# ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY: Regular Size Full Proposal

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**Country/Region:** Mongolia
**Project Title:** Sustainable Pasture Management and Adaptation with Resilient Technologies for Herders in Mongolia (SMART-Herders)
**Thematic Focal Area:** Agriculture
**Implementing Entity:** International Fund for Agriculture Development (IFAD)
**Executing Entities:** Office of the President (Government of Mongolia)
United Nations Industrial Development Organization (UNIDO)
**AF Project ID:** AF00000404
**IE Project ID:**
**Requested Financing from Adaptation Fund (US Dollars):** 2,038,883
**Reviewer and contact person:** Estefanía Jiménez
**Co-reviewer(s):** Hugo Remaury
**IE Contact Person:** Pierre Yves Guedez

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| Technical Summary | The project "Sustainable Pasture Management and Adaptation with Resilient Technologies for Herders in Mongolia (SMART-Herders)" aims to establish and implement a scalable climate adaptation model within Mongolia's livestock sector, enhancing the resilience, productivity, and livelihood security of herder communities across targeted regions. This will be done through the two components below:<br><br>Component 1: Implementing Medium-Scale Pilot Projects for Capacity Building and Climate-resilient herding practices and technologies (USD 1,094,185)<br><br>Component 2: Knowledge Management and Knowledge Sharing: Strengthening Capacity and Knowledge on Climate Adaptation (USD 606,370)<br><br>Requested financing overview:<br>Project/Programme Execution Cost: USD 178,600<br>Total Project/Programme Cost: USD 1,879,155<br>Implementing Fee: USD 159,728 |

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| | Financing Requested: USD 2,038,883<br><br>The first technical review raises some issues, such as adaptation rationale of some activities, AF ESP alignment, M&E planning costs, as is discussed in the number of Clarification Requests (CRs) and Corrective Action Request (CAR) raised in the review. |
| Date: | January 24, 2025 |

| Review Criteria | Questions | First Technical Review Comments January 24, 2025 | IFAD Response |
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| Country Eligibility | 1. Is the country party to the Kyoto Protocol and/ or the Paris Agreement? | **Yes.** | |
| | 2. Is the country a developing country particularly vulnerable to the adverse effects of climate change? | **Yes.** Mongolia indicates notable levels of exposure to hazards and vulnerability, including snowstorms, extreme temperatures, and droughts which are also associated with dust storms in the south. Severe winters exacerbated by dzud events cause significant livestock mortality and have become more frequent and intense. These events severely impact food security and the socioeconomic conditions of those dependent on the livestock sector. | |
| Project Eligibility | 1. Has the designated government authority for the Adaptation Fund endorsed the project/programme? | **Yes.** As per letter dated 13 May 2024. | |
| | 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.** | |

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| | 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? | **Not cleared.**<br>The project seeks to promote climate-resilient livestock and pasture management practices through the establishment of Herders' Field Schools and collections centers.<br><br>**CR 1**: In Part I.A, please explain why the probability of dzud events is expected to increase despite the anticipated rise in temperatures.<br><br>**CR 2:** Please justify why a multilateral implementing entity (UNIDO) is an executor of the project.<br><br>**CR 3:** Please enhance the alignment between Table 2 and the six key objectives. For example, the 2 solar-powered water stations are not mentioned in the table.<br><br>**CR 4**: In Part II.A, the mention of an EWS component appears to be out of context as it was not introduced earlier in the proposal. To improve the clarity and coherence of the proposal, please restructure and organize the content more effectively. Furthermore, the alignment with Adaptation Fund Outcomes should be included in a Part III.F.<br><br>**CR 5**: In Part II.A, the proposal should briefly explain how the 5 White Gold Collection Centres (activity 1.1.1), the green infrastructures (activity 1.1.3) and the two solar pumping stations (activity 1.1.3) will be made themselves resilient to the impacts of climate change (namely increasing | **CR1:** Updated Justification for Increasing Dzud Events Despite Rising Temperatures **(Added from Para 34-36,)**<br><br>**Climate Variability:** More extreme weather events, including sudden cold snaps after warm periods, harming livestock.<br>• *Freeze-Thaw Cycles*<br>• *Reduced Summer Rainfall*<br>• *Pasture Degradation*<br>• *Stronger Winter Storms*<br>• *Consecutive Dzuds*<br>• *Scientific Projections*<br><br>**CR 2:** Please justify why a multilateral implementing entity (UNIDO) is an executor of the project. **(Added from Para 167, Also Annex 13: Letter from GoM for UNIDO)**<br><br>**Proven Expertise & Experience:** UNIDO has been a neutral technical partner in Mongolia since 1970, successfully implementing projects like SECIM (EU-funded) and EDP (WB-funded) supporting livestock value chains and export competitiveness.<br>**Government Endorsement:** The Government of Mongolia (Office of the President) formally requested UNIDO's technical assistance for the Smart Herders project, leveraging its expertise.<br>**Strategic Alignment:** UNIDO's GEF-funded CleanTech Innovation Project complements Smart Herders, supporting |

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| | | frequency of dzud events, summer droughts etc.). | climate mitigation and NDCs under Mongolia's NAP.<br>**Institutional Advantage:** UNIDO is exempt from taxes and duties, ensuring cost-efficient implementation.<br>**UN Collaboration:** UNIDO and IFAD are committed to joint programming under UNSDCF 2023-2027, aligning with Mongolia's national strategies.<br><br>**CR 3:** Please enhance the alignment between Table 2 and the six key objectives. For example, the 2 solar-powered water stations are not mentioned in the table. **(Added from Para 38)**<br><br>Key Enhancements and Justifications Added to **Table 2 (Page 16):**<br><br>Clarified Inclusion of Solar-Powered Water Stations:<br><br>Previously missing from the original Table 2, now explicitly added under Component 1, aligning with water management objectives.<br><br>**CR 4:** In Part II.A, the mention of an EWS component appears to be out of context as it was not introduced earlier in the proposal. To improve the clarity and coherence of the proposal, please restructure and organize the content more effectively. Furthermore, the |

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| | | | alignment with Adaptation Fund Outcomes should be included in a Part III.F. **(Added from Para 40,41,42, 43, 44,45,46,47,48,49)**<br><br>**Early Warning Systems (EWS)** are now properly introduced in Parts I & II, ensuring coherence in Part III.F.<br><br>**Improved Alignment with AF Framework:** Tables are reorganized to explicitly show how EWS and infrastructure investments align with the Adaptation Fund results framework.<br><br>**Strengthened Linkages:** Clearer connections between project outcomes, outputs, and AF results framework indicators.<br><br>**Infrastructure Investments Highlighted:** Solar-powered water stations and recharge berms are now explicitly linked to AF outcome alignments.<br><br>**Integrated Climate Risk Approach:** Pasture and livestock management strategies are now directly tied to climate risk reduction objectives.<br><br>**Updates to Part III.F** |

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| | | | **Updated Tables:** Table 14 revised to improve AF outcome alignment and incorporate Technical Review feedback.<br><br>**Enhanced Alignment:** SMART-Herders project now explicitly links to AF Results Framework, addressing climate-induced risks in Mongolia's livestock sector.<br><br>**Stronger Integration:** EWS, climate-resilient infrastructure, water & pasture management are now clearly reflected.<br><br>**CR 5**: In Part II.A, the proposal should briefly explain how the 5 White Gold Collection Centres (activity 1.1.1), the green infrastructures (activity 1.1.3) and the two solar pumping stations (activity 1.1.3) will be made themselves resilient to the impacts of climate change (namely increasing frequency of dzud events, summer droughts etc.).<br><br>**(Added from Para 57,59,60,61,62,63)**<br><br>**Key Updates on Climate-Resilient Infrastructure & Training**<br><br>**Climate-Resilient Investments:** White Gold Collection Centres, solar-powered water stations, and green infrastructure enhance adaptation to dzuds, droughts, and pasture degradation. |

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| | | | Integrated **Early Warning System (EWS):** EWS access at Herders' Field Schools (HFS) improves climate risk preparedness, benefiting 8,000 households.<br><br>**Capacity Building & Livelihood Diversification:** 144 HFS, 4,000 trained herders (40% women), and specialized workshops support sustainable livestock management, income diversification, and climate resilience. |
| | 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? | **Likely.**<br>The project is expected to generate a wide range of economic (increased livestock productivity and reduced losses, income diversification, job creation), social (enhanced community resilience, improved livelihoods and benefits) and environmental (reduction of overgrazing and improved soil health) benefits. Its benefit-cost ratio is estimated at 1.08. However, the proposal does not explain the process through which the beneficiaries will be selected, not describe how the project will ensure an equitable distribution of its benefits.<br><br>**CR 6**: Please describe the process through which the project will select the direct beneficiaries (4,000 households across the two target aimags).<br><br>**CR 7**: In Part II.B., the proposal should explain how the project will ensure an | **CR 6**: Please describe the process through which the project will select the direct beneficiaries (4,000 households across the two target aimags).<br><br>**(Added from Para 85)**<br><br>**CR 7**: In Part II.B., the proposal should explain how the project will ensure an equitable distribution of the project benefits across the target aimags, soums, and herder<br><br>**(Added from Para 86)** |

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| | | equitable distribution of the project benefits across the target aimags, soums, and herder households. | |
| | 5. Is the project / programme cost effective? | **Yes.**<br>The project proposed a logical scope and approach to the impacts expected from climate change. The proposal provides a clear description of alternative options to the proposed measures and allows a good assessment of the project's cost effectiveness. | |
| | 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.**<br>The proposal lists relevant national and sub-national strategies/plans and describe how the project aligns with each. | |
| | 7. Does the project / programme meet the relevant national technical standards, | **Yes.**<br>The proposal identifies relevant national technical standards, including ESP-related | |

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| | where applicable, in compliance with the Environmental and Social Policy of the Fund? | ones, and describe how the project will comply with each. | |
| | 8. Is there duplication of project / programme with other funding sources? | **No.**<br><br>The proposal provides a comprehensive list of potentially overlapping projects/programmes and describes its lack of overlap or complementarity.<br><br>**CR 8:** When describing synergies with the GCF-funded, ADB-implemented "*Aimags and Soums Green Regional Development Investment Program (ASDIP)*" initiative, please remove the statement "*The project introduces EWAA, FbF, and Index-Based Livestock Insurance (IBLI)*", as it is now understood that none of these tools will be introduced by the project. | **CR 8:** When describing synergies with the GCF-funded, ADB-implemented "*Aimags and Soums Green Regional Development Investment Program (ASDIP)*" initiative, please remove the statement "*The project introduces EWAA, FbF, and Index-Based Livestock Insurance (IBLI)*", as it is now understood that none of these tools will be introduced by the project.<br><br>**(Removed in Tabe 8; Page 50: track changes)** |
| | 9. Does the project / programme have a learning and knowledge management component to capture and feedback lessons? | **Yes.**<br>Component 2 focuses on enhancing herders' knowledge and skills to enable them to adopt climate-smart practices and better manage climate-related risks. | |
| | 10. Has a consultative process taken place, and has it involved all key stakeholders, and vulnerable groups, including | **Yes.**<br>The proposal provides a summary of a comprehensive, gender-responsive process, that has taken place during project design. | |

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| | gender considerations in compliance with the Environmental and Social Policy and Gender Policy of the Fund? | | |
| | 11. Is the requested financing justified on the basis of full cost of adaptation reasoning? | **Yes.**<br><br>The proposal demonstrates that the activities are relevant in addressing its adaptation objectives. | |
| | 12. Is the project / program aligned with AF's results framework? | **No.**<br><br>**CAR 1**: The alignment table provided in Part III.F has to be revised as per the instructions provided in the Annex 5 of the OPG (see example on p.16).<br>Please also ensure that the grant amount for AF Outcome Indicators and Output indicators are separate. E.g. grant amount for 3.2.2 should be separated from grant amount for 2.1.2. | |
| | 13. Has the sustainability of the project/programme outcomes been taken into account when designing the project? | **Yes.**<br>The proposal demonstrates that the adaptation benefits achieved with the help of the project can be sustained once it ends, covering all key areas of sustainability including economic, social, environmental and institutional sustainability.<br><br>**CR 9:** The proposal refers to the « Sri Lanka UN-Habitat initiative », which rather seems | **CR 9:** The proposal refers to the « Sri Lanka UN-Habitat initiative », which rather seems to refer to a Mongolia UN-Habitat initiative. Please amend this sentence accordingly, as applicable<br><br>**(Added in Para 138)** |

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| | | to refer to a Mongolia UN-Habitat initiative. Please amend this sentence accordingly, as applicable. | |
| | 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.**<br>However, the proposal should take into consideration relevant elements from the Environmental and Social Policy (ESP) guidance document to better align the project with the AF ESP.<br><br>**CAR 2:** Information presented in tables 10 and 11 should be revised as follows to better align with the Environmental and Social Policy of the Fund and its guidance document: i) for all principles for which impacts or risks were identified (i.e., Principles 1, 6, 9, 10, 12, 13 and 14, as per the ESMP annex table 5.1) and for Principle 4 which always applies and for which risks of non-compliance should be acknowledged, such impacts or risks should be described in the column "*Potential impacts and risks – further assessment and management required for compliance*"; ii) the "*No further assessment required for compliance*" column should only be ticked for those principles for which impacts/risks were not identified (i.e., for Principles 2, 3, 5, 7, 8, 11 and 15); and iii) the "*Environmental and Social Impact Assessment*" section of the ESMP should describe impacts or risks identified for all relevant principles (i.e., Principles 1, 6, 9, 10, 12, 13 and 14, as per the ESMP annex table 5.1). | **CAR 2:** Information presented in tables 10 and 11 should be revised as follows to better align with the Environmental and Social Policy of the Fund and its guidance document.<br><br>**(Added and changed made in Table 10 Page 64 and Table 11; Annex 5.1 ESMP Matrix Pages 124,)**<br><br>**Key Updates**<br>Table 10 has been revised to ensure consistency with the information presented in the proposal; ii) Information in this column has been revised to ensure consistency; iii) section reviewed and all anticipated environmental and social impacts mentioned. |

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| | | **CR 10**: The proposal states that *"The ESP principles addressed in this project concept note will be further refined during the design phase (mission) to reflect the risks associated with each principle"*, which seem inappropriate given that the fully-developed proposal has already reflected such risks. | **CR 10**: The proposal states that *"The ESP principles addressed in this project concept note will be further refined during the design phase (mission) to reflect the risks associated with each principle"*, which seem inappropriate given that the fully developed proposal has already reflected such risks.<br><br>**(Added Para 165,166)**<br>**Key Updates**<br>The proposal has already identified ESP risks, and the early implementation phase will validate and refine mitigation measures. The ESMP in Annex 5 ensures full compliance and will undergo public consultation post-site selection. |
| Resource Availability | 1. Is the requested project / programme funding within the cap of the country? | **Yes.** Mongolia has available $ 2,038,889 under country cap. | |
| | 2. Is the Implementing Entity Management Fee at or below 8.5 per cent of the total project/programme budget before the fee? | **Yes.** The IE fee is $159,728 (8.5%) | |
| | 3. Are the Project/Programme Execution Costs at or below 9.5 per cent of the total project/programme | **No.**<br><br>**CAR 3:** The EE fee is $178,600. Execution cost should be $178,519 or less. | **CAR 3:** The EE fee is $178,600. Execution cost should be $178,519 or less.<br>**Added** (Table 2 Execution cost updated: $ **178,445** |

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| | budget (including the fee)? | **CR 11**: Please amend the Projected Calendar, the terminal evaluation should be done after the closing of the project. | **CR 11**: Please amend the Projected Calendar, the terminal evaluation should be done after the closing of the project. **(Updated Table 3)** October 2028 after close of project to allow summer impact assessment**.** |
| Eligibility of IE | 1. Is the project/programme submitted through an eligible Implementing Entity that has been accredited by the Board? | **Yes.**<br>IFAD accreditation is valid until December 2025. | |
| Implementation Arrangements | 1. Is there adequate arrangement for project / programme management, in compliance with the Gender Policy of the Fund? | **Yes.**<br>Although the proposed implementation arrangements seem overall adequate, some elements remain to be clarified.<br><br>**CR 12**: The project organogram should be revised to i) include the roles of IFAD and UNIDO in implementation and execution, respectively; and to ii) show how the institutions involved (including IFAD, Office of the President and UNIDO) report to each other. | **CR 12**: The project organogram should be revised to i) include the roles of IFAD and UNIDO in implementation and execution, respectively; and to ii) show how the institutions involved (including IFAD, Office of the President and UNIDO) report to each other.<br>**(Added Para 169)**<br>**Key Updates**<br>Updated Organogram with box explaining the roles and institutions involved reporting |
| | 2. Are there measures for financial and project/programme risk management? | **Yes.**<br>Although such risks are described, they should be grouped and summarized in a table indicating their respective level, category, and associated mitigation measures. | **CR 13:** Please include in Part III.B. a table summarizing all major financial and project risk management identified, their category (i.e., financial, environmental, social, institutional), their level, and how they will be managed. |

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| | | **CR 13:** Please include in Part III.B. a table summarizing all major financial and project risk management identified, their category (i.e., financial, environmental, social, institutional), their level, and how they will be managed. | **Added: Para 173-176:** Updates – Financial, Fiduciary Risk Mgt.<br><br>**(Added Para 184,185: Page 77: Table 12 -new)**<br>**Key Updates:** Project Risk Table including financial, Environmental, Social and Operation added |
| | 3. Are there measures in place for the management of for environmental and social risks, in line with the Environmental and Social Policy and Gender Policy of the Fund? | **Yes.**<br><br>An Environmental and Social Management Plan (ESMP) is provided. However, some elements pertaining to the ESMP and the Grievance Redress Mechanism remain to be clarified.<br><br>**CR 14**: The ESMP should expand on how IFAD will supervise both Executing Entities during the implementation of the ESMP.<br><br>**CR 15**: The proposal should confirm whether the ESMP was made available for public consultations that were timely, effective, inclusive, and held free of coercion.<br><br>**CR 16**: Please add in the GRM description the ability of the GRM to accommodate complaints related to USPs and the need for the GRM to be known to stakeholders involved in USPs. | **CR 14**: The ESMP should expand on how IFAD will supervise both Executing Entities during the implementation of the ESMP.<br><br>**(Added Para 165,166 and Annex 5 in details in Page 111)**<br><br>**Key Updates:** IFAD comprehensive oversight of EE through implementation of ESMP provided. Structured monitoring frameworks, periodic assessments, and a participatory GRM to ensure that environmental and social risks are effectively mitigated.<br><br>**CR 15**: The proposal should confirm whether the ESMP was made available for public consultations that were timely, effective, inclusive, and held free of coercion. |

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| | | | **(Added a new para 166)**<br><br>**Key Updates:** The ESMP is pending public consultation due to ongoing site selection. Once finalized, inclusive consultations will be conducted during the project's inception phase, ensuring accessibility, transparency, and thorough documentation.<br><br>**CR 16**: Please add in the GRM description the ability of the GRM to accommodate complaints related to USPs and the need for the GRM to be known to stakeholders involved in USPs.<br><br>**(Added Para 189; Annex 5B Page 129)**<br><br>**Key updates:** edited to address the concerns related to USPs. Also changes made under GRM Annex 5B 'Current Gaps and Next Steps' to reflect the same. |

<table>
<tr>
<td rowspan="2"></td>
<td>4. Is a budget on the Implementing Entity Management Fee use included?</td>
<td>No.<br><br>CR 17: Please include a breakdown of the Implementing Entity Management Fee. See the following document as reference: https://www.adaptation-fund.org/wp-content/uploads/2023/10/AFB.PPRC_.32.22-Proposal-for-Harmonizing-Costs-and-Fees-in-Projects-and-Programmes-1.pdf</td>
<td>CR 17: Please include a breakdown of the Implementing Entity Management Fee. See the following document as reference:<br><br>(Added PART I C. onwards Table 2: Implementing Entity; and Annex 5B Page 120)<br><br>Key updates: Implementing Entity (IFAD) Management Fee breakup is included in the revised budget sheet. (page No. 17)
<table>
<tr><th>Particulars</th><th>%</th><th>Amount (USD)</th></tr>
<tr><td>Financial Management (General financial oversight, support audits 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 Government procurement rules).</td><td>20</td><td>31,946</td></tr>
<tr><td>Programme Support (Technical support in project implementation; methodologies, identification of experts; troubleshooting and support implementation missions as necessary; portfolio management, reporting and policy programming and implementation support services).</td><td>40</td><td>63,891</td></tr>
<tr><td>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).</td><td>40</td><td>63,891</td></tr>
<tr><td>Total IE Fee</td><td>100</td><td>159,728</td></tr>
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<td>5. Is an explanation and a breakdown of the execution costs included?</td>
<td>Yes.<br>However, further amendment is required.</td>
<td>CAR 3: The detailed budget includes the following line item “Project Servicing Cost</td>
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| | | **CAR 3:** The detailed budget includes the following line item “Project Servicing Cost (PSC 7%).” Please specify the composition of this cost. | (PSC 7%).” Please specify the composition of this cost.<br>**Response:** The UNIDO project servicing cost is a UN wide agreement covering costs of administrative support in HQ and regional offices (e.g. HR, accounting, audit, etc.).<br><br>The PSC is included in the overall execution cost of the project which is 9.5%. The PCS 7% is calculated only on those parts of the budget to be implemented by UNIDO. This has been discussed with the IFAD and Office of the President who understand and agree that this is a normal cost of UN technical assistance essential for the success of this project. |
| | 6. Is a detailed budget including budget notes included? | **Not cleared.**<br><br>**CR 20:** Annex 4 includes a detailed budget, however, is missing some details. Please see **CR 21**. | **CR 20:** Annex 4 includes a detailed budget, however, is missing some details. Please see **CR 21**.<br><br>**Added in Annex 4 Detailed Project Budget Table.** |
| | 7. Are arrangements for monitoring and evaluation clearly defined, including budgeted M&E plans and sex-disaggregated data, | **No.**<br><br>**CR 21:** Total budget for M&E is $448,705. This should be embedded in the EE fees and IE fees, and clearly stated in the detailed budget. Please review. | **CR 21:** Total budget for M&E is $448,705. This should be embedded in the EE fees and IE fees, and clearly stated in the detailed budget. Please review. **Added; After Para 201:Table 13)** |

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| | targets and indicators, in compliance with the Gender Policy of the Fund? | **CR 22:** Please include provisions for mid-term evaluation.<br><br>**CR 23:** Please include management of the environmental and social risks identified. | **Key updates:** revised M&E Budget $80,000 instead of $448,705<br><br>**CR 22:** Please include provisions for mid-term evaluation.<br>**Added: Refer Table 13 midterm evaluation (MTR)**<br><br>**CR 23:** Please include management of the environmental and social risks identified.<br><br>Addressed as part of **III. D,** in particular **Paras 190 – 200.** In addition, the Updated ESCMP matrix (refer Annex 5.1) includes a column on means of verification that references how mitigation measures will be reported upon. |
| | 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? | **No.**<br><br>**CR 24:** There is not a clear breakdown of IE fees. Please add more detail in Table 12. Figures should match the detailed budget. | **CR 24:** There is not a clear breakdown of IE fees. Please add more detail in Table 12. Figures should match the detailed budget.<br><br>**Added: Refer Table 12 Updated Budget Table for M&E and Content and Table 2**<br><br>**Key Updates:** Table 12 and Table 2 Section C below: Detailed breakdown of IE (IFAD) fees has been provided. The fee has been split into Financial |

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| | | | Management (20%), Programme Support (40%) and Technical Support (40%).<br><br>Updated Table and Additional Measures explanation.<br>The updated and budgeted Monitoring and Evaluation Plan includes additional details to align with the comments on IE fees and matches the detailed budget: |
| | 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? | **Yes.**<br><br>**CR 25**: Throughout the proposal, please convert the number of target households into direct and indirect beneficiaries (individuals), to ensure alignment with the AF core indicators reporting requirements.<br><br>**CR 26:** Please utilize the AF core indicator template to record the core indicators available at Methodologies for reporting Adaptation Fund core impact indicators.<br><br>**CR 27:** On p.20, the proposal mentions a total of 8,000 households benefitting from activity 1.2.2, although other sections of the proposal (e.g., on p.70) refer to 4,000 direct beneficiaries. Please ensure consistency in the figures presented throughout the proposal. | **CR 25**: Throughout the proposal, please convert the number of target households into direct and indirect beneficiaries (individuals), to ensure alignment with the AF core indicators reporting requirements.<br><br>**Key updates:** This has been addressed throughout the proposal e.g households to herders and aligned with AF core indicators.<br><br>**CR 26:** Please utilize the AF core indicator template to record the core indicators<br>**Added: Table 14 and Justification below table**<br><br>**Key updates:** This has been addressed throughout the proposal e.g households to herders and aligned with AF core indicators |

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| | | | **CR 27:** On p.20, the proposal mentions a total of 8,000 households benefitting from activity 1.2.2, although other sections of the proposal (e.g., on p.70) refer to 4,000 direct beneficiaries. Please ensure consistency in the figures presented throughout the proposal.<br><br>**(Added and changed throughout for consistency)** |
| | 10. Is a disbursement schedule with time-bound milestones included? | **Not cleared.**<br><br>**CR 28:** The figures in the disbursement schedule do not align with those in the budget tables. For instance, the total project funds amount to 1,879,154, whereas Table 2 shows a rounded figure of 1,879,155. Kindly review and reconcile the discrepancies throughout the document. | **CR 28:** The figures in the disbursement schedule do not align with those in the budget tables.<br><br>**(Added Page 17 Disbursement Schedule Table)**<br><br>**Key Updates:**<br>Disbursement schedule amount is matching. Details are as below:<br>Year 1: $799,251<br>Year 2: $594,937<br>Year 3: $484,967<br>Total: $1,879,155 |

# FULLY DEVELOPED PROPOSAL FOR SINGLE COUNTRY

## PART I: PROJECT INFORMATION

**Title of Project:** Sustainable Pasture Management and Adaptation with Resilient Technologies for Herders in Mongolia (SMART-Herders)

**Country:** Mongolia

**Thematic Focal Area:** Agriculture

**Type of Implementing Entity:** Multilateral Implementing Entity

**Implementing Entity:** International Fund for Agriculture Development

**Executing Entities:** Office of the President (Government of Mongolia)
United Nations Industrial Development Organization (UNIDO)

**Amount of Financing Requested:** Two million thirty-eight thousand eight hundred and eighty-three (in U.S Dollars Equivalent): **2,038,883**

**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 proposal)

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

In case of a resubmission, please indicate the last submission date: ~~8/7/2024~~12/18/2024

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

## A. Project Background and Context:

### Geography

1. Mongolia is in the northeast of the central Asian plateau with an area of 1.56 million square kilometers (km$^2$). It is a landlocked country, bordering the Russian Federation to the north and the People's Republic of China to the south, with unique ecosystems and cultures (see **Error! Reference source not found.**~~Figure 1~~). Mongolia remains one of the least densely populated countries in the world, with a total population of 3.52 million in September 2024.[1] Nearly 68% of the country's population lives in Ulaanbaatar. Administratively, there are 21 Aimags (provinces), and the capital city is Ulaanbaatar. Over 90% of the population is of Mongol background, mainly Khalkh and Durvud, and there is a very small group of Kazakh-speaking minority group found in the northwestern part of the country.

2. Mongolia's Central Asian Steppe, surrounded by mountain ranges that provide essential water sources and at relatively high elevations, is a unique and vital biome that sustains traditional nomadic herding. Mongolia is a mountainous country with limited plains. The western region is home to the expansive Altai range, the country's largest mountain range. The Altai range stretches 1,500 km and divides into the Mongol Altai and Gobi Altai ranges. The average elevation of Mongolia is around 1,580 meters above sea level. Plains characterize the landscapes in both the western and eastern parts of Mongolia, with the Dornod plain being the largest at around 250 km$^2$. The Gobi Desert, located in the south, covers one-third of Mongolia's territory. The livelihood and food security of Mongolian people largely depend on their livestock, as only 1% of the total area is cultivated cropland in the central-northern part (FAO, 2011). Approximately 73% of the land is designated as agricultural, primarily for grazing, while 8% is classified as boreal and Saxaul forests (MET, 2023). The Steppe serves as vital grazing grounds for livestock playing a significant role in shaping Mongolia's cultural heritage, economy and society.

Figure 1: Map of Mongolia MET, 2023a

3. According to multiple sources, desertification is a severe issue in Mongolia, with about 76.9% of the total land area affected by varying degrees of desertification, as confirmed by recent UN studies.[2] Desertification in Mongolia is being exacerbated by climatic changes, including a temperature increase of 2.24°C over the past decades and decreased precipitation, particularly during the critical summer grazing months.[3] The degradation is closely linked to both climatic factors, such as decreased precipitation and rising temperatures, and human-induced factors like overgrazing and unsustainable agricultural practices. In central and southern Mongolia, desertification has intensified due to reduced vegetation cover and soil fertility loss, driven largely by overgrazing and climate variability. This has severely impacted the

[1] Mongolia Population. United Nations Department of Economic and Social Affairs: Population Division. September 2024.
[2] Spatiotemporal evolution and driving mechanisms of desertification on the Mongolian Plateau. Science of The Total Environment Volume 941, 1 September 2024, 173566
[3] **Chan et al.** (2023). *The cross-boundary of land degradation in Mongolia and China and achieving its neutrality—challenges and opportunities*. Ecological Indicators. https://doi.org/10.1016/j.ecolind.2023.110311.

livelihoods of rural herders who depend on the fragile Steppe ecosystem, contributing to their increased vulnerability to climate change.[4]

## Climate

4. **Temperatures:** Mongolia has a distinctly continental climate with wide temperature fluctuations and low precipitation. Average temperatures range from -4°C to -8°C in mountainous areas, around 2°C in the steppe desert, and approximately 6°C in the southern desert bordering China. July sees peak temperatures of about 24°C, while January temperatures can drop to -28°C and as low as -40°C for short periods. Mongolia's climate has warmed significantly, with the annual average temperature increasing by around 2.24°C between 1940 and 2015 (MET, 2017). The average mean surface air temperature rose by 0.26°C per decade from 1951 to 2020 (WB, 2021). This warming trend is more pronounced in mountainous regions and is marked by more consecutive hot days and fewer cold and frozen days. Between 1975 and 2015, the number of frost days decreased by 15, while the duration of warm spells increased by 13 days, extending the growing season by 19 days on average (MET, 2017). However, most increased precipitation occurred in winter, with summer precipitation decreasing, particularly in regions where livestock herding is crucial. According to the Climate Change Knowledge Portal of the World Bank (WB, 2021), the average mean surface air temperature increased by 0.26°C per decade between 1951 and 2020 (Figure *1*~~Figure 2~~). While significant variability across different landcover types and elevations was recognized, the increase was generally more pronounced in mountain regions, and there were general trends, marked by an increase in the frequency of consecutive hot days and sudden temperature spikes, along with a decrease in the occurrence of cold and frozen days (ADB & WB, 2021).

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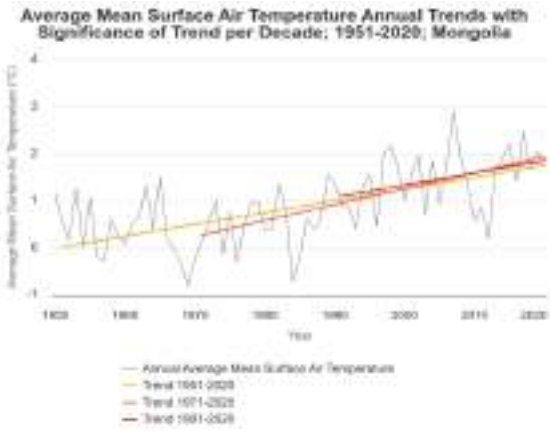
Figure 1~~2~~: Annual Mean Surface Air Temperature Annual Trends with Significance of Trend per Decade; 1951-2020




5. **Precipitation:** Annual precipitation rarely exceeds 400 mm, with the Gobi Desert receiving just 40 mm. Nationally, an estimated 85% of precipitation occurs between April and September. Minor year-to-year fluctuations in precipitation can result in severe droughts, with certain regions experiencing no rainfall at all. Between 1975 and 2015, the number of frost days reduced by 15 days, while the duration of warm spells increased by 13 days. This change, coupled with an increase in precipitation in some regions, led to favorable conditions for vegetation growth as the growing season extended by 19 days on average (MET, 2017). However, most of the increased precipitation occurred during the winter months, and the amount of precipitation during the summer months decreased, particularly in the central Steppe and northern boreal

[4] **You et al.** (2024). *Policies and Regulations for Desertification Prevention and Control in Mongolia*. Land. https://doi.org/10.3390/land13040559.

regions where livestock herding is a primary activity (

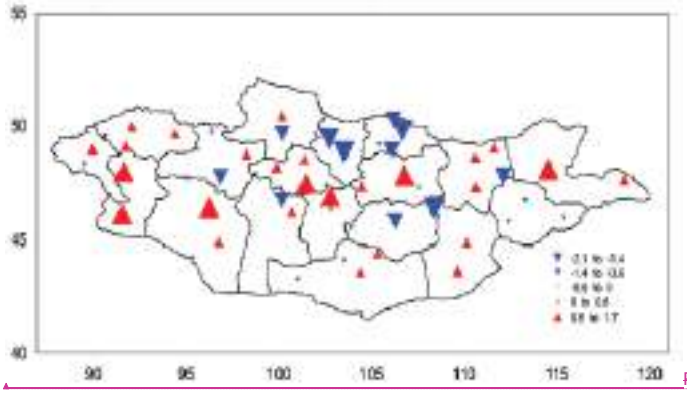
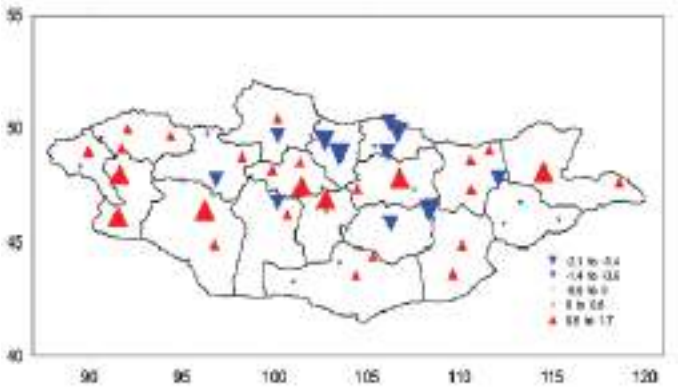



Figure 3).

Figure 23: Change of Maximum Number of Consecutive Precipitation Days 1971-2015 (MET, 2017)




6. **Climate Hazards:** Mongolia ranked 101 out of 191 countries on the INFORM 2019 risk index, indicating notable levels of exposure to hazards and vulnerability, including snowstorms, extreme temperatures, and droughts which are also associated with dust storms in the south. Severe winters exacerbated by dzud events cause significant livestock mortality and have become more frequent and intense, often following dry summers. Mongolia experienced three consecutive dzud events from 1999-2002, resulting in substantial livestock losses (MET, 2017). The dzud of 2022-2023 affected over 60% of the territory and nearly all herder households, impacting around 190,000 families, many of whom were below the poverty line (OCHA, 2023; WB, 2023b). Approximately 36 million livestock animals were affected, with 417,000 dying due to harsh weather conditions (UN, 2023). Further livestock losses occurred in 2024 as well due to dzuds. These events severely impact food security and the socioeconomic conditions of those dependent on the livestock sector. With these precipitation and temperature trends, dzud and drought severely affect livestock animals and Steppe and forest ecosystems that support them, and ultimately, the food security and socioeconomic conditions of those who both directly and indirectly depend on the livestock sector. Studies show that more frequent droughts and unpredictable rainfall have worsened soil

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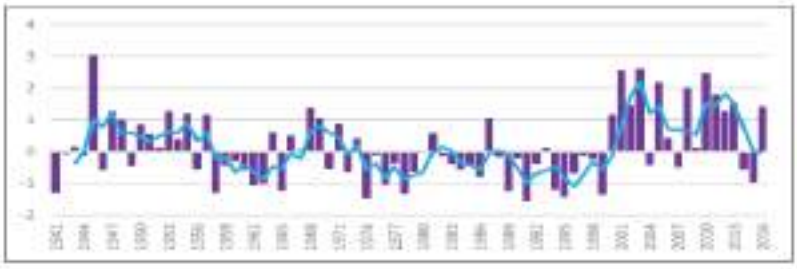
erosion and reduced pasture productivity, aligning with projections of increased aridification and the higher likelihood of dzud events. These hazards further erode Mongolia's grasslands, making it harder for the country to meet targets like Land Degradation Neutrality (LDN) and SDG 15 (Life on Land).[5] Figure 4 shows an upward trend in the incidence of dzud over the last two decades.

*Figure 4: Interannual Change of Dzud Index (positives refer to dzud conditions 1941-2016 (MET, 2017)*



7. **Future Climate Forecasts:** These observed trends are expected to worsen in future. According to downscaled projections from the Coupled Model Inter-comparison Project Phase 5 (CMIP5) models (ADB and WB, 2021), Mongolia's average daily temperature is forecasted to increase significantly by mid-century and the 2090s across various Representative Concentration Pathways (RCPs). Specifically, the projections indicate a rise of 1.5, 2.7, and 5.5 °C under RCPs 2.6, 4.5, and 8.5, respectively, by the end of the century. This implies that under RCP 8.5, Mongolia's average daily temperature could escalate by 5.5 °C by the end of the century, exceeding the global average increase of around 3.7 °C. Table 1 below outlines some of these key variations in temperatures.

Table 1 Projected anomaly (changes °C) for max, min and average daily temperatures for 2040-2059 and 2080-2099 from the reference period of 1986–2005

| Scenario | Average Daily Maximum Temp | | Average Daily Temp | | Average Daily Minimum Temp | |
|---|---|---|---|---|---|---|
| | 2040-2059 | 2080 - 2099 | 2040-2059 | 2080 - 2099 | 2040-2059 | 2080 - 2099 |
| RCP 2.6 | 1.6 | 1.4 | 1.7 | 1.5 | 1.8 | 1.6 |
| RCP 4.5 | 1.8 | 2.6 | 1.9 | 2.7 | 2.1 | 2.9 |
| RCP 8.5 | 2.5 | 5.3 | 2.6 | 5.5 | 2.8 | 5.9 |

(ADB and WB, 2021)

8. The data also indicates that increases in minimum and maximum temperatures will be more rapid, which will have significant implications on livestock and supporting ecosystems, livelihoods, human health and the economy. The same models suggest a slight increase in annual precipitation and an increase in the intensity of extreme rainfall events under RCPs 4.5 and 8.5 for both the near and distant future, following the temperature trends. While the projected increase in precipitation could reverse the current drying trends reported over 1940-2015 in Mongolia's NC3, it could also lead to more extreme weather events in some regions. The probability of dzud events, including summer droughts, is expected to increase between 5% and 40% by 2080, and by mid-century, 6,000-28,000 people will be affected by localized flooding in the

[5] **MDPI** (2024). *Land Degradation and Desertification in Mongolia: Status and Future Projections*.

northern and western regions due to increased temperatures, particularly in winter and spring (ADB and WB, 2021).

## Economy

9. Mongolia is a upper-middle-income country with a GNI per capita of US$ 4950 in 2024a GDP per capita of US$ 5,045 in 2022 (WB, 2024). Although agriculture (primarily livestock) accounts for 9.8% of GDP and 24.2% of employment in 2023 (NSO, 2024). The economy relies heavily on the mining sector, which accounted for 28.1% of GDP in 2023[6] and can pose a big challenge as it is not an inclusive sector and can lead to rising inequality. Following the collapse of the Soviet Union, Mongolia began its transformation from a centrally planned economy to a market-based economy in the early 1990s. Mongolia, like most other transition economies, experienced a painful, initial "Transformational recession" before the economy began to recover.[7] Compared with other transition economies, Mongolia is a fairly open economy, with a high foreign trade-to-GDP ratio and one of the least restrictive trade regimes. The country has also been going through a transition of its political and economic system under which it is attempting to transform itself from its previous base of nomadic animal husbandry to one based on settled industries in an urbanized environment. Over the past decade, Mongolia's economy has grown rapidly and has made important progress in reducing poverty and improving people's well-being. However, this growth has been volatile and has not generated shared prosperity for all.[8]

## Poverty

10. Mongolia made impressive progress in reducing poverty, with the national poverty headcount rate declining sharply from 38.8% to 21.6% during the economic boom in 2010-2014. Poverty reduction was uneven, declining in rural but not in urban areas between 2016 and 2018. There was a rise in poverty rates after the pandemic and the rate was estimated at 27.1% in 2022.[9] Growth in rural areas was faster and favourable to the poor, contributing to reducing rural poverty, supported by rising livestock prices and the expansion of poverty-targeted social protection programmes. However, nomadic subsistent herder households, households headed by women, and urban migrants have particularly high incidence of poverty and face very high risks. A further 15% of the total population is clustered just above the national poverty line, risking falling into poverty in the event of any unanticipated shocks.[10] Given the reliance of the rural population on livestock, climate change threats pose a significant risk of plunging households into poverty due to loss of livestock.

## Socio-Economic Context

11. **Gender.** According to the United Nations Development Programme (UNDP) Human Development Report 2022, Mongolia's Gender Inequality Index (GII) ranking is 74th out of 170 countries (UNDP, 2024). Mongolia's Human Development Index (HDI) is generally higher for women than men, primarily because of women's higher education levels and life expectancy. However, when adjusted for gender inequality (GII), the score drops, reflecting the disparities in labor force participation, political representation, and access to high-level decision-making positions. Between 2014 and 2024, Mongolia's rank in the World Economic Forum (WEF) Global Gender Gap Index fell from 42nd to 85th place (out of 146 countries) and from 4th to 7th place among 19 EAP (East Asia and Pacific) countries (WEF 2014; WEF 2024) (Bank, 2024). Meanwhile The Women, Business and the Law index[11] shows improvements for Mongolia over the last five years, with the country continuing to rank higher than the global and EAP averages (Bank, data.worldbank.org/indicator/SG.LAW.INDX?locations=MN, n.d.).

12. **Principle Gender Constraints.** The gap in life expectancy between men and women in Mongolia is 9.7 years, which is nearly twice the global average. According to the 2018 report from the National Statistics Office, the death rate for men is 1.5 times higher than for women, with 6 out of every 10 deaths

[6] National Statistics Office of Mongolia, http://www.1212.mn, 2024
[7] Growth and Recovery in Mongolia During Transition. Kevin C. Cheng. IMF 2003.
[8] Mongolia: New World Bank Group Country Partnership Framework to Focus on Sustainable and Resilient Recovery. World Bank. May 2021.
[9] National Statistics Office of Mongolia. http://www.1212.mn, 2024.
[10] NSO and World Bank, 2018 and 2020.
[11] Women, Business, and the Law Index Score (Scale 1-100) – Mongolia (accessed June 14, 2024), accessed on June 14, 2024https://data.worldbank.org/indicator/SG.LAW.INDX?locations=MN

being men and 4 being women. Additionally, the mortality rate for working-aged men is 3.3 times higher than that of women (Equality, 2023). Based on this survey, the Mongolian Government and the National Committee on Gender Equality implemented an Action Plan from 2020 to 2022, promoting a healthy lifestyle among men.

13. Mongolian women get higher education than men but labor participation, political leadership and voice in decision-making are two areas where barriers for women remain high in Mongolia. Although more women achieve a university education than men, these gains are not translating into advantages in the labor market. Women of working age in Mongolia are 15 percent less likely than working-aged men to be in the labor force. In 2022, women earned 25 percent less than men and dedicated twice the amount of time than men on unpaid household activities (an average of 3.5 hours per day) (Bank, Mongolia Gender Assessment, 2024).

14. **Gender in Rural Context.** One-fifth of the total population or 19.4 percent of Mongolia, live in herding households. Additionally, 26.7 percent, or one-fourth of the labor force, are herders. Of which 25.8 percent of all households own livestock, and 73.5 percent of these households are classified as herding households (Government, 2020). As of 2019, a total of 285,482 herders were registered, with 58.3 percent of men and 41.7 percent of women, out of which 15 to 34 years old herders made up 30 percent of the herders' population. Which means the number of young and middle-aged herders decreased, gender gap increased and a lack of generational succession among herders (Office, 2020).

15. In the past 10 years, the number of young herder couples living separately to send their children to school, the mother living with her children in the central city, and the father tending livestock in the countryside has increased by 40 percent. As a result, young herder mothers are alienated from livestock farming, the productivity of livestock production decreases, family conflicts and misunderstandings arise, and the family becomes unstable (National Committee on Gender Equality, 2021).

16. Herders earn income from two sources on average, and livestock farming (98.7), child allowance (76.5), social welfare benefits, transfers, and salary income (16.5) are the main sources of income. When looking at the source of household income by gender, male herders have 7.3% more salary income than female. However, for female herders, the income from child support is 18.9%, the income from social welfare benefits is 10.1%, and the income from household farming such as agriculture, vegetables, and fruits are 2.3% higher than that of male herders. Male herders are slightly more involved than women in the decision-making process of dividing household income and livestock assets (74.5%) and selling livestock, products, and goods (73.1%), while women are more involved in spending household income (77.7%) (National Committee on Gender Equality, 2021).

17. **Youth.** In Mongolia, 15-35 years constitutes youth, according to the Mongolian Youth Development Support Law, which was approved in 2017. This law includes personal development of youth; education, culture, arts, sports, science; health; employment; provided to support and work within the framework of a safe living and development environment.

18. The literacy rate and educational participation among Mongolian youth have significantly improved in recent decades, with a notable increase in engagement across all levels of education over the past 10 years. According to the 2020 Population and Housing Census, 63% of young people aged 15-29 have completed partial or full secondary education, 6.2% have pursued technical and vocational education, and 25% have attained higher education (Office N. S., 2010, 2020). The enrollment rate difference between boys and girls in primary and secondary education is slight in both urban and rural areas. In urban areas, 49% of boys and 51% of girls enroll in primary school, while in rural areas, the figures are approximately 48-49% for boys and 51-52% for girls (Education, 2023-2024). This rate difference increases from middle school and in high school or higher education level gender gap reach almost 70 to 30%.

19. As of 2020, 41.25% of young people aged 15-29 were employed, accounting for 22.5% of the nation's total workforce. Employment rates among youth vary by age group and gender, with factors such as educational attainment and family responsibilities impacting the employment of young women. In terms of economic sectors, a significant portion of young workers are employed in agriculture, wholesale and retail trade, and construction. Most young people are wage earners, while a notable percentage are self-employed, particularly in the agricultural sector. One out of every 3 working young people in Mongolia has a consumption below the subsistence level due to the insufficient value of wages (Foundation, 2022).

20. State funding of health care facilities considerably shrank in the transition period. The funding increased in the first decade of the 2000s with international donor support and the national economy's improvement. A study of adolescent girls revealed that they continue to face barriers in access to sexual and reproductive health services and information, especially in rural areas (Bayaraa, Agho, and Akombi-Inyang 2023). Some discrepancies are also noted between urban and rural areas. Additionally, services for preventative and early interventions for mental health care need to be further developed (Bank, Mongolia Gender Assessment, 2024).

21. **Youth in Rural Context.** The proportion of young people in rural areas is steadily declining, with a particularly active migration of young women to urban centers. Women play a crucial role in decision-making regarding migration, irrespective of whether they are the head of the household. Migrants generally possess limited pre-migration knowledge about their destination, often relying on information from family members and friends (Migratio, 2018). In rural area youth have limited access to social, education, economic and even everyday life in their home. This situation led many rural youth to drop out of school early, with males often devoted to horse riding and females focusing on household chores. Young herders' household level decision-making participation is moderately low. They only herd animal for their parents and after marriage their decision -making participation increase (National Committee on Gender Equality, 2021). And their low practices of livestock herding make them vulnerable in extreme weather events such as drought, zhud and windstorm. On the other hand, the research revealed that as the level of education increases, so does the cooperative ability of young herders. It was found that youth who completed the 12th grade tend to work more collaboratively with others compared to those with only primary or basic education (National Committee on Gender Equality, 2021).

22. The Government of Mongolia implemented various actions. The "State Policy on Herders" was implemented in 2009-2020 to develop herders, increase the profit and income of herder households, and improve the standard of living. As a continuation of this policy, the Mongolian Herders Program has been approved and implemented by the Government in 2020. The purpose of the program is to provide information and development to herders, to work comfortably in their communities, to improve living conditions and social security, to increase their productivity, income, and profit, and to empower them. The program includes the goal of creating awareness and providing information to herders, improving and developing their knowledge, experience, and capabilities, and preparing young generations of herders (Government, 2020).

### Agriculture

23. The agrifood system is important for Mongolia's economy but is characterized by a vicious cycle of low productivity and high vulnerability to climate extremes. In 2023, there were 189,280 herder households in the country.[12] Herders make up almost 80% of the rural population and are highly vulnerable to the effects of climate change. Current livestock numbers vastly exceed carrying capacity of Mongolia's rangelands, and herd sizes are further increasing. As a result, overgrazed pastures, reduced fodder availability, and poor animal health and hygiene have contributed to deteriorating nutritional status and productivity of livestock. Climate vulnerability of the agrifood sector is in turn exacerbating high-emission intensity. Harsh climates and extreme climate events like dzuds exert pressure on productivity and increase animal mortality. More animals and resources are required to maintain production volumes under the predominately pastoral system. Emission intensities of livestock products in Mongolia are much higher than other meat-producing countries and have remained relatively stable in the last 30 years. Extension services are weak with extension officers lacking knowledge of climate risks, pasture restoration, and sustainable livestock management practices.[13]

### Natural Resources

24. Mongolia's Central Asian Steppe surrounded by mountain ranges that provide essential water sources and at relatively high elevations, is a unique and vital biome that sustains traditional nomadic herding. The livelihood and food security of the people largely depends on their livestock, as only 1% of the

[12] National Statistics Office of Mongolia. http://www.1212.mn, Mongolian statistical yearbook 2024.
[13] FAO. 2017.

total area is cultivated cropland in the central-northern part.[14] Approximately 73% of the land is designated as agricultural, primarily for grazing, while 8% is classified as boreal and Saxaul forests (MET, 2023). The Steppe serves as vital grazing grounds for livestock playing a significant role in shaping Mongolia's cultural heritage, economy and society. While raising more heads of livestock can result in higher income for herders, their traditional herding practices are facing environmental limitations, especially in terms of the carrying capacity of the Steppe. There are significant regional variations in Carrying Capacity and Relative Stocking Density (RSD), influenced by climate change and human activities. Research on the subject underscores the critical need for sustainable land management practices to balance carrying capacity and stocking rates, as a crucial tool for grassland conservation policymakers.[15] Unsustainable land management practices since the 1990s, coinciding with Mongolia's transition to a market economy, have significantly degraded the country's pastureland and forests. This degradation has been exacerbated by the absence of institutional mechanisms for pasture management as well as the increased frequency and intensity of summer droughts and severe winter storms or dzud. These extreme weather events lead to decrease in pasture productivity by up to 30%, and the loss of livestock with significant implications for Mongolia's economy, food security, and the livelihoods of nomadic herders (FAO, 2022).

