climate resilient investment in concrete activities in the livestock sector	Output 3.1. Climate change resilient natural asset / resource (i.e. rangeland management) production system protection / rehabilitation improvements implemented in two (2) districts in the northwest of Libya, including through around 3600 grant packages (of USD 560 each) to pastoralists and women groups	Outcome 3 Increased climate change resilience and sustainability of pastoralist livelihoods, including increased natural / asset resource production system resilience and ownership of adaptation measures, benefitting pastoralist and women in two (2) districts in the northwest of Libya	2,385,600
	Output 3.2. Relevant public Institutional staff, pastoralists and women trained to implement, maintain and sustain climate change resilient natural resilient natural asset / resource (i.e. rangeland management) production system improvements and to support the strengthening or creation of community organizations and community development plans	In line with AF outcome 3 and 5	351,500
Component 4 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 4.1. Mechanism implemented 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 one (1) district in the northwest, four (4) districts in the northeast and four (4) districts in south and to vulnerable groups and women, including through workshops, guidelines, farmer field schools, a ToT programme and field visits to demo plots.	Outcome 4 Climate change resilient practices and products piloted in the four (4) districts in the northwest of Libya are encouraged / supported for replication in one (1) district in the northwest, 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	560,542
5. Total components			8,338,642
6. Project/Programme Execution cost			875,327
7. Total Project/Programme Cost			9,213,969
8. Project/Programme Cycle Management Fee charged by the Implementing Entity			783,187
Amount of Financing Requested			9,997,156

Projected Calendar:

Table 16 Project calendar

Milestones	Expected Dates
Start of Project/Programme Implementation	July 2023
Mid-term Review (if planned)	
Project/Programme Closing	July 2027 (6 month after project completion)
Terminal Evaluation	March 2027 (2 months after project completion)

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Project components

~~56-60.~~ 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 implement, maintain and sustain climate change resilient agriculture and livestock ~~interventions~~ interventions (component 2 and 3) and encourage replication ~~of~~ activities (component 4). It is proposed to have a set of concrete 'no-regret' climate change adaptation activities in the agriculture / livestock sector in four (4) target districts in the northwest of Libya, including the introduction of drought and heat resilient crops, salt resistant crops, water conservation / harvesting and rangeland production system improvements. 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. over 2/3 of the funds will be distributed to concrete adaptation measures.

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~~57-61.~~ The specific needs and possible concerns of smallholder farmers, pastoralists and women have been identified during the project proposal development phase. Engagement with these groups will continue during project implementation through the four proposed project components.

~~58-62.~~ The above approach will be achieved through the following proposed components.

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

~~59-63.~~ In line with AF outcome 1 and government priorities (see section H), this component will focus on:

- Increasing the awareness of public institutional staff, farmers / pastoralists and women groups of relevant climate change hazard risks and adaptation options and priorities for the agriculture / livestock sector and improved mainstreaming of this information into planning processes
- Improving the mainstreaming of climate change information generated into national, district and community-level planning processes for agriculture / livestock development.

~~60-64.~~ This will be done through the following outputs:

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

Output 1.2. National climate resilient agriculture / livestock strategy developed in which climate change hazard risks and adaptation ~~options~~ options are identified, prioritized and promoted at national and district level, with specific attention to the needs of vulnerable groups and women.

~~65.~~ Project activities to reach output 1.1 include:

- Conduct district and community-level ~~participatory assessment with key stakeholders and project beneficiaries in target districts through field consultations / interviews and focus groups, including with women, youth, local authority representatives, community leaders, farmers, herders. Drafting and publication of risks and vulnerability~~ vulnerability maps and assessment reports.

~~66.~~ Project activities to reach output 1.2 include:

- [Preparation of the district and community-level plans focused on climate change adaptation options for the agriculture / livestock sector, based on the results from the prior assessment](#)
- [Focus groups with national and local institutions representatives to consult them and gather inputs for the national strategy](#)
- [Preparation of national climate resilient agriculture / livestock strategy based on the results from tehr assessments and institutional consultations](#)
- [Endorsement of the national climate resilient agriculture / livestock strategy by relevant national authorities \(Ministry of Environment and Ministry of Agriculture\)](#)
- [Organization of dissemination workshops to present the national strategy at national and local level \(1 workshop per each of the 5 target districts + 1 workshop for national and local institutions in Tripoli\)](#)

~~64-67.~~ 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.

~~68.~~ Climate change vulnerability assessments 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, ~~totaling 13 districts. By targeting these 13 districts, almost all major agriculture / livestock areas in Libya will be covered.~~ During the project proposal preparation phase, a rapid climate change vulnerability assessment was ~~already~~ conducted to identify the main climate change vulnerabilities in ~~4 the 5 out of the 5~~ target districts in the northwest, with the purpose ~~of to~~ identify ~~ing~~ concrete adaptation activities needed as proposed under component 2. ~~During the project implementation phase, cDuring the project implementation phase, further detailed climate change vulnerability assessment will be conducted in all 13 target districts.~~ Comprehensive climate change vulnerability assessments in the 5 target districts in the northwest are needed ~~in additio to the rapid climate change vulnerability assessment already conducted in addition to the rapid climate change vulnerability assessments already conducted~~ to institutionalize the planning process ~~for this~~ at the district and national level. The assessments will ~~be~~ follow the same participatory approach that was applied in the rapid ~~climate achange vulnerability assessmentssessments to ensure that the concerns and priorities of the communities are reflected.~~ Dedicated consultations with women, youth and ~~other~~ vulnerable groups will ensure that the voices of these groups are heard and their priorities ~~and possible~~ are taken into consideration in the assessments. ~~Mainstreaming of climate information from the national climate-resilient agriculture/ livestock strategy into the district and community-level processes will be facilitated by outlining the governance process at the local level in the strategy and by using 1-2 district in the north-west of Libya as case studies for this mainstreaming. Considering the traditional systems still in place in Libya, community leaders will be involved in the process. The mainstreaming process will also be facilitated through the knowledge management activities proposed under component 4.~~

~~62-69.~~ The climate change hazard risks ~~to be assessed anaincludeyzed are~~ droughts, extreme heat, coastal flooding/inundation, salinization, and ~~d~~ inland flooding, and adaptation options include ~~processes~~, practices and products. 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, pastoralists ~~and womenand women~~.

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

~~63-70.~~ In line with AF outcomes ~~3~~ 3 and 6, and government priorities (see section H), this component will focus on:

- Increasing the climate change resilience and sustainability of agriculture livelihoods, including strengthened ~~securcesources~~ sources of income and ownership of adaptation measures, benefitting farmers, women and youth in four (4) districts in the northwest of Libya

~~64-71.~~ This will be done through the following outputs:

- Output 2.1.** Climate change resilient crops (i.e., drought / heat resilient and salt resistant crop varieties) ~~implemented in~~ **implemented in** four (4) districts in the northwest of Libya, including through around 5900 grant packages to farmer, women and youth groups.
- Output 2.2.** Relevant public Institutional ~~staff, farmers~~ **staff, farmers** and women trained to implement, maintain and sustain climate change resilient crops and to support the strengthening or creation of ~~community organizations and community development plans~~

~~72.~~ **72.** Project activities to reach output 2.1 include:

- ~~Verifictaion~~ **Verification** of beneficiaries through the organization of ~~d~~ District and community level planning sessions, ~~processes~~ to fairly distribute the packages, involving community leaders and vulnerable groups.
- Procurement of items for the 5900 grant packages.
- Distribution of 5900 grant packages to farmers, including women and youth farmers ~~groups~~.
- ~~Further p~~ **Preparation** of district and community-level plans to include ~~ing~~ operation and maintenance arrangements, in order to increase the sustainability of the ~~,needed for~~ project interventions.

~~73.~~ **73.** Project activities to reach output 2.2 include:

- Organization of training and capacity building sessions for project beneficiaries, on the handling of ~~agriculture~~ climate change resilient crops/ solutions.
- Organization of tailored training and capacity building sessions for public institution staff on how to support set-up and growth of community/ farmers organisations and the creation of community development plans, to operate and maintain piloted solutions over time.

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~~69-74.~~ **69-74.** 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 ~~awarenes~~ **awareness**
- Limited technical capacities to implement and maintain adaptation options

~~69-75.~~ **69-75.** 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. These are introduced to deal with climate change hazards and to reduce water consumption. Under component 4 a mechanism to replicate these adaptation measures to other areas in Libya is proposed.

~~70-76.~~ **70-76.** The grant packages that will be distributed as inputs as part of component 2 will include one or more of the following ~~(see more details in paragraph 52):~~

- a. Seeds of drought and heat resilient crop varieties
- b. Seeds of salinity resistant varieties
- c. Water conservation/ harvesting equipment (if needed)

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~~e-d. Drip irrigation networks~~ Soil management and irrigation equipment (if needed)

~~Water conservation/ harvesting basins / buns~~ (if needed)

~~77. The project will apply specific criteria / conditions for providing these, including high exposure to climate change hazards (esp. droughts and saltwater intrusion), that will prioritize the poorest (income level), farm size (i.e. (e.g. small land size) -), minimum the most vulnerable and will define a certain percentages for the involvement of women (30%) and youth (30%) and community agreement, and previous experience with cultivating proposed crops. Additional conditions related to expected project results / performance and avoiding the use of environmentally harming and unsustainable practices and techniques will be discussed during inception. Thus, the final set of criteria / conditions for the selection of beneficiaries will be defined at the may be adjusted during the inception of the project.~~

~~78. Trainings will focus on climate change adaptive (dryland) agriculture processes, practices and techniques, including on using / managing, maintaining and replicating:~~

~~a. Drought resilient crop varieties~~

~~b. Salt resistant crop varieties~~

~~c. Water conservation and harvesting techniques (incl. contour ridges, semicircular bunds, contour bench terraces, underground water tanks~~

~~d. Efficient irrigation: drip irrigation, management through cooperatives / organizations~~

~~e. Soil management (incl. construction of soil dams, contour plowing, plowing before start of the winter, use of chisel plows, use of organic fertilizer, pest management~~

~~f. Management by communities, cooperatives / organizations~~

~~71. Trainings will include good agriculture practices including integrated soil management, water harvesting, minimum tillage, use of organic fertilizers and Integrated Pest Management.~~

Component 3 Climate resilient investment in concrete activities in the livestock sector

~~72-79.~~ In line with AF outcome 3 and 5, and government priorities (see section H), this component will focus on:

- Increase the climate change resilience and sustainability of pastoralist livelihoods, including increased natural / asset resource production system resilience and ownership of adaptation measures, benefitting pastoralist and women in two (2) districts in the northwest of Libya

~~73-80.~~ This will be done through the following outputs:

Output 3.1. Climate change resilient natural asset / resource (i.e. rangeland management) production system protection / rehabilitation improvements implemented in two (2) districts in the northwest of Libya, including through around 3600 grant packages to pastoralists and women groups

Output 3.2. Relevant public Institutional staff, pastoralists and women trained to implement, maintain and sustain climate change ~~resilient natural~~ resilient natural asset / resource (i.e. rangeland management) production system improvements and to support the strengthening or creation of community organizations and community development plans

~~81. Project activities to reach the outputs and outcomes of 3.1 include:~~

~~Verification of beneficiaries through the organization of district and community level planning sessions to fairly distribute the packages, involving community leaders and vulnerable groups.~~

~~Procurement of items for the 3900 grant packages.~~

~~Distribution of 3900 grant packages to pastoralists and women herders groups.~~

~~Preparation of district and community-level plans to include operation and maintenance arrangements, in order to increase the sustainability of the project interventions~~

~~82. Project activities to reach output 3.2 include:~~

~~Organization of training and capacity building sessions for project beneficiaries on the management of climate change resilient assets / resource production system improvements.~~

~~Organization of tailored training and capacity building sessions for public institution staff on how to support set-up and growth of community/ farmer / pastoralist organisations and the creation of development of community development plans to operate and maintain piloted solutions over time.~~

74-83. 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 ~~awareness~~awareness
- Limited technical capacities to implement and maintain adaptation options

75-84. As water scarcity is a ~~serious threat~~serious threat to livestock production and food security, rangeland needs to be improved from a climate change ~~resilience~~resilience point of view. This proposal focuses on no-regret concrete adaptation interventions, including water conservation / harvesting and integrated crop-livestock-rangeland production systems improvement. These are introduced to deal with climate change hazards and to reduce water scarcity and land degradation. Under component 4 a mechanism to replicate these adaptation measures to other areas in Libya is proposed.

76-85. The grant packages that will be distributed as inputs as part of component 3 will include one or more of the following (see more details in paragraph 52)::

- a. Water conservation/ harvesting equipment (if needed)
- b. Soil management and irrigation equipment (if needed)
- ~~a. Equipment and designs for water conservation/ harvesting basins / buns and ridges~~
- ~~b-c. Equipment and support with mobile or transhumant grazing practices~~
- ~~e-d. Cacti / animal feed~~
- ~~d-e. Food processing and mil production packages~~
~~Milk production package~~

86. The project will apply specific criteria / conditions for providing these, including high exposure to climate change hazards (esp. droughts), poverty (income level), herd size (i.e. small size), minimum percentages for the involvement of women (30%) and youth (30%) and community agreement. Additional conditions related to expected project results / performance and avoiding the use of environmentally harming and unsustainable practices and techniques will be discussed during inception. Thus, ~~the final set of criteria / conditions for the selection of beneficiaries will be defined at the~~ may be adjusted during the inception of the project.

~~The project will apply specific criteria that will prioritize the poorest (e.g. less than 3 goats), the most vulnerable and will define a certain percentage for women (30%) and youth (30%). The final set of criteria for the selection of beneficiaries will be defined at the inception of the project.~~

87. Trainings will focus on climate change adaptive crop-livestock-rangeland production systems / processes, practices and techniques, including on using / managing and maintaining and replicating:

- a. Integrated crop-livestock-rangeland systems
- b. Rotational grazing
- c. Better feed practices (e.g. using cacti)
- d. Animal health
- e. Water harvesting techniques (incl. contour ridges, semicircular bunds, contour bench terraces)
- f. Soil management (incl. construction of soil dams, contour plowing, plowing before start of the winter, use of chisel plows, use of organic fertilizer, pest management)
- g. Management by communities, cooperatives / organizations

~~77. Trainings will include good livestock practices including better feed practices, composting, animal health in addition to sustainable rangeland practices~~

Figure 18 example of water [harvesting](#) through buns / ridges

Component 4: 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

~~78-88.~~ In line with AF outcome 8 and government priorities (see section H), this component will focus on:

- Climate change resilient practices and products piloted in the four (4) districts in the northwest of Libya and encouraged / supported for replication in one (1) district in the northwest, four (4) districts in the northeast and four (4) districts in south through a national – district – community replication mechanism

~~79-89.~~ This will be done through the following output:

Output 4.1. Mechanism implemented 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 one (1) district in the northwest, four (4) districts in the northeast and four (4) districts in south and to vulnerable groups and women, including through workshops, guidelines, farmer field schools, a ToT programme and field visits to demo plots.

~~90.~~ Project activities to reach output 4.1 include:

- [Set up of national-level mechanism, ex. website, to ease the capturing and sharing of knowledge and training lessons, through the involvement of national key stakeholders.](#)
- [Organization of nine \(9\) Training of Trainers \(ToT\) sessions for 20-25 trainers.](#)
- [Organization of nine \(9\) Farmers Field Schools \(FFS\), on improved agriculture practices, minimum tillage, use of organic fertilizers, rainwater harvesting and drip irrigation techniques and Integrated Pest Management \(IPM\). The FFS will be divided as follows:](#)
 - [Four \(4\) FFS on crops;](#)
 - [Four \(4\) FFS on livestock;](#)
 - [One \(1\) specifically for women on livelihood diversification, such as food processing, packaging, marketing, poultry, sewing, and handcrafts.](#)
- [Selection of beneficiaries of FFS based on the same procedures as for 2.1 ad 3.1.](#)
- [Development of partnerships with universities and research centres across the country, for example through MoUs, to foster research in climate change adaptation in crops and livestock subsectors to ensure the sustainability of component 2 and 3 interventions.](#)
- [Conduct 540 field visits to demo plots on some of the best agricultural and livestock practices.](#)
- [Organisation of 5 sustainability-focused workshops with local government, community leaders, representatives of the academia/ research organisations and ministry representatives to discuss the implementation of the national strategy at the local level, lessons learnt from the project and identify project sustainability actions.](#)
- [Support to the preparation and production of guidelines on mainstreaming climate resilience into local planning for crops and livestock sub-sectors.](#)

~~80-91.~~ 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

~~84-92.~~ 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 and 3, 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

B.

~~82-93.~~ 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. Target groups under this ~~project~~ include:

- 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

~~94.~~ For an overview of project beneficiary numbers see table [Outcomes of the rapid climate change vulnerability assessment conducted.](#)

~~95.~~ [Table 13Table 13Table 6.](#) Needs and possible concerns of farmers / pastoralists, women and youth and other relevant groups have been identified through a rapid climate change vulnerability assessment conducted (see summary of outcomes also in [Outcomes of the rapid climate change vulnerability assessment conducted.](#)

~~83-96.~~ [Table 13Table 13Table 6](#) in 4 northwestern target districts. The total number of beneficiaries in the target districts is 1 340 019, of which between 30-35 percent farmer, 49 percent women and 25-40 percent youth, depending on the district. Under outcome 1 (output 1.1 and 1.2) the whole country will benefit and specifically the farmer communities (around 20 % of a total population of 6.8 million). Under the concrete interventions (outcome 2 and 3) around 9 500 grant packages will be provided (5900 under component 2 and 3600 under component 3) which, with an average household size of at least 6 in rural areas, will benefit approximately 57 000 people. [The cost of each grant package \(USD 560/household\) will be the same in component 2 and 3 and for each type of beneficiary.](#) Female-headed farmer and pastoralist households will be prioritized with a target of at least 30 percent of the total population targeted. [The same target is set for youth participation: 30 percent.](#) Heads of all households will be involved in capacity strengthening activities, while also ministry and local government staff will be targeted for trainings. The total number of direct beneficiaries of the project is estimated at 57 840. For detailed beneficiary numbers see [Table 36Table 34](#) and [Table 37Table 35](#), which present the results framework and core indicators, including targets for women.

~~84-97.~~ 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 the project is not targeting specifically (the district is targeted but not the town). As almost all inhabitants belong to ethnic groups, ethnic groups were already involved in consultations.

~~85-98.~~ In addition to the target groups mentioned, the direct beneficiaries of each proposed project activity are selected based on vulnerability selection criteria [/ conditions \(see more info in section II.A\)](#) 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.

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~~86-99.~~ Beneficiaries have been identified through consultations at the ministry, district and municipal level. Also, a mapping ~~of ethnic~~ of ethnic groups has been done, to make sure these are equally involved 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.

~~87-100.~~ 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 17 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 due to high energy prices and low water table. Populations are vulnerable due to high poverty rates and dependence on vulnerable sectors. Women and youth participation can be regarded as low-low .	<ul style="list-style-type: none"> ❑ Economic: development in climate risk areas (with risk of losses due to sea-level rise, floods, etc) can be avoided; climate change cost-effective measures will be identified through assessments to stabilise/increase production and reduce risk of losses in a climate constraint context. Once implemented, these can support increase of income of farmers and especially women (women-headed households). In addition to this, other non-quantifiable economic benefits include the empowerment of farmers, and more particularly women and youths, that will be benefited from the project support, not only allowing the realization of economic benefits mentioned above, but also better preparing them to face climate-change challenges in selected activities. ❑ Social: participatory approach will ensure benefits to women, youth and other vulnerable groups through their inclusion in the process and the National climate resilient agriculture/ livestock strategy will pay specific attention to the differentiated impact of climate change on most vulnerable groups (including farmers, internally displaced people and women and youth) and the suitable adaptation options for the areas they live in. This will enable these groups to adapt to change climate conditions. Emphasis will be put on addressing gender inequalities and empowering women to reduce the negative impacts of climate change. This will be done in three ways: (i) recognition of gender differences in adaptation needs and capacities; (ii) gender-equitable participation and influence in adaptation decision-making processes; (iii) gender-equitable access to finance and other benefits resulting from investments in adaptation (e.g. support for climate adaptive businesses). In addition, special attention will be given to promoting a more equitable balance in workloads and in the sharing of economic and social benefits between women and men, for example by introducing time and labour-saving labour-saving technologies. In addition, rural youth will be targeted by the project. Emphasis will be put on promoting their economic empowerment (e.g. by giving them priority for accessing the climate adaptive grants and strengthening their business skills) and enabling them to have an equal voice and influence in rural institutions and organizations. ❑ Environmental: the national climate resilient agriculture strategy will provide decision-makers with priority adaptation options for the agriculture sector in the target areas and will identify potential threats to biodiversity, natural habitats and people.
Component 2		<ul style="list-style-type: none"> ❑ Economic: climate change resilient cost-effective measures implemented will support increase of income through 9,500 grants with the objective to stabilize/increase incomes and reduce losses, in particular post-harvest losses. The cost per grant beneficiary is estimated at US\$560/household, which is comparable to similar AF and IFAD projects projects investments in the region of North Africa and has a potential to generate sufficient income for smallholders with a substantial benefit-to-cost ratio ensuring their resilience and adaptive capacity to climate change. The adaptation technologies that will be adopted through these grants are expected to be upscaled and/or adopted at a wider scale.
Component 3		<ul style="list-style-type: none"> ❑ Social: Targeting strategy will focus on the poorest and most vulnerable farmers/pastoralists. The Participatory approach will ensure benefits to women, youth and other vulnerable groups groups. Women-headed households will be prioritized for grant packages. Displaced person may also benefit as the migration trend is from the south to the north. This project may involve migrants from the north willing to work in agriculture. ❑ Environmental: Agriculture / livestock activities implemented will apply good practices strengthening strengthening resilience against climate change, reducing the adverse adverse effect of land degradation, avoiding any increase in use of pesticides in comparison to baseline scenario, and improving water use

		<p>efficiencyefficiency. This will also demonstrate adaptation options that would be adopted and upscaled by the wider community in the target areas and other areas.</p>
Component 4		<ul style="list-style-type: none"> <input type="checkbox"/> Economic: information on climate change resilient cost-effective measures will be available/ accessible which will yield economic benefits at scale. This will fill a gap at the national level which will save the costs of different pilots at the local level to identify adaptation solutions. <input type="checkbox"/> 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. The National climate resilient agriculture/ livestock strategies will pay specific attention to the differentiated impact of climate change on most vulnerable groups (including farmers, internally displaced people and women and youth) and the suitable adaptation options for the areas they live in. <input type="checkbox"/> Environmental: knowledge and information in avoiding negative environmental impacts will also be shared helping the country to fill in the current knowledge gap in the climate change policymaking process.

C. Cost-effectiveness of the proposed project

88-101. The cost-effectiveness of the project can be seen in comparison with business as usual (or without-project) scenario and the value added resulting from its activities, which outweighs the costs. The proposed activities are primarily focused on maximizing impact while being cost-effective. The adaptation technologies that will be adopted by the project will capitalize on the existing best and cost-effective practices in the region. Currently, due to low ~~agricultural~~agricultural yields, the country has to import 75 percent of the food to satisfy the domestic demand, which is exacerbated by the fact that 95 percent of the country is desert and 70 percent of the population lives in the coastal area prone to floods³⁴. According to the World Bank estimates, on average every US\$1 invested in adaptation to climate change brings US\$4 in benefits³⁵, which justifies the project investments. The table below demonstrates the cost-effectiveness rationale within each output of the project.

Table 18 Proposed interventions cost-effectiveness rationale

Project output/ activity	Costs	Alternative interventions and rationale why priority interventions/activities have been selected from a cost-effectiveness perspective
<p>Output 1.1. Climate change vulnerability and hazards risks assessments conducted for the agriculture/ livestock sector in Libya, specifically Libya, specifically targeting districts in the north-west (5), north-east (4) and south (4) with the participation of vulnerable groups and women</p> <p>13 climate change vulnerability assessments with priority adaptation actions.</p> <p>Directly involved 570 <ul style="list-style-type: none"> o Women: 30 % Indirect: 6,8 million of which about 30 percent farmers</p>	633,000	<p>In the absence of any climate-related policies and the lack of institutional arrangement to address climate risks as the district level, climate vulnerability assessments are much needed to prioritize the most cost-effective adaptation options in the agriculture/livestock sector. Without the climate change vulnerability and hazards risks assessment and National agriculture / livestock strategy to be developed there would be no identified and prioritized climate change adaptation options for agriculture/ livestock areas in Libya. The alternative to act without prior assessment would lead to costly and not adapted interventions without positive outcomes.</p> <p>This is needed to make people aware of these options, b ut also to identify / attract and prioritize funding for adaptation activities, also within small communities.</p>

³⁴ "Climate change threatens Libya's economic development and sustainability", UNOCHA situation report, 26 August 2021, <https://reports.unocha.org/en/country/libya/card/2r82XSjHkw/>

³⁵ "Hallegatte, Stephane; Rentschler, Jun; Rozenberg, Julie. 2019. Lifelines : The Resilient Infrastructure Opportunity. Sustainable Infrastructure, World Bank.

<p>Output 1.2. National climate resilient agriculture / livestock strategy developed in which climate change hazard risks and adaptation options <u>are options</u> are identified, prioritized and promoted at national and district level, with specific attention to the needs of vulnerable groups and women</p> <p>1 strategy Directly involved 570 <ul style="list-style-type: none"> o Women: 30 % Indirect: 6,8 million of which about 30 percent farmers</p>	140,500	<p>Alternative scenario: conventional practices such as development in high risk areas, expensive water pumping, use of high water <u>high-water</u> consumption crops, etc. will continue and are more expensive compared to the adaptation outcome. Cost-efficient adaptation options are not identified in a strategy at the national level. Selection of interventions is not done in a participatory manner and thus the adaptation options might not be suitable to the context or not sustainable due to lack of ownership.</p>
<p>Output 2.1. Climate change resilient crops (i.e., drought /heat resilient and salt resistant crop varieties) implemented <u>implemented in four-three (43)</u> districts in the northwest of Libya, including through around 5900 grant packages to farmers, incl. women</p> <p>Farmers: 5900 households / 35400 people (6 persons / household) <ul style="list-style-type: none"> o Women: 30 % </p>	3,800,000	<p>Using heat and drought resilient crops and salt resistant crops are cost-effective in comparison with conventional crops <u>crops</u>, 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. Sustainable rangelands management is key to ensuring the livestock sector remains productive and communities are able to benefit from them while contributing to their management. Grant packages are cost-effective approach to involve beneficiaries and ensure they do part of the works against (relatively) low fees.</p>
<p>Output 2.2 Relevant public Institutional staff <u>farmers staff, farmers</u> and women trained to implement, maintain and sustain climate change resilient crops and to support the strengthening or creation of community organizations and community development plans</p> <p>Institutional staff: 60 <ul style="list-style-type: none"> o Women: 30% Farmers: 5900 <ul style="list-style-type: none"> o Women: 30 % </p>	467,500	<p>Alternative scenario: more expensive options such as desalination or wastewater treatment are used, but these are more costly <u>costlier</u> interventions, also per person, and feasibility is limited with existing conditions and available funds. <u>For a mobile wastewater treatment plant for instance the cost estimation is USD 1000 per 1m3 water/day. And this is only the construction cost, without irrigation system. Thus, it will cost around USD 1 million to have 1000 m3 of clean water /day. The cost for desalination are similar. The number of farmers targeted under this project cannot be reached when going for such a solution.</u></p>
<p>Output 3.1. Climate change resilient natural asset / resource (i.e. rangeland management) production system protection / rehabilitation improvements implemented in two (2) districts in the northwest of Libya, including through around 3600 grant packages to pastoralists, incl. women</p> <p>Pastoralists: 3600 households / 21600 people (6 persons / household) <ul style="list-style-type: none"> o Women: 30 % </p>	2,385,600	<p>Capacity strengthening to operate and maintain implemented activities is needed to avoid loss of investment if activities are not sustained.</p> <p>Alternatively: Activities are implemented without capacity building for communities and institutions to be able manage these technologies jeopardizing the sustainability of these investments.</p>

<p>Output 3.2. Relevant public Institutional staff, pastoralists and women trained to implement, maintain and sustain climate change resilient-naturalresilient natural asset / resource (i.e. rangeland management) production system improvements and to support the strengthening or creation of community organizations and community development plans</p> <p>Institutional staff: 40 <ul style="list-style-type: none"> o Women: 30% Pastoralists: 3600 <ul style="list-style-type: none"> o Women: 30 % </p>	351,500	
<p>Output 4.1. Mechanism implemented 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 one (1) district in the northwest, four (4) districts in the northeast and four (4) districts in south and to vulnerable groups and women, including through workshops, guidelines, farmer field schools, a ToT programme and field visits to demo plots.</p> <ul style="list-style-type: none"> - Guidelines: 1 - Farmer field schools: 9 - ToT: 9 - Visits to demo plots: 9 	560,542	<p>Making knowledge / lessons of tested activities available / accessible to inhabitants of other districts is a cost-effective way to replicate the activities.</p> <p>Alternative scenario: Number of awareness beneficiaries decline drastically thus increasing the cost per beneficiary and then other funding sources will need to be sought to implement adaptation activities in other areas. Duplication of pilots/knowledge generation could occur.</p>

~~89-102.~~ Altogether, the project will be cost-effective by:

- Avoiding cost of inaction associated with damage and loss due to climate change impacts (especially droughts, sea inundation and saltwater intrusion, floods) 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:
 - o Location suitability (Location + suitability)
 - o Cost-effectiveness (cost per beneficiary)
 - o Comparison to alternative solutions
 - o Beneficiaries' vulnerabilities and needs (direct and indirect) + benefits
 - o Operation + maintenance needs and arrangements feasibility
 - o Sustainability needs and arrangements, incl. replication, upscaling and exit strategy feasibility
 - o Limited / manageable environmental and social risks / impacts

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

~~99-103.~~ 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).

[94-104](#). 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

[92-105](#). 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.

[93-106](#). 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.

[94-107](#). Due to the lack of relevant national policies and strategies, the UN follows the United Nations Strategic Framework for Libya, which identified adaptation measures as shown in [Table 3](#)~~Table 3~~. Besides that, [Table 19](#)~~Table 12~~ provides a brief overview of the available government policies ~~and strategies~~ and how this project aligns with these. The project also aligns with the forthcoming United Nations Development Cooperation Framework for ~~Libya (Libya (UNSDCF) 2023~~[UNSDCF\) 2023](#) – 2025 IFADs country strategy note for Libya and IFADs Adaptation framework

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Table 19 Project alignment with National priorities

Strategies and plans	Year submitted / ratified	Relevant priorities the project is aligned with
<input type="checkbox"/> The government follows the SDGs and African Water vision 2025 as a vision / framework for the water sector		<input type="checkbox"/> The project will support reducing water demand while increasing the use of efficient water use technologies
<input type="checkbox"/> National Strategy for Sustainable Development	2008	<input type="checkbox"/> The project will support sustainable approaches, products and technologies
<input type="checkbox"/> National Strategy for Integrated Water Resources Management (2000 – 2025) (NSIWRM) and annual sector plans	2006	<input type="checkbox"/> 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

[95-108](#). As shown above, the existence of national policies and strategies is limited. In fact, Libya has not had a national development plan since 2011, which impedes coherent national planning and hampers the ability of international development partners to align their support to national priorities. There is also no national agriculture strategy or plan. However, there is a plan to formulate a national food security plan. Therefore, the project aligns with the UNSDCF for Libya 2023-2025 and identified national priorities in key sectors and alignment with these, through consultations with key actors from the national government and local authorities.

E. Project compliance with relevant national technical standards

~~96-109.~~ 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.

~~97-110.~~ 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:

~~98-111.~~ 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)

~~99-112.~~ Process of EIA: The Environment Impact Assessment includes the following stages:

Table 20 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-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

~~100-113.~~ 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

~~404.114.~~ 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. 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).

~~402.115.~~ 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 ~~i~~Import ~~i~~nto 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).

~~403.116.~~ **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 ~~libyaLibya~~ ratified in 1989. In practice, however, much of women's legal status is defined by the pre-2011 previous political system's 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 ~~libyaLibya~~. Nevertheless, the ~~libyanLibyan~~ legal system does not adequately protect women against domestic violence, honour crimes or rape³⁶

~~404.117.~~ **Youth.** The legal and policy environment for youth is mixed. The draft constitution of 2017 has not been ratified, so ~~libyaLibya~~ 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 21 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
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³⁶ UN Women (2020). The economic and social impact of conflict on Libyan women.

<p>Output 1.1. Climate change vulnerability and hazards risks assessments conducted for the agriculture/ livestock sector in <u>Libya, specifically Libya, specifically</u> targeting districts in the north-west (5), north-east (4) and south (4) with the participation of vulnerable groups and women</p> <p>13 climate change vulnerability assessments with priority adaptation actions.</p> <hr/> <p>Output 1.2. National climate resilient agriculture / livestock strategy developed in which climate change hazard risks and adaptation options are <u>options are</u> identified, prioritized and promoted at national and district level, with specific attention to the needs of vulnerable groups and women</p> <p><u>Relevant activities fro compliance include:</u></p> <ul style="list-style-type: none"> - <u>Preparation of the district and community-level plans</u> - <u>Preparation of national climate resilient agriculture / livestock strategy</u> - <u>Endorsement of the national climate resilient agriculture / livestock strategy</u> 	<p>Not relevant <u>Libya national and local governance and planning processes</u> Not relevant</p>	<p>—</p> <p>—</p> <p><u>Authorizing authority:</u></p> <ul style="list-style-type: none"> - <u>In coordination with ministry of environment, ministry of agriculture, and ministry of water resources</u> <p><u>Required process to comply</u></p> <ul style="list-style-type: none"> - <u>Libya governance and planning processes</u> <p><u>Approvals required:</u></p> <ul style="list-style-type: none"> - <u>Endorsement of strategy by above authorities and district authorities (through workshops) in coordination with ministry of environment, ministry of agriculture, and ministry of water resources</u>
<p>Output 2.1. Climate change resilient crops (i.e., drought /heat resilient and salt resistant crop varieties) implemented <u>implemented in four</u> three (4) districts in the northwest of Libya, including through around 5900 grant packages to farmers, incl. women</p> <p>Output 2.2 Relevant public Institutional staff, farmer <u>staff, farmers</u> and women trained to implement, maintain and sustain climate change resilient crops and to support the strengthening or creation of community organizations and community development plans</p> <p><u>Relevant activities fro compliance include:</u></p> <ul style="list-style-type: none"> - <u>Procurement of items for the 5900 grant packages,</u> - <u>Preparation of district and community-level plans to include operation and maintenance arrangements, in order to</u> 	<p><u>Procurement policy</u></p> <p><u>Libya national and local governance and planning processes</u></p> <p>Agriculture</p> <ul style="list-style-type: none"> - Law No.15 of 1992 on the protection of agricultural land. - Resolution No. 176 of the Secretary of the General popular Committee for Agrarian Reform implementing the Pesticides Regulation. - Resolution of the General Popular Committee No. 308 of 1987 on measures for facing agricultural diseases and epidemics. - Law No. 9 of 1985 on the establishment of Tasharukiati; - Law No.2 of 1974 on Cooperative Farms. - Resolution No. 740 regulating the use of pesticides. <p><u>Rangeland management</u></p>	<p><u>UNOPS and IFAD policies will be followed</u></p> <p><u>See points under output 1.1. and 1.2</u></p> <p>Authorizing authority:</p> <ul style="list-style-type: none"> - <u>Ministry of agriculture;</u> - <u>Ministry of Health</u> - <u>Ministry of environment</u> <p>Required <u>process to comply:</u></p> <ul style="list-style-type: none"> - <u>Check / control if land is dedicated to agriculture</u> <p>—</p> <ul style="list-style-type: none"> - <u>Check / control use of pesticide and species</u> - <u>Set-up of cooperatives/prperations in line with national guidance</u> <p><u>Approvals required:</u></p> <ul style="list-style-type: none"> - <u>Approval of ministries required through steering / technical committees</u>

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<p>increase the sustainability of the project interventions</p>	<p>Law No.5 of 1982 on the protection of grasslands and forests;</p> <p>Water allocation:</p> <ul style="list-style-type: none"> - Law 3-year3-year 1982 on regulating the utilization of water resources - General People's committee memo no 612 / year 1993 on Manmade River water allocation - Law 45-year15-year 2003 on environmental protection and enhancement <p>Water quality and national drinking Water</p> <ul style="list-style-type: none"> - Law 3-year3-year 1982 on regulating the utilization of water resources - Libyan standard 82-year82-year 1992 drinking water standards - Law 106 / 1976 on health - Law 45-year15-year 2003 on environmental protection and enhancement 	<p>Authorizing authority:</p> <ul style="list-style-type: none"> - Ministry of Water Resources - Ministry of Environment <p>Required process to comply:</p> <ul style="list-style-type: none"> - Check / control water quantity and quality and source if used <p>Approvals required:</p> <ul style="list-style-type: none"> - of Approval of ministries required through steering / technical committees <p>See above</p>
<p>Output 3.1. Climate change resilient natural asset / resource (i.e. rangeland management) production system protection / rehabilitation improvements implemented in two (2) districts in the northwest of Libya, including through around 3600 grant packages to pastoralists, incl_ women</p> <p>Output 3.2. Relevant public Institutional staff, pastoralists and women trained to implement, maintain and sustain climate change resilient naturalresilient natural asset / resource (i.e. rangeland management) production system improvements and to support the strengthening or creation of community organizations and community development plans</p> <p>Relevant activities fro compliance include:</p> <ul style="list-style-type: none"> - Procurement of items for the 5900 grant packages. - Preparation of district and community-level plans to include operation and maintenance arrangements. in order to 	<p>Procurement policy</p> <p>Libya national and local governance and planning processes</p> <p>Agriculture, water allocation and water quality standards</p> <p>Rangeland management</p> <ul style="list-style-type: none"> - Law No.5 of 1982 on the protection of grasslands and forests; 	<p>UNOPS and IFAD policies will be followed</p> <p>See points under output 1.1. and 1.2</p> <p>See points under output 2.1 and 2.2</p> <p>Authorizing authority:</p> <ul style="list-style-type: none"> - Ministry of environment <p>Required process to comply</p> <ul style="list-style-type: none"> - Check / control if land is protected <p>Approvals required:</p> <ul style="list-style-type: none"> - Approval of ministry is required through steering / technical committees

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<p>increase the sustainability of the project interventions</p>		
<p>Output 4.1. Mechanism implemented 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 one (1) district in the northwest, four (4) districts in the northeast and four (4) districts in south and to vulnerable groups and women, including through workshops, guidelines, farmer field schools, a ToT programme and field visits to demo plots.</p> <p>Relevant activities fro compliance include: - None</p>	<p>Libya national and local governance and planning processes Not relevant</p>	<p>Authorizing authority: - In coordination with ministry of environment, ministry of agriculture, and ministry of water resources</p> <p>Required process to comply - Libya governance and planning processes</p> <p>Approvals required: - N/A in coordination with ministry of environment, ministry of agriculture, and ministry of water resources</p>

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~~405-118~~ Potential foreign approaches, products and technologies may be introduced. These should comply with national laws / standards.

F. Duplication of project with other funding sources

Table 22 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)	Thematic overlap, complimentary or potential synergies
<p>GCF readiness project Libya 2017: Preparation of Libya to climate finance through GCF country programming and the establishment of the GCF designated national authority</p>	<p>Strengthen focal point and Strategic Engagement Framework with the Fund</p>	<p>No geographical focus</p>	<p>No thematic overlap as the GCF p project was limited to NDA/ focal point team set-up and strengthening and to the development of the Strategic Engagement Framework with the GCF.</p>

FAO and AICS and MoWR 2021-23 (USD 1,004,843\$) Towards efficient agriculture water use in Libya / 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 has recently started and is underway. There is some thematic thematic overlap with capacity strengthening for water management. Therefore, this project can build on capacities strengthened at national level to rationalize water. As FAO is an executing partner to this project, there is strong coordination already. Any outcomes of any assessment conducted by FAO will feed into this project (esp agriculture strategy) while made available. Any overlap in activities will be avoided.
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	There is a partial thematic overlap as the FAO project addresses agriculture water management and irrigation. However, the FAO project does not draw attention to climate change risks nor to adaptation. As FAO is an executing partner to this project, there is strong coordination already. Any effective method used used, or assessment conducted by FAO will feed into this project (esp. agriculture strategy and selection of crops) while made available. Any overlap in activities will be avoided.
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 Southern Libya	There is a partial thematic overlap as the WFP initiative addresses food production. However, it does so from a humanitarian aid perspective aimed at fostering food security; efficient water use use, and climate change adaptation are not a primary concern Possible complementarities/ synergies: information sharing on good practices that could be replicated. Coordination is already established through the food security coordination cluster in Libya
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)	There is a thematic overlap regarding rangeland management, grant packages and the involvement of women and vulnerable groups. Lessons learnt from the Tunisia project are being used and tailored in the present AF project, especially related to rangeland interventions with the purpose of avoiding land degradation and efficient water use is used.
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	The project just started. Coordination is already established. Thematic overlap is climate change assessments being conducted, although the focus is on mobility / migration Possible complementarities/ synergies: using the outcomes of the of the study findings on climate change impacts on community cohesion and mobility to ensure project interventions can contribute to reinforce cohesion and stability in target districts and integrating these findings in the climate change vulnerability assessments

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

119. 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 43 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.

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120. As part of project component 4, nine Farmer Field Schools (FFS) are proposed. The nine FFS sessions will be divided into 4 FFS on crops, 4 FFS on livestock and 1 on livelihood diversification for women and youth. The beneficiaries' selection will follow the same criteria as the grant packages and the same quota for women and youth will apply. The topics to be covered include:

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121. climate change adaptive (dryland) agriculture processes, practices and techniques, including on using / managing, maintaining and replicating:

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- a. Drought resilient crop varieties
- b. Salt resistant crop varieties
- c. Water conservation and harvesting techniques (incl. contour ridges, semicircular bunds, contour bench terraces, underground water tanks)
- d. Efficient irrigation: drip irrigation, management through cooperatives / organizations
- e. Soil management (incl. construction of soil dams, contour plowing, plowing before start of the winter, use of chisel plows, use of organic fertilizer, pest management)
- f. Management by communities, cooperatives / organizations

122. Climate change adaptive crop-livestock-rangeland production systems / processes, practices and techniques, including on using / managing and maintaining and replicating:

- a. Integrated crop-livestock-rangeland systems
- b. Rotational grazing
- c. Better feed practices (e.g. using cacti)
- d. Animal health
- e. Water harvesting techniques (incl. contour ridges, semicircular bunds, contour bench terraces)
- f. Soil management (incl. construction of soil dams, contour plowing, plowing before start of the winter, use of chisel plows, use of organic fertilizer, pest management)
- g. Management by communities, cooperatives / organizations

123. The topic targeting women would focus on the same topics but will also include off farm diversification practices including but not limited to food processing, packaging, marketing, etc.

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124. The project will develop partnership with universities and research centres across the countries through MoUs to foster research in climate change adaptation in crops and livestock subsectors to ensure sustainability of component 2 and 3 interventions. The project will also conduct a ToT programme of 9 sessions for 20-25 trainers (at least 8 women and 8 youth) selected with the help of universities and research centres who would then manage the 9 Farmer Field Schools (FFS) sessions envisaged under this component project. These experts will then ensure that a knowledge base is built that will create a multiplier effect across the target communities. In addition, the project will conduct 5 field visits to demo plots on some of the best agricultural and livestock practices discussed at the FFS across the different locations. The beneficiaries of the field visits will be the FFS graduates who have expressed their willingness to participate while additional beneficiaries can be accommodated if the budget suffices.

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125. To ensure that the national climate resilient agriculture/ livestock strategy reaches the local level, the project will produce guidelines on mainstreaming climate resilience into local planning for crops and livestock sub-sectors. The guidelines will explain the steps towards vertical integration in planning where target districts can align with the national strategy and ensure climate resilience mainstreaming is sustained after the project ends.

126. The project will run 5 workshops in total that will be mainly focused to address sustainability and maintenance concerns. One national workshop will bring together policymakers from MoA, MoE and other government stakeholders to discuss the adoption of the national climate resilient agriculture/ livestock strategy as well as ensure municipal responsibility and strengthen farmer organizations to ensure sustainability. The workshop will also bring together academia and research institutions to build partnerships and discuss filling the knowledge gap in the climate change and agriculture discourse in Libya. The beneficiaries of the these workshops will be nominated by the relevant government, local government, academia and research institutions. In addition, 4 workshops will take place in 4 districts to bring together the local government, community leaders and ministry representatives to present and discuss the adoption of the guidelines and the implementation of the national strategy at the local level. The nomination of the participants of the workshop will be carried out in consultation with the government and community leaders.

127. The project will also produce a range of knowledge products to capture best practices and lessons learned. It will also produce 2-3 videos of success stories and stories from the field and will rely on social media content to raise awareness on climate change adaptation practices in the agriculture to ensure wider dissemination.

106.

Table 23 Learning objectives and knowledge products

Project output/ activity	Learning objectives (lo) & indicators (i)	Knowledge products
<p>Output 1.1. Climate change vulnerability and hazards risks assessments 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 and women</p> <p>13 climate change vulnerability assessments with priority adaptation actions.</p>	<p>Learning objectives:</p> <ul style="list-style-type: none"> - Identify and understand climate change hazards risks - Identify adaptation measures and priorities <p>Indicators:</p> <ul style="list-style-type: none"> - No of assessment conducted (in districts) - No of maps 	<ul style="list-style-type: none"> - 13 Climate change vulnerability and hazards risks assessment - Risk maps - Vulnerability maps and data
<p>Output 1.2. National climate resilient agriculture / livestock strategy developed in which climate change hazard risks and adaptation options are identified, prioritized and promoted at national and district level, with specific attention to the needs of vulnerable groups and women</p>	<p>Learning objectives:</p> <ul style="list-style-type: none"> - Accessible information on climate change hazard risks, vulnerabilities, and adaptation options <p>Indicators:</p> <ul style="list-style-type: none"> - No of Climate change resilient agriculture strategy 	<ul style="list-style-type: none"> - Climate change resilient agriculture strategy

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<p>Output 2.1. Climate change resilient crops (i.e., drought /heat resilient and salt resistant crop varieties) implemented implemented in four three (4) districts in the northwest of Libya, including through around 5900 grant packages to farmers, incl. women</p>	<p>Learning objectives:</p> <ul style="list-style-type: none"> - Understand feasible, cost-effective climate change adaptation options in the agriculture / livestock sector - Understand operation and maintenance requirements and practices 	<ul style="list-style-type: none"> - Training workshops - Vocational trainings - Community and / or maintenance plans
<p>Output 2.2 Relevant public Institutional staff, farmers staff, farmers and women trained to implement, maintain and sustain climate change resilient crops and to support the strengthening or creation of community organizations and community development plans</p>	<p>Indicators:</p> <ul style="list-style-type: none"> - No of training workshops to support above - No of community and / or maintenance plans 	
<p>Output 3.1. Climate change resilient natural asset / resource (i.e. rangeland management) production system protection / rehabilitation improvements implemented in two (2) districts in the northwest of Libya, including through around 3600 grant packages to pastoralists, incl. women</p>		
<p>Output 3.2. Relevant public Institutional staff, pastoralists and women trained to implement, maintain and sustain climate change resilient natural resilient natural asset / resource (i.e. rangeland management) production system improvements and to support the strengthening or creation of community organizations and community development plans</p>		
<p>Output 4.1. Mechanism implemented 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 one (1) district in the northwest, four (4) districts in the northeast and four (4) districts in south and to vulnerable groups and women, including through workshops, guidelines, F farmer F ield S chools (FFS), a ToT programme and field visits to demo plots.</p>	<p>Learning objectives:</p> <ul style="list-style-type: none"> - Understand replication techniques of above <p>Indicators:</p> <ul style="list-style-type: none"> - No of tools / supporting products for replication 	<ul style="list-style-type: none"> - Field visits - Workshops - Guidelines - Website - Social media (YouTube, Facebook, Instagram etc.) - Posters and leaflets.

H. Consultative process

~~407-128~~_____ 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

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 fourfive 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 [Outcomes of the rapid climate change vulnerability assessment conducted.](#)

[408-129.](#) [Table 13](#)~~Table-6~~ and the paragraphs before.

[409-130.](#) As part of the rapid climate change vulnerability assessment, representatives of the following were surveyed / consulted.

Table 24 Surveyed / consulted as part of the rapid climate change vulnerability assessment

Zuwara	Zuwara Municipality	Sanousi Hamoud
	Zuwara Municipality (including farmers representative)	Ali NZDIF
Aljara	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
Nalut	Nalut Municipality, including the authority of youth, the municipality's youth office)	Muhammad Omar Abu Saw
	Nalut Municipality	Abdulwahab Al-Hajam (the (the mayor) mayor)
	Agriculture and Livestock Office	Mohamed Kunis
	For You Libya Group, which is a euro- mediterranean Mediterranean women's foundation	Najua Eiad Elhijam
Al jabal al Gharbi	Ghiryan municipality	Yosef Bediri (Ghiryan mayor 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

[440-131.](#) In total, the following group representatives were consulted:

- a. 6 Association of farmers/breeders in the districts of Al jabal al Gharbi, Zuwara, Nalut and Jafara
- b. 2 Youth Organization in Nalut and Aljara districts
- c. 3 women's organizations in the districts of Jabal al Gharbi, Nalut and Aljara.
- d. 4 municipalities Gharyan, Nalut, Janzour and Zuwara
- e. 1 young climate change activist from the Mulan Project.

[132.](#) [The consultations were conducted in June, July and August 2022. Consultation questions focused on identifying main climate change hazards experienced, impact of hazards, adaptive capacity and barriers to adapt, possible adaptation measures and possible concerns if potential measures would be implemented. Impacts, adaptive capacity, barriers and concerns would be specific per group. The technique used for the consultations was a survey / interview.](#)

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411-133. During the full proposal preparation phase, further consultations were conducted with representatives from and in target municipalities. The topic was the same as above with a focus on locating specific climate change impacts / issues and response needs and identifying possible risks / concerns of possible interventions and operation and maintenance arrangements required. The technique used for the consultations was interviews. ~~Table 25~~~~Table 25~~ provides an overview of the interviews conducted (in December 2022 and Jaury 2023). The main concerns of the potential project beneficiaries are indicated in ~~Figure 17~~~~Figure 17~~.

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134. During the project implementation stakeholders' views and concerns will be heard through the participatory assessment and planning process as national, district and community level with quotas for participation of specific groups where needed.

Table ~~25~~~~24~~ Surveyed / consulted ~~as part of the rapid climate change vulnerability assessment during the full proposal preparation phase~~


Description	Service	Quantity	Location
Interviews with municipalities	In-depth Interviews	6	Zuwara
Interviews with Municipalities	In-depth Interviews	6	Aljufara
Interviews with Municipalities	In-depth Interviews	6	Jabul Gharbee
Interviews with Municipalities	In-depth Interviews	6	Nalut
Interviews with Ministries	In-depth Interviews	3	Tripoli

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412-135. ~~Table 25~~~~Table 26~~~~Table 25~~~~Table 25~~~~Table 18~~ provides an overview of the main actors consulted and how outcomes have been incorporated in the project proposal design.

Table ~~25~~~~25~~ overview of outcomes of consultations and how these have been incorporated in the project design

Stakeholder		Outcome / conclusion	Incorporation in project design	Proof
Main	Sub			
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 Mr. Muhammad Hamila, Director of Information Technology Department.			 Technique: c call Date: July 2022 Techniques: in-depth interview Data: Jan 2023. Detailed report available on request
Ministry of Agriculture, Livestock and Marine Resources	Hana Aghel, Director of International			Through e-mail.

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	<p>cooperation Office</p> <p>Rep:Rep: Sadiq Kamuka</p> <p>Dr. Amal Aborakhees, director of women support and empowerment office</p>			<p>Techniques: in-depth interview</p> <p>Data: Jan 2023. Detailed report available on request</p>
Embassy 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 Azzawya	For details see description about the rapid climate change vulnerability assessment outcomes in Table 13 and the text below it and Table 24 and Table 25 , and table 17 and the paragraph under it	A planning and decision-making mechanism / process to ensure participation and equal distribution of project benefits to women, youth, ethnic groups and other vulnerable groups is put into place	DA-detailed reports are available on request
Target districts considered South-west of Tripoli	Nalut (focus on north) Al jabal al Gharbi (focus on north)			
FAO	Helen Sow Faycel Chenini	<ul style="list-style-type: none"> - 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 <p>Lessons learned:</p> <ul style="list-style-type: none"> - Reached only 3 % women of target - Limited farmer association; women unions 	<ul style="list-style-type: none"> - 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 	 <p>Technique: call Date: May 2022</p>
Germany / GIZ	Anke Scholtz Emami Morteza	<ul style="list-style-type: none"> - Youth (17-35) centers have been established in selected municipality – - Main challenges of projects <ul style="list-style-type: none"> o Involvement government o Travel / logistics with companions required for women 	<ul style="list-style-type: none"> - Involve youth centers where possible - Minimize travel as much as possible 	 <p>Technique: call Date: May 2022</p>
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	<ul style="list-style-type: none"> - Coordinate on data production and sharing information / tool / report for CCVA and visa-versa 	 <p>Technique: call Date: June 2022</p>



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UNDP	Mathew Brubacher	<ul style="list-style-type: none"> - According to UNDP, project priority should be: water rationalization (as aquifers may run out and pumping is very costly) Challenges: <ul style="list-style-type: none"> - Limited maintenance and funding desalination plants and wastewater treatment 	<ul style="list-style-type: none"> - 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) 	 <p>Technique: call Date: May 2022</p>
UNFPA	Salman Khalid	<ul style="list-style-type: none"> - UNFPA focuses on the following activities in Libya: <ul style="list-style-type: none"> - Sexual and reproductive health - Gender-based violence (GBV) prevention and response - Youth - Covid-19 response 		<p>Technique: e-mail exchange Date: June 2022</p>
UN Women	Ghada Kannou	<ul style="list-style-type: none"> - Libya is conservative / traditional if it comes to women (e.g. women don't own land; women engineers not allowed to work in the field), but young women increasinglyincreasingly active - Use women traditionaltraditional knowledge on water resource use - Terminology of gender equality is avoided as negative in Libya - Use quota for women involvement at ministerial level (through women empowerment units in each ministry – espesp. Ministries of planning, social affairs) - Access to women at local / municipal level through women councillorscouncillors 	<ul style="list-style-type: none"> - Conduct analysis of opportunities and risks of women to be involved in agriculture / livestock (incl. using women knowledge on water) as part of CCVAs planned - Use quota at ministerial level to have women reps in steering committee - Work with women councillorscouncilors at municipal level and through families - Consider working in yards of houses (safe space) 	 <p>Technique: call Date: Nov 2022</p>
UNOPS	Claudia Rosano Nathalie Angibeau Sylvain Cote	<ul style="list-style-type: none"> - Partnership with IFAD in Libya 	<ul style="list-style-type: none"> - UNOPS to support proposal preparation on the ground potential execution concrete interventions 	 <p>Technique: call Date: May 2022</p>
USAID	Kelsey Dunn Rabab Shamayleh	<ul style="list-style-type: none"> - USAID focuses on economic growth and some climate change mitigation measures through support of renewable energy. 		 <p>Technique: call</p>

				Date: May 2022
WFP	Shaker Alozzi	<ul style="list-style-type: none"> - IFAD became member of the Food security Cluster, which coordinates on food security in Libya: <p>WFP activities include:</p> <ul style="list-style-type: none"> - Food distribution - Response to seasonal flooding in the south and east - Post humanitarian agriculture and fishery activities in Fezzan region. 		 <p>Technique: call Date: May 2022</p>
World Bank	Henriette von Kaltenborn-Stachau Lyad Rammal	<p>WB main focused is on the water sector and (future) activities include:</p> <ul style="list-style-type: none"> - 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. 	<ul style="list-style-type: none"> - Avoid focus on desalination plants and wastewater treatment 	<p>Technique: e-mail E-mail exchange Date: May 2022</p>
University of Tripoli Faculty of Engineering	Dr Khaled Dedesh Solar Energy and Climate change	<ul style="list-style-type: none"> - Proposed target areas and interventions are relevant and priorities - Suggestions were made to include other areas as well 	<ul style="list-style-type: none"> - Expert from university supported the development of the full proposal 	 <p>Technique: call Date: July 2022</p>
University of Tripoli Soil and Water Department, Agriculture Faculty	Prof Ahmad Ibrahim Kamaj Water Sci, Irrigation and Water resource management			
Climate change activist working at Mulan project	Nissa Bek Derna	<ul style="list-style-type: none"> - There is no clear national plan of environmental management / cc or leadership - There is a need for wasterwaste water treatment and waste management but no national funding - Olive harvest worst in 2021 - Low awareness climate change - Issues in project target areas: groundwater pollution; unefficientinefficient irrigation; - PotentialPotential risk around scarce resources 	<ul style="list-style-type: none"> - Involve president council, if possible - Support awareness about climate change - Involve community leaders to ensure accapetanceaccptance on working on climate change and with women - Request Nissa to participant in national-level meetings 	<p>Technique: Call Date: July 2022</p>

I. Justification for funding requested

Table 262726 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	Budget (USD)
<p>Output 1.1. Climate change vulnerability and hazards risks assessments conducted for the agriculture/ livestock sector in Libya, specifically Libya, specifically targeting districts in the north-west (5), north-east (4) and south (4) with the participation of vulnerable groups and women</p> <p>13 climate change vulnerability assessments with priority adaptation actions.</p> <p>Directly involved 570 o Women: 30 % Indirect: 6,8 million of which about 30 percent farmers</p> <p>Output 1.2. National climate resilient agriculture / livestock strategy developed in which climate change hazard risks and adaptation options are options are identified, prioritized and promoted at national and district level, with specific attention to the needs of vulnerable groups and women</p> <p>1 strategy Directly involved 570 o Women: 30 % Indirect: 6,8 million of which about 30 percent farmers</p> <p>- or activities under these outputs see section II.A</p>	<p>Beneficiaries are not aware of climate change hazard risks and response options.</p> <p>There is no evidence-based and policy framework to respond to climate change impacts / vulnerabilities in the vulnerable agriculture / livestock sector.</p>	<p>The climate change vulnerability and hazards risks assessment (total of 13 for each agriculture area in Libya) and the National climate resilience agriculture / livestock strategy will allow all farmers / pastoralists/pastoralists in the country to identify climate risks and adaptation options and act within a relevant policy framework.</p> <p>Full climate change vulnerability and hazards risks assessment are needed in all agriculture areas, including those that were already covered by the rapid assessment as the assessments need to be institutionalised (involvement of key government stakeholders and outcomes) to feed into the national climate resilience strategy.</p> <p>Alternative: conventional practices such as development in high risk areas, high water consumption for crops, wrong crops in saline environments, etc. will continue, which may result in a loss of yields, income and threatened food security, while conventional practices are also more expensive and will be even more in the future.</p>	633,000
			140,500
<p>Output 2.1. Climate change resilient crops (i.e., drought /heat resilient and salt resistant crop varieties) implemented implemented in fourthree (43) districts in the northwest of Libya, including through around 5900 grant packages to farmers, incl. women</p> <p>Farmers: 5900 households / 35400 people (6 persons / household) Women: 30 %</p> <p>Output 2.2</p>	<p>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</p> <p>Populations are vulnerable due to high poverty rates. Women</p>	<p>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.</p> <p>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.</p>	3,800,000
			467,500

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<p>Relevant public Institutional staff, farmersstaff, farmers and women trained to implement, maintain and sustain climate change resilient crops and to support the strengthening or creation of community organizations and community development plans</p> <p>Institutional staff: 60 o Women: 30% Farmers: 5900 Women: 30 %</p> <p>- or activities under these outputs see section II.A</p>	<p>and youth participation can be regarded as low</p> <p>There is limited capacity to operate and maintain climate change resilient agriculture / livestock approaches, products and technologies.</p>	<p>Alternative: conventional practices such as the use of high-waterhigh-water consumption crops and limited water storage, etc. will continue, which may result in a loss of yields, income and threatened food security. Desalination and wastewater treatment solutions are possible but are not feasible from a timeline and cost-effective perspective</p>	
<p>Output 3.1. Climate change resilient natural asset / resource (i.e. rangeland management) production system protection / rehabilitation improvements implemented in two (2) districts in the northwest of Libya, including through around 3600 grant packages to pastoralists, incl. women</p> <p>Pastoralists: 3600 households / 21600 people (6 persons / household) Women: 30 %</p> <p>Output 3.2. Relevant public Institutional staff, pastoralists and women trained to implement, maintain and sustain climate change resilient naturalresilient natural asset / resource (i.e. rangeland management) production system improvements and to support the strengthening or creation of community organizations and community development plans</p> <p>Institutional staff: 40 o Women: 30% Pastoralists: 3600 Women: 30 %</p> <p>- or activities under these outputs see section II.A</p>		<p>Capacity strengthening to operate and maintain implemented activities is needed to avoid loss of investment if activities are not sustained.</p>	<p>2,385,600</p> <p>351,500</p>
<p>Output 4.1. Mechanism implemented 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 one (1) district in the northwest, four (4) districts in the northeast and four (4) districts in south and to vulnerable</p>	<p>Knowledge and learning of climate change resilient practices, products and technologies and replication of these is limited</p>	<p>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.</p>	<p>560,542</p>

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<p>groups and women, including through workshops, guidelines, farmer field schools, a ToT programme and field visits to demo plots.</p> <ul style="list-style-type: none"> - Guidelines: 1 - Farmer field schools: 9 - ToT: 9 - Visits to demo plots: 9 <p>-</p> <p>or activities under these outputs see section II.A</p>			
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J. Sustainability of the project/programme

~~413-136~~ Long-term sustainability of the project is ensured by i) ~~emphasising~~ [emphasizing](#) 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.

~~414-137~~ 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 – ~~both from~~ [institutional and to grassroots](#). Where possible, the project will encourage the formation of [\(informal\) groups or organization or cooperatives](#) of farmers/pastoralists to manage agriculture lands and natural resources (i.e. water resources and rangelands). ~~Community~~ [Community leaders will also be involved](#). Moreover, the project will ~~support help~~ [\(informal\) groups, organizations or cooperatives](#), and households, to develop operation and maintenance plans for the ~~the~~ proposed [project interventions](#). [This will be done together with municipal authorities. As the involved groups have a stake in maintaining and sustaining the interventions, it is assumed that they will respect the needed operation and maintenance arrangements \(identified by themselves, as well as agreed upon\)](#). 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. The involvement of the Ministry of Agriculture and the other relevant ministries in the development of this strategy will ensure the political endorsement of the document and act as a guiding note for the government and other development partners when ~~channeling~~ [channeling](#) climate finance into the agriculture sector.

~~415-138~~ Replicability will be further ensured through the dissemination of lessons learnt in the field demonstration sites in the four 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. [The project aims for farmers to continue to have access to drought resilient and salt resistant crops after the project. This will be done by identifying options a mechanism to stall and multiply the seeds with the support of a research institute and / or to teach farmers how to purchase seeds from inside Libya or from abroad through groups / cooperatives.](#)

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Table ~~272827~~ Maintenance / sustainability arrangements

Project output/ activity	Maintenance / sustainability arrangements
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<p>Output 1.1. Climate change vulnerability and hazards risks assessments conducted for the agriculture/ livestock sector in Libya, specifically Libya, specifically targeting districts in the north-west (5), north-east (4) and south (4) with the participation of vulnerable groups and women</p> <p>13 climate change vulnerability assessments with priority adaptation actions.</p>	<ul style="list-style-type: none"> o Institutionalisation<u>Institutionalization</u> of assessment and strategy through involvement of key actors and government planning process o Government endorsed national climate resilient agriculture / livestock strategy, o <u>Mainstreaming of climate information and the use of the national climate-resilient agriculture/ livestock strategy at district and community-level processes will be facilitated by outlining the governance process at local level in the strategy and by using 1-2 district in the north-west of Libya as case studies for this mainstreaming and use. Considering the traditional systems still in place in Libya, community leaders will be involved in the process. The mainstreaming process will also be facilitated through the knowledge management activities proposed under component 4.</u>
<p>Output 1.2. National climate resilient agriculture / livestock strategy developed in which climate change hazard risks and adaptation options are<u>options are</u> identified, prioritized and promoted at national and district level, with specific attention to the needs of vulnerable groups and women</p>	<ul style="list-style-type: none"> o Operation and maintenance plans developed by target households, organizations and government authorities supported by the national climate resilient agriculture strategy under component 1 o Guidelines to be developed under comp 4 o The Training of trainers under comp 4 will ensure that resource people are available for continued adoption and upscaling of adaptation technologies in the agriculture sector. Success of the grant packages to generate income combined with demo plots under comp 4 will also ensure wider adoption. o Trainings on operation and maintenance (see 2.2.) <u>and replication</u>
<p>Output 2.1. Climate change resilient crops (i.e., drought /heat resilient and salt resistant crop varieties) implemented in<u>implemented in four</u>three (4) districts in the northwest of Libya, including through around 5900 grant packages to farmers, incl. women</p>	<ul style="list-style-type: none"> o Operation and maintenance plans developed by target households, organizations and government authorities supported by the national climate resilient livestock strategy under component 1 o Guidelines to be developed under comp 4 o The Training of trainers under comp 4 will ensure that resource people are available for continued adoption and upscaling of adaptation technologies in the livestock sector. Success of the grant packages to generate income combined with demo plots under comp 4 will also ensure wider adoption. o Trainings on operation and maintenance (see 3.2.) <u>and replication</u>
<p>Output 2.2 Relevant public Institutional staff, farmers<u>staff, farmers</u> and women trained to implement, maintain and sustain climate change resilient crops and to support the strengthening or creation of community organizations and community development plans</p>	<ul style="list-style-type: none"> o Operation and maintenance plans developed by target households, organizations and government authorities supported by the national climate resilient livestock strategy under component 1 o Guidelines to be developed under comp 4 o The Training of trainers under comp 4 will ensure that resource people are available for continued adoption and upscaling of adaptation technologies in the livestock sector. Success of the grant packages to generate income combined with demo plots under comp 4 will also ensure wider adoption. o Trainings on operation and maintenance (see 3.2.) <u>and replication</u>
<p>Output 3.1. Climate change resilient natural asset / resource (i.e. rangeland management) production system protection / rehabilitation improvements implemented in two (2) districts in the northwest of Libya, including through around 3600 grant packages to pastoralists, incl. women</p>	<ul style="list-style-type: none"> o Guidelines o Farmer field schools (also to support operation and maintenance and replication) o ToT programme (also to support operation and maintenance and replication) o Demo plots
<p>Output 3.2. Relevant public Institutional staff, pastoralists and women trained to implement, maintain and sustain climate change resilient natural<u>resilient natural</u> asset / resource (i.e. rangeland management) production system improvements and to support the strengthening or creation of community organizations and community development plans</p>	
<p>Output 4.1. Mechanism implemented 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 one (1) district in the northwest, four (4) districts in the northeast and four (4) districts in south and to vulnerable groups and women, including through workshops, guidelines, farmer field schools, a ToT programme and field visits to demo plots.</p>	

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

~~416.139.~~ 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.

~~417.140.~~ 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 'Moderate.' The project is also categorized as High Climate Risk as per IFAD's 2021 SECAP guidelines.

~~418.141.~~ 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.

~~419.142.~~ 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.

~~420.143.~~ An Environmental, Social and Climate risk Management Plan (ESCMP) has been prepared to manage any risks and impacts identified then. The same accounts for the gender approach and baseline / plan.

~~421.144.~~ 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).

~~422.145.~~ **Table 28**~~Table 20~~ provides an overview of the potential project risks and if any further assessment is required. **Table 29**~~Table 24~~ describes these risks and proposed mitigation measures associated with AF Social and Environmental Principles to avoid or reduce these potential risks.

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Table 28~~29~~~~28~~ Checklist of environmental and social principles

Checklist of environmental and social principles	No further assessment required for compliance (during project implementation)	Potential impacts and risks – further assessment and management required for compliance
1. <i>Compliance with the Law</i>		X
2. <i>Access and Equity</i>		X
3. <i>Marginalized and Vulnerable Groups</i>		X
4. <i>Human Rights</i>		X
5. <i>Gender Equality and Women's Empowerment</i>		X
6. <i>Core Labour Rights</i>		X
7. <i>Indigenous Peoples</i>		X
8. <i>Involuntary Resettlement</i>	X	
9. <i>Protection of Natural Habitats</i>	X	
10. <i>Conservation of Biological Diversity</i>		X
11. <i>Climate Change</i>		X
12. <i>Pollution Prevention and Resource Efficiency</i>		X
13. <i>Public Health</i>		X

14. <i>Physical and Cultural Heritage</i>	X	
15. <i>Lands and Soil Conservation</i>	X	

Table 293029 Overview of the potential environmental and social impacts and risks and mitigation measures

Checklist of environmental and social principles	Potential risks	Explanation	Mitigation measures to avoid / reduce any potential risks
1. <i>Compliance with the Law</i>	There is a small risk of sub-contractor non-complying with national laws / standards	<p>Relevant national standards <u>and laws have been identified, as well as and</u> project compliance with these <u>been identified</u>. No impact assessment is required by national law (see part II.E) for proposed interventions.</p> <p>However, there is still a small <u>small</u> risk of sub-contractor non-complying with national</p>	<p>The project complies with all identified relevant national and international standards and laws. For an overview, see part II.E.</p> <p>Include standard clause in all project contracts with reference to laws / standards as described in this proposal (Part II.E) <u>with the condition to comply with these standards / laws</u></p>
2. <i>Access and Equity</i>	There is a small risk of inequitable participation in project decision making and access to project benefits due to a weak targeting strategy. This is mainly due to traditions related to gender roles and the tribal culture that could exclude certain groups.	<p>Inputs <u>and potential concerns</u> of potential project beneficiaries have already been collected <u>heard</u>. These groups include small-holder farmers, ethnic groups, women, en and youth and ethnic <u>groups</u></p>	<p>The project design supports equal access to project benefits through a participatory approach (i.e. a participatory planning and decision-making process)</p> <p>The project will ensure equal opportunities in participation and decision-making concerning the project <u>benefits</u> of women, youth, ethnic groups and other vulnerable groups by using quotas and by agreeing on representation in decision-making processes through the use of ToRs, agreements, etc. The targeting strategy will take into consideration the different needs of the different groups for each activities <u>activity</u> and will apply strict criteria for selection of beneficiaries. A Grievance and Redress Mechanism (GRM) will be put in place to receive complaints and solve them.</p>
3. <i>Marginalized and Vulnerable Groups</i>	There is a small risk of marginalised <u>vulnerable</u> groups being excluded from project implementation processes and benefits. This is mainly due to traditions related to gender roles and the tribal culture that could exclude certain groups.	<p><u>Inputs and potential concerns of potential project beneficiaries have already been heard. These groups include small-holder farmers, women, youth and ethnic groups</u></p>	<p><u>The project will ensure equal opportunities in participation and decision-making concerning project benefits of women, youth, ethnic groups and other vulnerable groups by using quotas and by agreeing on representation in decision-making processes through the use of ToRs, agreements, etc. The targeting strategy will take</u></p>

			<p>into consideration the different needs of the different groups for each activity and will apply strict criteria for selection of beneficiaries. A Grievance and Redress Mechanism (GRM) will be put in place to receive complaints and solve them.</p>
4. Human Rights	<p>There is a small risk that human rights will not be respected by project partners and sub-contractors. Human rights breaches can arise over denial of access to decision making and project benefits or other human right violations (including sexual harassment and gender based violence).</p>	<p>Treaties not ratified in Libya include:</p> <ul style="list-style-type: none"> - 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. <p>- Ratified or not, there is a potential risk that treaties will not be respected by all project partners and sub-contractors. There is no immediate concern for this to happen but mitigation measures should be in place to avoid this.</p>	<p>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, even if there is no risk for this. The IE will monitor and report on human rights risks and opportunities and adjust activities if necessary if risks occur. Project partners and sub-contractors will be made aware of the treaties and clauses related to these in their contracts.</p> <p>A Grievance and Redress Mechanism (GRM) will be put in place to receive complaints and solve them.</p>
5. Gender Equity and Women's Empowerment	<p>There is a risk of local cultures / traditions blocking women's voices, or exclude them from decision making or, related to that, a risk of -women being negatively affected due to existing sexual harassment or similar.</p> <p>women beneficiaries being negatively treated because of their involvement in the project</p>	<p>Women are not well represented in local government authorities. An initial gender analysis has been included in the annex 2</p>	<p>The project will increase local engagement to work with local leaders and female and male-household's members and sensitize on gender equality and against gender biases. The project will also conduct gender-sensitive and participatory consultations while executing the various activities. These have to include safe spaces/ women-only focus groups to encourage women's meaningful participation in consultations. As needed, the project will create female only spaces for women to receive trainings and services. See principles 2 and 3.</p> <p>The project has specific gender targets and budget allocations. Quotas will be used ensure their participation in planning.</p>

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			processes under component 1 and for equal access to grants.
6. <i>Core Labour Rights</i>	<p>There is a small risk of labour standards not being respected in project-related contracts by service providers with sub-contractors. Potential risks may include: This may include:</p> <ul style="list-style-type: none"> Non-compliance with safety standards Non-compliance for worker rights Limited facilities 	<p>ILO conventions and protocols currently not ratified: Relevant standards not ratified in Libya include:</p> <p>Fundamental: C155 - Occupational Safety and Health Convention, 1981 (No. 155) C187 - Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187)</p> <p>Governance: C129 - Labour Inspection (Agriculture) Convention, 1969 (No. 129)</p> <p>Technical: C184 - Safety and Health in Agriculture Convention, 2001 (No. 184)</p>	<p>The project follows ILO core labor/labour standards. Looking at the conventions and protocols not ratified, the project will be particularly attentive to any health and safety and inspections</p> <p>Any agreement / contract for project works signed will include reference to compliance with ALL ILO labour standards, also not ratified relevant standards in Libya. Also inspections will be carried out for work under the grants and for the set-up of the farmer field schools etc.</p>
7. <i>Indigenous Peoples</i>	<p>There is a small risk of non-integration of ethnic groups' needs, cultural considerations and possible concerns</p> 	<p>Initial consultations with ethnic groups have already been conducted to identify specific needs and possible concerns. 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 the project is not targeting specifically (the district is targeted but not the town).</p>	<p>The project recognises the rights of all ethnic groups. Free, Prior, Informed Consent (FPIC) will be applied by 1) mapping all ethnic groups and potential impacts of the project on these groups and 2) involving ethnic groups in planning and decision-making processes, including not going ahead with activities if not agreed by ethnic groups (including having written consent). The engagement of ethnic groups will be monitored.</p>
8. <i>Involuntary Resettlement</i>	<p>There is no risk of involuntary resettlements</p>	<p>It is not foreseen that land other than agriculture land/agriculture land will be targeted under this project.</p>	<p>Resettlement as a result of project activities will be avoided at all time.</p> <p>Owners of private land or people with informal livelihoods that may be affected by the project will need to agree with project interventions before they start. People without land title can be selected as project beneficiaries without risk of losing investment / land.</p>
9. <i>Protection of Natural Habitats</i>	<p>There is no risk of Natural Habitats being negatively impacted by project activities</p>	<p>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.</p> <p>As per UNESCO there is one biosphere reserve (Ashaafean) in the Nafusa mountains in the target</p>	<p>Natural habitats in Marj and Derna districts will be considered in the CCVAs.</p>

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		districts of Nalut and Al jabal al Gharbi. No project interventions will take place in these reserve	
10. Conservation of Biological Diversity	There is a very small risk of biodiversity being negatively impacted by the project activities under component 2.	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 may be impacted by project activities. Before any work on the ground (as part of the grant) can start, it will be checked if any of the above are nesting. If so, works on these locations cannot take place. Otherwise, works should take place during the non-nesting season. This will be part of the geological surveys to be conducted as proposed under principle 12.
11. Climate Change	There is a small risk of increased energy use due to project activities and thus a negligible increase in GHG emissions.	There could be a negligible increase in Libya's GHG emissions due to works on the ground related to the grant packages and livestock practices.	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. The grants will be provided with conditions for avoiding GHG emissions. The exact condition will be agreed upon during inception Trainings on low emissions livestock practices will be included in FFS under component 4 and trainings under component 2 and 3.
12. Pollution Prevention and Resource Efficiency	There is a small risk of inefficient resource use	There could be a small risk that the grant packages will not be used in the most optimum way and water could be exploited in an unsustainable manner. Also, there is a risk that grant packages will increase the use of agriculture inputs (e.g. pesticides, fertilizers, etc.).	The project is designed to efficiently use energy and materials and to avoid any produce of additional waste. Trainings will be provided on avoiding these risks and the use of sustainable agriculture practices, including on resource efficiency and pollution prevention. These will be included in FFS under component 4 and trainings under component 2 and 3. Also, geological surveys will be conducted as part of components 2 and 3.

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			The grants will be provided with conditions for not using environmentally harmful and unsustainable practices / techniques. The exact condition will be agreed upon during inception denvironmentalharmful
13. Public Health	<p>There is a small risk of health risks, which may include:</p> <ul style="list-style-type: none"> - Security incidents - Vector borne and communicable diseases - Health and safety incidents - Theft and/or stolen items - Also, Covid-19 transmission <p>COVID-19 remains a risk for the project implementation and could cause serious delays. The total cases in Libya stands at 506,775³⁷, but the latest trend shows a sharp decline in the number of new cases. On the other hand, the project activities themselves carry the risk of aggravating the spread of COVID-19 among communities as a result of project activities that involve mobilization (e.g. trainings). Otherwise, health risks are limited</p>	<p>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 (see above). However, there is a small risk of beneficiaries attracting diseases during works related to the grants. -However,</p>	<p>Measures to reduce the potential impact of COVID-19 (and other emerging health risks) situationonsituation on project activities will be further assessedproposedassessed as proposed under section III.B (financial and project/programme risk management)</p> <p>These may include flexible approach to having some activities 'online' and mitigationapplyingmitigation applying health and safety measures to keep people involved in the project safe. Mitigation measures regarding protecting public health from spreading infections will also be incorporated into the project's ESCMP.</p> <p>Any increase of the use of pesticides as part of project activities will be avoided</p> <p>ILO health and safety standards will be applied</p>
14. Physical and Cultural Heritage	<p>There is no risk of project activities negatively impacting heritage sites</p>	<p>As per UNESCO there are 5 cultural heritage sites in Libya</p> <ul style="list-style-type: none"> • Archaeological Site of Cyrene (1982) • Archaeological Site of Leptis Magna (1982) • Archaeological Site of Sabratha (1982) • Old Town of Ghadames (1988) • Rock-Art Sites of Tadrart Acacus (1991) 	

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³⁷Worldometres (2022). COVID-19 cases: Libya. <https://www.worldometers.info/coronavirus/country/libya/> [Last accessed = 31/08/2022].