## Forest Resources

25. Forests cover around 17.5 million ha, accounting for slightly above 9 percent of Mongolia's land area. The boreal forests in the north-central parts and the saxaul forests in the south-west arts are the two important forest systems. These contribute to maintaining biodiversity, ecosystems, and livelihoods in the north and reducing soil erosion and land degradation in the south. Mongolia was until very recently a net carbon sink due to its large forest stocks, but carbon sequestration has not kept up with rapidly rising emissions. According to Mongolia's NDC, until the early 2010s, GHG emissions coming mostly from agriculture and energy were more than offset by the natural process of absorption of the country's forests. (CCDR WB 2024). Mongolia's sizable forests have been and continue to have the potential to act as powerful carbon sinks, but this will require strengthened management. However, forest management has faced challenges. It is estimated that, between 2000 and 2020, Mongolia experienced a net change of −264,000 ha (−3.4 percent) in tree cover due to fires, overgrazing, pests, and illegal logging. To combat climate change and desertification, the GoM has an ambitious plan to plant a billon trees by 2030, under the BTNM (Box 10), and restore, reforest, and afforest 1.2 million ha of lands (CCDR-WB2024).

### Water Resources

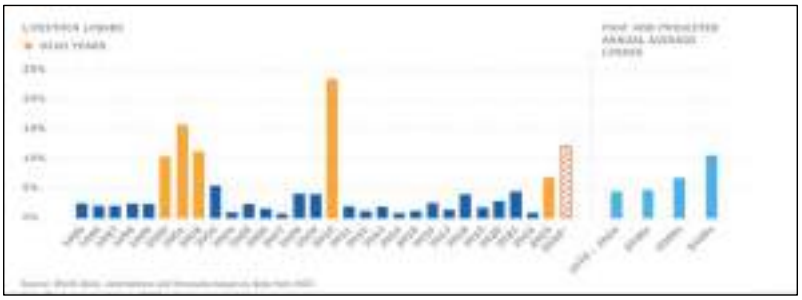
26. Mongolia's varied geography presents a wide spectrum of water availability from the Gobi Desert to glaciers and grassland. Water resources in Mongolia are scarce, particularly in the southern Gobi and central steppe regions. Mongolia's water availability is among the lowest in the world, with only about 10% of its renewable water supply available for consumption. Precipitation within Mongolia is non-uniform, ranging from a yearly average of 350 mm in the north to 80 mm in the south. While overall the country has a high-water endowment, there are important spatial heterogeneities that lead to local hotspots of water insecurity in the country's key economic centers (CCDR- WB 2024). Two specificities set Mongolia apart. First, the country relies heavily on groundwater for both household (99 percent of drinking water comes from groundwater) and industrial use, despite having plentiful surface water. This heavy reliance on groundwater stems from the spatial mismatch between where surface water is available and where it is needed and the extreme climate through the year (permafrost, seasonal freezing, and droughts) which makes surface water a less reliable source. Second, Mongolia has set itself high requirements for maintaining ecological flows—the amount of water that needs to be retained in the environment to maintain ecosystem services. Water stress is exacerbated by climate change, with precipitation patterns becoming more erratic and leading to prolonged droughts that limit water availability for agriculture and livestock.

## Problems the proposed project is aiming to solve

[14] FAO, 2011. Country profile-Mongolia.
[15] Estimation of the Carrying Capacity and Relative Stocking Density of Mongolian grasslands under various adaptation scenarios. Science of The Total Environment Volume 913, 25 February 2024, 169772

27. **To assist Mongolia in dealing with its growing climate risks through building capacity in climate change adaptation through a range of investments in new infrastructure, information, skills and technologies.** Mongolia is increasingly grappling with the impacts of climate change, manifested in discernible shifts in weather patterns that underscore the escalation of this global phenomenon. Mongolia has experienced a temperature rise of 2.1°C, exceeding the global average, and is anticipated to face a further increase of 5.3°C by the century's end.[16] Such temperature exacerbates the risk of heat wave events, particularly affecting habitats in the Gobi Desert and heightening vulnerability to droughts and dzuds.[17] The cyclical nature of the country's four distinct seasons has been significantly disrupted, particularly since 2015, leading to a rise in recurrent summer droughts and subsequent harsh winters. This poses an escalating threat to livestock-based livelihoods, the cornerstone of rural Mongolian life. The icy dzud condition caused severe loss in 2020 and once again in December 2023, the Government of Mongolia reported that approximately 90 per cent of Mongolia's territory, including 21 provinces excluding Ulaanbaatar city are categorized as facing a high or extreme dzud risk.[18] The unprecedented and extreme weather conditions have caused significant humanitarian impacts. A total number of 7.4 million livestock perished as of 9 May 2024, accounting for 11.5% of the total in Mongolia. Nearly 5,000 herder HH lost over 70% of their livestock.[19]

**Figure 5**: Livestock Losses as (%) of total



28. **Building increased ecosystem resilience in response to climate change and variability induced stress**. Food insecurity is growing due to the unsustainable agriculture and natural resource management practices. The country's traditional diet is shaped by environmental constraints that have historically limited fruit and vegetable availability, particularly in rural areas in which diets remain mainly based on red meat, refined wheat flour, dairy products, and potatoes. Given the country's lack of diversification in the agriculture sector, growing threats to livestock systems could put pastoralist livelihoods and the population depending on animal source foods at growing risk of food insecurity and malnutrition. For the crop sector, adoption of climate-smart practices and 'frontier technologies' such as greenhouses, protected agriculture, and precision agriculture will encourage multi-season or year-long production, reduce food-loss and waste, and mitigate GHG emissions. Promoting productivity enhancing climate-smart practices, modernizing agriculture value chains, and linking extensive pastoral systems with commercially oriented semi-intensive and intensive livestock production models (for example, finishing farms) can support and anchor the low-carbon and resilient livestock sector transition.

29. **Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level:** To enhance the resilience of herders to adopt improved pastureland and herd management practices through a comprehensive approach that enhances awareness about appropriate regulatory

[16] IPCC. (2022). Climate Change 2022: Impacts, Adaptation, and Vulnerability.
[17] World Bank. (2023). Mongolia Climate Risk Profile
[18] Mongolia: 2024 Dzud Early Action & Response Plan (Dec 2023 – May 2024). UN OCHA.
[19] Mongolia, Asia Pacific | Dzud Cold Wave - Operation update #2 (MDRMN020). OCHA

change and governance structures, proper incentives, capacity building, access to information networks, infrastructure, technical services, etc. Livestock numbers are above the carrying capacity of rangelands and if overgrazing continues, soil resilience will be broken down and the ecosystem could tip into a lower-productivity equilibrium, or even desertification, from which it cannot recover naturally. Managing numbers offers a double dividend in terms of incomes and sustainability. However, simply reducing livestock numbers without accompanying improvements in livestock productivity, increased value realization, and diversification of herder income sources will not be sustainable. The current proposal focuses on enhancing the resilience of rangelands by promoting sustainable grazing practices, improving pasture management through rotational grazing, and reducing herd sizes to align with the land's carrying capacity.

30. **Support the development and diffusion of innovative adaptation practices, tools and technologies** such as improvement in agricultural water use efficiency by rehabilitating existing irrigation infrastructure, implementing demand management instruments, integrating livestock water points with livestock extension, and involving herders in the management of rangelands. The increasing demand for water from the livestock sector further strains groundwater resources. Many existing wells are underperforming or have dried up due to insufficient groundwater recharge rates. Sustainable water management is therefore a key component of climate adaptation in Mongolia. This proposal includes plans to rehabilitate wells, promote water-saving technologies, and improve the efficiency of water use in livestock and pasture management.

31. **To assist the country in meeting some of its key climate mitigation targets:** Although Mongolia's GHG emission levels are low, its GDP is highly carbon intensive. Mongolia accounts for only 0.12 percent of global GHG emissions. However, excluding some areas[20] it has the most GHG-intensive economy in the world. Per unit of GDP, it produces 4 times more than China's emissions and 15 times more than the US (CCDR World Bank. 2024). The agriculture sector contributes about 31% of GHG emissions (5,283 MT CO2e) of the total of 16,888 MT CO2e in the country.[21] Enteric fermentation in livestock and manure management together contribute to 58 percent of agriculture emissions. The Adaptation Fund will assist Mongolia in achieving its Nationally Determined Contribution (NDC) through regulating and reducing livestock numbers and improving livestock manure management. There is also substantial scope for increasing carbon sequestration from forests and better management of land resources. (CCDR World Bank. 2024).

32. **Improved understanding of policies and regulations that promote and enforce resilience measures:** To assist the country in better understanding how its sectoral and fiscal policies in the agrifood sector can strike the right balance to support a sustainable agriculture sector which enhances productivity and environmental outcomes**.** Between 2010 and 2020, subsidies accounted for 57 percent of total agriculture spending and represented about 0.4 percent of GDP in 2023. These subsidies were largely output oriented and benefited livestock herders with large herds, hence incentivizing the growth in livestock numbers and resulting in ecosystem degradation and growing GHG emissions. In recent years, these subsidies have been replaced with input-oriented subsidized loans from commercial banks for producers or enterprises engaged in specified value chains, without linking them to sustainable agriculture practices. These revisions, however, do not guarantee productivity and resilience outcomes as was the case with output-based product subsidies (CCDR WB 2024). In addition, Aimags and soums do not receive adequate allocation for public infrastructure works and extension services, making services effectively non-existent locally, thereby limiting training and uptake of climate-smart practices among farmers and herders. While interventions to manage negative environmental externalities were introduced, such as the livestock head tax whose revenues are earmarked for rangeland and livestock management activities (World Bank 2022a), implementation of these activities and pasture restoration have progressed slowly due to limited monitoring.

33. **To design special interventions for women and youth and ensure their inclusion** particularly within herding communities where traditional norms significantly restrict women's empowerment and limit the potential of young individuals. Despite a relatively high gender development index, the country faces substantial challenges in gender equality, particularly among herders, leading to increased poverty and

[20] recent warzones and small island nations,
[21] First Submission of Mongolias NDC to the UNFCC. Approved by the Government Decree No.407 of November 2019

vulnerability to gender-based violence (NSO, 2023a). Women, who bear the brunt of unpaid labour, are often excluded from decision-making processes, even as they manage critical household responsibilities and livestock care, especially during climate-related events like dzud and drought (SDC, 2015). This lack of representation diminishes their bargaining power, with only 18% of livestock-related property owned by women (ADB, 2022b). Concurrently, rural youth are increasingly migrating to urban centres, with young women particularly affected, often leaving behind limited social and economic opportunities (Migration, 2018). While government initiatives like the Mongolian Herders Program aim to empower herders and improve living standards, the persistence of low educational attainment and limited participation in decision-making among young herders underscores the need for targeted interventions. By addressing these intersecting challenges, the project will create inclusive strategies that empower both women and youth, enhancing their roles in shaping climate adaptation measures that reflect their unique needs and contribute to community resilience.

34. **The probability of dzud events in Mongolia is expected to increase** despite the anticipated rise in temperatures due to a combination of climatic and ecological factors. Dzud refers to high mortality of livestock resulting from these factors:

35. **Increased Climate Variability:** Rising temperatures do not uniformly translate into milder winters; rather, they contribute to greater climatic instability. Mongolia is experiencing more frequent extreme weather events, including sudden cold snaps following unseasonably warm periods, which can be particularly harmful to livestock that have not developed adequate fat reserves in summer for cold resistance. Unstable temperature fluctuations lead to **freeze-thaw cycles**, causing thicker ice layers on pastures, making it harder for livestock to access forage partially offset by expensive fodder. **Reduced Summer Precipitation and Droughts.** While overall annual precipitation may slightly increase, most of it is projected to occur in winter rather than summer, exacerbating summer drought conditions in key pasturelands. Early summer rains are critical for weight gain. **Drier summers** result in **less available fodder**, leaving livestock poorly nourished going into winter, making them more vulnerable to harsh cold conditions resulting in high livestock mortality (dzud). **Overgrazing and Pasture Degradation:** Mongolia's livestock population has exceeded the carrying capacity of rangelands, leading to severe pasture degradation. With reduced vegetation cover, soils lose their ability to retain moisture and nutrients, worsening land degradation, low weight gain and increasing exposure to dzud-related impacts. Overgrazed pastures provide **less winter forage** for livestock to survive the winter, increasing mortality rates during severe winters. **Stronger Winter Storms and Extreme Weather Events:** Rising temperatures do not prevent extreme cold events but instead contribute to stronger winter storms. The increased energy in the atmosphere leads to more intense snowfall, which, combined with pre-existing land degradation, increases the likelihood of white dzuds (deep snow covering grazing areas) and black dzuds (extreme cold preventing access to forage under ice).

36. **Increased Likelihood of Consecutive Dzud Events:** A major concern is the increasing probability of consecutive dzud years, which do not allow herder communities to recover from previous losses. Livestock weakened by previous dzuds and summer droughts are at significantly higher risk of mortality, creating a cascading effect that worsens the long-term economic, psychological trauma and social impact of dzud events. **Scientific Projections Confirming Increased Dzud Risks:** Climate models indicate that the intensity and frequency of dzud conditions will increase between 5% and 40% by 2080, with a particularly high probability under RCP 8.5 scenarios. By mid-century, up to 28,000 people could be affected by localized flooding, further disrupting pastureland regeneration and reducing available grazing resources.

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## B. Project Objectives:

~~35.~~37. The Sustainable Pasture Management and Adaptation with Resilient Technologies for Herders in Mongolia (SMART-Herders) project is designed with a comprehensive approach to foster climate-resilient and sustainable livestock and pasture management systems. Given Mongolia's vulnerability to climate-related disasters, such as dzuds, droughts, and land degradation exacerbated by extreme weather events, this project aims to build a foundation for resilience and long-term adaptability within the herder communities. Beyond the tangible impacts, such as the devastating loss of up to 30% of their livelihood, the project acknowledges the profound emotional and psychological toll that climate change can inflict on herder families.

~~36.~~38. The overall objective of the project is to establish and implement a scalable climate adaptation model within Mongolia's livestock sector, enhancing the resilience, productivity, and livelihood security of herder communities across targeted regions. This objective will be realized through a set of strategic interventions focusing on sustainable water resource management, climate-resilient infrastructure, and participatory knowledge-sharing mechanisms. Specifically, the project will introduce solar-powered water pumping systems, establish climate-resilient grazing and fodder production practices, and develop a robust knowledge management framework to facilitate the dissemination of best practices and assist in policy refinement. Aligned with Mongolia's National Adaptation Plan (NAP) 2024 and its climate resilience goals, the project has outlined **six key** objectives:

1. Climate-Resilient Infrastructure: The addition of 2 solar-powered water stations and 4 collection centers strengthens the water and food security infrastructure for herder communities. More watering points allow livestock to spread out on pastures and lower grazing intensity around relatively few wells.
2. Water Management: Integration of 40 water recharge berms supports drought resilience and aligns with sustainable water management goals.
3. Sustainable Grazing Practices: Herders' Field Schools (HFS) to train 4,000 beneficiaries on adaptive pasture and livestock management, ensuring practical implementation. Sustainable pasture management practices and group pasture planning are key aspects for men and women.
4. Knowledge and Technical Capacities: Expanding the National Adaptation Stakeholders Database to 1,000+ entities and linking it to early warning systems for dzud and drought prediction. Sharing experiences will be key to rapid adaptation.
5. Knowledge Sharing & Policy Support: Documentaries and publications ensure knowledge dissemination, scaling up best practices and public support for rural communities.
6. Empowering Vulnerable Groups: 40% of training participants and 30% of academic authors to be women, ensuring inclusivity in adaptation efforts.

~~a) **Develop Climate-Resilient Infrastructure**: Establish critical soum-based infrastructure to support herder communities in climate adaptation. This includes setting up **5 collection centers** for livestock products and **2 solar-powered water stations** in high-risk soums, specifically selected to improve resource access during periods of climate-induced stress, such as dzuds and droughts. These facilities will ensure that herders have consistent access to water and organized collection points for livestock products, directly supporting both daily needs and resilience during extreme events. The livestock product collection centres will be managed by herder cooperatives who will be provided extensive training on value addition, livestock quality enhancement through a range of activties such as shearing, bailing and primary processing.~~

~~b) **Enhance Water Management**: To improve water availability and manage water resources efficiently, the project will install **2 solar-powered water systems** and construct **40 water recharge berms** in strategic drought-prone locations across targeted soums. These interventions will enhance livestock~~

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water access, even during critical dry periods, reducing the impact of droughts on herder livelihoods and supporting the sustainable use of water resources.

c) **Promote Sustainable Grazing Practices**: The project will promote sustainable grazing techniques to restore pasture productivity and prevent land degradation. This will involve **restoring 40 hectares** for climate-resilient fodder production for demonstration purposes. Techniques like rotational grazing and soil restoration will be emphasized through community-based field demonstrations and hands-on training. These practices aim to improve governance of pastures and reduce overgrazing, improve soil health, and create a sustainable cycle of pasture use to support livestock health and productivity. Sustainable grazing practices will be promoted to prevent land degradation, thereby increasing the resilience of pasture ecosystems against climate stressors such as dzuds and droughts. The **4000 households targeted** could potentially help improve the grazing practices on **1.2 million hectares** of **pastureland** based on average livestock holdings of 300 per household.

d) **Strengthen Knowledge and Technical Capacities**: Capacity building is central to the project's objectives, with the establishment of **Herders' Field Schools** and training programs across 4 soums. These initiatives aim to train **4,000 participants** (with at least 40% women) in climate-smart livestock management and adaptive grazing techniques. By equipping herders, local institutions, and technical support networks with practical skills, the project will ensure a knowledgeable community capable of implementing and sustaining climate-adaptive practices.

e) **Facilitate Knowledge Sharing and Policy Support**: Develop a robust knowledge management framework to capture and disseminate best practices and lessons learned. The project will produce and share **10 knowledge products annually** including case studies, policy briefs, and documentaries—across national and international platforms. Additionally, a **National Climate Adaptation Stakeholders Database** will be created, identifying and connecting over **1,000 stakeholders** from herder communities, government agencies, NGOs, and research institutions, enabling a centralized resource for collaboration and information sharing.

f) **Empower Vulnerable Groups**: Ensuring inclusivity, the project is designed to promote the active participation of **women, youth, and marginalized groups** within herder communities. Special measures will ensure that at least **40% of leadership roles** in adaptation initiatives are held by women, and at least **30% of publications feature women authors**. Scholarships will also be provided to two Master of Science students (with at least one awarded to a female student) to support academic research aligned with the project's goals. These efforts will build a foundation of resilience that acknowledges and includes the unique perspectives and capacities of vulnerable populations.

37.39. The project will focus largely on building capacity of the herder through a comprehensive training and awerness support, ensuring that herders are not only equipped to manage their resources but also to maintain their well-being in the face of climate-induced challenges. This focus is essential for several reasons. Firstly, capacity building through training programs equips herders with the skills and knowledge necessary to effectively implement climate-smart practices. By enhancing their understanding of sustainable pasture management and adaptive technologies, herders are empowered to make informed decisions that bolster their resilience to climate change. Secondly, documentaries serve as powerful tools for knowledge transfer, capturing the challenges and successes of herders who have adopted innovative practices. This creates a valuable repository of practical insights that can be shared with other communities facing similar challenges, fostering a culture of learning and encouraging the replication of successful strategies. Moreover, these training and documentary efforts engage the broader community by raising awareness about the impacts of climate change and the importance of sustainable practices. This engagement is crucial for garnering local support and participation, which are essential for the project's long-term success. Additionally, the project integrates traditional herding practices with modern technologies, and documentaries help preserve and honor this traditional knowledge. By documenting these practices, the project ensures that they are not lost but rather adapted to meet contemporary challenges. Furthermore, documenting the project's progress and outcomes allows for continuous monitoring and evaluation. This helps identify best practices and areas for improvement, ensuring that the project remains effective and relevant. Finally, sharing stories of resilience and adaptation through documentaries can inspire other communities and policymakers to take action, highlighting the innovative approaches and resilience of herders and advocating for broader support and investment in similar initiatives.

## C. Project Components and Financing:

**Table 2: Projects components, Outputs Outcomes and Budgets**

| Project/Programme Components | Expected Concrete Outputs | Expected Outcomes | Amount (US$) | % |
|---|---|---|---|---|
| **Component 1: Implementing Medium-Scale Pilot Projects for Capacity Building and Climate-resilient herding practices and technologies** | **1.1 Collection Centers** established, equipped for climate change resilience and value-added livestock product handling and a series of small infrastructure investments.<br>**1.2 Herders' Field Schools (HFS)**: 48 field schools and advanced training sessions established to enhance adaptive capacities with at least 4,000 herder participants (40% women). | **1.1** Herders and their households are equipped with soum-based infrastructure, digital tools, practical knowledge, and skills to enhance resilience and climate adaptability. | **1,094,185** | |
| **Component 2: Knowledge Management and Knowledge Sharing:** Strengthening Capacity and Knowledge on Climate Adaptation | **2.1. Strengthening National Networks for Climate-Informed Livestock Information Exchange**: A National Climate Adaptation Stakeholders Database developed with over 1,000 stakeholders and linked with **early warning systems.**<br>**2.2. High-Quality Climate Adaptation Documentaries Produced**: 3-segment, 1-hour documentary series with **500 broadcasts** to raise awareness among rural and urban populations.<br>**2.3. Knowledge Management and Sharing**: 10 knowledge products produced annually, **2 scholarships** for climate adaptation-focused MSc theses (at least one for a woman), **60 academic papers** published and presented (30% women authors), and local and national symposiums to facilitate exchange and promote scaling of best practices.<br>**Degraded pastures restored** through sustainable grazing practices disseminated through documentaries, social media and other knowledge products.. | **2.1 Strengthened Coordination and Technical Capacity** for climate-informed services to herders.<br>**2.2 Established wide-reaching climate change and adaptation awareness** among rural and urban populations. | **606,370** | |
| **A. Total Project Activities Cost** | | | **1,700,555** | **90.50%** |
| **B. Project Execution cost** | | | **178,600** | **9.50%** |
| **Total Project Activities and Execution Cost** | | | **1,879,155** | **100%** |
| **C. Project Cycle Management Fee charged by the Implementing Entity** | | | **159,728** | **8.50%** |
| **Total Project Cost** | | | **2,038,883** | |

| ~~Project/Programme Components~~ | ~~Expected Concrete Outputs~~ | ~~Expected Outcomes~~ | ~~Amount (US$)~~ | ~~%~~ |
|---|---|---|---|---|
| ~~Amount of Financing Requested~~ | | | ~~2,038.833~~ | |

| Project/Programme Components | Expected Concrete Outputs | Expected Outcomes | Amount (US$) | % |
|---|---|---|---|---|
| **Component 1: Implementing Medium-Scale Pilot Projects for Capacity Building and Climate-resilient herding practices and technologies** | **1.1 Collection Centers:** 4 livestock product collection centers established and equipped for climate resilience, business continuity during extreme weather value-added livestock product handling, and training on value addition techniques (e.g., shearing, bailing, primary processing).<br><br>**1.2 Solar-Powered Water Stations:** 2 solar-powered water pumping stations installed in high-risk soums to enhance livestock water access, particularly during droughts.<br>**1.3 Water Recharge Berms:** 40 water recharge berms constructed in strategic drought-prone locations to improve water availability for livestock.<br>**1.4 Herders' Field Schools (HFS):** 144 field schools and advanced training sessions established, training at least **4,000 herders** (40% women) in climate-smart livestock management and adaptive grazing techniques. Fodder production, windbreak tree planting and livestock blankets by community for cold and storm protection and advanced training.<br>**1.5**<br><br>delete | **1.1** Herders and their households are equipped with soum-based infrastructure, digital tools, practical knowledge, and skills to enhance production and supply-chain continuity resilience and climate adaptability. | **1,091,240** | **58.07 %** |
| **Component 2: Knowledge Management and Knowledge Sharing:** Strengthening Capacity and Knowledge on Climate Adaptation | **2.1. Strengthening National Networks for Climate-Informed Livestock Information Exchange**: A National Climate Adaptation Stakeholders Database developed with over 1,000 stakeholders and linked with **early warning systems.** | **2.1 Strengthened Coordination and Technical Capacity** for climate-informed services to herders.<br>**2.2 Established** | 609,470 | **32.43 %** |

| Project/Programme Components | Expected Concrete Outputs | Expected Outcomes | Amount (US$) | % |
|---|---|---|---|---|
| | **2.2. High-Quality Climate Adaptation Documentaries Produced**: 3-segment, 1-hour documentary series with **500 broadcasts** to raise awareness among rural and urban populations.<br>**2.3. Knowledge Management and Sharing**: 10 knowledge products produced annually, **2 scholarships** for climate adaptation-focused MSc theses (at least one for a woman), **60 academic papers** published and presented (30% women authors), and local and national symposiums to facilitate exchange and promote scaling of best practices. for restoration of degraded pastures. Sustainable grazing widely practices disseminated through documentaries, social media and other knowledge products.. | **wide-reaching climate change and adaptation awareness** among rural and urban populations. | | |
| **A. Total Project Activities Cost** | | | **170,710** | **90.50%** |
| **B. Project Execution cost** | | | **178,445** | **9.496%** |
| **Total Project Activities and Execution Cost** | | | **1,879,155** | **100%** |
| **C. Project Cycle Management Fee charged by the Implementing Entity** | | | **159,728** | **8.50%** |
| **Total Project Cost** | | | **2,038,883** | |
| **Amount of Financing Requested** | | | **2,038.833** | |

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**Implementing Entity (IFAD) Management Fee breakup is included in the revised budget sheet.**

| Particulars | % | Amount (USD) |
|---|---|---|
| **Financial Management** (General financial oversight, support audits 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 Government procurement rules). | 20 | **31,946** |
| **Programme Support (Technical support** in project implementation; methodologies, identification of experts; troubleshooting and support implementation missions as necessary; portfolio management, reporting and policy programming and implementation support services). | 40 | **63,891** |

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| **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). | **40** | **63,891** |
| **Total IE Fee** | **100** | **159,728** |

**Disbursement Schedule:**

| - | **Upon signature of Agreement** | **One Year after Project Start** | **Year 2** | **Total** |
|---|---|---|---|---|
| **Scheduled date** | **Jun-25** | **Jun-26** | **Jun-27** | - |
| Project Funds | 799,251 | 594,937 | 484,967 | **1 879 155** |
| Implementing Entity Fees | 53,243 | 53,243 | 53,242 | **159 728** |
| **Total** | **852,494** | **648,180** | **538 209** | **2 038 883** |

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## Projected Calendar:

**Table 3: Key Milestone Dates for the proposed project**

| Milestones | Expected Dates |
|---|---|
| Start of Project/Programme Implementation | June 2025 |
| Project/Programme Closing | June 2028 |
| Terminal Evaluation | ~~March~~ October 2028 |

# PART II: PROJECT JUSTIFICATION

### A. Describe the project/programme components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience. For the case of a programme, show how the combination of individual projects will contribute to the overall increase in resilience.

40. **Project Overview and Climate Vulnerability:** ~~The Sustainable Pasture Management and Adaptation with Resilient Technologies for Herders in Mongolia (SMART-HERDERS) aims to reduce the climate vulnerability of Mongolia's herders and pasture landscapes. This will be achieved by increasing the adaptive capacity of herding communities to cope with the impacts of extreme climate events such as dzuds, prolonged droughts, and pasture degradation. The project will promote climate-resilient livestock and pasture management practices while integrating advanced technologies, such as precision grazing and water-efficient irrigation systems. By improving pasture productivity, enhancing access to climate risk information, and introducing innovative income diversification strategies, the SMART Herders project will increase the resilience of herders' livelihoods in the context of changing climate. These efforts align with~~

~~Mongolia's national climate strategies, including the National Adaptation Plan (NAP) 2024,[22] Nationally Determined Contributions (NDCs)[23] and the long-term development policy of the Vision 2050.~~

The project is designed to enhance the climate resilience of Mongolia's herding communities by integrating sustainable livestock and pasture management practices, climate-resilient infrastructure, and early warning systems to mitigate the growing threats posed by extreme weather , prolonged droughts, and pasture degradation resulting in dzud. A key aspect of the project is the establishment of five White Gold Collection Centres, which will stabilize market access for herders while being climate-resilient through elevated flooring, passive solar insulation, and integration with the **Early Warning System (EWS)** to enhance operational reliability during extreme weather events. To reduce land degradation and strengthen pasture resilience, the project will implement green infrastructure measures, including windbreaks and tree planting, which will protect collection centers and herds from high winds, prevent soil erosion, and improve moisture retention to sustain grazing lands during droughts. Additionally, the project will establish two solar-powered water stations, ensuring sustainable water access for livestock and fodder production even in extreme climatic conditions by utilizing off-grid energy solutions, deep groundwater sources, and reinforced construction to withstand blizzards and harsh weather conditions. To further support adaptation efforts, the project will integrate the National Early Warning System (EWS) into Herders' Field Schools (HFS), equipping communities with the technical knowledge to manage climate risks, maintain infrastructure, and implement sustainable grazing practices. By combining infrastructure resilience, climate-smart technologies, and institutional capacity building, the project will establish a robust and scalable climate adaptation model for Mongolia's livestock sector, ensuring long-term sustainability and economic stability (including resilient supply chains) for herding communities while reducing their vulnerability to climate-induced risks.

41. **Participatory Planning and Capacity Building:** The project adopts a participatory approach, actively engaging herders, cooperatives, and local institutions in the design and implementation of adaptation solutions. Pasture User Groups (PUGs) and herder cooperatives will be empowered through specialized training on sustainable pasture and livestock management to use shared pasture and water resources. Women, who are especially active in dairying during summer, will play a key role in this participatory process, ensuring gender-sensitive planning and implementation. Additionally, local authorities, their technical staff and external technical experts will be involved to enhance community governance, decision-making, and sustainability of climate adaptation interventions.

~~38.~~ Key activities will include the restoration of degraded pastures, improved grazing management, the piloting of climate-resilient fodder production techniques, and supply-chain continuity. These activities will be implemented through targeted field training and hands-on training workshops, building upon successful knowledge-sharing models. Collection centres will be owned and managed by herder cooperative unions who will be provided specialised management training for the management of collection centres and marketing their produce directly to buyers.~~The project will adopt a participatory approach, actively engaging herders in the development and implementation of adaptation measures. This bottom-up approach ensures that the climate-resilient strategies reflect the specific needs and vulnerabilities of local herders. By facilitating inclusive planning processes, the project will empower local institutions such as Pasture User Groups (PUGs) and cooperatives, enhancing their capacity to manage resources sustainably and implement climate-smart practices. Women will be included in the process as a key part of the planning and implementation.~~

~~39. Key activities will include the restoration of degraded pastures, improved grazing management, and the piloting of climate-resilient fodder production techniques. These activities will be implemented through targeted field training and hands-on traning workshops, building upon successful knowledge-sharing models. Collection centres will be owned and managed by herder cooperative unions who will be provided specialised management training for the management of collection centres and marketing their produce~~.

~~40.~~ **Alignment with Adaptation Fund Outcomes:** The Project aligns closely with the Adaptation Fund's strategic outcomes, addressing key climate risks in Mongolia's livestock and pasture management sector

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~~[22] Mongolia National Adaptation Plan (NAP) 2024. Ministry of Environment and Tourism, Ulaanbaatar, Mongolia.~~
~~[23] Mongolia's Nationally Determined Contributions (NDC), 2020. Ministry of Environment and Tourism~~

while enhancing institutional capacity, community resilience, and knowledge dissemination.~~The project closely aligns with most of the Adaptation Fund's strategic outcomes:~~

42. **Fund Outcome 1: Reduced exposure to climate-related hazards and threats: Number of Early Warning Systems :** The project will contribute to reducing climate risks for herders by strengthening climate resilience infrastructure and services, particularly through the integration of an Early Warning System (EWS). While Mongolia's National Emergency Management Agency (NEMA), with support from the World Bank and other donors, has developed a national early warning system, its use remains limited among herder communities. The SMART-Herders project will expand access to NEMA's EWS by embedding it into training programs, pasture management planning, and digital information services.

By ensuring herders have real-time access to early warning alerts, the project will enable them to make informed decisions regarding herding movements, livestock protection, and fodder storage. The integration of the EWS within the National Climate Adaptation Stakeholders Database will provide targeted investments in infrastructure and knowledge-sharing platforms, benefiting an estimated 4,000 partcipants directly and indirectly.

43. **The EWS integration addresses these risks by:**

- Improving Decision-Making – Providing timely, actionable information for herders to plan grazing, fodder management, and migration during hazardous periods.
- Mitigating Losses – Enabling early responses to dzuds, droughts, and extreme weather events, reducing livestock mortality and resource depletion.
- Empowering Communities – Ensuring that herders, particularly marginalized groups such as women and youth, have access to critical climate information, fostering proactive adaptation measures.

41. ~~Although the national early warning system is well established in NEMA with support from World Bank and other donors it has not been widely promoted. Early storm warnings will both save human and livestock lives and so should be as widely promoted as possible. Access to NEMA's early warning system will be included in all training and other aspects of the project to take advantage of existing aspects that are underutilised. In addition, early knowledge will allow herders to make better decisions about their herding movements. Early warning will allow communities to take individual and joint action in case of extreme climate events which are becoming more common. It is expected that the project will establish an early warning system through the National Climate Adaptation Stakeholders database and also provide targeted population groups with investments that will help proiivde them with infrastructure and knowledge to reduce their risks. It is expected that **8000 households** will beneift directly and inidrectly through these investments and links.~~

44. **Integration with Project Components:** Component 1: a) Use EWS outputs to guide the selection of solar-powered water systems and rotational grazing practices.b) Support risk-informed planning of fodder production and storage. Component 2: a) Embed EWS into training programs, ensuring that knowledge-sharing mechanisms reach herders. b) Strengthen participatory governance to promote community compliance and engagement in risk reduction measures.

~~42. EWS integration addresses these risks by:~~

- ~~Improving Decision-Making: Providing timely, actionable information for herders to plan grazing, fodder management, and migration during hazardous periods.~~
- ~~Mitigating Losses: Enabling early responses to extreme weather events, reducing livestock mortality and resource depletion.~~
- ~~Empowering Communities: Ensuring that herders, especially marginalized groups (women, youth), have access to critical information, fostering proactive adaptation measures.~~

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43. **Implementation Framework:** The EWS component will go beyond community training to ensure compliance, functionality, and effective risk reduction:

**Integration with Existing Systems**: The EWS will be directly linked to Mongolia's **National Emergency Management Agency (NEMA)**, leveraging their established infrastructure and resources for climate hazard monitoring and dissemination. Collaboration with the **National Meteorological Agency** to integrate satellite-based weather forecasts with local early warning dissemination channels.

**Localized Alerts and Decision-Support Tools**: Develop mobile-compatible dashboards tailored for herders, offering:

a) Real-time alerts for extreme weather events (e.g., dzuds, droughts).

b) Seasonal climate forecasts to guide grazing and fodder management.

**c)** Localized risk maps based on GPS and vulnerability data.

**Implementation Responsibilities**:

**Executing Entity (UNIDO):** Develop and operationalize the EWS in partnership with NEMA. **Local Governments and Adaptation Committees:** Coordinate community-level implementation and feedback loops.

**Herders' Field Schools (HFS):** Serve as knowledge hubs, training herders in the use and interpretation of EWS outputs.

**Integration with Project Components**:

**Component 1**:

a) Use EWS outputs to guide the selection of exact locations for solar-powered water systems and rotational grazing practices.

b) Support risk-informed planning of fodder production and storage.

**Component 2**:

Embed EWS usage in training programs, linking it with broader knowledge-sharing platforms and ensuring community compliance through participatory governance.

**Table 4: Functions and Hazard-Specific Risk Reduction:** The EWS will address the following climate hazards mentioned in the proposal, providing targeted risk reduction measures:

| **Hazard** | **EWS Functionality** | **Risk Reduction Impact** |
|---|---|---|
| **Dzuds (Extreme Winters)** | - Issue early warnings for severe winter conditions.<br>- Provide herders with pre-seasonal forecasts for resource planning. | - Reduce livestock mortality by allowing early fodder stockpiling, migration, or protective measures (e.g., blankets). |
| **Droughts** | - Deliver real-time updates on water availability and drought severity.<br>- Guide efficient use of water systems. | - Prevent overgrazing and water shortages, ensuring sustainable livestock management. |

| | | |
|---|---|---|
| **Unpredictable Seasonal Patterns** | - Disseminate seasonal climate forecasts and grazing recommendations.<br>- Provide localized weather updates. | - Enhance herders' ability to manage grazing schedules and avoid ecological damage from overuse. |

45. **Fund Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socio-economic and environmental losses.**

The project will increase the resilience of Pasture User Groups (PUGs) and local institutions through:

- Training on climate risk governance and adaptation strategies.
- Establishment of 12 local adaptation committees to oversee pasture governance and risk-informed livestock management.
- Integration of EWS into local governance structures, ensuring that adaptation actions are community-driven and sustainable.

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44. These interventions will empower herders to adopt risk-informed pasture and livestock management strategies, reducing their exposure to climate shocks while ensuring long-term resilience. ~~The project will enhance the institutional capacities of **Pasture User Groups (PUGs)** through training, resource-sharing, and strengthening their capacity for management and governance of pastures. By establishing **12 local adaptation committees** and facilitating the development of climate-informed services, the project will enable sustainable, climate-resilient pasture and livestock management practices that directly address the increasing climate-induced challenges facing Mongolia's herders.~~

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46. **Fund Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at the local level.**

Through Herders' Field Schools (HFS) and participatory planning approaches, the project will:

- Train 4,000 beneficiaries (40% women) on adaptive herding techniques.
- Strengthen local awareness of climate risks and sustainable grazing practices.
- Embed climate-smart principles into pasture governance frameworks, ensuring community ownership of adaptation strategies.

45. The project will facilitate knowledge-sharing through digital and community platforms, ensuring that climate risk management is embedded within local decision-making processes. ~~Through participatory processes like **Herders' Field Schools (HFS)**, this project will build ownership and strengthen climate awareness among herders. The establishment of **48 field schools** will serve as learning platforms where approximately **4,000 participants (with 40% women)** will receive hands-on training in adaptive herding techniques. These initiatives will foster community-based adaptation knowledge, enabling herders to manage climate risks and promote long-term resilience within their communities.~~

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47. **Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets:** The project will invest in critical climate adaptation infrastructure, ensuring herders have the tools and resources needed to withstand climate extremes. These include:

- 4 livestock collection centers, ensuring better value addition, storage, and market access.
- 2 solar-powered water stations, providing climate-resilient livestock water access in drought-prone regions.

- 40 water recharge berms, improving groundwater replenishment and long-term pasture health.

46. By combining infrastructure investments with risk-informed decision-making, the project will reduce the vulnerability of Mongolia's livestock sector to climate shocks. The project is designed to provide a range of small infrastructure to enhance the herder capacity to protect their livestock and pasture resources.

48. **Fund Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress.**

The project will implement ecosystem restoration activities, including:

- 40 hectares of resilient fodder production, reducing soil erosion and land degradation.
- Training herders in rotational grazing, ensuring sustainable pasture management.
- Linking pasture restoration to climate forecasts, ensuring adaptive, data-driven grazing practices.
- By improving grazing practices across 1.2 million hectares, the project will restore rangeland productivity, ensuring long-term sustainability for Mongolia's livestock industry.

47. Ecosystem restoration activities, including the restoration of degraded pastureland through the establishment of **40 hectares** of resilient fodder production and training and demonstration of pasture governance for improved soil health, enhanced biodiversity, and improved pasture health. Sustainable grazing practices will be promoted to prevent land degradation, thereby increasing the resilience of pasture ecosystems against climate stressors such as dzuds and droughts. The **4000 households** targeted could potentially help improve the grazing practices on **1.2 million hectares** of pastureland based on average livestock holdings of 300 per household.

49. **Fund Outcome 7: Improved policies and regulations that promote and enforce resilience measures.** The project will work in close collaboration with national and local governments to integrate climate-smart pasture and livestock management practices into policy frameworks. By establishing a **National Climate Adaptation Stakeholders Database** with over 1,000 stakeholders and producing policy briefs based on project findings, the project will provide evidence-based recommendations to support policy formulation and implementation. This approach will ensure that climate resilience measures are embedded in Mongolia's agricultural and environmental policies.

The project will support climate adaptation policies at the national level, ensuring that Mongolia's environmental and agricultural policies incorporate sustainable pasture and livestock management strategies. This will be achieved through:

- A National Climate Adaptation Stakeholders Database, connecting 1,000+ government, research, and community stakeholders.
- Policy briefs and knowledge products, ensuring data-driven decision-making.
- Integration of EWS data into policy planning, ensuring evidence-based climate governance.
- By working directly with government institutions, the project will embed resilience measures into Mongolia's policy frameworks.

48. **Fund Outcome 8: Support the development and diffusion of innovative adaptation practices, tools, and technologies.** Piloting of advanced technologies, such as **digital tools for pasture management** and **solar-powered water stations**, will provide herders with real-time data to manage water resources and grazing areas effectively. The project's **Knowledge Management and Knowledge Sharing Component** will facilitate the dissemination of best practices and lessons learned, producing and sharing 10 knowledge products annually. Additionally, documentaries and other outreach materials will be produced and shared widely, enhancing the adoption of innovative practices and tools across Mongolia's livestock sector. These decisions will be undertaken by the technical staff implementing the programme in close collaboration with beneficiaries building on local knowledge and experience and priorities.

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~~This section outlines the rationale, intervention needs, outcomes, outputs, and activities for the two key components of the SMART Herders project, both of which are designed to increase the adaptive capacity and long-term sustainability of Mongolia's herder communities.~~

The project will introduce cutting-edge adaptation technologies, ensuring herders have access to real-time climate data and sustainable management tools. These include:

- Mobile-compatible EWS dashboards, providing localized weather forecasts and climate risk data.
- Digital pasture management tools, allowing herders to track grazing patterns and optimize land use.
- Solar-powered water stations, ensuring climate-resilient water access for livestock.
- Additionally, the project's Knowledge Management and Knowledge Sharing Component will:
- Produce 10 annual knowledge products, capturing best practices and lessons learned.
- Develop climate adaptation documentaries, aired 500 times across Mongolia.
- By promoting climate-smart practices through digital platforms, community training, and policy integration, the project will drive long-term adoption of innovative resilience-building strategies.

~~49.~~ This section outlines the rationale, intervention needs, outcomes, outputs, and activities for the two key components of the SMART Herders project, both of which are designed to increase the adaptive capacity and long-term sustainability of Mongolia's herder communities.

## Component 1 Implementing Medium-Scale Pilot Project for Capacity Building and Climate-resilient herding practices and technologies:

50. **Rationale of Component 1**: Mongolia is highly susceptible to climate-induced disasters such as dzuds and droughts, which are exacerbated by rising temperatures and extreme weather patterns. These events, alongside overgrazing and water scarcity, are leading to the degradation of pasturelands and an increase in livestock mortality, threatening the livelihoods of over 191,000 herder ~~households~~. The *Dzud and Livestock Mortality in Mongolia* study highlights that untrained herders are at greater risk of losing livestock during extreme weather events.According to the World Bank's 2024 Country Climate Development Report[24] and the ADB's Climate Risk Profile for Mongolia,[25] the agriculture and livestock sectors are particularly vulnerable. To address these challenges, Component 1 focuses on implementing climate-resilient herding practices and technologies that enhance the adaptive capacities of herders while safeguarding the environment. The selection criteria for the aimags and soums under **Component 1: Implementing Medium-Scale Pilot Projects for Capacity Building and Climate-Resilient herding practices and technologies** ~~**Component 1: Implementing Pilot Projects for Capacity Building and Resilience**~~ were refined using a structured approach grounded in the Development-Adaptation Continuum and the IPCC 2012 guidelines on risk factors. This ensures the process aligns with internationally recognized frameworks for climate adaptation and risk management.

51. **Identified interventions needs:** To address these challenges, Component 1 will focus on the implementation of climate-resilient technologies and sustainable herding practices that directly improve the adaptive capacity of herder households. The project will introduce innovative water management systems, such as solar-powered water pumps and water recharge berms, which are crucial for mitigating the impacts of seasonal droughts and water shortages in vulnerable areas. In addition, the project will promote sustainable grazing practices and establish resilient fodder production systems to ensure that herders can maintain their livestock productivity even during extreme weather events. The site selection process followed clearly defined criteria based on **IPCC 2014 Risk Factors**[26] (exposure, vulnerability, and hazard) and the Development-Adaptation Continuum.[27] Key criteria included:

[24] World Bank Country Climate Development Report, 2024.
[25] ADB Climate Risk Country Profile – Mongolia, 2021. Asian Development Bank.
[26] Intergovernmental Panel on Climate Change (2014). Climate Change 2014: Impacts, Adaptation, and Vulnerability: https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-PartA_FINAL.pdf
[27] Singh, H., & Bose, I. (2021). Artificial distinction between climate change adaptation and development restricts access to climate finance for developing countries.



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52. **Climate Vulnerability (Exposure and Hazard):** As per the **IPCC 2012 Risk Factors**, exposure to hazards such as dzuds, droughts, and desertification was a key determinant. Dundgobi, with over **70%** of the area is impacted by desertification, and Bayankhongor, with frequent dzuds, were selected based on their high exposure to climate hazards. Vulnerability mapping aligned with the **Development-Adaptation Continuum**, focusing on regions where adaptive capacity can be enhanced through targeted interventions such as sustainable pasture management and resilient water systems.

53. **Socioeconomic Vulnerability (Vulnerability)**: IPCC 2012 emphasizes vulnerability as a combination of susceptibility to harm and limited capacity to cope. Both aimags were identified as hosting **economically marginalized herder communities** who depend on livestock for livelihoods, making them highly susceptible to climate shocks. Gender considerations were integrated, targeting areas with active **women-led cooperatives** and identifying opportunities to empower women and youth through training and capacity-building.

54. **Potential for Transformative Adaptation (Development-Adaptation Continuum)**: In alignment with the continuum's focus on systemic adaptation, the selected aimags present opportunities for transformative outcomes through:

- Establishing **value chains for dairy and wool products**.
- Introducing **climate-resilient grazing practices**.
- Piloting **innovative water management solutions**, such as solar-powered wells and berms.

55. **Evidence-Based Climate Action (IPCC guidance)**: Site selection was informed by evidence-based climate science, including consultations that identified local climate hazards and socio-economic challenges. This process follows the **IPCC principle of integrating exposure, vulnerability, and hazard analysis** to design effective interventions.

56. **Alignment with NAP - Adaptation Continuum Goals**: The selected sites offer scalability potential for adaptation efforts, transitioning from incremental (e.g., pasture improvements) to systemic approaches (e.g., regional value chains).

57. **Outcome 1: Herders and their households are equipped with soum-based infrastructure (e.g. collection centres, wells, berms, ponds, digital tools, practical knowledge and skills.** ~~Through these interventions, the project aims to enhance the resilience of herder households to climate risks, particularly *dzuds* and droughts. The expected outcome of this component will be a significant increase in the adaptive capacity of herders, enabling them to withstand climate-related challenges and improve their overall well-being.~~ Through targeted investments in climate-resilient infrastructure, the project aims to increase the adaptive capacity of herders, enabling them to withstand climate-related challenges such as dzuds, summer droughts, and pasture degradation. This includes the establishment of White Gold Collection Centres, green infrastructure, and water management systems, all of which are designed to withstand and mitigate the impacts of extreme weather events on herder livelihoods and income.

Collection Centres will improve economic stability and value chain integration, ensuring that herders have access to stable markets even during extreme climate conditions. Collection centres will be developed from recycled and refurbished shipping containers placed in a no-flood area.

Green Infrastructure (windbreaks, tree planting) will reduce soil erosion, create microclimates, and shield critical infrastructure and livestock from extreme weather. Mulching and regular watering will help ensure drought prevention.

Solar-Powered Water Stations will ensure reliable water access during prolonged droughts, mitigating the risks of livestock mortality.

~~57.~~ These measures will directly enhance climate resilience while reducing exposure to extreme climate conditions. This is in line with the goals of Mongolia's *NAP 2024.*[28]

58. **Output 1.1: Collecting centres and other investments**: This output focuses on the establishment of collection centres in each project soum, equipped with internet connectivity for market linkage and payment integration with financial institutions. These centres will serve approximately **4,000 herders**, benefit with integration with **White Gold collection facilities** established in each project soum. The new national White Gold policy provides a framework for cashmere and wool to be collected and provide direct sales to washers of wool and cashmere. The programme was established by the office of the president with the goal of giving higher returns to herders and promote sustainable practises. The government does not provide subsidies for this programme but facilitate interaction between sellers and buyers.

59. **Activities under Output 1.1 will include the following:**

**Activity 1.1.1: Establishment of White Gold Collection Centres** – ~~Construct and equip **5 White Gold Collection Centres** across target soums, providing internet-linked facilities for enhanced market access and real-time financial transactions.~~

- These centres will be built using recycled and refurbished shipping containers with climate-adaptive construction techniques, including:
- Elevated flooring to withstand flooding or excessive snow accumulation during dzuds.
- Solar security lighting to maintain outdoor security, reducing energy dependence.
- Integrated early warning system access to provide real-time climate risk alerts to herders.
- **White Gold Standard Operating Manual and Database App Development** – Develop a Standard Operating Manual, a membership database app, and a quality-based payment system to streamline operations and ensure quality control.

~~**Activity 1.1.2: White Gold Standard Operating Manual and Database App Development** – Develop a Standard Operating Manual, a membership database app, and a quality-based payment system to streamline operations and ensure quality control.~~

1. **Activity 1.1.2~~3~~: Tree Planting and Green Infrastructure** – ~~**Implement 8 tree-planting plans** (2 per target soum) to serve as windbreaks around collection centres, helping reduce soil erosion and enhance local micro-climates.~~

- The project will implement 8 tree-planting plans (2 per target soum) to create windbreaks around the collection centres.
- These windbreaks will reduce soil erosion, mitigate wind damage, and improve microclimates that support livestock productivity
- Tree species already tested under the Korean Mongolian Reforestation Projects will be selected for their drought resistance and cold tolerance, ensuring long-term sustainability in Mongolia's extreme climate. Water will be provided as required with manure mulching readily available from livestock and in conjunction with water harvesting soil berms.