		<p>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.</p> 	
15. <i>Lands and Soil Conservation</i>	<p>There is no risk of project activities negatively impacting landsimpacting lands and soils</p>	<p>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 in the country</p>	<p>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.</p>

PART III: IMPLEMENTATION ARRANGEMENTS

A. Arrangements for project implementation

123.146. The following arrangements for project implementation have been agreed upon with the AF DA (Ministry of Environment) and the Execution Partner (UNOPS) in Libya

Figure 19 Project Organigram (simplified)

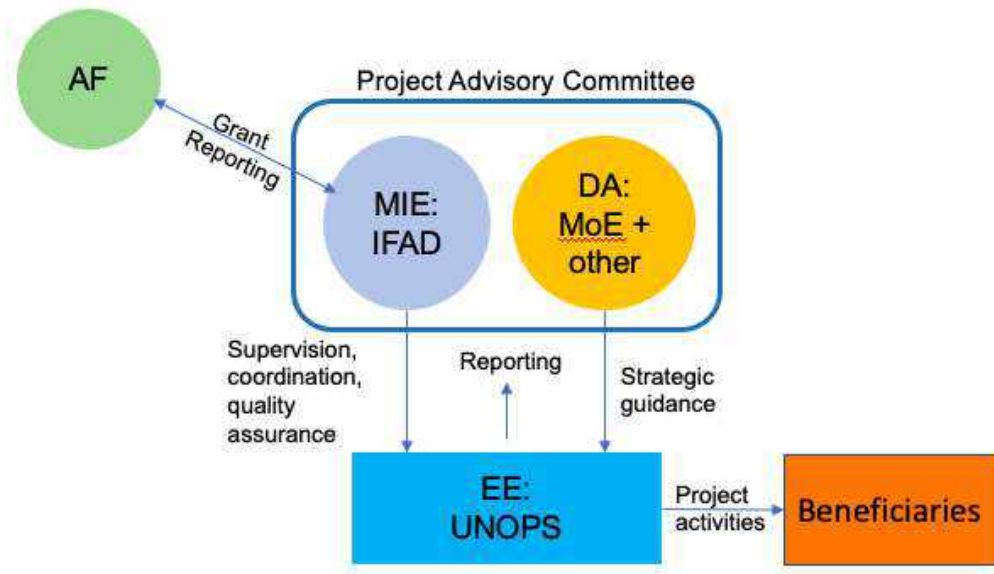


Table 303130 Key project stakeholders and roles and responsibilities

Stakeholder	Roles and responsibilities
IFAD	Multilateral Implementing Entity (MIE) <ul style="list-style-type: none"> - Received the grant / fund from the AF - Project supervision / oversight - Contracting of executing entity (UNOPS) - Quality assurance, incl. ensuring project compliance with AF and IFAD policies and reporting / M&E requirements, incl. safeguarding system (AF Environmental and Social Policy (ESP) and Gender Policy (GP) and IFAD SECAP) - Co-chair of the Project Advisory Committee (PAC)
Ministry of Environment	Adaptation Fund Designated Authority (DA) <ul style="list-style-type: none"> - Chair of the Project Advisory Committee (PAC) - Strategic guidance to the execution entity (i.e., alignment with priorities and laws)
UNOPS	Executing Entity: <ul style="list-style-type: none"> - Execute project activities (i.e., work with project beneficiaries) - Report to IFAD and the PAC - Member of Member of the PAC and involved in decision-making process (especially concerning field operations and project execution) - Gender responsiveness
Project Advisory Committee (PAC)	<ul style="list-style-type: none"> - Definition of the project strategy - Supervision on smooth implementation of the project from start to completion, including ensuring alignment with the agreed upon timetable and compliance with National plans and laws - Validate deliverables/ outputs - Provide technical expertise and coordination - Conduct regular meetings

Figure 1 and Table 1 above show in a simplified way how the project will be managed / implemented, including the key stakeholders' main roles and responsibilities.

424.147. As IFAD is the Multilateral Implementing Entity (MIE) of the project, IFAD will be responsible for the oversight / supervision of the project, including reporting to the AF, and contracting of the execution entity (UNOPS) and coordination with the Designated Authority of the project. IFAD will ensure the project complies with AF and IFAD policies and reporting / M&E requirements, incl. safeguarding systems (i.e. AF ESP and GP and IFAD SECAP). IFAD will be the co-chair of the PAC.

425.148. The Ministry of Environment is the Designated Authority of the AF. The Ministry will chair the PAC. It will also provide strategic guidance to the execution entity to ensure the project aligns with the agreed upon timetable and compliance with the National laws and plans.

426.149. UNOPS will be the Executing Entity of the project. It will be responsible for executing all project activities. It will therefore work with the project beneficiaries. UNOPS will take part in the PAC and report to IFAD and the DA in line with AF and IFAD reporting requirements. As the operational arm of the UN system, UNOPS is mandated to expand partners' implementation capacity across peace and security, humanitarian, and development efforts. Through its project services — including infrastructure, procurement, project management, human resources, and financial management — UNOPS supports governments, the United Nations, and other partners in achieving national development goals, and local objectives for people and countries. Moreover, UNOPS has both: i) a consolidated field presence in Libya, an office based in Tripoli, and prior experience in implementing projects across the entire Libyan territory working with national and local authorities; ii) sound experience in managing and implementing agriculture projects in remote, rural areas, also in partnership with IFAD. To name the most recent experiences:

- a. Libya - The Solidarity Bridge project (\$13 million, 2020-2022, funded by the Italian Ministry of Foreign Affairs and International Cooperation), where UNOPS is supporting 20 Libyan municipalities to fight the COVID-19 pandemic by strengthening municipalities' hospitalisation/hospitalization capacity of COVID+ patients; fulfilling municipalities needs for medical equipment, ambulances, waste management trucks; improving municipalities' healthcare systems capacity of surgery, emergency, resuscitation and

laboratory services. This is achieved through procurement of +250 medical machineries, +10 ambulances, medical equipment and general medicines, trucks for medical waste collection.

- b. Libya - Financial Audit Review of the Central Bank of Libya (CBL) in Tripoli and the Central Bank Branch in Beyda (\$ 4,2 million, 2019-2021, funded by the Government of the State of Libya): Following Prime Minister Faiez Serraj's request to the Security Council for support on a financial audit review of the CBL in Tripoli and the branch in Bayda on 10 July 2018, the UN mandated the United Nations Support Mission in Libya (UNSMIL) to support the requested Financial Review process of the banking system in Libya. UNSMIL requested UNOPS' support to carry out the procurement of the services for the Financial Audit Review of the two CBL and to manage the services contract.
- c. Libya - Urban solid waste management for the city of Tripoli (\$ 2,3 million, 2017-2023, funded by Italian Agency for Development Cooperation (AICS)): The project aims to support Libyan authorities in improving the hygienic and environmental conditions of Tripoli's population through a more efficient solid waste management system. UNOPS has facilitated the procurement of equipment (containers and vehicles) for waste collection and transportation, and also enhanced the planning capacities of local authorities in managing solid waste. UNOPS provides Libyan authorities with technical support to launch an international call for tenders for a new landfill and a waste treatment plant, compliant with international standards.
- d. Guinea - Support Project for Farming, Resilience and Markets in Upper and Middle Guinea (AgriFarm) (\$12,8 million, 2019-2024, funded by IFAD): UNOPS supported the rehabilitation and construction of 1,584 hectares of irrigated land at 9 sites in the Middle Guinea regions (Labé, Boké, and Mamou), as well as the acquisition of vehicles to strengthen the capacity of the Ministry of Agriculture and family farms through training, advisory support, and the High Labor Intensity Public Works (HLIW) approach.
- e. Niger - Support for the development and implementation of the Compact for Sustainable Environment and Water in Niger (\$15,6 million, 2017-2023, funded by the MCC): Irrigation and Market Access Project, which aims to increase rural incomes through improved agricultural productivity and increased sales resulting from modernized irrigated agriculture and improved access to inputs and markets (road rehabilitation, development of hydro-agricultural facilities, management services and market facilitation, policy reforms).

Thus, UNOPS is well placed to execute all activities. Lastly, as the Executing Entity, UNOPS will have the following internal governance structure:

- f. UNOPS Decision-making role - **UNOPS Project Executive**, who will represent UNOPS within the PAC and be accountable for the project accomplishment in front of the MIE and the DA during the entire project lifespan. This role will be covered by the UNOPS Country Manager for North Africa. The Project Executive will assign a Project Manager to oversee the implementation of the Project and deliver the outputs determined by the PAC. The Project Executive will delegate day-to-day implementation to the UNOPS Project Manager, perform quality assurance of all activities, be regularly involved in all planning and implementation steps to provide direction in accordance with strategic guidance received from the PAC, decide, and collaborate with the project team.
- g. UNOPS Management role - **UNOPS Project Manager**, who will be in charge of guiding the team to implement the activities within the agreed scope, budget and time. The Project Manager is responsible for the quality assurance of the project and for ensuring adherence to the project objectives and the agreed work plan. The Project Manager follows up on the implementation of the project with the support of the Project Team.
- h. UNOPS Delivery role - **UNOPS Project Team and suppliers**, who will be delivering the outputs/activities assigned to them by the UNOPS Project Manager. This will include performing administrative and procurement ~~functions, and~~functions and taking care of logistics arrangements to ensure proper outreach of relevant stakeholders and activities performance in target districts. s

427-150. The Project Advisory Committee will guide the Executing Entity on the smooth implementation of the project from start to completion, including ensuring alignment with the agreed upon timetable and compliance with National plans and laws. The PAC may also provide technical expertise / inputs, when required. The PAC will consist of the members shown in Table 2 below. The target percentage of women is 30. Representatives of the target districts will include women councilors.

Table 313234 Members of the PAC

Project Advisory Committee (PAC)		
Stakeholders		
Ministry of Environment	Chair (1)	
Ministry of Agriculture, Livestock and Marine Resources	Member (1)	
Ministry of Water Resources	Member (1)	
Ministry of Finance/International Cooperation	Member (1)	
Women representative from ministry and / or NGO	Member (2)	
Representatives of target districts	Zwara	Member (2, of which 1 women)
	Azzawya	Member (2, of which 1 women)
	Nalut	Member (2, of which 1 women)
	Al jabal al Gharbi	Member (2, of which 1 women)
IFAD	Co-chair (1)	
UNOPS	Member (1)	
Technical experts when required	By invitation	
Civil society	By invitation	

428-151. Legal and financial arrangements

IFAD will contract the Project Execution Entity (UNOPS) through an **UN to UN agreement**. Overheads for UNOPS will be deducted from the 9.5 percent execution fee. This means no double overheads are calculated. The financial proposal for this project has already been cleared by IFAD and UNOPS internally.

429-152. Roles and responsibilities for environmental and social risks management / AF ESP and GP compliance and SECAP.

IFAD will be responsible for the environmental and social risks management of the project, including implementation of the Project Environmental, Social and Climate Risks Management Plan (ESCMP). An IFAD expert on compliance with the AF ESP and GP and IFAD SECAP will be part of the IFAD project team (covered under the 8.5 % MIE fee). This expert will also supervise UNOPS on the implementation of the Project ESCMP. IFAD monitoring project staff will also require having expertise on environmental and social risk management and be familiar with the AF safeguarding system.

430-153. The project will actively support the participation of women, youth and any other vulnerable or marginalized groups as important stakeholders and will guarantee the inclusion of their needs, concerns and abilities in project planning, implementation and monitoring and evaluation. Women representatives (from the ministry and district councilors) will be members of the PAC. All project-related Terms of Reference (ToR) and contracts will include clauses stating contractors will need to comply to the AF ESP, highlighting all relevant principles, especially principle 1 (law), 4 (human rights), 5 (gender), 6 and 13 (labour and safety), 8 (involuntary resettlement, and to the AF GP.

431-154. UNOPS compliance with AF ESP and GP

UNOPS has mandatory Health & Safety and Social and Environment (HSSE) Management regulations in place that it applies to all activities and projects, including activities that UNOPS assigns to contractors. This is reflected in the UNOPS Executive Office Directive on Occupational Health & Safety and Social & Environmental Management, which were promulgated by the UNOPS Executive Director in November 2021, for the purpose of affirming UNOPS's commitment to occupational health & safety (HS) and social & environment (SE) management, and to set out the principles UNOPS shall follow in this regard. To underline this Directive, the Executive Office Instructions on Health & Safety and Social & Environmental Management (HSSE) were approved in November 2021, which describe the mandatory processes and performance requirements for the implementation of HSSE management within UNOPS.

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~~133.~~^{155.} ~~Specifically~~^{Specifically}, for project implementation this means that the Project Manager has the final responsibility to ensure compliance with HSSE standards and the IFAD ESCMP. Each project team has a HSSE focal point who is trained to identify, mitigate and report any incidents. Moreover, the Project Manager and Team are continuously assisted and accompanied by the HQ HSSE Team, should any issues arise.

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~~134.~~^{156.} For any infrastructure components, project team engineers are responsible for identifying HSSE risks on construction sites. For procurement components, the Sustainable Procurement Framework provides additional guidance on how to include sustainability considerations into the process. Sustainable Procurement (SP) is defined as "practices that integrate requirements, specifications and criteria that are compatible and in ~~favour~~^{favor} of the protection of the environment, of social progress and in support of economic development, namely by seeking resource efficiency, improving the quality of products and services, and ultimately optimizing costs"³⁸. UNOPS is generally considered a leading organization in SP within the UN, and effective sustainable procurement is integrated throughout the complete procurement cycle. UNOPS project teams that carry out procurement processes are primarily responsible and accountable, through their respective Procurement Authority, for the implementation of procurement processes in compliance with the SP Framework.

^{157.} Other strategies and directives have been enacted to help support the implementation of HSSE considerations into projects. This includes for example the Gender Responsive Procurement (GRP) which ensures that the procurement process and the selection of goods, services and works have a positive, holistic impact on gender equality and inclusion. Moreover, the UNOPS Gender Equality and Social Inclusion (GESI) Mainstreaming Strategy in Projects 2022-2025 has been released to support GESI mainstreaming activities across UNOPS ~~projects, and~~^{projects and} seek to realize the human rights of all people and to achieve gender equality and the empowerment of women and girls.

~~135.~~^{158.} Gender-responsive and youth-focused considerations will be ensured through hiring a gender and social inclusion expert for components 1, 2 and 3 (see detailed budget). The terms of reference of the gender and social inclusion experts will include ensuring the target for women and youth beneficiaries are achieved for each activity; creating safe spaces for women consultations; and accommodating needs for women and youth and ensuring their voices are heard. For component 4, the ToRs of the knowledge management expert will also include ensuring the target for women and youth beneficiaries are achieved for each activity; videos and knowledge products to have fair representation of women; and ensuring women are able to attend FFS/trainings. The four components will follow the project's gender and youth approach (see annex 2) and will contribute to the development of the detailed action plan at inception phase that will guide the whole project's gender and youth approach. IFAD will also provide technical backstopping to the project on implementing the gender action plan through the IE fees.

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~~136.~~^{159.} Overall, UNOPS operates in alignment with the United Nations Core values of respect for diversity, integrity and professionalism, which underpin and guide the actions and behaviors of all United Nations personnel. UNOPS continuously strengthens its ability to ensure sustainability, safety, diversity and inclusion throughout the project lifespan, regardless of the service line.

~~137.~~^{160.} Please see Annex 3 for more details on UNOPS guiding frameworks and directives align with the AF ESP Guidance Principles

~~138.~~^{161.} **Adaptive management**

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. When this is required, this will be led by IFAD and the PAC would need to approve the changes.

~~139.~~^{162.} **Launch of the project**

At the launch of the project, IFAD will organize an **inception workshop** inviting members of the PAC, UNOPS and other key stakeholders. The project approach and the proposed outputs and outcomes of the project will be presented and

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³⁸ Sustainable Procurement Statement adopted by the HLCM Procurement Network meeting, Vienna, February 2009, and endorsed by UNOPS.

discussed with the purpose to solicit feedback and inputs in a participatory manner. Comments and feedback will be incorporated in project frameworks and workplans. The Inception Workshop aims to:

- (i) Enhance participants' understanding of the project objectives and activities and take ownership of the project
- (ii) Discuss and confirm the organizational structure of the project, including roles and responsibilities
- (iii) Confirm / agree upon project monitoring framework and workplan
- (iv) Confirm / agree upon project risks management framework
- (v) Discuss and agree upon project knowledge management framework and plan
- (vi) Confirm / agree upon the project Environmental and social Risks Management Plan
- (vii) Agree on the annual work plan for year one.

163. The inception workshop will be ~~organised~~organized within three months after signing the project agreement between the Adaptation Fund and IFAD.

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B. Measures for financial and project risk management

144-164. The table below gives an overview of overall potential project management and financial risks, an assessment of the significance of the pertaining risks in terms of likelihood and impact and outlines measures that have been embedded in the project design in order to manage and/or mitigate these risks.

Table ~~32332~~ overview of financial and management risks and measures to mitigate these

Potential risks	Likelihood (1-5)	Impact (1-5)	Mitigation measures	Indicator to verify
Institutional				
1 Delay of project start-up because critical staff is not in place and / or lengthy contracting process, incl. negotiations with execution entities	3 Med	3 Med	<ul style="list-style-type: none"> - IFAD has critical staff in place at regional / HQ level to start and manage the project, incl. preparing the inception workshop; - UNOPS has been identified as the executing entity and overhead and implementation arrangements have been agreed upon. UNOPS has an office presence in Libya with full time staff on the ground; the Libya office is overseen and supported by the UNOPS regional hub for North and West Africa, which provides quality assurance to all projects in the region. - IFAD commits to organiseorganize the inception workshop within three months of the signed project agreement between IFAD the AF - UNOPS works with Libyan recruitment agencies, such as Committed Foto Good, which specialisesspecialize in identifying and recruiting necessary experts for development and humanitarian aid organisationsorganizations operating in the country. 	<p>Inception workshop organisedorganized within three months of the signed project agreement between IFAD and AF</p> <p>UNOPS will be contractedbe contracted within three months of the signed project agreement between IFAD and AF</p>
2 Loss of government support (at ministerial and / or district level) for the project and activities due to political changes (e.g. elections; other priorities).	1 Low	3 Med	<ul style="list-style-type: none"> - The members of the project Advisory Committee (PAC) have already been agreed upon with the DA. - IFAD and the Ministry of Environment will sign a MoU, which states that the Ministry of Environment will be committed to support the implementation of the project. 	Signed MoU between IFAD and the Ministry of Environment

3 Communities may not adopt activities during or after the AF project, including maintenance	2 Low	3 Med	<ul style="list-style-type: none"> - A strong participatory approach at the community level is used and will be used during project implementation to ensure that activities are implemented in a way that is culturally-sensitive and appropriate, to ensure ownership and support of communities to the realisedrealized interventions in the targeted project areas. - Regularly consult direct beneficiaries to collect their satisfaction feedback, promptly identify their concerns regarding participation in some activities. - Capacity building and training of communities will be undertaken to improve their awareness and understanding of the benefits of the activities, including operation and maintenance 	Community plans in place for project activities maintenance
Financial management and Requisite Institutional Capacity				
4 Complexity of financial management and procurement.	2 Low	2 Low	<ul style="list-style-type: none"> - Financial management arrangements with UNOPS have been agreed upon - Activity specific procurement will be managed by UNOPS, which is the specialisedspecialized procurement agency within the UN system, as agreed through UN to UN agreements (with relevant conditions, incl. evidence of recognisedrecognized procurement policies and procedures and specific terms and conditions for timely disbursement of funds for project activities while at the same time ensure provisions on good financial management, hence minimizing the risk of fund mismanagement or corruption). - UNOPS has already extensive procurement experience in Libya (as shown by the Solidarity Bridge project described above) and has established Long Term Agreements (LTAs) with diversified suppliers that are able to deliver and transport goods all over the country. 	<p>Timely audit reports following international standards</p> <p>Timely evidence of recognisedrecognized procurement policies and procedures provided by Execution Entities</p>
5 Inflation and instability of the national currency leading to budget issues and increased prices for infrastructure delivery	3 Med	3 Med	<ul style="list-style-type: none"> - All budgets will be in US\$ - Early/ preliminary verification of activities costs and potential suppliers to define the activities plan and related financial resources per activity - Include clauses in all contracts, incl. with private sector, that they can't increase the costs after signing a contract 	<p>All budgets in US\$</p> <p>Clauses in all contract, incl. with private sector, that they can't increase the costs after signing the contract</p>
Physical				
6 Political instability and security issues in the target areas inhibits movement and execution of project activities	3 Med	3 Med	<ul style="list-style-type: none"> - One of the selection criteria for the project target districts was safety and limited need for travel - Throughout the implementationthe implementation of the project, UNOPS willUNOPS will continuously coordinate with the UN Department of Safety and Security (UNDSS) and national/ local authorities to reduce security risks to ensure staff safety and continuity of operations, to timely intercept deteriorating security risks and adapt/ re-plan project activities. 	Permanent field staff at project locations

			- In case the target areas are not accessible, IFAD and UNOPS will identify alternative intervention locations and request approval from the Advisory committee and the AF	
Environmental				
7 Poor weather conditions affect implementation of activities	2 Low	1 Low	- IFAD and UNOPS have and will develop work plan in line with sowing season and to avoid work in the hot season, if possible. If unexpected weather patterns occur, the proposed activities and work plan will be reviewed to make practical adaptations.	Work plans in line with sowing season, etc.
8. Covid-19 spread, leading to inaccessibility of target area and / or delays of project activities	3 Med	3 Med	- See also Covid-19 risks response in annex 1 including procedures - IFAD and UNOPS will only let field work proceed if agreed with the UN security unit; safety and potential instability will be monitored continuously. - If needed and possible, activities will proceed online. - If activities cannot be pursued due to Covid-19, alternative strategies and options will be considered	Monitoring of Covid-19 risks response in annex 1, including procedures UN security UN-security unit recommendations

C. Measures for environmental and social risks management

442.165. IFAD's Strategic Framework calls for ensuring that projects and programmes promote the sustainable use of natural resources, build resilience to climate change and are based upon ownership by rural women and men themselves in order to achieve sustainability. The project design was assessed through the social, environmental and climate assessment procedures (SECAP) of IFAD, which are fully aligned with the AF Environmental and Social as well a Gender Policies, as shown in the ESCMP. Following the IFAD SECAP screening and the AF Environmental and social risks screening in annex 1 (ESCMP), the project has been ~~categorised~~[categorized](#) as a category B.

443.166. Part II.K of this proposal summarizes the outcome of the environmental and social risks screening / impacts assessment that has been conducted for this project to comply to the AF ESP and GP and thus the outcome of the categorization (i.e. category B). In Annex 1, all the details of the risks screening, impact assessment, ESCMP, incl. the risks monitoring system and ~~the budget required for managing the ESMP~~ are provided. In Part II.H it shows what consultations have been conducted to identify potential environmental and social risks and impacts, including with key stakeholders. Part III.A describes the allocated roles and responsibilities for environmental, social and climate risk management, including to implement the project ESCMP. A designated budget for environmental, social and climate risks management, including the implementation of the ESCMP, has ~~also~~ been included in the M&E ~~budget~~[budget \(see -](#)

444.167. Below table provides an overview of the project requirements to the AF ESP and GP and what has been done to ensure this compliance.

Table ~~333433~~ ESP and GP compliance requirements and how the proposal complies to these requirements

ESP and GP compliance requirements	Project compliance to the AF ESP and GP	Reference / evidence
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Have all potential environmental and social risks been identified for <i>all</i> project/programme activities prior to funding approval?	All potential environmental and social risks (incl. for gender and considering their significance) have been identified for all project/programme activities at the project preparation phase. An ESCMP report (annex 1) is in compliance with the AF ESP and GP and in line with national requirements for conducting ESIA's has been prepared; Outcomes have been consolidated in the proposal	Part II.H Part II.K Annex 1 (ESP annex) Annex 2 GP annex)
Has the environmental and social assessment been completed before the project/programme proposal submission to the Adaptation Fund, and its findings included in the proposal document?	In compliance with the AF ESP and GP and national requirements for conducting ESIA's, environmental and social assessments have been completed.	
Has an ESCMP been developed and does this include safeguard measures to be implemented during a project/programme?	A project ESCMP has been developed, including safeguarding measures. The following has been included in the ESCMP: <ul style="list-style-type: none"> - Allocated roles and responsibilities environmental and social risk management / implement of the ESCMP - Opportunities for adaptive management - Arrangements to supervise executing entities for implementation of ESCMP - Budget provision to manage environmental and social risks / implement of the ESCMP - Measures to avoid, minimize, or mitigate potential risks - Risks monitoring system / indicators - Grievance mechanism 	Part III.A (roles and responsibilities for env. and social risk management) Annex 1 (ESP annex)
Will a grievance mechanism be put in place and how will it be made widely known to identified and potentially affected parties	A project grievance mechanism will be put in place, as described in the ESCMP. It will be made widely known to identified and potentially affected parties through community mobilisers , posters and online content	Annex 1 (ESP annex)

168. [Adaptive management: due to the dynamic nature of the context in Libya, the ESMP takes an adaptive management approach. This means that, 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. When this is required, this will be led by IFAD and the PAC would need to approve the changes.](#)

169. [Also, the ESCMP allows for abiding by any new laws, amendment to current laws, regulations or technical standards that may emerge in Libya. Any new concerns around access and equity that may come up especially from vulnerable communities \(including women, youth, disabled people and ethnic groups\) during implementation will be accounted for and further consultations will be conducted to discuss solutions to address them. The ESCMP allows for adapting training activities into online/less crowded sessions in case any health concerns \(e.g. COVID-19 like\) emerge. Also, while the project avoids areas of important biodiversity abundance, the ESCMP allows for monitoring the before mentioned endangered species in case needed. In addition, Already planned mitigation measures will also be evaluated to assess their effectiveness and then enhanced/changed accordingly. Mitigation measures and any updates with regards to environmental and social risks will be reported to the AF through the annual PPR.](#)

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D. Arrangements for monitoring, reporting and evaluation

445-170. M & E Framework and plan

Monitoring and Evaluation (M & E) arrangements for this project will be in compliance with the AF M&E guidelines and ESP and GP and with IFAD and UNOPS M & E policies and guidelines. This means, as a minimum, the following will be monitored and evaluated: project Milestones, Financial data, Procurement data, Risks assessment, ESP Compliance, GP Compliance, Project indicators, Lessons learned, project Results. The

M & E of progress in achieving project results will be based on targets and indicators (also for gender) established in the Project Results Framework (see Part III.E).

446.171. The annual project performance reports (PPRs) will include a section on the status of implementation of any environmental and social management plan, including those measures required to avoid, minimize, or mitigate environmental and social risks. The reports shall also include, if necessary, a description of any corrective actions that are deemed necessary. The terminal evaluation report will include an evaluation of the project's performance with respect to environmental and social risks.

447.172. IFAD will ensure timely and high-quality M & E by keeping oversight of the process by providing guidance to UNOPS and national government partners through full briefing of M & E requirements. Where possible, the M & E process will be participatory, involving key stakeholders at national, municipal and communities. The implementation of project activities will be monitored by the IFAD HQ with dedicated monitoring staff, which will require having expertise of M & E compliance to the AF ESP and GP. Audits of financial statements will follow acceptable international standards. The M&E plan will be implemented as proposed in the table below.

Table 343534 M & E plan

Type of M&E Activities	Responsible Parties	Time Frame	Reporting
Inception Workshop and Report	IFAD Project manager Coordinated with: UNOPS and Advisory committee	Workshop: within first three months of signing between AF and IFAD Report: within one month after inception workshop	Inception Report, including 1 st year workplan, monitoring framework and plan; project risks management framework and plan; environmental and social risks management framework and plan; knowledge management strategy
Periodic status/ progress reports	IFAD Project manager Coordinated with: UNOPS and auditors	Annually	Annual Report, mid-term, final
Compliance with ESP and GP		Annual, as well as upon receipt of complaints, grievances or queries	Annual Report, mid-term, final
Audits		As per AF timeline	Audit Reports
Terminal project performance report		No later than project completion	Terminal project performance report
Final Evaluation	IFAD Project manager Coordinated with: UNOPS and External consultants	No later than project completion	Final Evaluation Report
Community consultations / workshops / trainings, etc.	UNOPS	Within one week after each event	Documentation
Visits to field sites	IFAD Project manager Coordinated with: UNOPS	At least every year	Field visit Report
Video with 'before' and 'after' the project	IFAD Project manager Coordinated with: UNOPS and Advisory committee	Video one: before start of concrete interventions Video two: after completion concrete interventions	Video compilation of project results

173. For related data, targets and indicators, please see the project proposal results framework (Part III.E). The M&E budget is below:

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Table 3536 M & E budget

M&E							
Type of M & E Activity	Activity	Entity	Total	1	2	3	4
Measurements of means of verification (baseline assessment and M & E plans) as part of inception	Inception Workshop	UNOPS	20 000	20 000			
	Reports preparation and EE compliance to AF ESP and GP	UNOPS	30 000	30 000			
Direct Project Monitoring and Quality Assurance including annual progress and financial reporting, project revisions, technical assistance and ESP and GP compliance (from execution fee M & E and safeguards)		UNOPS	126 000	36 000	36 000	36 000	18 000
Overall project monitoring and evaluation (from cycle management fee)		IFAD	35 000	5 000	10 000	10 000	10 000
Audits	In line with acceptable international standards	IFAD/ UNOPS	-				
Final / Terminal external evaluation		Independent	25 000				25 000
Total			236 000	91 000	46 000	46 000	53 000

448,174. M&E Activities**a) Inception workshop and Project advisory committee meetings**

The first Project advisory committee meeting will be organized in conjunction with the project Inception Workshop. During the first Project advisory committee meeting, the following will be reviewed: the project organizational structure, includes roles and responsibilities, the project monitoring framework and workplan, the project risks management framework, the project knowledge management framework and plan, the project Environmental and social Risks Management Plan and annual work plan for year one. The Project advisory committee will meet every six months, and ad-hoc meetings will be held as needed.

b) Periodic project monitoring and terminal project performance reporting

Annual project performance monitoring will be conducted using the AF PPRs template. This will include monitoring of project: Milestones; Financial data; Procurement data; Risks assessment; ESP Compliance; GP Compliance; Project indicators; Lessons learned; Project Results

c) ESCMP implementation monitoring

The implementation of the project Environment, Social and Climate Management Framework / Plan (ESMF/P) as described in annex 1 will be monitored. The ESMF/P includes monitoring indicators and responsibilities for identified potential risks, impacts and mitigation measures. A dedicated budget for monitoring the compliance to the AF ESP and GP has been included in Part III.G

d) Final Evaluation

No later than project completion, a final evaluation will be conducted following AF and IFAD policies and guidelines. It will be conducted by an independent team of international and national experts in consultation with executing entities and national stakeholders as a participatory process.

e) Community Level Participatory Monitoring

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Part of the detailed project monitoring framework and plan will be identified through activities to involve Project Execution Entities and beneficiaries at the community level in monitoring activities. This would include community-level monitoring of Gender and Youth responsiveness and impact of the project.

f) Periodic Project Site Visits

Members of the Project advisory committee and representatives of IFAD will visit project sites and hold meetings with the local stakeholders to monitor the implementation of project activities.

g) Video with 'before' and 'after' the project

Also, as part of the knowledge management strategy and plan, a video recording project results will be produced using 'birds' eye' views and recording of project activities and beneficiaries

449.175. **Reporting**

a) Inception Workshop and Report

Within one month after the inception workshop, an Inception Report will be submitted to the AF and project steering committees' members. Reports will include: (i) agreement on organizational structure of the project, including roles and responsibilities; (ii) monitoring framework and workplan; (iii) project risks management framework; (iv) knowledge management framework and plan; (v) Environmental and social Risks Management Plan; (vi) year one work plan.

b) Annual project performance reports, including final report

The Annual project performance reports, which will be submitted to the AF, will include:

- (1) Milestones
- (2) Financial data
- (3) Procurement data
- (4) Risks assessment
- (5) ESP Compliance
- (6) GP Compliance
- (7) Project indicators
- (8) Lessons learned
- (9) Project Results to measure targets against baseline

c) Community Level Meeting /Workshop / Training Reports and site visit

Reports on all community-level meetings, workshops, and training will be prepared by Project Execution Entities within one week of the event. Photo documented site visit reports, also to monitor women participation, will also be prepared by Project Execution Entities.

d) Financial Audits

A professional, certified and independent organization will review the financial ~~sa~~statements and adherence to required standards and regulations.

e) Final Evaluation Report

Independent consultants will prepare the Final Evaluation report in line with AF and IFD evaluation policies and guidelines and norms and standards for evaluation in the UN system.

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E. Project proposal results framework

Table 363735 Project results framework with indicators, their baseline, targets, risks & assumptions and verification means

Expected Result	Indicators	Baseline data	Targets	Means of verification (where and how)	Assumptions (external factors or risks)	Frequency	Responsibility
Component 1							
Outcome 1 Increased awareness of public institutional staff, farmers / pastoralists and women groups of relevant climate change hazard risks and adaptation options and priorities for the agriculture / livestock sector and improved mainstreaming of this information into planning processed In line with AF outcome 1	Drought, flood and salinization hazard risks information and adaptation options for the agriculture / livestock sector generated and shared with: <ul style="list-style-type: none"> - Institutional staff at national level - Institutional staff at district level - Farmers / Pastoralists - % Women - Farmers / Pastoralist indirect 	Ineffective sharing 0 0 0 0	Effective sharing 50 130 (10 / district) 390 (30 / district) 30 % TBD	Documentation of risk and adaptation information (published online and shared in person) Sharing of information in 13 districts with target beneficiaries before end of the project	Required to agree on how to assess effectiveness of sharing info	Baseline, mid-term and end	IFAD in coordination with UNOPS
Output 1.1. Climate change vulnerability and hazards risks assessments conducted for the agriculture/ livestock sector in Libya , specifically Libya , specifically targeting districts in the north-west (5), north-east (4) and south (4) with the participation of vulnerable groups and women	Number of climate change vulnerability and hazards risks assessments completed for the agriculture/ livestock sector at regional (i.e. district) level	0	13 (1 / district)	Completed (i.e. documented / published) climate change vulnerability and hazards risks assessments	Ensure relevant risks and adaptation options are identified and prioritized, also for vulnerable groups, women and youth	Baseline, mid-term and end	IFAD in coordination with UNOPS
Output 1.2 National climate resilient agriculture / livestock strategy developed in which climate change hazard risks and adaptation options are options are identified, prioritized and promoted at national and district level, with specific attention to the needs of vulnerable groups and women	Number of national climate resilient agriculture / livestock strategies developed	0	1 (at national level)	Completed (i.e. documented / published) national climate resilient agriculture / livestock strategy	Ensure relevant risks and adaptation options are identified and prioritized, also for vulnerable groups, women and youth	Baseline, mid-term and end	IFAD in coordination with UNOPS
Component 2							
Outcome 2 Increased climate change resilience and sustainability of agriculture livelihoods, including strengthened sources of income and ownership of	implementing drought implementing / applying appropriate adaptation responses such as drought/heat resilient crops and salt resistant crops	0 0	80 30	Change in crops for each targeted household	Baseline survey required at inception phase	Baseline, mid-term and end	IFAD in coordination with UNOPS

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<p>adaptation measures, benefitting farmers and women in four (4) districts in the northwest of Libya</p> <p>In line with AF outcome 3 and 6</p>	<p>- % women-headed households Household</p> <p>Increased income (%) vis-à-vis baseline from alternative agriculture crops (from households with increased income</p> <p>- % women-headed households Household</p> <p>IFAD: Number of households reporting adoption of environmentally sustainable and climate-resilient technologies and practices</p>	<p>0</p> <p>0</p> <p>0</p>	<p>5-10</p> <p>30</p> <p>4720 HH</p>	<p>Increased income versus baseline income</p>	<p>Ensure targeting female-headed households</p>		<p>with UNOPS</p>
<p>Output 2.1. Climate change resilient crops (i.e., drought/heat resilient and salt resistant crop varieties) implemented implemented in four (4) districts in the northwest of Libya, including through around 5900 grant packages to farmer, women and youth groups</p>	<p>Number of grant packages distributed</p> <p>Core Indicator 6.1.2: Increased income, or avoided decrease in income - Number and % of target households with increased income, or avoided decrease in income</p> <p>Income level in USD</p> <p>IFAD: Number of hectares of farmland under water-related infrastructure constructed/rehabilitated</p>	<p>0</p> <p>0</p> <p>0</p> <p>Baseline</p> <p>0</p>	<p>5900</p> <p>4720 households</p> <p>80 %</p> <p>Actual</p> <p>22000 (assuming approx. 4.7 ha / HH and 80 % success rate) IFAD</p>	<p>Calculate number / % of targeted households with increased income versus baseline income</p> <p>Calculate ha of farmland farmland with new crops</p>	<p>Baseline survey required at inception phase</p> <p>Ensure targeting female-headed households</p>	<p>Baseline, mid-term and end</p>	<p>IFAD in geordan tion coordination with UNOPS</p>
<p>Output 2.2 Relevant public Institutional staff, farmers and women trained to implement, maintain and sustain climate change resilient crops and to support the strengthening or creation of community organizations and community development plans</p>	<p>Number of people trained:</p> <ul style="list-style-type: none"> - Public institution <ul style="list-style-type: none"> o % women - Farmers <ul style="list-style-type: none"> o % women <p>Number of relevant organizations (i.e., farmer, water user, women) strengthened and or created</p> <p>Number of community development and / or maintenance plans completed</p>	<p>0</p> <p>0</p> <p>0</p> <p>0</p> <p>0</p> <p>0</p>	<p>60</p> <p>30</p> <p>5900</p> <p>30</p> <p>3 (1 / target district)</p> <p>3 (1 / target district)</p>	<p>Count people trained</p> <p>Count relevant organizations supported</p> <p>Count community development and / or maintenance plans developed</p>	<p>Plans should accurately accurately target intervention sites and support maintenance of interventions</p>	<p>Baseline, mid-term and end</p>	<p>IFAD in geordan tion coordination with UNOPS</p>
<p>Component 3</p>							
<p>Outcome 3 Increased climate change resilience and sustainability of pastoralist livelihoods, including increased natural asset / resource production</p>	<p>% of target population (households) implementing applying appropriate adaptation responses to increase actions to increase increase the climate change</p>	<p>0</p> <p>0</p>	<p>80</p> <p>30 %</p>	<p>Change in effectiveness of natural resource improvement</p>	<p>Baseline survey required at inception phase</p>	<p>Baseline, mid-term and end</p>	<p>IFAD in geordan tion coordination</p>