**Output 1.2. Solar-Powered Water Stations**

**Activity 1.2.1 ~~Activity 1.1.3:~~ Solar Pumping and Water Management Infrastructure – ~~Install 2 solar pumping stations~~** ~~and develop water management infrastructure, including 40 berms and 40 shallow ponds, to enhance water availability and support fodder production.~~

[28] Mongolia National Adaptation Plan (NAP) 2024. Ministry of Environment and Tourism, Ulaanbaatar, Mongolia



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- The 2 solar-powered water stations will be procured with specifications for resilience against climate stressors by:
- Using deep groundwater sources that are less vulnerable to seasonal variability.
- Ensuring off-grid energy independence through solar-powered technology, reducing reliance on fossil fuels or grid-based electricity.
- Constructing solar panel structures with reinforced foundations to withstand high winds, blizzards, and sandstorms.
- Implementing water storage redundancy to ensure water availability during dzuds and prolonged droughts.
- The project will also implement 40 berms and 40 shallow ponds, designed to:
- Improve groundwater recharge and increase soil moisture retention.
- Support climate-resilient fodder production, reducing the impact of pasture degradation during extreme weather.

~~**Activity 1.1.4: Community Production of Livestock Blankets** – Engage local communities in producing **1,000 livestock blankets** to protect animals from extreme cold, reducing livestock mortality during severe winter conditions.~~

~~**Activity 1.1.5: Pilot Fodder Production Plots** – Establish **40 hectares for resilient fodder production** as demonstration plots, providing practical examples of climate-resilient agricultural practices.~~

60. **Output 1.3. Water Recharge**

61. **Activity 1.3.1.** Berms: 40 water recharge berms constructed in strategic drought-prone locations to improve water availability for livestock. Heavy equipment and manual works to be used to build up water harvesting berms on sloping land to improve water infiltration.

~~60.~~62. **Output 1.~~4~~2: Interactive Hands-On Herders' Field School (HFS) and advanced training on strategies and actions for dealing with climate change and enhancing adaptive capacities**.

~~61.~~63. **Activities under Output 1.~~4~~2 will include the following:**

**Activity 1.~~4~~2.1: Establishment of Herders' Field Schools (HFS)** – ~~Establish **48 field schools**, each with a minimum 10-month curriculum covering climate-smart livestock practices, targeted at reaching **4,000 beneficiaries (40% women).**~~ The project will establish 4 Herders' Field Schools (HFS) per year each of 4 selected soums in the 2 aimages each year. Each implementing a structured 10-month training curriculum covering climate-resilient livestock practices, pasture restoration techniques, and adaptive water management. At least 4,000 participants (40% women) will participate in hands-on learning sessions that emphasize risk-informed decision-making and sustainable resource management.

**Activity 1.~~4~~2.2: Early Warning System Integration** ~~– Equip each HFS with access to the National Emergency Management Agency (NEMA) Early Warning System, **benefiting 8,000 households** by improving their response to dzuds, droughts, and other climate-related threats. Information on the early warning system and climate information will be integrated into the training programmes.~~

- Each HFS will be equipped with direct access to the National Emergency Management Agency (NEMA) Early Warning System (EWS), ensuring herders receive timely alerts on dzuds, droughts, and extreme weather patterns.
- The EWS will be incorporated into training modules, teaching herders how to:
- Interpret and respond to climate alerts, allowing them to adjust grazing patterns, secure fodder, and protect livestock in advance of extreme weather.

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- Integrate early warning information into pasture and water management strategies, ensuring resilient livestock production during extreme climate events.
- Use digital dashboards and localized alerts to make informed migration and resource allocation decisions.
- The EWS outreach is expected to benefit 8,000 persons, significantly improving climate risk preparedness and adaptive capacity.

**Activity 1.42.3: Specialized Training in Sheep Shearing** – ~~Conduct **12 intensive sheep shearing training** sessions to boost wool quality and income, aimed at both herders and local technicians~~

- To improve wool quality and increase economic returns, the project will conduct 12 intensive sheep shearing training sessions.
- These sessions will target both herders and local technicians, equipping them with technical skills for efficient, high-quality shearing aligned with sustainable livestock management practices.~~.~~

**Activity 1.42.4: Home Food and Dairy Processing Workshops** – ~~Offer **36 trainings on home-based food and dairy processing**, focusing on income diversification and value addition, with 80% of participants being women.~~

- The project will offer 36 training sessions focused on home-based food and dairy processing, supporting income diversification and value addition for herder households.
- At least 80% of participants will be women, ensuring enhanced participation in climate-resilient economic activities.

**Activity 1.42.5: Annual Income Diversification Programs** – ~~Conduct **36 sessions** annually to introduce herders to alternative livelihoods, focusing on market-based skills to reduce economic dependence on livestock.~~

- The project will implement 36 sessions annually to introduce herders to alternative livelihoods, reducing economic dependence on livestock and increasing resilience to climate shocks.
- Training topics will include climate-adaptive agribusiness models, market-oriented skills, and sustainable resource utilization.

**Activity 1.42.6: Social Resilience and Family Well-being Initiatives** – ~~Provide **12 trainings on "Strengthening Family Bonds"** to improve parenting, life skills, and overall social resilience, with 40% women participants.~~

- The project will provide 12 training sessions focused on "Strengthening Family Bonds," social resilience, and well-being initiatives.
- These sessions will address mental and emotional resilience, life skills development, and support mechanisms for herder families affected by climate-induced stressors.
- 40% of participants will be women, ensuring gender-inclusive community support systems.

**Activity 1.42.7: Maintenance and Sustainability Training for Water Systems** – ~~Train local herders and technicians on the upkeep of solar-powered water systems, ensuring that water infrastructure remains functional and sustainable.~~

- To ensure the long-term resilience of climate-smart water infrastructure, the project will train local herders and technicians on:
- Upkeep and maintenance of solar-powered water stations, ensuring they remain functional and efficient during prolonged droughts.
- Water conservation strategies, maximizing sustainable usage and availability during extreme climate conditions.

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- Integration of EWS climate forecasts into water management decisions, ensuring resilient planning for livestock hydration and pasture irrigation.

### Component 2: Knowledge Management and Knowledge Sharing

~~62.~~64. **Rationale of Component 2**: In addition to implementing climate-resilient technologies, it is critical to build the capacity of herders and local institutions to manage the risks associated with climate change. Many herders lack the technical knowledge required to implement sustainable livestock and pasture management practices. The *Dzud and Livestock Mortality in Mongolia* study highlights that untrained herders are at greater risk of losing livestock during extreme weather events.[29] Therefore, Component 2 focuses on enhancing the knowledge and skills of herders to enable them to adopt climate-smart practices and better manage climate-related risks.

~~63.~~65. **Identified interventions needs:** Several key interventions are required to address the growing vulnerability of herders to climate change:

~~64.~~66. To strengthen climate resilience among Mongolia's herder communities, the project has identified key interventions focusing on building robust support systems and sustainable practices. A major initiative is the development of a National Climate Adaptation Stakeholders Database with over 1,000 stakeholders. This network will facilitate information exchange among herders, local authorities, NGOs, and researchers, enhancing collaborative efforts in climate adaptation. Public awareness is a critical component, and 500 broadcasts of high-quality climate adaptation documentaries will be aired on social media and television. These broadcasts aim to educate rural and urban populations on climate risks and showcase successful adaptation practices, fostering a supportive and climate-conscious community.

~~65.~~67. **Outcome 2.1 Strengthened Coordination and Technical Capacity for Climate-Informed Services to Herders:** The expected outcome of this component is the enhanced knowledge and capacity of herders and local institutions to implement climate-resilient practices. By building this capacity, the project aims to ensure the long-term sustainability of climate adaptation strategies across Mongolia's herder communities. This outcome aligns with the capacity-building goals of Mongolia's *NAP 2024*.[30] It is expected that 23,000 households will benefit inidrectly from the knowledge dissemination activties of the project.

~~66.~~68. **Output 2.1: Strengthening National Networks for Climate-Informed Livestock Information Exchange Trained.** The project will deliver several key outputs, including training 4,000 participants (with a minimum of 40% women) in climate-resilient livestock and pasture management. It will also establish 12 local adaptation committees, which will play a crucial role in guiding climate-adaptive decision-making at the local level. In terms of knowledge dissemination, the project will produce and distribute 10 knowledge products each year, including documentaries, reports, and case studies, to share lessons learned and best practices at both the national and international levels. The committees will be empowered to take a lead role in implementing climate adaptation strategies within their respective soums.[31]

~~67.~~69. The project will focus on creating and strengthening knowledge-sharing platforms to facilitate the exchange of best practices and success stories among stakeholders involved in climate adaptation. A **National Climate Adaptation Stakeholders Database** will be developed, identifying, and including **1,000 key stakeholders** from across Mongolia's herding communities, government agencies, NGOs, and research institutions. This database will serve as a central resource for tracking climate adaptation efforts and fostering collaboration among diverse groups working to enhance climate resilience and link with **early warning systems.**

~~68.~~70. To maximize the reach and engagement of stakeholders, the project will establish a **Facebook page** and a **YouTube channel** dedicated to climate adaptation initiatives. These platforms will be used to disseminate information about successful practices, new innovations, and project updates. The project will ensure a consistent online presence by posting **weekly updates** on the Facebook page, YouTube channel, and a **newsgroup** (using a free and open service such as Google Groups). These updates will highlight key achievements, case studies, and emerging trends in climate adaptation while encouraging stakeholders to actively participate by sharing their own stories, data, and experiences.

[29] Dzuds, Droughts, and Livestock Mortality in Mongolia, 2022. Journal of Climate Resilience.
[30] Mongolia National Adaptation Plan (NAP) 2024
[31] Mongolia National Adaptation Plan (NAP) 2024.б

~~69.~~71. In addition to digital outreach, the project team will conduct **12 online or on-site visits** annually to **4 selected soums**. During these visits, interviews will be conducted with herder groups, local leaders, and other stakeholders to document their experiences, challenges, and successes in implementing climate-resilient practices. These interviews will provide valuable insights into the real-world impacts of the project, helping to shape ongoing adaptation strategies and ensuring that lessons learned are shared widely.

~~70.~~72. **Activities under Output 2.1. include the following:**

**Activity 2.1.1: Establishment of a National Adaptation Stakeholders Database:** Development and maintenance of a comprehensive database identifying at least **1,000 stakeholders** (herders, community leaders, government agencies, NGOs, and research institutions) across Mongolia. The database will serve as a central platform to facilitate information sharing and collaboration on climate adaptation strategies and **early warning systems linked with the National Emergency Management Agency and strengthening its outreach and response mechanism.**

**Activity 2.1.2: Creation of Digital Platforms for Information Dissemination: Facebook Page and YouTube Channel** dedicated to climate adaptation in herding communities. **This will include weekly postings on social media** platforms, highlighting successful practices, innovative solutions, and project updates. Stakeholders will be encouraged to contribute stories, data, and information.

**Activity 2.1.3: Field and Online Engagement with Stakeholders**: The project will conduct **12 online and on-site visits annually** to selected soums for direct engagement with herder groups and local leaders. The project will capture and share insights from herder communities regarding their experiences with climate adaptation measures.

**Activity 2.1.4: Capacity-Building and Training for Local Networks:** Facilitate regular meetings and training sessions for local networks, focusing on governance, risk management, and technical capacity-building in climate adaptation.

~~71.~~73. **Outcome 2.2: Established wide-reaching climate change and adaptation awareness among rural populations.**

~~72.~~74. **Output 2.2. Production of High-Quality Climate Adaptation Documentaries.** To increase awareness of climate adaptation strategies among Mongolia's rural populations, the project will develop a comprehensive and engaging documentary series tailored specifically for Mongolian herder communities. This documentary aims to bridge the current gap in awareness-raising content by addressing the unique challenges and adaptation needs that herders face in a changing climate context. The series will be structured as a 1-hour documentary divided into 3 distinct segments. Each segment will focus on critical aspects of climate adaptation highlighting the impacts of climate change on Mongolia's ecosystems and herding practices, showcasing real-life adaptation stories from herder communities and promoting resilience and sustainable practices that support climate adaptation at both the individual and community levels. These documentaries will be broadcast across social **m**edia platforms and television to reach a diverse audience.

~~73.~~75. By highlighting the effects of climate change on herder communities and showcasing successful adaptation efforts, the documentaries will aim to educate the public and engage them in climate resilience activities. To maximize thier outreach, the documentary will be broadcast 500 times across social media platforms and on television, ensuring that it reaches a broad audience spanning both rural and urban areas. This extensive dissemination strategy is designed to foster a deeper understanding and support for climate adaptation efforts, encouraging herders and the general public to engage in and adopt sustainable, climate-resilient practices. Through visually compelling storytelling and culturally relevant narratives, the documentaries will serve as a vital tool for awareness, knowledge sharing, and inspiration, contributing to Mongolia's journey toward climate resilience.

~~74.~~76. **Activities under Output 2.2. will include the following:**

**Activity 2.2.1:** Work with local governments to form adaptation committees that include herders, community leaders, and local authorities.

**Activity 2.2.2:** Provide training to committee members on governance, climate planning, and risk management to strengthen their capacity to lead climate adaptation efforts.

**Activity 2.2.3:** Facilitate regular committee meetings and community consultations to ensure that adaptation strategies are locally relevant and community-driven.

**Activity 2.2.4**: Produce a documentary series and other knowledge products that capture best practices and lessons learned from the project.

~~75.~~77.The project aims to strengthen policy decisions and promote the scaling up of climate-resilient livestock management across Mongolia. A key focus of this outcome is **knowledge management and sharing** to ensure that evidence-based practices and research findings inform policy development, refinement and implementation. To achieve this, the project will produce and disseminate a range of **knowledge products**, including research papers, case studies, and reports, which will be made accessible to policymakers, practitioners, and researchers.

~~76.~~78.**Output 2.3: Knowledge Management and Sharing.** In terms of knowledge dissemination, the project will produce and distribute 10 knowledge products each year, including documentaries, reports, and case studies, to share lessons learned and best practices at both the national and international levels[32]. the project will focus on advancing climate adaptation knowledge through the production and dissemination of high-quality research, academic collaboration, and local and national forums. Each year, the project will generate **10 knowledge products**, including documentaries, reports, and case studies, that will highlight lessons learned and best practices in climate adaptation. These products will be shared at both the national and international levels to facilitate a broader understanding of the climate challenges facing Mongolia and the innovative solutions being implemented by herder communities.

~~77.~~79.As part of the project's commitment to academic engagement, **two scholarships** will be awarded annually to **Master of Science students**, with a strong emphasis on gender equity by ensuring that **at least one scholarship** is granted to a female student. These scholarships will support the preparation of research theses related to the project's climate adaptation initiatives, contributing to the growing body of knowledge on sustainable practices in Mongolia's livestock and pasture management sectors.

~~78.~~80.Additionally, the project will support the publication and dissemination of **60 academic papers**, with a goal of ensuring that **at least 30% of authors** are women. These papers will cover a wide range of topics related to climate resilience and adaptation strategies and will be presented at **national annual meetings** to foster academic dialogue and exchange.

~~79.~~81.In terms of community and stakeholder engagement, the project will organize **4 local symposiums** in the project's target Aimags, with **2 symposiums per Aimag**. These local events will actively encourage participation from women, with a target of **at least 40% female participation** to ensure gender inclusion in the adaptation discourse.

~~80.~~82.On a larger scale, the project will also host **2 national symposiums** where climate adaptation strategies, research findings, and lessons learned will be discussed. Similar to the local events, the national symposiums will aim for **at least 40% female participation** to promote diverse perspectives in the climate adaptation conversation. These symposiums will serve as important platforms for sharing project outcomes and for building networks among researchers, policymakers, and practitioners involved in climate resilience efforts across Mongolia.

~~81.~~83.**Activities under Output 2.3. will include the following:**

***Activity 2.3.1:*** Scholarships provided to Master of Science students to prepare thesis related to climate adaptation project

***Activity 2.3.2:*** Papers for publication, distribution and presentation selected for national annual meetings.

***Activity 2.3.3:*** Organize local symposiums and knowledge-sharing events to promote the exchange of best practices and foster collaboration among stakeholders.

***Activity 2.3.4:*** Organize national symposiums and knowledge-sharing events to promote the exchange of best practices and foster collaboration among stakeholders.

[32] World Bank Country Climate Development Report, 2024.

***Activity 2.3.5****:* Disseminate knowledge products through national and international platforms, including social media, workshops, and conferences

**B. Describe how the project provides economic, social and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project will avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.**

84. The Project will generate a wide range of benefits, particularly for vulnerable herder communities in **Dundgobi** and **Bayankhongor Aimags**. These areas face critical climate-related challenges, including **dzud**, **drought**, and **desertification**, which negatively affect herder livelihoods, agricultural productivity, and environmental stability. This section outlines the economic, social, and environmental benefits provided by the project, with particular attention to gender considerations and vulnerable groups, including women, youth, and persons with disabilities. The proposed project in Dundgobi and Bayankhongor aimags is expected to directly benefit 4,000 herders ~~households~~ engaged in selling goat milk dairy products and 400 households involved in selling camel milk. Furthermore, at least 400 ~~households~~ persons will benefit from the establishment of White Gold collection centers as members of White Gold cooperatives. The project will also create 28 direct employment opportunities through the development of four collection centers and four pilot fodder production plots, each covering 10 hectares, for a total of 40 hectares of fodder production. A 10-year economic assessment indicates financial viability of the project. The economic internal rate of return (EIRR) is estimated at 26%, while the benefit-cost ratio stands at 1.08. These metrics confirm that the project will not only cover its total budget but also ensure economic sustainability over the long term

85. **Process for Selecting Direct Beneficiaries (4,000 Households Across Dundgobi and Bayanhongor Aimags):** The project will adopt a systematic, data-driven, and participatory approach to select 4,000 herder in Dundgobi and Bayanhongor Aimags who will directly benefit from the project's climate adaptation interventions. The selection process aligns with the Adaptation Fund's principles of equity, vulnerability-based targeting, and maximizing adaptation impact for climate-affected communities.

**Step 1: Climate and Socio-Economic Vulnerability Mapping:** To prioritize the most vulnerable herders, the project will conduct a comprehensive vulnerability assessment using data-driven geographic and socio-economic criteria, focusing on:

**Climate Risks:** Targeting herders in areas most affected by dzuds, desertification, and droughts, as identified by:

- OCHA Dzud Snapshot (2024) and NEMA climate risk data for historical dzud and drought frequency.
- Pasture degradation reports from MOFALI and rangeland monitoring studies to determine overgrazed and degraded lands.
- Groundwater depletion assessments and hydrological studies to map drought-prone areas.

**Economic Vulnerability:** Prioritizing households with low adaptive capacity, including:

- Small and medium-sized herders (owning fewer than 300 animals) who are most at risk during extreme weather events.
- Women-headed households and those facing financial distress due to livestock losses.
- Youth-led households and persons with disabilities to ensure equitable access.

**Step 2: Community Validation and Targeting at the Soum Level**: Once priority soums are identified based on climate risk and vulnerability data, the project will conduct community-based selection through:

**Engagement with Local Authorities and Stakeholders:** Soum Governors and Local Government Units (LGUs) will provide official validation of priority herding communities.

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- Pasture User Groups (PUGs) and herder cooperatives will assist in vulnerable households.
- White Gold Cooperative Unions and Women's Groups will help ensure gender and social inclusivity.

**Direct Community Consultations:**

- Town hall meetings in each soum to share selection criteria and allow communities to nominate households in need.
- Local validation workshops to confirm household data and ensure transparency in beneficiary selection.

**Selection Process in Numbers:**

- Target Regions: Dundgobi and Bayanhongor Aimags.
- Target Soums: 12 most vulnerable soums across the two aimags.
- Total Beneficiaries: 4,000 herders (~23,000 persons indirect beneficiaries)

**Step 3: Monitoring, Equity Tracking, and Adjustments**: To ensure fair representation and impact, the project will implement real-time tracking of participation and outcomes:

**Digital beneficiary database will track:**

- Gender balance: Ensuring 40% of participants are women.
- Youth engagement: Ensuring at least 30% participation from young herders (under 35).
- Regional distribution: Ensuring equal participation across selected soums.
- Quarterly reviews will allow for adjustments to outreach and selection based on participation rates and feedback.
- Annual impact assessment surveys will evaluate how interventions improve household resilience, productivity, and income stability.

86. Further, The project ensure an equitable distribution of the project benefits across the target aimags, soums, and herder by taking the following approaches:

**Quota-Based Household Selection by Aimag and Soum:** To ensure proportional representation, the project will allocate direct benefits according to the number of herder households in each aimag. Based on official 2024 livestock and population statistics:

- Bayankhongor Aimag has 13,000 herder households (~60% of the total target area population).
- Dundgobi Aimag has 7,347 herder households (~40% of the total target area population).
- Accordingly, the 4,000 direct beneficiary households will be distributed as follows:
- 2,400 households (60%) from Bayankhongor Aimag.
- 1,600 households (40%) from Dundgobi Aimag.

**Demographic Prioritization:**

- 10% of the selected households will be female-headed households.
- 30% will consist of youth.
- Participatory Selection Method: Household selection will be guided by:
- Alignment with project activities.
- Demonstrated interest in participating.

- Identified needs within the community.
- This participatory approach ensures that the selection process reflects both community engagement and project goals.

When selecting project participants, priority will be given to households with incomes below the minimum subsistence level and those owning fewer than 200 livestock. According to the revised subsistence level set by the National Statistics Committee for the first quarter of 2025, the subsistence threshold for the central region is 446,700 MNT (Office, 2025).

**Equal Geographic Distribution Across 12 Target Soums:** The project will evenly distribute major activities across 12 priority soums, ensuring that each soum receives proportional infrastructure investments, training, and project interventions:

Herders' Field Schools (HFS):

- Each soum will establish 4 HFS, ensuring equal access to training and skills development.
- Total of 144 herder field schools, with 4,000 beneficiries trained equally across soums.

Infrastructure Investments:

- Solar-Powered Water Stations: 2 stations will be installed in drought-prone soums, based on climate vulnerability assessments.
- White Gold Collection Centers: 4 centers will be evenly distributed across the two aimags to support wool, hide, and dairy value chains.
- Water Recharge Berms (40 total): Spread proportionally across flood-prone and pasture-stressed areas in all 12 soums.
- Fodder Production Pilots (40 ha total): Allocated evenly across 4 soums, with each site covering 10 hectares.

**Community-Based and Participatory Planning Mechanisms:** To maintain fair implementation and prevent elite capture, the project does not allocate individual household benefits (except training access). Instead, it focuses on community-based interventions that are:

- Monitored and guided by Aimag and Soum Governors to ensure equal access to benefits.
- Designed with participatory input from herder cooperatives, Pasture User Groups (PUGs), and local women's networks.
- Transparent in implementation, with project planning and activity locations publicly announced and reviewed through stakeholder consultations.
- This governance approach ensures fair project rollout and avoids concentration of resources in specific areas or elite groups.

Ensuring Gender, Youth, and Social Inclusion in Benefit Distribution: To further guarantee fair access, the project will ensure special consideration for women, youth, and marginalized groups:

- 40% of all training participants will be women, ensuring equal representation in decision-making and leadership roles
- At least 30% of training slots are reserved for young herders, promoting intergenerational knowledge transfers
- Herders with disabilities and socially marginalized groups will receive special support for participation in training and cooperatives.

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~~83.~~87. **Economic Benefits:** The project will contribute significantly to the economic resilience of vulnerable herder communities in Dundgobi and Bayanhongor aimags. Key economic benefits include:

- Increased Livestock Productivity and Reduced Losses: The activities implemented by the project will significantly contribute to increasing livestock productivity and reducing losses, including:
    - By establishing a **collection center** for low-priced animal-origin raw materials, such as sheep and goat skins and wool, these materials will no longer be discarded but can be primarily processed and supplied to factories. This will enable herders to fully benefit from the economic incentives provided by the government for hides and wool.
    - Introducing **machine-based sheep shearing**, through intensive sheep shearing training, will allow for the complete collection of wool, increasing yield per sheep, and enabling on-site sorting and cleaning of debris, such as dust, dung, and small particles. This will also help **reduce labor costs** and **improve productivity** in wool processing factories.
    - By adopting **climate-resilient** pasture management and water-saving technologies such as **solar-powered wells** and improved fodder storage, along with various capacity-building activities, herders will see an increase in livestock health, productivity, and fewer losses during extreme weather events like dzuds and droughts.
    - Through activities such as **Herders' Field Schools (HFS)** and Home Food and Dairy Processing Workshops, the utilization of goat and camel milk will increase, thereby improving productivity per animal.
    - Currently, most herders milk only some of their animals. With home food and dairy processing training, capacity-building efforts, and established **market linkages**, many herders will begin milking most of their animals, thereby enhancing livestock productivity.
    - Introducing a **quality-based payment system** is essential for encouraging herders to focus on product quality, which can help increase their income. This approach improves livestock quality, enhances yields, and boosts overall productivity.
    - In recent years, the **Gobi region** has experienced occasional sudden heavy rains, resulting in flash floods that have led to significant livestock deaths and damage to herders' homes and property. For instance, in June 2023, over 200 livestock perished in **Dundgov**i aimag due to hail and flash flooding. Constructing **berms** and **shallow ponds** in flood-prone areas offers a dual benefit: it protects livestock from future flooding and reduces the labor costs associated with watering livestock by collecting rainwater.
- Income Diversification: The project promotes the development of alternative income sources to reduce the economic vulnerability of herder households and provide stable income streams during periods of climate stress, such as:
    - The main animals for herders in the selected soums are goats and camels. Through home food and dairy processing activities, annual income diversification programs, and enhanced market linkages, many herders will produce a variety of dairy products from goat and camel milk, helping them **diversify their income sources**.
    - White **Gold collection centers** play an important role by providing **fair pricing** for raw materials, such as sheep wool and sheep and goat skins, which are currently undervalued and often unsold. These centers increase herders' income by performing primary processing, adding value to the collected raw materials, and selling them at higher prices. Additionally, herders can join cooperatives, allowing them to earn supplementary income beyond livestock farming by receiving a share of cooperative profits.
    - **Solar-pumping wells, berms, and ponds** will save herders the cost of fuel for watering livestock, while establishing pilot fodder production plots will help reduce feed purchase expenses. These cost savings can then be allocated to other essential needs, supporting efforts to diversify income sources.

- Job Creation and Market Access: Improved market access and livestock productivity, facilitated through strengthened cooperatives, will help generate employment, enhance economic security, and increase herder household incomes by connecting them to national and international markets as follows:
    - Organizations, establishments, and infrastructures to be developed in the target soums, such as White Gold collection centers, water management systems (including solar-pumping wells, berms, and ponds), tree planting initiatives, and pilot fodder production, will create direct employment opportunities. Even herders with only a few animals will be able to work in these organizations for salaries. For example, at least 20 jobs will be created in each of the White gold collection centers and 8 in pilot fodder production plots in the 4 target soums.
    - Technical assistance under the project will be provided to strengthen White Gold collection centers by equipping them with internet-linked facilities to improve market linkages and implement quality-based payment systems. This will enable direct sales of primary processed animal products and facilitate real-time financial transactions.
    - Herders can gain employment and earn additional income by participating directly or indirectly in project activities, such as assisting with cooperative tasks during peak raw material preparation, planting trees, growing fodder crops, operating solar wells, and building and maintaining berms and ponds.

~~84.~~88. **Social Benefits:** The project will adopt a participatory approach to ensure that its interventions reflect the needs of local communities, particularly the most vulnerable, including women, youth, and those with disabilities.

- Enhanced Community Resilience: The project will engage local herders in capacity-building activities focused on climate adaptation, governance, and sustainable livestock management. By ensuring that herders, particularly women, are active participants in decision-making processes, the project will promote inclusive and sustainable development.
- Improved Livelihoods and Well-being: Reducing livestock mortality and providing climate-resilient infrastructure (e.g., fodder storage, water management) will directly improve household food security and general well-being. Herders will be able to mitigate the impacts of climate shocks, which historically have led to significant economic and social hardships. Training on “Strengthening Family Bonds” will enable families where the wife is caring for the children in the aimag or soum center to jointly address childcare and schooling challenges. This will create opportunities for both husband and wife to participate in livestock farming and mitigate climate risks together, while also improving overall family well-being.

~~85.~~89. **Women’s Empowerment, Youth, and Persons with Disabilities**: The project will ensure that at least 40% of participants in training and decision-making processes are women, aiming to empower them as leaders within herder communities. Specific interventions include**:**

- Scholarships for Women: Two Master’s scholarships (with at least one allocated to a woman) will be offered annually to support climate adaptation research. This initiative is designed to foster leadership and professional development among women in climate-resilient agriculture
- Involvement of Youth: The project will provide young herders with opportunities to engage in digital and technical innovations, enhancing their role in the implementation of climate-smart practices. Youth will also benefit from training sessions aimed at improving market access and sustainable farming practices.
- Support for Persons with Disabilities: Persons with disabilities will be included in community consultations and decision-making processes, ensuring their unique needs are considered in adaptation strategies.

~~86.~~90. **Beneficiaries**: The SMART Herders project aims to directly benefit approximately 4,000 herder ~~households~~ across **Dundgobi** and **Bayanhongor Aimags** directly in two regions that are highly **vulnerable**

to **climate-induced** challenges such as desertification, harsh winter conditions, drought, and yellow dust storms, etc. These ~~households~~ herders represent a **significant portion** of Mongolia's **herder population**, whose livelihoods rely almost entirely on livestock and pasture resources. The project is designed to target the most vulnerable and marginalized communities within these regions, providing them with the necessary tools, knowledge, and infrastructure to adapt to the increasing frequency and severity of climate impacts. The project is also expected to have an outreach to **23,000 ~~housheolds~~ persons** indirectly through its investments in pilot activties, knowledge dissemination, early warning and research and participatory workshops.

~~87.~~91. **Geographic Justification: Selection of Dundgobi and Bayanhongor Aimags:** Dundgobi and Bayanhongor were selected as priority regions for project interventions due to their **high exposure** to **climate risks** and environmental degradation. According to the **OCHA Dzud** Snapshot and Mongolia's **National Adaptation Plan (NAP) 2024**, both aimags have experienced severe **dzuds**, which cause widespread livestock mortality and economic losses for herders. In addition, these regions face escalating challenges related to **desertification** and **drought**, exacerbated by overgrazing, poor pasture management, and unsustainable water use. The project's focus on these aimags is justified by the urgent need to address the compound effects of climate change, land degradation, and socio-economic vulnerabilities. Both regions have a high concentration of herder households that depend almost entirely on livestock for their livelihoods, making them particularly vulnerable to climate shocks.

- **Dundgobi** is particularly **vulnerable to desertification**, as more than **70% of its land area** is affected by land **degradation.** This has led to the loss of vegetation, increased soil erosion, and diminished water resources, making it increasingly difficult for herders to sustain their livestock. The area is also prone to **yellow dust storms**, which further degrade the land and pose health risks to both livestock and people.
- **Bayanhongor**, while slightly more diversified in terms of landscape, has also seen significant impacts from **dzud** events, which have wiped out large numbers of livestock in recent winters. The region faces ongoing issues related to **pasture degradation** and **water scarcity**, particularly in its desert-steppe zones. Herders in this region are increasingly vulnerable to both **climate-induced shocks** and the **lack of infrastructure** needed to cope with these shocks.

~~88.~~92. **Socio-Economic Profile of Beneficiaries:** The project will prioritize households that have the following attributes:

- **Economically disadvantaged:** Many herder households in Dundgobi and Bayanhongor are already living in poverty, with limited access to basic services such as healthcare, education, and financial services. Climate shocks, such as dzuds and droughts, further exacerbate their vulnerability by leading to livestock loss, reduced income, and food insecurity. By improving livestock management and promoting income diversification through value-added livestock products, the project will directly enhance the economic resilience of these communities.
- **Women and women-headed households**: Women play a critical role in the herding economy, particularly in areas such as dairy production, domestic chores and undertaking leadership roles in women-headed hosueholds. However, women, especially those heading households, are disproportionately affected by climate impacts due to their limited access to resources, land rights, and decision-making opportunities. The project will ensure that at least 40% of beneficiaries are women, empowering them through leadership roles, targeted training, and access to financial support and scholarships. Table 4: below provides a summary of economic, social, and environmental benefits and the gender sensitive approach that the project will provide:
- **Youth and marginalized groups:** Youth in herder communities often face limited employment opportunities and access to modern technologies. By involving youth in climate-resilient livestock practices and providing training on digital platforms for market access and knowledge sharing, the project will enhance their economic prospects. Additionally, the project will ensure that marginalized

groups, such as persons with disabilities, are included in several of project implementation and benefit equitably from its outcomes.

~~89.~~93. **Climate-Specific Vulnerabilities of Beneficiaries:** The selection of 4,000 households for direct intervention is based on the relevance of climate risks for these housheolds in the selected target areas. The impacts of dzud, drought, and desertification are devastating for herder households, who rely almost entirely on livestock for their income and food security. The region's herders have long depended on traditional methods of grazing and water management, but these are no longer sufficient in the face of rapidly changing climate patterns.

- **Dzud vulnerability:** The beneficiaries in Dundgobi and Bayanhongor have been severely affected by dzuds, with losses of livestock reaching catastrophic levels in some years. Dzuds occur when harsh winter conditions, combined with summer droughts, prevent herders from adequately feeding their livestock, leading to high rates of mortality. The project will mitigate dzud risks by introducing early warning systems, improved fodder storage, and water-efficient technologies, helping herders to protect their animals during extreme winter conditions.
- **Desertification and drought impacts:** Desertification, particularly in Dundgobi, has caused significant degradation of pasturelands, limiting the availability of grazing areas for livestock. The project will promote sustainable pasture management and introduce water-saving technologies to reduce the impact of droughts and desertification on livestock productivity. By addressing these climate-specific vulnerabilities, the project aims to improve the long-term resilience of these households.

**Table 4: Underlying Issues, Project benefits and the Gender Sensitive appraoch.**

| Benefit Type | Baseline | Benefits of Project Actions |
|---|---|---|
| **Economic** | Unsustainable herding practices, lack of resources for climate adaptation, and overgrazing have reduced pasture productivity, leading to significant livestock losses, especially during **dzuds.** | Through capacity building activities such as Herders' Field Schools, workshop, trainings, **climate-smart livestock practices**, including rotational grazing, improved fodder storage, and sustainable water use, will be adopted to help reduce livestock losses during climate events. |
| | **Droughts, desertification,** and inadequate access to markets further compound economic challenges for herders, particularly for women and vulnerable groups. | The project will provide **climate-resilient infrastructure**, such as solar-powered wells and fodder storage facilities, to support livestock during droughts and harsh winters. |
| | | The project will support cooperatives, with an emphasis on women-led cooperatives, and provide skills training to enhance productivity and income, with a focus on value-added products (e.g., dairy, wool, cashmere). |
| | Rural areas of Dundgobi and Bayanhongor have limited access to infrastructure (e.g., water, electricity), making climate adaptation more difficult. | Established white gold collection centers and improved market access will diversify income sources for herders and create new job opportunities. |
| | The absence of centers for collecting, storing, and primary processing of animal raw materials has led to issues such as undervaluation, waste, and quality deterioration of these materials before they reach the factory. | **Capacity-building for women, youth, and persons with disabilities** will lead to improved livelihoods and employment opportunities in the livestock sector. |
| | | Creating berms and shallow ponds can help reduce flash flooding risks, livestock loss, and property damage, while providing a source of rainwater for livestock during the warm season. |

| Benefit Type | Baseline | Benefits of Project Actions |
|---|---|---|
| | Climate change has led to temporary heavy rains, hailstorms, and flash flooding in the Gobi region, which increases the risk of damage to livestock, homes, and property. However, limited measures are currently being implemented to mitigate this type of risk.<br>Hectares of pastureland covered<br>Direct beneficiaries<br>Indirect beneficiaries<br>Employment created through White Gold centers<br>Employment through fodder pilot plots<br>Berms and shallow ponds for flood mitigation<br>Solar-pumping wells | <br>1.2 million hectares<br>4,000 ~~households~~ herders ( less than ~~~20,000 individuals)<br>23,000 ~~households~~persons<br>400 ~~households~~ herders ~~(centers)~~<br>8 jobs per plot (4 plots = 32 jobs)<br>40 structures; protects livestock & reduces costs<br>40 installed; reduces water procurement costs and diesel |
| **Social** | Climate events such as **dzuds** and droughts severely impact the social structure of herder communities, leading to food insecurity, loss of income, and displacement.<br>Women, youth, and vulnerable groups often face greater challenges in accessing resources and participating in decision-making processes.<br>Gender disparities in herder households, particularly in decision-making and resource allocation, limit women's economic and social empowerment.The situation in which young herders' wives settle in soum or aimag centers with their primary school children, leaving their husbands alone with the livestock, is creating a significant social problem among young herders.<br>Herders' Field Schools (sessions) | **Strengthening local governance structures**, including the establishing of adaptation committees, will enable participatory decision-making that incorporates the perspectives of **women, youth, and vulnerable groups**. Training will also be provided to community members to improve adaptive capacities in the face of climate challenges.<br>Improved **social networks** will enhance community resilience.<br>**Empowerment of women** through leadership roles in cooperatives, and scholarships for women to pursue climate adaptation research, will ensure that at least **40% of project participants are women**. These women will play an active role in adaptation planning and implementation, promoting gender equity in community-level governance. Women's participation in **sustainable livestock management** will directly contribute to improved social well-being and economic security.<br>The "Strengthening Family Bonds" training series will enable to address parenting and childcare challenges, improve life skills, and enhance the well-being of young herder families.<br>~~48 sessions~~144 season long<br>12 committees |

| Benefit Type | Baseline | Benefits of Project Actions |
|---|---|---|
| | Local adaptation committees established | 2 annually (minimum 1 for women) |
| | Scholarships for Master's students | 40% of participants (~8,000 individuals) |
| | Women in leadership and training roles | Improved life skills for 4,000 families |
| | Family well-being training | |
| **Environmental** | Desertification, overgrazing, and soil erosion are leading to significant environmental degradation in Dundgobi and Bayanhongor aimags, reducing pasture quality and threatening the sustainability of herding as a livelihood. Climate-induced risks, such as **dzuds**, droughts, and yellow dust storms, exacerbate these environmental challenges.Inadequate response to environmental degradation, compounded by the lack of climate-resilient infrastructure, threatens biodiversity and pasture ecosystems. | Sustainable pasture management practices will reduce overgrazing and improve soil health. The project will undertake pasture restoration, to rehabilitate degraded lands. Water conservation measures, including the installation of solar-powered wells, will ensure a sustainable supply of water for herders, reducing pressure on natural resources and improving environmental resilience.<br>By promoting **climate-resilient infrastructure** and improved livestock management, the project will contribute to **ecosystem restoration** and improved biodiversity in the project areas.<br>Environmental benefits will include the **reduction of greenhouse gas emissions** from livestock and **enhanced resilience** of ecosystems to climate-induced stress. These measures will have long-term positive impacts on both herder communities and the natural environment, aligning with commitments to the Nationally Determined Contribution (NDC).<br>Creating berms and shallow ponds offer the dual benefit of conserving and protecting groundwater resources and contributes to combating desertification. |
| | Hectares of pasture restored as demonstration plots | 40 hectares; Fodder production plots to demonstrate and promote climate-resilient practices |
| | Solar-powered wells installed | 40 wells: Designed to reduce dependency on traditional water sources and improve availability during dry periods |
| | Berms and ponds created | 40 structures: Aimed at reducing soil erosion and managing water resources effectively in flood-prone areas |

## C. Describe or provide an analysis of the cost-effectiveness of the proposed project.

~~90.~~94. The project is designed to provide long-term economic, social, and environmental benefits to herder communities, with a strong focus on climate adaptation, sustainability, and cost-effectiveness. The project's interventions have been carefully selected to ensure that they not only deliver immediate improvements in herder livelihoods but also enhance resilience to climate change, particularly in regions most vulnerable to

dzud, droughts, and desertification. This section justifies the cost-effectiveness of the proposed interventions by evaluating their efficiency, sustainability, and potential for scaling.

~~91.~~95. **Sustainability and Long-Term Cost Savings:** The project's primary focus on **climate-resilient infrastructure**, such as the demonstration of the use of solar-powered wells and the promotion of **sustainable pasture management,** offers significant long-term cost savings compared to alternative, less sustainable methods. For instance, solar-powered wells will reduce dependency on diesel generators, leading to lower operational and maintenance costs over time while also reducing emissions. In contrast, reliance on diesel-powered wells would incur higher fuel and maintenance expenses and contribute to environmental degradation through increased carbon emissions. By investing in renewable energy solutions, the project provides a sustainable and cost-effective approach to water management in drought-prone areas. The focus on imporved governnace of pastures is a critical investment for the country with its extensive pasture reasources which are being over-grazed and not used sustainably. By demonstrating more effective techniques such as rotational grazing, improved management and regulation of pastures and imporved productivty and management of livstock can make pasture use more sustainable in the long-term. The long-term sustainable use of pastures will support the recovery of vegetation and plant species, which will reduce the number of livestock exposed to natural and climatic risks. In other words, livestock losses may decrease over time. Improved pastures will positively impact the livelihoods of herding households by enhancing livestock quality, increasing productivity and yield, and ultimately boosting income.

~~92.~~96. The implementation **of improved fodder storage, resilient fodder production,** and **pasture restoration** techniques ensures that herders have access to fodder during harsh winters, reducing the need for emergency feed purchases, which tend to be expensive and logistically challenging during dzud events. By proactively storing fodder and rehabilitating degraded pastures, the project helps herders avoid the higher costs associated with reactive responses to livestock losses and feed shortages. The pilot project of cultivating forage crops on 40 hectares of land across four soums will provide practical examples of climate-resilient agricultural practices. It will demonstrate to herders that this cost-saving activity can be implemented through their cooperatives or pasture user groups, as it is far more economical than purchasing and transporting forage from northern and eastern Mongolia.

~~93.~~97. **Preventing Future Climate-Induced Losses:** The cost of inaction in the face of dzuds, droughts, and desertification is far higher than the cost of the proposed interventions. Each winter, dzuds result in the loss of tens of thousands of livestock, causing significant financial strain on herder households and increasing their reliance on external aid. By introducing early warning systems for climate events and promoting rotational grazing practices, the project ensures that herders are better prepared to manage climate risks. The early warning systems will enable herders to take preventive actions, reducing livestock mortality and ensuring economic stability. These measures are far more cost-effective than emergency responses, which often involve significant government and international aid expenditures.

~~94.~~98. **Community Involvement and Local Capacity Building:** A key aspect of the project's cost-effectiveness is its focus on community participation and capacity building. The project empowers local herders by providing them with training on sustainable livestock practices and climate adaptation strategies. By building local knowledge and resilience, the project reduces future costs related to external technical support and ensures that herders can independently manage climate risks over time. Moreover, by engaging herders in the management and implementation of project activities—such as water management, sustainable pasture management, and cooperative strengthening—the project enhances local ownership, reducing operational costs and increasing the likelihood of long-term sustainability. The formation of cooperatives also provides significant economic benefits through economies of scale. Cooperatives enable herders to pool resources, negotiate better market prices, and access financial services, all of which contribute to greater economic stability and resilience. This collective approach is more cost-effective than individual interventions, which can be fragmented and less efficient.

~~95.~~99. **Cost-Effectiveness of Proposed Interventions:** As shown in the updated Table 5, the selected interventions are consistently more cost-effective than their alternatives. For example, using solar-powered wells instead of diesel-powered wells offer lower long-term costs and environmental benefits, while improved fodder storage systems are more economical than emergency fodder purchases. Similarly, pasture restoration through sustainable grazing practices is far less expensive than expanding grazing areas, which would exacerbate land degradation and require significant infrastructure investments. The cost-effectiveness

of sustainable grazing practices is demonstrated by reduced livestock losses due to natural and climatic factors.

~~96.~~100. **Scalability and Replicability:** The project's interventions are designed to be scalable and replicable across other regions of Mongolia, further enhancing their cost-effectiveness. The knowledge-sharing platforms established through the project—such as national and local symposiums, training workshops, and digital dissemination tools—ensure that best practices can be shared and adopted by a wider audience of herders, multiplying the impact of the initial investments. The cost of scaling up these interventions is minimal compared to the economic and environmental benefits they provide in terms of reduced livestock losses, improved pasture health, and increased resilience to climate shocks.

**Table: 5 Cost Effectives Criteria**

| Proposed Action | Cost-Effectiveness Criteria | Alternative Action | Cost-Effectiveness Criteria |
|---|---|---|---|
| **Establishment of White Gold Collection Centres** | - Future cost of climate change: Establishing White Gold Collection Centres can boost the income of herding households, which in turn directly supports improved winter preparation, reduces exposure to dzud and drought risks, and helps lower livestock losses indirectly.<br>- Project efficiency: Increasing income through White Gold Collection Centres can create jobs, enable herders to work during peak periods, and help diversify their income sources.<br>- Community involvement: Herders can become members of cooperative-style centers, allowing them to receive a share of the cooperative's profits and work for the cooperative during peak times.<br>- The establishment of these centers will enhance the value of raw materials by enabling proper collection, primary processing, storage, and transportation of products like wool and leather, which is crucial for increasing the income of herder households. Compared to the previous action of relying on informal middlemen, this model can raise herders' income by an average of 87 million MNT annually per soum. Additionally, each center will create at least five permanent jobs. Additionally, wool and sheepskin, which are currently discarded due to their low or negligible value, will become economically valuable. This shift will not only prevent waste but also help reduce environmental impacts, offering a dual benefit to both herders and the ecosystem. | Current informal middlemen collections | - Raw materials are currently not collected, stored, or transported using proper techniques, leading to a decline in quality, lower prices, and increased waste, all of which negatively impact the environment.<br>- Low commodity prices reduce herders' income, prompting them to increase livestock numbers to compensate, which intensifies overgrazing and accelerates pasture degradation—creating a "vicious cycle" from which herders struggle to break free. |

| Proposed Action | Cost-Effectiveness Criteria | Alternative Action | Cost-Effectiveness Criteria |
|---|---|---|---|
| **Installation of Solar Pumping and Water Management Infrastructure (Solar-powered wells, berms, shallow ponds)** | - Future cost of climate change: High savings from reduced livestock mortality during dzuds, droughts, and flash floods.<br>- Project efficiency: Cost-effective as it provides sustainable water access for livestock and reduces the need for expensive emergency responses during droughts.<br>- Community involvement: Actively involves local herders in installation and maintenance.<br>- Establishing a solar-powered well can enable a household to save MNT 1.2 million annually on fuel costs for livestock watering. Additionally, initiatives such as building berms, creating ponds, and offering capacity-building training are expected to significantly reduce livestock mortality. For example, a 1% reduction in the average annual livestock mortality rate in the selected soums could prevent losses valued at approximately 104 million MNT per year across the four soums where the project will be implemented. | Use of diesel-powered wells (no berms and ponds) | - Higher long-term costs due to fuel expenses and maintenance. At least MNT 1.2 million is spent on fuel expenses only for livestock watering per household per year.<br>- Increased GHG emissions.<br>- Limited sustainability due to reliance on external resources.<br>- Higher livestock mortality due to dzuds, droughts, and flash floods. |
| **Improved fodder storage and production** | - Future cost of climate change: Fodder availability during dzud reduces livestock deaths and supports food security.<br>- Project efficiency: Economical in the long run, reducing the need for emergency feed purchases.<br>- Community involvement: Local herders engaged in storing and managing fodder resources. There is also the possibility of creating jobs.<br>Pilot Fodder Production Plots can create permanent jobs while demonstrating to herders the benefits of growing their own fodder instead of purchasing expensive supplies from distant locations, including transportation costs. Cultivating green forage on 10 hectares can save herders approximately MNT 24 million compared to buying fodder. | Purchase emergency fodder supplies during climate events | High costs in purchasing fodder during emergency situations due to price volatility and logistics.<br>- Less effective in ensuring long-term food security for livestock.<br>- Increased dependency on external support. |
| **Pasture restoration and rotational grazing** | - Future cost of climate change: Reduces desertification and pasture degradation, ensuring sustainable grazing. | Expanding grazing areas (carrying capacity) | - Increases environmental degradation and |

| Proposed Action | Cost-Effectiveness Criteria | Alternative Action | Cost-Effectiveness Criteria |
|---|---|---|---|
| **through improved training in HFS, adaptation committees and the imapct of knowledge sharing.** | - Project efficiency: Low-cost intervention with high returns in maintaining pasture health.<br>- Community involvement: Herders contribute to planning and implementation.<br>Implementing pasture restoration and rotational grazing through capacity-building training and activities can enhance pasture vegetation and yield. This improvement will enable herders to build resilience against dzud and drought risks, ultimately supporting their livelihoods and livestock health. Additionally, along with other initiatives, these efforts will significantly reduce livestock losses, as previously aforementioned. | | accelerates desertification.<br>- Expensive due to land acquisition and infrastructure development.<br>- Inefficient as it leads to further overgrazing and long-term pasture depletion. This leads in turn decreased productivity and yield of livestock, making animals more vulnerable to harsh winter and storms, ultimately negatively impacting herders' livelihoods. |
| **Training programs for sustainable herding practices** | - Future cost of climate change: Enhances adaptive capacity, improving the livelihoods of 4,000 ~~households~~herders.<br>- Project efficiency: Cost-effective knowledge transfer with long-term benefits.<br>- Community involvement: Herders and local leaders play an active role in learning and disseminating knowledge.<br>- Capacity-building training and related activities are essential for promoting sustainable grazing practices, preparing high-quality animal raw materials such as sheep shearing, and improving the well-being of herder households.<br>- As a result of home food and dairy processing workshops, herders will be able to produce a wider variety of dairy products for sale in the market. The Gobi region is known for its camel milk and goat dairy products, and this project will establish market linkages through cooperatives and collection centers. These connections will enable herders to sell their products more effectively and enhance the livelihoods of families in the target soums. In contrast to the current situation, where markets for dairy products are fragmented and limited to a few types, the proposed activities will create more income opportunities and | No additional climate change and adaptation awareness training | - Limited knowledge dissemination, leaving herders vulnerable to climate shocks.<br>- Short-term savings but higher long-term costs due to reduced adaptive capacity.<br>- Missed opportunity for long-term economic and social resilience.<br>- Markets for dairy products are fragmented and limited to a few types. |

| Proposed Action | Cost-Effectiveness Criteria | Alternative Action | Cost-Effectiveness Criteria |
|---|---|---|---|
| | diversify income sources. As a result, each household is expected to earn an additional MNT 1.5 million in income annually. This means that the 4,000 herder ~~households across the four target soums~~in 2 aimag will collectively gain over MNT 6 billion in additional income compared to the current situation. Additionally, through market linkage activities, herders with camels will have the opportunity to sell their camel milk, further enhancing their income sources, as camels are more resistant to harsh winters and dzuds. On average, a household with 10 female camels can earn MNT 7 million per year from selling camel milk. | | |
| **Development of early-warning systems (dzud, drought)** | - Future cost of climate change: Early warnings prevent massive livestock losses and ensure preparedness for extreme events.<br>- Project efficiency: Highly cost-effective by preventing loss of income and livestock.<br>- Community involvement: Herders play a role in sharing and acting on early warnings.<br>-- As a result of the joint efforts and activities, including the development of early-warning systems in collaboration with other development partners and state and local agencies, animal losses will be significantly reduced, as previously mentioned. | Reactive and No Adaptation response to climate events | - Higher costs incurred due to lack of preparedness, requiring emergency interventions.<br>- Inefficient as it results in greater economic losses and lower resilience for herders.<br>- Increases dependency on government and external aid for recovery. |
| **Strengthening of local cooperatives** | - Future cost of climate change: Builds community resilience through collective action, increasing economic stability.<br>- Project efficiency: Cost-effective in pooling resources and increasing market access for herders.<br>- Community involvement: Herders take leadership roles or become members in cooperatives, which may enhance their income sources. | Individual herder interventions | - Less cost-effective as individual interventions lack scale and bargaining power.<br>- High operational costs for individual herders to access markets and resources.<br>- Lower overall resilience due to fragmented efforts and limited access to financial support. |

## D. Describe how the project is consistent with national or sub-national sustainable development strategies, including, where appropriate, national adaptation plan (NAP), national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist.