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<p>system resilience and ownership of adaptation measures, benefitting pastoralist and women in two (2) districts in the northwest of Libya</p> <p>In line with AF outcome 3 and 5</p>	<p>resilience of natural asset / resource production systems</p> <ul style="list-style-type: none"> - % women-headed householdsHousehold <p>Effectiveness of natural asset / resource production system improvement under climate change and variability-induced stress</p> <p>IFAD: Number of households reporting adoption of environmentally sustainable and climate-resilient technologies and practices</p> <p>IFAD: Number of groups supported to sustainably manage natural resources and climate-related risks</p>	<p>Ineffective</p> <p>0</p> <p>0</p>	<p>Effective</p> <p>2880 HH</p> <p>2880 HH</p>		<p>Required to agree on how to assess effectiveness of improving land / water ecosystem production services</p>		<p>with UNOPS</p>
<p>Output 3.1. Climate change resilient natural asset / resource (i.e. rangeland management) production system protection / rehabilitation improvements implemented in two (2) districts in the northwest of Libya, including through around 3600 grant packages to pastoralists and women groups</p>	<p>Number of grant packages distributed - % women</p> <p>Core Indicator 5.1: Natural Assets protected or rehabilitated - Ha of natural assets / resources (rangelands) protected or rehabilitated</p> <p>Effectiveness of natural assets / resources (rangelands) protection / rehabilitation</p> <p>IFAD: Number of hectares of land brought under climate-resilient management</p>	<p>0</p> <p>0</p> <p>Ineffective</p> <p>0</p>	<p>3600</p> <p>13500 (assuming approx. 4.7 ha / HH and 80 % success rate)</p> <p>TBD</p> <p>Effective</p> <p>13500 (assuming approx. 4.7 ha / HH and 80 % success rate)TBD</p>	<p>Calculate ha of natural assets / resources (rangelands) protected or rehabilitated</p> <p>Change in effectiveness of natural resource protection / rehabilitation</p>	<p>Baseline survey required at inception phase</p> <p>Required to agree on how to assess effectiveness of natural assets / resources (rangelands) protection / rehabilitation</p>	<p>Baseline, mid-term and end</p>	<p>IFAD in coordination with UNOPS</p>
<p>Output 3.2 Relevant public Institutional staff, pastoralists and women trained to implement, maintain and sustain climate change resilient natural asset / resource (i.e. rangeland</p>	<p>Number of people trained:</p> <ul style="list-style-type: none"> - Public institution <ul style="list-style-type: none"> o % women - Pastoralists <ul style="list-style-type: none"> o % women 	<p>0</p> <p>0</p> <p>0</p> <p>0</p> <p>0</p>	<p>40</p> <p>30</p> <p>3600</p> <p>30</p> <p>2 (1 / target district)</p>	<p>Count people trained</p> <p>Count relevant organizations supported</p>	<p>Plans should accurately target intervention sites and support maintenance of interventions</p>	<p>Baseline, mid-term and end</p>	<p>IFAD in coordination with UNOPS</p>

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management) production system improvements and to support the strengthening or creation of community organizations and community development plans	Number of relevant organizations (i.e., pastoralist, water user, women) strengthened and or created Number of community development and / or maintenance plans completed	0	2 (1 / target district)	Count community development and / or maintenance plans developed			
Component 4							
Outcome 4 Climate change resilient practices and products piloted in the four (4) districts in the northwest of Libya are encouraged / supported for replication in one (1) district in the northwest, 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	No. of innovative adaptation practices in food security encouraged at national and district level	Not encouraged	Encouraged / accelerated	Sharing of relevant knowledge and learning in 9 other districts through workshops, guidelines, farmer field schools, a ToT programme and field visits to demo plots.	Agree on mechanism to share knowledge / learning in 9 districts	Baseline, mid-term and end	IFAD in coordination with UNOPS
Output 4.1. Mechanism implemented 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 one (1) district in the northwest, four (4) districts in the northeast and four (4) districts in south and to vulnerable groups and women, including through workshops, guidelines, farmer field schools, a ToT programme and field visits to demo plots.	Number of key findings on effective, efficient adaptation practices and products generated and shared - Number of guidelines - Number of farmer field schools - Number of ToT - Number of visits to demo plots - Participants o % women Effectiveness of sharing	0 0 0 0 0 0 0	1 9 9 9 270 30 Effective	Count of guidelines, farmer field schools, ToT and visits of demo plots Measure effectiveness of knowledge sharing	Baseline survey required at inception phase Survey to include questions to measure the effectiveness of sharing knowledge / learning	Baseline, mid-term and end	IFAD in coordination with UNOPS

Table 373836 Indicative Core Indicator Targets

Core indicator	Targets		Comment
	Direct	Indirect	
Number of beneficiaries Component 1	T: 570 W: 30 %	T: 6,8 million W: 30 %	
Number of beneficiaries Component 2	T: 35 400 (5 900 HH) W: 30 %	1 340 019	
Number of beneficiaries Component 3	T: 21 600 (3 600 HH) W: 30 %		
Number of beneficiaries Component 4	T: 270 W: 30 %	T: TBD W: 30 %	
AF Core Indicator: No. of beneficiaries IFAD: Number of people with greater resilience	T: 57 840 W: > 30 %	1 340 019	
AF Core Indicator 5.1: Natural Assets protected or rehabilitated - Ha of natural assets / resources (rangelands) protected or rehabilitated IFAD: Number of hectares of land brought under climate-resilient management	TBD 13500 (assuming approx. 4.7 ha / HH and 80 % success rate)		
AF Core Indicator 6.1.2: Increased income, or avoided decrease in income - Number and % of target households with increased income, or avoided decrease in income IFAD: Number of people with increased income	4720 households / 80 % of target households 5-10 % increase of income		

*Methodology to apply: <https://www.adaptation-fund.org/wp-content/uploads/2016/04/AF-Core-Indicator-Methodologies.pdf>

F. Project alignment with the Adaptation Fund results framework

Table 383937 Project alignment with the Adaptation Fund results framework

Project Outcome(s)	Project Outcome Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
Impact Increased resiliency in the agriculture / livestock sector to climate variability and change	Core Indicator: No. of beneficiaries, incl. % farmers, pastoralists, women, with increased resilience indicated per target district and at national level	Impact: Increased resiliency at the community, national, and regional levels to climate variability and change	Core Indicator: No. of beneficiaries	
Outcome 1 Increased awareness of public institutional staff, farmers / pastoralists and women groups of relevant climate change hazard risks and adaptation options and priorities for the agriculture / livestock sector and improved mainstreaming of this information into planning processed	Drought, flood and salinization hazard risks information and adaptation options for the agriculture / livestock sector generated and shared with: <ul style="list-style-type: none"> - Institutional staff at national level - Institutional staff at district level - Farmers / Pastoralists - % Women - Farmers / Pastoralist indirect 	Outcome 1: Reduced exposure to climate-related hazards and threats	Indicator 1: Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis	773,500

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<p>Outcome 2 Increased climate change resilience and sustainability of agriculture livelihoods, including strengthened sources of income and ownership of adaptation measures, benefitting farmers and women in four (4) districts in the northwest of Libya</p>	<p>% of target population (households) <u>implementing drought implementing / applying appropriate adaptation responses such as drought/heat resilient crops and salt resistant crops</u> - % women-headed households Increased income (%) vis-à-vis baseline from alternative agriculture crops (from households with increased income - % women-headed householdsHousehold</p>	<p>Outcome 3: Strengthened awareness and <u>ownership</u> of adaptation and climate risk reduction processes</p>	<p>Indicator 3.1: Increase in application of appropriate adaptation responses <u>Indicator 3.2:</u> <u>Percentage of targeted population applying appropriate adaptation responses</u></p>	<p>4,267,500</p>
<p>Outcome 3 Increased climate change resilience and sustainability of pastoralist livelihoods, including increased natural asset / resource production system resilience and ownership of adaptation measures, benefitting pastoralist and women in two (2) districts in the northwest of Libya</p>	<p>% of target population (households) <u>implementing / applying appropriate adaptation responses to actions to increase/increase</u> the climate change resilience of natural asset / resource production systems - % women-headed householdsHousehold Effectiveness of natural asset / resource production system improvement under climate change and variability-induced stress</p>	<p>Outcome 3: Strengthened awareness and <u>ownership</u> of adaptation and climate risk reduction processes</p>	<p>Indicator 3.1: Increase in application of appropriate adaptation responses <u>Indicator 3.2:</u> <u>Percentage of targeted population applying appropriate adaptation responses</u></p>	<p>2,737,400</p>
<p>Outcome 4 Climate change resilient practices and products piloted in the four (4) districts in the northwest of Libya are encouraged / supported for replication in one (1) district in the northwest, four (4) districts in the northeast and four (4) districts in south through a national – district – community replication mechanism</p>	<p><u>No. of innovative adaptation practices in food security encouraged at national and district level</u></p>	<p>Outcome 8: Support the development and diffusion of innovative adaptation practices, tools and technologies</p>	<p>Indicator 8.1: <u>No. of innovative adaptation practices, tools and technologies accelerated, scaled-up and/or replicatedInnovative adaptation practices are rolled-out, scaled up, encouraged and/or accelerated at regional, national and/or subnational level</u></p>	<p>560,542</p>
<p>Project Output(s)</p>	<p>Project Outputs(s) Indicator(s)</p>	<p>Fund Output</p>	<p>Fund Output Indicator</p>	<p>Grant Amount (USD)</p>
<p>Output 1.1. Climate change vulnerability and hazards risks assessments conducted for the agriculture/</p>	<p>Number of climate change vulnerability and hazards risks assessments completed for the agriculture/ livestock sector at regional (i.e. district) level</p>	<p>Output 1.1 Risk and vulnerability assessments conducted and updated</p>	<p>Indicator 1.1: No. of projects/programmes that conduct and update risk and</p>	<p>633,000</p>

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livestock sector in Libya , specifically Libya , specifically targeting districts in the north-west (5), north-east (4) and south (4) with the participation of vulnerable groups and women			vulnerability assessments	
Output 1.2 National climate resilient agriculture / livestock strategy developed in which climate change hazard risks and adaptation options are options are identified, prioritized and promoted at national and district level, with specific attention to the needs of vulnerable groups and women	Number of national climate resilient agriculture / livestock strategies developed			140,500
Output 2.1. Climate change resilient crops (i.e., drought /heat resilient and salt resistant crop varieties) implemented implemented in four (4) districts in the northwest of Libya, including through around 5900 grant packages to farmer, women and youth groups	Number of grant packages distributed Core Indicator 6.1.2: Increased income, or avoided decrease in income - Number and % of target households with increased income, or avoided decrease in income Income level in USD	Output 6 Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	Core Indicator 6.1.2: Increased income, or avoided decrease in income	3,800,000
Output 2.2 Relevant public Institutional staff, farmers and women trained to implement, maintain and sustain climate change resilient crops and to support the strengthening or creation of community organizations and community development plans	Number of people trained: - Public institution o % women - Farmers o % women Number of relevant organizations (i.e., farmer, water user, women) strengthened and or created Number of community development and / or maintenance plans completed	Output 3.2: Strengthened Strengthen ed capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning	Indicator 3.2.1: No. of technical committees/associations formed to ensure transfer of knowledge Indicator 3.2.2: No. of tools and guidelines developed (thematic, sectoral, institutional) and shared with relevant stakeholders	467,500

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<p>Output 3.1. Climate change resilient natural asset / resource (i.e. rangeland management) production system protection / rehabilitation improvements implemented in two (2) districts in the northwest of Libya, including through around 3600 grant packages to pastoralists, women and youth groups</p>	<p>Number of grantGrant packages distributed - % women</p> <p>Core Indicator 5.1: Natural Assets protected or rehabilitated - Ha of natural assets / resources (rangelands) protected or rehabilitated</p> <p>Effectiveness of natural assets / resources (rangelands) protection / rahabilitationrehabilitation</p>	<p>Output 5: Vulnerable ecosystem services and natural resource assets strengthenedstrengthened in response to climate change impacts, including variability</p>	<p>Core Indicator 5.1: Natural Assets protected or rehabilitated</p>	<p>2,385,600</p>
<p>Output 3.2 Relevant public Institutional staff, pastoralists and women trained to implement, maintain and sustain climate change resilient naturalresilient natural asset / resource (i.e. rangeland management) production system improvements and to support the strengthening or creation of community organizations and community development plans</p>	<p>Number of people trained: - Public institution o % women - Pastoralists o % women</p> <p>Number of relevant organizations (i.e., pastoralist, water user, women) strengthened and or created</p> <p>Number of community development and / or maintenance plans completed</p>	<p>Output 3.2: StrengthenedStrengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning</p>	<p>Indicator 3.2.1: No. of technical committees/associations formed to ensure transfer of knowledge</p> <p>Indicator 3.2.2: No. of tools and guidelines developed (thematic, sectoral, institutional) and shared with relevant stakeholders</p>	<p>351,500</p>
<p>Output 4.1. Mechanism implemented 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 one (1) district in the northwest, four (4) districts in the northeast and four (4) districts in south and to vulnerable groups and women, including through workshops, guidelines, farmer field schools, a ToT programme and field visits to demo plots.</p>	<p>Number of key findings on effective, efficient adaptation practices and products generated and shared - Number of guidelines - Number of farmer field schools - Number of ToT - Number of visits to demo plots - Participants o % women</p> <p>Effectiveness of sharing</p>	<p>Output 8: Viable innovations are rolled out, scaled up, encourages and/or accelerated</p>	<p>Indicator 8.2: No. of key findings on effective, efficient adaptation practices, products and technologies generated</p>	<p>560,542</p>

G. Detailed Budget

Table 3940 budget

Outputs	Activities	Expenditure category	Year 1 (US\$)	Year 2 (US\$)	Year 3 (US\$)	Year 4 (US\$)	Total (US\$)	Unit	Unit cost	Year 1 (US\$)	Year 2	Year 3	Year 4
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 assessments conducted for the agriculture/ livestock sector in <u>Libya, specifically</u> targeting districts in the north-west (5), north-east (4) and south (4) with the participation of vulnerable groups and women	Research manager - UNOPS staff <u>technical personnel</u>	Technical Assistance	67 500	-	-	-	67 500	person-					
	Technical agriculture/ livestock expert - North-West	Technical Assistance	36 000 30000	-	-	-	36 000	person-					
	Technical agriculture/ livestock expert - North-East	Technical Assistance	36 000 30000	-	-	-	36 000	person-					
	Technical agriculture/ livestock expert - South	Technical Assistance	36 000	-	-	-	36 000	person-					
	Climate change expert	Technical Assistance	36 000	-	-	-	36 000	person-					
	Gender and social inclusion expert	Technical Assistance	18 000	-	-	-	18 000	person-					
	Community engagement expert(s)	Technical Assistance	36 000	-	-	-	36 000	person-					
	Final beneficiaries (farmers and herders) consultations	Training and Workshops	262 500	-	-	-	262 500	per bene					
	Focus groups (venue renting, transport costs for participants, etc.)	Training and Workshops	75 000	-	-	-	75 000	per focus gr					

Annex 5 to OPG Amended in October 2017

	<u>Geological surveys - according to ESMP requirements (per study)</u>	<u>Goods, Services and Inputs</u>	12000				12000	per	Formatted: Pattern: Clear (Background 1)
	Editing/ publication of risks and vulnerability maps	Goods, Services and Inputs		15 000			15 000	Lum	Formatted: Font: (Default) Arial, 9 pt
	Local transport costs	Operating Expenses	5 000	10 000			15 000	Lum	Formatted: Font: (Default) Arial, 9 pt
Sub-total Output 1.1			608 000	25 000	-	-	633 000		Formatted: Font: (Default) Arial, 9 pt
Output 1.2. National climate resilient agriculture / livestock strategy developed in which climate change hazard risks and adaptation options are identified, prioritized and promoted at national and district level, with specific attention to the needs of vulnerable groups and women	Research manager - UNOPS staff <u>technical personnel</u>	Technical Assistance	-	22 500	-	-	22 500	per	Formatted: Font: (Default) Arial, 9 pt
	Technical agriculture/ livestock expert	Technical Assistance	-	36 000	-	-	36 000	person-	Formatted: Font: (Default) Arial, 9 pt
	Climate change expert	Technical Assistance	-	36 000	-	-	36 000	person-	Formatted: Font: (Default) Arial, 9 pt
	Gender and social inclusion expert	Technical Assistance	-	18 000	-	-	18 000	person-	Formatted: Font: (Default) Arial, 9 pt
	Focus groups (venue renting, transport costs for participants, etc.)	Training and Workshops	-	6 000	-	-	6 000	per focus	Formatted: Font: (Default) Arial, 9 pt
	Editing/ publication of risks and vulnerability maps	Goods, Services and Inputs		5-7 000			5-7 000	Lum	Formatted: Font: (Default) Arial, 9 pt
	National strategy presentation and dissemination workshops	Training and Workshops	-	12 000 10000	-	-	12 000 10000	per focus	Formatted: Font: (Default) Arial, 9 pt
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	Local transport costs	Operating Expenses	5 000				5 000	Lum	Formatted: Font: (Default) Arial, 9 pt
Sub-total Output 1.2			5 000	135 500	-	-	140 500		Formatted: Font: (Default) Arial, 9 pt
Total Component 1			613 000	160 500	-	-	773 500		Formatted: Font: (Default) Arial, 9 pt
Component 2. Climate resilient investment in concrete activities in the agriculture sector									
Output 2.1. Climate change resilient crops (i.e., drought /heat resilient and salt resistant crop varieties) implemented in three (3) districts in the northwest of Libya, including through around 9000 grant packages to farmer, women and youth groups.	Research manager - UNOPS staff technical personnel	Technical Assistance	-	18 000	72 000	72 000	162 000	person-	Formatted: Font: (Default) Arial, 9 pt
	Logistic & Field coordinator - UNOPS staff technical personnel	Technical Assistance	-	5 000	5 000	-	10 000	person-	Formatted: Font: (Default) Arial, 9 pt
	Community engagement expert	Technical Assistance	-	27 000	36 000	18 000	81 000	person-	Formatted: Font: (Default) Arial, 9 pt
	Agriculture Climate change technologies expert	Technical Assistance	-	32 400	48 600	16 200	97 200	person-	Formatted: Font: (Default) Arial, 9 pt
	Procurement expert	Technical Assistance	-	-	32 400	32 400	64 800	person-	Formatted: Font: (Default) Arial, 9 pt
	Gender and social inclusion expert	Technical Assistance	-	14 400	21 600	7 200	43 200	person-	Formatted: Font: (Default) Arial, 9 pt
	Grant packages	Grants	-	1 652 000	1 652 000	-	3 304 000	pac	Formatted: Font: (Default) Arial, 9 pt
	Local transport costs	Operating Expenses	12 600	12 600	12 600	-	37 800	Lum	Formatted: Font: (Default) Arial, 9 pt
Sub-total Output 2.1			12 600	1 761 400	1 880 200	145 800	3 800 000		Formatted: Font: (Default) Arial, 9 pt
Output 2.2. Relevant public Institutional staff , farmers staff , farmers and women trained to implement, maintain and sustain climate change resilient	Logistic & Field coordinator - UNOPS staff technical personnel	Technical Assistance	-	-	4 500	3 000	7 500	person-	Formatted: Font: (Default) Arial, 9 pt
	Community engagement expert	Technical Assistance	-	12 000	18 000	6 000	36 000	person-	Formatted: Font: (Default) Arial, 9 pt
	Trainers	Technical Assistance	-	28 800	86 400	57 600	172 800	person-	Formatted: Font: (Default) Arial, 9 pt

Annex 5 to OPG Amended in October 2017

crops and to support the strengthening or creation of community organizations and community development plans	Gender and social inclusion expert	Technical Assistance	-	6 000	24 000	13 200	43 200	person-
	Costs for training and capacity building sessions for small holders: farmers and herders (venues, etc.)	Training and Workshops	-	30 000	87 000	60 000	177 000	per ses
	Costs for training and capacity building sessions for 60 government officials	Training and Workshops	-	-	4 000	-	4 000	per ses
	Local transport costs	Operating Expenses	9 000	9 000	9 000	-	27 000	Lum
	Sub-total Output 2.2			9 000	85 800	232 900	139 800	467 500
Total Component 2			21 600	1 847 200	2 113 100	285 600	4 267 500	
Component 3. Climate resilient investment in concrete activities in the livestock sector								
Output 3.1. Climate change resilient natural asset / resource (i.e. rangeland management) production system protection / rehabilitation improvements implemented in two (2) districts in the northwest of Libya, including through around	Research manager - UNOPS staff technical personnel	Technical Assistance	30 000	63 750	27 750	-	121 500	person-
	Logistic & Field coordinator - UNOPS staff technical personnel	Technical Assistance	-	4 500	3 000	-	7 500	person-
	Community engagement expert	Technical Assistance	-	15 000	21 600	12 000	48 600	person-
	Livestock Climate change technologies expert	Technical Assistance	-	27 000	27 000	27 000	81 000	person-

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5000 grant packages to pastoralists, women and youth groups	Procurement expert	Technical Assistance	-	32 400	-	-	32 400	person-	Formatted: Font: (Default) Arial, 9 pt
	Gender and social inclusion expert	Technical Assistance	-	15 000	18 000	15 600	48 600	person-	Formatted: Font: (Default) Arial, 9 pt
	Grant packages	Grants	-	2 016 000	-	-	2 016 000	pac	Formatted: Font: (Default) Arial, 9 pt
	Local transport costs	Operating Expenses	10 000	10 000	10 000	-	30 000	Lum	Formatted: Font: (Default) Arial, 9 pt
Sub-total Output 3.1			40 000	2 183 650	107 350	54 600	2 385 600		Formatted: Font: (Default) Arial, 9 pt
Output 3.2. Relevant public Institutional staff, pastoralists and women trained to implement, maintain and sustain climate change resilient natural asset / resource (i.e. rangeland management) production system improvements and to support the strengthening or creation of community organizations and community development plans	Logistic & Field coordinator - UNOPS staff technical personnel	Technical Assistance	-	-	2 000	4 500	6 500	person-	Formatted: Font: (Default) Arial, 9 pt
	Community engagement expert	Technical Assistance	-	-	4 800	9 600	14 400	person-	Formatted: Font: (Default) Arial, 9 pt
	Trainers	Technical Assistance	-	-	60 000	48 000	108 000	person-	Formatted: Font: (Default) Arial, 9 pt
	Gender and social inclusion expert	Technical Assistance	-	-	7 200	14 400	21 600	person-	Formatted: Font: (Default) Arial, 9 pt
	Costs for training and capacity building sessions for small holders farmers and herders	Training and Workshops	-	-	67 500	82 500	150 000	per ses	Formatted: Font: (Default) Arial, 9 pt
	Costs for training and capacity building sessions for government officials	Training and Workshops	-	-	9 000	12 000	21 000	per ses	Formatted: Font: (Default) Arial, 9 pt
	Local transport costs	Operating Expenses	-	10 000	10 000	10 000	30 000	Lum	Formatted: Font: (Default) Arial, 9 pt
Sub-total Output 3.2			-	10 000	160 500	181 000	351 500		Formatted: Font: (Default) Arial, 9 pt
Total Component 3			40 000	2 193 650	267 850	235 600	2 737 100		Formatted: Font: (Default) Arial, 9 pt

Component 4. 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 4.1. Mechanism implemented 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 one (1) district in the northwest, four (4) districts in the northeast and four (4) districts in south and to vulnerable groups and women, including through workshops, guidelines, farmer field schools, a ToT programme and field visits to demo plots.	Research manager - UNOPS staff <u>technical personnel</u>	Technical Assistance	-	-	2 250	2 250	4 500	person-	Formatted: Font: (Default) Arial, 9 pt	
	Climate change expert	Technical Assistance	-	-	54 000	54 000	108 000	person-	Formatted: Font: (Default) Arial, 9 pt	
	Experts to facilitate workshops	Training and Workshops	-	-	45 000	45 000	90 000	person-	Formatted: Font: (Default) Arial, 9 pt	
	Communication expert	Technical Assistance	-	-	36 000	36 000	72 000	person-	Formatted: Font: (Default) Arial, 9 pt	
	Editing/publication of the guidelines	Technical Assistance	-	-	6 000	-	6 000	guid	Formatted: Font: (Default) Arial, 9 pt	
	TOT (venue renting, transport costs for participants, etc.)	Training and Workshops	-	-	25 000	20 000	45 000	per ses	Formatted: Font: (Default) Arial, 9 pt	
	Visits demo plots	Training and Workshops	-	-	00018000 ³⁶	24-00012000 ⁶⁰	00030000	per ses	Formatted: Font: (Default) Arial, 9 pt	
	Farmers field schools	Training and Workshops	-	-	60 000	48 000	108 000	per ses	Formatted: Font: (Default) Arial, 9 pt	
	<u>Sustainability-related workshops</u>	<u>Training and Workshops</u>				30000	30000	per session	6000	5
	Communication materials (videos, digital contents, leaflets, etc.)	Goods, Services and Inputs	-	-	40 000	-	40 000	Lum	Formatted: Font: (Default) Arial, 9 pt	
	Website	Technical Assistance	-	-	7 042	-	7 042	Lum	Formatted: Font: (Default) Arial, 9 pt	
	Local transport costs	Operating Expenses	-	-	10 000	10 000	20 000	Lum	Formatted: Font: (Default) Arial, 9 pt	
Sub-total Output 4.1				321303 ²⁹²	239-257 250 ^{239 250}	560 542		Formatted: Font: (Default) Arial, 9 pt		
Total Component 4				321 292	239 250	560 542		Formatted: Font: (Default) Arial, 9 pt		
Total Project Components			674 600	4 201 350	2 702 242	760 450	8 338 642		Formatted: Font: (Default) Arial, 9 pt	
Project Execution Costs										

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Project Execution	Office equipment (IT and other)	Goods, Services and Inputs	5 730	-	-	-	5 730	Lum	Formatted: Font: (Default) Arial, 9 pt	
	Project Manager (25% per month)	Salaries and Allowances	36 000	36 000	36 000	18 000	126 000	Person Mg	Formatted: Font: (Default) Arial, 9 pt	
	Finance Officer (35% per month)	Salaries and Allowances	21 000	21 000	21 000	10 500	73 500	Person Mg	Formatted: Font: (Default) Arial, 9 pt	
	Driver (30% per month)	Salaries and Allowances	8 652	8 652	8 652	4 326	30 282	Person Mg	Formatted: Font: (Default) Arial, 9 pt	
	Office costs (rent, utilities, security, etc.)	Operating Expenses	52 800	52 800	52 800	26 400	184 800	per f	Formatted: Font: (Default) Arial, 9 pt	
	Project External Audit (lump sum)	Operating Expenses				18000	18000	per audit	18000	1
	Other direct costs for project management, implementation and oversight	Other	36 396	36 396	36 396	18	1276 386000	per f	Formatted: Font: (Default) Arial, 9 pt	
	HQCPC submissions	Other	1 400				1 400	Lum	Formatted: Font: (Default) Arial, 9 pt	
UNOPS indirect costs ³⁹	Other	88415.2228693 604	88415.2228693 604	88415.22286 93 604	44207.6114346 802	309.453.28	Lum	Formatted: Font: (Default) Arial, 9 pt		
Total Project Execution Costs			<u>248 993.22286</u> <u>255 486</u>	<u>243 263.22286</u> <u>248 056</u>	<u>263.22286248</u> <u>056</u>	<u>139</u> <u>631.61143424 028</u>	<u>875</u> <u>327875151.28</u>	Lum	Formatted: Font: (Default) Arial, 9 pt	
Total Project Costs			<u>929 796923</u> <u>593.22286</u>	<u>4 449 4064 444</u> <u>613.22286</u>	<u>2 950</u> <u>2992 945</u> <u>505.22286</u>	<u>884 479 900</u> <u>081.61143</u>	<u>9 243</u> <u>9699 213</u> <u>793.28</u>	Lum	Formatted: Font: (Default) Arial, 9 pt	
Project cycle management fee costs										
Project cycle management fee costs	Other	223 768	223 768	223 768	111 884	783 187	Lum	Formatted: Font: (Default) Arial, 9 pt		
Total Project cycle management fee costs		223 768	223 768	223 768	111 884	783 187	Lum	Formatted: Font: (Default) Arial, 9 pt		

³⁹ UNOPS is a self-financing, not-for-profit member of the United Nations family. UNOPS does not receive any core nor voluntary funding from the Member States or other third parties; therefore, and in line with the principle of ensuring financial viability, UNOPS funds its entire operations through costs recovered from project implementation. Indirect costs fund UNOPS core corporate functions, such as strategic leadership, representation, policy setting and United Nations governance. Whereas most other UN entities receive direct contributions from the member states to cover corporate functions, UNOPS does not and needs to recover them through projects indirect costs.

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<u>Farmers field schools</u>	<u>Logistic and organisation costs for the farmers field schools.</u>
<u>Local transport costs (lump sum per district)</u>	<u>Costs to ensure that technical experts and trainers can move across target districts to deliver trainings to farmers and government officials.</u>
<u>Knowledge management and dissemination products (videos, digital contents, leaflets, etc.) (lump sum)</u>	<u>Costs for services needed to conceive and produce knowledge management and dissemination products for different target audiences and the general public.</u>
<u>Website (lump sum)</u>	<u>Costs for the set-up and running of the website where findings and knowledge from the project will be disseminated online to national and international public.</u>

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Clarification on UNOPS personnel included in the outputs costs vs. UNOPS personnel included in execution costs:

We included in the output costs UNOPS personnel that will work hands-on activities/ outputs delivery; personnel working exclusively on project management and administration are included in the execution costs.

UNOPS personnel included in the output costs is composed of technical experts who will be selected on purpose for the project based on specific Terms of References that will be aligned with relevant competences/ experiences for the activities/ outputs to deliver.

It should be highlighted that, being a projects-based organisation, UNOPS does not employ permanent personnel (or staff) - except for corporate leadership positions based at UNOPS HQ in Copenhagen. All UNOPS personnel in field countries are project personnel, hired on purpose for a specific project, working on project implementation only; they are hired based on Individual Contractor Agreements for a fixed term according to the project duration.

When conceiving the project personnel, we took into account costs-effectiveness principles and included:

- a Project Manager that will have a 'double hat' of Project Manager and Research Manager. The Project Manager to be recruited will be an agriculture expert and have the necessary experience to coordinate, supervise and quality assure the research work (Component 1), the piloting of climate-adaptive solutions in the agriculture and livestock sectors (components 2 and 3), the knowledge/ results dissemination (component 4). Having one person managing the overall project and quality assuring all technical activities/ contents enables efficient project implementation and eases interactions and relations building with relevant Libyan stakeholders and with IFAD, which is essential for the project success;
- a Logistic and field coordinator, which will be selected for having previous experience on field logistics and security in Libya and be responsible for coordinating the logistic aspects of all activities carried out on the ground in target districts. This expertise is necessary given

the extent of the geographic coverage, the wide numbers of beneficiaries to outreach and the complexity of distribution campaigns and training activities in a conflict-affected environment.

For the present project, we estimate international experts will be needed given climate change is a field which is still new in Libya and it is hard to find local experts with suitable know-how and experience required for the proposed initiative.

The AF project funding will cover UNOPS project personnel costs according to the effort/ time they will devote to the project.

Clarification on what is covered under the execution costs and what is covered under the outputs:

Outputs costs only include costs that are necessary to deliver envisaged activities and outputs, with no involvement in project management, administration and reporting. More specifically:

- Technical experts will have profiles tailored to single activities/ outputs contents (e.g. trainers) and target sector (e.g. agriculture, livestock, CC technologies); experts are budgeted based on an estimated number of days that is necessary to work hands-on and deliver on the activity/ output:
- Local transport costs are needed to ensure that: technical experts and trainers can move across target districts to work alongside local stakeholders/ beneficiaries; stakeholders and beneficiaries can participate in activities (either by covering transport costs for them or by arranging project activities within their communities, as suitable)
- Knowledge management and dissemination costs (such as publication of guidelines, video-making, etc.) are necessary to disseminate the knowledge and results produced by the project, as envisaged under component 4.
- Project technical and financial reports will be prepared by the Project Manager and the Financial Officer; therefore, reporting costs are already included in the execution costs.

Table 404: Breakdown project cycle management entity fee

Project Cycle Management Implementing Entity Fee	
Financial Management (General financial oversight and quality control; manage, monitor and track AF funding including allocating and monitoring expenditure based on agreed work plans; financial management compliance with AF requirements; financial reporting compliance with AF standards; procurement support and compliance with national procurement rules).	169,825
Programme Support (Technical support in project implementation including on gender action plan execution; methodologies, identification of experts; troubleshooting and support implementation missions as necessary; portfolio management, reporting; Independent Environmental and Social Audits and policy programming and implementation support services).	315,088
Technical support (Supervision missions and implementation support, risk management, programming; guidance in establishing performance measurement processes; technical support on methodologies, TOR validation, identification of experts, results validation, and quality assurance; troubleshooting, and support evaluation missions as necessary; support on technical issues in programme implementation).	298,274
Total Project Cycle Management Implementing Entity Fee	783,187

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Table 4142 Contribution of IE fees to M & E

Contribution of IE Fees to M&E			
Inception workshop report	UNOPS	After workshop	20,000
Supervision visits	IFAD, UNOPS, Government	Annual	20,000
Final evaluation	IFAD, external consultants	2029	25,000
Total			65,000

H. Disbursement schedule

Table 42434038 Disbursement schedule

Schedule	1 st disbursement	2 nd disbursement – One year after project inception	3 rd disbursement – Two years after project inception	4 th disbursement – Three years after project inception
Linked Deliverable	Upon agreement signature between IFAD and AF	First Annual Project Performance Report Cleared by AF	Second Annual Project Performance Report Cleared by AF	Third Annual Project Performance Report Cleared by AF

Schedule date	Upon Signing	One Year after project inception	Two Years after project inception	Three Years after project inception	Total
A. Project Funds (US\$)	674 600	4 201 350	2 702 242	760 450	8 338 642
B. Programme Execution (US\$)	255 186	248 056	248 056	124 028	875 327
C. Programme Cycle Mgt (US\$)	223 768	223 768	223 768	111 884	783 187
TOTAL (US\$)	1 153 554	4 673 174	3 174 066	996 362	9 997 156

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

A. Record of endorsement on behalf of the government⁴⁰

<i>Engr. Ahmed Alarabi Alsoudanij</i> Director of Geographical information systems Department Ministry of Environment	Date: 13/08/2022
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⁴⁰ 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.



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, <u>commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund</u> and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
Implementing Entity coordinator:	
Mr Tom Mwangi Anyonge <i>Director a.i</i> <i>Environment, Climate, Gender and Social Inclusion Division</i>	
Date: 09 January 2023	e-mail: ecgmailbox@ifad.org
Ms Janie Rioux Senior Climate Finance Specialist 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	

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ANNEXES

1. ESCMP

150-176. Content:

- 1.1. Introduction, purpose, method
- 1.2. Summary of project environmental and social risks management approach
- 1.3. Risks screening and categorization
- 1.4. Environmental and social and climate risks management plan

1.1. Introduction, including summary description of the project/ programme

151-177. Introduction

Social and environmental policies are essential tools to prevent and / or mitigate undue harm of projects and project activities to people and their environment. In line with the Adaptation Fund's Environmental and Social Policy (ESP) and IFADs SECAP, IFAD is required to categorize the risk of the project as a whole and to manage any potential environmental and social risks and impacts. This Environmental, Social and Climate and Climate Risks Management Plan (ESCMP) has been prepared by IFAD.

152-178. Purpose

The purpose of this ESCMP document is to demonstrate how this project complies to the AF ESP. The document shows what potential environmental and social risks and co-benefits and opportunities have been identified per project activity, the potential impacts of the risks and how these will be managed.

153-179. Methodology

To ensure compliance with the AF ESP, all proposed project activities have been screened against the 15 AF principles (i.e. safeguards) to identify potential environmental and social risks and to assess related potential impacts. Where risks have been identified, impacts have been assessed and where needed, measures to avoid or mitigate risks and impact, identified (+ monitoring arrangements). Analyses are based on collected disaggregated data focused on identification of climate change related needs, limitations, constraints and requirements specific for marginalized and vulnerable groups, especially of women and youth. Activity prioritization has been done in consultations with project beneficiary groups. The executing entity and other contractors will also comply to IFAD's SECAP standards.

154-180. Alignment between ESP (Adaptation Fund) and SECAP (IFAD)

IFAD's Social, Environmental and Climate Assessment Procedures (SECAP) were approved by the Executive Board and became effective in 2015. They were updated in 2017 and 2021. These procedures defined an improved course of action for assessing social, environmental and climate risks to enhance the sustainability of country strategic opportunities programmes (COSOPs), country strategy notes (CSNs), programmes and projects. SECAP along with its 9 Social, Environmental and Climate Standards, sets out the mandatory requirements and other elements that must be integrated throughout the project life cycle. The 2021 updated version (i) draws on lessons learned in SECAP's implementation since 2017; (ii) clarifies the mandatory and non-mandatory requirements applicable to IFAD-supported investments; (iii) further aligns IFAD's environmental and social standards and practices with those of other multilateral financial institutions; (iv) reflects IFAD's complementary policies⁴¹ and climate mainstreaming agenda; (v) enables IFAD's continued access to international environment and climate financing; and (vi) accounts for IFAD's new commitments and upgraded internal processes. All IFAD projects entering the pipeline are subject to an environmental, social and climate risk screening, and are assigned a risk category for environment and social risks (High, Substantial, Moderate or Low), and for climate risks (High, Substantial, Moderate or Low). These findings, along with subsequent analysis and assessments, must be reflected in the project's SECAP review note and project

⁴¹ Including, but not restricted, to policies on targeting (2006), gender equality and women's empowerment (2012), indigenous peoples (2009). Available at: www.ifad.org/operations/policy/policydocs.htm

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documents. Projects with “**Low environment and social Risk**” and “**Low**” climate risk do not require any further analysis.

155-181. **Moderate Risk** projects require: (i) the final SECAP review note and ESCMP, indicating how potential risks and impacts can be avoided or mitigated; and (ii) an environmental and social monitoring programme. Projects classified Moderate Risk for climate require a basic climate analysis.

156-182. For projects with **High and Substantial environmental and social risks and impacts**, the due diligence process entails a critical review of the documentation provided by the borrower/recipient/partner. This should involve site visits and interviews with project representatives and other stakeholders by independent environmental and social specialists. These specialists should gain first-hand knowledge of the project and meet with representatives of affected groups to discuss environmental and social concerns, and information needs. This provides IFAD with a more holistic view of the project’s major environmental and social risks and impacts, and the project’s mitigation resources. For Substantial Risk projects, a formal SECAP review note or abbreviated ESCMF is required. For High Risk projects, an Environmental, Social and Climate Management Framework or Environmental and Social Impact Assessment are required. These should also incorporate an ESCMP. In addition, thematic studies or plans can be required for substantial and ~~high-risk~~high-risk projects. These can include a Resettlement Action Framework or Plan (RAF or RAP), Indigenous Peoples Plan (IPP), FPIC implementation Plan, Pesticide Management Plan (PMP), etc.

157-183. For projects that are screened as “substantial” for climate risks, a Targeted Adaptation Assessment is required. For projects classified as “high”, a detailed vulnerability impact and adaptation assessment is required. These assessments aim to quantify risks, identify related adaptation options and ways to integrate them into the project design.