~~97.~~101. **Project Alignment with National and Sub-National Strategies**: The SMART Herders project is fully aligned with Mongolia's National Adaptation Plan (NAP) of 2024, as well as other key national and sub-national strategies aimed at building climate resilience. By focusing on sustainable pasture management and climate-resilient livestock systems, the project directly contributes to the objectives of Mongolia's adaptation framework, including climate risk reduction, improved livelihoods, and enhanced food security for herders. The project's alignment with key national strategies, particularly the NAP, Nationally Determined Contributions (NDC), and Vision-2050, ensures that the interventions support Mongolia's long-term climate goals while addressing local needs.

**National Strategies**

~~98.~~102. **National Adaptation Plan (NAP) (2024):** The SMART Herders project is designed in close alignment with Mongolia's NAP 2024, which prioritizes climate adaptation in the livestock sector. The NAP emphasizes key strategies such as promoting **climate-resilient livestock breeds**, **improving fodder production**, and **efficient pasture management**. These priorities are directly reflected in the SMART Herders project through activities such as:

- **Climate-Resilient Technologies**: The project will promote technologies like solar-powered water wells, improved fodder storage facilities, and drought-resistant fodder crops. These measures address vulnerabilities such as extreme dzuds and droughts, both of which are highlighted in the NAP as critical risks for Mongolia's herding communities.
- **Disaster Risk Reduction**: By integrating early-warning systems for climate risks (e.g., droughts and dzuds) through coordination with the National Emergency Management Agency (NEMA), the project strengthens herders' preparedness for climate-induced disasters. This aligns with the NAP's objective to reduce the vulnerability of socio-economic sectors to climate change.
- **Sustainable Natural Resource Management**: Through pasture management activities such as rotational grazing, stocking rate management, and ecosystem restoration, the project supports the NAP's goal of enhancing pastureland resilience to climate stressors, including overgrazing and desertification.

~~99.~~103. **Nationally Determined Contributions (NDC) (2020):** Mongolia's NDC outlines commitments to enhance climate resilience and reduce greenhouse gas emissions, particularly in the agriculture and livestock sectors. The SMART Herders project contributes to the adaptation goals of the NDC by:

- Promoting climate-smart livestock practices, such as resilient livestock breeds and efficient grazing management, which are essential for address the carrying capacity of the land for sustainable paster managment under changing climate conditions.
- Restoring degraded pastures and improving water management practices in vulnerable regions, which are key components of the NDC's broader climate resilience objectives.

~~100.~~104. **Vision-2050 Policy (2020):** Vision-2050 is Mongolia's long-term development policy, which emphasizes environmental sustainability and green development. The SMART Herders project supports this vision by promoting sustainable pasture management practices that enhance food security and improve the quality of life for herders. The project's focus on integrating climate-smart technologies contributes directly to the Vision-2050 goal of building a resilient and sustainable livestock sector.

~~101.~~105. **Government Action Programme (2020-2024):** This programme outlines the government's priorities for creating a climate-resilient and sustainable livestock sector. The SMART Herders project aligns with this goal by introducing innovative climate-resilient technologies and fostering the adoption of sustainable pasture management practices, directly contributing to Mongolia's climate adaptation efforts.

~~102.~~106. **New Revival Policy (2021):** The New Revival Policy aims to strengthen Mongolia's economic independence through green development initiatives, including the restoration of degraded ecosystems and the adoption of environmentally sound technologies. The SMART Herders project will demonstrate scalable climate-resilient practices that contribute to both ecosystem restoration and economic resilience in herding communities.

~~103.~~107. **Sustainable Finance Roadmap (2022):** Mongolia's Sustainable Finance Roadmap emphasizes climate, environmental, social, and governance considerations in national financing policies. The SMART Herders project aims to explore sustainable financing mechanisms, such as leveraging performance-based financing opportunities, to support the long-term transition of Mongolia's livestock sector towards climate resilience.

~~104.~~108. **Mongolian Agenda for Sustainable Livestock:** The Mongolian Agenda for Sustainable Livestock promotes pasture management, food security, and stakeholder participation in decision-making processes. The SMART Herders project aligns with this agenda by focusing on sustainable pasture management, improving the resilience of herder livelihoods, and fostering inclusive participation at the local level.

~~105.~~109. **White Gold, New Cooperative Movement, and Food Safety and Security Initiatives (2024):** These interrelated policies, initiated by the Office of the President, aim to promote sustainable supply chains and cooperative development. The SMART Herders project will contribute to these initiatives by developing strategies for cooperative livestock management, food safety, and security through climate-resilient practices.

~~106.~~110. **International Year of Rangelands and Pastoralists:** Initiated by the Government of Mongolia, this international campaign aims to promote the sustainable management of rangelands and pastoral systems globally. The SMART Herders project will showcase best practices in rangeland management and contribute to Mongolia's leadership role in advancing sustainable pastoralism on the global stage.

~~107.~~111. **Sub-National Strategies:** The project will also align with sub-national strategies, ensuring that the interventions are tailored to local needs. This includes working closely with aimag and soum-level adaptation plans to address region-specific climate risks.

- **Aimag-Level Adaptation and Disaster Management Plans**: The project will integrate local adaptation plans, focusing on sustainable livestock management, water resource conservation, and pasture restoration. This alignment ensures that interventions are regionally relevant and responsive to local environmental and socio-economic conditions.
- **Soum-Level Planning Frameworks and Development Funds**: The SMART Herders project will coordinate with soum governments to incorporate project activities into existing land-use and resource management plans. By leveraging the Soum Development Funds, the project will ensure that adaptation activities can be sustained at the local level beyond the project's timeframe.

**Table 6: Project alignment with National plans and strategies**

| Project Components | Mongolia National Adaptation Plan (NAP 2024) | Nationally Determined Contributions (NDC 2023) | Biennial Update Reports (BUR II) | Vision 2050 |
|---|---|---|---|---|
| **Component 1 Implementing Medium-Scale Pilot Project for Capacity Building and Climate-resilient herding practices and technologies** | - Improve resilience of agriculture and pastoral systems.<br><br>- Promote climate-resilient livestock and pasture management practices. | - Promote climate-resilient agricultural practices to ensure food security.<br><br>- Implement sustainable land management techniques. | Prioritize sustainable development of key economic sectors, including agriculture and livestock.<br><br>- Emphasize the reduction of greenhouse gas emissions in agriculture. | - Enhance national economic resilience through sustainable resource management. |

| | | | | |
|---|---|---|---|---|
| **Component 2: Knowledge Management and Knowledge Sharing** | - Strengthen capacity of institutions and stakeholders for climate resilience.<br><br>- Promote public awareness and education on climate change impacts. | - Increase adaptation capacity in rural areas, especially among vulnerable populations.<br><br>- Encourage engagement of stakeholders in adaptation planning. | - Develop human capital and skills to adapt to climate change.<br><br>- Foster innovation in agriculture and natural resource management. | - Promote knowledge exchange on climate adaptation and mitigation across sectors. |

## E. Describe how the project meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc., and complies with the Environmental and Social Policy of the Adaptation Fund.

~~108.~~112. The proposed project has an obligation to follow and comply with Mongolian national technical standards and relevant legislation. The project was developed and selected for submission to the Adaptation Fund through a national consultation process and will be implemented and monitored in accordance with national regulations and technical standards throughout its lifecycle. The project aligns with the principles of the Adaptation Fund, including compliance with national and international laws, the protection of marginalized and vulnerable groups, gender equity, women's empowerment, and land and soil conservation. The project's implementation and monitoring will ensure that these principles are adhered to, along with the relevant national technical standards, during its full duration.

~~109.~~113. The technical standards relevant to this project span several areas, including agriculture, pastoral services, water resource management, disaster preparedness, and livestock health management. The project will comply with the following **national regulations:**

- **Pasture Restoration and Livestock Management**: The project will follow the standards prescribed by the Ministry of Food, Agriculture, and Light Industry, particularly in relation to rotational grazing and pasture restoration, ensuring sustainable use of natural resources and alignment with the Law on Environmental Protection (1995, amended 2023).
- **Water Resource Management**: Standards for the construction of solar-powered wells and the sustainable management of water resources will be in accordance with the **Law on Water (2012, amended 2023)**, ensuring that water quality and usage comply with national regulations.
- **Environmental Impact Assessments (EIA)**: All major construction activities, including the installation of water wells and fodder storage facilities, will be subject to environmental assessments as required by the **Law on Environmental Impact Assessment (LEIA, 2012, amended 2023)**. These assessments will be undertaken by accredited agencies to ensure environmental safeguards are met.
- **Waste Management**: The project will adhere to waste management standards outlined in the **Law on Waste (2017, amended 2023)** to ensure that construction and operational waste generated by project activities is handled, stored, and disposed of in compliance with national regulations.
- **Occupational Safety and Labor Standards**: During the implementation phase, the project will ensure adherence to national labor laws and occupational safety standards. This includes compliance with the **Labour Laws (1999, amended 2023)** and the **Law on Occupational Safety and Hygiene (2008, amended 2023)**, safeguarding the rights and safety of all workers involved in the project.

~~110.~~114. In addition to the national standards, the project will identify any gaps in local adaptation needs and work to develop sector-specific technologies and best practices through community participation. Technical safeguards, such as the development of early warning systems and climate-resilient infrastructure, will be integrated during project design and execution to minimize environmental risks and ensure compliance with both local and national requirements.

~~111.~~115. Further details on the project's adherence to national technical standards, environmental and social policies, and the specific laws governing its activities are given in Annex 5: Environment and Social Management Plan (ESMP). Table 7 below provides details on the relevant law and the national technical standards, rules, and procedure which need to be complied with and how the project will comply with them.

**Table 7: National Technical Standards**

| Activity | Applicable National Standards | Compliance Requirment | Responsible Agency |
|---|---|---|---|
| **Installation of solar-powered wells** | Law on Water (2012, amended 2023)<br>Law on Environmental Impact Assessment (LEIA, 2012, amended 2023) | By Ministry of Environment and Ministry of Construction; permits and environmental screenings required | Local Water Management Offices<br>Ministry of Environment and Tourism |
| **Construction of fodder storage facilities** | Law on Construction (2016, amended 2023)<br>National Construction Codes for Storage Facilities | By Ministry of Construction and Urban Development; building permits to be obtained | Ministry of Construction<br>Local Urban Development Authorities |
| **Pasture restoration and rotational grazing** | Law on Environmental Protection (1995, amended 2023)<br>Law on Land Use (2003) | By Ministry of Food, Agriculture, and Light Industry; compliance with pastureland management | Local Aimag and Soum-level Land Management Authorities |
| **Development of Early Warning Systems (EWS)** | Law on Disaster Protection (2017)<br>Telecommunications Law (2001, amended 2022) | By National Emergency Management Agency (NEMA); integration of EWS with national and local disaster systems | NEMA<br>Local Disaster Management Authorities |
| **Community training and capacity building** | Law on Occupational Safety and Hygiene (2008, amended 2023)<br>Labour Law (1999, amended 2021) | By Ministry of Labour and Social Protection; ensuring safe training environments and compliance with labour laws | Ministry of Labour<br>Project Monitoring Team |
| **Waste management during construction** | Law on Waste (2017, amended 2023) | By Ministry of Environment and Local Waste Management Offices; development of Waste Management Plan | Ministry of Environment<br>Local Soum Waste Management Offices |
| **Livestock management and disease control** | Law on Animal Health (2017)<br>Law on Veterinary Services (2002) | By Ministry of Food, Agriculture, and Light Industry; adherence to livestock health and veterinary guidelines | Ministry of Food, Agriculture, and Light Industry<br>Local Veterinary Services |
| **Public consultation and grievance mechanism** | Law on Receiving and Resolving Citizen's Grievances (1995, amended 2017)<br>Law on Public Hearing (2015, amended 2022) | By Local Government Offices; establishing grievance mechanisms and conducting public hearings | Local Government Offices<br>Project Grievance Focal Points |

## F. Describe if there is duplication of project with other funding sources, if any

~~112.~~116. Table 8 below outlines a list of parallel investments, along with areas where the proposed project will provide complementary support. The identification of potential areas of overlap with other projects and programs was undertaken during the proposal development to identify areas of collaboration. This proactive approach ensures that all relevant initiatives, including those led by local governments, NGOs, private sector entities, and development partners, are accounted for early in the project planning process. This will enable the project to avoid duplication of efforts, and foster synergies that enhance coordination and resource efficiency. This early identification will enable the project to integrate and align with ongoing initiatives, ensuring that stakeholders are actively involved from the onset, and optimizing the design of coalition platforms, pilot sites, and climate adaptation activities.

**Table 8: On-Going Projects and Synergies**

| Other Projects / Partners | Summary | Geographic Overlap | Identified Synergies |
|---|---|---|---|
| **1.Sustainable Green Regional Development (ASDIP) in Mongolia**: Targeted at supporting low-carbon, climate-resilient agriculture and rangeland management. It covers 21 Aimags and their respective soums for sustainable development, enhancing agricultural productivity, and supporting rural communities.<br><br>**GCF ASDIP Pilot Sites**: Involves creating "green" infrastructure, sustainable practices in agriculture, and climate-resilient solutions in selected aimags. | **Main Objective**: Enhance climate-resilient agriculture, focusing on reducing GHG emissions and improving rural livelihoods through sustainable land and water use, while establishing infrastructure for herders.<br>**Results**: Climate-resilient infrastructure, improvements in water and soil management, and the introduction of sustainable grazing<br><br>**Objective**: Equip regional and local authorities and herding communities with skills and knowledge to support climate adaptation.<br>**Results**: Introduction of climate-adaptive livestock breeds and restoration of pasture landscapes.practices. | Nationwide coverage, with specific focus areas overlapping with SMART-Herders in two aimags. | **Synergies:** SMART-Herders contributes by focusing on specific herder populations (at least 4,000 households in 4 soums) to pilot climate-resilient technologies and practices, supporting livestock and pasture management. ~~The project introduces EWAA, FbF, and Index-Based Livestock Insurance (IBLI), tools which complement the climate risk reduction systems of ASDIP.~~<br>Non-Duplication: ASDIP focuses more broadly on general regional sustainable development, while SMART-Herders centers on herders, addressing specific pastoral challenges. This ensures no overlap but mutual reinforcement of best practices.<br><br>**Synergies:** SMART-Herders complements by offering additional focus on technical and human capacity building, specifically targeting improved pasture management and livestock care. For instance, its installation of solar-powered wells and advanced fodder storage systems complements ASDIP's efforts in infrastructure.<br>**Non-Duplication:** While both projects tackle water and fodder management, SMART- |

| Other Projects / Partners | Summary | Geographic Overlap | Identified Synergies |
|---|---|---|---|
| | | | Herders emphasizes direct training and implementation in smaller communities, ensuring targeted support. |
| **2. Mongolia Index-based Livestock Insurance (IBLI)** (World Bank, USD 17 million)<br>*Completed*<br>*2010* | To ascertain the viability of Index Based Livestock Insurance in Mongolia to reduce the impact of livestock mortality for herders' livelihoods through: (i) scaling up Index Based Livestock Insurance Program in Selected Aimags; and (ii) building the institutional capacity and legal and institutional framework for the sustainability of the Index Based Livestock Insurance Program.<br><u>Results:</u><br>In 2014, the IBLI Law was passed after the piloting of IBLI project. Agricultural Reinsurance Company of Mongolia was established to implement the law with an initial public capital investment of 20 billion MNT. | Past project with influence on national IBLI regulations. No current geographic overlap. | **Synergies**: SMART-Herders complements by offering additional focus on technical and human capacity building, specifically targeting improved pasture management and livestock care. For instance, its installation of solar-powered wells and advanced fodder storage systems complements ASDIP's efforts in infrastructure.<br>**Non-Duplication**: While both projects tackle water and fodder management, SMART-Herders emphasizes direct training and implementation in smaller communities, ensuring targeted support. The SMART HERDERS will not offer insurance products. |
| **3. Virtual Cooperatives of Pastoral Livestock Communities** (WB: P174733, Budget: USD 2.7 million)<br>*Project Active*<br>**1.Market Linkages and Livelihood Improvements**: The World Bank project aims to connect herders to better markets and finance opportunities using digital tools. It emphasizes | **Main Objective**: Improve the livelihoods and quality of life of remote pastoral livestock communities by using digital platforms to create cooperatives, improve market access, and increase their access to support services.<br>**Results**: Established virtual cooperatives, enhanced market linkages, access to financial services, and digital literacy among herders. | Active in selected aimags. Potential for overlap in digital infrastructure. | **Synergies**: SMART-Herders complements the World Bank initiative by integrating climate-resilient practices and technologies in herder communities. While the World Bank project focuses on digital cooperatives and market access, SMART-Herders offers climate-adaptation tools (EWAA, FbF, IBLI) and hands-on training to support sustainable livestock practices, which can be enhanced through the World Bank's digital infrastructure.<br>**Non-Duplication**: The World Bank project focuses on digital |

| Other Projects / Partners | Summary | Geographic Overlap | Identified Synergies |
|---|---|---|---|
| improving herder cooperatives and increasing product quality, particularly cashmere.<br><br>**2.Capacity Building and Infrastructure**: Focuses on creating digital infrastructure and providing technical assistance to enhance the business capacity of herder cooperatives and market linkages. | **2.Objective**: Build digital capacity and infrastructure among herders to improve their market participation and livelihoods.<br>**Results**: Increased digital literacy, development of business skills among herders, and access to market information and digital financial services. | | technology and market access, while SMART-Herders emphasizes climate resilience. This ensures no overlap, as both projects address different aspects of herder needs.<br><br>**2. Synergies**: SMART-Herders complements this by providing on-the-ground training and technical capacity building in climate-resilient livestock practices. The skills herders gain in the SMART-Herders project can be amplified through the digital platforms and market-access systems created by the World Bank project.<br>**Non-Duplication**: The World Bank's focus is on digital literacy and cooperative organization, whereas SMART-Herders emphasizes physical and environmental resilience, thus ensuring distinct but supportive roles. |
| **4. Project for Market and Pasture Management Development (PMPMD) (IFAD**, Budget: Initial phase: USD 11.5 million IFAD loan in 2011 combined with USD 1.5 million in GEF grant (ID3695), follow up phase: additional loan of USD 9 million in 2016, and current phase: USD 10 million) *Project: Active. Completed: Additional Financing with scaled up activities for PMPMD* | To reduce poverty and improve livelihoods of nomadic herder ~~households~~.<br><br>Expected results:<br>• Improved value addition in production and processing, and market access – formation of cooperatives and improved financial access.<br>• Sustainable management of pastures in the project areas, through the development and approval of pasture | Covers several aimags, including those targeted by SMART-Herders. | **Synergies**: IFAD PMPMD has already been implemented: promoting best practices in pasture management and market access. The project will incorporate successful elements from PMPMD to enhance the adaptive capacity of herders, ensuring complementary actions that enhance resilience and sustainable livelihoods.<br><br>**Non-Duplication action:**<br>During the design of SMART-Herders the unique aspects of pasture and livestock management were taken into account, ensuring no overlap |

| Other Projects / Partners | Summary | Geographic Overlap | Identified Synergies |
|---|---|---|---|
| *Phase 2 will start from 2025-2028* | management plans to strengthening resilience to climate change. | | or dependency on PMPMD. The project will incorporate best practices and the project sites will be independent from previous IFAD funded projects. |
| **5. Early Warning Anticipatory Action (EWAA)** and Forecast-based Financing for Vulnerable Herders (FAO, IFRC, pilot activities) *Project: Active* | To take timely action to support herders based on reliable early warning of Dzud impacts to prevent large-scale losses of livestock. This reduces the negative impact of Dzud on herders and their livelihoods.<br><u>Results:</u><br>• 2,000 vulnerable herders were given cash and animal care kits to prevent loss of livestock and livelihoods.<br>• FbF module for Dzud developed.<br>• Cost-benefit analysis ongoing for FbF in Mongolia. | Operates in aimags most affected by dzud conditions, overlapping in some areas with SMART-Herders. | **Synergies:**<br>The project will take advantage of the FAO's project and promote the application of EWAA and FbF as relevant for dzud and forecasting: through training and pilot activities.<br><br>**Non-Duplication action:**<br>During the design phase stakeholder consultations were held with development partners to understand the use of this: SMART-Herders will independently utilize EWAA and FbF methodologies, ensuring no duplication of existing efforts. The project will complement existing systems with additional training and activities. |
| **6. Improving Adaptive Capacity and Risk Management of Rural Communities** in Mongolia (UNDP/GCF: FP141, Budget: USD 23 million): *Project Active* | To strengthen the resilience of resource-dependent herder communities in four aimags vulnerable to climate change in Zavhkhan, Khovd, Dornod and Sukhbaatar Aimags (Western and Eastern regions).<br><u>Expected results:</u><br>• Climate-integrated land and water use planning.<br>• Climate-resilient water and soil management practices.<br>• Improved market access for herders. | Targets Western and Eastern Aimags, specifically Zavkhan, Khovd, Dornod, and Sukhbaatar | **Synergies:**<br>Collection and analysis of lessons learned and best practices for systematic replication and scaling up at the national level through a structured approach to increasing resilience and through innovative financing options that support the adaptation of herders and the livestock industry. Such lessons and best practices include the use of the internet to enhance service delivery in areas such as agrometeorological forecasting, livestock extension, and financial and market access. |

| Other Projects / Partners | Summary | Geographic Overlap | Identified Synergies |
|---|---|---|---|
| **7. Promoting Dryland Sustainable Landscapes and Biodiversity Conservation in the Eastern Steppe** of Mongolia (FAO/WWF/GEF: 10249, Budget: USD 5.3 million)<br>*Project Active* | To reverse and prevent dryland ecosystem degradation and biodiversity loss through an inclusive, integrated landscape and value chain approach securing multiple environment benefits and sustainable, resilient livelihoods in the Eastern Steppe.<br>Expected results:<br>• Strengthened policies and planning mechanisms for sustainable dryland management.<br>• Improved fodder and crop production practices.<br>• Improved protected areas management for conservation. | Focuses on the Eastern Steppe region. | **Non-Duplication action:**<br>During implementation lessons learned from the UNDP/ GCF projects will be applied to new independent project sites. Thus SMART-Herders will integrate digital technologies independently, ensuring distinct and complementary applications without duplicating the Virtual Cooperatives project. |
| **8. Pastures, Conservation and Climate Action, Mongolia, Plan Vivo Project (Phase II)** (University of Leicester and the Mongolian Society for Range Management (MSRM)/Darwin Initiative, Budget: GBP 240,000)<br>*Project Active* | To enhance carbon sequestration, biodiversity conservation and herders' livelihoods at sites in rural Mongolia, thus contributing to national efforts to combat degradation of ecosystem services and growing rural poverty, whilst protecting a globally important biodiversity heritage in three herder communities in Arkhangai, Tov and Bayanhongor Aimags.<br>Expected results:<br>• Continued operation of a PES scheme established in Phase 1 through Plan Vivo carbon financing (120,000 verified tCO2eq between 2015-2021 over 77,000ha, | Overlaps with three aimags: Arkhangai, Töv, and Bayankhongor | **Synergies:**<br>The project will be able to draw lesson from the ongoing PES scheme and soil carbon stock thought sustainable land management, as these objective align with SMART Herders.<br>**Non-Duplication action:**<br>The project will identify a few successful aspects of the PES mechanism, focusing sustainable livelihood building and use them in training and awareness building. |

| Other Projects / Partners | Summary | Geographic Overlap | Identified Synergies |
|---|---|---|---|
| | distributed about USD 90,000 to herders through PES).<br>• Increased soil carbon stocks through sustainable land management.<br>• Increased herders' food security and income from improved livestock productivity and market access. | | |
| **9. Rehabilitating and conserving the mountain landscapes** in Khangai region of Mongolia for improved ecosystem services and community livelihoods (FAO/GEF: 111114, Budget: USD 2.8 million).<br>*Project Planned* | To rehabilitate degraded lands and promote community-based natural resource management in the Khangai mountain landscapes to reduce land degradation and biodiversity loss, improve ecosystem services, and support sustainable community livelihoods.<br><u>Expected Results:</u><br>• Strengthen local planning through data management, coordination, and improved private sector engagement.<br>• Restored high conservation value areas through planning. | Focuses on the Khangai region, which includes Arkhangai and other mountain aimags. | **Synergies:**<br>The project will be able to strengthen local planning through data management and most importantly coordination<br>**Non-Duplication action:**<br>Activities are distinct, focusing on additional and complementary actions that enhance resilience without duplicating efforts in the new project areas. |
| **10. UN-Habitat Mongolia – Building Climate Resilience in Mongolia** | • UN-Habitat Mongolia project aims to increase the resilience of vulnerable urban and peri-urban communities by improving their capacity to cope with climate-related risks.<br>• Focus on climate-resilient infrastructure, | Targets peri-urban and urban areas, some overlap with SMART Herders in selected rural regions for pasture and water management | **Synergies:** UN-Habitat's emphasis on building local capacity for climate resilience in vulnerable communities is aligned with SMART Herders' focus on strengthening herder communities' capacity through climate-resilient livestock and pasture management practices. The SMART Herders project can apply successful elements of community participation and |

| Other Projects / Partners | Summary | Geographic Overlap | Identified Synergies |
|---|---|---|---|
| | sustainable resource management, and disaster risk reduction measures. It includes initiatives related to water and pasture management, emphasizing the need for local governance and community participation in climate adaptation strategies. | | governance from UN-Habitat Mongolia to ensure strong local ownership of adaptation measures.<br><br>**Non-Duplication:** While both projects focus on resilience-building, UN-Habitat is primarily urban-focused, whereas SMART Herders centers on rural herder communities, ensuring complementary approaches without overlap. SMART Herders extends these concepts to rural livestock systems, focusing specifically on herder needs for climate-smart grazing, water management, and disaster preparedness. |

## G. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.

~~113.~~117. The project's knowledge management strategy is designed to capture, disseminate, and utilize information and knowledge generated throughout its implementation, especially through electronic and social media as well as local platforms available in the country. The project will make use of Mongolia's extensive system of internet users and social media. At the start of 2024, internet penetration stood at 83.9 percent and social media users stood at 72 percent.[33] Networking stakeholders through low maintenance social media and annual forums will be a cost effective and efficient system of disseminating information generated.

~~114.~~118. **key Documentary Series for National Climate Literacy:** Knowledge management is one of the core objectives of the current project**.** The project will produce a high-quality television and YouTube documentary series that will build national understanding of climate change and adaptation responses. This series will document project activities, showcase success stories, and highlight lessons learned. Broadcasting the series nationally and incorporating it into school curricula will ensure its accessibility to both rural and urban populations. Given Mongolia's harsh sub-zero winters, when both herders and urban populations are often confined indoors, television is a particularly powerful tool for fostering climate literacy. The documentary series will serve as an important medium for disseminating information, promoting a national consensus on climate impacts, and highlighting necessary adaptation strategies.

~~115.~~119. **Capturing and Sharing Best Practices:** The project also intends to systematically gather best practices and lessons learned from the diverse success stories emerging from project implementation. These insights will be shared through a national consortium that will be established to ensure that all stakeholders—from herders to policymakers—have access to this critical information. Furthermore, the lessons will contribute to Mongolia's participation in the **International Year of Rangelands and Pastoralists**, positioning the country as a leader in climate adaptation and resilience. This output guarantees that experiences and knowledge generated during the project are captured and shared, thus enhancing collaboration and ensuring the scalability of successful practices.

[33] Digital 2024. Mongolia.

~~116.~~120. The SMART Herders project has built into its design a systematic tracking and analysis mechanism to ensure that the experiences and lessons learned during project implementation are effectively captured, analyzed, and disseminated. This aligns with the **Adaptation Fund's Knowledge Management (KM) Framework**, which emphasizes building a body of knowledge, sharing lessons, and accelerating understanding of effective climate change adaptation interventions. The tracking mechanism is structured around key principles of **gathering, learning, generating, sharing, and applying** knowledge.

~~117.~~121. **Gathering and Organizing Data**: Throughout the project, relevant data, information, and insights from pilot activities will be gathered through the project's regular monitoring and evaluation (M&E) system. This data will focus on interventions such as sustainable pasture management, resilient livestock practices, and the adoption of climate-smart technologies. Digital tools and a centralized database will be employed to collect and organize the data, ensuring it is systematically stored and analyzed to identify the key trends emerging. The data will be presented in attractive graphs and put on the project website to highlight the trends.

~~118.~~122. **Learning from Project Activities**: The learning from project activities will be gleaned through a range of mechanisms that will build on the analysis of the data, focus group discussions on specific topics, discussions with key informants and research institutions and resource persons. Based on this interaction the project will also produce knowledge notes, case stories and policy briefs. These will be shared with stakeholders to identify the success and challenges of specific climate interventions and adaptation actions. This will contribute to an on-going learning process within the project and among stakeholders, enhancing adaptive capacity. By integrating continuous learning into the project's operations, new knowledge will be generated to refine interventions and improve future project activities.

~~119.~~123. **Generating New Knowledge Products**: The project will generate a series of knowledge products, including high-quality television and YouTube documentary series, periodic reports, and case studies that highlight best practices and lessons learned. These products will distil and present insights in a coherent manner, offering valuable knowledge to both local and global audiences, enhancing climate literacy, and supporting decision-making processes. This aligns with the **Adaptation Fund's focus on creating and distilling knowledge products to inform the global adaptation dialogue**.

~~120.~~124. **Sharing Knowledge Through Platforms and Forums**: The project's knowledge-sharing component will play a critical role in disseminating lessons learned. A national consortium will be established as a platform for multi-stakeholder engagement, allowing policymakers, herders, NGOs, and researchers to access real-time data and feedback on adaptation strategies. Additionally, annual consortium-building forums will facilitate the exchange of knowledge, policy feedback, and coordination. This process of **active sharing and dissemination** is a core pillar of the Adaptation Fund's KM strategy, ensuring the knowledge gained contributes to global adaptation efforts.

~~121.~~125. **Application of Lessons Learned**: The project's ultimate goal is to apply the lessons learned to improve the effectiveness of adaptation strategies across various scales. Knowledge gained from tracking the performance of interventions will inform future decisions, policies, and strategies, not only within Mongolia but also in international discussions on climate adaptation. By leveraging the findings from the project, stakeholders will be better equipped to scale up successful interventions and make evidence-based decisions that enhance climate resilience at multiple levels.

## H. Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

### National level and Aimag Level

~~122.~~126. Regular consultations were conducted in Ulaanbaatar and potential target prorvinces or aimags including Bayankhongor Aimag and Dundgobi Aimag.by the mission which visited the country in October, 2024. The objective of the consultations was to ensure that the design of the SMART-herder project was relevant for the target group of small herders and addressed climate change risks. The consultations were critical in understanding government priorities at the national and local level and in meeting with community women and men to better understand interventions that were appropriate for them. The findings from the

consultations were used for finalizing the project objectives, outputs and activities. Apart from holding extensive consultations at the local level (11) a round table consultation was held in Ulaanbaatar on 10 October 2024, with a wide range of senior Government representatives, development partners and NGOs. The overall concept of the project was discussed, and they provided valuable feedback on their ongoing programmes as well as advice for the SMART herder project based on their experience. Wrap-up meetings were held with the Government at the end of October to share the mission findings and finalize project design.

~~123.~~127. The selection of Bayankhongor and Dundgobi aimags and the 4 target soums (Khuld, Erdenedalai, Bayanlig, and Buutsagaan) was informed by a consultative process involving multiple stakeholders, including national and aimag-level authorities, herders' groups, and marginalized community representatives. The process prioritized regions with high climate vulnerability, marginalized populations, and feasibility for implementing climate-resilient practices. Extensive consultations conducted during the design mission in October 2024 ensured the project's alignment with the priorities of vulnerable herder communities and national policies. Key criteria included high climate vulnerability (dzuds in Bayankhongor, 70% desertification in Dundgobi), the presence of marginalized herder communities reliant on livestock, and feasibility for implementing climate-resilient practices. Stakeholder engagements in October 2024 and February 2024 involved government representatives, herders, and women's cooperatives, ensuring inclusivity and alignment with national priorities.

## Bayankhongor Consultations

~~124.~~128. Consultations with local government and herder communities took place by an earlier team from IFAD and UNIDO which visited the country between 4-6 February 2024. Meetings were held with local government included the Bayankhongor provincial government and Bombogor district level authorities as well as women and men herders. Discussions with the community and local officials focused on economic issues and potential actions to be taken by the project with a climate adaptation lens. The 2023-24 winter was quite severe across the country, herders and officials expressed their concerns that extreme cold weather was becoming more frequent. The broad consensus was that the herders needed more training for coping with winters and diversifying incomes. Overgrazing of pastures was noted as a serious concern and the Aimag was preparing a policy to deal with this including diversifying incomes through sale of camel milk. Women noted that they are mostly milking a special breed of red goat and making various dairy products. They suggested the project should focus on some aspects of better packaging and marketing of their dairy products which they know market locally for domestic tourists or via Facebook advertisements. As the herders are getting older, women and men noted there are labour issues for milking goats as well as combing cashmere. Marketing of cashmere and wool as well as dairy products appear to be a serious issue which needs to be resolved. District and provincial authorities noted new opportunities in the area including a future dam site that is expected to be developed in the next decade as well as a milk powder factory that has already been constructed and partially operational. Dam water is expected to be used for growing fodder and other crops. The provincial governor suggested camel milk production could be supported in order to supply milk to the milk factory as a good market.

## Consultations: Dundgobi

~~125.~~129. The IFAD and UNIDO mission visited the Dundgobi province (*aimag)* from 11 to 13 October 2024 during which a wide range of stakeholders were consulted. The group discussions and key informant interviews, including representatives of *aimag* agricultural department, women federation, Labor and Social Protection Division, wool processing factory and herders, were instrumental in informing the development of project interventions and the activities subsequently designed based on local community concerns and needs. The stakeholder consultations were gender focused with meetings being arranged with both herder men and women that were timed to be sensitive to their respective needs. The main concerns that emerged from the consultation process have been integrated into the project design. The group of herders met by the mission emphasized that small-scale processing facilities or equipment for animal products like wool, sheep skin, and other by-products would be highly beneficial for value addition. Currently, goat and sheep skins, cow leather, and other by-products, such as liver, kidney, and intestines, are largely wasted. The herders highlighted the critical need for improved market linkages and direct access, bypassing middlemen. They noted that meat prices are often determined solely through negotiations with intermediaries, leading

to significant costs before reaching the markets in Ulaanbaatar (UB). As a result, herders typically sell meat individually to Aimag-level middlemen.

~~126.~~130. To address this, herders suggested establishing meat cooling containers at the soum level. These would allow for meat collection and coordinated sales directly to processing factories in the capital, reducing the need to transport large numbers of live animals. Additionally, herders expressed frustration over frequently discarding animal skins due to the low prices offered. In contrast, domestic leather processing companies like Darkhan Nehii JSC and Darkhan Minj LLC, in discussions with the mission team in Darkhan city, expressed interest in purchasing high-quality, well-preserved skins at better prices, provided they are properly cooled and undamaged. Another key concern raised by the herders was the need to enhance early warning systems and improve winter preparedness measures, such as establishing emergency shelters and ensuring the availability of nutritious fodder for animals during harsh weather conditions. Herders also highlighted the social challenges they face, particularly during winter and spring. Many men are left alone to manage herding as their wives relocate to soum centers with young school-aged children. As a result, boys often stay behind to assist with herding, while girls are typically sent to soum centers for education. Additionally, discussions with cooperative members emphasized the importance of conserving the natural environment, as healthy pastures are vital to their livelihoods. In a separate meeting with the Governor, three soums were prioritized for the SMART Herders project. These soums have been identified and integrated into the project document, reflecting their significance for targeted interventions.

## Gender Consultations

~~127.~~131. At the start of the mission to Mongolia, a list of key agencies dealing with gender issues in Mongolia from within the Government, semi-Government, UN and Development partners, local NGOs and private sector were identified. Most of the key agencies were met physically and some virtually. In addition meetings were held in five Aimags that were expected to be potential target areas for the project (Annex 9). The design team met at the highest level with the representatives of the Government of Mongolia. This included meetings with the Office of the President, Ministry of Finance, Ministry of Food Agriculture and Light Industry, Ministry of Environment and Climate Change, the Integrated Policy and Planning Department, Ministry of Economy and Development, The mission also met with representatives from agencies who are part of the Government machinery dealing specifically wih gender issues. This included meetings with the representative of the National Committee of Gender Equality, Ministry of Family, Social Development and Labor, Ms.Enkhmunkh Otgontogtokh, Senior Specialist, Integrated Policy and Planning Department, Ministry of Economy and Development, Ms. Erdenetsetseg Sugar Senior Analyst, Climate Change Department, MET.

~~128.~~132. The mission also made it a point to meet women representatives of civil society organizations such as Ms. Altantuya Tseden-Ish, President, National Association of Mongolian Agriculture Cooperatives, Ms Burmaa Dashbal, Mongolian Federation of Pasture User Groups, Ms.S.Enkhtuya, President of the Union of Mongolian Production and Service Cooperatives (UMPSC). The mission also met with financial institutions such as the Khan bank, State Bank and SME fund to discuss special issues regarding women in the country and their access to finance. The mission also met focal points from several development agencies, Ms Tumenjargal Basan from the Climate Change and DRR specialist World Vision, Climate Resilient Communities Project, Ms. Matilda Dimovska, UNDP Resident Representative, Ms. Lin Cao, UNDP Deputy Resident Representative and representatives from the world Bank, Asian Development Bank, JICA and KOICA.

~~129.~~133. Meetings were organized with a large range of local government and line agency representatives, civil society, local men and women from the community. These meetings were held in Dundgobi Aimag, Ovorkhangai Aimag, Tov Aimag, Darkhan-uul Aimag and Bayanh]khongor Aimag. Meetings were held with Governors, Officers responsible for pastures and crop production, head of Food and Agricultural Departments, Labour and Social Protection Division, head of the State Registration Office, Mongolian Women's Federation, National Association of Mongolian Agricultural Cooperatives at the local level, representatives from the women's council, business organization Ikh-Oni wool washing company, and some herders' cooperatives. Meetings were also held with herders and representatives of women in herding communities. The mission had extensive meetings at the Aimag and Soum level. The stakeholder consultations were focused sharply on gender issues. These meetings were held separately and jointly with

women and men. The main concerns that emerged from the consultation process have been integrated into the project design. (See Annex 10)

## I. Provide justification for funding requested, focusing on the full cost of adaptation reasoning.

~~130.~~134. The project outcomes are specifically designed to address key gaps in adaptation and capacity building, which are essential for enabling Mongolia's herders to withstand the impacts of climate change. The project aligns with national development priorities outlined in the National Adaptation Plan (NAP) 2024, Mongolia's Vision 2050, and the Nationally Determined Contributions (NDC). By focusing on these areas, the project supports Mongolia's broader climate resilience strategies and the objectives of the Adaptation Fund.

~~131.~~135. The project interventions have been selected based on their ability to not only respond to immediate climate risks but also build the capacity of local communities to manage future climate challenges. These activities will act as foundational steps towards broader resilience efforts by reducing existing vulnerabilities and establishing a strong platform for future adaptation measures. By supporting small-scale, climate-resilient infrastructure**,** the project will also offer co-benefits, such as improving pasture management, enhancing livestock productivity, and developing early warning systems, all of which are critical for reducing the future costs of climate-related impacts.

~~132.~~136. Livelihood options for herder households are increasingly vulnerable due to the intensifying impacts of dzud**,** drought**,** and desertification. The project's activities will provide herders with the tools, knowledge, and resources to adapt to these climate challenges, ensuring that long-term resilience is built at both the community and institutional levels. Importantly, the project will also generate valuable insights and lessons learned that can be scaled up and integrated into national policies and strategies, thereby enhancing the sustainability of the interventions.

~~133.~~137. The requested funding for the project is justified by its focus on building climate resilience in Mongolia's vulnerable livestock sector. The activities funded under this project are expected to yield long-term benefits that will significantly reduce the costs of climate impacts, enhance community resilience, and contribute to Mongolia's efforts to meet its international climate commitments under the Paris Agreement.

**Table 9: Adaptation Fund Additionality**

| **Baseline Scenario** | **Alternative Adaptation Benefits ~~of the IESS-Adapt project~~.** |
|---|---|
| **Component 1: Implementing Medium-Scale Pilot Project for Capacity Building and Climate-resilient herding practices and technologies** | |
| Mongolia is highly susceptible to climate-induced disasters such as dzuds and droughts, which are exacerbated by rising temperatures and extreme weather patterns. These events, alongside overgrazing and water scarcity, are leading to the degradation of pasturelands and an increase in livestock mortality, threatening the livelihoods of herder households.<br>On the one hand, the low price of livestock raw materials leads to product waste and limits herders' ability to connect with markets, particularly for products like dairy. Due to these low prices, herders often feel compelled to increase livestock numbers to boost income and sustain their livelihoods. At | To break the "vicious cycle" in livestock production, which currently leads herders to maladaptive practices, one approach is to focus on increasing herders' income by enabling them to sell livestock products at fair prices. This can be achieved by supporting primary processing at the soum level and enhancing market linkages for herders. Within the framework of our project, these measures will be implemented as follows.<br>**Output 1.1: Collecting centres and other investments.** Establishing collection centers in each project soum, with internet connectivity for market linkage and payment systems integrated with financial institutions, will benefit approximately 4,000 herders. These centers will enable herders to increase income through improved market access and by joining cooperatives associated with the White Gold collection centers, which offer additional member benefits. The net economic value of these centers is estimated at around MNT 35 million per year, with further growth anticipated as primary processing adds value to the products. Furthermore, solar-powered pumping systems and water management infrastructure, such as berms and ponds, will help |

| Baseline Scenario | Alternative Adaptation Benefits ~~of the IESS-Adapt project~~. |
|---|---|
| the same time, as the frequency of dzuds and droughts rises, resulting in livestock losses each year, herders are motivated to replace lost animals, using livestock numbers as a buffer against environmental and climatic risks. This pattern indicates a "maladaptation approach", where increasing herd size to secure income and manage risk leads to overgrazing, further degrading pasture ecology. Consequently, livestock production has entered a "vicious cycle" where income generation and risk adaptation are mutually dependent, exacerbating ecological strain. | reduce livestock mortality from dzuds, droughts, and flash floods. The economic value of this mortality reduction is estimated to be around MNT 77 million per soum annually if the mortality rate decreases by just 3%. |
| | **Output 1.~~4~~2: Interactive Hands-On Herders' Field School (HFS) and advanced training on strategies and actions for dealing with climate change and enhancing adaptive capacities.** As part of the herders' capacity-building efforts, Herders' Field Schools (HFS) will deliver training on climate-smart livestock practices to approximately 4,000 ~~households~~herders, with a targeted 40% female participation. This initiative will empower herders to adopt specific measures for pasture improvement and protection by equipping them with knowledge on sustainable livestock management. Additionally, 12 intensive machine-shearing training sessions will be offered to enhance wool productivity and reduce wool-processing costs, labor, and time at processing plants.<br>Moreover, initiatives such as Home Food and Dairy Processing Workshops and Annual Income Diversification Programs are crucial for boosting herder household income and livelihood resilience. Through these programs, households will gain skills to produce and sell various dairy products from goat milk, potentially earning each household an additional MNT 1.6 billion annually—totaling approximately MNT 6 billion in added income across 4,000 households. |
| **Component 2: Knowledge Management and Knowledge Sharing** | |
| Mongolia is a vast country, and herders are widely dispersed, particularly in the Gobi region, where we have chosen to implement the project. The Gobi region experiences low rainfall, and climate change is significantly impacting this area, with increasing occurrences of droughts and dzuds, which pose serious risks to herders' livelihoods. Additionally, the region's rangelands are severely affected by desertification due to climate change, leading to declines in pasture yields and vegetation. Human factors, such as rising livestock numbers, overgrazing, and unsustainable pasture use—like staying in the same location year-round rather than practicing seasonal movement—are also contributing to this degradation. Recent research indicates that herders' education and experience influence herding practices and sustainable pasture use; studies highlight that herders with limited education and without capacity-building | To ensure sustainable pasture use and climate-resilient livestock farming, it is essential to empower herders through knowledge exchange, sharing best practices, and fostering collaboration. Alongside the project's primary component focused on increasing herders' income and market connections, measures to strengthen herder empowerment will also be implemented.<br>**Outcome 2.1 Strengthened Coordination and Technical Capacity for Climate-Informed Services to Herders.** By empowering herders in sustainable pasture management and climate-resilient livestock farming, creating opportunities for collaboration, knowledge-sharing, and aligning these initiatives with Component 1 activities, herders' incomes are projected to rise while livestock mortality decreases. This is expected to positively affect pasture yields and vegetation over time, allowing herders to transition gradually from "maladaptation" to "proper adaptation." Combining capacity-building activities with income-enhancing and adaptation strategies is anticipated to reduce livestock mortality by approximately 3% annually, resulting in an economic benefit of about MNT 77 million per soum. If these initiatives achieve even greater reductions in mortality, the economic benefits would increase accordingly.<br>**2.2: Established wide-reaching climate change and adaptation awareness among rural populations.** In addition to organizing capacity-building trainings for herders, raising awareness about climate change and adaptation among rural |

| Baseline Scenario | Alternative Adaptation Benefits ~~of the IESS-Adapt project~~. |
|---|---|
| training are more likely to suffer livestock losses from dzuds and other risks. | populations will have a positive impact on climate change adaptation efforts. Distributing knowledge products, including documentaries, reports, and case studies, to share lessons learned and best practices at both the national and international levels will further enhance opportunities for adaptation. This dissemination of information will allow other regions and countries to learn from successful experiences and integrate good practices into their daily lives. Furthermore, collaborating with scientific and research institutions to accurately assess the impacts, manifestations, frequency, and risks of climate change is crucial. This will support the government in developing and implementing a national climate change adaptation strategy. It is essential that local government organizations, the private sector, and citizens work together to determine effective methods for adapting to climate change and mitigating risks. |

## J. Describe how the sustainability of the project outcomes has been taken into account when designing the project.

138. ~~The SMART Herders Project has been designed to ensure the long-term sustainability of its outcomes by integrating strategies that encompass economic, social, environmental, and institutional sustainability, as well as ensuring financial viability for post-project activities. Lessons from similar projects, such as those outlined in the Sri Lanka UN-Habitat initiative, have been incorporated to develop a robust approach that guarantees the enduring benefits of the project~~ The SMART Herders Project has been designed to ensure the long-term sustainability of its outcomes by integrating strategies that encompass economic, social, environmental, and institutional sustainability, as well as ensuring financial viability for post-project activities. Lessons from other projects such as those outlined in the Mongolia UN-Habitat initiative (Disaster Risk Reduction and Urban Development), have been incorporated to develop a similar approach.

~~134.~~

~~135.~~139. **Economic Sustainability:** The project directly promotes the resilience of herder livelihoods by introducing climate-resilient livestock practices, improving market access for value-added livestock products, and strengthening income-generating activities through solar-powered water stations and sustainable pasture management. These interventions are aligned with the goals set out in Mongolia's National Adaptation Plan (NAP) 2024 and Vision 2050 Policy, ensuring that the project supports long-term economic growth in the livestock sector. Herders will be equipped with tools and technologies that reduce the impact of climate-induced shocks, such as dzuds and droughts, safeguarding their livestock and providing a foundation for sustainable income generation. By integrating innovative water management systems, fodder production, and sustainable grazing practices, the project reduces economic vulnerability and ensures that households can maintain livestock productivity even during extreme weather events.

~~136.~~140. **Social Sustainability:** The project emphasizes community ownership and inclusive participation, ensuring that the outcomes are deeply embedded within herder communities. By targeting vulnerable groups, including women, youth, and persons with disabilities, the project ensures that the benefits are equitably distributed across different sections of society. A minimum of 40% women's participation in decision-making and training activities will promote gender equity, empowering women to take active roles in climate adaptation strategies. Herders will participate in community consultations, Herders' Field Schools, and local adaptation committees, which will build local capacity and foster social cohesion. The social benefits will be sustained through continued knowledge-sharing platforms such as the National Climate Adaptation Stakeholders Database, Facebook pages, and YouTube channels, ensuring that best practices are widely disseminated.

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~~137.~~141. **Environmental Sustainability:** A central focus of the project is on improving the environmental sustainability of Mongolia's rangelands. The project introduces climate-smart technologies that support sustainable land use and pasture management, contributing to the long-term health of Mongolia's ecosystems. By restoring 50 hectares of degraded pastureland and establishing 40 hectares of fodder production systems, the project will reduce overgrazing and promote the regeneration of pasture ecosystems. The solar-powered water systems will improve water resource management, addressing both water scarcity and land degradation challenges. The project is fully compliant with Mongolia's Law on Environmental Protection (amended 2023) and the Law on Environmental Impact Assessment (LEIA), ensuring that all activities promote sustainable natural resource management and minimize environmental impacts.

~~138.~~142. **Institutional Sustainability**: The project has been designed to build institutional capacity at both local and national levels. By establishing 12 local adaptation committees and delivering 4,000 training sessions, the project strengthens the ability of institutions to guide and implement climate adaptation measures. These committees will play a key role in ongoing decision-making, ensuring that local governance systems are equipped to manage climate risks and implement sustainable practices. Additionally, the project is aligned with national strategies, including Mongolia's NAP 2024, NDCs, and Vision 2050 Policy, ensuring that the outcomes contribute to long-term national development goals. Office of the President and MECC (Ministry of Environment and Climate Change) will oversee the scaling of these initiatives beyond the project's duration, with lessons from the project feeding into broader governmental adaptation strategies.

~~139.~~143. **Financial Sustainability:** The project considers financial sustainability by ensuring that the systems and practices introduced are cost-effective and feasible for long-term adoption. The solar-powered water stations and sustainable grazing practices are designed to minimize operational costs while maximizing resilience benefits. The market access initiatives introduced through value-added products and livestock health improvements will increase household income, enabling herder communities to reinvest in sustainable practices without external financial support. A critical aspect of financial sustainability lies in the partnerships established with national institutions and local governments, ensuring that the necessary funding and resources are available for post-project continuation. Soum Development Funds will be leveraged to co-finance adaptation activities, ensuring that local governments have a vested interest in sustaining the project's benefits.

~~140.~~144. **Collective Sustainability**: Through knowledge-sharing platforms, community-based decision-making, and government partnerships, the project ensures that the gains made during the implementation phase are institutionalized and scaled up. The participatory approach ensures that herders take ownership of the initiatives, while policy feedback mechanisms ensure that lessons learned are integrated into national adaptation plans. Mass media dissemination, including documentaries and reports, will engage a broad audience, building public support for climate adaptation strategies that align with Mongolia's broader sustainability goals.

## K. Provide an overview of the environmental and social impacts and risks identified as being relevant to the project.

~~141.~~145. During the preliminary consultations that have taken place in the preparation of this proposal, and through the diligent application of precautionary principles, potential risks for further screening have been identified against the AF environmental and social principles, as well as IFAD's SECAP Principles. The proposal has been categorized as "B" in line with the Adaptation Fund Environmental and Social Policy (AF/ESP) and "Moderate" as per IFAD's SECAP guidelines.

~~142.~~146. The comparison of environmental and social (E&S) risk screenings and categorizations between IFAD and the Adaptation Fund (AF) reveals distinct gaps in scope, depth, and approach. While both frameworks aim to identify and mitigate potential risks, AF's screening focuses on thematic compliance and broader principles, while IFAD's focuses on sector-specific and operational risks.

~~143.~~147. IFAD's screening includes several questions under each standard that delves into specific categories, including invasive species, genetically modified organisms, labor influx, and zoonotic diseases. It integrates specific sectoral risks, including aquaculture, livestock, forestry, and energy, with targeted

mitigation measures. In contrast, AF's checklist adopts a higher-level approach, addressing thematic areas like compliance with the law, access and equity, and marginalized group inclusion.,

~~144.~~148. Consistent with AF's Envirnmental and Social Policy and IFAD's SECAP Requirements for Category B/Moderate Risk, the project developed an ESMP, a SEP and a GRM.

~~145.~~149. The main Environmental, Social, and Climate Risks Identified during the screening are described below and a detailed description of risks and proposed mitigation measures is included in Annex 5 (ESMP).

**Environmental Risks:**

- Potential pollution from livestock waste and construction of collection centers.
- Need for site-level assessments to mitigate impacts on natural habitats and ecosystems.
- Risks to soil conservation during pasture management.

**Social Risks:**

- Vulnerable Groups Inclusion: Risks related to gender equity and marginalization of women and youth were identified. The project mitigates these by ensuring at least 40% female participation in training and leadership roles, empowering women through scholarships, and creating youth-focused capacity-building programs (Component 2, Outcome 2.1).
- Addressing labor risks, such as child labor or poor working conditions in rural project areas.
- Stakeholder Engagement: A Stakeholder Engagement Plan (SEP) and Grievance Redress Mechanism (GRM) have been established to address potential community grievances, ensuring inclusivity and transparency in project implementation (Annex 5).

**Climate Risks:**

- Moderate Climate Risks: Identified hazards include extreme weather events such as dzuds and droughts. These are mitigated by improving pasture resilience, establishing early warning systems, and integrating sustainable grazing practices (Section K).

~~146.~~150. An assessment and preliminary Environmental and Social Management Plan (ESMP) is included and will be further refined once the sub-projects are knwon, and prior to implementation of any project activities. The envrionmental and social screening of the proposed project concludes the proposal is **Category B**. This is because, while risks have been identified, they are expected to be small-scale, reversible and easily mitigated with well known and easy to implement management measures. This assessment will be re-confirmed during early implementation, along withthe Environmental and Social Management Plan (ESMP), (including budget and roles and responsibilities for project personnel.

~~147.~~151. Consistent with IFAD's SECAP Procedures, the project developed an ESCMP, a SEP and a GRM. As specific project sites are defined, the project team will conduct site-specific screening and stakeholder mapping, to assess and identify relevant mitigation measures. M&E Plans will include monitoring of ESMP implementation. Table 10, below, shows the preliminary risks identified so far and Annex 5 includes a Assessment of the identified potential risks in relation to the proposal activities and local context, as well as the ESMP.

**Table 10: Checklist of Compliance with AF Environmental and Social Principles**

| Checklist of environmental and social principles | No further assessment anticipated required for compliance | Potential impacts and risks – further assessment and management required for compliance |
|---|---|---|
| Compliance with the Law | ~~x~~ | X |
| Access and Equity | x | |
| Marginalized and Vulnerable Groups | x | |
| Human Rights | ~~x~~ | X |

| Checklist of environmental and social principles | No further assessment anticipated required for compliance | Potential impacts and risks – further assessment and management required for compliance |
|---|---|---|
| Gender Equity and Women's Empowerment | X | |
| Core Labour Rights | | x |
| Indigenous Peoples | x | |
| Involuntary Resettlement | x | |
| Protection of Natural Habitats | | X |
| Conservation of Biological Diversity | ~~x~~ | X |
| Climate Change | x | |
| Pollution Prevention and Resource Efficiency | | X |
| Public Health | ~~x~~ | X |
| Physical and Cultural Heritage | ~~x~~ | X |
| Lands and Soil Conservation | ~~X~~ | X |

~~148.~~152. The proposal recognizes that certain project activities, as well as the exact locations of pilot interventions, will be determined during the initial phase of implementation through a comprehensive consultation process with local stakeholders. This flexibility is necessary to accommodate the unique ecological, social, and economic conditions of the various aimags and soums that may be selected for project implementation.

~~149.~~153. Under Component 2, the specific adaptation practices and technologies to be implemented at each pilot site will be defined through detailed community consultations and participatory planning sessions. These activities include, but are not limited to, the types of pasture restoration techniques, climate-resilient livestock practices, and supplementary feeding systems to be employed. Given that the needs and priorities of herder communities can vary significantly depending on local climatic conditions, grazing patterns, and socio-cultural factors, it is essential to maintain flexibility in the design of these sub-projects.

~~150.~~154. The final selection of the two pilot sites in the Steppe and Gobi eco-regions will also be determined through further assessments during the project's initial implementation phase. This approach ensures that the sites are selected based on the latest data on climate vulnerability, ecological degradation, and community readiness. The use of USPs in this context will allow the project to target the most suitable and high-impact areas, thereby enhancing the effectiveness of the adaptation interventions.

~~151.~~155. **Justification for USPs:** The following justification is structured for the this project

- **Necessity of USPs in Mongolia:** Mongolia's climate adaptation needs are highly localized, with vulnerabilities varying significantly across regions and communities. Predefining exact locations and activities at the design stage is impractical due to: Dynamic climate conditions (e.g., dzuds and droughts) affecting target regions differently.

  **Ecological variability**: The Steppe and Gobi regions are affected by highly localized climate hazards, such as dzuds, droughts, and overgrazing-induced land degradation.

  **Socio-economic diversity**: Vulnerability differs significantly across herder communities, influenced by factors like access to resources, infrastructure, and gender equity.

  Pre-determining all intervention sites at the design stage would lead to sub-optimal outcomes, as evolving climate conditions and real-time data must guide decision-making.

  **Participatory Design Philosophy**:

  The project's design is participatory, ensuring that herder communities, local authorities, and other stakeholders are involved in prioritizing interventions.

USPs enable this approach by allowing communities to identify their needs and propose solutions during the implementation phase, fostering local ownership and relevance.

**Adaptive and Scalable Solutions**:

By including USPs, the project can dynamically allocate resources to areas with the highest need and potential impact, based on updated assessments.

USPs also ensure scalability by enabling iterative learning and adjustments during implementation, aligning with best practices in climate adaptation.

- **By including USPs, the project retains flexibility to:** Respond dynamically to updated climate vulnerability and socio-economic data. Optimize resource allocation by targeting areas with the highest adaptation potential.

~~152.~~156. The Mongolia project incorporates an Environmental and Social Management Plan (ESMP) with detailed provisions for (see Annex 5):

- IFAD will provide comprehensive supervision and oversight of both Executing Entities (Office of the President and UNIDO) throughout the implementation of the Environmental and Social Management Plan (ESMP).
- Risk screening against the 15 ESP principles.
- Stakeholder consultations to ensure culturally appropriate, community-supported activities.
- Integration of USP activities into broader project goals.

157. **Classification of USPs:**

158. Upon review it was determined that the project will have partially unidentified USPs related to project location. Project activities have been defined to a point that they will not be considered undefined. 'USP' in this current proposal therefore refers to:

| Type of USP | Description in the Mongolia Proposal |
|---|---|
| **Partially unidentified: specific activity identified, location to be determined** | Activities such as solar-powered water systems, grazing practices, and fodder plots are defined, but exact locations will be selected through participatory assessments during implementation. |
| ~~**Fully unidentified, within a fixed framework**~~ | ~~Activities like capacity building linked to White Gold Centres are flexible but operate within clear eligibility and exclusion criteria defined in the ESMP.~~ |

~~153.~~159. **Alignment with AF Guidelines**

- **Framework Inclusion:** A detailed ESMP ensures that the process for screening, managing, and integrating USPs aligns with the AF's guidance, as demonstrated in Annex 3 of the proposal.
- **Risk Mitigation:** Comprehensive steps ensure risks are managed effectively, from initial screening to implementation, with a strong focus on community engagement and compliance with the 15 ESP principles.
- **Transparency and Accountability:** Clear roles, responsibilities, and grievance mechanisms ensure that USP implementation remains transparent and community centric.

~~154.~~160. The project will employ a structured framework to define and manage these USPs. During the inception phase, the following steps will be undertaken to refine the USPs:

**Step 1: Stakeholder Mapping and Engagement:** The project team will conduct a comprehensive stakeholder mapping exercise in each potential project area. This will include consultations with local herder groups, community-based organizations, government representatives, and other relevant actors to identify priority areas and activities.

**Step 2: Site Selection and Environmental and Social Risk Assessment:** For each potential pilot site, an initial environmental and social risk assessment will be conducted. This assessment will consider the ecological sensitivity of the area, the potential social impacts on local communities, and alignment with the Adaptation Fund's Environmental and Social Policy (ESP) and Gender Policy (GP).

~~**Step 3: Defining USP Activities through Participatory Planning**~~**:** The specific adaptation practices and technologies for each pilot site will be determined through participatory planning workshops involving local communities. This process will ensure that the selected activities are both culturally appropriate and technically feasible, minimizing potential environmental and social risks.

**Step 4: Integration into the Environmental and Social Management Plan (ESMP):** Once the USPs are defined (specific sites selected), they will be integrated into the project's Environmental and Social Management Plan (ESMP). The ESMP will outline the risks associated with each USP, as well as the measures to mitigate or manage these risks. This will include specific provisions for gender-responsive consultations and the use of disaggregated data to assess the impacts on vulnerable groups.

~~155.~~161. **Framework for Risk Assessment and Management of USPs:** ~~Given the inherent uncertainties associated with USPs, T~~the project will adopt a robust risk assessment framework that ~~can be further developed at the full proposal stage. This framework~~ will include the following elements:

**Risk Identification and Screening:** For each USP, risks will be identified using the 15 ESP principles. These include assessing potential impacts on natural habitats, , and vulnerable communities. A preliminary risk screening will be conducted during the project's inception phase, and this screening will be updated as more information becomes available.

**Risk Assessment and Impact Analysis:** For USPs that are found to have moderate to high environmental and social risks, a detailed impact analysis will be conducted. This analysis will be carried out in consultation with any affected communities, ensuring that their concerns and suggestions are incorporated into the final design of the activities.

**Risk Management Measures and ESMP Integration:** The project's ESMP will be updated to include tailored risk management measures for each USP. This will involve developing specific guidelines for implementing partners on how to avoid, minimize, or mitigate the identified risks. The ESMP will also outline the roles and responsibilities of the Implementing Entity (IE) and the Executing Entities (EEs) in ensuring compliance with ESP and GP standards.

**Monitoring, Evaluation, and Reporting:** A dedicated Monitoring and Evaluation (M&E) plan will be developed for the USPs, including indicators and targets that are disaggregated by gender and other

**Table 11: : Environmental and Social checklist**

| Checklist of environmental and social principles | No further assessment required for compliance | Potential impacts and risks – further assessment and management required for compliance |
|---|---|---|
| Compliance with the Law | ~~x~~ | **Low risk (C):** The project will adhere~~s~~ to the country's Law on Environmental Impact assessment (EIA), as well as ~~all~~ applicable national and sectoral laws, policies, and strategies in full compliance regulations, ensuring timely completion of any relevant requirements to avoid administrative delays~~.~~<br><br>~~The SMART-Herders project will adhere to both national and international legal frameworks on environmental protection, labour, and pasture management, and ensure all relevant~~ |

| Checklist of environmental and social principles | No further assessment required for compliance | Potential impacts and risks – further assessment and management required for compliance |
|---|---|---|
| | | ~~permits in relation to the construction of the collection centres are applied.~~ |
| Access and Equity | x | ~~Low~~ No **risk (C):** The main objective of this project is to enhance access to information, knowledge, and technologies in a fair manner, and to promote inclusive decision-making and policy processes. Through the implementation of the targeting approach, the project will ensure equitable access to benefits of the intervention. |
| Marginalized and Vulnerable Groups | x~~X~~ | **Low risk (C):** The project's main goal is to promote social inclusion and gender responsiveness in decision-making and policy processes. As a result, it supports the involvement of marginalized and vulnerable groups in these processes. The Stakeholder Engagement Plan (SEP) added in Annex 5 (B) will be refined during startup phase which will ensure that further consultations will be considered for social inclusionin relevant areas. Vulnerable groups, vulnerability factors and differentiated measures to address any disproportionate impact will be consistently identified and implemented. |
| Human Rights | ~~x~~ | ~~No~~ Low **risk (C):** The project interventions and approach will be implemented in respect of human rights, including sustained access to information and consultation. |
| Gender Equality and Women's Empowerment | x | **Low risk (C):** The primary objective of the project is to encourage gender responsiveness and empower women by involving them in decision-making. The project aims to identify climate-resilient technologies and practices that are gender-responsive. However, it is necessary to conduct a thorough assessment, and the project should develop a clear gender action plan to achieve its goals.. |
| Core Labour Rights | | **Low risk (C):** The project fully respects international and national labour laws and codes. However, the activities will take place in rural areas yet to be defined, which will require further assessment on potential labor risks, including the possibility of child labour or poor working conditions in some areas.<br>Once sub-project locations are known, this will be reassessed in line with local conditions. Relevant mitigation measures will be included in the ESMP. |
| Indigenous Peoples | x | **No risk (C):** Government of Mongolia has prioritized Steppe and Gobi ecosystems strongly threatened by climate change. The Gobi region and aimags (provinces) include Dundgobi and Umnugobi. The AF will be implemented in these aimags. These areas do not have ethnic minority groups such as Kazakhs, Uyghurs, Uzbeks, Tuvinians, Urianhais, and Hotons. Therefore, this will be considered no risk. |
| Involuntary Resettlement | X | **No risk (C):** No project activities are anticipated to entail economic nor physical resettlement, both permanent or temporarily. |

| Checklist of environmental and social principles | No further assessment required for compliance | Potential impacts and risks – further assessment and management required for compliance |
|---|---|---|
| Protection of Natural Habitats | | **Low risk (C):** The project aims to restore and protect natural habitats and ecosystems. However, a site-level assessment is necessary to address potential negative impacts, once sub-project sites become known. |
| Conservation of Biological Diversity | ~~x~~ | **Low risk (C):** The activities foreseen in the context of this proposal do not entail a risk for conservation of biological diversity. As project areas are proposed, further screening will be conducted to ensure no indirect impacts on biodiversity. ~~,~~ |
| Climate Change | X | **Moderate risk (B):** The project aims to mitigate the risk of maladaptation to climate change by showcasing alternative practices and assessing the impacts at the pilot site level. However, further analysis is necessary to fully understand the potential intervention options, their effectiveness, and any maladaptive risks. This will help us ensure positive outcomes and avoid any negative consequences. |
| Pollution Prevention and Resource Efficiency | | **Low risk (C):** The project's activities, such as livestock management and fodder production, will be monitored for potential pollution (e.g., water contamination from livestock waste) and inefficient use of natural resources, as well as the construction of the collection centres. In any case, the pollution associated to the proposal are anticipated to be of low volume and non-hazardous, which can be easily managed through the mitigation measures **(ESMP)** already known and implemented in the area. |
| Public Health | ~~x~~ | **Low ~~No~~ risk (C):** ~~No activities in this proposal are anticipated to represent a risk to health.~~There are minor risks to health in relation to livestock management that may entail minor risks. Relevant mitigation measures will be conducted |
| Physical and Cultural Heritage | ~~x~~ | **No risk (C):** As project sites become known, a screening will be conducted to ensure no adverse impacts on any areas ~~No activities will be implemented in areas~~ that entail an impact to physical and cultural heritage, both tangible and intangible. |
| Lands and Soil Conservation | | **Low risk (C):** The project's pasture management practices will be selected to ensure soil conservation and land restoration. Any potential risks will be further assessed in the context of specific sub-projects, once identified. If adverse impacts are anticipated, an alternative site will be selected. |

~~156.~~162. The Project proposed herein can be considered aligned with the Adaptation Fund's Environmental and Social Policy (ESP). It has been designed to generate positive economic, social and environmental outcomes. To achieve these, it will use contributions made available by local and national authorities and participating institutions. Further, the project intends to incorporate best practices from other projects, while simultaneously prioritising contributions made by women and marginalized, vulnerable groups that are included among the target population. The proposed adaptation and actions will be selected together with beneficiary farmers and participating institutions, thus ensuring they are culturally and locally appropriate.

~~157.~~163. During the project start up phase, a comprehensive Environmental and Social Risk screening will be carried out, involving all relevant stakeholders at Aimag and Soum (local) levels. This process will ensure that potential risks are identified early on and addressed in a participatory manner, and will guide the site selection to ensure no adverse impacts to natural habitats, cultural heritage sites, or any other sensitive receptor that could be impacts by project activities is in the area. Stakeholder consultations will be recorded to ensure transparency, and the validation of the Stakeholder Engagement Plan (SEP) and the Grievance Redress Mechanisms (GRM) will ensure continuous and transparent engagement.

~~158.~~164. The project team will also follow IFAD's gender policy and guidelines by collecting gender-disaggregated data during project preparation and ensuring that stakeholder consultations are gender-responsive. Special attention will be given to the timing, format, and location of consultations to encourage full participation by women and other vulnerable groups.

165. The ESP principles addressed in this ~~project concept note~~proposal will be further refined during the early implementation phase (inception workshop, start-up mission) ~~design phase (mission)~~ to reflect the risks associated with each principle, as outlined in the previous section. These risks will be assessed without considering mitigation measures or expected project outcomes during the screening process. A detailed assessment of each principle will be conducted to ensure full compliance with the Environmental and Social Policy of the Adaptation Fund. The ESMP describing the risk mitigation actions required for compliance with the ESP is included as part of the fully-developed proposal in **Annex 5.**

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~~159.~~166. The ESMP has not yet been made available for public consultation due to ongoing site selection processes. Once the site selection is finalized, and considering that the ESMP is a dynamic, living document, the inception phase of the project will be used to conduct inclusive public consultations. Care will be taken to ensure the process is accessible to all stakeholders, and the consultation process will be thoroughly documented to ensure transparency and accountability.

## PART III: IMPLEMENTATION ARRANGEMENTS

### A. Describe the arrangements for project/programme implementation.

~~160.~~167. The project will be implemented by the International Fund for Agricultural Development and executed by the Project Management Unit (PMU) of the Project for Market and Pasture Management Development (PMPMD) of the President's Office. The PMPMD is an on-going IFAD financed project with its own separate implementation arrangements which will be distinct from the implementation arrangements of the Adaptation Fund's SMART-HERDERs project although some synergies will be built between the two initiatives. The Project Steering Committee (PSC), chaired by the President's Office, will provide overall policy guidance and approve the Annual Work Plan and Budget for the AF project. The PSC will include representatives from the Ministry of Finance, Ministry of Economic Development, Ministry of Food, Agriculture and Light Industry, Agriculture and Light Industry, Ministry of Environment and Climate Change, and UNIDO. The Project Coordinator, who heads the PMU, will serve as the Secretary of the PSC.

168. The PMU of the PMPMD of the President's Office will be established to implement the SMART-HERDERS programme financed by the Adaptation Fund. The SMART-HERDERS project has two components. Component 1, which includes the on-ground implementation of the adaptation pilot activities at the local level will be undertaken by the Governor's Office at the Aimag level. They will report on the progress of the project implementation on the adaptation pilot activities to the PMU. The project activities of Component 1 will be further delegated to the relevant Aimag and Soum government departments for planning, implementation, support, and monitoring. Local governments are expected to commit to replicating the same level of investment as piloted by the project. Component 2, which consists of knowledge generation, management, and dissemination activities, will be undertaken by the PMU (see Figure 6).

169. UNIDO will provide technical assistance to the project implementation under its Component 1 in close coordination with the Office of the President and Aimags. UNIDO has been a long-time impartial and neutral technical assistance partner in Mongolia since 1970. More recently, UNIDO implemented two successful projects (EU funded Support to Employment Creation in Mongolia - SECIM and WB funded Export

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Development Project - EDP) in support of government objectives and goals. UNIDO provides access to international experts and best practice models while objectives and activities of this project build on the developments of national and international projects. Also attached Annex 13 (Letter from the Government – Office of the President inviting UNIDO to provide Technical Assistance for this project in Mongolia.)

The SECIM project focused on improving the supply and value chains for producers and processors in the livestock sector, while EDP created an enabling environment of the national capacity of accreditation and conformity assessment services and supported the private sector competitiveness for value added exports of livestock commodities in compliance with environmental and quality standards.

UNIDO's new project funded by the GEF on "Promoting cleantech innovation and entrepreneurship for green jobs in Mongolia" within the framework of the Global Clean Technology Innovation Programme (GCIP) complements the Smart Herders project in terms of the climate mitigation and contribution to the NDCs aligned with the NAP.

UNIDO was requested by the Government of Mongolia (Office of the President) to provide technical assistance to the Smart Herders project implementation (Attached the official request letter) building on its long-standing experience and concrete results achieved in Mongolia based on its national and international technical expertise.

UNIDO is exempt from direct taxes, including value added tax (VAT) and customs duties for inputs to the Smart Herders project. This exemption is granted by the UNIDO Constitution and the Conventions on the Privileges and Immunities of the United Nations.

UNIDO and IFAD are committed to developing joint programming and projects within the framework of the United Nations Sustainable Development Cooperation Framework (UNSDCF) for the period 2023-2027. This collaboration will align with their respective Country Strategy documents.

~~161.~~170. ~~UNIDO will provide overall technical support to the project implementation.~~ The President's Office will sign an agreement with UNIDO for overall technical support to the project. The President's Office will also undertake the overall functions of project, financial management, and procurement.

**Figure 6: SMART-HERDERS Organogram**

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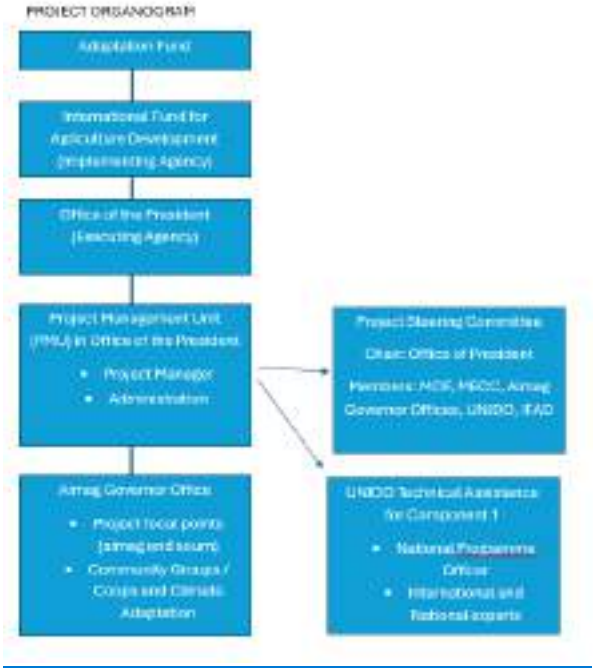


IFAD, as the Implementing Agency, reports to the Adaptation Fund and supervises the execution of the project, ensuring alignment with the Fund's Environmental and Social Policy and Gender Policy. The Office of the President, as the Executing Entity, reports to IFAD and manages the Project Management Unit (PMU), which is responsible for day-to-day project implementation. The Project Steering Committee (PSC), chaired by the Office of the President and including members from key ministries (e.g., MoF, MECC), UNIDO, and IFAD, provides oversight and strategic guidance to the PMU.

UNIDO, providing technical assistance for Component 1, works closely with the PMU and reports on technical deliverables and implementation progress. The Aimag Governor Offices and Soum-level Working Groups represent decentralized governance, serving as focal points for community engagement, grievance redress, and implementation of project activities at the local level. The revised structure emphasizes transparency, accountability, and streamlined coord As requested by the Office of the President (see Annex 13), UNIDO, will provide technical assistance for Component 1, working closely with the PMU and reports on technical deliverables and implementation progress. UNIDO's extensive national and international experiences, many of which form the foundation for this project, will ensure neutral and impartial technical support in areas currently not developed in Mongolia.

The Aimag Governor Offices and Soum-level Working Groups represent decentralized governance, serving as focal points for community engagement, grievance redress, and implementation of project activities at the local level. The revised structure emphasizes transparency, accountability, and streamlined coordination, ensuring all stakeholders understand their roles and the mechanisms for reporting and supervision across levels.

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~~162.~~171. The PMU will oversee day-to-day project implementation and ensure good coordination with key stakeholders to achieve project objectives. It will also facilitate efficient communication, manage risks to mitigate potential project disruptions, and ensure compliance with legal, environmental, and social standards. The PMU of the President's office will be responsible for overall project monitoring and evaluation and will have the responsibility for the collection of the reports from the Aimags and UNIDO and present a consolidated report to IFAD. PMUs will be responsible for overall financial management as well as internal control systems within the project. Procurement of goods works and services will be undertaken in accordance with the provision of the Mongolia's Procurement Law to the extent they are consistent with the provisions of IFAD's Procurement Guidelines, 2019 and Handbook, 2020 and as amended from time to time and as per the issued Project Procurement Arrangement (PPA) letter.

~~163.~~172. **Implementation Arrangement Alignment with AF Gender Policy.** The implementation arrangements will be in full compliance with the AF Gender Policy. The project will at all times consult with stakeholders in a gender responsive and inclusive manner. The project will actively support the increased participation of women as important stakeholders and will guarantee their inclusion, concerns and abilities in project planning, implementation and monitoring and evaluation. The project will follow some concrete principles on gender-responsive participation and consultation as detailed below.

- The project will consult male and female beneficiaries separately and in mixed groups.
- Gender appropriate times and locations of consultation meetings will be arranged so as not to exclude or otherwise disadvantage women.
- Appropriate ways of communication will be adopted that will take into account that there are gender differences in access to information technology, mobility, assets, decision-making and labour force participation.
- Minimum quotas for women have been set.
- Appropriate meeting formats will be applied for example some meetings, workshops or trainings will be conducted by female staff to increase women's level of comfort to actively participate.
- The project will make a targeted effort to include the institutions which deal with women such as the Ministry of Family, Social Development and Labor. The National Committee on Gender Equality which has oversight of measures being undertaken for securing women's rights. The National Council on Women's Issues which was established in 1996 as the agency responsible for monitoring the implementation of the National Programme for the Advancement of Women (NPAW). The Minister for Health and Social Welfare is the head of the National Council on Women's Issues. Experts of the Human Development Division of the Ministry's Strategic Management and Planning Department are in charge of women's affairs.[34]
- There are focal points for women's issues in the 21 aimags and city district governors' offices at the local level who will be consulted regularly for coordination and synergies.

## B. Describe the measures for financial and project risk management.

**Financial Risk**

173. **Fiduciary and financial risks at Country Level**. Mongolia's country risk is rated as substantial according to Transparency International's (TI) Corruption Perception Index (CPI), with a slightly lower score of 33/100 in 2023 compared to 35/100 in 2021. The International Bank for Reconstruction and Development (IBRD) / The World Bank conducted its most recent Public Expenditure and Financial Accountability Assessment (PEFA) in 2021. The analysis in the report shows an improvement in the performance of PFM systems over time. A comparison of the results of the 2021 PEFA with the 2015 PEFA, using the 2011 framework as a common benchmark, show a general improvement in the scoring of the performance indicators. The assessment showed improved scoring in 12 performance indicators, 13 remain unchanged,

[34] Women in Mongolia: Mapping Progress under Transition. UNIFEM. 2001.



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while only 3 indicators showed a deterioration. In 2023, Mongolia delivered a robust economic performance and is projected to grow by 6 per cent through fiscal expansion as the mining sector expands and private consumption recovers {The 2024 Approved Budget of Mongolia}. There was a large increase in revenue due to the mining sector's performance and economic growth. Fiscal expenditures also increased, and in June 2023 a supplementary budget was approved to cover increased public sector wages, social insurance pensions and benefits, welfare programmes and universal coverage of the Child Money Programme. Despite these measures, debt and fiscal risks still persist {Mongolia Economic Outlook, November 2023, World Bank}. According to the World Bank, robust economic recovery and rising wages will contribute to household welfare and poverty reduction while double-digit inflation has eroded real household income. By using the lower middle income poverty line at US$ 3.65 (2017 PPP), poverty in 2023 is projected to fall to pre- pandemic levels at 6.3 per cent {Mongolia: Macro Poverty Outlook - October 2023, World Bank}.

174. **Fiduciary risks at IFAD Portfolio level**. There was only one IFAD project in the country, the Market and Pasture Management Development Project (PMPMD), with a financial closure date of September 30, 2024. The additional financing for PMPMD was approved by the IFAD Executive Board in May 2024; however, it is still pending for the ratification by the Mongolian parliament. According to the IFAD's last supervision mission in 2022, the mission evaluated the project's financial management systems and determined that the FM inherent risk was substantial. Finance staff at the project level received extensive training in the usage of both the project's accounting software and the IFAD Client Portal-FE module. Furthermore, the FM team has the requisite educational qualifications, extensive professional experience, and is well-versed in the IFAD financial reporting procedure. A detailed AWPB has been developed for fiscal years on time in order to assess performance against budgets, both physical and financially progress. The Project's designated accounts have been kept separate for grant and two loans funds. The MoF releases the funds from both sources (Government and IFAD), resulting in no delays in release/payments. The effectiveness and efficiency of internal controls over project expenses, including the segregation of incompatible duties, were adequate. In addition, the project's implementation manual (PIM) is extensive and well-designed. The project's accounting software, which was opened in a web platform and is online connected to the National Treasury GFMIS "E-Huulga" (E-Account) and reports to Treasury / MOF were sent on time. Throughout the fiscal years, the Project recorded financial transactions using the IPSAS cash basis of accounting. Furthermore, the project also submitted quarterly interim financial reports on a quarterly basis, and unaudited audit reports are often submitted to IFAD on schedule. All external audits were completed by private firms selected through a competitive process. Except for the final audit, the project submitted all of its audit reports to IFAD on time.

**Financial Risk**

175. **Fiduciary and financial risks at Country Level**. Mongolia's country risk is rated as substantial according to Transparency International's (TI) Corruption Perception Index (CPI), with a slightly lower score of 33/100 in 2023 compared to 35/100 in 2021. The International Bank for Reconstruction and Development (IBRD) / The World Bank conducted its most recent Public Expenditure and Financial Accountability Assessment (PEFA) in 2021. The analysis in the report shows an improvement in the performance of PFM systems over time. A comparison of the results of the 2021 PEFA with the 2015 PEFA, using the 2011 framework as a common benchmark, show a general improvement in the scoring of the performance indicators. The assessment showed improved scoring in 12 performance indicators, 13 remain unchanged, while only 3 indicators showed a deterioration. In 2023, Mongolia delivered a robust economic performance and is projected to grow by 6 per cent through fiscal expansion as the mining sector expands and private consumption recovers {The 2024 Approved Budget of Mongolia}. There was a large increase in revenue due to the mining sector's performance and economic growth. Fiscal expenditures also increased, and in June 2023 a supplementary budget was approved to cover increased public sector wages, social insurance pensions and benefits, welfare programmes and universal coverage of the Child Money Programme. Despite these measures, debt and fiscal risks still persist {Mongolia Economic Outlook, November 2023, World Bank}. According to the World Bank, robust economic recovery and rising wages will contribute to household welfare and poverty reduction while double-digit inflation has eroded real household income. By using the lower middle income poverty line at US$ 3.65 (2017 PPP), poverty in 2023 is projected to fall to pre- pandemic levels at 6.3 per cent {Mongolia: Macro Poverty Outlook - October 2023, World Bank}.

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**Fiduciary and Financial risks at project level.** The SMART-HERDERS project will adopt the same financial management and flow of funds architecture of the previous project, based on the excellent performance of the previous project. Therefore, the financial management risk at design of this project is also considered substantial.

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~~164.~~177. There were several risk factors that were reviewed which included regional stability, political commitment, macro-economic factors and financial and project management capacity. Mongolia faces security concerns related to its geopolitical position between Russia and China. Political tensions or conflicts in the region can potentially impact Mongolia's stability and security, especially in terms of trade, investment, and foreign relations. Furthermore, economic vulnerabilities, such as high levels of debt, over-reliance on mining, and limited economic diversification, pose risks to Mongolia's long-term stability and resilience. These factors can make the country susceptible to external shocks and economic instability. However, the situation has been stable, and the current level of this risk is rated as low. A new government took over in June 2024 and there were some concerns raised about the level of risk that the project faces due to lack of government commitment. However, it was assessed that given the prevailing political landscape in Mongolia, the probability of significant policy alterations within the agriculture sector are deemed to be minimal. During the project proposal there was a high level of government commitment for the proposed project. Mongolia faces challenges in implementing climate actions due to fragmented, discontinuous, and conflicting climate policies. However, there was strong commitment demonstrated by the Office of the President and relevant Ministries for strengthen existing policies and programmes with regards to the risks posed to the agriculture sector particularly food security.

~~165.~~178. There were also concerns raised regarding the capacity for project management. However, the risk level associated with the team's capacity to deliver the project is rated as low. The P~~p~~resident's Office has assumed the overall responsibility for the project and will be supported by the IFAD and UNIDO which has considerable experience in the project implementation and extensive expertise in engaging in the livestock sector. The strategic partnership with UNIDO aims to not only enhance the capacity of the Project Management Unit in adopting a market-led approach but also to guarantee the efficiency and success of project implementation initiatives on implementing pilot initiatives and knowledge management and sharing.

~~166.~~179. There will be close supervision and monitoring of the arrangements to ensure there are no delays in the process. Staff will also be trained in procurement at the outset to ensure there is clarity on all aspects of procurement. Financial management risks were extensively reviewed during the preperation of the proposal by the financial management and procurement specialists of IFAD. Annex 6 provides more details on the quality at entry of these elements. IFAD is comfortable that it has put in palce arrangements that will ensure efficient and cost-effective implementation of the project. Public procurement in Mongolia is governed by the Law of Mongolia on procurement of Goods, Works and Services with State and Local Funds and its Regulations (December 2023). The national framework is of high quality, achieves the

established IFAD procurement principles and is generally consistent with international and IFAD standards. There is a clearly determined legal hierarchy with international obligations taking precedence in case of conflict with domestic law. Mongolia's procurement methods are sufficient to meet the full range of project needs with clear conditions for use of less competitive methods (like direct purchase method) and ensure value for money, fairness, transparency, proportionality and integrity. All procurements in Mongolia are being conducted by advertising through electronic system with advertisement rules which is compatible with IFAD requirements. IFAD's SECAP (Social Environment and Climate Assessment Procedures) standards have been integrated into the project's procurement arrangements. A detailed SECAP for SPOs table is available in the PIM on file with IFAD, if required. Adequate financial management and audit processes will be followed during implementation.

~~167.~~180. Project staff and local stakeholders will be trained to IFAD anticorruption policies from project start-up. Financial management structure and flow of funds arrangements will be largely drawn from the positive experience of IFAD projects. Project risk level and the adequacy of these arrangements will be closely monitored and assessed by IFAD Financial Management Division on an on-going basis and throughout the implementation of the project (during implementation support and supervision missions).

~~168.~~181. Internal Controls: An acceptable level of segregation on duties within the PMU will be assured by the division of tasks between the Finance Officer, the administrative assistant and the project coordinator in the role of approver. Project Implementation Manual (PIM) will also specify key internal control procedures such as accounting function, segregation/independence, payments, procurement, account reconciliation and preparation of the financial reports and withdrawal applications. PIM will also include information on user access and authorization for accounting software. The internal audit of the project will be conducted by the Office of the President ~~with~~ which will employ an Internal Control Monitoring Specialist, and it is deemed adequate to engage this specialist for the project. Internal audit will be conducted on quarterly basis and the ~~submit an~~ internal report which will be made available to IFAD on request.

~~169.~~182. Accounting and Financial Reporting: Accounts of the Project will be maintained using computerized accounting software for capturing daily accounting transactions and providing IFAD's required financial reports. The project will maintain its accounts in accordance with IPSAS-Cash or Accrual standards, which are accepted by IFAD. Additional financial information, aside from all financial statements that are mandatory under IPSAS cash/accrual, will be prepared by the project in accordance with the IFAD Handbook for Financial Reporting and Auditing of IFAD-Financed Projects. PMU shall provide the quarterly interim financial reports (IFRs), unaudited financial statements and audited financial statements; audit reports and management letters to IFAD within the stipulated timeline. Annex 6-A provides details on financial management arrangements.

183. External Audit: The project will submit an external audit report to IFAD within six months of the end of each fiscal year. The audit's Terms of Reference will be reviewed and cleared by FMD-IFAD before their selection to the audit firm (to be selected through a competitive process, in line with recipients' procurements rules and regulations with consistent with IFAD's procurement guidelines). IFAD will review the quality and timeliness of each audit report and ensure proper follow-up to audit recommendations contained in the mandatory Management Letter. Audit firm rehiring will only be possible for a maximum a four consecutive years, and conditional to the outcome of IFAD' yearly assessments. During project implementation, IFAD will also assess the possibility to assign the role of external auditor for the project to the Supreme Audit Institution (SAI) depending on their capacity and availability.

184. **Project Risks:** The main potential risks to programme success and mitigation strategies are summarized in the table below.

185. **Table 12: Summary of Financial, Project Risk Management (Environment and Socail), Institutional**

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| Risk | Type of risk | Initial risk assessment (H = high, M = moderate, L = low) | Proposed mitigation measure | Final risk assessment |
|---|---|---|---|---|
| The FM risk for SMART-Herders Project is rated "substantial" based on the Mongolia's country risk is rated as substantial according to Transparency International's (TI) Corruption Perception Index (CPI), with a slightly lower score of 33/100 in 2023 compared to 35/100 in 2021. The project will be implemented by the International Fund for Agricultural Development and executed by the Project Management Unit (PMU) of the Project for Market and Pasture Management Development (PMPMD) of Office of the President. According to the IFAD's last supervision mission in 2022, the mission evaluated the project's financial management systems and determined that the FM inherent risk was substantial due to: delays in AWPB Financial S The project will need to recruit qualified Finance. The recruitment of FM staff should be open to all potential candidates, and transparent processes must be followed. Capacity-building training will | Financial | M | The project will need to recruit qualified Finance. The recruitment of FM staff should be open to all potential candidates, and transparent processes must be followed. Capacity-building training will be provided at the start-up stage to acquaint project staff with FM requirements. The AWPB will be developed with information on financiers and the quantity of financing for each activity to assist Finance teams in expenditure mapping. The project implementing agency needs to develop effective internal control systems as per the Committee of Sponsoring Organizations (COSO) framework and guidelines in the Project Implementation Manual (PIM) and provide intensive training to project finance staff in their use. A fully customized and well-maintained accounting M formulation and submission; particularly in lack of adequate planning of budget and regular monitoring of the pace of expenditure; weak FM capacities and internal control system; delays submission of quarterly Interim Financial Reports (IFRs); Withdrawal Applications (WAs) and unaudited financial statements; delays in appointment of external auditor and conducting of annual audits and submission of annual audit reports. software should be in place before project effectiveness and to control | L |

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| Risk | Type of risk | Initial risk assessment (H = high, M = moderate, L = low) | Proposed mitigation measure | Final risk assessment |
|---|---|---|---|---|
| be provided at the start-up stage to acquaint project staff with FM requirements. The AWPB will be developed with information on financiers and the quantity of financing for each activity to assist Finance teams in expenditure mapping. The project implementing agency needs to develop effective internal control systems as per the Committee of Sponsoring Organizations (COSO) framework and guidelines in the Project Implementation Manual (PIM) and provide intensive training to project finance staff in their use. A fully customized and well-maintained accounting M formulation and submission; particularly in lack of adequate planning of budget and regular monitoring of the pace of expenditure; weak FM capacities and internal control system; delays submission of quarterly Interim Financial Reports (IFRs); Withdrawal Applications (WAs) and unaudited financial statements; delays in appointment of external auditor and conducting of annual audits and submission of annual audit reports. | | | and manage the financial operations of the project. This will mitigate potential internal control risks. The project will prepare and submit Q-IFRs, WAs and unaudited FS on time. Furthermore, audit the project on time in accordance with applicable auditing standards, and provide audit reports and management letters by the due date. Efficient implementation of the aforementioned mitigating measures would ensure that the project accomplishes its overall programme objectives. However, the residual risk is expected to be “Moderate”, once the mitigation measures are put in place during implementation, FM assessments will be made during supervision missions and amendments of residual risks will be made based on supervision observations. | |
| Low capacity or interest among herders to adopt climate-smart approaches and technologies. | Technical | M | Extensive training through Herders' Field Schools (HFS), showcasing economic and environmental benefits, and demand-driven project activities to ensure relevance and interest. | L |
| Overgrazing and pasture degradation, exacerbated by climate change, leading to reduced productivity. | Environmental | H | Implement rotational grazing practices, establish water recharge berms, and support community-based pasture | M |

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| Risk | Type of risk | Initial risk assessment (H = high, M = moderate, L = low) | Proposed mitigation measure | Final risk assessment |
|---|---|---|---|---|
| | | | management plans through training and monitoring. | |
| Increased likelihood of extreme climate events (dzuds, droughts) impacting herder livelihoods. | Environmental | H | ntegration of Early Warning Systems (EWS) into project activities, training herders in preparedness strategies, and investment in climate-resilient infrastructure such as solar-powered water stations. | M |
| Limited access to water resources for livestock and agriculture, especially during droughts. | Environmental | M | Rehabilitation of wells, establishment of water recharge berms, and construction of solar-powered water stations to enhance water security. | L |
| Gender inequalities in participation and decision-making in herder communities. | Social | M | Tailored interventions to ensure active participation of women in training programs, with a target of 40% female representation in HFS. Community awareness initiatives will focus on promoting gender equity. | L |
| | | | | |
| Insufficient capacities to appropriately manage the day-to-day implementation of the project | Operational | M | The PMU including EE UNIDO has the proven administrative and financial management capacity to implement projects and has the necessary autonomy and assumes the fiduciary management functions of the project.<br>IFAD will participate as | L |

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| Risk | Type of risk | Initial risk assessment (H = high, M = moderate, L = low) | Proposed mitigation measure | Final risk assessment |
|---|---|---|---|---|
| | | | an observer in all stages of the recruitment process. The staff of the PMU will be linked to the project by renewable annual contracts based on a performance evaluation. | |

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### C. Describe the measures for environmental and social risk management, in line with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

~~171.~~186. The project has been designed with a strong emphasis on compliance with the Environmental and Social Policy (ESP) and Gender Policy of the Adaptation Fund. These principles are integrated into the project design to ensure that it mitigates any potential environmental and social risks while maximizing benefits for vulnerable herder communities in Mongolia, particularly women and marginalized groups.

~~172.~~187. The project will incorporate a comprehensive **Environmental and Social Management Plan (ESMP)** that has identified key risks and outlines the necessary mitigation strategies. The ESMP covers key risks such as land degradation, overgrazing, water scarcity, and social inequities, including gender disparities. Specifically, the plan addressed environmental challenges like pasture degradation, water management inefficiencies, and potential impacts on biodiversity. Social risks related to gender inequality, vulnerable community participation, and access to project benefits have been systematically assessed and mitigated.

The ESMP will be closely aligned with Mongolia's national regulations and environmental ~~.173.~~188 safeguards, ensuring consistency with local laws and priorities. To enhance the project's effectiveness, all activities will include stakeholder engagement, consultations with local communities, and the incorporation of traditional knowledge in developing climate-resilient practices. The project will also ensure that women's voices are prioritized through their inclusion in decision-making roles and participation in leadership positions within Pasture User Groups (PUGs). A detailed Environmental and Social Management Plan (ESMP) will be developed in the early stages of the project to guide the identification of risks and the application of mitigation strategies. The ESMP will outline responsibilities for project stakeholders and define the protocols for addressing issues related to climate-induced hazards, land degradation, overgrazing, and sustainable resource management. The project will conduct stakeholder consultations and baseline surveys to validate the risks and assess social vulnerabilities.

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~~174.~~189. **Grievance Redress Mechanism (GRM):** The project will implement a robust Grievance Redress Mechanism (GRM) that is aligned with national laws and the Adaptation Fund's standards. The GRM will ensure that all project stakeholders, including herders and community members, have access to a transparent, accessible, and culturally appropriate mechanism for submitting complaints and seeking resolutions without fear of retaliation. The GRM will also be designed to accommodate complaints related

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to USPs, ensuring that any grievances in this regard are addressed appropriately. The GRM will include multiple channels for submitting grievances, such as a grievance drop box, hotline numbers, email submissions, and in-person reporting at local project offices. GRM focal points will be established at both the Aimag (province) and Soum (district) levels to ensure that all grievances are addressed promptly and effectively. Additionally, grievance boxes will be placed in community centers, enabling anonymous reporting. The GRM will be made widely known to stakeholders, including in USPs, ensuring they are fully informed about how to submit complaints and track the resolution process. A dedicated GRM officer at the Project Management Unit (PMU) level will oversee grievance handling, while Aimag and Soum-level working groups will facilitate local-level resolutions. Annex 5 includes a draft GRM that will be validated and updated during early implementation.

## D. Describe the monitoring and evaluation arrangements and provide a budgeted M&E plan, in compliance with the ESP and the Gender Policy of the Adaptation Fund.

~~175.~~190. **Project Monitoring and Evaluation (M&E)** system is strategically designed to enhance Knowledge Management (KM) and inform policy development under component 2. Insights gained from M&E are leveraged to capture and disseminate knowledge through multimedia formats, online platforms, and knowledge-sharing events, fostering a culture of continuous learning and inform evidence-based policy recommendations, advocating for climate adaptive policy frameworks. It will fall under the supervision of the PMU and will be led by the contracting expert for data collection and reporting, KM and Social Inclusion to generate the content base climate adaptation for social media and television documentaries and reporting of the impact of the adaptation activity. The M&E system aims to: (i) gather gender-disaggregated data to meet the gender targets in line with the AF Gender Policy; collect data on the AF indicators outlined in section III-F; and generate, organize, and distribute the information essential for the strategic management of the project, (ii) record the results and lessons learned for both internal use and public dissemination regarding the project's achievements, and (iii) provide the necessary information to the Adaptation Fund, IFAD, and the Government concerning the project's activities, immediate outcomes, and impact. In the project's first year, an M&E manual will be developed to describe a straightforward and efficient system for collecting, processing, analyzing, and distributing data.

~~176.~~191. A computerized database encompassing sex-disaggregated data and in line with the project results framework will be developed, with the M&E officer responsible for its consolidation. Each Soum will maintain its respective database, and the M&E officer will compile all information into the project database on a quarterly basis. The system will receive regular updates from data collected in the field by implementing partners. Furthermore, training sessions will be organized to enhance the competencies of all stakeholders involved in the monitoring and evaluation system.

~~177.~~192. The project team will monitor implementation progress daily, following the Annual Work Plan and its indicators. In the initial months, they will finalize baseline data and refine performance metrics. Specific first-year targets, progress indicators, and verification methods will be set at the Inception Workshop.

~~178.~~193. **Project Inception Workshop.** An inception workshop will be conducted within two months of the project startup, involving the full project team, relevant government counterparts, and the International Fund for Agricultural Development (IFAD). This workshop is crucial for building ownership of the project's results and for planning the first-year annual work plan. A fundamental objective of the inception workshop is to present the modalities of project implementation, and the execution of activities funded solely by the Adaptation Fund (AF). Additionally, it will assist the project team in understanding and taking ownership of the project's goals and objectives, as well as in preparing an action plan to establish collection centers for climate change resilience and other investments.

~~179.~~194. **A Project Inception Report** will be conducted within two months of the project start-up with the full project team, relevant government counterparts, and IFAD. The inception workshop is crucial to building ownership for the project results and to plan the first-year annual work plan. A fundamental objective of the inception workshop will be to present the modalities of project implementation and execution of AF-only activities and assist the project team to understand and take ownership of the project's goals and objectives. Additionally, the workshop will include a dedicated section for Monitoring & Evaluation (M&E) reporting to ensure that all aspects of project progress and performance are systematically tracked and reported.

~~180.~~195. **Baseline study. Baseline study.** A baseline study will be conducted as part of the SMART HERDERS baseline, with terms of reference that include specific indicators tailored to the SMART HERDERS project. This study will collect data and serve as the foundation for assessing the efficiency of the activity's implementation and the achievement of results. The baseline study will encompass both output and outcome indicators, ensuring a thorough evaluation of the project's progress and results. The study is also a strategic step to directly supports Output 2.2.1 the production of high-quality documentaries with three segments highlighting climate change and adaptation efforts. The data collected from these surveys will provide empirical evidence and insights into the effectiveness and impact of the adaptation activities, offering a rich source of content for the documentaries. By showcasing real-world outcomes and community experiences, the documentaries can vividly illustrate the challenges posed by climate change and the tangible benefits of adaptation strategies. The evidence-based storytelling not only enhances the documentaries' credibility and educational value but also serves to engage and inspire a broader audience, fostering greater awareness and support for climate adaptation initiatives.

~~181.~~196. **Quarterly Progress Reports.** Project implementing partners in the field will also prepare Quarterly Progress Reports and submit them to the PMU. This process ensures ongoing monitoring of project activities and helps identify challenges so that timely corrective measures can be adopted.