158-184. IFAD SECAP includes 9 Standards, for which detailed guidance is provided in 9 corresponding Guidance Notes (GN) with: (i) an introduction to each subject, (ii) key steps, roles and responsibilities, objectives and background, (iii) criteria for environmental screening in IFAD projects; (iv) potential mitigation and adaptation plans and measures for controlling adverse impacts, (v) monitoring project implementation. The SECAP also includes a 10th guidance note that provides an overview of the importance of IFAD’s mainstreaming commitments and highlights entry points for promoting mainstreaming along the project cycle. IFAD’s mainstreaming commitments are related to environmental sustainability, climate finance, gender equality, women and youth empowerment and improved nutrition.

159-185. The following table provides some information about the relation between AF ESP Principles and IFAD SECAP (for further information, visit <https://www.ifad.org/topic/gef/secap/overview>).

AF ESP Guidance Principle	IFAD SECAP Standards, Guiding Values and Principles
ESP 1 Compliance with the Law	SECAP requires that activities in the framework of the IFAD financed projects or programmes meet IFAD’s safeguard policy guidance, comply with applicable national laws and regulations (labour, health, safety, etc.) and international laws and treaties, and the prohibited investment activities list produced by the International Finance Corporation is adhered to. Project design should review: (i) current national policies, legislation and legislative instruments governing environmental management health, gender and social welfare, climate change (mitigation and adaptation) and governance with their implementation structures, identify challenges, and recommend appropriate changes for effective implementation; (ii) all relevant international treaties and conventions on the environment, climate change, health, gender, labour and human rights to which the country is a signatory.
ESP 2 Access and Equity	Access and Equity is a cross-cutting issue in all the 9 SECAP standards. SECAP requires that projects and programmes ensure the participation of target groups and equitable distribution of benefits. When projects result in physical or economic displacement (affecting access and user rights to land and other resources), the borrower or grant recipient should obtain FPIC from the affected people, document stakeholder engagement and consultation process and prepare resettlement plans or frameworks. The documents must be disclosed in a timely and accessible manner at the QA or relevant implementation stage. Standard 2 – Resource efficiency and pollution prevention highlights that Sustainable management requires that people who are dependent on these resources are properly consulted, enabled to

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	<p>participate in development and share equitably in the benefits of that development, and indicates that IFAD promotes an integrated water resources management approach that seeks the coordinated development and management of water, land and related resources in order to maximize economic and social welfare in an equitable manner and without compromising the sustainability of ecosystems.</p> <p>Standard 3 – Cultural Heritage includes the following objective: promote the equitable sharing of benefits from the use of Cultural Heritage.</p> <p>Standard 4 – Indigenous People includes the following objective: ensure indigenous peoples obtain fair and equitable benefits and opportunities from supported activities in a culturally appropriate and inclusive manner.</p> <p>IFAD’s mainstreaming themes in the project cycle guidance note highlights that projects should aim at Expanding women’s economic empowerment through access to and control of productive assets and benefits.</p>
ESP 3 Marginalised and Vulnerable Groups.	<p>Marginalized and Vulnerable Groups is a cross-cutting issue in all the 9 SECAP standards, as such groups are also the primary target of IFAD interventions. A robust SECAP process requires attention to social dimensions such as land tenure, community health, safety, labour, vulnerable and disadvantaged groups, and historical factors, particularly in relation to natural resource management. It not only looks at compliance (e.g. managing potential negative impacts), but <u>but</u> expected positive impacts and ways to maximize opportunities. To assure a good contribution to the quality of SECAP, project design should assess the socio-economic and cultural profile, including key issues relating to disadvantaged or vulnerable groups, conflict, migration, employment and livelihoods. Consultation with communities and stakeholders must be maintained throughout the project lifecycle, especially in high-risk projects. For investment projects with a projected high sensitivity to climate hazards, IFAD requires a climate vulnerability analysis which can help to improve the targeting of investment actions to include the most vulnerable and least resilient target groups.</p> <p>Other IFAD policies that support and complement this principle are: Improving Access to Land Tenure Security Policy, Gender Equality and Women’s Empowerment Policy, Engagement with Indigenous Peoples Policy, Targeting Policy, Youth Policy Brief, Climate Change Strategy, Rural Enterprise Policy, Rural Finance Policy, Private Sector Strategy.</p>
ESP 4 Human Rights	<p>Human Rights is a cross-cutting issue in all the 9 SECAP standards. Among the Guiding Principles and Specific Requirements for IFAD’s Social Environmental Climate Assessment Procedures (SECAP), is the principle to “<i>support the efforts of borrowers/recipients/ partners to respect human rights, avoiding infringement on any human rights and addressing adverse human rights risks and impacts caused by clients’ business activities</i>”.</p>
ESP 5 Gender Equality and Women’s Empowerment	<p>Gender Equality and Women’s Empowerment is a cross-cutting issue in all the 9 SECAP Standards. IFAD’s mainstreaming themes in the project cycle guidance note provides an overview of the importance of IFAD’s mainstreaming commitments (including gender equality, women and youth empowerment); highlights entry points for promoting mainstreaming along the project cycle; proposes the use of assessments which – even if they may be focused on risk assessment and management – are opportunities for mainstreaming; and provides an overview of inventories of key sources of data, tools, methods and approaches that have been found useful.</p>
ESP 6 Core Labour Rights	<p>Core Labour Rights is a cross-cutting issue in all the 9 Standards. A robust SECAP process requires attention to social dimensions such as land tenure, community health, safety, labour, vulnerable and disadvantaged groups, and historical factors, particularly in relation to natural resource management. One of the guiding values and principles for SECAP is to minimize adverse social impacts and incorporate externalities. Avoid and mitigate any potential adverse impacts on health and safety, labour and working conditions and well-being of workers and local communities.</p> <p>The requirements set out in Standard 5 – Labour and working conditions are designed to achieve the following objectives:</p> <ul style="list-style-type: none"> (i) Promote direct action to foster decent rural employment; (ii) Promote, respect and realize fundamental principles and rights at work through preventing discrimination and promoting equal opportunity of workers; supporting freedom of association and the effective recognition of the right to collective bargaining; and preventing the use of child labour and forced labour; (iii) Protect and promote the safety and health of workers; (iv) Ensure projects comply with national employment and labour laws and international commitments; and

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	<p>(v) Leave no one behind by protecting and supporting workers in disadvantaged and vulnerable situations, including a special focus, as appropriate, on women workers, young workers, migrant workers, workers in the informal economy and workers with disabilities</p>
ESP 7 Indigenous People	<p>Standard 4 – Indigenous People is a cornerstone to IFAD’s goal to design projects not only with the full, effective and meaningful participation of indigenous peoples but also in a manner that aligns with their distinct vision and development priorities, building sustainable partnerships with indigenous peoples. Standard 4 seeks to ensure that projects are designed and implemented in a way that fosters full respect for indigenous peoples and their human rights, livelihoods and cultural uniqueness as they define them. The need for the standard is an acknowledgement of a history of discrimination and exclusion of indigenous peoples that has limited or prevented them from directing the course of their own development and well-being.</p> <p>The requirements set out in Standard 4 are designed to achieve the following objectives:</p> <p>(vi) Promote indigenous peoples’ ability to determine and develop priorities and strategies for exercising their right to development;</p> <p>(vii) Ensure that programming is designed in partnership with indigenous peoples, with their full effective and meaningful consultation and participation, with the objective of seeking their free, prior and informed consent (FPIC);</p> <p>(viii) Ensure indigenous peoples obtain fair and equitable benefits and opportunities from supported activities in a culturally appropriate and inclusive manner; and</p> <p>(ix) Recognize and respect the rights of indigenous peoples to their lands, territories, waters and coastal seas and other resources that they have traditionally owned or otherwise occupied and used. Implementation of the requirements of Standard 4 also aims to avoid adverse impacts on indigenous peoples, their rights, lands, territories and resources and – together with affected indigenous peoples – to mitigate and remedy any adverse impacts that cannot be avoided.</p> <p>According to SECAP, when impacting indigenous peoples, the borrower or the grant recipient must seek FPIC from the concerned communities, document stakeholder engagement and consultation process and prepare an indigenous plan (IP). Whenever FPIC is not possible during project design, the FPIC implementation plan should specify how FPIC will be sought during early implementation. The FPIC plan and related documents must be disclosed in a timely and accessible manner at the Quality Assurance (QA) or relevant stage during implementation. IFAD SECAP promotes the Indigenous Peoples Plan as a tool to ensure that the design and implementation of projects foster full respect for indigenous peoples’ identity, dignity, human rights, livelihood systems and cultural uniqueness, as defined by the indigenous peoples themselves. It also ensures that the affected groups receive culturally appropriate social and economic benefits, are not harmed by the projects, and can participate actively in projects that affect them. Other IFAD policies that support and complement these principles: Indigenous People’s Policy; Targeting Policy; Gender Policy; Climate Change Strategy.</p>
ESP 8 Involuntary Resettlement	<p>Standard 7 – Physical and economic resettlement recognizes that increasing investments in the rural sector may at times involve project-related land acquisition and restrictions on land use – actions that, if improperly managed, may have adverse impacts on communities and persons, including physical displacement (relocation, loss of residential land or loss of shelter), economic displacement (loss of land, assets or access to assets, leading to loss of income sources or other means of livelihood) or both. The term “involuntary resettlement” refers to these impacts. Resettlement is considered involuntary when affected persons or communities do not have the right to refuse land acquisition or restrictions on land use that result in displacement.</p> <p>Throughout the process of identification, planning, implementation and evaluation of the various elements of resettlement or economic displacement and their impacts, adequate attention will be paid to gender concerns: specific measures addressing the needs of female headed households, gender-inclusive consultation, information disclosure, and grievance mechanisms will be put in place in order to ensure that women and men will receive adequate and appropriate compensation for their losses and to restore and possibly improve their living standards. Other IFAD policies that support and complement this principle are: Gender Equality and Women’s Empowerment Policy, Engagement with Indigenous Peoples Policy, Targeting Policy, Land Policy, ENRM Policy, Youth Policy Brief, Climate Change Strategy.</p>
ESP 9	<p>Standard 1 – Biodiversity conservation requires identification of habitat type and applies increasingly stringent requirements based on an areas’ biodiversity values. Where natural habitats are affected, IFAD-funded/supported projects and programmes will proceed only after putting in place appropriate mitigation</p>

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Protection of Natural Habitats	<p>measures to achieve no net loss, and preferably a net gain of the associated biodiversity values over the long term. This must be accompanied by a robust long-term biodiversity action plan or equivalent that describes conservation outcomes and implementation, monitoring and evaluation actions.</p> <p>Other IFAD policies that support and complement these principles are: Environment and Natural Resources Management (ENRM) Policy; Land Policy; Climate Change Strategy.</p>
ESP 10 Conservation of Biodiversity	<p>The requirements set out in Standard 1 – Biodiversity conservation are designed to achieve the following objectives: (i) maintain and conserve biodiversity; (ii) preserve the integrity of ecosystems; (iii) maintain and enhance the benefits of ecosystem services; (iv) adopt the use of a precautionary approach to biodiversity conservation and ensure opportunities for environmentally sustainable development; (v) ensure the fair and equitable sharing of the benefits from the utilization of genetic resources; and (vi) respect, preserve, and maintain knowledge, innovations and practices of indigenous peoples, and local communities relevant to the conservation and sustainable use of biodiversity and their customary use of biological resources.</p> <p>The main role of this safeguard standard is to avoid or, if avoidance is not possible, minimize and mitigate potential adverse social and environmental impacts on biodiversity and ecosystem services associated with project-related activities. This can be seen through the promotion and requirements on the “use of a precautionary approach” as outlined throughout standard 1. Requirements of Standard 1 address risks to biodiversity and ecosystem types, with increasing stringency depending on risk levels and biodiversity values of project areas.</p> <p>Mitigation activities to eliminate or reduce the negative impacts of a project on biodiversity should follow the following order of preference: (1) Complete avoidance of adverse impact; (2) Reduction of impacts on biodiversity where unavoidable; (3) Restoration of habitats to their original state; (4) Relocation of affected species; (5) Compensation for any unavoidable damage.</p> <p>Other IFAD policies that support and complement these principles are: Environment and Natural Resources Management (ENRM) Policy; Land Policy; Climate Change Strategy.</p>
ESP 11 Climate Change	<p>SECAP asks to incorporate climate change risk analysis into projects, which are subject to an environmental, social and climate risk screening, and are assigned a risk category for climate vulnerability (substantial, high, moderate, low).</p> <p>The requirements set out in Standard 9 – Climate change are designed to achieve the following objectives: (i) ensure alignment of IFAD-supported projects with targets and priorities of countries’ Nationally Determined Contributions and the goals of the Paris Agreement and other international frameworks; (ii) ensure that proposed activities are screened and assessed for climate change and disaster risks and impacts both of and to projects; (iii) apply the SECAP risk mitigation hierarchy principle of applying a hierarchy of risk management measures in project design; (iv) strengthen the climate resilience of communities and their adaptive capacity to address risks of climate change impacts and climate-related disasters; and (v) increase the ability of communities to adapt to the adverse impacts of climate change, and foster climate resilience and low GHG-emitting projects that do not threaten without compromising food production.</p> <p>IFAD’s mainstreaming themes in the project cycle guidance note provides an overview of the importance of IFAD’s mainstreaming commitments (including Climate change); highlights entry points for promoting mainstreaming along the project cycle; proposes the use of assessments which – even if they may be focused on risk assessment and management – are opportunities for mainstreaming; and provides an overview of inventories of key sources of data, tools, methods and approaches that have been found useful.</p>
ESP 12 Pollution Prevention and Resource Efficiency	<p>Standard 2 – Resource efficiency and pollution prevention includes requirements that aim at ensuring that IFAD-supported projects and programmes minimize, mitigate and manage any risks and potential adverse impacts that may be related to resource use and pollution, with the following objectives: (i) avoid, minimize and manage the risks and impacts associated with hazardous substances and materials, including pesticides; (ii) avoid or minimize project-related emissions of short-and long-lived climate-change related pollutants; (iii) promote sustainable use of resources, including energy, land and water; and (iv) identify, where feasible, project-related opportunities for resource-use efficiency. Standard</p>

	2 outlines a project-level approach to mitigating, minimizing and managing any risks and potential adverse impacts that may be related to resource use and pollution. IFAD requires that key principles are applied. These include a precautionary approach to addressing significant environmental and social risks and impacts through the mitigation hierarchy; the “polluter pays” principle (whereby the cost of mitigation is borne by the polluter, where relevant); and adaptive management techniques (whereby lessons are learned from past management actions and are proactively utilized to predict and improve management as the project implementation progresses).
ESP 13 Human Health	The requirements of Standard 6 – Community Health and Safety aim to ensure that IFAD-supported programs and projects avoid or minimize the risks and impacts to community health, safety and security. The requirements are designed to achieve the following objectives: (i) to anticipate and avoid adverse impacts on the health and safety of project-affected communities during the project life cycle from both routine and non-routine circumstances; (ii) to ensure that measures are taken to avoid or minimize community exposure to hazardous materials that be used during project activities; (iii) to promote quality and safety, and considerations relating to climate change, in the design and construction of infrastructure, including dams; (iv) to avoid or minimize community exposure to project-related traffic and road safety risks; (v) to minimize community exposure to diseases; (vi) to ensure that projects abide by the principles of “do no harm to nutrition”; (vii) to avoid risks of project-related gender-based violence, including risks of sexual harassment, sexual exploitation and abuse, and human trafficking to project-affected people and communities; (viii) to avoid or minimize adverse impacts on ecosystems services that may arise from project activities; (ix) to have in place effective measures to address emergency events; and (x) to ensure that the safeguarding of personnel and property is carried out in a manner that avoids or minimizes risks to the project-affected communities
ESP 14 Physical and Cultural Heritage	The requirements set out in Standard 3 – Cultural heritage are designed to achieve the following objectives: (i) preserve and safeguard Cultural Heritage; (ii) ensure that effective and active measures are taken to prevent IFAD-supported projects from altering, damaging, or removing any tangible or intangible Cultural Heritage; (iii) promote the equitable sharing of benefits from the use of Cultural Heritage; (iv) promote meaningful consultation on matters relating to Cultural Heritage. Other IFAD policies that support and complement ESP 14 are: Gender Equality and Women’s Empowerment Policy, Engagement with Indigenous Peoples Policy, Targeting Policy, ENRM Policy, Climate Change Strategy.
ESP 15 Lands and Soil Conservation	Standard 2 – Resource efficiency and pollution prevention includes a specific focus on soil conservation, stating that <i>sustainable soil management is an essential element of sustainable agriculture and is central to sustainable intensification, climate -change resilience and safeguarding ecosystem services and biodiversity. The updated World Soil Charter lists nine guiding principles that guide all actions to ensure that soils are managed sustainably and that the functions of degraded soils are rehabilitated or restored. IFAD will integrate these principles into its projects, as appropriate, to ensure sustainable soil management and to promote restoration of degraded soils</i> Other IFAD policies that support and complement these principles: Land Policy; Targeting Policy; ENRM Policy; Climate Change Strategy.

1.2. Summary of project environmental and social risks management approach

The following table provides an overview/summary of the management approach for project risks.

Table [434439](#) Summary of project environmental, social and Climate risks management approach

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ESP principle	Initial environmental or social risks present Y/N	Potential risks	Explanation	Impact assessment	Mitigation measures to avoid / reduce any potential risks	Monitoring indicators	Responsible
1. Compliance with the Law	Y	There is a small risk of sub-contractor non-complying with national laws / standards	<p>Relevant national standards <u>and laws have been identified, as well as</u> and project compliance with these <u>been identified</u>. No impact assessment is required by national law (see part II.E) for proposed interventions.</p> <p>However, there is still a small <u>small</u> risk of sub-contractor non-complying with national</p>	Negative environmental impacts due to non-compliance to national standards and/or international best practices.	<p>The project complies with all identified relevant national and international standards and laws. For an overview, see part II.E.</p> <p>Include standard clause in all project contracts with reference to laws / standards as described in this proposal (Part II.E) <u>with the condition to comply with these standards / laws</u></p>	<ul style="list-style-type: none"> - Review procurement contracts - Review complaints received related to negative environmental impacts <u>impacts</u> on project areas. 	UNOPS and IFAD
2. Access and Equity	Y	There is a small risk of inequitable participation in project decision making and access to project benefits, <u>due to a weak targeting strategy. This is mainly due to traditions related to gender roles and the tribal culture that could exclude certain groups.</u>	<p><u>Inputs and potential concerns of potential project beneficiaries have already been collected/heard.</u> These groups include small-holder farmers, <u>ethnic groups, women, en</u> and youth and <u>ethnic groups</u></p>	Potential tension and/or conflict within community in the target areas.	<p>The project will ensure equal opportunities in participation and decision-making concerning <u>the project benefits</u> of women, youth, ethnic groups and other vulnerable groups by using quotas and by agreeing on representation in decision-making processes through the use of ToRs, agreements, etc. The targeting strategy will take into consideration the different needs of the different groups for each <u>activities/activity</u> and will apply strict criteria for selection of beneficiaries. A Grievance and Redress Mechanism (GRM) will be put in place to receive complaints and solve them.</p> <p><u>The project design supports equal access to project benefits through a participatory approach (i.e. a participatory planning and decision-making process)</u></p>	<ul style="list-style-type: none"> - Review selected beneficiaries against selection <u>criteria/criteria</u> - Review complaints related to bias in selection. 	UNOPS and IFAD
3. Marginalized and Vulnerable Groups	Y	There is a small risk of <u>marginalized/vulnerable</u> groups being excluded from project implementation processes and	<p><u>Inputs and potential concerns of potential project beneficiaries have already been heard. These groups include small-holder farmers, women, youth and ethnic groups</u></p>	<p>Lost opportunity of capitalizing on women and youth potential.</p> <p>Not meeting results framework targets regarding women and youth.</p>	<p><u>The project will ensure equal opportunities in participation and decision-making concerning project benefits of women, youth, ethnic groups and other vulnerable groups by using quotas and by agreeing on representation in decision-making processes through the use of ToRs.</u></p>	<ul style="list-style-type: none"> - Review selected beneficiaries against selection <u>criteria/criteria</u> and women 	UNOPS and IFAD

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		benefits. This is mainly due to traditions related to gender roles and the tribal culture that could exclude certain groups.			agreements, etc. The targeting strategy will take into consideration the different needs of the different groups for each activity and will apply strict criteria for selection of beneficiaries. A Grievance and Redress Mechanism (GRM) will be put in place to receive complaints and solve them.	- and youth percentages Review complaints related to exclusion of certain groups.	
4. Human Rights	Y	There is a small risk that human rights will not be respected by project partners and sub-contractors. Human rights breaches can arise over denial of access to decision making and project benefits or other human right violations (including sexual harassment and gender-based violence).	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 - Ratified or not, there is a potential risk that treaties will not be respected by all project partners and sub-contractors. There is no immediate concern for this to happen but mitigation measures should be in place to avoid this.	Gender Issues and all forms of Gender-Based Violence, including sexual harassment due to the increasing mobilisation of women to participate in project activities Child labour used in project's activities.	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, even if there is no risk for this. The IE will monitor and report on human rights risks and opportunities and adjust activities if necessary if risks occur. Project partners and sub-contractors will be made aware of the treaties and clauses related to these in their contracts. A Grievance and Redress Mechanism (GRM) will be put in place to receive complaints and solve them. -	- Collect gender-disaggregated monitoring and evaluation data to track the extent to which women have been able to participate and benefit from project activities. - Cases of sexual harassment has to be dealt with in compliance with IFAD's Policy to Preventing and Responding to SH/SEA and reported directly to IFAD. - Review contracts for human rights and child labour clauses	UNOPS, IFAD and community leaders.


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						- Review child labour complaints in compliance with GRM	
5. Gender Equity and Women's Empowerment	Y	<p>There is a risk of local cultures / traditions blocking women's voices, or exclude them from decision making or, related to that, a risk of -women being negatively affected due to existing sexual harassment or similar.</p> <p>women beneficiaries being negatively treated because of their involvement in the project</p>	<p>Women are not well represented in local government authorities. An initial gender analysis has been included in the annex 2</p>	<p>Lost opportunity of capitalizing on women's potential to help the sector's adaptation.</p> <p>Not meeting results framework targets regarding women.</p>	<p>The project will increase local engagement to work with local leaders and female and male household's members and sensitize on gender equality and against gender biases. The project will also conduct gender-sensitive and participatory consultations while executing the various activities. These have to include safe spaces/ women-only focus groups to encourage women's meaningful participation in consultations. As needed, the project will create female only spaces for women to receive trainings and services. See principles 2 and 3.</p> <p>The project has specific gender targets and budget allocations. Quotas will be used ensure their participation in planning processes under component 1 and for equal access to grants.</p>	<p>- Review selected beneficiaries against women target percentages</p> <p>- Review complaints related to exclusion based on gender.</p>	<p>UNOPS and IFAD</p> <p>Formatted: Font: 9 pt</p> <p>Formatted: Font: 9 pt</p> <p>Formatted: Font: 9 pt</p> <p>Formatted: Font: 9 pt</p> <p>Formatted: Font: 9 pt</p> <p>Formatted: Font: 9 pt</p>
6. Core Labour Rights	Y	<p>There is a small risk of labour standards not being respected in project-related contracts by service providers with sub-contractors. Potential risks may include: This may include:</p> <ul style="list-style-type: none"> Non-compliance with safety standards Non-compliance for worker rights 	<p>ILO conventions and protocols currently not ratified: Relevant standards not ratified in Libya include:</p> <p>Fundamental: C155 - Occupational Safety and Health Convention, 1981 (No. 155) C187 - Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187) Governance:</p>	<p>Dissatisfaction among workers and employees in the project and potential cases of labour abuse.</p>	<p>The project follows ILO core labour standards. Looking at the conventions and protocols not ratified, the project will be particularly attentive to any health and safety and inspections</p> <p>Any agreement / contract for project works signed will include reference to compliance with ALL ILO labour standards; also not ratified relevant standards in Libya. Also inspections will be carried out for work under the grants and for the set-up of the farmer field schools etc.</p>	<p>- Review contracts for clauses related to ILO labour standards.</p> <p>- Review complaints related to labour rights abuse.</p>	<p>UNOPS and IFAD.</p> <p>Field Code Changed</p> <p>Field Code Changed</p> <p>Field Code Changed</p>

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		← Limited facilities	<p>C129 - Labour Inspection (Agriculture) Convention, 1969 (No. 129) Technical: C184 - Safety and Health in Agriculture Convention, 2001 (No. 184)</p>						<p>Formatted: Indent: Left: 0.25", No bullets or numbering, Position: Horizontal: Center, Relative to: Margin, Vertical: -0.81", Relative to: Paragraph</p> <p>Field Code Changed</p> <p>Field Code Changed</p>
7. Indigenous Peoples	Y	<p>There is a small risk of non-integration of ethnic groups' needs, cultural considerations and possible concerns</p> 	<p>Initial consultations with ethnic groups have already been conducted to identify specific needs and possible concerns. 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 the project is not targeting specifically (the district is targeted but not the town).</p>	<p>Potential tension and/or conflict within community between ethnic groups in the target areas.</p>	<p>The project recognises the rights of all ethnic groups. Free, Prior, Informed Consent (FPIC) will be applied by 1) mapping all ethnic groups and potential impacts of the project on these groups and 2) involving ethnic groups in planning and decision-making processes, including not going ahead with activities if not agreed by ethnic groups (including having written consent). The engagement of ethnic groups will be monitored.</p>	<p>- Review FPIC reports to ensure the transparency and transparency of the process.</p> <p>- Review complaints related to exclusion on ethnic basis.</p>	UNOPS and IFAD.	<p>Field Code Changed</p>	
8. Involuntary Resettlement	N	<p>There is no risk of involuntary resettlements</p>	<p>It is not foreseen that land other than agriculture and agriculture land will be targeted under this project.</p>	x	<p>Resettlement as a result of project activities will be avoided at all time.</p> <p>Owners of private land or people with informal livelihoods that may be affected by the project will need to agree with project interventions before they start. People without land title can be selected as project beneficiaries without risk of losing investment / land.</p>	x	x	<p>Field Code Changed</p>	
9. Protection of Natural Habitats	N	<p>There is no risk of Natural Habitats being negatively impacted by project activities</p>	<p>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.</p> <p>As per UNESCO there is one biosphere reserve (Ashaalean) in the Nafusa mountains in the target districts of Nalut and Al jabal</p>	x	<p>Natural habitats in Marj and Derna districts will be considered in the CCVAs.</p>	x	x	<p>Field Code Changed</p> <p>Field Code Changed</p>	

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			al Gharbi. No project interventions will take place in these reserve				
10. Conservation of Biological Diversity	Y	There is a very small risk of biodiversity being negatively impacted by the project activities under component 2.	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 may be impacted by project activities.	Although it is highly unlikely, the Thorectes puncicollis, the saker Falcon and the Egyptian Vulture may be impacted by project activities. Before any work on the ground (as part of the grant) can start, it will be checked if any of the above are nesting. If so, works on these locations cannot take place. Otherwise, works should take place during the non-nesting season. This will be part of the geological surveys to be conducted as proposed under principle 12.	- Review reports on the impact of project activities on these species.	UNOPS IFAD.
11. Climate Change	Y	There is a small risk of increased energy use due to project activities and thus a negligible increase in GHG emissions.	There could be a negligible increase in Libya's GHG emissions due to works on the ground related to the grant packages and livestock practices.	Negligible increase in Libya's GHG emissions.	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. The grants will be provided with conditions for avoiding GHG emissions. The exact condition will be agreed upon during inception Trainings on low emissions livestock practices will be included in FFS under component 4 and trainings under component 2 and 3.	- Review training modules related to component 3	UNOPS
12. Pollution Prevention and Resource Efficiency	Y	There is a small risk of inefficient resource use	There could be a small risk that these grant packages will not be used in the most optimum way and water could	The grant packages will not be used in the most optimum way and water could be exploited in an	The project is designed to efficiently use energy and materials and to avoid any produce of additional waste.	- Review geological survey reports.	UNOPS

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			be exploited in an unsustainable manner. Also, there is a risk that grant packages will increase the use of agriculture inputs (e.g. pesticides, fertilizers, etc.).	unsustainable manner. Also, there is a risk that grant packages will increase the use of agriculture inputs (e.g. pesticides, fertilizers, etc.)	<p><u>Trainings will be provided on avoiding these risks and the use of sustainable agriculture practices, including on resource efficiency and pollution prevention. These will be included in FFS under component 4 and trainings under component 2 and 3. Also, geological surveys will be conducted as part of components 2 and 3.</u></p> <p>- <u>The grants will be provided with conditions for not using environmentally harmful and unsustainable practices / techniques. The exact condition will be agreed upon during inception/environmental harmful</u></p>	- Review training modules related to components 2 and 3		<p>Formatted: Font: 9 pt, English (United Kingdom)</p> <p>Formatted: Normal, No bullets or numbering</p>
13. Public Health	Y	<p>There is a small risk of health risks, which may include:</p> <ul style="list-style-type: none"> - <u>Security incidents</u> - <u>Vector borne and communicable diseases</u> - <u>Health and safety incidents</u> - <u>Theft and/or stolen items</u> <p>Also, Covid-19 transmission <u>COVID-19 remains a risk for the project implementation and could cause serious delays. The total cases in Libya stands at 506,775⁴⁹ but the latest trend shows a sharp decline in the number of new</u></p>	<p>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 <u>see above). However, there is a small risk of beneficiaries attracting diseases during works related to the grants. However,</u></p>	<p>Spread of diseases among the community in target areas.</p>	<p>Measures to reduce the potential impact of COVID-19 (and other emerging health risks) <u>situation on project activities will be further assessed/proposed/assessed as proposed</u> under section III.B (financial and project/programme risk management) These may include flexible approach to having some activities "online" and <u>mitigation applying mitigation applying</u> health and safety measures to keep people involved in the project safe. Mitigation measures regarding protecting public health from spreading infections will also be incorporated into the project's ESCMP.</p> <p>Any increase of the use of pesticides as part of project activities will be avoided</p> <p>- <u>JLO health and safety standards will be applied</u></p>	- Review complaints regarding spread of diseases from project beneficiaries.	<p>UNOPS</p> <p>Formatted: Font: (Default) Arial, 9 pt</p> <p>Formatted: Position: Horizontal: Center, Relative to: Margin, Vertical: -0.81", Relative to: Paragraph</p> <p>Formatted: Font: (Default) Arial, 9 pt</p> <p>Formatted: Normal, No bullets or numbering, Position: Horizontal: Center, Relative to: Margin, Vertical: -0.81", Relative to: Paragraph</p> <p>Formatted: Left, Space After: 0 pt, Position: Horizontal: Center, Relative to: Margin, Vertical: -0.81", Relative to: Paragraph</p> <p>Formatted: Font: (Default) Arial, 9 pt</p> <p>Formatted: Font: (Default) Arial, 9 pt, English (United Kingdom)</p> <p>Formatted: Font: (Default) Arial, 9 pt, English (United Kingdom)</p> <p>Formatted: Font: (Default) Arial, 9 pt, English (United Kingdom)</p> <p>Formatted: Font: (Default) Arial, 9 pt</p> <p>Formatted: Normal, No bullets or numbering</p>	

⁴⁹Worldometers (2022). COVID-19 cases- Libya. <https://www.worldometers.info/coronavirus/country/libya/> (Last accessed = 31/08/2022).

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		cases. On the other hand, the project activities themselves carry the risk of aggravating the spread of COVID-19 among communities as a result of project activities that involve mobilization (e.g. trainings). Otherwise, health risks are limited.					
14. Physical and Cultural Heritage	N	There is no risk of project activities negatively impacting heritage sites	<p>As per UNESCO there are 5 cultural heritage sites in Libya</p> <ul style="list-style-type: none"> Archaeological Site of Cyrene (1982) Archaeological Site of Leptis Magna (1982) Archaeological Site of Sabratha (1982) Old Town of Ghadames (1988) Rock-Art Sites of Tadrart Acajou (2011)  <p>Although two are located in the five north-western target districts, these are protected structures and there is no risk of project activities negatively impacting these.</p>	x		x	x
15. Lands and Soil Conservation	N	There is no risk of project activities negatively impacting lands and soils	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 in the country	x		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.	x

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1.3. Screening and categorization

~~160-186.~~ Based on the screening against the 15 AF principles, the project has been ~~categorised~~categorized as a “B” category project in terms of the environmental and social risks it poses. See also Part II.L.

~~161-187.~~ For an overview of project activities’ screening results against the 15 AF principles see below table. For details, see the next section.

Table ~~444540~~ Overview of environmental and social impacts and risks for which further assessments and management are required*

Checklist of environmental and social principles	No further assessment required for compliance (during project implementation)	Potential impacts and risks – further assessment and management required for compliance
1. Compliance with the Law		X
2. Access and Equity		X
3. Marginalized and Vulnerable Groups		X
4. Human Rights		X
5. Gender Equality and Women’s Empowerment		X
6. Core Labour Rights		X
7. Indigenous Peoples		X
8. Involuntary Resettlement	X	
9. Protection of Natural Habitats	X	
10. Conservation of Biological Diversity		X
11. Climate Change		X
12. Pollution Prevention and Resource Efficiency		X
13. Public Health		X
14. Physical and Cultural Heritage	X	
15. Lands and Soil Conservation	X	

Table ~~454644~~ Overview of project activities’ screening results against the 15 AF risk areas / principles. This table is in line with table ~~39-45~~ and the risks screening sheets presented later, as these are directly related to project activities and not typical or general risks.

Detailed outputs / activities	Risk screening result	Explanation why triggered or not	
Component 1: Participatory prioritization of climate change adaptation options into national, district and community planning for agriculture/ livestock development			Formatted: English (United States)
Output 1.1. Climate change vulnerability and hazards risks assessments conducted for the agriculture/ livestock sector in Libya, specifically Libya, specifically targeting districts in the north-west (5), north-east (4) and south (4) with the participation of vulnerable groups and women	Potential risks related to AF ESP Principles 3, 5, 7 and 14.	Principles 3, 5 and 7 were triggered based on concerns related to exclusion of women, youth, most vulnerable and ethnic groups. Selection bias could result on discrimination based on gender, age or ethnicity/ethnicity . However, the project's target strategy, FPIC, targets for women and youth and the grievance and redress mechanism will mitigate those risks. Principle 13 was triggered due to mobilizing people as a result of trainings, consultations, workshops that could increase the risk of spreading some communicable diseases (e.g. COVID-19). The risk will be mitigated through health and safety standards and online meetings if needed/feasible.	
Output 1.2. National climate resilient agriculture / livestock strategy developed in which climate change hazard risks and adaptation options are options are identified, prioritized and promoted at national and district level, with specific attention to the needs of vulnerable groups and women	Potential risks related to AF ESP Principles 3, 5 and 7.	Principles 3, 5 and 7 were triggered based on concerns related to exclusion of women, youth, most vulnerable and ethnic groups. Selection bias could result on discrimination based on gender, age or ethnicity/ethnicity . However, the project's target strategy, FPIC, targets for women and youth and the grievance and redress mechanism will mitigate those risks.	
Component 2: Climate resilient investment in concrete activities in the agriculture sector			Formatted: English (United States)
Output 2.1. Climate change resilient crops (i.e., drought /heat resilient and salt resistant crop varieties) implemented in implemented in four (4) districts in the northwest of Libya, including through around 5900 grant packages (of USD 560 each) to farmer, women and youth groups.	Potential risks related to AF ESP Principles 1, 2, 3, 4, 5, 6, 7, 10, 12 and 13.	Principle 1 was triggered based on a potential small risk of subcontractors non-complying with national laws/ standards that could result in environmental harm. However, the risk could be mitigated through contractual clauses to abide to national technical standards and international best practices.	Formatted: English (United States)
		Principles 2, 3, 5 and 7 were triggered based on concerns related to exclusion of women, youth, most vulnerable and ethnic groups. Selection bias could result on discrimination based on gender, age or ethnicity/ethnicity . However, the project's target strategy, FPIC, targets for women and youth and the grievance and redress mechanism will mitigate those risks.	Formatted: English (United States)
		Principles 4 and 6 were triggered due to concerns on human and labour rights stemming from non-ratification of some of the human rights conventions. However, this risk will be mitigated by contractual clauses for subcontractors that align with UN and international human rights as well as ILO principles.	
		Principle 10 was triggered due to minimal potential risks related to 3 species namely the <i>Thorectes puncicollis</i> , the saker Falcon and the Egyptian Vulture that could be impacted by project activities. However, interventions in areas where these species are abundant will be avoided as much as possible and any impact will be monitored closely.	
		Principle 12 was triggered with risks related to the use of inputs from the grants being used inefficiently and unsustainable use of groundwater resources. However, trainings on resource efficiency and geological surveys to be conducted for groundwater resources should mitigate those risks.	Formatted: Font: (Default) Arial, 9 pt, English (United States)
		Principle 13 was triggered due to the increase use in water resources that could aggregate/ aggravate the risk of spreading water-borne diseases. Awareness raising on the risks of these diseases and how to minimize their spread will be included in training manuals.	Formatted: English (United States)
Output 2.2. Relevant public Institutional staff, farmers staff, farmers and women trained to implement,	Potential risks related to AF ESP Principles 3, 5 and 7.	Principles 3, 5 and 7 were triggered based on concerns related to exclusion of women, youth, most vulnerable and ethnic groups. Selection bias could result on discrimination based on gender, age or ethnicity/ethnicity .	Formatted: English (United States)

maintain and sustain climate change resilient crops and to support the strengthening or creation of community organizations and community development plans		However, the project's target strategy, FPIC, targets for women and youth and the grievance and redress mechanism will mitigate those risks.	Formatted: English (United States)
Component 3: Climate resilient investment in concrete activities in the livestock sector			Formatted: English (United States)
Output 3.1. Climate change resilient natural asset / resource (i.e. rangeland management) production system protection / rehabilitation improvements implemented in two (2) districts in the northwest of Libya, including through around 3600 grant packages (of USD 560 each) to pastoralists and women groups.	Potential risks related to AF ESP Principles 1, 2, 3, 4, 5, 6, 7, 10, 11, 12 and 13.	<p>Principle 1 was triggered based on a potential small risk of subcontractors non-complying with national laws/standards that could result in environmental harm. However, the risk could be mitigated through contractual clauses to abide to national technical standards and international best practices.</p> <p>Principles 2, 3, 5 and 7 were triggered based on concerns related to exclusion of women, youth, most vulnerable and ethnic groups. Selection bias could result on discrimination based on gender, age or ethnicity. However, the project's target strategy, FPIC, targets for women and youth and the grievance and redress mechanism will mitigate those risks.</p> <p>Principles 4 and 6 were triggered due to concerns on human and labour rights stemming from non-ratification of some of the human rights conventions. However, this risk will be mitigated by contractual clauses for subcontractors that align with UN and international human rights as well as ILO principles.</p> <p>Principle 10 was triggered due to minimal potential risks related to 3 species namely the Thorectes puncicollis, the saker Falcon and the Egyptian Vulture that could be impacted by project activities. However, interventions in areas where these species are abundant will be avoided as much as possible and any impact will be monitored closely.</p> <p>Principle 11 was triggered due to a small risk of increased energy use due to project activities as well as increase in livestock and thus a negligible increase in GHG emissions. However, the project will not support any activities that will increase energy use unless energy use is compensated with renewable energy us and. Trainings will include low emissions rangeland management and livestock practices.</p> <p>Principle 12 was triggered with risks related to the use of inputs from the grants being used inefficiently and unsustainable use of groundwater resources. However, trainings on resource efficiency and geological surveys to be conducted for groundwater resources should mitigate those risks.</p> <p>Principle 13 was triggered due to the increase use in water resources that could aggravate the risk of spreading water-borne diseases. Awareness raising on the risks of these diseases and how to minimize their spread will be included in training manuals.</p>	Formatted: English (United States)
Output 3.2. Relevant public Institutional staff, pastoralists and women trained to implement, maintain and sustain climate change resilient natural asset / resource (i.e. rangeland management) production system improvements and to support the strengthening or creation of community organizations and community development plans.	Potential risks related to AF ESP Principles 3, 5 and 7.	Principles 3, 5 and 7 were triggered based on concerns related to exclusion of women, youth, most vulnerable and ethnic groups. Selection bias could result on discrimination based on gender, age or ethnicity. However, the project's target strategy, FPIC, targets for women and youth and the grievance and redress mechanism will mitigate those risks.	Formatted: Font: (Default) Arial, 9 pt, English (United States)
Component 4: 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			Formatted: English (United States)
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<p>Output 4.1. Mechanism implemented 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 one (1) district in the northwest, four (4) districts in the northeast and four (4) districts in south and to vulnerable groups and women, including through workshops, guidelines, farmer field schools, a ToT programme and field visits to demo plots.</p>	<p>Potential risks related to AF ESP Principles 3, 5, 7 and 14.</p>	<p>Principles 3, 5 and 7 were triggered based on concerns related to exclusion of women, youth, most vulnerable and ethnic groups. Selection bias could result on discrimination based on gender, age or ethnicity. However, the project's target strategy, FPIC, targets for women and youth and the grievance and redress mechanism will mitigate those risks.</p> <p>Principle 13 was triggered due to mobilizing people as a result of trainings, consultations, workshops that could increase the risk of spreading some communicable diseases (e.g. COVID-19). The risk will be mitigated through health and safety standards and online meetings if needed/feasible.</p>	<p>Formatted: English (United States)</p> <p>Formatted: English (United States)</p> <p>Formatted: English (United States)</p> <p>Formatted: English (United States)</p>
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Details and results of the risks screening process

This section discusses both the potential environmental and social risks identified directly linked to proposed project activities and the typical potential risks in the context of projects in Syria. The latter are regarded as low risks but risk avoidance / mitigation measures are proposed to ensure no negative impacts will occur.

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Principal 1: Compliance with the Law

Screening result: Low risk

Explanation: Relevant national standards and project compliance with these have been identified. No impact assessment is required by national law for proposed interventions. However, there is still a small risk of sub-contractor non-complying with national law. However, the project will ensure compliance by including standard clause in all project contracts with reference to laws/ standards as described in this proposal (Part II.E) and reviewing complaints received on incompliance through the GRM.

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The process of EIA has been identified as follows (more details are in Part II.E):

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

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Principal 2: Access and Equity

Screening result: Low risk

Explanation: There is a small risk of inequitable participation in project decision making and access to project benefits due to a weak targeting strategy. This risks creating tension that could lead to conflict among communities in the target areas. The project design supports equal access to project benefits through a participatory approach (i.e. a participatory planning and decision-making process). The project will ensure equal opportunities in participation and decision-making concerning the project of women, youth, ethnic groups and other vulnerable groups by using quotas and by agreeing on representation in decision-making processes through the use of ToRs, agreements, etc. In addition, the project will apply strict selection criteria in the targeting strategy and will periodically review complaints with regards to discrimination or negative impacts by beneficiaries.

Principal 3: Marginalized and Vulnerable Groups

Screening result: Low risk

Explanation: There is a small risk of marginalised groups being excluded from project implementation processes and benefits. This is mainly due to traditions related to gender roles and the tribal culture that could exclude certain groups which would lead to a lost opportunity of using women and youth as change agents as well as not meeting the targets in the results framework. However, The project will ensure equal opportunities in participation and decision-making concerning the project of women, youth, ethnic groups and other vulnerable groups by using quotas and by agreeing on representation in decision-making processes through the use of ToRs, agreements, etc. In addition, the project will apply strict selection criteria with certain percentages for women and youth in the targeting strategy and will periodically review complaints with regards to discrimination on the basis of sex, age or ethnicity.

Principal 4: Human Rights

Screening result: Low risk

Explanation: Human rights breaches can arise over denial of access to decision making and project benefits or other human right violations (including sexual harassment and gender-based violence).

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

The project will target women beneficiaries and so risk of sexual harassment, gender-based violence and gender abuse will likely increase in addition to potential child labour incidents. However, the project will increase local engagement to work with local leaders and male household's members and promote campaign for sensitisation on gender equality and against gender biases. The project will also conduct gender-sensitive and participatory consultations while executing the various activities. These have to include safe spaces/ women-only focus groups to encourage women's meaningful participation in consultations. As needed, the project will create female-only spaces for women to receive trainings and services. In addition, any agreement / contract for the project will include reference to human rights treaties and to respect these including prohibiting child labour. Finally, the project will strictly apply the GRM with special arrangements for sexual harassment complaints (see GRM section below).

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Principal 5: Gender Equality and Women's Empowerment

Screening result: Low risk

Explanation: There is a risk of local cultures/ traditions blocking women's voices or exclude them from decision making (see annex 2 for more details). This would lead to lost opportunity of capitalizing on women's potential to help the sector's adaptation. However, as mentioned above, women will be involved in all participatory and consultation groups as per the gender strategy (see annex 2 for more details). In addition, the project will apply the targeting strategy which sets out a certain percentage for women as target beneficiaries. Finally, the project will also review complaints related to discrimination based on sex.

Principal 6: Core Labour Rights

Screening result: Low risk

Explanation: There is a risk that the international labour rights are not respected in contracts by service providers. However, The project follows ILO core labor standards. The project will be particularly attentive to health and safety and inspections standards. Any agreement / contract for project works signed will include reference to compliance with all ILO labour standards, even if not ratified in Libya. Finally, the project will periodically review any complaints related to working conditions or labour rights.

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Principal 7: Indigenous Peoples

Screening result: Low risk

Explanation: There is a small risk of non-integration of ethnic groups' needs, cultural considerations and possible concerns. Initial consultations with ethnic groups have already been conducted to identify specific needs and possible concerns. 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 the project is not targeting specifically (the district is targeted but not the town). The project will in all cases apply Free, Prior, Informed Consent (FPIC) by mapping all ethnic groups and potential impacts of the project on these groups and involving ethnic groups in planning and decision-making processes, including not going ahead with activities if not agreed by ethnic groups (including having written consent). The project will also review complaints through the GRM related to discrimination based on ethnic backgrounds.

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Principal 8: Involuntary Resettlement

Screening result: No potential risk

Explanation: It is not foreseen that land other than agriculture land will be targeted under this project. The project determined that no physical or economic displacement will take place due to the project/programme. This has been determined by mapping project target sites land ownership (private, public) and land use, also informally, and through consulting communities / users on the possible risk of resettlement and to get agreement on proposed

interventions (i.e. no interventions will take place without the consent of inhabitants in the targeted areas). Land owners, private or public, have agreed with using their land for project activities.

Principal 9: Protection of Natural Habitats

Screening result: No potential risk

Explanation: The project ensures that no unjustified conversion or degradation of critical natural habitats will take place because of project activities. During project preparation, it has been checked if any critical natural habitats exist in the target location, including their location, characteristics and critical value (i.e. legal protection status, common knowledge or traditional knowledge), as well as possible negative impacts on these due to project activities. 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.

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Principal 10: Conservation of Biological Diversity

Screening result: Low risk

Explanation: There is a very small risk of biodiversity being negatively impacted by the project activities under components 2 and 3. The project ensures that any significant or unjustified reduction or loss of biological diversity because of project activities will be avoided. During project preparation, it has been checked if any important biodiversity exist in the target location, including their protection status and other recognised inventories as well as possible negative impacts on these due to project activities.

As per IUCN Red List From the 21 critically endangered and 24 endangered species, 3 are potentially located in the four north western target districts: the *Thorectes punicollis*, the saker Falcon and the Egyptian Vulture.

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Drought and heat resilient and salt resistant crop varieties will be varieties of crops already in use. The project will ensure that potential interventions in areas with abundance of these species will be avoided as much as possible and that any impact on these species will be closely monitored.

Principal 11: Climate Change

Screening result: Low risk

Explanation: There is a very little risk related to the increase of GHG emissions due to the increase in the use of energy and the interventions that could increase livestock activity. However, these could only increase emissions at a negligible scale. The project will then ensure that the energy use increase is only compensated with renewable energy use. It will also use the trainings and capacity building to promote low carbon agriculture and livestock practices among beneficiaries of the grant packages.

Principal 12: Pollution Prevention and Resource Efficiency

Screening result: Low risk

Explanation: There is a small risk of inefficient. The grant packages may not be used in the most optimum way and water could be exploited in an unsustainable manner. Also, there is a risk that grant packages will increase the use of agriculture inputs (e.g. pesticides, fertilizers, etc.). Hence, the project will conduct the necessary geological surveys in the target areas where there will be groundwater use. In addition, the trainings for beneficiaries will focus on good agricultural practices (e.g. organic fertilizers, IPM, etc.).

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Principal 13: Public Health

Screening result: Low risk

Explanation: 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. However, there is still a risk that the project's activities unintentionally aggravate public health concerns in the target areas including waterborne diseases and COVID-19. Measures to reduce the potential impact of COVID-19 (and other emerging health risks) will be taken and situation will be further assessed as proposed under section III.B (financial and project/programme risk management). Extra mitigation measures regarding protecting public health from spreading infections will also be incorporated into the project's ESCMP as

needed. Through trainings, any increase of the use of pesticides as part of project activities will be avoided. If needed, the project will include flexible approach to having some activities 'online' when needed and feasible (e.g. institutional trainings) and applying health and safety measures during physical workshops/events. ILO health and safety standards to be applied (see principle 6).

Principal 14: Physical and Cultural Heritage

Screening result: No potential risk

Explanation: The project ensures that the alteration, damage, or removal of any physical cultural resources, cultural sites, and sites with unique natural values recognized as such at the community, national or international level due to project activities will be avoided. During project preparation, It has been checked if physical or cultural heritage sites are present or near project sites, as well as possible risks of impacts on these due to project activities. 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 Ghadames (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.

Principal 15: Lands and Soil Conservation

Screening result: No potential risk

Explanation: The project ensures no negative impacts lands and soil conservation will result from project activities. All proposed project activities aim to enhance sustainable land and soil use. No excavations will take place. In the four 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 in the country

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1.4. Environmental, Social and Climate Management Plan (ESCMP)

462-188. **Content:**

- Allocated roles and responsibilities environmental and social risk management / implement of the ESCMP
- Opportunities for adaptive management
- Arrangements to supervise executing entities for implementation of ESCMP
- Budget provision to manage environmental and social risks/ implement of the ESCMP
- Measures to avoid, minimize, or mitigate potential risks
- Risks monitoring system/ indicators
- Grievance and Redress Mechanism

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463-189. **Allocated roles and responsibilities for environmental and social risk management / implementation of the ESCMP**

IFAD will be responsible for environmental and social risks management of the project, including implementation of the Project ESCMP. An AF and IFAD policies and reporting compliance expert will be part of the IFAD project team. This expert will also supervise UNOPS on the implementation of the Project ESCMP. Guidelines showing how to comply to the AF ESP and GP will be shared with UNOPS and UNOPS will be guided on the process, including monitoring. A Safeguarding system compliance expert will also be part of the IFAD project team. Monitoring project staff will require having expertise on environmental and social risk management and be familiar with the AF safeguarding system.

464. **Roles and Responsibilities**

Table 464742 Roles and Responsibilities for Direct Contracting

Team	Role	Responsibility
IFAD	Project Management	<ul style="list-style-type: none"> • Coordination with UNOPS and national authorities • Appoint project grievance mechanism focal point to implement the Grievance Redress Mechanism
	AF and IFAD policies and reporting compliance expert	<ul style="list-style-type: none"> • Review ESCMP at inception phase • ESCMP monitoring • Reporting (PPR) • Documentation of site, interviews with beneficiaries
UNOPS / Contractor	Project Lead / Manager	<ul style="list-style-type: none"> • Reporting to IFAD Team and ensuring project execution, including but not limited to: <ul style="list-style-type: none"> ○ Co-develop ESCMP with Safeguard Consultant Team ○ Implement ESCMP ○ Report on ESCMP safeguard activities and key performance indicators to IFAD

465-190. All project-related ToR's and contracts will include clauses stating contractors will need to comply to the AF ESP, especially principle 1 (law), 4 (human rights), 5 (gender), 6 and 13 (labour and safety), 8 (involuntary resettlement and 11/12 (emissions / pollution) and to the AF GP. This includes:

- Principle 1: References to laws and standards to which the project activity will need to comply will be included in all legal agreements with all sub-contractors, including steps and responsibilities for compliance.
- Principle 4: References to relevant Humans rights declarations will be included in all legal agreements with all sub-contractors.
- Principle 5: Reference to relevant gender policies and approach and baseline
- Principle 6: Employment and working conditions following ILO standards will be included in legal agreements with all sub-contractors.
- Principle 8: Statement that no involuntary resettlement will take place due to project activities

- Principle 11: Commitment to avoiding GHG emission, where possible
- Principle 13: Ensure that ICSC international health and safety standards are clearly accessible and understood. e.g. by putting clearly visible signs detailing health and safety standards to be located at projects sites and by supplying protective equipment.

466-191. **Minimum requirements and standard clauses will include:**

467-192. **Principle 1: Compliance with the laws**

Potential risk / impact	Mitigation
Non-compliance with laws / standards	<ul style="list-style-type: none"> • Include standard clause in MoU / all contracts with reference to laws / standards as described in this proposal (Part II.E)

468-193. **Principle 4: Human Rights**

Potential risk / impact	Mitigation
Limited awareness on human rights	<ul style="list-style-type: none"> • Share information on human rights with project beneficiary groups at the inception phase of the project

469-194. **Principle 5: Gender Equality and Women’s Empowerment.**

Potential risk / impact	Mitigation
Limited awareness of gender approach and baseline	<ul style="list-style-type: none"> • Share information on gender policies and approach and baseline with project actors

470-195. **Principle 6 Core labour rights**

Potential risk / impact	Mitigation
Non-involvement Local Employment	<ul style="list-style-type: none"> • Measures to maximise local employment • Work with local community on verification of local workers where feasible
Non-Local Procurement	<ul style="list-style-type: none"> • Measures to maximise local procurement • Work with local community on verification of local suppliers where feasible
Non-compliance Worker Rights	<ul style="list-style-type: none"> • Include standard clause in MoU / all contracts: <ul style="list-style-type: none"> ○ HR policy aligned with local law, IFC PS2 and ILO Core Conventions ○ Worker Grievance Mechanism will be established ○ Enforce minimum age expectations (according to ILO) and GoL minimum age) ○ Measures to ensure Contractor adopts project HR Policy standards (either contractually or through monitoring) ○ Ensure all employees are provided with a written employment contract before start of works ○ Provide details of the transport arrangements for all workers to and from their accommodation (dedicated or in the local community) ○ Refer to Occupational Health and Safety Procedures
Limited Facilities	<ul style="list-style-type: none"> • Contractor to provide or facilitate access to necessary worker facilities which include but are not limited to: toilets, rest areas, smoking areas, canteen and potable drinking water to WHO standards • All worker facilities and accommodation will be cleaned, maintained and centrally managed

474-196. **Principle 11 climate change**

Potential risk / impact	Mitigation
Increased GHG Emissions due to Project Emissions (such as from WWTP and pumping)	<ul style="list-style-type: none"> • Exact project-related energy use to be determined during project inception phase and where feasible, 'extra' energy use to be compensated through installation of solar PV

472-197. Principle 13 Health

Potential risk / impact	Mitigation
Security incidents	<ul style="list-style-type: none"> Ensure health and safety procedure prior to construction that establishes procedures such as UXO clearance and transportation of goods clearance from security agencies
Occupational Health and Safety	<p>Occupational Health and Safety Procedures must be developed, specific to each Project output, for the following:</p> <ul style="list-style-type: none"> Working at Height Heavy Lifting Working in Confined Spaces Excavation Works Hot Work Working and Scaffolding Electrical Safety Working with Machinery Site Clearance (debris management, unexploded ordinances) Collapsing Structures Handling of Hazardous Materials Weather Conditions Lone Working Material Transport (unloading and storage) Earthmoving and Concreting Permit to Work System Lock Out Tag Out (LOTO) System Minimum Mandatory PPE (incl. shoes, helmets, gloves, high-visibility vest, safety glasses) Proper Safety Signage Medical Clinic and First Aid Housekeeping
Increase in Social Tension due to Contractor-Community Interactions and Security	<p>A Worker Code of Conduct/Training must be developed and at a minimum must:</p> <ul style="list-style-type: none"> Outline general requirements and expectations on security interaction with community and external stakeholders, respectful, polite, and honest behaviour/behavior is expected from all employees Outline requirements on conflict avoidance and sensitivity to local cultures, traditions and lifestyles. Ensure that no workers are to engage with the local community except via an appointed representative Ensure zero tolerance of illegal activities by all personnel including: prostitution; illegal sale or purchase of alcohol; the sale, purchase or consumption of drugs; gambling and fighting Be included as part of induction and signed by all employees
Increase in Vector Borne and Communicable Diseases	<p>A Vector Borne and Communicable Diseases Procedure must be developed and at a minimum must:</p> <ul style="list-style-type: none"> Limit the spread of vector borne disease and communicable diseases
Limited emergency Response Local Capacity and Equipment	<ul style="list-style-type: none"> Audit and gap assessment of local capacity Coordinate with local emergency response teams (fire, EMS, police, hospital) and implement mitigations to address gaps
Workplace health and safety incidents	<p>An Emergency Preparedness and Response Procedure must be developed and at a minimum must:</p> <ul style="list-style-type: none"> Define individual emergency response actions for all potential scenarios Define a schedule of emergency drills and scenarios Establish an Emergency Response Team with dedicated resources and equipment Ensure emergency communications system is in place and reliable Implement a drill schedule and provide reports Define COVID-19 procedure (see below)
Interaction with security actors	<ul style="list-style-type: none"> Develop Security and Human Rights Management Procedure that is in alignment with UNDSS SOP, IFC PS4 and the Voluntary Principles of Human Rights All private security personnel to receive procedural or knowledge training in:

Potential risk / impact	Mitigation
	<ul style="list-style-type: none"> Guard-post orders and procedures Proper conduct and ethics/human rights Rules of engagement and use of force Community interaction and community grievance mechanism <p>Engage the public security force through the correct hierarchy and channels early in the process to set up good working relationship and improve opportunities for influence on the adoption of International Standards.</p>
Stolen Items	<ul style="list-style-type: none"> In the case of public spaces, the municipality will assign a guard
Covid-19	<ul style="list-style-type: none"> A Health and Safety Risk Assessment of each project activity, including supply chains and associated facilities, against International Standards needs to be carried out including specific alignment with IFC PS2 (Labour and Working Conditions) as well as IFC PS4 (Community Health and Safety and Security). <p>The assessment involves a four-step process:</p> <ol style="list-style-type: none"> Conduct a Health and Safety Risk Assessment to identify the potential risk and impact of COVID-19 on project activities, including supply chains and associated facilities. Develop and implement mitigation measures to manage health risks for each project activity (to be provided in the ESCMPs during the project inception phase). If despite the implementation of mitigation measures a positive COVID-19 case is identified, then alternative "lower risk" activities will be proposed. If "lower risk" activities are not an option, then activities will be delayed/postponed. <p>Contractors should start to implement COVID-19 mitigation measures now, even if the virus has not arrived in the communities they are operating within. The following is a list of mitigation measures to prevent the spread of COVID-19 in the workplace that must be implemented at each work site:</p> <ul style="list-style-type: none"> Ensure workplaces are clean and hygienic. Surfaces (e.g. desks and tables) and objects (e.g. telephones, keyboards) need to be wiped with disinfectant regularly Promote regular and thorough hand washing Put sanitisingsanitizing hand rub dispensers in prominent places around the workplace and ensure these dispensers are regularly refilled Display posters promoting hand washing, and ensure that workers have access to places where they can wash their hands with soap and water Brief workers that if COVID 19 starts spreading in your community anyone with even a mild cough or low-gradelow-grade fever needs to stay at home Where N95 masks are not available, ordinary surgical face masks will be provided <p>The World Health OrganisationOrganization (WHO) has additional information and best practice approaches to occupational health and safety during the COVID-19 outbreak. The International Finance Corporation (IFC), also provides specific guidance regarding preventing and managing health risks of COVID-19 in the workplace and support for workers.</p>

198. Adaptive management

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. When this is required, this will be led by IFAD and the PAC would need to approve the changes.

Due to the dynamic nature of the context in Libya, the ESMP takes an adaptive management approach. This means that, 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. When this is required, this will be led by IFAD and the PAC would need to approve the changes.

Also, the ESCMP allows for abiding by any new laws, amendment to current laws, regulations or technical standards that may emerge in Libya. Any new concerns around access and equity that may come up especially from vulnerable communities (including women, youth, disabled people and ethnic groups) during implementation will be accounted for and further consultations will be conducted to discuss solutions to address them. The ESCMP allows for adapting training activities into online/less crowded sessions in case any health concerns (e.g. COVID-19 like) emerge. Also, while the project avoids areas of important biodiversity

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[abundance, the ESCMP allows for monitoring the before mentioned endangered species in case needed. In addition, Already planned mitigation measures will also be evaluated to assess their effectiveness and then enhanced/changed accordingly. Mitigation measures and any updates with regards to environmental and social risks will be reported to the AF through the annual PPR.](#)

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174.201. **Arrangements to supervise executing entities for implementation of ESCMP**

Table 474843 Capacity of potential executing entities to carry-out gender responsive activities

Potential executing entity	Skills and expertise to provide gender mainstreaming inputs	Specific requirements execution entities for compliance	Capacity building needs
UNOPS	Yes (UN core value)	<ul style="list-style-type: none"> - Appoint an ESP compliance and gender focal point - Capacity to comply to the AF ESP and implementation of the ESCMP guided by IFAD - Capacity to comply to the AF GP 	<ul style="list-style-type: none"> - Awareness on requirements - Share guidelines for execution entities to comply and to ensure 'opportunities' are identified and exploited

175.202. **Budget provision to manage environmental and social risks (incl. gender) / implement the ESCMP**

Dedicated safeguard/ gender compliance staff time is allocated under project execution fees. This person will be supported by IFAD safeguard/ gender specialists.

203. **ESMP Budget Sources**

ESMP related activity	Source of funding to cover costs
Capacity building of project team	Built-in the Project Execution Costs
Implementation of Mitigation Measures	Built-in the Project Costs ⁴³ + Project Execution Costs ⁴⁴
Monitoring and reporting of ESMP	Built-in the Project Execution Costs
Reporting on ESMP in PPR	Built-in the Project Execution Costs + IE Fees
Ensuring ESMP compliance	Built-in the IE Fees

Notes:

- Principle 1: No cost. Part of the procurement.
- Principle 2: No cost. Part of the GRM and targeting strategy.
- Principle 3: No cost. Part of the GRM and targeting strategy.
- Principle 4: Consultations are built in project-cost.
- Principle 5: No cost. Part of the GRM and targeting strategy.
- Principle 6: No cost. Part of the procurement.
- Principle 7: Consultations are built in project-cost.
- Principle 8: Check of nesting as part of geological surveys proposed under principle 12.
- Principle 10: No cost. Part of the targeting strategy.
- Principle 11: Trainings on low emissions livestock practices included in FFS under component 4 and trainings under component 2 and 3.
- Principle 12: Trainings on resource efficiency and pollution prevention included in FFS under component 4 and trainings under component 2 and 3. Geological surveys to be conducted as part of components 2 and 3.
- Principle 13: No cost. Health precautions.

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⁴³ Measures including trainings on low emissions livestock, training on resource efficiency and geological surveys.

⁴⁴ Measures including specific contract clauses (E.g. related to Labour rights), ensuring targeting strategy is implemented, health precautions and reviewing complaints through GRM.

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176. **Measures to avoid, minimize, or mitigate potential risks**
204.

Table 48 Table 49 46 sets out the general Environmental and Social (E&S) commitments/policies to avoid, minimize or mitigate potential risks, that are to be fulfilled by the Contractor, supported by IFAD, UNOPS and the Safeguard Consultant Team, during the Project activities as they relate to the E&S impacts attributable to the construction of works. This is additional / more detailed to the mitigation measures mentioned in Table 43 Table 44.

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Table 48 49 44 Detailed program-level mitigation policies

Item	Mitigation, Management and Enhancement Measures	Means of Verification	Responsibility	Monitoring Procedure
A. General Requirements				
A1. Responsibilities and Liabilities	Ensure that all workers, suppliers and possible sub-contractors are familiar and comply with the requirements and specifications of each ESCMP. Review Contracts to ensure that Environmental and Social Safeguards (ESS) requirements are included	Contracts	UNOPS / IFAD	Review of Contracts to ensure that ESS requirements are included
A2. Resources allocated to ESS Management	Assign ESS responsible staff and define the requirements and responsibilities. Typically Typically, responsible for contact with stakeholders (Community Liaison Officer (CLO))	Final Project-specific ESCMP	UNOPS	Review at project inception phase
A3. Reporting	Reporting of progress and incidents, accidents, observations, near misses	Final Project-specific ESCMP Reporting protocol for Major Incidents	IFAD	Review at project inception phase
A3.4. ESS Training	Provided as required during implementation for IFAD and team and team	Training performed and recorded	Safeguard Consultant Team	Review of training records

Item	Mitigation, Management and Enhancement Measures	Means of Verification	Responsibility	Monitoring Procedure
B. Protection of the Environment				
B1. Emissions and dust	Exact project-related energy use to be determined during project inception phase and where feasible, 'extra' energy use to be compensated through installation of solar PV Use to the extent possible, vehicles in appropriate technical conditions.	Recording of energy use Technical Specification Sheet	UNOPS / EE	Regular monitoring and review of energy use Prior to commencement of works and each time new equipment/ vehicle is used at the site. Visual inspection on regular basis
B2. Wastewater management	Ensure access to toilet facilities or portable toilet facilities that will be serviced on a weekly basis	Visual inspection of condition of facilities	UNOPS / EE	Random site inspection
	Control surface water and where appropriate incorporate storm water management into project designs	Visual inspection, design review	UNOPS / EE	Regular site inspection Final project design

Item	Mitigation, Management and Enhancement Measures	Means of Verification	Responsibility	Monitoring Procedure
B. Protection of the Environment				
B34. Pollution prevention	Ensure all works carried out minimise minimize pollution risk (e.g. liquid effluents, air emissions, noise and vibration management, vehicle and equipment maintenance and selection, fuel, oil and chemical storage and handling) including the whole duration of the Project.	Ensure that potential pollutants are not stored and handled within 50 m of sensitive receptors (particularly watercourses).	UNOPS Center aeter/ EE	Regular site inspection Review of grievance records
B45. Effluents	Ensure appropriate containment and storage of construction wastewater, including sanitary water. No untreated effluent is discharged.	No untreated wastewater discharge	UNOPS Center aeter/ EE	Regular site inspection Review of grievance records
B56. Waste Management	Identify waste management facilities and ensure disposal through treatment/removal/recycling of each of the waste types.	Waste management procedure Waste transfer notes	UNOPS Center aeter/ EE	Inspect waste management facilities Review of waste transfer records
	Ensure that all wastes produced are properly collected, segregated, stored, transported and treated	Waste collection areas existent, waste inventories Waste transfer notes	UNOPS Center aeter/ EE	Random site inspection, Review of waste inventories Review of waste transfer records
	Minimise Minimize the waste production to the extent possible.	Records of waste production are kept Waste Management Plan Training performed and recorded	UNOPS Center aeter/ EE	Monitor (e.g. monthly) the amount of waste produced Review of training records
	Document all waste related operations (type of wastes, quantities produced etc.).	Storage, transport and treatment of waste is documented Waste transfer notes Waste inventories	UNOPS Center aeter/ EE	Review of waste transfer records Review of waste inventories
	Appropriate and safe storage of fuels, construction materials, wastes and any materials that can cause spills (e.g. batteries from energy generators).	Safe storage of materials Spill prevention and response procedure Spill response and remediation equipment in place.	UNOPS Center aeter/ EE	Random site inspection

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Item	Mitigation, Management and Enhancement Measures	Means of Verification	Responsibility	Monitoring Procedure
C. Worker Health and Safety				
C1. Occupational Health and Safety Plan	Develop an Occupational Health and Safety Plan	Occupational H&S Plan in place	UNOPS / Center / Safeguard Consultant Team (for review)	Review of Occupational H&S Plan
C2. Incident reporting	Ensure all H&S related incidents (e.g. observations, accidents) on site are recorded and followed up properly.	Reporting protocol for Major Incidents	Contractor/EE	Check incident/accident records
C3. COVID-19	Ensure workplaces are clean and hygienic including being wiped with disinfectant regularly; the availability of hand sanitizing opportunities (dispensers and/or individual bottles); social distancing where possible; signage on COVID-19 protocols; self-isolation of a worker with symptoms accompanied by immediate testing of workforce. Where N95 masks are not available, ordinary surgical face masks will be provided.	Visual inspection on a regular basis	UNOPS / Center / EE	Regular monitoring
C4. Personal protective equipment	Ensure the provision of Personal Protective Equipment (PPE) for workers (hardhats, masks, safety glasses, safety boots etc. depending on project type).	PPE used by everyone on-site	UNOPS / Center / Site Manager	Random site inspection
C5. UXO/Damaged structure clearance	Ensure UXO clearance/damaged structure clearance obtained prior to start of works.	Documentation of clearance (Commencement of Works Letter)	UNOPS / Center / EE	Review documentation
C6. First-aid	Provide one trained first aiders per 50 employees and adequate amount of first aid kits on site.	Suitable first aid kits on site Ensure the presence of first aid helpers in all shifts First aid certificates	UNOPS / Center / EE	Regular monitoring of first aid kits Review of first aider certificates Review of number of first aiders required by local legislation
C7. Access to health care	Ensure the workforce has access to primary healthcare on site, providing prescriptions and vaccinations where necessary/applicable	Healthcare available on site	UNOPS / Center / EE	Random site inspection Review of grievance records Review of medical records (in case not confidential)
	In case more than 35 workers are present on site, ensure that a hospital, medical clinic or a health center can be reached within a period of 45 minutes.	Medical centers in the proximity of the site.	UNOPS / Center / EE	Medical centers in the proximity of the site identified once prior the commencement of works

Item	Mitigation, Management and Enhancement Measures	Means of Verification	Responsibility	Monitoring Procedure
D. Community Health and Safety				
D1. Contractor-Community Interactions and Security	Engage/ communicate/ inform communities. Ensure consultations with the local authorities and communities regarding the construction.	Minutes of Meetings Grievance Mechanism	UNOPS / Contractor / EE	Review of grievance register Minutes of consultation meetings
	Initiate an efficient Grievance Mechanism to allow potentially affected individuals to raise their concerns.	Grievance Mechanism in place, grievances recorded	UNOPS / Contractor / EE	Review of grievance register
	Establish a Code of Conduct taking into consideration legislation, safety rules, driving safety rules, substance abuse, environmental sensitivity, communicable diseases, gender issues (sexual harassment), respect for local beliefs and customs, community interactions etc.	Code of Conduct in place and rules shared with personnel	UNOPS / Contractor / EE	Review of Code of Conduct induction records Review of reported punishable or misconduct behaviour/behavior Review of grievance records
D23. Vector Borne and Communicable Diseases	Ensure the provision of adequate space, supply of water, adequate sewage and garbage disposal system, appropriate protection against heat, cold, damp, fire and disease-carrying animals and insects, adequate sanitary and washing facilities, adequate lighting, and basic medical services, in accordance with all applicable health and safety regulations and norms.	Vector Borne and Communicable Diseases Procedure Appropriate conditions for workers on site Irrigation plans and procedures	UNOPS / Contractor / EE	Regular inspection Review of grievance records
D4. Emergency scenarios prevention	Ensure immediate cleaning of any spills and remediation of contaminated areas after construction.	Emergency Preparedness and Response Procedure Workers trained. Emergency Response Team (ERT) is in place	Contractor/ EE	Random site inspection after spill events One-time inspection after construction Review of training records Review of ERT
D45. Security and Human Rights	Ensure security and human rights in alignment with UNDSS SOP, IFC PS4 and the Voluntary Principles of Human Rights	Security and Human Rights Management Procedure	UNOPS / Contractor / EE/UNH/IFAD	Regular inspection Review of grievance records
D56. Damage to people and property	Ensure that site areas are provided with appropriate security, fencing, signage and lighting. Use hazard notices/signs/barriers to protect children and other vulnerable people from harm and prevent access to non-workers.	H&S planning of construction site done, items installed	UNOPS / Contractor / EE	Inspection prior to the activities. Random site inspection Review of grievance register

Item	Mitigation, Management and Enhancement Measures	Means of Verification	Responsibility	Monitoring Procedure
D. Community Health and Safety				
D67. Involuntary resettlement	Ensure no physical displacement. Include standard clause in MoU / all contracts: Stating no physical displacement will take place due to project activities (unless project beneficiaries request this)	Contracts Resettlement Action Plan (if necessary)	UNOPS / IFAD Contractor/ EE	Review of Contracts
	Ensure no economic displacement. Include standard clause in MoU / all contracts: Stating no economic displacement (even informal) will be take place due to project activities (unless project beneficiaries request this)	Contracts Livelihood Restoration Plan (if necessary)	UNOPS / IFAD Contractor/ EE	Review of Contracts
D78. Vulnerable Groups	Ensure all vulnerable groups are consulted during inception phase and continually throughout project cycle to verify and further identify all specific needs, limitations and constraints.	Meeting Minutes Grievance Mechanism in place, grievances recorded	UNOPS Contractor/ EE	Review of grievance register Minutes of consultation meetings and consultation reports

Item	Mitigation, Management and Enhancement Measures	Means of Verification	Responsibility	Monitoring Procedure
E. Labour				
E1. Worker Rights	Ensure minimum legal labour standards as per ILO regulations (child/forced labour, sexual assault, no discrimination, equal opportunities, working hours, minimum wages) are met.	Grievance Mechanism Records	UNOPS Contractor/ EE	Review of Inspection reports (also from labour authorities), Review of grievance records
	Ensure that all direct and indirect workers have access to and are aware about the Workers Grievance Mechanism wherever they can raise workplace relevant complaints anonymously.	Workers Grievance Mechanism in place and grievances recorded	UNOPS Contractor/ EE	Review of workers grievance register
	Ensure all workers have the same rights and are treated equally.	Non-discrimination policy in place	UNOPS Contractor/ EE	Random site inspection Review of grievance register
E2. Local employment and procurement	Ensure local communities are preferred for the supply of goods and services to the Project and Project personnel, where appropriate.	Local Employment and Procurement Records	UNOPS Contractor/ EE	Review procurement and employment records Review of grievance register

Item	Mitigation, Management and Enhancement Measures	Means of Verification	Responsibility	Monitoring Procedure
E. Labour				
E3. Facilities	Ensure provision of OR facilitate access to necessary worker facilities which include but are not limited to: toilets, rest areas, smoking areas , potable drinking water to WHO standards	Appropriate H&S and sanitary facilities provided at site	UNOPSCentraf tor	Regular inspection Review of grievance records
E4. Fossils/ Archaeological Chance Finds	Establish specific procedures to manage the protection of archaeological and historical sites, chance finds and fossils. Ensure all finds of cultural heritage (e.g. graves, old ceramic, old building fragments) are reported immediately to the relevant authority and avoid excavation in the ultimate neighbourhood neighbourhood of a chance find, fence the chance find and await instructions from the competent authority.	Notification records to relevant authority Training records, Records about chance finds	UNOPSCentraf tor/ EE	Site inspection

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Item	Mitigation, Management and Enhancement Measures	Means of Verification	Responsibility	Monitoring Procedure
F. Supply Chain – Suppliers and Disposal				
F1. Supply Chain Verification	Verify that operations of these facilities meet Lybian Libyan national standards and are permitted.	Visual inspection of facility operations and review of permits	UNOPSEE/ Safeguard Consultant Team	Verification at Project commencement
	Verify if facilities require expansion for Project works.	Visual inspection on a quarterly basis	UNOPSEE/ Safeguard Consultant Team	Regular quarterly monitoring
F2. Supply Chain Monitoring	Monitor the operations of these facilities for risks related to: 1. Controversial linkages with sanctioned entities; 2. Exclusion list (including child labour and trafficking of arms along supply routes); and 3. Security (number of checkpoints along supply routes)	1. Verification of receipts of material sources 2. Visual inspection of facility operations and supply routes 3. Visual inspection of supply routes	UNOPSEE/ Safeguard Consultant Team	Regular quarterly monitoring

477-205. Risks monitoring system / indicators

The environmental, social and climate risks management approach includes monitoring of potential risks and implementation of risks mitigation measures. This monitoring program commensurate with project activities and will report on the monitoring results to the Fund in the mid-term, annual, and terminal performance reports. Monitoring will be done to ensure that actions are taken in a timely manner and to determine if actions are appropriately mitigating the risk / impact or if they need to be modified in order to achieve the intended outcome. Annual reporting will include information about the status of implementation of this ESCMP, including those measures required to avoid, minimize, or mitigate environmental and social risks. The reports shall also include, if necessary, a description of any corrective actions that are deemed necessary.

478-206. IFAD will be responsibility for environmental and social risks management, including monitoring of the implementation of the Project ESCMP. An AF and IFAD policies and reporting compliance expert will be part of the team. A Safeguarding system compliance expert will also be part of the team. Monitoring staff part of the Supervision Unit will require having expertise in social risk management and be familiar with the AF safeguarding system. Under component 1, ESIA a specialist company will be hired verify the developed ESMF/Ps at inception phase. These will include detailed guidelines for executing entities, any other contractors and the government partners to comply to the AF ESP and GP, including roles, responsibilities and monitoring. Gender specific indicators and targets have been developed as shown in the results framework. Specific budgets for risks monitoring are covered by M&E staff time and safeguarding/ gender under the execution fees.

Table 495045 monitoring arrangements for general risks management

Action	Indicator and method	Responsibility and frequency
Monitoring of capacity execution entities to comply	- Guidelines and action plans shared - Monitoring reports comply to requirements	IFAD within half a year from inception when reports are required
Implementation of grievance mechanism	- Grievance mechanism information is at target locations (buildings, etc.) - Grievance mechanism information is shown on IFAD project website	IFAD in coordination with execution entities Within half a year from inception
Monitoring of measures to avoid or mitigate risks / impacts per output	- See table above	IFAD in coordination with execution entities When reports are required

479-207. Grievance Redress mechanism

480-208. IFAD-supported projects and programmes are designed in a participatory process thus [taking into account/considering](#) the concerns of all stakeholders. IFAD works to ensure that all IFAD investments are implemented in accordance with the Fund's policies, standards and safeguards. IFAD considers it equally important that parties adversely or potentially adversely affected by IFAD-supported projects and programmes should be able to bring issues to the Fund's attention.