~~182.~~197. **Semi-Annual and Annual Project Report**. The project team will create a Semi-Annual Project Report (SAPR) every 6 months to document the progress made in achieving the project's Work Plan and evaluate how the project is contributing to its intended outcomes through delivered outputs and collaborative work. An Annual Project Report (APR) will also be developed to provide a comprehensive review of the project's performance over the entire year. The SAPR and APR formats will cover: (i) an analysis of project performance during the reporting period, including produced outputs and, if possible, the status of the outcomes; (ii) the challenges encountered in making progress towards results and their causes; (iii) main obstacles to achieving results; (iv) expenditure reports, including those for the Work Plan; (v) lessons learned; (vi) clear recommendations for future direction in addressing key issues hindering progress.

~~183.~~198. **PPR.** In alignment with the Environmental and Social Policy, Monitoring and Evaluation of projects ~~should~~ will consider all identified environmental and social risks during the project's assessment, design, and implementation phases, and document sex-disaggregated targets as outlined in the results framework and AF indicators in section III-F. The annual project performance reports (PPRs) will~~must~~ include a segment on the execution status of the environmental and social management plan and detail measures taken to avoid, reduce, or mitigate environmental and social risks. If necessary, the reports will~~should~~ also outline any needed corrective actions. The PPR encompasses information such as financial data, procurement details, risk assessments, ratings, project indicators, and lessons learned. Additionally, it contains a results tracker to be completed at: i) inception, where baseline information and planned targets at project completion are provided; and ii) project completion, where the final PPR will act as a project completion report.

~~184.~~199. **Supervision.** IFAD will oversee the project, adhering to its direct supervision framework and guidelines, with a supervision mission at least once per year. Additional support from IFAD on specific issues can be mobilized if deemed necessary by IFAD or suggested by the supervision mission. The composition of these missions will be determined by an annual supervision plan. This plan will outline not only routine tasks such as fiduciary, compliance, and program implementation but also key thematic or performance areas that need improvement, potentially requiring additional resources for capacity building, detailed analytical studies, or policy reviews.

~~185.~~200. **A Terminal Evaluation** will be carried out three months prior to the project's conclusion. This evaluation will encompass an assessment of the project performance concerning environmental and social risks and will adhere to the AF guidelines.[35] This evaluation serves also as a critical tool for assessing the effectiveness and outcomes of the Herders' Field School (HFS) and related training initiatives. By analyzing the successes and challenges encountered at the collection centers and within the HFS, the evaluation provides valuable insights that feed back into Knowledge Management activities. It ensures that future training sessions are specifically tailored to address identified gaps and capitalize on successful strategies.

[35] http://www.adaptation-fund.org/wp-content/uploads/2015/01/Guidelines%20for%20Proj_Prog%20Final%20Evaluations%20final%20compressed.pdf

Ultimately, the evaluation will validate the plotting activities introduced by the project, confirming that herders are well-equipped to tackle climate challenges and contribute to sustainable adaptation efforts.

201. The proposed Budgeted Monitoring and Evaluation Plan is presented in the table below.

~~186.~~202.

**Table 1~~3~~2: Budgeted Monitoring & Evaluation ~~PI~~**

| ~~M&E Activity~~ | ~~Responsibility~~ | ~~Timeframe~~ | ~~Adaptation Fund Budget (USD)~~ |
|---|---|---|---|
| ~~Inception Workshop (IW)~~ | ~~IFAD, PMU~~ | ~~SMART-HERDERS (1st quarter)~~ | ~~8,000~~ |
| ~~Inception Report~~ | ~~IFAD, PMU~~ | ~~Immediately following IW~~ | |
| ~~Measurement of Means of verification and Project Purpose Indicators (Contracting with service provider to do baseline and endline survey on the impact of climate adaptation activities)~~ | ~~Project Coordinator~~ | ~~Start, Mid, and end of project.~~ | ~~15,000~~ |
| ~~Meetings of Project Steering Committee~~ | ~~PMU~~ | ~~After Inception Workshop and annually~~ | ~~300~~ |
| ~~Monthly and Quarterly Reports~~ | ~~Senior Gender and community specialist to support and to track the impact on the climate adaptation activities~~<br>~~Aimag Climate Adaptation Specialist~~ | ~~End of each month~~ | ~~172,500~~ |
| ~~Supervision missions~~ | ~~IFAD, PMU~~ | ~~Twice a year~~ | ~~(Covered by IFAD SMART HERDERS)~~ |
| ~~Annual Work Plans and Budget~~ | ~~PMU~~ | ~~Annual~~ | ~~(Covered by SMART HERDERS)~~ |
| ~~National climate adaptation stakeholder's database.~~ | ~~PMU~~ | ~~Start of the project~~ | ~~8,000~~ |
| ~~White gold membership database and quality base payment system for mobile phone / digital nomad cards and app~~ | ~~PMU~~ | ~~Start of the project~~ | ~~20,000~~ |
| ~~Climate adaptation resilience assessment~~ | ~~PMU~~ | ~~Annual~~ | ~~18,000~~ |
| ~~Training staff for field monitoring of weekly postings for public awareness.~~ | ~~PMU~~ | ~~Annual~~ | ~~91,905~~ |
| ~~Contracting expert for Research, M&E of the president initiatives on white Gold National Movement; Food Revolution National Movement; and Billion Tree National Movement.~~ | ~~PMU~~ | ~~Annual~~ | ~~60,000~~ |

| ~~M&E Activity~~ | ~~Responsibility~~ | ~~Timeframe~~ | ~~Adaptation Fund Budget (USD)~~ |
|---|---|---|---|
| ~~Contracting expert for data collection and reporting, KM and Social Inclusion to generate the content base climate adaptation for social media and television documentaries and reporting of the impact of the adaptation activity generated by the project.~~ | ~~PMU~~ | ~~Annual~~ | ~~45,000~~ |
| ~~Visits to Field Sites~~ | ~~PMU~~ | ~~Yearly~~ | ~~(Covered by IFAD SMART HERDERS)~~ |
| ~~Terminal Evaluation~~ | ~~IFAD, External consultants~~ | ~~End of project~~ | ~~10,000~~ |
| ~~Total~~ | | | ~~448,705~~ |

| M&E Activity | Responsibility | Timeframe | Adaptation Fund Budget (USD) |
|---|---|---|---|
| Inception Workshop (IW) | IFAD, PMU | Within the first two months of the project | 8,000 |
| Inception Report | IFAD, PMU | Immediately following IW | Covered by IFAD |
| Measurement of Means of Verification for Indicators | PMU | Start, Mid, and End of the project | Covered by IFAD |
| Meetings of Project Steering Committee | PMU | After Inception Workshop | Covered by IFAD |
| Monthly and Quarterly Reports | PMU | End of each month | Covered by IFAD |
| Semi-Annual Progress Report (SAPR) | PMU | Semi-annual | Covered by IFAD |
| Annual Work Plans and Budgets | PMU | Annual | Covered by IFAD |
| Supervision Missions | IFAD, PMU | Once a year | Covered by IFAD IESS |
| Visits to Field Sites | PMU | Yearly | Covered by IFAD & PMU |
| Baseline and Endline Surveys | External service provider | First and third years | 15,000 |

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| M&E Activity | Responsibility | Timeframe | Adaptation Fund Budget (USD) |
|---|---|---|---|
| Annual Adaptation Fund PPR (External Consultant) | PMU | Annual | Covered by IFAD |
| Mid-Term Review (MTR) | IFAD, External consultants | Midpoint of the project cycle | 40,000 |
| Terminal Evaluation | IFAD, External consultants | At least three months before project closure | 32,000 |
| TOTAL | | | 80,000 |

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## Additional Measures

Supervision and Reporting: IFAD will directly supervise the project under its established framework, mobilizing supervision missions annually to provide technical support, identify risks, and ensure adherence to the ESP and Gender Policy. The PMU will submit periodic reports, including gender-disaggregated results, risks, and corrective actions.

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Baseline Study and Knowledge Management Integration: The baseline study will collect critical data to guide the project's adaptation strategies, informing training and field interventions. Results will also feed into the production of knowledge-sharing materials, such as documentaries and case studies, to amplify impact and promote policy dialogue.

Feedback Loop for Improvement: The M&E plan includes regular stakeholder consultations to refine approaches and address challenges in a timely manner. Lessons learned from periodic reviews will inform policy recommendations and adaptive measures throughout the project lifecycle.

**E. Include a results framework for the project proposal, including milestones, targets and indicators, including one or more core outcome indicators of the Adaptation Fund Results Framework, and in compliance with the Gender Policy of the Adaptation Fund.**

**Table 143: Table Results Framework SMART-HERDERS**

| Project Objective(s) | Outcome Indicators | Baseline | End Target | Means of Verification | Assumptions |
|---|---|---|---|---|---|
| **Overall objective:**<br>Develop a scalable climate adaptation model for the livestock sector to enhance herder resilience and productivity. The project will address climate risks, develop tailored strategies, conduct targeted training, promote sustainable practices, improve resource access, and establish monitoring frameworks. The aim is to ensure sustainable livestock production and better socio-economic outcomes, creating a resilient future for herders and contributing to global sustainable development and climate resilience efforts. | **Fund Core Outcome Indicator:**<br>Number of beneficiaries (direct and indirect) | 0 | 4000 herders are expected to be direct beneficiaries and 23,000 herders indirect beneficiaries.<br>Direct beneficiaries:<br>Men: 2,400<br>Women: 1,600<br>Indirect beneficiaries:<br>Men: 13,800<br>Women: 9,200<br>(women will constitute 40% of the direct and indirect beneficiaries). | • Project M & E reports<br>• Progress reports<br>• Supervision mission reports<br>• AF PPR reports<br>• Final project evaluations | • Good participation and involvement of local communities.<br>• Availability for joining trainings and workshops.<br>• The interest of beneficiaries remains high throughout project implementation.<br>• Government policy is stable on white gold and one billion tree programmes.<br>• Climate variability does not exceed planned projections<br>• Locations for interventions remain viable.<br>• Market linkages remain strong. |
| | **Fund Core Outcome Indicator:**<br>Early Warning Systems | 0 | 1 EWS installed, reaching 4,000 direct herders and 8,000 indirect.<br>(4000 direct members of the White Gold Collection Center and 4000 others in the country as | | |

| Project Objective(s) | Outcome Indicators | Baseline | End Target | Means of Verification | Assumptions |
|---|---|---|---|---|---|
| | | | indirect beneficiaries). | | |
| | **Fund Core Outcome Indicator:**<br>Assets Produced, Developed, Improved, or Strengthened | 0 | - 40 hectares of climate-resilient fodder production with windbreak trees<br>- 1.2M hectares of pastureland indirectly improved.<br>- 4 livestock collection centers established<br>- 4 solar-powered water stations installed<br>- 40 berms<br>-4.000 herders experience an increase or maintain income despite climate risks. | • Satellite imagery<br>• Land restoration assessments<br>• Project reports<br>• Project infrastructure assessments<br>• Site visit reportsProject M & E reports<br>• Supervision mission reports<br>• Economic impact reports<br>• Household income surveys<br>• Endline assessment | |
| **Component 1 Implementing Medium-Scale Pilot Project for Capacity Building and Climate-resilient herding practices and technologies** | | | | | |
| **Outcome 1: Herders and their households are equipped with soum-based infrastructure (e.g. collection centres, wells), digital tools, practical knowledge and skills** | | | | | |
| **Output 1.1**<br>Collecting centres established, equipped for climate change resilience and value-added livestock product handling and a series of small infrastructure investments. | No. of dedicated adaptation medium-scale pilot sites, located in steppe and Gobi eco-regions, established to promote climate- | | • 4 Collecting centres established with 50% women board members.<br>• 1 White Gold Collection Centre | • Project M & E reports<br>• Progress reports<br>• Supervision mission reports<br>• AF PPR reports<br>• Final project evaluation | • Good participation and involvement of local communities.<br>• Soum land assigned for the collection centres.<br>• Herders have mobile phone to use with apps. |

| Project Objective(s) | Outcome Indicators | Baseline | End Target | Means of Verification | Assumptions |
|---|---|---|---|---|---|
| | smart practices and technologies. | | Standard Operating Manual and training<br>• 1 White Gold membership database App developed.<br>• 1 White Gold Quality Based Payment System developed. Digital nomad cards developed and introduced.<br>• 8 Tree planting plans prepared by community members (2 per target soum).<br>• 4 Solar pumping stations installed.<br>• 1,000 Livestock blankets produced by community members.<br>• 40 berms and ground water recharge and 40 shallow ponds.<br>• 40 ha pilot fodder production. | | |

| Project Objective(s) | Outcome Indicators | Baseline | End Target | Means of Verification | Assumptions |
|---|---|---|---|---|---|
| **Output 1.2 Solar-Powered Water Stations** | Number of beneficiaries accessing to the 2 solar-powered water stations | 0 | • 2 solar-powered water pumping stations installed in high-risk soums to enhance livestock water access, particularly during droughts | • Project M & E reports<br>• Progress reports<br>• Supervision mission reports<br>• AF PPR reports<br>• Final project evaluations | • Good participation and involvement of local communities. |
| **Output 1.3 Water Recharge Berms** | Number of beneficiaries accessing to the 40 water recharge berms | 0 | • 40 water recharge berms constructed in strategic drought-prone locations to improve water availability for livestock. | • Project M & E reports<br>• Progress reports<br>• Supervision mission reports<br>• AF PPR reports<br>• Final project evaluations | • Good participation and involvement of local communities. |
| **Output 1.4** Interactive Hands-On Herders' Field School (HFS) and advanced training on strategies for dealing with climate change and enhancing adaptive capacities. | No. of herders field schools established and trainings delivered. | 0 | • 144 herders field schools established. (at least 50% women) of 10 months duration (from February to November)<br>• 1 specialized topic in each HFS on access to NEMA's Early Warning System.<br>• 12 intensive trainings for experts/technicians on Sheep shearing. | • Project M & E reports<br>• Progress reports<br>• Supervision mission reports<br>• AF PPR reports<br>• Final project evaluations<br>• Training programme<br>• Attendance lists | • Good participation and involvement of local communities.<br>• The interest of young people remains high throughout project implementation.<br>• No extreme weather events delay training. |

| Project Objective(s) | Outcome Indicators | Baseline | End Target | Means of Verification | Assumptions |
|---|---|---|---|---|---|
| | | | • 36 Intensive Home food and dairy processing trainings (80% women participants).<br>• 36 Annual income diversification trainings.<br>50% women participants).<br>• 12 trainings on Strengthening Family Bonds: Effective Parenting Practices and life skills.<br>50% women participants).<br>**Total outreach:** 4,000 direct beneficiaries<br>women: 2,000 (50%)<br>men: 2,000 | | |
| **Component 2: Knowledge Management and Knowledge Sharing** | | | | | |
| **Outcome 2.1 Strengthening Coordination and Technical Capacity for Climate-Informed Services to Herders** | | | | | |
| **Output 2.1**<br>Trained herders and local committees and knowledge platforms and databases | Inclusive National Network established | 0 Specific climate adaptation networks in Mongolia. | • 1 National Climate Adaptation Stakeholders database developed with 1,000 stakeholders | • Project M & E reports<br>• Progress reports<br>• Supervision mission reports<br>• AF PPR reports | • Good participation and involvement from livestock and development community. |

| Project Objective(s) | Outcome Indicators | Baseline | End Target | Means of Verification | Assumptions |
|---|---|---|---|---|---|
| | | | identified and included in the database.<br>• 1 Facebook page<br>• 1 YouTube channel<br>• Weekly posting on newgroup (e.g. Google groups or other free and open service), Facebook and YouTube sites highlighting successful practices and news while encouraging stakeholders to post stories, data, and information.<br>• 12 visits on-line or on-site visits to 4 soums per year with herder groups for interviews. | • Final project evaluations<br>• Members of Facebook page. | |
| **Outcome 2.2 Established wide-reaching climate change and adaptation awareness among rural and urban populations** | | | | | |
| **Output 2.2.** Production of High Quality Climate Adaptation Documentaries. | No. of broadcasts through social media and television documentaries. | 0 | • 1 hour documentary with 3 segments to highlight climate change and climate adaptation. | • Documentary<br>• Progress reports<br>• Numbers of likes in social media<br>• Numbers of comments. | • Informative and engaging documentary |

| Project Objective(s) | Outcome Indicators | Baseline | End Target | Means of Verification | Assumptions |
|---|---|---|---|---|---|
| | | | • 500 broadcasts through social media and television documentaries. | | |
| **Output 2.3.**<br>Knowledge management and sharing. | No. of Knowledge products produced and disseminated | 0 | • 2 Scholarships (at least one woman) provided to Master of Science students to prepare thesis related to climate adaptation project.<br>• 60 papers (at least 30% women authors) for publication and distribution and presentation selected for national annual meetings.<br>• 4 Local symposiums in project Aimags (2 per Aimag). At least 40% of women participants.<br>• 2 National symposium. At least 40% of women participants. | • Project M & E reports<br>• Progress reports<br>• Supervision mission reports<br>• Attendance list.<br>• AF PPR reports<br>• Final project evaluations | • Good participation and involvement from Academia and local government officials. |

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| Project Objective(s) | Impact level Result | Core Outcome Indicators | Baseline | End Target | Means of Verification | Assumptions |
|---|---|---|---|---|---|---|
| **Overall objective:**<br><br>Develop a scalable climate adaptation model for the livestock sector to enhance herder resilience and productivity. The project will address climate risks, develop tailored strategies, conduct targeted training, promote sustainable practices, improve resource access, and establish monitoring frameworks. The aim is to ensure sustainable livestock production and better socio-economic outcomes, creating a resilient future for herders and contributing to global sustainable development and climate resilience efforts. | Increased adaptive capacity of communities to respond to the impacts of climate change | Core Outcome Indicator 1<br><br>Number of beneficiaries (direct and indirect) | 0 | 4000 HHs herders are expected to be direct beneficiaries and 23,000 HHs herders indirect beneficiaries.<br><br>(women will constitute 40% of the direct and indirect beneficiaries). | • Project M & E reports<br>• Progress reports<br>• Supervision mission reports<br>• AF PPR reports<br>• Final project evaluations | • Good participation and involvement of local communities.<br>• Availability for joining trainings and workshops.<br>• The interest of beneficiaries remains high throughout project implementation.<br>• Government policy is stable on white gold and one billion tree programmes.<br><br>- Climate variability does not exceed planned projections |
| | | Core Outcome Indicator 2:<br><br>Number of Early Warning Systems | 0 | 1 EWS installed, reaching 4,000 direct herders and 8,000 indirect.<br><br>1 system with capacity for outreach to 8000 households.<br><br>(4000 direct members of the White Gold Collection Center and 4000 others in the country as indirect beneficiaries). | | |
| | | Core Outcome Indicator 3:<br><br>Natural assets protected or rehabilitated (Ecosystem Resilience). Assets produced, developed, improved, or strengthened | 0 | - 40 hectares of climate-resilient fodder production with windbreak trees<br>- 1.2M hectares of pastureland indirectly improved4000 direct beneficiaries. | • Satellite imagery<br>- Land restoration assessments<br>- Project reportsProject M & E reports<br>• Supervision mission reports<br>• AF PPR reports<br>• Final project evaluations | |
| | | **Core Outcome Indicator 4:** | 0 | - 4 livestock collection centers established<br>- 4 solar-powered water | • - Project infrastructure | |

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| Project Objective(s) | Impact level Result | Core Outcome Indicators | Baseline | End Target | Means of Verification | Assumptions |
|---|---|---|---|---|---|---|
| | | Number of assets improved or strengthened Increased income, or avoided decrease in income | | stations installed - 40 berms4000 households will experience increased incomes or avoid a decrease in their incomes. | assessments - Site visit reportsProject M & E reports<br>• Supervision mission reports<br>• AF PPR reports<br>Final project evaluations | - Locations for interventions remain viable. |
| | Increased ecosystem resilience in response to climate change-induced stresses | **Core Outcome Indicator 5:** Increased or maintained household income.Natural assets protected or rehabilitated | | 4,000 herders experience an increase or maintain income despite climate risks.40 hectares of new fodder production with wind break trees.<br>1,000 blankets for protection of livestock, improved forest cover, improved management of pastures on 1.2 mn hectares of pastureland or 1% of the total 126 mn through 4000 participating HHs. | • Project M & E reports<br>• Supervision mission reports<br>• - Economic impact reports - Household income surveys - Endline assessmentAF PPR reports<br>Final project evaluations | • - Market linkages remain strong. |
| **Component 1 Implementing Medium-Scale Pilot Project for Capacity Building and Climate-resilient herding practices and technologies** | | | | | | |
| Outcome 1: Herders and their households are equipped with soum-based infrastructure (e.g. collection centres, wells), digital tools, practical knowledge and skills | | | | | | |
| **Output 1.1**<br>Collecting centres assembled for climate change resilience and other investments. | | No. of dedicated adaptation medium-scale pilot sites, located in steppe and Gobi eco-regions, established to promote | | • 4 Collecting centres established with 50% women board members.<br>• 1 White Gold Collection Centre Standard Operating Manual and training | • Project M & E reports<br>• Progress reports<br>• Supervision mission reports<br>• AF PPR reports<br>• Final project evaluation | • Good participation and involvement of local communities.<br>• Soum land assigned for the collection centres.<br>• Herders have mobile phone to use with apps. |

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| Project Objective(s) | Impact level Result | Core Outcome Indicators | Baseline | End Target | Means of Verification | Assumptions |
|---|---|---|---|---|---|---|
| | | climate-smart practices and technologies. | | • 1 White Gold membership database App developed.<br>• 1 White Gold Quality Based Payment System developed. Digital nomad cards developed and introduced.<br>• 8 Tree planting plans prepared by community members (2 per target soum).<br>• 4 Solar pumping stations installed.<br>• 1,000 Livestock blankets produced by community members.<br>• 40 berms and ground water recharge and 40 shallow ponds.<br>• 40 ha pilot fodder production. | | |
| **Output 1.2** Interactive Hands-On Herders' Field School (HFS) and advanced training on strategies for dealing with climate change and enhancing adaptive capacities. | | No. of herders field schools established and trainings delivered. | | • 48 144 herders field schools established. (at least 50% women) of 10 months duration (from February to November)<br>• 1 specialized topic in each HFS on access to NEMA's Early Warning System. | • Project M & E reports<br>• Progress reports<br>• Supervision mission reports<br>• AF PPR reports<br>• Final project evaluations | • Good participation and involvement of local communities.<br>• The interest of young people remains high throughout project implementation.<br>• No extreme weather events delay training. |

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| Project Objective(s) | Impact level Result | Core Outcome Indicators | Baseline | End Target | Means of Verification | Assumptions |
|---|---|---|---|---|---|---|
| | | | | • 12 intensive trainings for experts/technicians on Sheep shearing.<br>• 36 Intensive Home food and dairy processing trainings (80% women participants).<br>• 36 Annual income diversification trainings.<br>(50% women participants).<br>• 12 trainings on Strengthening Family Bonds: Effective Parenting Practices and life skills.<br>(50% women participants).<br>**Total outreach:** 4,000 direct beneficiaries (50% women). | • Training programme<br>• Attendance lists | |
| **Component 2: Knowledge Management and Knowledge Sharing** | | | | | | |
| **Outcome 2.1 Strengthening Coordination and Technical Capacity for Climate-Informed Services to Herders** | | | | | | |
| **Output 2.1**<br>Trained herders and local committees and knowledge platforms and databases | | Inclusive National Network established | 0 Specific climate adaptation networks in Mongolia. | • 1 National Climate Adaptation Stakeholders database developed with 1,000 stakeholders identified and included in the database.<br>• 1 Facebook page<br>• 1 YouTube channel<br>• Weekly posting on newgroup (e.g. | • Project M & E reports<br>• Progress reports<br>• Supervision mission reports<br>• AF PPR reports<br>• Final project evaluations<br>• Members of Facebook page. | • Good participation and involvement from livestock and development community. |

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| Project Objective(s) | Impact level Result | Core Outcome Indicators | Baseline | End Target | Means of Verification | Assumptions |
|---|---|---|---|---|---|---|
| | | | | Google groups or other free and open service), Facebook and YouTube sites highlighting successful practices and news while encouraging stakeholders to post stories, data, and information.<br>• 12 visits on line or on site visits to 4 soums per year with herder groups for interviews. | | |
| **Outcome 2.2 Established wide-reaching climate change and adaptation awareness among rural and urban populations** | | | | | | |
| **Output 2.2.** Production of High Quality Climate Adaptation Documentaries. | | No. of broadcasts through social media and television documentaries. | 0 | • 1 hour documentary with 3 segments to highlight climate change and climate adaptation.<br>• 500 broadcasts through social media and television documentaries. | • Documentary<br>• Progress reports<br>• Numbers of likes in social media<br>• Numbers of comments. | • Informative and engaging documentary |
| **Output 2.3.**<br>Knowledge management and sharing. | | No. of Knowledge products produced and disseminated | 0 | • 2 Scholarships (at least one woman) provided to Master of Science students to prepare thesis related to climate adaptation project.<br>• 60 papers (at least 30% women authors) for<br>publication and distribution and presentation | • Project M & E reports<br>• Progress reports<br>• Supervision mission reports<br>• Attendance list.<br>• AF PPR reports<br>• Final project evaluations | • Good participation and involvement from Academia and local government officials. |

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| ~~Project Objective(s)~~ | ~~Impact level Result~~ | ~~Core Outcome Indicators~~ | ~~Baseline~~ | ~~End Target~~ | ~~Means of Verification~~ | ~~Assumptions~~ |
|---|---|---|---|---|---|---|
| | | | | ~~selected for national annual meetings.~~<br>• ~~4 Local symposiums in project Aimags (2 per Aimag). At least 40% of women participants.~~<br>• ~~2 National symposium. At least 40% of women participants.~~ | | |

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Justification of Alignment with Adaptation Fund Core Indicators

This updated Results Framework aligns with the Adaptation Fund (AF) Results Framework by incorporating core indicators, including:

- Number of direct/indirect beneficiaries (Indicator 1)
- Number of Early Warning Systems operational (Indicator 2)
- Natural assets protected/restored (Indicator 3)
- Number of assets improved or strengthened (Indicator 4)
- Increase in household incomes or avoided income decrease (Indicator 5)

Additionally, the gender-responsive targets ensure compliance with the AF Gender Policy, with 50% women participation in HFS training and 40% women in total project beneficiaries.

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## F. Demonstrate how the project aligns with the Results Framework of the Adaptation Fund

### Table 154: Alignment with Adaptation Fund Results Framework Outcomes

The SMART-Herders Project aligns with the Adaptation Fund's Results Framework by directly addressing climate-induced risks in Mongolia's livestock sector. The project enhances climate resilience through investments in climate-resilient infrastructure, improved water and pasture management, knowledge dissemination, and the integration of an Early Warning System (EWS) to support risk-informed decision-making for herders.

| Project Outcome(s) | Project Outcome Indicator(s) | Adaptation Fund Outcome | Adaptation Fund Outcome Indicator | Grant Amount (USD) |
|---|---|---|---|---|
| **Component 1: Implementing Medium-Scale Pilot Project for Capacity Building and Climate-resilient herding practices and technologies** | | | | |
| **Outcome 1**<br>Herders and their households are equipped with soum-based infrastructure (e.g. collection centres, wells), digital tools, practical knowledge and skills | Number of climate-resilient infrastructure, including livestock collection centers, solar-powered water stations, and water recharge berms, that have been established and are fully operational.~~No. of dedicated adaptation medium-scale pilot sites, located in steppe and Gobi eco-regions, established to promote climate-smart~~ | ~~**Outcome 1:** Reduced exposure to climate-related hazards and threats~~<br>**Outcome 4:** Increased adaptive capacity within relevant development sector services and infrastructure assets. | ~~**1.** Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis~~<br>~~**4.2.** Physical infrastructure improved to withstand climate change and variability-induced stress~~<br>**4.1.2.** No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and | ~~**1,094,185**~~<br>**1,091,240** |

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| Project Outcome(s) | Project Outcome Indicator(s) | Adaptation Fund Outcome | Adaptation Fund Outcome Indicator | Grant Amount (USD) |
|---|---|---|---|---|
| | | | change (by sector and scale). | |
| **Component 2: Knowledge Management and Knowledge Sharing** | | | | |
| **Outcome 2.1**<br>Strengthening Coordination and Technical Capacity for Climate-Informed Services to Herders | ~~Inclusive National Network established~~<br>Number of users accessing the National Climate Adaptation Stakeholders Database for climate risk data, EWS alerts, and technical guidance | ~~**Outcome 2:** Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses~~.<br>Output 3.2: Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning | **2.1.** Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased | ~~606,370~~<br>609,470 |
| **Outcome 2.2**<br>Established wide-reaching climate change and adaptation awareness among rural and urban populations. | ~~No. of broadcasts through social media and television documentaries.~~<br>Number of climate adaptation knowledge products produced, broadcast, and disseminated through social media, local radio, and TV documentaries. | ~~**Outcome 1:** Reduced exposure to climate-related hazards and threats~~<br>~~**Outcome 3:** Strengthened awareness and ownership of adaptation and~~ | **1** Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis<br>**3.1.** Percentage of targeted population aware of predicted adverse impacts of | |

| Project Outcome(s) | Project Outcome Indicator(s) | Adaptation Fund Outcome | Adaptation Fund Outcome Indicator | Grant Amount (USD) |
|---|---|---|---|---|
| | | ~~climate risk reduction processes at local level~~<br><br>***Output 3.1:*** Targeted population groups participating in adaptation and risk reduction awareness activities. | climate change, and of appropriate responses | |
| | No. of Knowledge products produced and disseminated | **Outcome 7:** Improved policies and regulations that promote and enforce resilience measures<br><br>**Outcome 8:** Support the development and diffusion of innovative adaptation practices, tools and technologies<br><br>**Outcome 3:** Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level | **7.** Climate change priorities are integrated into national development strategy<br><br>**8.** Innovative adaptation practices are rolled out, scaled up, encouraged and/or accelerated at regional, national and/or subnational level.<br><br>**3.1.** Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses. | |

| Project Outcome(s) | Project Outcome Indicator(s) | Adaptation Fund Outcome | Adaptation Fund Outcome Indicator | Grant Amount (USD) |
|---|---|---|---|---|
| **Total** | | | | ~~1,700,555~~<br>1,700,710 |

**Table 1~~6~~5: Alignment with Adaptation Fund Results Framework Outputs**

| Project Objective(s) | Project Output Indicators | Adaptation Fund Outputs | AF Output Indicators | Grant Amount (USD) |
|---|---|---|---|---|
| **Component 1: Implementing Medium-Scale Pilot Project for Capacity Building and Climate-resilient herding practices and technologies** | | | | |
| **Output 1.1**<br>Collecting centres assembled for climate change resilience. | No. of dedicated adaptation medium-scale pilot sites, located in steppe and Gobi eco-regions, established to promote climate-smart practices and technologies. | **Output 4:** Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability**.** | **4.1.2.** No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by asset types). | ~~1,094,185~~<br>1,091,240 |
| **Output 1.2.**<br>Interactive Hands-On Herders' Field School (HFS) and advanced training on strategies for dealing with climate change and enhancing adaptive capacities. | No. of herders field schools established and trainings delivered. | **Output 1.2:** Targeted population groups covered by adequate risk reduction systems | **1.2.1.** Percentage of target population covered by adequate risk-reduction systems | |
| **Component 2: Knowledge Management and Knowledge Sharing** | | | | |
| **Output 2.1.**<br>**Trained herders and local committees** | Inclusive National Network established | **Output 3:** Targeted population groups participating in adaptation | **3.2.2** No. of tools and guidelines developed (thematic, sectoral, | 609,470 |

| Project Objective(s) | Project Output Indicators | Adaptation Fund Outputs | AF Output Indicators | Grant Amount (USD) |
|---|---|---|---|---|
| **and knowledge platforms and databases** | | and risk reduction awareness activities.<br><br>Output 2.1: Strengthened capacity of national and sub-national centers and networks to respond rapidly to extreme weather events | institutional) and shared with relevant stakeholders<br><br>2.1.2 No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale) | ~~606,370~~ |
| **Output 2.2.**<br>Production of High Quality Climate Adaptation Documentaries. | No. of broadcasts through social media and television documentaries. | Output 3.1: Targeted population groups participating in adaptation and risk reduction awareness activities | 3.1.1 No. of news outlets in the local press and media that have covered the topic | |
| **Output 2.3.** Knowledge management and sharing | No. of Knowledge products produced and disseminated | **Output 7:** Improved integration of climate-resilience strategies into country development plans<br>**Output 8:** Viable innovations are rolled out, scaled up, encouraged and/or accelerated. | **7.2.** No. of targeted development strategies with incorporated climate change priorities enforced[36].<br>**8.2.** No. of key findings on effective, efficient adaptation practices, products and technologies generated | |
| **Total** | | | | ~~1,700,555~~<br>1,700,710 |

[36] The focus of the project is on helping to assist in refining government policy and improved integration of climate change risks and threats in government policy making.

### G. Include a detailed budget with budget notes, a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs.

~~187.~~203. A detailed project budget is given in Annex 4 with budget notes, a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs.

~~188.~~204. Project staff will prepare the project budget (AWPB) and procurement plan in IFAD format showing budgeted expenditure by components and categories. Depending on the available functions in the accounting software and the staff capability, AWPB may be entered in the accounting software for comparison of the expenditure against the budget or maintained in an excel spreadsheet extracting expenditures from the accounting software. The AWPB submit to the Project Steering Committee (PSC) for discussion and approval. The approved AWPB by PSC will then sent to IFAD for no-objection 60 days before the start of the fiscal year.

### H. Include a disbursement schedule with time-bound milestones.

**Table 1~~6~~7: Disbursement Matrix**

| | Upon signature of Agreement | One Year after Project Start | Year 2 | Total |
|---|---|---|---|---|
| **Scheduled date** | **Jun-25** | **Jun-26** | **Jun-27** | |
| Project Funds | 799,251~~771 882~~ | 594,937~~611 224~~ | 484,967~~496 048~~ | **1 879 155~~1 879 154~~** |
| Implementing Entity Fees | 53,243~~65 610~~ | 53,243~~51 954~~ | 53,242~~42 164~~ | **159 728 ~~159 728~~** |
| **Total** | **852,494~~837 492~~** | **648,180~~663 178~~** | **538 209~~538 212~~** | **2 038 883 ~~2 038 882~~** |

## PART IV: ENDORSEMENT BY GOVERNMENT AND ERTIFICATION BY THE IMPLEMENTING ENTITY

### A. Record of endorsement on behalf of the government[2]

| | |
|---|---|
| Dr. Zamba Batjargal<br>Special Envoy for Climate Change<br>Ministry of Environment and Tourism<br>Government Building-2, United Nations Street 5/2 ,Ulaanbaatar<br>Mongolia<br>Tel: +976 7000-0743/9908-678<br>Fax: +976 5126-4711<br>Email: z_batjargal@yahoo.com; | Date*: (Month, day, year)*<br>*May 13, 2024.* |

## B. Implementing Entity certification

| | |
|---|---|
| I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans and subject to the approval by the Adaptation Fund Board, commit to implementing the project in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project. | |
| Implementing Entity coordinator:<br><br>Pierre Yves Guedez<br>Senior Climate Finance Specialist<br>ECG Division | Email: p.guedez@ifad.org, |
| Mr Juan Carlos Mendoza Casadiegos<br>Director<br>Environment, Climate, Gender and Social Inclusion Division | |
| Date: 23 July 2024 | e-mail: ecgmailbox@ifad.org |
| Project contact persons: | |
| Ms. Anupa Rimal Lamichhane<br>Regional Climate and Environment Lead | e-mail: a.rimallamichhane@ifad.org |
| Mr. ~~Sakphouseth Meng~~Jerry Pacturan<br>IFAD Mongolia Country Director | e-mail:<br>~~m.sakphouseth@ifad.org~~j.pacturan@ifad.org |

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**LIST OF ANNEXES**

**ANNEX 1: ENDORSEMENT LETTER**

INFORMATION AND RESEARCH INSTITUTE OF METEOROLOGY, HYDROLOGY AND ENVIRONMENT
NATIONAL AGENCY OF METEOROLOGY AND ENVIRONMENT MONITORING

TO: THE ADAPTATION FUND BOARD
C/O ADAPTATION FUND BOARD SECRETARIAT
EMAIL: SECRETARIAT@ADAPTATION-FUND.ORG
FAX: 202 522 3240/5

Date: 03 May 2016
Ref: 150

**LETTER OF ENDORSEMENT**

Subject: Endorsement for Sustainable Pasture Management and Adaptation with Resilient Technologies for Herders in Mongolia (SMART-Herders)

In my capacity as designated authority for the Adaptation Fund in Mongolia, I confirm that the above national project/programme proposal is accordance with the government's national priorities in implementing adaptation activities to strengthen resilience, reduce adverse impact of any risks posed by climate change in Mongolia.

Accordingly, I are pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by International Fund for Agricultural Development and executed by Project Management Unit of Project for Market and Pasture Management Development (PMPMD).

Sincerely,

Dr. BATJARGAL Zamba
National Focal Point for Adaptation Fund,
Science Advisor to Information and Research Institute for Meteorology, Hydrology and Environment, Mongolia

## ANNEX 2: PROJECT ORGANOGRAM

~~Project Steering Committee~~
~~Chaired: President Office~~
~~Member: MoF, MED, MoFALI, MECC, and UNIDO.~~

~~UNIDO Technical Team~~

~~PMPMD PMU of President Office~~
~~(Overall Project Coordination and Implementation Com 1)~~
- ~~Project Manager~~
- ~~Accounting, administration and procurement consultant contracted by MoF~~
- ~~Other support staff.~~

~~Aimag Governor Office~~
~~(Implementation of Com 2)~~
- ~~Aimag line departments~~
- ~~Soum governor and line department~~

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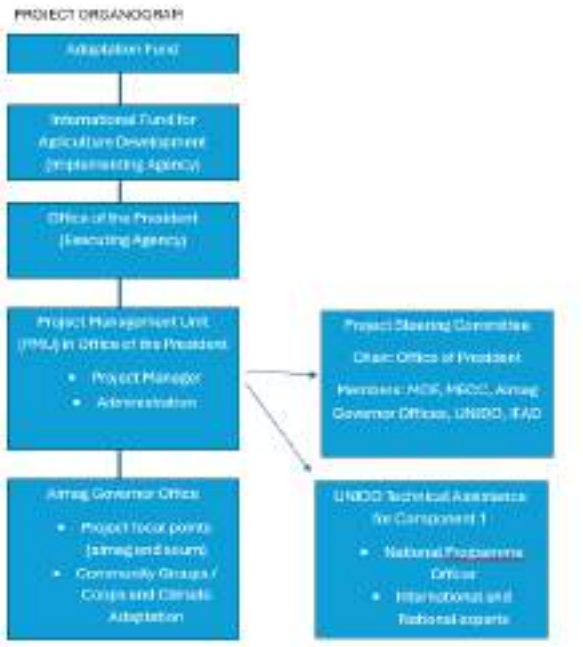
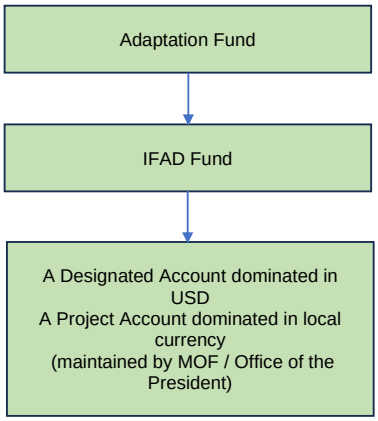


**ANNEX 3: FUND FLOW DIAGRAM**




In accordance with Government resolution 176, the fund channelled to separate DA in the State Treasury Bank, i.e. the Central Bank of Mongolia, with the authorization of the Ministry of Finance to receive the AF funds from IFAD for grant purposes. With the approval of the Ministry of Finance, the Office of the President (Implementing Agency) - PMU will open one separate Project Operating Account in tugrik (MNT)-local currency for AF grant at a commercial bank to receive the grant fund from the Project's Designated Accounts for the purpose of carrying out project activities. The direct payment procedure will be applicable for UNIDO (UN Agency). Disbursement of funds from IFAD will follow the revolving fund mechanism on submission of the Interim Financial Reports (IFRs) and Withdrawal Applications (WAs) through the IFAD Client Portal (ICP) and Ministry of Finance will review and approved the WA for payment process.



## ANNEX 4: DETAILED PROJECT BUDGET

### Project Budget in USD

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| S. No. | Project activities | Category | Impl. Res. | Unit | Unit cost | Quantity | | | | Total Cost | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Y1 | Y2 | Y3 | Total | Y1 | Y2 | Y3 | Total | % |
| | **A. Project activities** | | | | | | | | | | | | | |
| | **Component 1: Implementing Medium-Scale Pilot Project for Capacity Building and Climate-resilient herding practices and technologies** | | | | | | | | | | | | | |
| | **Outcome 1: Herders and their households are equipped with soum-based infrastructure (e.g. collection centres, wells), digital tools, practical knowledge and skills** | | | | | | | | | | | | | |
| | **Output 1.1: Collecting centres assembled for climate change resilience & other investments** | | | | | | | | | | | | | |
| 1 | Contracting supplier to deliver standard 4 white gold collection centers (two 40f containers, bailer, solar system, floor scale) for wool and cashmere includes the suport the functioning of the collecting centres cost | Works | UNIDO TA | Soum | 36,000 | 4 | | | 4 | 144,000 | | | 144,000 | |
| 2 | Printing White gold collection center operating manual | Training and Workshop | UNIDO TA | LS | 2,000 | 1 | | | 1 | 2,000 | | | 2,000 | |
| 3 | Contracting with service provider to deliver white gold membership database and quality base payment system for mobile phone / digital nomad cards and app | Goods, service and inputs | UNIDO TA | LS | 20,00 | 0.7 | 0.3 | 0 | 1 | 14,000 | 6,000 | | 20,000 | |
| 4 | Tree planning for wind break and tree planting day events | Training and Workshop | OP/Aimag | Soum | 1,200 | 4 | 4 | 4 | 12 | 4,800 | 4,800 | 4,800 | 14,400 | |
| 5 | Procuring tree for planting and fencing for the local community | Goods, service and inputs | OP/Aimag | Soum | 6,215 | | 4 | | 4 | | 24,859 | | 24,859 | |
| 6 | Contracting with company to install solar pumping station at the existing wells | Goods, service and inputs | OP/Aimag | Aimag | 8,000 | 2 | | | 2 | 16,000 | | | 16,000 | |
| 7 | Providing material to herder to make livestock blankets | Training and Workshop | OP/Aimag | Number | 10 | 5,000 | | | 5,000 | 50,000 | | | 50,000 | |
| 8 | Renting excavator for 40 berms and 40 shallow ponds | Works | OP/Aimag | Site | 2,500 | 8 | 8 | 8 | 24 | 20,000 | 20,000 | 20,000 | 60,000 | |
| 9 | Renting tractor for 40 ha pilot fodder production (10 ha/soum) | Works | OP/Aimag | Soum | 1,000 | 4 | 4 | 4 | 12 | 4,000 | 4,000 | 4,000 | 12,000 | |
| 10 | Procurement of fodder seed varieties for 40 ha pilot fodder production (10 ha/soum) | Goods, service and inputs | OP/Aimag | Soum | 500 | 4 | 4 | 4 | 12 | 2,000 | 2,000 | 2,000 | 6,000 | |
| 11 | Recruited Aimag Project Management Specialist | Consulting Services | UNIDO TA | TA | 15,000 | 2 | 2 | 2 | 6 | 30,000 | 30,000 | 30,000 | 90,000 | |
| 12 | Inception Workshop (IW) / Completion Workshop | Training and Workshop | OP | Aimag | 4,589 | 2 | 0 | 2 | 4 | 9,178 | | 9,178 | 18,356 | |
| 13 | Senior specialist for supply chain management and marketing | Consulting Services | UNIDO TA | LS | 27,500 | 1 | 1 | 1 | 3 | 27,500 | 27,500 | 27,500 | 82,500 | |
| 14 | Climate adaptation resilience assessment* | Consulting Services | UNIDO TA | LS | 6,000 | 1 | 1 | 1 | 3 | 6,000 | 6,000 | 6,000 | 18,000 | |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 | Collection centre management backstopping expert | Consulting Services | UNIDO TA | LS | 1,400 | 12 | 12 | 12 | 36 | 16,800 | 16,800 | 16,800 | 50,400 | - |
| 16 | Misc technical inpus for supply chains | Consulting Services | UNIDO TA | LS | 5,500 | 1 | 1 | 1 | 3 | 5,500 | 5,500 | 5,500 | 16,500 | - |
| - | **Output 1.2: Interactive Hands-On Herders' Field School (HFS) and advanced training on strategies for dealing with climate change and enhancing adaptive capacities.** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1 | Herders' Field Schools trainings (4/soum/year) | Training and Workshop | UNIDO TA | HFS | 1,850 | 16 | 16 | 16 | 48 | 29,600 | 29,600 | 29,600 | 88,800 | - |
| 2 | Contracting trainer for intensive sheep shearing training and equipment | Consulting Services | UNIDO TA | Soum | 30,000 | 1 | 0.2 | 0.2 | 1.4 | 30,000 | 6,000 | 6,000 | 42,000 | - |
| 3 | Contracting trainer for 36 Intensive home food and dairy processing (3/soum/year) (with stainless cooking tools) | Consulting Services | UNIDO TA | LS | 1,000 | 12 | 12 | 12 | 36 | 12,000 | 12,000 | 12,000 | 36,000 | - |
| 4 | Contracting trainer for 36 Annual income diversification training (3/soum/year) (with hand tools) | Consulting Services | OP/Aimag | LS | 2,000 | 12 | 12 | 12 | 36 | 24,000 | 24,000 | 24,000 | 72,000 | - |
| 5 | Contracting trainer for 12 Strengthening family bonds training (1/soum/year) | Consulting Services | OP/Aimag | LS | 1,248 | 4 | 4 | 4 | 12 | 4,992 | 4,992 | 4,992 | 14,975 | - |
| 6 | Master HFS Training of Trainers (ToT) programme | Training and Workshop | UNIDO TA | LS | 15,000 | 1 | 1 | 0 | 2 | 15,000 | 15,000 | | 30,000 | - |
| 7 | Technical consultants on fiber supply chain (wool and cashmere for trade and quality based payment schemes) | Consulting Services | UNIDO TA | LS | 30,000 | 1 | 1 | 1 | 3 | 30,000 | 30,000 | 30,000 | 90,000 | - |
| 8 | Senior Gender and community specialist and to track the impact on the climate adaptation activities | Consulting Services | UNIDO TA | LS | 27,500 | 1 | 1 | 1 | 3 | 27,500 | 27,500 | 27,500 | 82,500 | - |
| 9 | Terminal Evaluation of the project which includes the impact from the collection centres and KM activities. | Consulting Services | UNIDO TA | LS | 9,949 | - | - | 1 | 1 | - | - | 9,949 | 9,949 | - |
| - | **Sub-total component 1** | - | - | - | - | - | - | - | - | **524,870** | **296,551** | **269,819** | **1,091,240** | **58.07%** |
| - | **Component 2: Knowledge Management and Knowledge Sharing** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | **Outcome 2.1: Strengthening Coordination and Technical Capacity for Climate-Informed Services to Herders** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | **Output 2.1.1: Strengthening National Networks for Climate-Informed Livestock Information Exchange** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1 | Contracting service provider to develop the National climate adaptation stakeholders database developed (1000 stakeholders) | Goods, services and inputs | OP | LS | 5,000 | 1 | 0.3 | 0.3 | 1.6 | 5,000 | 1,500 | 1,500 | 8,000 | - |
| 2 | Training staff for field monitoring of weekly postings for public awareness. | Training and Workshop | OP | LS | 30,635 | 1 | 1 | 1 | 3 | 30,635 | 30,635 | 30,635 | 91,905 | - |
| 3 | Vehicle 4WD to support field work on public awareness | Goods, services and inputs | OP | LS | 51,500 | 1 | - | - | 1 | 51,500 | | | 51,500 | - |
| - | **Outcome 2.2: Established wide-reaching climate change and adaptation awareness among rural and urban populations** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | **Output 2.2.1: High Quality documentaries with 3 segments to** | - | - | - | - | - | - | 1 | - | - | - | - | - | - |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **highlight climate change and climate adaptation** | | | | | | | | | | | | | |
| 1 | Contracting the service provider to develop documentary with 3 segments about climate adaptation | Consulting services | OP | LS | 30,000 | 1 | 1 | - | 2 | 30,000 | 30,000 | 30,000 | 90,000 | - |
| 2 | Contracting with service provider to do baseline and endline survey on the impact of climate adaptation activities | Consulting services | OP | LS | 8,300 | 1 | 0 | 1 | 2 | 8,300 | | 8,300 | 16,600 | - |
| - | **Output 2.2.2: Knowledge Management and Sharing** | - | - | - | | | | | | | | | | |
| 1 | 2 Scholarships for master's students on coping with CC within the project | Training and Workshop | OP | Scholarship | 10,000 | - | 2 | - | 2 | | 20,000 | | 20,000 | - |
| 2 | Contracting with national experts to issue 60 papers on coping with the CC | Consulting services | OP | LS | 500 | 20 | 20 | 20 | 60 | 10,000 | 10,000 | 10,000 | 30,000 | - |
| 3 | 6 Aimag symposiums (1/aimag/year) | Training and Workshop | OP/Aimag | LS | 5,000 | 2 | 2 | 2 | 6 | 10,000 | 10,000 | 10,000 | 30,000 | - |
| 4 | 2 National symposiums | Training and Workshop | OP | LS | 21,000 | - | 1 | 1 | 2 | | 21,000 | 21,000 | 42,000 | - |
| 5 | International Year of Rangelands and Pastoralism (IYRP) participation | Training and Workshop | OP | - | 70,765 | - | 1 | - | - | | 70,765 | | 70,765 | - |
| 6 | Contracting expert for Research, M&E of the president initiatives on white Gold National Movement; Food Revolution National Movement; and Billion Tree National Movement. | Consulting services | OP | LS | 20,000 | 1 | 1 | 1 | 3 | 20,000 | 20,000 | 20,000 | 60,000 | - |
| 7 | Contracting expert for data collection and reporting, KM and Social Inclusion to generage the content base climate adaptation for social media and television documentaries and reporting of the impact of the adaptation activity generated by the project including the support social media and television documentaries cost | Consulting services | OP | LS | 32,900 | 1 | 1 | 1 | 3 | 32,900 | 32,900 | 32,900 | 98,700 | - |
| - | **Sub-total component 2** | - | - | - | - | - | - | - | - | **198,335** | **246,800** | **164,335** | **609,470** | **32.43%** |
| - | **Sub-total A. Project activities** | - | - | - | - | - | - | - | - | **723,205** | **543,351** | **434,154** | **1,700,710** | **90.50%** |
| - | **B. Project execution** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1 | Meetings of Project Steering Committee | Operating Cost | OP | Meeting | 100 | 1 | 1 | 1 | 3 | 100 | 100 | 100 | 300 | - |
| 2 | Project Manager | Operating Cost | OP | Staff | 18,000 | 1 | 1 | 1 | 3 | 18,000 | 18,000 | 18,000 | 54,000 | - |
| 3 | Accounting, Administration and Procurement Consultant | Operating Cost | OP | LS | 12,000 | 1 | 1 | 1 | 3 | 12,000 | 12,000 | 12,000 | 36,000 | - |
| 4 | Accounting software additional user license cost and training. | Goods, services and inputs | OP | LS | 3,000 | 1 | 0 | 0 | 1 | 3,000 | | | 3,000 | - |
| 5 | External Independent Auditing | Operating Cost | OP | LS | 5,500 | 1 | 1 | 1 | 3 | 5,500 | 5,500 | 5,500 | 16,500 | - |
| 6 | Office O&M at Aimag level | Operating Cost | OP/Aimag | LS | 150 | 2 | 2 | 2 | 6 | 300 | 300 | 300 | 900 | - |
| 7 | Office O&M at OP | Operating Cost | OP | LS | 853 | 1 | 1 | 1 | 3 | 853 | 853 | 853 | 2,560 | - |
| 8 | Office equipment at the Aimag level | Goods, services and inputs | OP/Aimag | LS | 3,000 | 2 | - | - | 2 | 6,000 | | | 6,000 | - |
| 9 | Office equipment for OP | Goods, services and inputs | OP | LS | 3,000 | 1 | - | - | 1 | 3,000 | | | 3,000 | - |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | UNIDO Project Servicing Cost (PSC 7%) | - | UNIDO TA | LS | - | - | - | - | - | 27,293 | 14,833 | 14,059 | 56,185 | - |
| - | **Sub-total B. Project execution** | - | - | - | - | - | - | - | - | 76,046 | 51,586 | 50,813 | 178,445 | 9.496% |
| - | **Total A+B** | - | - | - | - | - | - | - | - | 799,251 | 594,937 | 484,967 | 1,879,155 | 100% |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | **C. IFAD Support: Project Cycle Management Fee** | - | IFAD | LS | - | - | - | - | - | 53,243 | 53,243 | 53,242 | 159,728 | - |
| - | **Grand Total** | - | - | - | - | - | - | - | - | 852,494 | 648,180 | 538,209 | 2,038,883 | - |