481-209. IFAD's Grievance Redress Mechanism (GRM) can be accessed when necessary to manage project-related grievances that cannot be resolved by the project's Executing Entity. The purpose of the GRM is to provide a complaints procedure for alleged non-compliance with AF's social and environmental policies and mandatory aspects of IFAD's Social, Environmental and Climate Assessment Procedures (SECAP). IFAD's Complaints Procedure aims to serve as an accountability mechanism with a clear entry point and transparent process for people and communities to raise concerns with IFAD-supported projects and to provide effective sustainable solutions. Its mandate is to: i) facilitate the resolution of complaints from people who may be affected by projects or subprojects in a manner that is fair, objective and constructive; ii) enhance the environmental and social outcomes of projects; and iii) foster public accountability and learning to enhance the environmental and social performance of IFAD and reduce the risk of harm to people and the environment. The Procedure is organized in two complementary functions:

- **Problem solving function:** to help resolve issues raised about the environmental and/or social impacts of project through a neutral, collaborative, problem-solving approach and contribute to improved social and environmental outcomes of the project.

- Impartial review function: to carry out reviews of IFAD's compliance with its SECAP and other related policies, assess harm done, and recommend remedial actions where appropriate.

Project-level GRM

182. The project team will establish communication channels at field level to file complaints. Contact information (including contact postal code, phone number and/or email) and information on the process to file a complaint will be disclosed in all meetings, workshops and other related events throughout the life of the project. The project will include in the engagement activities information on the GRM and will continuously build on consultations to determine the most suitable way for beneficiaries and stakeholders to communicate their concerns and ideas.

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183-211. The project-level GRM and guidelines will be developed for the project taking into account considering UNOPS GRM guidelines and IFAD's corporate Complaints Procedure to receive and facilitate resolution of concerns and complaints with respect to alleged non-compliance of its environmental and social policies and the mandatory aspects of its SECAP. The project team will also be responsible for documenting and reporting to IFAD and AF as part of the safeguards performance monitoring on any grievances received and how they were addressed.

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184-212. Complaints can be raised directly to the UNOPS field representative at the district level at the concerned project area and the field team should help the complainant fill the complaint ensure the following information is included:

- Name and contact details of the person(s) (and/or their representative) or community affected by the project;
- Clear statement of the project's adverse impact(s). This includes direct and material harm which can be actual present harm, or harm that is expected in the future;
- Whether the complainants wish to keep their identity confidential.

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Level 1

185. Submitted complaints will be sent to the Project Coordinator at UNOPS and M&E officer to assess whether the complaint is eligible. Project Coordinator will inform and involve the Safeguards personnel as required. Eligible complaints will be addressed by the implementing entity (see eligibility criteria below). The Project Coordinator and the relevant Safeguards personnel, with support from the M&E Officer will be responsible for recording the grievance and how it has been addressed if a resolution was agreed.

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213.

Level 2

186. If the grievance is not resolved at the field level, it should be escalated to the UNOPS. Received complaints will be registered, investigated and solved by the UNOPS. The Project Steering Committee should be made aware of the complaint and the measures being taken to address it.

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Table 505146 Communication Channels for the GRM

Communication Channel	Description
Engagement Activities	<ul style="list-style-type: none"> • Grievances can be communicated during engagement activities verbally and/or written and submitted in to a comment box
Verbal	<ul style="list-style-type: none"> • Grievances can be communicated directly to project focal points
Phone	<ul style="list-style-type: none"> • Phone Number to be provided in relevant ESCMP • Phone Number to be provided on billboard at project site location

Communication Channel	Description
	<ul style="list-style-type: none"> Calls will be received from: 9AM - 5PM
WhatsApp	<ul style="list-style-type: none"> Phone Number to be provided in relevant ESCMP Phone Number to be provided on billboard at project site location Grievances can be communicated through WhatsApp instant messaging system with audio and video support if required
Email	<ul style="list-style-type: none"> Email to be provided in relevant ESCMP Written grievances can be communicated through email
Comment Box	<ul style="list-style-type: none"> A comment box will be available at all engagement activities and at Management Team office for written grievances
Informal channels	<ul style="list-style-type: none"> Grievances can be also received by verified community leaders if needed

487. The UNOPS team will be trained on the GRM and these communication channels will be disseminated during the inception workshop. During capacity building and community activities, beneficiaries and stakeholders will be made aware of these channels to be able to file their complaints as needed.

Level 3

488-215. If the complaint has not been solved in level 2, the complaint must be submitted to IFAD by downloading the complaint form (<https://www.ifad.org/documents/38711624/40169860/IFAD+Complaints+Submission+Form+Final+Draft+%28Downloadable%29.docx/52c75cad-439f-4e4a-8a70-45056ebde826>) and sending an email to SECAPcomplaints@ifad.org or a mail to:

IFAD
 SECAP Complaints (PMD)
 Via Paolo di Dono 44
 00142 Rome, Italy

489-216. The full complaint procedure at IFAD is stipulated in the sections below.

490-217. Complaints can be submitted in any language by letter, e-mail and/or web form (available on IFAD's website). Any communication thereafter will be in English with a translation into Arabic. Processing of complaints not submitted in English may require additional time due to the need for translation. IFAD will timely notify the complainant of any delays caused by translation.

491-218. When a complaint is received, IFAD will first assess its admissibility. For complaints to be considered, the following eligibility criteria must be met:

- The complainant alleges that IFAD has failed to implement its social and environmental policies and/or the mandatory provisions set out in SECAP;
- The complainant alleges that they have been or will be adversely affected or harmed (direct or material) as a result of such non-compliance;
- The complainant must be submitted by a group of at least two people (an organization, association, society, or other group of individuals) who are both nationals of the country concerned and/or residing in ~~a thethe~~ project's target area;

492-219. The following complaints will not be considered eligible:

- Matters not related to IFAD's actions or omissions in designing or implementing the project;
- Matters already considered by IFAD's Complaints Procedure, unless complainants have new evidence previously not available to them and unless the subsequent complaint can be readily consolidated with the earlier complaint;
- Submissions from foreign entities or anonymous;
- Matters related to procurement of goods, services and consulting services;
- Accusations of fraudulent or corrupt activities in relation to project implementation – these are dealt with
- Allegations of fraud and corruption in IFAD-supported projects – these are dealt with by IFAD's Office of Audit and Oversight.

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- Matters that are frivolous, malicious, trivial, or generated to gain competitive advantage.

~~220.~~ Allegations of sexual harassment, exploitation and abuse are dealt with through IFAD's existing policy to preventing and responding to sexual harassment, sexual exploitation and abuse, and are forwarded to IFAD's Ethics Office.

~~193.~~

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Retaliation

~~194-221.~~ The key principle underlying IFAD's Complaint Mechanism is that every individual or group has the right to voice their criticism or file a complaint with relation to an IFAD-supported project without threats to their safety or fear of retaliation. IFAD expects its partners not to prevent or harm stakeholders who may (or have) ~~criticise~~criticize(d) an IFAD-supported project or file(d) a complaint.

~~195-222.~~ According to IFAD's Whistle Blower Protection Procedures, any retaliatory ~~behaviour~~behavior by IFAD personnel against an external party engaged in any dealings with IFAD because such person has reported unsatisfactory conduct and/or misconduct will be considered unsatisfactory conduct or misconduct.

~~196-223.~~ During the project design and implementation process IFAD will inform stakeholders of its SECAP as well as of the Complaints Procedures in force. To this end, IFAD will ensure that stakeholders are aware that they can contact IFAD directly and file a complaint if they believe that they are, or will be, adversely affected by the project and that UNOPS are not responsive to their concerns.

~~197-224.~~ Hence, complainants can go directly to level 3 and send his/her complaint to IFAD if they fear retaliation from the executing entities.

Receipt and Registration of Complaint

~~198-225.~~ After receipt of a complaint, the SECAP Redress Service (SRS in IFAD will ensure that an acknowledgement of receipt is sent to the complainant(s) within five business days. Complaints submitted in another language than English, may require additional time for translation. The acknowledgement informs the complainant(s) the date by which IFAD will determine the eligibility of the complaint, and whether additional information is required.

~~199-226.~~ Upon receipt, the SRS will verify whether the complaint is known and/or already being processed by the project-level grievance redress mechanism. If not, the SRS decides within 21 business days after the acknowledgement of receipt on the eligibility of the complaint, based on the criteria defined above. During this phase, further information may be requested from the complainant and/or the regional division to clarify the complaint. In case of partial or total ineligibility, the SRS will, if possible, advise the complainant on which alternative measures could be taken and/or to which institution the concerns may be addressed. In the case of full eligibility, the complainant will receive a notice with information on the next steps, and the complaint will be registered.

~~200-227.~~ The SRS will also notify the following internal stakeholders regarding receipt of the complaint: the Country Director and other relevant staff including the Regional Director, Director Environmental, Climate, Gender and Social Inclusion Division (ECG), Director Sustainable Production, Markets and Institutions Division (PMI), Director Operational Policy and Results Division (OPR), Office of the General Council (LEG), Communications Division (COM), Office of Enterprise risk Management (RMO) and others as appropriate.

Assessment of Complaint

~~201-228.~~ Once a complaint is deemed eligible and registered as such, the SRS will initiate the assessment process. During this phase, the SRS will set up a review group consisting of the Country Director, ECG representative, PMI representative and a LEG representative to carry out an assessment of the complaint to:

- Develop a thorough understanding of the issues and concerns raised;
- Engage with the Project Delivery Team (PDT);
- Engage with the complainant, the Borrower and the project team in Libya;
- Identify local communities and additional stakeholders as relevant;
- Explain the different functions of the Procedure, their scope and possible outcomes to the parties involved; and
- Determine whether the parties seek to initiate a ~~problem-solving~~problem-solving process or impartial review.

[202-229.](#) The assessment process is used to give the complainant(s), the Borrower, and the PDT an opportunity to ask questions and consult with the SRS to facilitate informed decision making and understanding of the Procedure. Typical activities during this phase include:

- Review of project related documents;
- Meetings with the complainant(s), Borrower, UNOPS staff, and if relevant local government officials, representatives of civil society and other stakeholders;
- Visit to the project site(s); and
- Public meetings in the project area as necessary.

[203-230.](#) When planning a visit, the SRS will inform all parties upfront of its planning. At the end of this phase, the Complainant(s) and the Borrower/Recipient/Partner decide whether they would like to proceed with the [problem-solvingproblem-solving](#) process or an Impartial compliance review. If both parties agree to the [problem-solvingproblem-solving](#) process, this will be started by the SRS. If there is no agreement, the complaint will be forwarded to the Impartial Review Function.

[204-231.](#) The assessment should be finalized within 120 business days after the registration of the complaint with an assessment report prepared by the SRS. The report should include:

- Summary of the information [gatheredgathered](#), and parties' perspectives of the issues raised;
- Decision of the parties to pursue a [problem-solvingproblem-solving](#) process or compliance review;
- Action plan with timeframe for implementation, including appointment of mediator as relevant;
- Copy of the complaint, anonymized as necessary, as well as any Borrower's response that may be provided.

[205-232.](#) The report will be shared with all parties. Any comments should be received within 30 business days before the report is finalized and published (as necessary).

Problem Solving

[206-233.](#) If the parties agreed to a [problem-solvingproblem-solving](#) procedure, the SRS will facilitate the process to help resolve issues raised about the environmental and/or social impacts of the project through a neutral, collaborative, problem-solving approach. During the assessment phase, it should have been clarified what [problem-solvingproblem-solving](#) approach will be followed:

- **Facilitation and information sharing:** in case the complainant(s) raise(s) questions regarding existing of foreseen impacts of a project, the SRS may facilitate the involved parties to obtain the information and clarifications resulting in a resolution.
- **Mediation:** a neutral third party who acts as a mediator may be appointed to assist the parties involved in voluntarily negotiate a mutually satisfying resolution.
- **Fact-finding mission:** the SRS may contract (an) external consultant(s) to conduct a fact-finding mission to examine the issues agreed upon by the parties to reach a common understanding and possible solution.

[207-234.](#) Engagement in the [problem-solvingproblem-solving](#) process is in any case a voluntary decision and requires agreement between the complainant and the Borrower. Each party reserves the right to exit at any point in the process.

[208-235.](#) Any agreement reached following the [problem-solvingproblem-solving](#) process should be specific in terms of objective, nature and requirements, and documented in written form (to be prepared by the SRS or involved mediator or consultant). The timeline for the process is to be defined in the assessment report, [but in any case-but in any case](#), the process should not take longer than 2 years. In pursuit of a solution, IFAD will not knowingly support agreements that would coerce one or more parties, be contrary to IFAD policies, or violate the domestic or international laws applicable.

[209-236.](#) Where an agreement is reached, the SRS will monitor the implementation of the agreement and share interim updates with the parties, IFAD management and on the website (as applicable).

[210-237.](#) Where there is [no](#) or only partial agreement reached, the SRS will verify whether the complainant(s) would like to transfer the case to the Impartial Review Function.

Impartial Review Function

[241-238.](#) In the case no or partial agreement is reached during the [problem-solvingproblem-solving](#) process, or if decided during the assessment phase, the SRS will forward the case upon agreement of the Complainant(s) to the Impartial Review Function, based in the Office of the President and Vice-President (OPV).

[242-239.](#) Out of a roster of independent experts, a minimum of two will be contracted to review the complaint and lead the impartial review. The role of these independent experts is to carry out reviews of compliance with IFAD's SECAP and other relevant policies, assess related harm and recommend remedial actions where appropriate. The impartial review will consider issues raised in the complaint or identified during the assessment process, but not those already resolved during the [problem-solvingproblem-solving](#) process.

[243-240.](#) The Impartial Review should be finalized within a reasonable timeframe, no later than 2 years. The number of days to finish the review will depend on the complexity of the case (i.e. need for field visit, number of stakeholders involved), as well as the findings and conclusions of the review.

[244-241.](#) After completion, the independent experts will prepare a final report of their findings and in the case of non-compliance, specific actions to undertake. The report may also contain recommendations for IFAD on how to improve existing policies and/or procedures. After receiving internal comments, the (revised) draft report will be sent to the complainant(s) and the Borrower for fact checking. Comments should be received within 15 business days. The final report will then be prepared for disclosure to IFAD management and the Executive Board within 10 business days. IFAD management will provide a management response to the final report within 10 business days. The final report including the management response will be send to the complainant(s) and a summary will be published at IFAD's website.

[245-242.](#) In cases where non-compliances are identified, the SECAP Redress Service will monitor the situation until actions are taken to assure non-compliance(s) are addressed.

Reporting and Information Disclosure

[246-243.](#) All information relevant to the case, including updates on the status and progress of the complaint process, to the extent possible and consistent with IFAD's disclosure policy, is shared with the complainant(s). In addition, IFAD will publish a case registry on its website. The registry will contain the following information in relation to eligible complaints:

- A brief summary of the issues raised
- Date of receipt
- Date of registration
- Project details (name, number, E&S category & climate classification, implementing partner, country, status)
- Information on the status
- Link to available report(s)
- The case registry will also contain information in relation to ineligible complaints, namely:
 - Key issues raised
 - Date of receipt
 - Project details as above
 - Basis for ineligibility

[247-244.](#) Once a case is closed, IFAD will prepare a summary of the complaint, including follow-up actions and recommendations, ~~taking into account~~[considering](#) privacy and confidentiality regulations and IFAD's disclosure policy, to be published on its public website. The summary will also be included in IFAD's Annual Report which is published on its website.

Resolution

[248-245.](#) Upon acceptance of a solution by the complainer, a document with the agreement should be signed.



Figure 20 The Project's Grievance and Redress Mechanism (GRM)

Table 515247 grievance form

Grievance Form	
Reference No:	
<i>Please enter your contact information and grievance. This information will be dealt with confidential.</i>	
<i>Please note: If you wish to remain anonymous please enter your comment/grievance in the box below without indicating any contact information – your comments will still be considered.</i>	
Full Name	_____
Anonymous submission	<input type="checkbox"/> I want to remain anonymous
Please mark how you wish to be contacted (mail, telephone, e-mail).	<input type="checkbox"/> By Mail (Please provide mailing address): _____
	<input type="checkbox"/> By Telephone (Please provide Telephone number): _____
	By E-mail (please provide E-Mail address): _____
Preferred Language for communication	<input type="checkbox"/> Arabic <input type="checkbox"/> English <input type="checkbox"/> Other, please specify: _____
Description of Incident or Grievance:	What happened? Where did it happen? Who did it happen to? What is the result of the problem?

Date of Incident / Grievance: _____	<input type="checkbox"/> One-time One-time incident/grievance (date _____) <input type="checkbox"/> Happened more than once (how many times? _____) <input type="checkbox"/> On-going (currently experiencing problem)
What would you like to see happen to resolve the problem?	

2. GENDER AND YOUTH APPROACH AND BASELINE

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219-246. 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.

220-247. 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.

221-248. Specific considerations and phases

1. Determinants for gender-responsive stakeholder consultations

Table 525348 Stakeholders consulted to develop gender approach

Type of stakeholder	Specific stakeholder
UN agencies and NGO's	<ul style="list-style-type: none"> - UN Women - Other
Community level	<ul style="list-style-type: none"> - Community consultations and focus group discussions with women and youth

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*See also part II.I

2. Initial Gender Assessment

222-249. Negative gender stereotypes and social norms impact all aspects of women's lives in Libya, inhibiting their freedom of movement, economic participation, community-level engagement and access to formal justice systems⁴⁵. 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).⁴⁶ Libya also has a Gender Inequality Index (GII) value of 0.252 ranking it 56 out of 162 countries in the 2019 index⁴⁷.

223-250. Libya acceded to the international Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1989 with two reservations related to Islamic Shariah law. However, most Libyan laws do not comply with CEDAW's provisions, and Libya lacks a national action plan for CEDAW implementation. Labour laws limit women's working hours and the jobs women may perform, purportedly due

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⁴⁵ UN Women (2020). The Economic and Social Impact of Conflict on Libyan Women.

⁴⁶ Statista.

⁴⁷ UNDP (2020). Briefing Note for Countries on the 2020 Human Development Report: Libya. *Human Development Report*.

to women's "nature". Some laws are discriminatory and do not serve women's interests, while other laws lack effective mechanisms to enforce the gender equality they supposedly intend to protect⁴⁸.

[224-251.](#) Although the Libyan constitutional draft was abandoned, the final draft constitution eliminated gender stereotypical language, and Article 7 guaranteed equality before the law and non-discrimination. Article 49, titled Supporting Women's Rights, ensured protection and promotion of women's status and opportunities and prohibited discrimination against women. Article 184 provided for a quota of 25% of the total seats for women in any national or local election and clearly stated that women also may run for general seats. The efforts of women's rights organizations and advocates played a vital role in amendments to the final draft constitution to grant more rights to Libyan women. However, two main concerns were not addressed in the final draft. First, the right of Libyan women to confer citizenship to their children was not protected. Second, the final draft constitution ignored demands to establish a Women's National Council under the authority of the legislature instead of or in addition to Women's Empowerment Units in Ministries and other executive departments⁴⁹.

[225-252.](#) On the policy level, few women are in government leadership positions and they are mainly in traditional sectors related to social affairs or women's affairs. Very few women have any real influence in policy-making processes, including the weak Women's Support and Empowerment Unit established by the Presidency Council in 2018. Women's empowerment units in ministries are also marginalized and ineffective. These units have an essential ~~role~~, ~~but~~ need capacity building and other support to have any impact⁵⁰.

[226-253.](#) Only 16% of parliamentary seats are held by women and female participation in the labour market is 33.9% compared to 65.3% for men⁵¹. Yet, since the crisis there has been an increase of female employment in the country and 51% indicate that the need for additional resources is the main reason for employment. The vast majority of women are employed by the public sector with only 2.5% of women being employed by the private sector. In addition, Women's freedom of movement is significantly lower than men's and perceptions of women's civic engagement continues to be shaped by social norms and gender stereotypes⁵². On the other hand, 70.5% of adult women have reached at least a secondary level of education compared to 45.1% of their male counterparts. In general, females have higher mean years of schooling than men⁵³.

[227-254.](#) However, the conflict situation has left women and girls vulnerable to sexual exploitation, sexual harassment, abuse and rape especially among migrants and refugees. Currently, around 153,000 people are at risk of Gender-Based Violence (GBV) including 47,000 displaced, 49,000 returnees, 15,000 non-displaced Libyans, 27,000 migrants and 14,000 refugees. Of the total people at risk of GBV, 51% are women and 48% are girls. Most people facing GBV risks and in need of assistance are in Tripoli, representing 21 per cent of all those in need⁵⁴. The conflict also has increased fear in families about the safety of their female family members, and the perceived need for male protection of young women has increased. This change has promoted practices like early marriage, which reportedly has become more common in rural areas and among internally displaced communities as a means to protect young women from rape or kidnapping by armed groups⁵⁵.

[228-255.](#) At the household level, women are expected to do all domestic work, and men's contributions in the home are not considered their duty, but as help they give to the women. Law No. 10 of 1984 Article 18 regulates inequality in the household by enumerating a wife's obligations to her husband, which include taking care of his comfort, managing the marital house, and raising children. COVID-19 has exacerbated or re-entrenched women's traditional roles in the household. Women also bear the burden of maintaining household sanitation and hygiene and caring for sick family members during the pandemic. During the COVID-19

⁴⁸ USAID (2020). Libya Gender Analysis: Identification of Constraints, Opportunities and Best Practices in UASID/Libya.

⁴⁹ Ibid.

⁵⁰ Ibid.

⁵¹ UNDP (2020). Briefing Note for Countries on the 2020 Human Development Report: Libya. *Human Development Report*.

⁵² UN Women (2020). The Economic and Social Impact of Conflict on Libyan Women.

⁵³ UNDP (2020). Briefing Note for Countries on the 2020 Human Development Report: Libya. *Human Development Report*.

⁵⁴ OCHA (2020). Humanitarian Needs Overview 2021: Libya.

⁵⁵ USAID (2020). Libya Gender Analysis: Identification of Constraints, Opportunities and Best Practices in UASID/Libya.

lockdown, women's responsibilities of caring for and teaching children have been amplified because children cannot attend school⁵⁶.

229-256. In the south, household financial hardship has increased women's economic participation and elevated their important role within their households, and making women, to some extent, accepted in the public sphere. The same has been noticed in the workplace with more acceptance of women to work in the health sector as nurses and doctors despite having them work night shifts. However, it is important to mention that women work mostly in branches of medicine where dealing with men will be limited, like [pediatricspaediatrics](#) and [gynecologygynaecology](#)⁵⁷.

230-257. The centralized system in Libya that distributes resources and economic activities more to the major cities creates difficulty to get proper job opportunities for Libyans in rural areas, especially for women who are constrained in their movements by the challenging security situation and conservative cultural norms. Women who started to work in traditional home-based businesses that can generate income to the household, were unable to expand. They face several constraints to either starting or expanding their businesses. Women entrepreneurs have limited access to available financial resources, such as local venture capital or loans from banks, government schemes, or donor-funded development programs. Access to bank loans, for example, is typically conditioned by ownership of land or property and a guarantor. Most women in Libya, however, do not own or have control over land or property against which they can obtain bank loans. While women and men have the same rights in land and property ownership, men typically retain control over such assets within a family⁵⁸.

231-258. In addition, access to information is an issue for most Libyans, but women suffer more from lack of information about laws, resources, and services relevant to their lives because their lower levels of status and power inhibit them from communicating with governmental institutions. These limitations are especially true for women of limited income and women in rural areas, who have less access to online resources and services. In recent years, Libyan women have started to use existing social media platforms as a way to advocate for their rights, and for women-owned businesses to promote their products and services, such as food catering, interior design, software programming, fashion design, building instruction, and art. Most women in Libya own mobile phones but they have limited access to computers. In some families, women do not have the freedom to surf the internet and they are monitored and censored. Women, in general, have limited digital/online literacy. They primarily use Facebook if they are online at all. However, during the conflict and COVID-19 crisis, women are increasingly using online space, primarily social media platforms and mainly in the northern region where internet connectivity is better, to mitigate some of the social constraints they face⁵⁹.

232. In agricultural areas, women work in their immediate family or relatives' family farms, but never in those outside the family. In an assessment by the World Food Program, women were found to benefit more from agricultural projects if safe access and proper training programs were provided to them⁶⁰.

259.

233-260. As most women in Libya work in the informal sector in home-based businesses and, therefore, do not pay taxes or make social security contributions, they are excluded from receiving social security benefits when they reach retirement age, further disadvantaging them from men, who work in much greater numbers in the formal sector⁶¹.

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

Table 535449 Data baseline – women and youth

Project components	Direct		Indirect	
	Women	Youth	Women	Youth

⁵⁶ Ibid.
⁵⁷ Ibid.
⁵⁸ Ibid.
⁵⁹ USAID (2020). Libya Gender Analysis: Identification of Constraints, Opportunities and Best Practices in UASID/Libya.
⁶⁰ Ibid.
⁶¹ Ibid.

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1. Participatory prioritization of climate change adaptation options into national, district and community planning for agriculture / livestock development	171	171	2,040,000	2,040,000
2. Climate resilient investment in concrete activities in the agriculture sector	10,620 1416 female-headed households	10,620	402,005	402,005
3. Climate resilient investment in concrete activities in the livestock sector	6,480 864 female-headed households	6,480		
4. 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	81	81	TBD	TBD

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a. Context:

Table 545550 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).
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4. 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.

234-261. 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 555654 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	- Reduction in crop yields - Seawater intrusion - Decline in water availability	- High unemployment rates among youth especially for women; - Women working mostly in the informal sector; - Women traditionally carry the burden of household work in addition to farm work;	- Participatory approach focusing on women and youth to develop climate vulnerability assessments and climate resilience strategy for the sector - Capacity building to focus on women and youth to provide them with access to the knowledge needed for them to contribute to agriculture, livestock and water sectors
Livestock	- Decline in water		

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	availability for livestock	- Women have much less access to inputs, knowledge and assets especially land ownership; - Exclusion of women and youth voices in planning and decision making leading to their needs in the agriculture sector being overlooked; - Youth in rural areas being more vulnerable to joining extremist and violent groups	- Providing inputs in the form of grants for young and female farmers and pastoralists to increase their incomes and help them adapt to climate change - Addressing policy issues that systematically exclude women and youth through institutional capacity building
Water	- Decrease in precipitation - Seawater intrusion on groundwater		

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5. Capacity gaps affecting GP compliance

Table 565752 Capacity of potential executing entities to carry-out gender responsive activities.

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

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

[235-262.](#) The project aims to target women (and youth) in community level skill building and trainings and to especially target women-headed households. Opportunities include:

[236-263.](#) 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.

[237-264.](#) 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.

7. Project planning and design.

Table 53 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.	Specific 'gender' output Indicator	Specific 'gender' targets	Budget required and allocated

					potential risk mitigation measures			
1.1.								
1.2.								
2.1.								
2.2.								
2.3.								
2.4.								
3.								

8.7. Project implementation

~~238-265.~~ 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.

9.8. Performance Monitoring and Evaluation

~~239-266.~~ The gender responsive management approach includes gender responsive monitoring and evaluation, which is participatory and where 'gender disaggregated data' will be collected and ~~analysed~~analyzed. Where possible, women and youth will be encouraged to participate in monitoring activities.

10.9. Knowledge Management, Information Sharing and Reporting

~~240-267.~~ 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.

3. UNOPS ALIGNMENT WITH THE AF ESP AND GP

AF ESP Guidance Principles	UNOPS Guiding Values and Principles
<p>Principle 1: Compliance with the Law.</p>	<p>UNOPS operates in accordance with a strict legislative framework comprised of:</p> <ul style="list-style-type: none"> • Internal Directives and Instructions. Directives are organization-wide policies that govern actions within UNOPS and its external relations; • UN system Instruments: All Instruments: All of UNOPS's Legislative Legislative Instruments are compliant with the United Nations Instruments promulgated by organs of the United Nations; • National law of countries of operations: UNOPS Executive Office Instructions⁶² on Health & Safety and Social & Environmental Management states that "[l]egal and compliance requirements in the social and environmental field in each country shall be identified, recorded and regularly updated".⁶³ <p>To ensure compliance with the law, UNOPS regularly reviews and adapts to (i) current national policies, legislation and legislative instruments governing environmental management, health, gender and social welfare, climate change (mitigation and adaptation) and governance with their implementation structures, identified challenges, and recommended appropriate changes for effective implementation; (ii) all relevant international treaties and conventions on the environment, climate change, health, gender, labour and human rights to which the country is a signatory.</p>
<p>Principle 2: Access and Equity.</p>	<p>UNOPS projects provide fair and equitable access to benefits in a manner that is inclusive and does not impede access to basic health services, clean water and sanitation, energy, education, housing, safe and decent working conditions, and land rights. In applying the "do no harm" doctrine, the projects do not exacerbate existing inequities, particularly with respect to marginalized or vulnerable groups.</p> <p>Moreover, UNOPS's guidance⁶⁴ requires projects to ensure the participation of target groups. The Gender Equality and Social Inclusion (GESI)⁶⁵ Mainstreaming in Projects Strategy promotes equal rights and opportunities for people to live full lives, supported by sustainable, resilient, and inclusive</p>

⁶² EOI REF. EOI.SSC.2021.01 on Health & Safety and Social & Environmental Management.

⁶³ Ibid. para. 4.1.4.

⁶⁴ UNOPS GENDER EQUALITY AND SOCIAL INCLUSION MAINSTREAMING IN PROJECTS: Strategy 2022 – 2025

⁶⁵ Ibid.

	<p>infrastructure, and by the efficient and transparent use of public resources in procurement and project management. UNOPS makes sure that stakeholder engagement activities include a representative group of end users. Ensuring inclusive stakeholder engagement provides the legitimacy of a project, is rooted in human rights and is critical to the following activities:</p> <ul style="list-style-type: none"> - To accurately identify and understand the needs of end users; - To ensure that stakeholders are effectively informed; - To involve stakeholders in the development and decision-making process; - To receive feedback and evaluate project performance and outputs; and - To ensure that projects are contributing to outcomes.
<p>Principle 3: Marginalized and Vulnerable Groups.</p>	<p>UNOPS avoids imposing any disproportionate adverse impacts on marginalized and vulnerable groups when implementing a project. This is reflected in the releasing of the Gender Equality and Social Inclusion (GESI) Mainstreaming Strategy in Projects 2022-2025, to support GESI mainstreaming activities across UNOPS projects. This strategy is anchored in the Universal Declaration of Human Rights⁶⁶, the Beijing Declaration and Platform for Action⁶⁷, and other international agreements, standards and norms that are shaping the 2030 Agenda for Sustainable Development⁶⁸.</p> <p>A comprehensive approach to GESI mainstreaming takes into consideration an intersectional lens (including gender, age, ethnicity and disability, which often lead to multiple forms of discrimination and often remain invisible and unaddressed) throughout the project lifespan. Intersectionality involves acknowledging that people are often discriminated against and marginalized by multiple factors of oppression.</p> <p>Based on this, and in order to increase meaningful participation of marginalized and vulnerable groups, UNOPS makes sure that stakeholder engagement activities include a representative group of end users, with a specific focus on the representation of women, marginalized and underrepresented groups. Ensuring inclusive stakeholder engagement provides the legitimacy of a project, is rooted in human rights and is critical to the following activities:</p> <ul style="list-style-type: none"> - To accurately identify and understand the needs of end users; - To ensure that stakeholders are effectively informed; - To involve stakeholders in the development and decision-making process; - To receive feedback and evaluate project performance and outputs; and - To ensure that projects are contributing to outcomes. <p>These consultations and engagement are vital to identify and address any barriers to participation and to support their role in decision-making.</p> <p>At the same time, UNOPS recognizes its existing limitations in working with all marginalized and underrepresented groups, and groups and will thus adopt a proportional approach to strengthen efforts for their inclusion in all projects. Therefore, UNOPS will (initially) focus on accelerating work with:</p> <ul style="list-style-type: none"> - Women and girls by contributing directly to women’s economic empowerment through decent work, employment, access to resources, participation in decision-making, capacity and skills-building; - People with disabilities by focusing on four areas of the United Nations Disability Inclusion Strategy framework: 1) leadership, strategic planning, and management; 2) inclusiveness to be able to fully encapsulate the principles of ‘Nothing About Us without Us’; 3) programming; and 4) organizational culture as defined in the UNOPS Disability Inclusion Action Plan; - Youth by the participation, promotion, and inclusion of youth in its projects as per the UNOPS Youth Action Plan; and - Context-sensitive (based on sexual orientation and gender identity) and context-specific

⁶⁶ United Nations, Universal Declaration of Human Rights, United Nations, Paris, 10 December 1948.

⁶⁷ The Fourth World Conference on Women, Beijing Declaration and Platform for Action, Beijing, 15 September 1995; UN Women, Beijing Declaration and Platform for Action: Beijing+5 Political Declaration and Outcome, UN Women, New York, 2014.

⁶⁸ Resolution adopted by the United Nations General Assembly, ‘Transforming our world: the 2030 Agenda for Sustainable Development’, A/RES/70/1, 21 October 2015. The 17 Goals include 169 targets and 232 indicators of which 80 indicators have been identified as gender-relevant.

	(based on race, ethnicity, religion and indigenous status) groups
Principle 4: Human Rights.	<p>As a UN entity, UNOPS upholds good international practices by supporting the realization of United Nations principles and directives. As such, the inclusion of international human rights is a cross-cutting consideration that extends throughout all aspects of UNOPS operations.</p> <p>In fact, UNOPS operates in accordance with a strict legislative framework of Directives and Instructions which govern actions within UNOPS and its external relations. All of UNOPS's Legislative Instruments are compliant with the United Nations Instruments promulgated by organs of the United Nations, including the Universal Declaration of Human Rights, the Beijing Declaration and Platform for Action, and other international agreements, standards and norms that are shaping the 2030 Agenda for Sustainable Development and seek to realize the human rights of all people.</p> <p>In managing its activities and facilities, UNOPS adopts a people-centered approach, upholding rights, promoting active participation, including disadvantaged groups and individuals and leaving no one behind.⁶⁹</p>
Principle 5: Gender Equality and Women's Empowerment.	<p>UNOPS projects are designed and implemented in such a way that both women and men 1) have equal opportunities to participate; 2) receive comparable social and economic benefits; and 3) do not suffer disproportionate adverse effects during the development process. UNOPS continuously strengthens its ability to ensure diversity and inclusion throughout the project lifespan, including its procurement practices.</p> <p>This is reflected in the UNOPS Gender Equality and Social Inclusion (GESI), which has been released to support GESI mainstreaming activities across UNOPS projects. This strategy is anchored in the Universal Declaration of Human Rights, the Beijing Declaration and Platform for Action, and other international agreements, standards and norms that are shaping the 2030 Agenda for Sustainable Development and seek to realize the human rights of all people and to achieve gender equality and the empowerment of women and girls. It is aligned with the United Nations Core values of respect for diversity, integrity and professionalism, which underpin and guide the actions and behaviors of all United Nations personnel.</p> <p>The Gender Equality and Social Inclusion Mainstreaming Strategy in Projects reaffirms UNOPS commitment to gender equality, diversity and inclusion. It mobilizes its efforts to promote equal rights and opportunities for people to live full lives, supported by sustainable, resilient, and inclusive infrastructure, and by the efficient and transparent use of public resources in procurement and project management. This includes identifying the root causes of inequalities and systemic barriers, with particular focus on determining the positive and negative implications throughout the project lifespan.</p> <p>The GESI is complemented by a project specific Gender Action Plan (GAP). A GAP details activities to address gender-based constraints and opportunities, as well as specific targets, responsible actors, and indicators to measure progress and outcomes. The GAP informs and is integrated into project plans and the project budget for effective gender mainstreaming throughout the project lifespan. The GAP also captures information about the gender mainstreaming activities associated with each project output and identifies the related budget, timeframe, target, personnel responsible and the success indicator.</p> <p>It is vital to project success to ensure that the planned activities to implement the GAP are embedded into the day-to-day operations, including any design specifications or quotas in place (e.g., equal representation of women in community engagement workshops, a certain percentage of women suppliers or workers, etc.) to ensure minimum requirements are met. This extends even to UNOPS procurement activities, where the Gender Responsive Procurement (GRP) will ensure that the procurement process and the selection of goods, services and works have a positive, holistic impact on gender equality and inclusion.</p> <p>Lastly, UNOPS Executive Office Instruction (EOI) on HSSE Management states that "[a]ll offices and</p>

⁶⁹ Executive Office Directive (EOD) REF. EOD.ED.2021.01 on Occupational Health & Safety and Social and Environmental Management, para. 2.2.

	facilities shall aim to adopt a continuous improvement process in relation to (...) significant social considerations including but not limited to diversity, accessibility, gender equality ⁷⁰ .
Principle 6: Core Labour Rights.	UNOPS implements projects in a manner that meet the core labour standards as identified by the International Labour Organization (ILO). While UNOPS EOI on HSSE Management states that "[l]egal and compliance requirements in the social (...) field in each country shall be identified, recorded and regularly updated" ⁷¹ , the labour laws are applied to the projects regardless of whether countries where UNOPS is implementing a project have ratified the relevant conventions. Instead, "[t]he health and safety of all people at UNOPS workplaces and in communities that interact with UNOPS activities shall be considered at all times and throughout the life cycle of UNOPS projects" ⁷² . This applies to "(...) activities and projects that are controlled by UNOPS, including activities that UNOPS assigns to contractors" ⁷³ . Moreover, for everyone's safety, it is mandatory for people at UNOPS workplaces to comply with the UNOPS Golden Rules for addressing fatal or significant hazards, ⁷⁴ and wherever necessary and applicable, the UNOPS can incorporate can incorporate the ILO core labour standards in the design and implementation of the project and create awareness with all involved on how these standards apply.
Principle 7: Indigenous Peoples.	UNOPS does not implement projects that are inconsistent with the rights and responsibilities set forth in the UN Declaration on the Rights of Indigenous Peoples and other applicable international instruments relating to indigenous peoples. The Amazigh form the Indigenous population of Libya. They are estimated to number some one million people, or more than 16% of the country's total population. Libya voted in favour of the UN Declaration on the Rights of Indigenous Peoples (UNDRIP). ⁷⁵ UNOPS works in compliance with national and international laws (see above in Principle 1, 3 and 4) and adopts a people-centred approach, upholding rights, promoting active participation, including disadvantaged groups and individuals and leaving no one behind ⁷⁶ . UNOPS adopts a proportional approach to strengthen efforts of inclusion in all projects, and projects and focuses on accelerating work with context-sensitive (based on sexual orientation and gender identity) and context-specific (based on race, ethnicity, religion and indigenous status) groups, among others.
Principle 8: Involuntary Resettlement.	n/a
Principle 9: Protection of Natural Habitats.	The protection of natural habitats is enshrined in UNOPS's HSSE guidelines, where it states that "[t]he health and safety of all people at UNOPS workplaces and in communities that interact with UNOPS activities shall be considered at all times and throughout the life cycle of UNOPS projects. Similarly, ways to avoid harm to the environment (...) shall also be considered at all times and throughout the life cycle of UNOPS projects" ⁷⁷ . Prior to commencing any project activities, UNOPS will identify: 1) the presence in or near the project/programme area of natural habitats, and 2) the potential of the project/programme to impact directly, indirectly, or cumulatively upon natural habitats. This is done through a Social and Environmental Screenings (SES) ⁷⁸ , in which key project stakeholders and technical experts are consulted to ensure that the Screening is informed by the best available knowledge. The SES considers direct, indirect and cumulative impacts throughout the life cycle of the project. The SES results indicate in which thematic areas risks and opportunities (if any) for the project have been identified. These risks and opportunities shall inform the consequent steps of the management system.