| | | Impl. Res. | Unit | Unit cost | Y1 | Y2 | Total Cost Y3 | Total | % |
|---|---|---|---|---|---|---|---|---|---|
| **A. Project activities** | | | | | | | | | |
| **Component 1: Implementing Medium-Scale Pilot Project for Capacity Building and Climate-resilient herding practices and technologies** | | | | | | | | | |
| **Outcome 1: Herders and their households are equipped with soum-based infrastructure (e.g. collection centres, wells), digital tools, practical knowledge and skills** | | | | | | | | | |
| **Output 1.1: Collecting centres assembled for climate change resilience & other investments** | | | | | | | | | |
| 1 | Contracting supplier to deliver standard 4 white gold collection centers (two 40f containers, bailer, solar system, floor scale) for wool and cashmere | OP/UNIDO | Soum | 30 000 | 120 000 | - | - | 120 000 | |
| 2 | Printing White gold collection center operating manual | OP/UNIDO | LS | 2 284 | 2 284 | - | - | 2 284 | |
| 3 | Contracting with service provider to deliver white gold membership database and quality base payment system for mobile phone / digital nomad cards and app | OP/UNIDO | LS | 20 000 | 14 000 | 6 000 | - | 20 000 | |
| 4 | Tree planning for wind break and tree planting day events | OP/Aimag | Soum | 1 200 | 4 800 | 4 800 | 4 800 | 14 400 | |
| 5 | Procuring tree for planting and fencing for the local community | OP/Aimag | Soum | 6 215 | - | 24 859 | - | 24 859 | |
| 6 | Contracting with company to install solar pumping station at the existing wells | OP/Aimag | Aimag | 8 000 | 16 000 | - | - | 16 000 | |
| 7 | Providing material to herder to make livestock blankets | OP/Aimag | Number | 10 | 50 000 | - | - | 50 000 | |

| | | Impl. Res. | Unit | Unit cost | Y1 | Y2 | Total Cost Y3 | Total | % |
|---|---|---|---|---|---|---|---|---|---|
| 8 | Renting excavator for 40 berms and 40 shallow ponds | OP/Aimag | Site | 2 000 | 16 000 | 16 000 | 16 000 | 48 000 | |
| 9 | Renting tractor for 40 ha pilot fodder production (10 ha/soum) | OP/Aimag | Soum | 1 000 | 4 000 | 4 000 | 4 000 | 12 000 | |
| 10 | Procurement of fodder seed varieties for 40 ha pilot fodder production (10 ha/soum) | OP/Aimag | Soum | 500 | 2 000 | 2 000 | 2 000 | 6 000 | |
| 11 | Aimag Climate Adaptation Specialist | OP/UNIDO | TA | 15 000 | 30 000 | 30 000 | 30 000 | 90 000 | |
| 12 | Inception Workshop (IW) / Completion Workshop | OP | Aimag | 2 000 | 4 000 | - | 4 000 | 8 000 | |
| 13 | Travel Cost to suport the functioning of the collecting centres | OP/UNIDO | LS | 12 000 | 12 000 | 12 000 | 12 000 | 36 000 | |
| 14 | Senior specialist for supply chain management and marketing | OP/UNIDO | LS | 27 500 | 27 500 | 27 500 | 27 500 | 82 500 | |
| 15 | Climate adaptation resilience assessment* | OP/UNIDO | LS | 6 000 | 6 000 | 6 000 | 6 000 | 18 000 | |
| 16 | Collection centre management backstopping expert | OP/UNIDO | LS | 1 444 | 17 330 | 17 331 | 17 331 | 51 993 | |
| 17 | Misc technical inpus for supply chains | OP/UNIDO | LS | 5 500 | 5 500 | 5 500 | 5 500 | 16 500 | |
| **Output 1.2: Interactive Hands-On Herders' Field School (HFS) and advanced training on strategies for dealing with climate change and enhancing adaptive capacities.** | | | | | | | | | |
| 1 | Herders' Field Schools trainings (4/soum/year) | OP/UNIDO | HFS | 1 900 | 30 400 | 30 400 | 30 400 | 91 200 | |
| 2 | Contracting trainer for intensive sheep shearing training and equipment | OP/UNIDO | Soum | 30 000 | 30 000 | 6 000 | 6 000 | 42 000 | |
| 3 | Contracting trainer for 36 Intensive home food and dairy processing (3/soum/year) (with stainless cooking tools) | OP/UNIDO | LS | 1 000 | 12 000 | 12 000 | 12 000 | 36 000 | |
| 4 | Contracting trainer for 36 Annual income diversification training (3/soum/year) (with hand tools) | OP/Aimag | LS | 1 500 | 18 000 | 18 000 | 18 000 | 54 000 | |

| | | Impl. Res. | Unit | Unit cost | Y1 | Y2 | Total Cost Y3 | Total | % |
|---|---|---|---|---|---|---|---|---|---|
| 5 | Contracting trainer for 12 Strengthening family bonds training (1/soum/year) | OP/Aimag | LS | 500 | 2 000 | 2 000 | 2 000 | 6 000 | |
| 6 | Master HFS Training of Trainers (ToT) programme | OP/UNIDO | LS | 15 000 | 15 000 | 15 000 | - | 30 000 | |
| 7 | Technical consultants on fiber supply chain (wool and cashmere for trade and quality based payment schemes) | OP/UNIDO | LS | 30 000 | 30 000 | 30 000 | 30 000 | 90 000 | |
| 8 | Senior Gender, SECAP, and community specialist to support and to track the impact on the climate adaptation activities | OP/UNIDO | LS | 27 500 | 27 500 | 27 500 | 27 500 | 82 500 | |
| 9 | Terminal Evaluation of the project which includes the impact from the collection centres and KM activities. | OP/UNIDO | LS | 9 949 | | | 9 949 | 9 949 | |
| 10 | Travel cost to support the training programme | OP/Aimag | LS | 6 000 | 12 000 | 12 000 | 12 000 | 36 000 | |
| **Sub-total component 1** | | | | | **508 314** | **308 890** | **276 980** | **1 094 184** | |
| **Component 2: Knowledge Management and Knowledge Sharing** | | | | | | | | | |
| **Outcome 2.1: Strengthening Coordination and Technical Capacity for Climate-Informed Services to Herders** | | | | | | | | | |
| **Output 2.1.1: Strengthening National Networks for Climate-Informed Livestock Information Exchange** | | | | | | | | | |
| 1 | Contracting service provider to develop the National climate adaptation stakeholders database developed (1000 stakeholders) | OP | LS | 5 000 | 5 000 | 1 500 | 1 500 | 8 000 | |
| 2 | Training staff for field monitoring of weekly postings for public awareness. | OP | LS | 30 635 | 30 635 | 30 635 | 30 635 | 91 905 | |
| 3 | Vehicle 4WD to support field work on public awareness | OP | LS | 50 000 | 50 000 | - | - | 50 000 | |
| **Outcome 2.2: Established wide-reaching climate change and adaptation awareness among rural and urban populations** | | | | | | | | | |
| **Output 2.2.1: High Quality documentaries with 3 segments to highlight climate change and climate adaptation** | | | | | | | | | |

| | | Impl. Res. | Unit | Unit cost | Y1 | Y2 | Total Cost Y3 | Total | % |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Contracting the service provider to develop documentary with 3 segments about climate adaptation | OP | LS | 30 000 | 30 000 | 30 000 | 30 000 | 90 000 | |
| 3 | Contracting with service provider to do baseline and endline survey on the impact of climate adaptation activities | OP | LS | 7 500 | 7 500 | - | 7 500 | 15 000 | |
| **Output 2.2.2: Knowledge Management and Sharing** | | | | | | | | | |
| 1 | 2 Scholarships for master's students on coping with CC within the project | OP | Scholarship | 10 000 | - | 20 000 | - | 20 000 | |
| 2 | Contracting with national experts to issue 60 papers on coping with the CC | OP | LS | 500 | 10 000 | 10 000 | 10 000 | 30 000 | |
| 3 | 6 Aimag symposiums (1/aimag/year) | OP/Aimag | LS | 5 000 | 10 000 | 10 000 | 10 000 | 30 000 | |
| 4 | 2 National symposiums | OP | LS | 21 000 | - | 21 000 | 21 000 | 42 000 | |
| 5 | International Year of Rangelands and Pastoralism (IYRP) participation | OP | | 70 765 | - | 70 765 | | 70 765 | |
| 6 | Contracting expert for Research, M&E of the president initiatives on white Gold National Movement; Food Revolution National Movement; and Billion Tree National Movement. | OP | LS | 20 000 | 20 000 | 20 000 | 20 000 | 60 000 | |
| 7 | Contracting expert for data collection and reporting, KM and Social Inclusion to generate the content base climate adaptation for social media and television documentaries and reporting of the impact of the adaptation activity generated by the project. | OP | LS | 15 000 | 15 000 | 15 000 | 15 000 | 45 000 | |
| 8 | Travel Cost to support social media and television documentaries | OP | LS | 17 900 | 17 900 | 17 900 | 17 900 | 53 700 | |

| | | Impl. Res. | Unit | Unit cost | Y1 | Y2 | Total Cost Y3 | Total | % |
|---|---|---|---|---|---|---|---|---|---|
| **Sub-total component 2** | | | | | **196 035** | **246 800** | **163 535** | **606 370** | |
| **Sub-total A. Project activities** | | | | | **704 349** | **555 690** | **440 515** | **1 700 554** | **90.50%** |
| **B. Project execution** | | | | | | | | | |
| 1 | Meetings of Project Steering Committee | OP | Meeting | 100 | 100 | 100 | 100 | 300 | |
| 2 | Project Manager | OP | Staff | 18 000 | 18 000 | 18 000 | 18 000 | 54 000 | |
| 3 | Accounting, Administration and Procurement Consultant | OP | LS | 12 000 | 12 000 | 12 000 | 12 000 | 36 000 | |
| 4 | Accounting software additional user license cost and training. | OP | LS | 3 000 | 3 000 | - | - | 3 000 | |
| 5 | External Independent Auditing | OP | LS | 6 000 | 6 000 | 6 000 | 6 000 | 18 000 | |
| 6 | Office O&M | | | | | | | - | |
| | Office O&M at Aimag level | OP/Aimag | LS | 150 | 300 | 300 | 300 | 900 | |
| | Office O&M at OP | OP | LS | 853 | 853 | 854 | 853 | 2 560 | |
| 7 | Office equipment | | | | | | | - | |
| | Office equipment at the Aimag level | OP/Aimag | LS | 3 000 | 6 000 | - | - | 6 000 | |
| | Office equipment for OP | OP | LS | 3 000 | 3 000 | - | - | 3 000 | |
| 8 | UNIDO Project Servicing Cost (PSC 7%) | OP/UNIDO | LS | | 18 280 | 18 280 | 18 280 | 54 840 | |
| **Sub-total B. Project execution** | | | | | **67 533** | **55 534** | **55 533** | **178 600** | **9.50%** |
| **Total A+B** | | | | | **771 882** | **611 224** | **496 048** | **1 879 154** | **100%** |
| **C. IFAD Support: Project Cycle Management Fees** | | **IFAD** | **LS** | | **65 610** | **51 954** | **42 164** | **159 728** | **8.50%** |
| **Grand total** | | | | | **837 492** | **663 178** | **538 212** | **2 038 882** | |

## ANNEX 5: ENVIRONMENT AND SOCIAL MANAGEMENT PLAN

### Environmental and Social Impact Assessment (ESIA)

The **SMART HERDERS** project, officially titled **"Sustainable Pasture Management and Adaptation with Resilient Technologies for Herders in Mongolia"**, aims to support Mongolia's herding communities in adapting to climate-induced challenges, such as severe winter storms (dzuds), droughts, and land degradation. Key project activities include implementing sustainable grazing practices, introducing climate-resilient water and livestock infrastructure, and building technical capacities through training and community-based field schools. The project focuses on two main components: (1) climate-resilient herding practices, such as solar-powered water stations, pasture management, and fodder production, and (2) strengthening knowledge-sharing networks to support adaptive decision-making.

The project's screening process was conducted in alignment with the Adaptation Fund's Environmental and Social Policy. It categorizes SMART HERDERS as a **Category B** project, meaning it has moderate, site-specific risks that are reversible through appropriate mitigation~~. The project has been classified as **Moderate Risk (Category B)** under both the IFAD SECAP tool and AF/ESP screening, ensuring consistency. Environmental risks such as pasture degradation are mitigated through rotational grazing and water-saving technologies. Social risks are addressed via gender-sensitive measures, including 40% female participation and the SEP/GRM. Climate risks are mitigated through early warning systems and resilient grazing practices. Both frameworks~~'

The project has identified the following potential environmental and social impacts: a) The project must comply with the country's Law on Environmental Impact Assessment (EIA) and associated national and sectoral regulations, ensuring timely completion of any relevant requirements to avoid administrative delays. (Principle 1); b) ensure consistent respect for human rights, particularly in remote areas where enforcement of certain aspects may be more challenging (Principle 4); c) The project will implement activities in rural areas, where enforcement of labour laws is weak, and informal and seasonal workers involved in the project may face lack of access to social protections or fair wages. occupational health and safety (OHS) risks during the construction of infrastructure (e.g., water stations, collection centers), or child labour risks that may persist in a particular area. (Principle 6); d) The project focuses on pastureland restoration, but improper implementation of project activities could lead to localized biodiversity loss (Principle 9); e) The proposed activities may result in localized negative impacts on native flora and fauna, and unintentional introduction of non-native plant species, disrupting local biodiversity. (Principle 10); f) Given the area's vulnerability to dzuds and droughts, climate variability may affect the sustainability of rotational grazing and water conservation strategies. Unforeseen climate events could delay or disrupt some project activities (Principle 12); g) Some activities may entail lead to solid waste accumulation, wastewater production, and air pollution (Principle 13) and risks of water contamination and zoonotic diseases from livestock management activities (Principle 14); potential impacts in relation to the activities and land and soil conservation, to be further determined and assessed as project sites become known (Principle 15).

All relevant mitigation measures ~~perspectives~~ have been integrated into the ESMP, addressing environmental, social, and climate risks comprehensively. The proposed measures ensure that project activities align with the Adaptation Fund's ESP and IFAD SECAP guidelines. The environmental and social risks and impacts were assessed for each principle, focusing on biodiversity conservation, resource efficiency, social inclusion, and cultural heritage. **Community engagement** was prioritized to ensure the project aligns with herders' needs. Herders and local groups were involved through participatory planning sessions and consultations, ensuring that vulnerable groups, including women, youth, and marginalized communities, could voice their needs and contribute to project design.

#### Compliance with the Law

The environmental impact assessment (EIA) requirements of Mongolia are regulated by the Law on Environmental Impact Assessment (2012, revised 2017). The terms of the law apply to all new projects, as well as rehabilitation and expansion of existing industrial, service, or construction activities and projects that use natural resources. The purpose of the law is environmental protection, the prevention of ecological imbalance, the regulation of natural resource use, and the assessment of environmental impacts of projects and procedures for decision-making regarding the implementation of projects. The Ministry of Environment and Tourism (MET) is the central authority responsible for overseeing the EIA process, with the ESPA and local environmental departments playing key roles in implementation and compliance monitoring.

The EIA process in Mongolia follows a two-tier classification: i) General Environmental Impact Assessment (GEIA) – A preliminary assessment conducted by MET or local environmental authorities to determine whether a project requires a more detailed EIA, and ii) Detailed Environmental Impact Assessment (DEIA) – Required for projects with potentially significant environmental and social impacts. The DEIA is conducted by licensed consultants and must include baseline studies, impact predictions, mitigation measures, and environmental management plans.

~~The project aligns with Mongolia's national environmental and agricultural laws and policies, as well as international standards applicable to climate adaptation and sustainable livestock management. The project has been developed in close collaboration with Mongolia's government and is endorsed by the Designated Authority (DA) for the Adaptation Fund, ensuring that all planned activities respect the national regulatory framework. Key national laws and policies relevant to this project include Mongolia's **Environmental Protection Law**, the **Law on Land**, and the **Pastureland Law**, which govern environmental sustainability, land use, and resource management, crucial for grazing practices in Mongolia's steppe ecosystems.~~

~~By promoting rotational grazing, water conservation, and soil restoration, the proposed intervention is directly addressing challenges related to overgrazing and land degradation, which are regulated under Mongolia's **Pastureland Law**. Additionally, activities like the installation of solar-powered water stations and the establishment of livestock collection centers adhere to national standards for sustainable infrastructure development and environmental protection. These actions are expected to reduce pastureland degradation and improve herder resilience, aligning with Mongolia's **National Adaptation Plan (NAP) 2024** and **Nationally Determined Contributions (NDCs)**.~~

~~The project's compliance strategy includes:~~

~~**Alignment with National and Local Policies**: All activities are designed to align with the requirements of the **Law on Environmental Protection** and the **Law on Water**, particularly regarding water usage efficiency and soil conservation. The project also adheres to Mongolia's **Pastureland Law**, which governs sustainable grazing practices and pasture restoration.~~

~~**Stakeholder and Government Engagement**: Collaborating with local government agencies and community organizations, such as Pasture User Groups (PUGs), ensures that project activities meet local standards and respect community rights and traditions. Training sessions and workshops will also familiarize herders with compliance requirements, fostering a culture of regulatory adherence and environmental stewardship.~~

~~Overall, the project demonstrates a strong commitment to national compliance, embedding sustainability and resource stewardship in all activities. This integrated approach supports both Mongolia's legal framework and the broader goals of the Adaptation Fund to build climate resilience and sustainable livelihoods. No further assessments are required, but compliance with relevant national regulations and permit issuance will be regularly monitored through the ESMP.~~

As project activities and locations are defined, the PMU will undertake a general EIA (screening)—to initiate a general environmental impact assessment (GEIA) and submit to the MET or aimag/capital city governor's office all relevant documentation. The GEIA may lead to one of three conclusions: (i) the project rejection due to non-conformity and impacts; (ii) can be completed pursuant to specific conditions, or (iii) a detailed EIA (DEIA) is necessary. Issue of GEIA is free and usually takes up to 14 working days. All GEIAs will be completed prior to initiating project activities.

**Access and Equity**

The SMART HERDERS project is designed to support equitable access to resources, training, and climate adaptation technologies among Mongolia's herder communities. It prioritizes inclusivity, targeting vulnerable groups like women, youth, and herder households in climate-sensitive regions of Dundgobi and Bayanhongor. The project's interventions include sustainable grazing practices, water resource management, and educational initiatives through Herders' Field Schools, which are intended to enhance adaptive capacity across socio-economic groups. By implementing activities in underserved regions and ensuring local engagement in the planning phases, the project aims to distribute resources equitably, enabling marginalized groups to access essential support.

Project activities are structured to avoid any form of exclusion. Through participatory planning and the establishment of Pasture User Groups (PUGs) and local adaptation committees, the project ensures that all community members, including those from vulnerable groups, can actively participate in decision-making. The goal is to establish equitable resource distribution, including the setup of climate-resilient water systems and collection centers that provide herders equal access to market infrastructure and adaptation resources. The project's gender-focused initiatives,

such as a target for 40% female participation, and scholarships for climate adaptation studies, emphasize equitable opportunity and empowerment.

Specific measures within the project design ensure that resources are accessible to those who need them most. Collection centers and water recharge systems are strategically located in high-risk soums, while Herders' Field Schools provide tailored training sessions across 4 soums to reach remote communities. By offering scholarships and conducting inclusive training, the project empowers women, youth, and economically disadvantaged herders, promoting equity in knowledge acquisition and resource utilization.

**Marginalized and Vulnerable Groups**

The proposed project, targeting Dundgobi and Bayanhongor Aimags, focuses on building resilience for herder communities facing climate-induced challenges such as desertification, dzud (harsh winter conditions), drought, and yellow dust storms. Key beneficiaries are approximately 4,000 herder households who represent a significant portion of Mongolia's population relying heavily on livestock and pasture resources. This project aims to provide tools, knowledge, and infrastructure that help these communities adapt to increasing climate risks. In particular, the project emphasizes inclusion of marginalized and vulnerable groups, ensuring that women, youth, and individuals with disabilities have equitable access to project benefits and opportunities for meaningful engagement.

The project is designed with a participatory approach to ensure that the needs of marginalized and vulnerable groups, including women, youth, and individuals with disabilities, are prioritized. The stakeholder engagement process will systematically and actively identify vulnerable groups, as well as their vulnerability factors. ~~This~~ By ~~is achieved by~~ actively involving these groups in decision-making processes, training, and capacity-building activities that address climate adaptation, governance, and sustainable livestock management, the project will ensure that any potential disproportionate impacts will be identified, and differentiated mitigation measures implemented. ~~.~~

The project will ensure at least 40% female participation in training and decision-making processes, which supports women's empowerment and leadership within the herder communities. Scholarships specifically for women, along with targeted initiatives for youth and individuals with disabilities, are integral parts of the project's commitment to inclusivity.

No project activities are anticipated to result in disproportionate impacts on vulnerable groups, compared to non-vulnerable groups. However, consistent engagement will ensure that any impacts are identified and addressed early.

Additionally, the project recognizes the unique climate-specific vulnerabilities faced by these groups. Given the inclusive approach and targeted interventions for marginalized and vulnerable groups, no further assessments are necessary for this principle. The participatory mechanisms, targeted training, and infrastructure improvements outlined in the project sufficiently address the unique challenges and needs of these communities, ensuring they are not disproportionately affected by the project's interventions and that they have equitable access to the benefits and decision-making processes.

**Human Rights**

The proposed project, focused on building resilience within Mongolia's herding communities, has been designed with a strong emphasis on protecting and promoting human rights. The project aligns with Mongolia's national policies and international commitments to uphold human rights across economic, social, and environmental dimensions. Mongolia's constitution guarantees fundamental human rights and freedoms, including non-discrimination, equal access to public services, and protection of cultural heritage. These rights are further supported by Mongolia's commitments to international human rights frameworks, including the International Covenant on Civil and Political Rights (ICCPR), the International Covenant on Economic, Social, and Cultural Rights (ICESCR), and the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), all of which Mongolia has ratified.

The project is structured to support human rights by promoting equitable access to resources, knowledge, and decision-making processes within Mongolia's herding communities. Project activities aim to enhance climate resilience while ensuring respect for the rights of all stakeholders, including women, youth, and vulnerable groups. Through participatory planning sessions, extensive consultations, and stakeholder engagement, the project emphasizes inclusivity and equal opportunity in project benefits, fostering a supportive environment for community development. Key project interventions, such as Herders' Field Schools, solar-powered water infrastructure, and rotational grazing systems, are designed to improve living conditions, promote sustainable livelihoods, and uphold the socio-economic rights of Mongolia's rural communities, without discrimination.

To ensure alignment with human rights, the project promotes:

**Equitable Access to Resources**: Infrastructure investments, like water stations and collection centers, are implemented with an inclusive approach, ensuring that all community members, regardless of gender, age, or social status, can benefit from improved resources.

**Participation in Decision-Making**: The project establishes local adaptation committees and Pasture User Groups (PUGs) to facilitate community-led decision-making. This inclusive approach enables all herders, especially women and marginalized groups, to contribute to project activities and policy support.

**Respect for Cultural Heritage**: The project respects Mongolia's unique cultural heritage, particularly in herding communities. No activities encroach on sacred sites or traditions, and all interventions are planned with respect for local customs, in consultation with community leaders.

All principles mentioned above will be consistently discussed and assessed in the context of the stakeholder engagement process with all relevant beneficiaries. The findings on the above, and any issued in relation to human rights will be documented in an annex as part of the stakeholder engagement reports.

Based on the initial screening and alignment with human rights principles, **no additional assessments** are required for the human rights aspect of the project. Existing national legal protections and project policies ensure that human rights are respected and integrated into every stage of the project. Furthermore, Mongolia's commitment to international human rights frameworks, particularly those safeguarding rural populations, reinforces the project's approach to respecting the rights and well-being of all herders.

**Gender Equality and Women's Empowerment**

Gender equality and women's empowerment represent core principles of the proposal, recognizing the essential role of women in herding communities and the specific challenges they face. Women are actively involved in livestock care, household management, and community functions; however, traditional gender roles have historically limited their participation in decision-making and access to resources. This project explicitly addresses these constraints by ensuring at least 40% female participation in all training and leadership activities, supporting women-led income diversification, and offering scholarships for female students focused on climate adaptation research.

The project's interventions include establishing leadership roles for women within Pasture User Groups (PUGs), promoting economic opportunities for women through value-added livestock products, and strengthening women's technical capacities in climate-adaptive practices. These efforts are intended to empower women by enhancing their economic resilience and integrating their voices in resource management and adaptation strategies. Such measures support gender equality and foster an environment where women can participate fully in herding activities and decision-making, contributing to both household and community resilience.

Focus on sustainable livestock management, climate-resilient infrastructure, and technical capacity-building is designed to empower women in herding communities and reduce gender disparities.

Given the project's comprehensive approach to gender inclusion, no further assessments are necessary to ensure compliance with the Adaptation Fund's Gender Policy. The project's design already integrates gender-sensitive strategies that meet the standards for gender equality and women's empowerment, including measurable targets for female participation, income enhancement, and educational support. These measures will be monitored continuously to ensure they effectively address gender disparities and foster women's empowerment in Mongolia's herding communities.

**Core Labour Rights**

Mongolia has ratified all eight ILO core conventions, providing a strong legal framework for labour rights. However, compliance in the agriculture sector presents specific challenges related to informal employment with weak enforcement of labour protections, such as child labour (including livestock herding and seasonal agricultural work), limited access to social protections for agricultural workers, and occupational safety concerns, including exposure to extreme weather, inadequate protective equipment, and poor working conditions in herding and farming.

Reports from the ILO Committee of Experts on the Application of Conventions and Recommendations (CEACR) indicate that there are laws prohibiting child labour, but enforcement is weak in rural areas where children are often

engaged in herding, crop production, and other informal agricultural activities. Seasonal and migrant workers may face uncertain wages, poor working conditions, and lack of social security coverage. Finally, occupational safety and health (OSH) regulations exist but are rarely enforced in small-scale farming and livestock production. ILO has provided Mongolia with technical assistance in labour rights awareness, child labour prevention, and social protection.

Through the inclusion of activities such as training, pasture management, water infrastructure, and livestock handling, engaging various stakeholders, including herders, local community members, there is a potential for hired labor in the context of specific tasks, like water infrastructure maintenance or field school facilitation. The project recognizes the need to uphold core labor rights to ensure that all workers involved, whether directly or indirectly, are protected and operate under fair and safe conditions.

While the project activities primarily focus on sustainable grazing and climate resilience, minor impacts on core labor rights may arise. Specific project interventions, such as training programs in Herders' Field Schools and infrastructure setup (e.g., solar-powered water stations and collection centers), may involve temporary labor or volunteers, and will be implemented in rural areas. This could lead to potential risks, such as:

- **Occupational Health and Safety (OHS)**: Workers involved in constructing water stations, maintaining livestock shelters, or handling livestock could face occupational hazards without adequate protective measures.
- **Fair Wages and Working Conditions**: Although the project primarily targets local communities for labor, there is a risk that temporary or informal workers may not receive fair wages or work under suitable conditions, particularly during field work or infrastructure setups.

The project will p**artner with labour authorities** to strengthen inspection capacity, and the following mitigation measures are proposed:

~~Additional assessments specific to labor rights are not immediately necessary, as the project design incorporates community-driven labor and engagement. However,~~ mitigation measures will be implemented to ensure compliance with core labor standards and to identify any further OHS or wage-related risks:

- **Establish Clear Labor Guidelines**: Develop guidelines aligned with national labor laws and international standards to ensure fair wages, equal opportunity, and safe working conditions for all labor categories.
- **Implement an OHS Plan**: Introduce an Occupational Health and Safety Plan that includes training on safe practices, the provision of personal protective equipment (PPE), and protocols for handling livestock and hazardous tasks.
- **Regular Monitoring and Feedback Mechanism**: Include labor conditions in regular monitoring and establish a feedback mechanism to report and resolve any labor-related grievances swiftly.

**Indigenous Peoples**

In Mongolia, the majority of the population identifies as Mongol, specifically of the Khalkh and Durvud ethnicities. There is a small Kazakh-speaking minority, primarily located in Mongolia's northwestern regions, but project areas of intervention, Dundgobi and Bayanhongor Aimags, are predominantly inhabited by Mongol herding communities and do not intersect with areas where ethnic minorities reside.

The project's activities, such as pasture management and climate resilience training, are designed for herder communities in the central and southern regions, where Mongol pastoralist practices are the cultural norm. **Since there are no identified ethnic minorities** within the project's target areas, the project will not impact cultural practices, territories, or traditional lifestyles. Given that the project does not operate in areas with ethnic populations, **further assessments related to Indigenous Peoples are not applicable**

**Involuntary Resettlement**

The focus of the project is on climate adaptation measures to enhance resilience among herder communities in Mongolia's Gobi regions, specifically in Dundgobi and Umnugobi aimags. The key activities under this project will not entail ~~do not without necessitate~~ land acquisition or alteration in land ownership. Activities have been structured to avoid any need for economic or physical displacement, making the principle of Involuntary Resettlement non-applicable.

Moreover, pilot sites selected for intervention will be determined through a structured stakeholder engagement process, wherein community input will play a pivotal role. This reinforces the project's alignment with community needs and reduces any potential conflicts over land use. Given the project's scope and approach, it is unlikely that any physical or economic resettlement will occur. This is further supported by initial screenings indicating no necessity for resettlement actions, either temporary or permanent.

**Protection of Natural Habitats**

The proposed interventions primarily target sustainable pasture management, the introduction of resilient livestock practices, and the development of climate-adaptive infrastructure. Activities such as rotational grazing, fodder production, and installation of water recharge structures aim to reduce overgrazing, restore degraded pasture areas, and improve water accessibility without encroaching on or harming natural habitats. This focus aligns with Mongolia's emphasis on maintaining pasture health in regions affected by climate-induced desertification and overgrazing.

Based on the project's design and scope, the interventions are expected to have ~~minimal to~~ no adverse impacts on natural habitats. Activities are restricted to areas already used for herding, with an emphasis on restoring degraded lands and improving sustainable use practices. The project avoids high-sensitivity or protected areas and includes measures to maintain local biodiversity. Sustainable grazing techniques and pasture management will reduce pressure on land, preventing further degradation of Mongolia's central Steppe regions, which are crucial grazing grounds. Any sub-project considered a natural habitat, will be ~~discarded~~ excluded for the context of this proposal, and an alternative site will be selected, and a rapid assessment to identify potential indirect impacts will be conducted, as locations are pre-defined.~~.~~ Given the project's focus on sustainable land management within existing pasture zones and its measures to support environmental resilience, no further assessments are required.

**Conservation of Biological Diversity**

Mongolia has a unique Central Asian Steppe ecosystem, primarily within Dundgobi and Bayanhongor aimags, which are integral for traditional nomadic herding. The Steppe is highly vulnerable to climate-induced stresses, including dzud (harsh winter storms) and drought, which degrade pasture quality and affect local biodiversity. Over 73% of Mongolia's land is designated for grazing, but desertification and overgrazing are increasing due to unsustainable practices and climate shifts. Approximately 76.9% of Mongolia's land faces varying degrees of desertification, with reduced vegetation cover and soil fertility further impacting species diversity.

The project's activities focus on improving grazing practices, restoring degraded pastures, and establishing climate-resilient fodder production on approximately 40 hectares. These activities, while intended to stabilize and improve pasture health, carry a low risk of impacting biodiversity, especially if mismanaged near sensitive areas. The planned sustainable grazing and rotational pasture management techniques aim to prevent overgrazing and reduce soil degradation, helping restore natural vegetation cover that supports biodiversity. The activities are confined to existing pasture areas, reducing risks to biodiversity.

Given that project activities are designed to enhance ecosystem resilience and are confined to already disturbed pastureland, no further biodiversity assessments are considered necessary, however, some measures will be included in the ESMP to ensure this risk is avoided:

- **Site-specific Biodiversity Screening**: The project will ensure that interventions are confined to areas already used pasturelands to prevent encroachment into undisturbed ecosystems. Prior to initiating any restoration or grazing activities, biodiversity screenings ~~will be conducted to identify any potential risks from project activities. If any of the screening results shows potential risk to biodiversity, an alternative location will be identified.~~ and baseline assessments will be conducted to determine the presence of critical habitats, protected areas, and key biodiversity features that may be directly and indirectly impacted by the project. This assessment will be supported by stakeholder consultations with environmental authorities, local communities, and conservation organizations. If any of the screening results shows potential risk to biodiversity, an alternative location will be identified.

- **Community Engagement and Education**: the project will engage herder communities in training sessions on biodiversity-friendly grazing practices, fostering community ownership of conservation initiatives while balancing livestock needs.

**Climate Change**

The project adopts an integrated approach to address climate risks and promote agriculture, and livestock sector integration and build climate resilience of Mongolia's herding communities, addressing vulnerabilities exasperated by extreme climate events such as dzuds, prolonged droughts, dust storms and land degradation. Mongolia's pastoral landscapes are highly vulnerable to climate change impacts, with a significant warming trend observed over the past decades. The project's interventions include implementing solar-powered water systems, establishing rotational grazing practices, constructing water recharge berms, and supporting resilient fodder production to mitigate the risks associated with droughts and seasonal water shortages. Through these efforts, the project aims to improve pasture health and resource availability, ensuring herders can adapt to the shifting climate. Integration with **Mongolia's NDC and NAP** ensures **climate-resilient practices.**

These interventions have been designed to address existing climate vulnerabilities within Mongolia's herding communities, and no further environmental or social assessments are required. The project's activities inherently focus on adapting to and mitigating the risks associated with climate variability, aligning directly with Mongolia's National Adaptation Plan and international climate goals. The proposed mitigation measures are sufficient to ensure that the project not only reduces the climate vulnerability of herders but also promotes long-term sustainability and resilience for Mongolia's pastoral landscapes.

**Pollution Prevention and Resource Efficiency**

This principle emphasizes the need to optimize the use of resources and minimize pollution impacts to support sustainable development goals. By implementing efficient systems for water, energy, and waste management, the SMART HERDERS project aligns with the Adaptation Fund's commitment to promoting environmentally responsible resource use. Through practices that reduce waste and pollution, the project enhances resource resilience and minimizes the environmental footprint of adaptation activities, creating a sustainable foundation for Mongolia's herder communities.

The project proposes the establishment of 5 collection centers for livestock products and various field activities to support climate adaptation. Collection centers, designed to streamline livestock processing and storage, are integral to resource efficiency and pollution control. Other activities, including solar-powered water systems, enhance sustainable resource use and minimize environmental footprint.

The construction and operation of the collection centers will produce low-volume, non-hazardous waste, mainly from the processing and handling of livestock products. Pollution risks associated with these activities are minimal and manageable through established mitigation measures. Waste products, such as wool, dust, and organic matter from livestock, are anticipated to be low in volume and easy to handle. Additionally, water stations will utilize renewable energy, minimizing pollution from traditional fuel sources. During early implementation, baseline assessments will be conducted to establish pollution and resource-use baselines for these centers to optimize waste management and ensure sustainability, in accordance to local practice, and responsibilities to ensure sustainability.

During project implementation, the following mitigation measures are proposed:

- **Waste Management at Collection Centers**: Implement composting and recycling systems for organic and recyclable waste. Use biodegradable materials for livestock blankets and other products to reduce environmental impact. Establish protocols for monitoring water and soil quality near livestock and water station sites.
- **Efficient Water and Resource Use**: Employ solar energy for water stations to reduce reliance on non-renewable energy. Train herders on sustainable water practices to optimize water use, especially during drought periods.
- **Monitoring and Evaluation**: Set up a waste monitoring protocol at each collection center to track and minimize pollution levels.

**Public Health**

Public health and safety concerns in Mongolia's herding communities will be a core area addressed by the project, through the introduction of climate-resilient livestock practices and infrastructure that enhance herders' ability to manage extreme climate impacts, such as dzuds (harsh winters) and droughts. Project interventions include veterinary support, disease monitoring, and producing livestock blankets to safeguard animals during extreme cold. These measures not only protect livestock health but also secure the well-being of herder households whose livelihoods are closely tied to animal health.

The project's interventions are expected to enhance the resilience of herder communities by reducing the risks associated with climate impacts on livestock and herders. With improved veterinary care and disease management practices, herders will be better equipped to prevent zoonotic diseases, which can be exacerbated by harsh weather and close animal-human interactions. The availability of solar-powered water stations will provide clean water sources, mitigating the health risks associated with water scarcity and poor sanitation. Additionally, livestock blankets produced through community initiatives will reduce animal mortality, directly impacting the economic security of herder households and supporting overall community resilience. Mitigation measures will include:

- **Veterinary Care and Monitoring**: Regular animal health checks and vaccination programs to prevent the spread of zoonotic diseases.
- **Disease Prevention Training**: Education on zoonotic disease prevention for herders, ensuring they have the knowledge and resources to minimize health risks.
- **Protective Equipment for Extreme Conditions**: Provision of blankets and other protective gear for livestock to minimize mortality during extreme winter events, protecting herders' assets and reducing stress on food security.
- **Public Health Guidelines and Monitoring**: Continuous health monitoring will ensure that any emerging risks are managed in alignment with local health standards.

**Physical and Cultural Heritage**

Mongolia ratified the Convention Concerning the Protection of the World Cultural and Natural Heritage on February 2, 1990.

As of 2023, Mongolia has six sites inscribed on the World Heritage List, reflecting its rich cultural history and diverse natural landscapes. These sites include the Uvs Nuur Basin, Orkhon Valley Cultural Landscape, Petroglyphic Complexes of the Mongolian Altai, Great Burkhan Khaldun Mountain and its surrounding sacred landscape, Landscapes of Dauria, and the Deer Stone Monuments and Related Bronze Age Sites.At national level, a comprehensive legal and regulatory framework to recognize and protect physical and cultural heritage is headed by the Law on the Protection of Cultural Heritage, initially enacted in 2014 and subsequently revised in 2021. This law defines cultural heritage, delineates the responsibilities of governmental bodies at various levels, and sets forth procedures for the registration, preservation, and promotion of both tangible and intangible cultural assets.

Additionally, the Law on Culture has been comprehensively revised to provide state support for cultural activities and to protect Mongolia's cultural heritage. This law emphasizes the expansion of cultural studies and education, the promotion of public-private partnerships, and the economic utilization of Mongolia's cultural legacy.

The proposed interventions will take place ~~within the culturally rich and diverse regions of Mongolia, particularly~~ in areas with historical significance tied to the nomadic herding lifestyle that has shaped Mongolian culture for centuries. The project activities are primarily designed around sustainable pasture management, water access improvements, and climate resilience training, all of which are intended to operate within existing pasture areas without disturbing untouched lands.

The project is not anticipated to impact physical or cultural heritage sites, as it involves infrastructure improvements (e.g., solar-powered water stations, fodder storage) and grazing management that will not interfere with historical or sacred sites. The emphasis on using already inhabited and actively managed pastures reduces the risk of disturbing any culturally or historically significant locations.

Given that project activities are confined to existing agricultural and pastoral areas, there is no anticipated impact on physical or cultural heritage. The project has incorporated safeguards and consultative processes to ensure alignment with local customs and respect for cultural heritage. Further assessments are therefore not required.

**Land and Soil Conservation**

The project includes critical interventions aimed at enhancing sustainable land use and soil conservation. Key activities, such as **rotational grazing, soil restoration**, and **fodder production** on degraded pastures, are tailored to counteract the extensive land degradation and soil erosion that challenge Mongolia's steppe ecosystems. By restoring soil health and improving land management practices, the project aims to strengthen the resilience of pasturelands, critical to the livelihood of herding communities that depend on these resources for livestock grazing.

The project interventions are anticipated to have a positive impact on soil and land conservation, with no adverse effects on sustainability or risk of degradation. Activities have been carefully selected to not only avoid harm but to actively contribute to soil health and prevent further degradation. The adoption of rotational grazing, for example, will allow vegetation recovery periods, which can reduce erosion risks and enhance soil structure over time. Similarly, the establishment of fodder production plots will decrease the grazing pressure on natural pastures, thus mitigating the risk of overgrazing and supporting the regrowth of local vegetation. Given these beneficial outcomes, no additional assessments are required for soil and land conservation, but some mitigation measures are proposed to allow for adaptive management, providing a responsive framework that can detect early signs of degradation and allow adoption of corrective actions.

- **Implementation of Rotational Grazing**: Coordinate grazing schedules across pilot sites to balance grazing pressure, allowing vegetation to recover and reduce erosion risks.
- **Soil Stabilization Practices**: Introduce and apply techniques, such as contour planting or grass strip planting, to reduce soil runoff on sloped areas.
- **Regular Soil Monitoring**: Implement periodic assessments to track changes in soil quality and adjust management practices as needed, ensuring adaptive responses to any soil degradation indicators.

During the inception phase, the following steps will be undertaken to identify, assess and manage environmental and social risks for each site:

**Step 1: Stakeholder Mapping and Engagement:** The project team will conduct a comprehensive stakeholder mapping exercise in each potential project area. This will include consultations with local herder groups, community-based organizations, government representatives, and other relevant actors to identify priority areas and activities.

**Step 2: Site Selection and Environmental and Social Risk Assessment:** For each potential pilot site, an initial environmental and social risk assessment will be conducted. This assessment will consider the ecological sensitivity of the area, the potential social impacts on local communities, and alignment with the Adaptation Fund's Environmental and Social Policy (ESP), IFAD's SECAP and Gender Policy (GP).

**Step 3: Defining USP Activities through Participatory Planning:** The specific adaptation practices and technologies for each pilot site will be determined through participatory planning workshops involving local communities. This process will ensure that the selected activities are both culturally appropriate and technically feasible, minimizing potential environmental and social risks.

**Step 4: Development of the Environmental and Social Management Plan (ESMP):** Once the USPs are defined, and the screening has been conducted, a site-specific ESMP will be developed and integrated into the project's monitoring plan. The ESMP will outline the risks associated to the project activities, as well as the measures to mitigate or manage these risks, and roles and responsibiltiies. This will include specific provisions for gender-responsive consultations and the use of disaggregated data to assess the impacts on vulnerable groups.

**Framework for Risk Assessment and Management of USPs:** Given the inherent uncertainties associated with USPs, the project will adopt a robust risk assessment framework that can be further developed at the full proposal stage. This framework will include the following elements:

**Risk Identification and Screening:** For each USP, risks will be identified using the 15 ESP principles. These include assessing potential impacts on natural habitats, , and vulnerable communities. A preliminary risk screening will be conducted during the project's inception phase, and this screening will be updated as more information becomes available.

**Risk Assessment and Impact Analysis:** For USPs that are found to have moderate to high environmental and social risks, a detailed impact analysis will be conducted. This analysis will be carried out in consultation with any affected communities, ensuring that their concerns and suggestions are incorporated into the final design of the activities.

**Risk Management Measures and ESMP Integration:** The project's ESMP will be updated to include tailored risk management measures for each USP. This will involve developing specific guidelines for implementing partners on how to avoid, minimize, or mitigate the identified risks. The ESMP will also outline the roles and responsibilities of the Implementing Entity (IE) and the Executing Entities (EEs) in ensuring compliance with ESP and GP standards.

**Monitoring, Evaluation, and Reporting:** A dedicated Monitoring and Evaluation (M&E) plan will be developed for the USPs, including indicators and targets that are disaggregated by gender and other

**Budgeting for ESMP Activities and the E&S Consultant**

The implementation of the ESMP will be supported by a dedicated Environmental and Social (E&S) Consultant within the Project Management Unit (PMU). The E&S Consultant will be responsible for:

- Conducting site-specific E&S risk assessments during the planning and implementation phases.
- Overseeing the implementation of risk mitigation measures outlined in the ESMP.
- Monitoring compliance with Adaptation Fund Environmental and Social Policy (AF ESP) and IFAD SECAP guidelines.

~~**Annex 4 (Project Budget)** include the following:~~

- **E&S Consultant Costs:** The E&S Consultant's position, including salary, travel, and operational expenses.
- **Mitigation Measures Costs:** SECAP-specific mitigation actions such as water management infrastructure, pasture restoration, and stakeholder engagement programs.

| | **E&S Consultant Costs** | **Impl. Res.** | **Total** |
|---|---|---|---|
| 1 | Senior Gender, SECAP, and community specialist to support and to track the impact on the climate adaptation activities | OP/UNIDO | 82 500 |
| 2 | Contracting expert for data collection and reporting, KM and Social Inclusion to generate the content base climate adaptation for social media and television documentaries and reporting of the impact of the adaptation activity generated by the project. | OP | 45 000 |
| | **Mitigation Measures Costs** | | |
| 3 | Contracting with company to install solar pumping station at the existing wells | OP/Aimag | 16 000 |
| 4 | Renting excavator for 40 berms and 40 shallow ponds | OP/Aimag | 48 000 |
| 5 | Renting tractor for 40 ha pilot fodder production (10 ha/soum) | OP/Aimag | 12 000 |
| 6 | Inception Workshop (IW) / Completion Workshop | OP | 8 000 |
| 7 | Herders' Field Schools trainings (4/soum/year) | OP/UNIDO | 91 200 |
| 8 | Contracting trainer for 36 Annual income diversification training (3/soum/year) (with hand tools) | OP/Aimag | 54 000 |
| 9 | Contracting trainer for 12 Strengthening family bonds training (1/soum/year) | OP/Aimag | 6 000 |
| 10 | Master HFS Training of Trainers (ToT) programme | OP/UNIDO | 30 000 |
| 11 | Training staff for field monitoring of weekly postings for public awareness. | OP | 91 905 |
| | **Total** | | **484 605** |

**Unidentified Sub-Projects (USP) Screening and ESMP**

The project incorporates Unidentified Sub-Projects (USPs) to maintain flexibility and responsiveness to site-specific needs while adhering to environmental and social safeguards. The project will have only partially unidentified USPs related to project location. Project activities have been defined to a point that they will not be considered undefined. Given the inherent variability in the project's context, such as climatic and ecological conditions in the Steppe and Gobi regions, the exact locations ~~and detailed activities~~ will be finalized during the initial implementation phase. The use of USPs allows for the targeted and high-impact application of interventions tailored to local needs.

1. **USP Activities and Initial Implementation Steps**

**Key Activities Under Component 1**

The following USPs fall under Component 1 and will be refined through participatory and adaptive planning:

1. **Water Management Innovations**:
    - Installation of solar-powered water pumps, recharge berms, and ponds to mitigate water scarcity.
2. **Pasture and Livestock Management**:
    - Establishment of sustainable grazing systems and climate-resilient fodder production.
3. **Community Infrastructure Development**:
    - Construction of White Gold Collection Centres for wool and cashmere processing.
    - Implementation of green infrastructure such as windbreaks and tree planting around community facilities.
4. **Capacity Building**:
    - Establishment of Herders' Field Schools (HFS) to deliver hands-on training in climate-smart practices.