⁷⁰ EOI REF. EOI.SSC.2021.01 on Health & Safety and Social & Environmental Management, para. 4.2.2.

⁷¹ Ibid. para. 4.1.4.

⁷² Ibid. para. 2.1.

⁷³ Ibid. para. 1.2.

⁷⁴ Ibid. para. 3.1.

⁷⁵ IWGIA, Indigenous peoples in Libya, <https://www.iwgia.org/en/libya.html>.

⁷⁶ EOD REF. EOD.ED.2021.01 on Occupational Health & Safety and Social and Environmental Management, para 2.2.

⁷⁷ EOI REF. EOI.SSC.2021.01 on Health & Safety and Social & Environmental Management, para. 2.1.

⁷⁸ Ibid. para. 4.3.2.

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	<p>Based on the SES, UNOPS develops a Social and Environmental Management Plan⁷⁹, to address the project SE risks and opportunities and other requirements set in the UNOPS HSSE policy⁸⁰. The applicable SE plans shall:</p> <ul style="list-style-type: none"> - make use of adaptive management; - apply the mitigation hierarchy for risks and impacts; - follow internationally recognisedrecognized good practice principles such as the precautionary principle and good international industry practice (GIIP).
<p>Principle 10: Conservation of Biological Diversity.</p>	<p>UNOPS implements projects inprojects in a way that avoids any significant or unjustified reduction or loss of biological diversity or the introduction of known invasive species. UNOPS carries out Social and Environmental Screenings (SES)⁸¹, in which key project stakeholders and technical experts are consulted to ensure that the Screening is informed by the best available knowledge. The SES considers direct, indirect and cumulative impacts throughout the life cycle of the project. The SES results indicate in which thematic areas risks and opportunities (if any) for the project have been identified. These risks and opportunities shall inform the consequent steps of the management system.</p> <p>Based on the SES, UNOPS develops a Social and Environmental Management Plan⁸², to address the project SE risks and opportunities and other requirements set in the UNOPS HSSE policy⁸³. The applicable SE plans shall</p> <ul style="list-style-type: none"> - make use of adaptive management; - apply the mitigation hierarchy for risks and impacts; - follow internationally recognisedrecognized good practice principles such as the precautionary principle and good international industry practice (GIIP).
<p>Principle 11: Climate Change.</p>	<p>UNOPS projects do not result in any significant or unjustified increase in greenhouse gas emissions or other drivers of climate change. This is also applied to any agriculture projects UNOPS implements. UNOPS EOI on HSSE states in section 4 that " UNOPS social and environmental performance shall be based on a management system approach aligned to best international practices and standards"⁸⁴, and "UNOPS business units and personnel shall operate with the ambition of aligning with the UN Sustainability Strategy 2020-2030 (UNSS), and in particular ensuring that GHG emissions are maintained at a level compatible with limiting the increase in global temperature to 1.5°C as recommended by the Intergovernmental Panel on Climate Change"⁸⁵.</p> <p>UNOPS has mandatory minimum HSSE Management regulations in place that it applies to all activities and projects that are controlled by UNOPS, including activities that UNOPS assigns to contractors. In fact, the applicable SE requirements shall be communicated to suppliers and contractors as part of the solicitation process. Contractors can be authorisedauthorized to implement their own SE plans and processes if these are formally reviewed by the UNOPS personnel responsible for SE implementation in the project, andproject and found at least substantially equivalent to the UNOPS ones. These external processes are monitored and evaluated according to UNOPS standards.⁸⁶</p> <p>If necessary, UNOPS can carry out a Social and Environmental Screening (SES)⁸⁷, in which key project stakeholders and technical experts are consulted to ensure that the Screening is informed by the best available knowledge. The SES considers direct, indirect and cumulative impacts throughout the life cycle of the project. The SES results indicate in which thematic areas risks and opportunities (if any) for the project have been identified. These risks and opportunities shall inform the consequent steps of the management system.</p>

⁷⁹ Ibid. para. 4.3.3.

⁸⁰ EOD Ref. EOD.ED.2021.01. on Occupational Health & Safety and Social and Environmental Management.

⁸¹ EOI REF. EOI.SSC.2021.01 on Health & Safety and Social & Environmental Management, para. 4.3.2.

⁸² Ibid. para. 4.3.3.

⁸³ EOD Ref. EOD.ED.2021.01. on Occupational Health & Safety and Social and Environmental Management.

⁸⁴ EOI REF. EOI.SSC.2021.01 on Health & Safety and Social & Environmental Management, para. 4.1.1.

⁸⁵ Ibid. para. 4.1.2.

⁸⁶ Ibid. para. 4.1.9.

⁸⁷ Ibid. para. 4.3.2.

	<p>Based on the SES, UNOPS develops a Social and Environmental Management Plan⁸⁸, to address the project SE risks and opportunities and other requirements set in the UNOPS HSSE policy⁸⁹. The applicable SE plans shall</p> <ul style="list-style-type: none"> - make use of adaptive management; - apply the mitigation hierarchy for risks and impacts; - follow internationally recognisedrecognized good practice principles such as the precautionary principle and good international industry practice (GIIP) <p>The mandatory and recommended SE requirements are applicable to all business units and will be periodically updated⁹⁰. Moreover, induction, awareness and training on SE shall be provided to all UNOPS personnel on a regular basis, with due consideration of their job descriptions, roles and competences⁹¹.</p>
Principle 12: Pollution Prevention and Resource Efficiency	<p>UNOPS projects are designed and implemented in a way that meets applicable international standards for maximizing energy efficiency and minimizing material resource use, the production of wastes, and the release of pollutants.</p> <p>This is reflected in UNOPS EOI HSSE⁹², in which section 4 states that “ UNOPS social and environmental performance shall be based on a management system approach aligned to best international practices and standards⁹³, and “UNOPS business units and personnel shall operate with the ambition of aligning with the UN Sustainability Strategy 2020-2030 (UNSS), and in particular ensuring that GHG emissions are maintained at a level compatible with limiting the increase in global temperature to 1.5°C as recommended by the Intergovernmental Panel on Climate Change”⁹⁴.</p> <p>In general, UNOPSgeneral, UNOPS has mandatory HSSE Management regulations in place that it applies to all activities and projects that are controlled by UNOPS, including activities that UNOPS assigns to contractors. In fact, the applicable SE requirements shall be communicated to suppliers and contractors as part of the solicitation process. Contractors can be authorisedauthorized to implement their own SE plans and processes if these are formally reviewed by the UNOPS personnel responsible for SE implementation in the project, andproject and found at least substantially equivalent to the UNOPS ones. These external processes are monitored and evaluated according to UNOPS standards.⁹⁵</p>
Principle 13: Public Health.	<p>When community health could be affected by the intervention, UNOPS can carry out a preliminary Social and Environmental Screening (SES)⁹⁶, in which key project stakeholders and technical experts are consulted to ensure that the Screening is informed by the best available knowledge. The SES considers direct, indirect and cumulative impacts throughout the life cycle of the project. The SES results indicate in which thematic areas risks and opportunities (if any) for the project have been identified. These risks and opportunities shall inform the consequent steps of the management system.</p> <p>Based on the SES, UNOPS develops a Social and Environmental Management Plan⁹⁷, to address the project SE risks and opportunities and other requirements set in the UNOPSthe UNOPS HSSE policy⁹⁸. The applicable SE plans shall</p> <ul style="list-style-type: none"> - make use of adaptive management; - apply the mitigation hierarchy for risks and impacts; - follow internationally recognisedrecognized good practice principles such as the precautionary principle and good international industry practice (GIIP)
Principle 14:	UNOPS projects are designed and implemented in a way that avoids the alteration, damage, or

⁸⁸ Ibid. para. 4.3.3.

⁸⁹ EOD Ref. EOD.ED.2021.01. on Occupational Health & Safety and Social and Environmental Management.

⁹⁰ EOI REF. EOI.SSC.2021.01 on Health & Safety and Social & Environmental Management, para. 4.1.4.

⁹¹ Ibid. para. 4.1.7.

⁹² Ibid.

⁹³ Ibid. para. 4.1.1.

⁹⁴ Ibid para. 4.1.2.

⁹⁵ Ibid. para. 4.1.9.

⁹⁶ Ibid. para. 4.3.2.

⁹⁷ Ibid. para. 4.3.3.

⁹⁸ EOD Ref. EOD.ED.2021.01. on Occupational Health & Safety and Social and Environmental Management.

Physical and Cultural Heritage.	<p>removal of any physical cultural resources, cultural sites, and sites with unique natural values recognized as such at the community, national<u>community, national</u> or international level. To mitigate this risk UNOPS can carry out a Social and Environmental Screening (SES)⁹⁹, in which key project stakeholders and technical experts are consulted to ensure that the Screening is informed by the best available knowledge. The SES considers direct, indirect and cumulative impacts throughout the life cycle of the project. The SES results indicate in which thematic areas risks and opportunities (if any) for the project have been identified. These risks and opportunities shall inform the consequent steps of the management system.</p> <p>Based on the SES, UNOPS develops a Social and Environmental Management Plan¹⁰⁰, to address the project SE risks and opportunities and other requirements set in the UNOPS HSSE policy¹⁰¹. The applicable SE plans shall then:</p> <ul style="list-style-type: none"> - make use of adaptive management; - apply the mitigation hierarchy for risks and impacts; - follow internationally recognised<u>recognized</u> good practice principles such as the precautionary principle and good international industry practice (GII).
Principle 15: Lands and Soil Conservation.	<p>Projects shall be designed and implemented in a way that promotes soil conservation and avoids degradation or conversion of productive lands or land that provides valuable ecosystem services. To address this, UNOPS has mandatory HSSE Management regulations in place that it applies to all activities and projects that are controlled by UNOPS, including activities that UNOPS assigns to contractors. In light of this, UNOPS can carry out a Social and Environmental Screening (SES)¹⁰², in which key project stakeholders and technical experts are consulted to ensure that the Screening is informed by the best available knowledge. The SES considers direct, indirect and cumulative impacts throughout the life cycle of the project. The SES results indicate in which thematic areas risks and opportunities (if any) for the project have been identified. These risks and opportunities shall inform the consequent steps of the management system.</p> <p>Based on the SES, UNOPS develops a Social and Environmental Management Plan¹⁰³, to address the project SE risks and opportunities and other requirements set in the UNOPS HSSE policy¹⁰⁴. The applicable SE plans shall then:</p> <ul style="list-style-type: none"> - make use of adaptive management; - apply the mitigation hierarchy for risks and impacts; - follow internationally recognised<u>recognized</u> good practice principles such as the precautionary principle and good international industry practice (GII).

⁹⁹ EOI REF. EOI.SSC.2021.01, para. 4.3.2.

¹⁰⁰ Ibid, para. 4.3.3.

¹⁰¹ EOD Ref. EOD.ED.2021.01, on Occupational Health & Safety and Social and Environmental Management.

¹⁰² EOI REF. EOI.SSC.2021.01, para. 4.3.2.

¹⁰³ Ibid, para. 4.3.3.

¹⁰⁴ EOD Ref. EOD.ED.2021.01, on Occupational Health & Safety and Social and Environmental Management.

4. ESTIMATED NUMBERS OF CULTIVATED / PRODUCED TREES AND CROPS IN THE PROJECT TARGET AREA

Table 575954. Number of horticultural trees affected by the saltwater intrusion and drought in the districts of Nalut, Al-Jabal Al-Gharbi, Zwara, Al-Jafara, Al-Zaweya

Name of the district	Olive trees	Date Palm trees	Almond trees	Citrus trees	Grapevine trees	Fig trees
Nalut	103039	59962	12081	486	6045	29982
Al-Jabal Al-Gharbi	699172	31109	235389	2816	72979	120110
Zwara	800993	175109	123275	18304	142729	73395
Al-Jafara	1356388	551561	31446	1798417	293340	53414
Total	2959592	817741	402191	1820023	515093	276901

Source: - Bureau of Statistics and Census, 2007.

Table 586055 Production quantities (quintals) of crops of wheat, barley, alfalfa, dry legumes, peanuts and oats in the districts affected by the saltwater intrusion and drought in the districts of Nalut, Al-Jabal Al-Gharbi, Zwara, Al-Jafara, Al-Zaweya

Name of the district	Wheat	Barley	Alfalfa	Dry legumes	Peanuts	Oats
Nalut	3762	21360	23091	82	0	2488
Al-Jabal Al-Gharbi	3855	34650	4290	18	25	17028
Zwara	474	28567	44662	12	5070	45630
Al-Jafara	4991	167037	392898	367	9324	187850
Total	13082	251614	464941	479	14419	252996

Source: - Bureau of Statistics and Census, 2007.

Table 596156 Production quantities (quintals) of crops of potatoes, spring onions, onion, garlic, pumpkin, carrot and fresh beans in the districts affected by the saltwater intrusion and drought in the districts of Nalut, Al-Jabal Al-Gharbi, Zwara, Al-Jafara, Al-Zaweya

Name of the district	Potatoes	Spring Onions	Onion	Garlic	Pumpkin	Carrots	Fresh Beans
Nalut	3	576	352	540	11	270	5
Al-Jabal Al-Gharbi	4	61	16380	23	0	0	21
Zwara	445	974	3306	372	312	2398	497
Al-Jafara	102442	29903	126965	55653	14463	11204	3530
Total	102894	31514	147003	56588	14786	13872	4053

Source: - Bureau of Statistics and Census, 2007.

Table 606257 Production quantities (quintals) of crops of peas, beans, tomatoes, watermelon, melon, cucumber and pepper in the districts affected by the saltwater intrusion and drought in the districts of Nalut, Al-Jabal Al-Gharbi, Zwara, Al-Jafara, Al-Zaweya

Name of the district	Peas	Beans	Tomatoes	Watermelon	Melon	Cucumber	Pepper
Nalut	0	10	21	42	25	11	122
Al-Jabal Al-Gharbi	2473	21	9	957	9250	0	5
Zwara	184	3	3181	252	43	114	5800
Al-Jafara	2730	1892	84528	52073	4191	15200	70293
Total	5387	1926	87739	53324	13509	15325	76220

Source: - Bureau of Statistics and Census, 2007.

Table 616358 Production quantities (quintals) of crops of aubergine, lettuce, cabbage, parsley and spinach in the districts affected by the saltwater intrusion and drought in the districts of Nalut, Al-Jabal Al-Gharbi, Zwara, Al-Jafara, Al-Zaweya

Name of the district	Aubergine	Lettuce	Cabbage	Parsley	Spinach
Nalut	12	0	0	540	607
Al-Jabal Al-Gharbi	0	0	0	23	0
Zwara	50	151	7	372	252
Al-Jafara	5422	2796	3878	55653	11728
Total	5484	2947	3885	56588	12587

Source: - Bureau of Statistics and Census, 2007.

5. DETAILED CLIMATE RISK ANALYSIS

Main Climate Change Hazards

1. **Temperature:** Since the beginning of last century, average temperature has been increasing in Libya. The average mean temperature has increased by an average rate of 0.0082°C/year between the years 1901 and 2017. The increase in average maximum temperature was the highest at about 0.01°C/year between the years 1901 and 2017 while the increase in minimum temperature was at about 0.0068°C/year for the same period as shown in Figure 21¹⁰⁵.

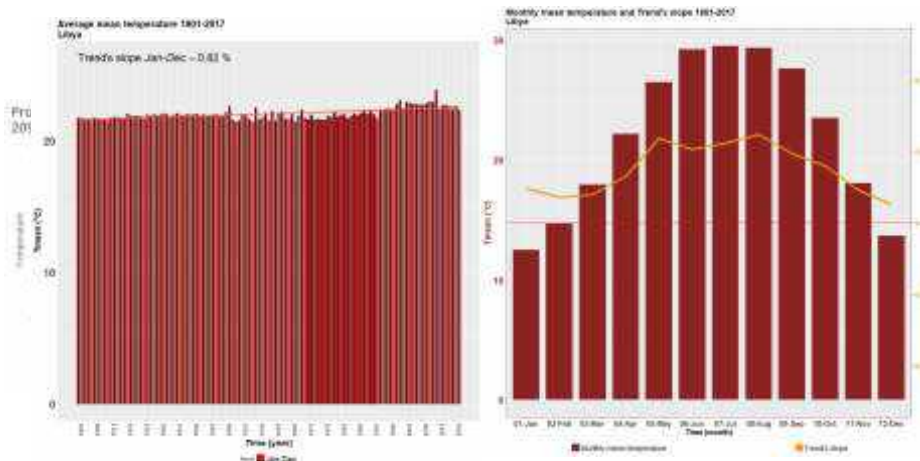


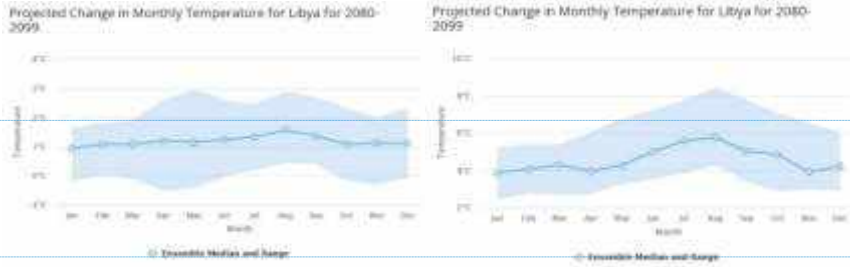
Figure 21 Average Mean Temperature (Left) and Monthly Mean Temperature (Right) in Libya between 1901 and 2017

2. Projections show that temperature will continue to increase for each month under all scenarios until the end of the century with a mean annual temperature increase of 2°C by 2050 compared to the 1986-2005 period under the worst scenario. For the period between 2040 and 2059, the least expected increase will be 0.95°C in February under scenario RCP 2.6 while the highest can reach up to 2.96°C in August under scenario RCP 8.5. Whereas for the period between 2080 and 2099, the least expected increase will also be 0.95°C but in January under scenario RCP 2.6 while the highest can reach up to 5.75°C in August under scenario RCP 8.5 as shown in Figure 22¹⁰⁶.

¹⁰⁵ This analysis is based on the CoMon tool that uses CHIRPS/Climate Hazards Group-USGS data.

¹⁰⁶ World Bank (2021). Climate Change Knowledge Portal. Last Accessed [03/01/2021]: <https://climateknowledgeportal.worldbank.org/country/libya>

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Figure 22 Projected Change in Monthly Temperature under RCP 2.6 (Left) and RCP 8.5 (Right) in Libya between 2080 and 2099

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4. For the project target districts, the trend has been similar. Temperatures are rising and will continue to rise with comparable rates in the five districts as we approach the end of the century. The rate of the increase depends on the scenario. The more pessimistic the scenario (e.g. SSP5-8.5), the higher the increase. Figure 23 below shows the rates of increase for each district under five different scenarios until 2100 compared to 1995-2014 reference period¹⁰⁷.

¹⁰⁷ World Bank (2022). Climate Change Knowledge Portal. Last Accessed [11/12/2022: <https://climateknowledgeportal.worldbank.org/country/libya/climate-data-projections>]

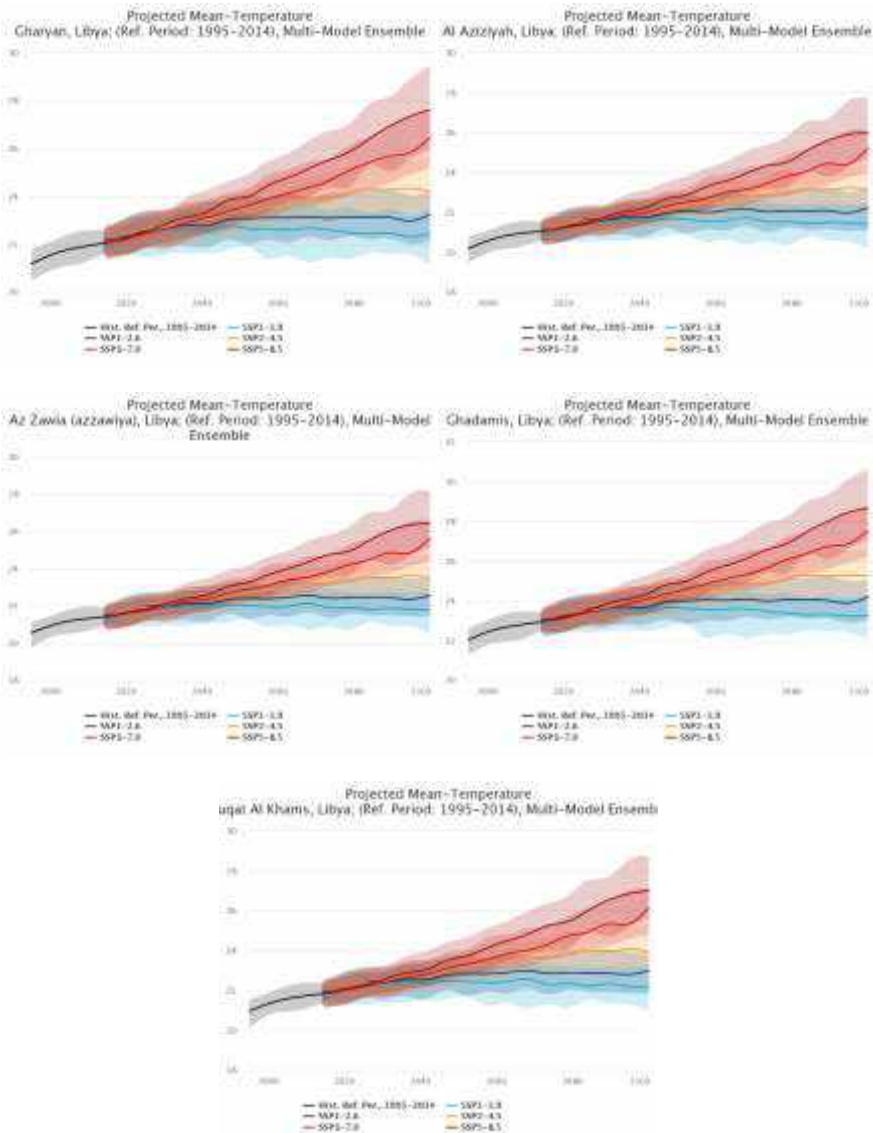


Figure 23 Projected Mean Temperature until 2100 compared to 1995-2014 for Al Jabal Al Gharbi (top left), Aljafrah (top right), Azzawya (middle left), Nalut (middle right) and Zuwara (bottom middle)

5. **Precipitation:** There has been overall slight decline in trend of precipitation by 0.076% which represents an average decline of 0.76 mm per decade in Libya between 1981 and 2018. Monthly rainfall had no change in summer with increase

in average precipitation occurring in February, October and December and a decline in January, March, April and November as shown in Figure 24¹⁰⁸.

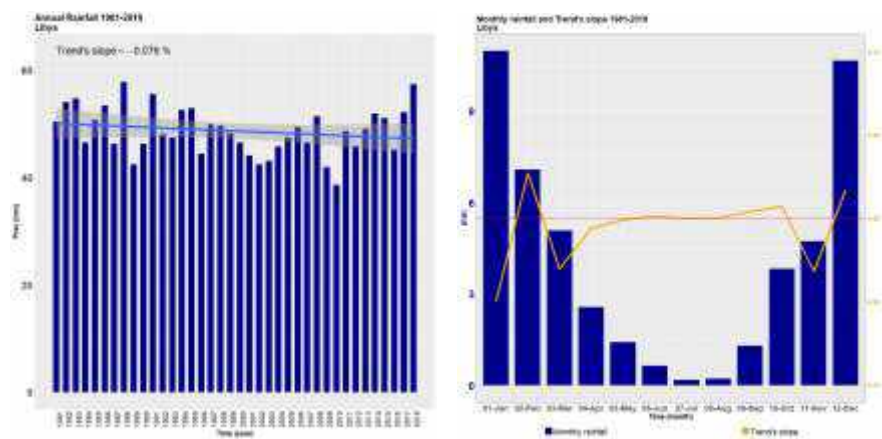


Figure 24 Annual Rainfall (Left) and Monthly Rainfall (Right) in Libya between 1981 and 2018

6. While different models have large discrepancies on precipitation data, it is likely that there will be a decline of around 7% in mean annual precipitation. Monthly data shows slight median changes. For the period between 2040 and 2059, the biggest decline is expected to be around 1.04 mm in June under scenario RCP 4.5 while the highest increase will be around 0.53 mm in April under the same scenario. For the period between 2080 and 2099, the biggest decline is expected to be around 1.39 mm also in June under scenario RCP 8.5 while the highest increase will be around 0.46 mm in May under scenario RCP 2.6 as shown in Figure 25¹⁰⁹.

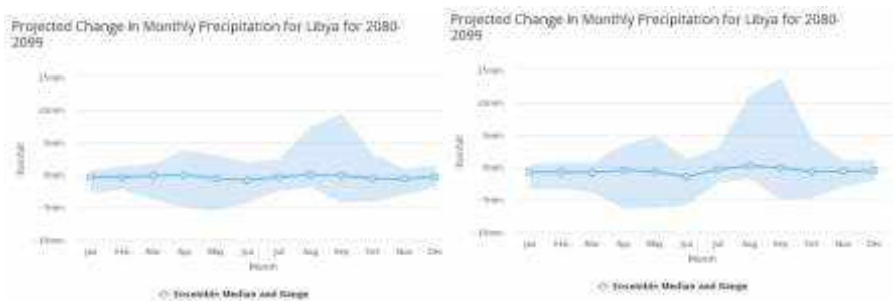


Figure 25 Projected Change in Monthly Precipitation under RCP 2.6 (Left) and RCP 8.5 (Right) in Libya between 2080 and 2099

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¹⁰⁸ This analysis is based on the CoMon tool that uses CHIRPS/Climate Hazards Group-USGS data.

¹⁰⁹ World Bank (2021). Climate Change Knowledge Portal. Last Accessed [03/01/2021]: <https://climateknowledgeportal.worldbank.org/country/libya>

7. For the project target districts, the projected trend is that precipitation will be declining under all scenarios. However, the correlation between the scenario and the percentage of decline is inconsistent across the century although the SSP5 – 8.5 scenario will cause the biggest decline in the five districts by 2100. Figure 26 below shows the percentage of decline for each district under five different scenarios until 2100 compared to 1995-2014 reference period¹¹⁰.

¹¹⁰ World Bank (2022). Climate Change Knowledge Portal. Last Accessed [11/12/2022]: <https://climateknowledgeportal.worldbank.org/country/libya/climate-data-projections>

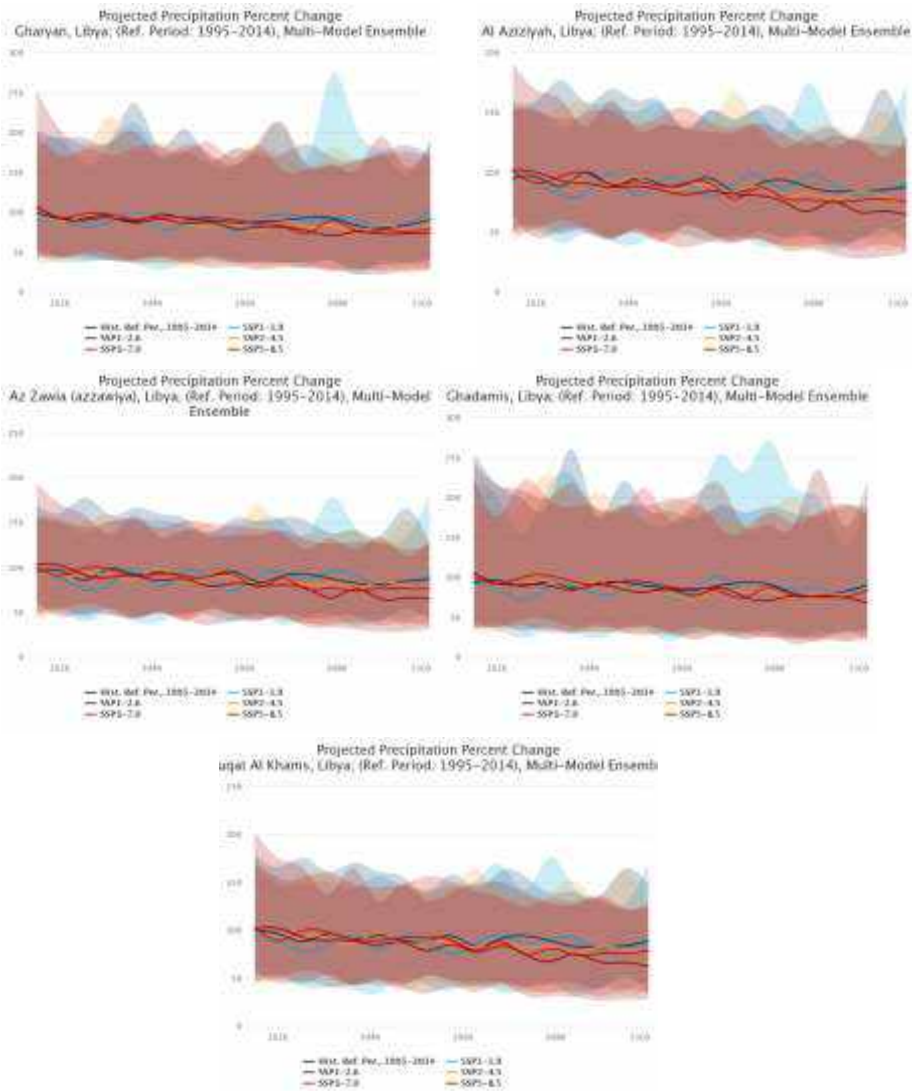


Figure 26 Projected Precipitation Percent Change until 2100 compared to 1995-2014 for Al Jabal Al Gharbi (top left), Aljafrah (top right), Azzawya (middle left), Nalut (middle right) and Zuwara (bottom middle) (World Bank, 2022)

8. **Extreme Events:** 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 losses¹¹¹. Drought is becoming more frequent in Libya over the past two decades. Figure 27 shows the change in events of drought in Libya between 1983 and 2019 as indicated by the decrease in Standardized Precipitation Evapotranspiration Index¹¹² (SPEI). Severe drought is likely once the SPEI drops below -2. There is a major trend decline in average 18 months SPEI indicating higher chance of drought events between 1981 and 2018. The frequency of negative SPEI for consecutive years has increased greatly since the year 2000¹¹³.

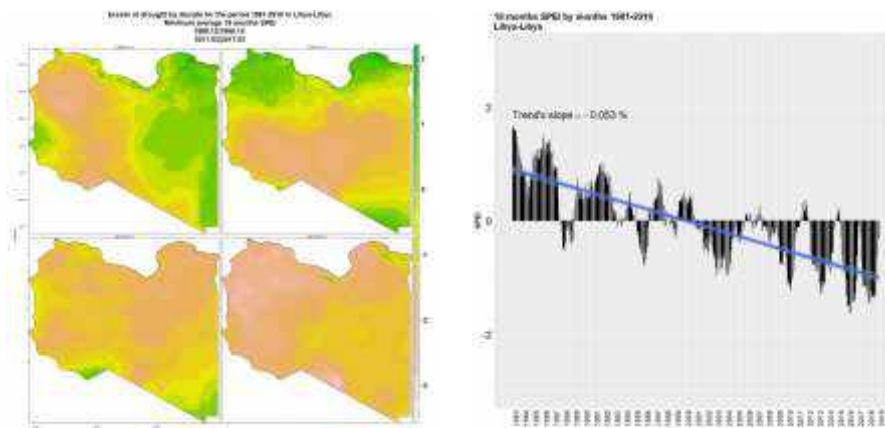


Figure 27 Events of Drought in Libya between 1988 and 2017 by the Decrease in SPEI (Left) and Four Months SPEI between 1983 and 2019 in Libya (Right)

9. Projections show that there will be an increase in the incidents of heat waves as we move towards the end of the century. The more pessimistic the scenario gets, the higher the annual probability of heat waves. The likelihood of severe drought follows the same trend as it increases as we move towards the end of the century with only slight differences between scenarios RCP 4.5, RCP 6.0 and RCP 8.5. It is predicted the number of annual drought days will increase from 101 to 224 in the Libyan coast over the next 40 years¹¹⁴. Libya will also be subject to an increase in the frequency of flooding in coastal areas as well as an increase in sandstorms and dust storms¹¹⁵.

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¹¹¹ Suwihli, S. (2020). Geospatial Analyses of Seismic Hazards and Risk Perception in Libya. *Theses and Dissertations: University of Arkansas*.

¹¹² The Standardized Precipitation Evapotranspiration Index (SPEI) measures the changes in water balance using both precipitation input as well as evapotranspiration losses. Positive values indicate positive water balance (or wet) conditions and negative values indicate negative water balance (or dry) conditions. Severe drought is likely once the SPEI drops below -2. The 12-month integrated SPEI was used to compute the annual likelihood of a severe drought. Particularly in the sub-tropics there is a clear trend towards increasing likelihood of drought conditions, but the overall trend is positive in most places due to increasing temperatures and little precipitation variability.

¹¹³ This analysis is based on the CoMon tool that uses CHIRPS/Climate Hazards Group-USGS data.

¹¹⁴ USAID (2017a). Climate Change Risk Profile: Libya. *Fact Sheet*.

¹¹⁵ World Bank (2021). Climate Change Knowledge Portal. Last Accessed [03/01/2021]: <https://climateknowledgeportal.worldbank.org/country/libya>

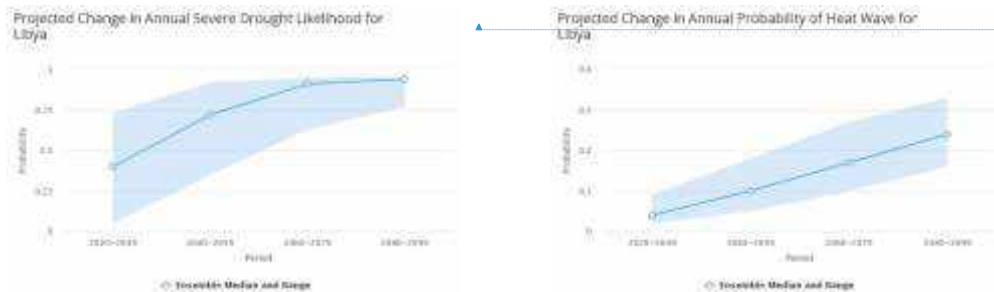


Figure 28 Projected Change in Annual Severe Drought Likelihood (Left) and Probability of Heat Wave (Right) in Libya under RCP 8.5 between 2020 and 2099

10. **Sea Level Rise:** Data shows fluctuations in sea level anomaly for Libya with an overall increase between 1993 and 2015. While in 1993 there was a decline of 6.91 mm, 1994-2015 showed a trend of increase where the lowest was 4.49 mm in 1995 and the peak was in 2010 with an increase of 102.6 mm¹¹⁶. This trend is expected to continue with the global mean sea level rise expected to be in the range of 0.29 m and 1.1 m by the end of the century¹¹⁷. Figure 29 below shows the most vulnerable areas along the Libyan coast under a 1 m sea level rise scenario.



Figure 29 Vulnerable Areas to Sea Level Rise in Libya based on a 1-meter scenario (El Raey, 2010)

¹¹⁶ World Bank (2021). Climate Change Knowledge Portal. Last Accessed [03/01/2021]: <https://climateknowledgeportal.worldbank.org/country/libya>

¹¹⁷ IPCC (2019). Special Report on the Ocean and Cryosphere in a Changing Climate. *Chapter 4*.

Crop Analysis

This analysis uses the CARD¹¹⁸ methodology to identify potential impact of different climate change scenarios on some of the crops in the target districts. The crops available for the analysis in the tool were groundnuts, peas and wheat. The Median scenario shows a general decline in the yield for the three crops in all five districts by the end of the ten years period despite some fluctuations during this period as shown in Figure 30.

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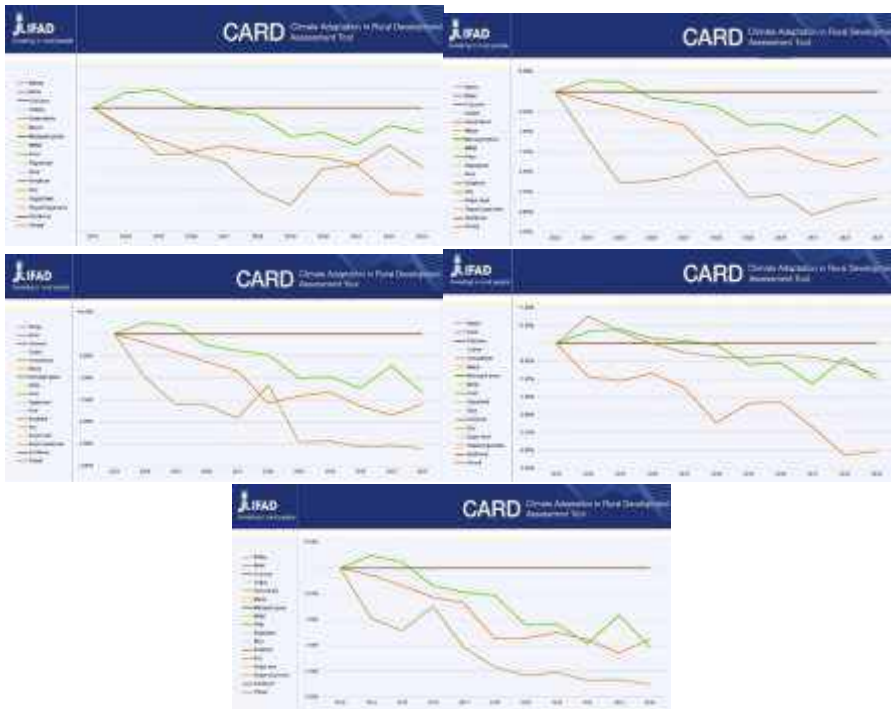


Figure 30²¹ Changes in Crop Yield for Groundnuts, Peas and Wheat between 2023 and 2033 under a Median Scenario in Al Jabal Al Gharbi (top left), Aljafrah (top right), Azzawya (middle left), Nalut (middle right) and Zuwara (bottom middle). The percent changes in yields by 2033 can be summarised in the Table 59 below:

Table 59 Percent Changes in Yields for Groundnuts, Peas and Wheat by 2033 in the Five Districts

District/Crop	Groundnuts	Peas	Wheat
Al Jabal Al Gharbi	-2.12%	-0.61%	-1.43%
Aljafrah	-1.66%	-1.13%	-2.68%
Azzawya	-1.60%	-1.32%	-2.60%

¹¹⁸ The Climate Adaptation in Rural Development (CARD) assessment tool enables easy access to peer-reviewed modelling results for crop yields under climate change.

Nalut	-3.04%	-1.00%	-0.85%
Zuwara	-1.38%	-1.53%	-2.25%