**Framework for USP Selection and Risk Management**

| Step | Objective | Actions |
|---|---|---|
| **1. Stakeholder Mapping and Engagement** | Identify relevant stakeholders and secure their active participation. | - Conduct mapping of local herder groups, community-based organizations, and government representatives in potential sites.<br>~~- Organize consultations to align USP activities with local priorities and cultural contexts.~~<br>- Ensure inclusivity by engaging women, youth, and marginalized groups. |
| **2. Site Selection and Environmental and Social Risk Assessment** | Evaluate the suitability of potential sites using ecological, social, and climate vulnerability criteria. | - Conduct preliminary environmental and social risk assessments for each site, focusing on:<br>- Ecological sensitivity (e.g., degradation levels, water availability).<br>- Vulnerability to climate hazards (e.g., dzuds, droughts).<br>- Socioeconomic factors (e.g., community readiness, gender equity).<br>- Use tools such as vulnerability mapping and GIS data to ensure evidence-based decisions. |

| Step | Objective | Actions |
|---|---|---|
| ~~**3. Defining USP Activities Through Participatory Planning**~~ | ~~Ensure that USP activities align with community needs and project goals.~~ | - Facilitate participatory planning workshops in selected sites.<br><br>~~- Co-design USP activities with stakeholders, ensuring cultural appropriateness and technical feasibility~~.<br><br>~~- Document community input and integrate it into final activity designs.~~ |
| **4. Integration Into the Environmental and Social Management Plan (ESMP)** | Embed USP-specific risk management measures into the ESMP. | - Develop tailored risk management measures for each USP.<br><br>- Include provisions for gender-responsive approaches and data disaggregation to address the needs of vulnerable groups. |

**Framework for Risk Assessment and Management**

| Step | Actions | Roles and Responsibilities |
|---|---|---|
| **Risk Identification and Screening** | - Screen each USP against the Adaptation Fund's 15 ESP principles. | - **E&S Consultant:** Lead the screening process and ensure adherence to ESP principles. |
| | - Identify risks related to biodiversity, cultural heritage, and vulnerable populations. | - **Executing Entities (EEs)**: Office of the President and UNIDO. |
| | - Update risk screenings as new data emerges. | - **PMU**: Integrate new data and update risk assessments periodically. |
| **Risk Assessment and Impact Analysis** | - Conduct detailed impact analyses for USPs with moderate to high risks. | - **E&S Consultant**: Oversee impact analysis and ensure stakeholder engagement. |
| | - Engage affected communities to incorporate their feedback into activity designs. | - **Soum Governments and Community Leaders**: Facilitate community consultations and gather feedback. |
| | - Use findings to refine risk management strategies. | - **Executing Entities (EEs)**: Integrate findings into the design |

**Commented [NV1]:** Removing this since we only have unidentified USP related to location

| Step | Actions | Roles and Responsibilities |
|---|---|---|
| | | and planning of USPs. Office of the President and UNIDO. |
| **Risk Management and ESMP Integration** | - Update the project's ESMP to include USP-specific guidelines. | - -**E&S Consultant**: Draft and update ESMP with USP-specific mitigation measures. |
| | - Assign clear roles and responsibilities to the Implementing Entity (IFAD) and Executing Entities (Government of Mongolia and UNIDO) for compliance with ESP and GP standards. | - **Implementing Entity (IFAD)**: Ensure oversight and accountability for ESP and GP compliance. |
| **Monitoring, Evaluation, and Reporting** | - Develop a Monitoring and Evaluation (M&E) plan with gender-disaggregated indicators. | - **M&E Unit**: Design and implement M&E frameworks, incorporating gender-disaggregated indicators. |
| | - Regularly report progress on USP implementation and risk mitigation. | - **Executing Entities (EEs)**: Provide regular updates and collaborate with the M&E Unit for reporting. Office of the President and UNIDO. |

**IFAD** will provide comprehensive supervision and oversight of both **Executing Entities (Office of the President and UNIDO) throughout the implementation of the Environmental and Social Management Plan (ESMP).** This will be achieved through structured monitoring frameworks, periodic assessments, and a participatory grievance redress mechanism to ensure that environmental and social risks are effectively mitigated. The Environmental and Social (E&S) Consultant within the Project Management Unit (PMU) will play a central role in overseeing the execution of mitigation measures, risk assessments, and compliance with the Adaptation Fund's Environmental and Social Policy (ESP) and IFAD's Social, Environmental and Climate Assessment Procedures (SECAP). Regular on-site inspections, stakeholder consultations, and compliance verification exercises will be conducted to ensure adherence to the ESMP and early identification of emerging risks. Furthermore, IFAD will require biannual progress reports from both Executing Entities, outlining key risk management measures undertaken, stakeholder engagement outcomes, and any corrective actions implemented.

To strengthen accountability and ensure compliance, IFAD will also conduct independent supervision missions at critical project phases, such as during inception, mid-term review, and final evaluation. These missions will assess how well the Executing Entities are adhering to risk mitigation measures, implementing participatory planning, and addressing environmental and social safeguards. The ESMP will be treated as a dynamic, living document, allowing for adaptive management based on real-time monitoring data and feedback from affected communities. Additionally, a Grievance Redress Mechanism (GRM) will be operationalized, ensuring that any concerns related to environmental and social impacts are promptly addressed. IFAD will work closely with local authorities and stakeholders to ensure that climate adaptation interventions, such as the installation of solar-powered water systems, rotational grazing programs, and pasture restoration efforts, are implemented in an environmentally sustainable and socially inclusive manner. This proactive supervision approach will ensure compliance, risk mitigation, and equitable benefit-sharing across the project sites in Dundgobi and Bayankhongor aimags.

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**Annex Table 5.1 Environmental and Social Management Plan (ESMP) Matrix**

| Environmental and Social Principle | Anticipated Risk | Mitigation Measure | Verification Means | Responsibility |
|---|---|---|---|---|
| **Compliance with National Law** | Non-compliance with relevant national environmental and agricultural regulations | Undertake screening and submit GEIA for all sub-project, as locations and activities become known to OP and UNIDO~~MET~~ or Airmag and confirm outcome prior to initiating activities.<br><br>Identify relevant requirements by national legislation, including any permits that may be necessary prior to initiating project interventions, and liaise with local authorities to initiate requests. | Monitoring report | Environmental and Social Consultant in PMU/alternate focal point |
| **Access and Equity** | Risk of exclusion or not equitable distribution of benefits to beneficiaries | Define project activities through participatory planning and local adaptation committees that include focus on equity | Stakeholder Engagement Reports. Monitoring Report | PUGs.; Environmental and Social Consultant in PMU/alternate focal point |
| **Marginalized and Vulnerable Groups** | Risk of exclusion of vulnerable groups. | Identify differentiated measures to addressvulnerability factors as identified in the SEP. | Stakeholder Engagement Reports and Monitoring Reports | PUGs.; Environmental and Social Consultant in PMU/alternate focal point |
| **Hman Rights** | Challenges to ensure project activities alignment to human rights | In the context of SEP activities, conduct engagement sessions focused on human rights with relevant stakeholders. | Dedicated annex in SEP Report | PUGs.; Environmental and Social Consultant in PMU/alternate focal point |
| **Gender Equality and Women's Empowerment** | Chllenges to meet gender targets | Implement and monitor gender-sensitive strategies | Monitoring Reports | PUGs.; Environmental and Social Consultant in PMU/alternate focal point |
| **Core Labour Rights** | Risk of inadequate labor standards and unsafe conditions for hired workers. | Develop labour guidelines; implement OHS plan; monitor fair wages and conditions. | Monitoring and progress report | Environmental and Social Consultant in PMU/alternate focal point |
| **Protection of Natural Habitats** | Risk of disturbance to natural habitats from grazing practices. | Conduct screening to assess site feasibility and confine activities to existing pasturelands; introduce rotational grazing to prevent habitat degradation. | Site monitoring reports; | PUGs.; Environmental and Social Consultant in PMU/alternate focal point |
| **Conservation of Biological Diversity** | Low risk of biodiversity loss in project areas. | Conduct biodiversity screenings to assess site feasibility; implement sustainable grazing practices; monitor impact on biodiversity. | Site monitoring reports; | Field Trainers. Environmental and Social Consultant in PMU/alternate focal point |
| **Climate Change** | Project activities not resulting in reduced vulnerability to cc of beneficiaries | Consistently monitor and assess the vulnerability of herders to climate change impacts | Site monitoring reports; | Field Trainers. Environmental and Social Consultant in PMU/alternate focal point |
| **Pollution Prevention and Resource Efficiency** | Risk of waste from livestock processing and water system inefficiency. | Implement composting and recycling systems; monitor waste at collection centers; promote solar-powered stations. | Waste management logs; water usage records. | Environmental and Social Consultant in PMU/alternate focal point Field Supervisors. |

| Environmental and Social Principle | Anticipated Risk | Mitigation Measure | Verification Means | Responsibility |
|---|---|---|---|---|
| **Public Health** | Risk of health issues due to zoonotic diseases | Provide veterinary care; improve water systems; distribute livestock blankets to reduce animal stress. | Animal health reports. water quality monitoring. | Veterinary Support Team; Community Health Workers. |
| **Physical and Cultural Heritage** | Risk of unintentional impact on heritage sites within project areas. | Conduct cultural screenings; report any chance finds; engage with cultural representatives. | community consultation notes. | Environmental and Social Consultant in PMU/alternate focal point Field Supervisors. |
| **Lands and Soil Conservation** | Risk of deteriorating or affecting soil quality. | Implement relevant measures to ensure adaptvie management of soils, including rotational grazing, soil stabilization practices conduct baseline and periodic assessments to track changes in soil quality and adjust management practices as relevant. | Changes to soil quality Reports | Environmental and Social Consultant in PMU/alternate focal point Field Supervisors. |
| ~~**Stakeholder Engagement and Grievance Redress Mechanism (GRM)**~~ | ~~Limited stakeholder engagement, risk of insufficient community buy-in.~~ | ~~Develop and implement a GRM; conduct community consultations; provide regular project updates.~~ | ~~GRM feedback records; stakeholder meeting minutes.~~ | ~~Project Community Engagement Specialist; Local Committees; PUGs.~~ |

## Annex 5-A: Stakeholder Engagement Plan (SEP)

This Stakeholder Engagement Plan will guide project implementation by the following considerations: (i) facilitate the planning and implementation of the project through stakeholder engagement; (ii) The scope and level of detail of the plan is consistent and proportional to the nature, magnitude and possible risks and impacts of the Project; (iii) This plan is a dynamic document, prepared in the early stages of the design, to be reviewed and updated during its execution. The main purpose of this SEP is to create awareness of the key deliverables of the project, project status - update stakeholders on key activities, and provide avenues for them, especially the vulnerable, to voice their concerns and grievances.

During the design process, consultations were conducted in Ulaanbaatar and potential target prorvinces or aimags including Bayankhongor Aimag and Dundgobi Aimag.by the mission which visited the country in October, 2024. The objective of the consultations was to ensure that the design of the SMART-herder project was relevant for the target group of small herders and addressed climate change risks. The consultations were critical in understanding government priorities at the national and local level and in meeting with community women and men to better understand interventions that were appropriate for them. There were visits to the Dundgobi and Bayankhongor Aimags took place, and meetings were held with several stakeholders, including Governors and Government Officials in Provinces and Soums (District) in these provinces (refer Section H). Accordingly, while the draft SEP and GRM are included, both documents will be validated during early implementation with all relevant stakeholers, including beneficiaries, no later than 6 months after project approval. Current gaps include:

- A section needs to be included mentioning the country system and laws relevant for SEP and GRM. Where relevant, gaps between country system and AF and IFAD requirements need to be mentioned and adequately addressed.
- Institutionally, the organizational capacity, roles and responsibilities, and authorities need to clearly be identified and agreed upon based on mandates of agencies and organizations and their role indicated in the SEP and GRMs.

**Project Stakeholders**

Community and stakeholder engagement is key to successful implementation of the program. Stakeholder engagement will be conducted throughout the project lifecycle. Indeveloping and implementing the program activities, communities and all relevant stakeholders will be consulted to gather their suggestions and feedback on the activities design, implementation arrangements and methods, and endorsed mitigation and risk reduction measures.

Stakeholders include groups, institutions and individuals that will be directly or indirectly impacted by the the project, may have interest in the program outcomes, or may have influence (negatively or positively) on the program. In the case of the project, these include line ministries, aimag and soum governors and, relevant national governmental actors, producer organization, SMEs, cooperatives, herders, service providers, and IFAD. Further stakeholders may include affected communities or civil societies and other actors working in the Program areas.

**Information disclosure**

Disclosure of relevant program information helps program affected people and other stakeholders understand the risks, impacts and opportunities of the program. The SMART HERDERS Project will provide the relevant stakeholders with access to relevant information, such as

i) purpose, nature, and scale of the program,
ii) the duration of the proposed program activities,
iii) any potential risk to and impacts on such as communities, as well as mitigation measures,
iv) the envisaged stakeholder engagement process, and
v) the grievance mechanism.

The table below lists the identified stakeholders and details their engagement methods into the program cycle.

**Table 5.1 Stakeholder Engagement Plan Matrix**

| Stakeholder | Concerns | Engagement Method | Information to Disclose and Report Back | Most Valuable Information to Obtain | Frequency of Engagement | Responsible | Timeline |
|---|---|---|---|---|---|---|---|
| **Government** | | | | | | | |
| Office of the President | Lead Implementation Agency | Leading the overall implementation through PSC meetings and regular coordination | Comprehensive project updates, annual work plan, budget, progress reports | Overall project implementation | Regular basis | PMU | From concept note to completion |
| Ministry of Finance (MoF) | Project and finance agreement | Formal communication (letters), bilateral meetings, PSC meetings, mission kick-off and completion meetings | Financial agreement, project design, implementation status, audit results | Finance arrangements from the government | Regular basis | PMU | From concept note to completion |
| Ministry of Economic Development (MED) | Economic and development alignment | PSC meetings, project update sessions, financial planning meetings | Project economic impact, alignment with development plans | Economic insights, alignment with national development strategies | Regular basis | PMU | Throughout project lifecycle |
| Ministry of Food, Agriculture, and Light Industry (MoFALI) | Agricultural and pastoral support | PSC meetings, sector-specific workshops, collaborative meetings | Project activities related to agriculture and livestock | Agricultural and pastoral needs | Regular basis | PMU | Throughout project lifecycle |
| Ministry of Environment and Climate Change (MECC) | Environmental protection and climate adaptation | PSC meetings, environmental assessments, policy discussions | Environmental impacts, climate adaptation strategies | Environmental data, climate adaptation strategies | Regular basis | PMU | Throughout project lifecycle |
| **Aimag and Soum Level Government** | | | | | | | |
| Aimag and Soum Governor | Local coordination and project execution | Coordination meetings, project-specific consultations, regular progress updates | Planning and implementation arrangements, project impact at local levels | Local development priorities, alignment with policy | Regular basis | PMU, local facilitators | Implementation, completion, post-completion |
| **Development Partners** | | | | | | | |
| UNIDO | Technical Support as Executing Entity | Regular meetings, technical assistance, PSC meetings | Project design, implementation plans, monitoring, annual reports | Technical insights, best practices for implementation | Regular basis | PMU | From concept note to completion |
| USAID, ADB, FAO, UNDP, EU, other UN agencies | Learning and knowledge exchange | Coordination meetings, collaborative workshops, project update exchanges | Details on project activities, lessons learned, plans | Opportunities for collaboration, scaling, and joint efforts | Need basis | PSC, PMU | Implementation |

| Stakeholder | Concerns | Engagement Method | Information to Disclose and Report Back | Most Valuable Information to Obtain | Frequency of Engagement | Responsible | Timeline |
|---|---|---|---|---|---|---|---|
| | | | for future programs | | | | |
| **Service Providers** | | | | | | | |
| Research Institutes | Studies, research, technical assistance | Procurement process, collaborative research projects | Research outcomes, technical opportunities | Relevant research findings, technical solutions | Need basis | PMU | Implementation |
| Suppliers | Products and services | Procurement process, bidding platforms | Product quality standards, delivery timelines | Availability, cost, quality of goods | Need basis | PMU | Implementation |
| Business Entities | Trade, capacity building, quality control | Multistakeholder platforms, trade fairs, market linkage programs | Market demands, potential exports, trade opportunities | Insights on market trends, export requirements | Need basis | PMU | Planning, implementation |
| **NGOs and Communities** | | | | | | | |
| Pastoralist Management Groups (PMGs) | Participatory planning and monitoring | Provincial and community meetings, participatory planning and feedback sessions | Project progress, feedback on implementation | Needs and priorities of herders | Regular | PSC, PMU | Planning, Implementation |
| Local to National Level NGOs | Capacity building and advocacy | Workshops, training sessions, capacity building programs | Project governance, technical support, transparency practices | NGO perspectives on transparency, capacity needs | Need basis | PMU | Design, planning, implementation |
| Youth Groups | Skills development, ICT integration | Training workshops, internships, youth forums | Project opportunities, skill-building initiatives | Insights into youth priorities, technology integration | Regular | PSC, PMU | Planning, Implementation |
| Women's Groups | Gender-sensitive engagement, livelihood support | Community meetings, participatory planning, skills workshops | Gender-responsive project measures, status updates | Women's priorities, social impact insights | Regular | PSC, PMU | Planning, Implementation |
| Cooperatives | Organizational capacity, production | Regular meetings, coordination on production and market linkage efforts | Capacity building needs, funding opportunities | Input needs, cooperative challenges, micro-finance opportunities | Regular | PSC, PCO, PPMO, corridor offices | Planning, Implementation |
| Producer Organizations and Farmer Groups | Institutional support, organic production | Regular coordination meetings, production planning sessions | Capacity building, technical support, access to finance | Specific needs of producers, capacity gaps | Regular | PSC, PMU | Planning, Implementation |

## Annex 5. B Grievance Redress Mechanism (GRM) - Procedure

The SMART-Herders Project in Mongolia, under the Adaptation Fund, will establish an accessible, transparent, and robust Grievance Redress Mechanism (GRM) to address concerns and complaints from individuals or communities who may be impacted by project activities. This GRM is designed to ensure compliance with both the Adaptation Fund's Environmental and Social Policy (ESP) and Mongolian national legislation, including the "Law on Receiving and Resolving Citizen's Grievances (1995, amended 2017)" and the "Law on Public Hearing (2015, amended 2022)." The GRM is a key part of the project's community engagement strategy, ensuring that grievances are managed promptly, equitably, and without retribution.

**Purpose and Scope of the GRM**

The project's GRM is intended to:

- Provide an accessible and transparent channel for grievance submission, review, and resolution across all project levels.
- Protect the rights and interests of project stakeholders by addressing grievances related to environmental, social, and operational issues.
- Prevent grievances from escalating by offering a formal platform for stakeholders to voice concerns, receive timely responses, and, if necessary, pursue appeals.
- Integrate formal and informal grievance mechanisms in alignment with the local context and proportional to the expected project risks.

The Project will establish a Grievance Redress Mechanism (GRM) designed to seek/generate feedback from and to project stakeholders and address/ respond to grievances, problems, issues, or complaints related to project activities and project environmental and social performance. The Project will ensure through the GRM that all project stakeholders will be aware of their rights to access and/or will have access to the GRM at all project management levels, which will be provided in a transparent manner free of costs and without fear of reprisal or retribution on the part of aggrieved parties. In addition, the Project's GRM will help ensure that the rights and interests of project stakeholders are protected from unforeseen lapses in said project performance and that all concerns arising therefrom in all project phases will be effectively addressed. To achieve these ends, the Project will regularly engage project stakeholders and provide them information on the processes and means of raising and addressing grievances through the GRM.

**Project-Level GRM Structure and Responsibilities**

1. **Office of the President:**

- **Role:** As the Lead Coordination Agency, the Office of the President oversees the implementation of the GRM, ensuring that it aligns with national policies and the Adaptation Fund's standards.
- **Responsibilities:** Provides high-level oversight and coordination across all project activities related to the GRM, including final review of unresolved grievances.

2. **Project Steering Committee (PSC)**:

- **Chair**: Office of the President
- **Members**: Ministry of Finance (MoF), Ministry of Economic Development (MED), Ministry of Food, Agriculture, and Light Industry (MoFALI), Ministry of Environment and Climate Change (MECC), IFAD, and United Nations Industrial Development Organization (UNIDO) as technical support.
- **Role**: The PSC provides oversight, handling unresolved grievances escalated from the Project Management Unit (PMU) or aimag and soum levels.
- **Responsibilities**: Addresses grievances that could not be resolved at lower levels, ensures GRM processes are effectively implemented, and provides policy direction for the project.

**Project Management Unit (PMU)**:

- **Coordinator**: Environment and Social Safeguards Specialist within the PMU
- **Other Key Personnel**: Management Specialist, Monitoring and Evaluation Officer, and Administrative Staff.
- **Role**: The PMU manages the day-to-day operations of the GRM and oversees grievance handling across project levels.
- **Responsibilities**:
    - Documentation of grievances in a central registry.
    - Verification, validation, and categorization of grievances.
    - Coordination with technical experts and preparation of resolutions.
    - Ensuring grievances are recorded, managed, and followed up as per policy guidelines.

**Aimag-Level Working Groups**:

- **Coordinator**: Aimag Governor or Vice Governor (GRM Focal Point)
- **Other Key Personnel**: Aimag-level line department representatives.
- **Role**: Initial intake and documentation of grievances from local communities at the aimag level.
- **Responsibilities**:
    - Serve as a primary grievance intake point for project-affected people in the aimag.
    - Forward grievances to the PMU and provide local context and details to support grievance assessment.
    - Actively communicate with complainants about the status of their grievances.

**Soum-Level Working Groups**:

- **Coordinator**: Soum Governor or appointed Soum Facilitator (GRM Focal Point)
- **Other Key Personnel**: Soum line department staff.
- **Role**: Act as the first point of contact for community-level grievances.
- **Responsibilities**:
    - Facilitate timely documentation and submission of grievances to the Aimag Working Groups or PMU.
    - Communicate with complainants to ensure understanding of the grievance process.
    - Support local resolution of minor grievances and escalate more complex issues as required.

**Technical Assistance Providers (UNIDO and NGOs)**:

- **Role**: Provide technical assistance, training, and capacity building to the GRM officers.
- **Responsibilities**:
    - Support compliance with national and international standards.
    - Assist with training GRM staff on grievance handling, including documentation, validation, and resolution.
    - Ensure alignment with the Adaptation Fund's ESP principles.

**GRM Procedures and Stages**

The GRM process involves several structured stages to ensure accessibility, responsiveness, and transparency:

**Step 1: Intake**

- **Channels**: Grievances can be submitted via multiple channels, including call, text, email, social media (whatsapp or facebook), or personal appearance. Grievance Drop Boxes will be available in community centers for anonymous submissions. Additionally, a social media platform and hotline will be established.
- **Registry**: All grievances will be recorded in a central registry managed by the PMU.

- **Acknowledgment**: The PMU or local GRM officer will acknowledge receipt within 7 days, providing a unique grievance ID and an expected resolution timeline.

**Step 2: Verification**

- **Assessment**: The Grievance Coordinator will determine the validity of the grievance. Non-project-related grievances will be redirected to the appropriate authorities.
- **Escalation**: Serious grievances or those requiring specialized input will be escalated to the PMU or PSC for further review.

**Step 3: Validation and Fact-Finding**

- **Validation**: The GRM team will conduct fact-finding meetings or interviews with relevant parties to verify grievance details.
- **Categorization**: Valid grievances will be categorized based on complexity, and appropriate response times will be established in consultation with the PMU.

**Step 4: Action**

- **Resolution**: Proposed resolutions are documented and implemented, with agreement from all involved parties. For anonymous complaints, responses are issued using provided contact information.
- **Documentation**: All actions are recorded, and the outcome is communicated to the complainant within 30 days of grievance submission.

**Step 5: Feedback**

- **Communication**: Updates or final resolution documents will be shared with the complainant, providing transparency in the grievance process.

**Step 6: Follow-Up**

- **Monitoring**: The PMU will conduct follow-ups to ensure the grievance is satisfactorily resolved. Regular audits will be performed to evaluate the effectiveness of grievance handling across all levels.

**Step 7: Appeal**

- **Escalation for Appeals**: If the complainant is unsatisfied with the resolution, they can file an appeal. Appeals will be reviewed by the next highest level within 30 working days.

**Role of GRM Officers:** The designated GRM officers at each project level (soums, aimags, and PMU) will:

- Maintain a grievance registry and document each grievance received.
- Assess the validity of grievances, referring them to the appropriate level if necessary.
- Coordinate with technical experts and implement validation measures.
- Provide timely, documented responses to complainants and ensure unresolved grievances are escalated.
- Ensure continuous follow-up and conduct periodic audits to evaluate grievance resolution practices.

**Project-Level Grievance Submission Channels**

- **Grievance Drop Boxes**: To be placed in local government offices and community centers, providing a means for anonymous submissions.

- **Social Media Platform**: A project-specific GRM platform for online submissions.
- **Physical Address**: An official grievance desk address with designated contact persons at all levels.
- **Hotline/Call Center**: A toll-free hotline for verbal submissions via calls or SMS.

**GRM Training and Awareness**

- All GRM focal points will undergo training on the grievance process, relevant national laws, and Adaptation Fund ESP principles. This will include understanding rights under Mongolian legislation, such as the "Law on Receiving and Resolving Citizen's Grievances" and "Law on Public Hearing."
- Information about the GRM will be disseminated in community meetings, printed materials, and online platforms to ensure accessibility and comprehension.

**Monitoring, Reporting, and Continuous Improvement**

- The PMU will monitor all grievance handling activities, ensuring compliance with GRM standards.
- Regular reports will be presented to the PSC, summarizing grievance trends, resolutions, and lessons learned.
- Stakeholder feedback on the GRM will be actively sought to inform adjustments and enhance accessibility.

**Current Gaps and Next Steps**

The proposed GRM will be validated with all relevant stakeholders, including government agencies, contractors, and community representatives, to finalize operational details. A written record of responsibilities for each level in the GRM hierarchy will be widely disseminated. Initial validation and adjustments will be completed within the first six months of project implementation.

Given the presence of USPs under the current proposal, the proposed GRM will also be applicable to these areas. Additionally, special attention will be given to ensuring that, once identified, the GRM is effectively communicated to stakeholders in USPs, making them fully aware of how to submit complaints and track their resolution. To ensure that grievances related to Unidentified Sub-Projects (USPs) are effectively managed, the GRM will include clear mechanisms for receiving, documenting, and addressing complaints from stakeholders involved in or affected by USPs*. Given that USPs will be defined during the early stages of project implementation, the GRM will be structured to allow flexible yet robust handling of grievances emerging from these activities.

(** the project will have partially unidentified USPs related to project location. Project activities have been defined to a point that they will not be considered undefined)

## ANNEX 6: ASSESSMENT OF THE QUALITY AT ENTRY OF PROCUREMENT AND FINANCIAL ASPECTS

| **Pillars/Areas of Quality assessment** | **Parameter/issue requiring QA scrutiny** | **Rating of this Parameter** ***(Six-Points Rating Scale or Assessment Scale)*** |
|---|---|---|
| 1. National Legal and Institutional frameworks of Public Procurement in the Borrower's country | *The assessment of the Acceptability of the National Procurement system is based upon analysis of the below-mentioned parameters and, in case of deficiency, assessment of Quality will scrutinise the expected effectiveness of foreseen mitigation measures:* | *The rating of each parameter is made after assessing the quality and sufficiency of the respective mitigation measure prescribed in the Funding Proposal.* |
| | 1. The national public procurement legal framework achieves the established IFAD procurement principles and complies with applicable obligations and the hierarchy of national legal instruments is clearly established (law, Regulations and procedures). | Public procurement in Mongolia is governed by the recently amended ,2023 (which came in force from December, 2023) named as Law of Mongolia on procurement of Goods, Works and Services with State and Local Funds and its Regulations . The national framework is of high quality; achieves the established IFAD procurement principles and is generally consistent with international and IFAD standards. There is a clearly determined legal hierarchy with international obligations taking precedence in case of conflict with domestic law. The national framework will apply to SMART-HERDERS to the extent that it is consistent with IFAD Project Procurement Guidelines. |
| | 2. National Procurement Methods are sufficient to meet the full range of project's needs with clear conditions for use of less competitive methods and ensure value for money, fairness, transparency, proportionality and integrity. | Mongolia's procurement methods are sufficient to meet the full range of project needs with clear conditions for use of less competitive methods (like direct purchase method) and ensure value for money, fairness, transparency, proportionality and integrity. |
| | 3. National Advertisement rules are compatible with IFAD requirements. | All procurements in Mongolia are being conducted by advertising through electronic system with advertisement rules which is compatible with IFAD requirements. |
| | 4. Rules for participation do not exclude foreign bidders based on nationality or unnecessary national requirements. | Mongolian procurement law does not exclude foreign bidders based on nationality or unnecessary national requirements. However, as per recently amendment Law, the threshold of foreign entities participation in bidding has been increased as; for works more than MNT 30 billion for goods more than MNT 1 billion and for services more than MNT 300 million estimated amount. |

| Pillars/Areas of Quality assessment | Parameter/issue requiring QA scrutiny | Rating of this Parameter *(Six-Points Rating Scale or Assessment Scale)* |
|---|---|---|
| | 5. Bidders' qualifications criteria are pass/fail and related to deliver the specific contract. (Exclusions can be justified in case of convictions related to criminal or corrupt activities, non-payment of taxes and social security contributions and for administrative debarment under the national law). | Bidders' qualification criteria are pass/fail and are defined prior to the advertisement of procurement opportunities. and related to deliver the specific contract. |
| | 6.National domestic preferences rules are in line with IFAD's requirements. | The national framework contains provisions relating to National domestic preferences which are in line with IFAD requirements. |
| | 7. National Law/Regulations require that Bid evaluation process is confidential and bid evaluation criteria are objective, relevant to the subject matter of the contract, and precisely specified in advance in the procurement documents. | Mongolia's law /regulation has paid attention on bid evaluation. It requires that Bid evaluation process is confidential and bid evaluation criteria are objective, relevant to the subject matter of the contract, and precisely specified in advance in the procurement documents. |
| | 8.National Law/Regulations require that Quality is the basis for selection in consultancy services | According to Mongolia's new law/regulation quality is the basis for selection in consultancy services. |
| | 9. National Law/Regulations require "public" bid opening and disclosure of record of bid opening session. | Mongolia's new law requires almost all of the procurement activities are through online, there is no problem of public participation during bid opening and access to the record of bid opening session. |
| | 10. National Law/Regulations require neutral specifications based on international norms while admitting equivalent national standards, and provide for the use of functional /performance specifications where appropriate. | Mongolia's law on procurement is formed based on internationally accepted practices and is generally consistent with international standards; based upon this, procurement documents including neutral specifications are being prepared According to the IFAD general conditions for financing, 'Procurement of goods, works and services shall be carried out in accordance with the provisions of the Borrower/Recipient's procurement regulations; to the extent such are consistent with the IFAD Procurement Guidelines. Therefore, for SHART-HERDERS, national procurement procedures will be functional. |
| | 11. National Standard Bidding Documents (SBDs are available and the contents of the such documents is sufficient for suppliers/contractors/service providers to respond to the procurement requirement on fair and non-discriminatory basis. National SBDs include provisions on Fraud and Corruption, IFAD's right to audit, SECAP | National SBDs, prepared by the ministry of finance are available and the contents of such documents is sufficient for suppliers/contractors/service providers to respond to the procurement requirement on fair and non-discriminatory basis. National SBDs include provisions on Fraud and Corruption, equivalent to those in IFAD's SBD. However, SECAP standards |

| Pillars/Areas of Quality assessment | Parameter/issue requiring QA scrutiny | Rating of this Parameter *(Six-Points Rating Scale or Assessment Scale)* |
|---|---|---|
| | standards and SH/SEA provisions equivalent to those in IFAD's SBDs. | SH/SEA provisions, the provision on IFAD's right to audit needs to be inserted while preparing the document. |
| | 12. National SBDs include standard contract conditions which are consistent with internationally accepted practice and which prescribe arbitration as an ultimate forum for dispute settlement in case of contracts with foreign vendors. | National SBDs contain comprehensive standard contract conditions consistent with international and IFAD standards. National SBDs include alternative dispute resolution clauses prescribing that if the dispute cannot be settled by consensus, it will be settled by the courts of Mongolia. |
| | 13. The national legal framework grants bidders the right to challenge Procuring Entity decisions through a two-tier bidders' complaint procedure, the second being independent of the procurement operations and is empowered to grant remedies that are necessary to enforce compliance with the law by Procuring Entities. | Mongolia's new law, grants bidders the right to challenge Procuring Entity decisions through a two-tier bidders' complaint procedure, the second - central state administrative body in charge of financial and budget matters being independent of the procurement operations and is empowered to grant remedies that are necessary to enforce compliance with the law by procuring entities. |
| | 14. The national legal framework prescribes record-keeping rules (should cover the entire procurement process, including contract management phase), and the funding proposal addresses these rules in an effective and adequate manner ensuring they are respected in practice efficiently. | New law requires to keep all the records of entire procurement process. The funding proposal addresses these rules in an effective and adequate manner ensuring they are respected in practice efficiently. |
| | 15. National Law/Regulations prescribe the need for a Procurement Manual detailing all procedures for the correct implementation of procurement regulations and laws and which is to be periodically updated. | Ministry of Finance is working on the development of manuals/guidelines based on the new law. |
| | 16. National Law/Regulations allow for sustainability and a national SPP (Sustainable Public Procurement) plan exists. | Article 12.3 of new procurement law / regulations of Mongolia allow for sustainability and a national SPP (Sustainable Public Procurement). |
| | 17.National Guidance documents exist to enable Procuring Entities to introduce a well-balanced application of sustainability criteria to ensure value for money. | The national framework includes procurement regulation for application of sustainability criteria to ensure value for money. |
| | 18. National Law recognizes precedence of international obligations like those reflected in IFI's Financing Agreements. | Mongolia's law recognizes the obligations from the international organizations and precedence of international financing obligations in case of conflict with national laws. |
| | 19. Presence and effectiveness of a central Procurement Regulatory authority which is independent from transacting public procurement and assumes its role in disseminating professional guidance and rules concerning prevention of | As per new law, article 49, there is presence of a central Procurement Regulatory office- State administrative organization, which is independent from transacting public procurement, performs the |

| Pillars/Areas of Quality assessment | Parameter/issue requiring QA scrutiny | Rating of this Parameter *(Six-Points Rating Scale or Assessment Scale)* |
|---|---|---|
| | conflict of interest and integrity in the work of bid evaluation committees. | Functions of the professional organization of procurement and provides the clint and participant professional and methodological guidance and rules concerning prevention of conflict of interest and integrity in the work including other professional issues. This organization is considered as independent powerful & effective organization. |
| | 20. Definitions of fraud, corruption and other prohibited practices in procurement Law/Regulations are consistent with IFAD's and evidence of enforcement is presented. | Definitions of fraud, corruption and other prohibited practices in New Mongolian procurement Law/Regulations are consistent with IFAD's definitions. |
| 2. Implementation Capacity of the parent Ministry (the Implementing Agency) and related management systems, the capacity of the Project's Implementation Unit (PIU) to undertake project procurement and contract management | The assessment of quality for this Pillar will be based on undermentioned parameters which are meant to measure the capacity of the parent ministry and PMU to undertake project procurement and contract management in a timely and effective manner as per the prescribed design of the project's procurement arrangements and the adequacy of the parent ministry's management systems and related interface with the PMU: | |
| | 1.The parent Ministry (or the Implementing Agency) possesses the 3 P's necessary for project implementation: (i) People (full range of technical and managerial expertise), (ii) Processes (Management systems, delegation of authority, segregation of roles in budget allocation, procurement processing/approval and subsequent payments to vendors. and (iii) Product/Performance (as demonstrated by successful past experience and ability to deliver public services timely and at the right quality. Foreseen Mitigation measures in the PDR are to be assessed for sufficiency with respect to the 3P deficiencies. Examples of mitigation measures:<br>• Creation of PIU<br>• Hiring of Project Management and/or technical consultants<br>• Formulation of PIM with adequate interface between the project and parent ministry systems and with adequate internal control measures including avoidance of situations of conflict of interest.<br>• Appointment of external auditors, as relevant. | The project will be implemented by IFAD and executed by the PMPMD Project Management Unit (PMU) of the Office of the President with technical assistance from UNIDO. PMU of the Office of the president possesses (i) people (Project Manager, Accounting, Administration and Procurement Consultant) (ii) Processes (Management systems, delegation of authority, segregation of roles in budget allocation, procurement processing/approval and subsequent payments to vendors) for smooth implementation of the project. In order to achieve better performance, the project is supported by the TA from UNIDO. Necessary trainings of concerned staffs have also been provisioned. |

| Pillars/Areas of Quality assessment | Parameter/issue requiring QA scrutiny | Rating of this Parameter *(Six-Points Rating Scale or Assessment Scale)* |
|---|---|---|
| | Training of parent ministry staff connected with project activities. | |
| | 2. PIU Director is issued a charter with clear reporting lines and well-defined and appropriate delegation of authority to transact project business and command timely provision of needed inputs from the parent ministry's various departments. | PMU, coordinator will be issued a charter with clear reporting lines and well-defined and appropriate delegation of authority to transact project business and command timely provision of needed inputs from the parent ministry's various departments.<br>State procurement agency's chief /Aimag level procurement agency's chief has clearly defined responsibilities and formal powers for office management, estimate approval and tender approval for goods, works and services which allows them to work freely on most of the procurement processing/approval and subsequent payments to vendors. |
| | 3. PIU staffing levels, in case PIU is established:<br>• Number and range of expertise of PIU staff is adequate to cover all activities of the project (minimum 1 full-time Procurement Officer and 1 Assistant)<br>• Foreseen tasks of needed consultancy firms are clear and established in completed TORs<br>• Training allocations for PIU staff are foreseen especially when parent ministry staff are seconded to the PIU<br>• PIU personnel for Procurement and Contract Management are at adequate levels of past experience in similar activities<br>The bulk of PIU personnel are selected based on fair and open competition in accordance with precise job descriptions. | The bulk of PMU personnel will be selected based on fair and open competition in accordance with precise job descriptions after the launch of SMART-Herders. |
| | 4. Project budget includes adequate financial allocations (salaries, running expenses and per-diems etc.) and other resources (vehicles, decent office working area, equipment and tools etc.) needed by the PIU to deliver its tasks. | Budgets of the project is based on activities to be carried out and includes adequate financial allocation for staff salaries, running expenses, equipment and other costs like vehicles etc. that are necessary to carry out project activities. |
| | 5. Payment, Quality Assurance and Change Management procedures are fully developed by the PIU or mitigation measures are foreseen to deal with any deficiencies as early as possible at project commencement. Examples: | Payment, Quality Assurance and Change Management procedures will be fully developed by the PMU or mitigation measures are foreseen to deal |

| Pillars/Areas of Quality assessment | Parameter/issue requiring QA scrutiny | Rating of this Parameter *(Six-Points Rating Scale or Assessment Scale)* |
|---|---|---|
| | Measures to ensure timely authorization and actual processing of due payments to vendors. | with any deficiencies as early as possible after project commencement. |
| | 6.Codes of Conduct and the consequences of breach of obligations are known to all parent ministry and PIU staff engaged in project activities on part-time or full-time basis. | Mongolia's procurement law/regulation has established codes of conduct and contain articles outlining penalties in cases of breach of conduct to all staffs of PMU/Aimag Governor engaged in project activities on part-time or full-time basis. |
| | 7. The parent ministry's system for suspension/debarment of bidders ensures due process and is consistently applied. | There is a provision for debarment that ensures due process and procedures which is well defined in the Mongolia's law. Penalties are well defined. The MOF's website contains information on blacklisted or debarred firms and individuals with names, grounds for debarment, and duration of debarment.<br><br>SBD's will be amended to include reference to IFAD's Policy on Preventing Fraud and Corruption. Bidders will be required to sign the Self-Certification Form. The World Bank's blacklist applies. |
| | 8. The project builds-in third party or civil society and stakeholders' access to procurement information as a transparency safeguard and a precondition for effective monitoring of project's procurement operations. | Being all procurement electronically, there is access to third party or civil society and stakeholders to procurement information as a transparency safeguard and a precondition for effective monitoring of project's procurement operations.<br>GOM has paid attention on making enabling environment for public consultation. In the evaluation committee the new law requires at least one third of the members of the evaluation committee to be members independent of the client elected representatives of civil society organizations and non-governmental organizations. |
| 3. National Market Competitiveness and Delivery Capacity | The assessment of quality for this Pillar will be based upon undermentioned parameters which measure the extent to which the chosen optimal procurement strategies for the acquisition of the project's procurement needs are established following adequate market research which has fed into the design of the project's Procurement Plan: | |
| | 1.Market Research is the basis for formulation of the project's procurement strategy for the acquisition of each substantial procurement contract and evidence of: | All activities in the PPS are based on market research and considering market capability and dynamics. Market Research is the basis for formulation of the project's procurement strategy for |

| Pillars/Areas of Quality assessment | Parameter/issue requiring QA scrutiny | Rating of this Parameter *(Six-Points Rating Scale or Assessment Scale)* |
|---|---|---|
| | comparison with alternative strategies is evident in the analysis presented in the PPS, at least for major contracts market capacity to deliver at competitive rates is present. | the acquisition of each substantial procurement contract. |
| | 2.The identification of the project's procurement needs is done in consultation with the stakeholders and is objective without exaggeration or understatement of the procurement needs. | Identification of the project's procurement needs is done in consultation with the stakeholders which is objective without exaggeration or understatement of the procurement needs. |
| | 3.National sustainable development goals of as well as relevant IFAD mainstreaming themes (in particular Youth, Gender, Environment & Climate as relevant) have been considered in procurement strategy preparation. | National sustainable development goals (SDG) as well as relevant IFAD mainstreaming themes (Youth, Gender, Environment & Climate) have been considered in procurement strategy preparation. |
| | 4. Procurement strategy clearly demonstrates understanding of any constraints facing private firms in their participation in public procurement competitions (e.g. difficulties in obtaining bid securities, insurance policies etc.). | PPS has considered the current constraints facing the firms in the country including rising costs of inputs/construction materials/fuel etc, the effects of the war in Russia-Ukraine/Isreal-Hamas and other factors in their participation in public procurement competitions. |
| | 5.Evidence of Market Engagement with respect to advance dissemination of SECAP requirements and encouragement of the private sector to comply. Evidence of assessment of the capacity of the national market to comply including any foreseen SECAP training plans for the private sector. | Dissemination of SECAP requirements in IFAD projects and encouragement to comply was made in the meetings with suppliers, contractors and service providers where assessment of capacity to comply by them was also done. |
| | 6.Evidence that cost estimation of procurement contracts are based on market research for Goods or alternatively scientific estimation methods (like bottom-up, analogous or parametric cost estimation methods) for Works and Services. | Cost estimation of procurement contracts for goods, works and services are based on market research of Mongolia. |
| 4. SECAP compliance | The assessment of quality for this Pillar will be based upon undermentioned parameters which are needed to verify that SECAP standards have been implemented throughout all stages of the procurement process: definition of procurement needs/specifications, bidders' selection and qualification criteria, bid evaluation criteria and contract terms and conditions: | |
| | 1.SECAP standards are considered in identification of project's procurement requirements and evidence that alternatives were considered. | SECAP standards have been integrated into the project's procurement arrangements. A detailed SECAP for SPOs table is attached to the PIM. |

| Pillars/Areas of Quality assessment | Parameter/issue requiring QA scrutiny | Rating of this Parameter *(Six-Points Rating Scale or Assessment Scale)* |
|---|---|---|
| | 2. SECAP and SH/SEA standards are incorporated in the bidding documents especially where national SBDs are used. | National SBDs will be amended to include clauses related to IFAD's SECAP standards and policy on preventing SH/SEA. This is detailed in the PIM and SECAP for SPOs table. |
| | 3.SECAP standards are implemented at all stages of the procurement process: setting of bidders' selection and qualification criteria, bid evaluation criteria and contract terms and conditions including mandatory Self-Declarations by bidders. | SECAP standards have been taken into consideration at all stages of the procurement process. Relevant qualification and bid evaluation criteria are detailed in the SECAP for SPOs table as are contract terms and conditions. Bidders are required to sign the Self-certification form. |
| 5. Fitness for Purpose of the project's Procurement Plan, Supervision Arrangements and status of project design and its readiness for implementation | The assessment of quality of this Pillar is based upon undermentioned parameters needed to verify that the project's procurement plan takes into consideration the findings of all above assessment pillars/parameters and that the IFAD Supervision Plan is commensurate with the complexity of the project's procurement and the assessed capacity of the implementing agency and the PIU (i.e. both procurement and supervision plans are fit for purpose): | |
| | 1.The Procurement Plan incorporates the findings of all above assessment parameters which have been arrived through the use of adequate management tools like SWOT and PESTLE analysis or equivalent methods, market research techniques and sound risk prioritization/mitigation measures. | The Procurement Plan incorporates the findings from adequate management tools like SWOT, PESTLE, market analysis. |
| | 2. The Procurement Plan is conducive to facilitate the project's timely completion and builds-in relevant time contingencies depending on the project's readiness for implementation. | The Procurement Plan is prepared to facilitate the project's timely completion and will take into account the relevant time contingencies depending on the project's readiness for implementation. |
| | 3. IFAD's Procurement Supervision Plan is commensurate with the complexity of the project's procurement and the assessed capacity of the implementing agency and the PIU. | The Procurement Supervision Plan has been tailored to the complexity of the project's procurement. and assessed capacity of the executing agency and the PMU. |
| | 4. The provisions of the Financing Agreement and the Letter to the Borrower support the findings of the design of the project's procurement arrangements. | The provisions of the Financing Agreement and Project procurement arrangement letter (PPA) support the findings of the design of the project's procurement arrangements. |

## Annex 6-A Financial Management Arrangements

**Organisation and Staffing:**

The project will be implemented by the International Fund for Agricultural Development and executed by the Project Management Unit (PMU) of the Project for Market and Pasture Management Development (PMPMD) of Office of the President.

PMUs will be responsible for overall financial management as well as internal control systems within the project, with the support of a competent Financial Management Specialist (Finance Officer) and PMU will hire qualified Financial Management Specialist (Finance Officer) and an Administrative Assistant, he/she will need to be experienced in working with international funded projects.
All staff will be trained in IFAD anti-corruption policies from project start-up. Financial management structure and flow of funds arrangements will be largely drawn from the positive experience of IFAD projects. Project risk level and the adequacy of these arrangements will be closely monitored and assessed by IFAD Financial Management Division on an on-going basis and throughout the implementation of the project (during implementation support and supervision missions).

**Budgeting**

Project staff will prepare the project budget (AWPB) and procurement plan in IFAD format showing budgeted expenditure by components and categories. Depending on the available functions in the accounting software and the staff capability, AWPB may be entered in the accounting software for comparison of the expenditure against the budget or maintained in an excel spreadsheet extracting expenditures from the accounting software. The AWPB submit to the Project Steering Committee (PSC) for discussion and approval at its first meeting based on the comments and recommendations of the Ministry of Finance. The Steering Committee, chaired by President's Office and comprises of representatives from Ministry of Finance, Ministry of Economic Development, Ministry of Food, Agriculture and Light Industries, Ministry of Environment and Climate Change, and UNIDO. The AWPB will be approved by PSC and sent to IFAD for no-objection 60 days before the start of the fiscal year.

**Funds flow and Disbursements Arrangements**

In accordance with Government resolution 176, the fund will be channelled to a separate Designated Account (DA) in the State Treasury Bank, i.e. the Central Bank of Mongolia, with the authorization of the Ministry of Finance to receive the Adaptation Fund resources from IFAD as a grant. With the approval of the Ministry of Finance, the Office of the President (Implementing Agency)-PMU will open one separate Project Operating Account in tugrik (MNT)-local currency for AF grant at a commercial bank to receive the grant fund from the Project's Designated Accounts for the purpose of carrying out project activities. The direct payment procedure will be applicable for UNIDO (UN Agency).

Disbursement of funds from IFAD will follow the revolving fund mechanism on submission of the Interim Financial Reports (IFRs) and Withdrawal Applications (WAs) through the IFAD Client Portal (ICP) and Ministry of Finance will review and approved the WA for payment process.

**Internal Controls.**

An acceptable level of segregation on duties within the PMU will be assured by the division of tasks between the Finance Officer, the administrative assistant and the project coordinator in the role of approver. PIM will also specify key internal control procedures such as accounting function, segregation/independence, payments, procurement, account reconciliation and preparation of the financial reports and withdrawal applications. PIM will also include information on user access and authorization for accounting software. The internal audit of the project will be conducted by the Office of the President with employ an Internal Control Monitoring Specialist, and it is deemed adequate to engage this specialist for the project. Internal audit will conduct on quarterly basis and submit an internal report which will be made available to IFAD on request.

**Accounting and Financial Reporting:**
Accounts of the Project will be maintained using computerized accounting software for capturing daily accounting transactions and providing IFAD's required financial reports. The project will maintain its accounts in accordance with IPSAS-Cash or Accrual standards, which are accepted by IFAD. Additional financial information, aside from all financial statements that are mandatory under IPSAS cash/accrual, will be prepared by the project in accordance with the IFAD Handbook for Financial Reporting and Auditing of IFAD-Financed Projects.
PMU shall provide the quarterly interim financial reports (IFRs), unaudited financial statements and audited financial statements, audit reports and management letters to IFAD within the stipulated timeline.

**External Audit:**

The project will submit an external audit report to IFAD within six months of the end of each fiscal year. The audit's Terms of Reference will be reviewed and cleared by FMD-IFAD before their selection to the audit firm (to be selected through a competitive process, in line with recipients' procurements rules and regulations with consistent with IFAD's procurement guidelines). IFAD will review the quality and timeliness of each audit report and ensure proper follow-up to audit recommendations contained in the mandatory Management Letter. Audit firm rehiring will only be possible for a maximum of four consecutive years, and conditional to the outcome of IFAD' yearly assessments. During project implementation, IFAD will also assess the possibility to assign the role of external auditor for the project to the Supreme Audit Institution (SAI) depending on their capacity and availability.

## ANNEX 7: GENDER ASSESSMENT

### Introduction

The Adaptation Fund views the initial gender assessment as a key tool for identifying gender differences and providing empirical evidence, both qualitative and quantitative, regarding gender roles, activities, needs, and the opportunities or challenges faced by men and women in a specific context or sector. This assessment is mandated under the Gender Policy (GP, para. 12) during project proposal development, ensuring the integration of gender-responsive implementation and monitoring measures, including gender-responsive indicators.

The data and insights gathered from the initial gender assessment serve as the foundation for potential gender mainstreaming actions throughout the project cycle. It guides project planning and design, helping to identify the gender-responsive activities required during implementation, as well as in budgeting, monitoring, and evaluation. Gender analysis is essential for establishing a baseline of data at the project's outset, enabling the measurement of progress and results throughout implementation. The Adaptation Fund (AF) generally requires that data collection be gender-responsive, reflecting the realities of both women and men. This involves disaggregating data not only by gender but also, ideally, by age and other diversity factors, such as ethnic origin, while addressing existing gender concerns and disparities.

### Demography, health and education

The total population of Mongolia in 2023 was 3504.7 thousand, an increase of 47.2 thousand (1.4%) from the previous year. In 2023, the number of households reached 983.5 thousand, of which 69.0 percent were living in urban areas and 31.0 percent were residing in a rural area. The average household size was 3.5 people. Out of total population 49% were male and, 51% were female, then in urban area more women less men than in rural more men less women (Office, 2024).

Mongolia's Gender Inequality Index (GII) ranking is 74th out of 170 countries in 2022 (UNDP, 2024). Mongolia's Human Development Index (HDI) is generally higher for women than men, primarily because of women's higher education levels and life expectancy. However, when adjusted for gender inequality (GII), the score drops, reflecting the disparities in labor force participation, political representation, and access to high-level decision-making positions. Between 2014 and 2024, Mongolia’s rank in the World Economic Forum (WEF) Global Gender Gap Index fell from 42nd to 85th place (out of 146 countries) and from 4th to 7th place among 19 EAP (East Asia and Pacific) countries (WEF 2014; WEF 2024) (Bank, 2024).

Mongolia has made important gains in women’s health as well, reducing maternal mortality from 158 to 39 deaths (per 100,000 live births) between 2000 and 2020 (Office, Statistics, 2024). The main factor of mortality in Mongolia is disease, accounting for 83% of all deaths, though disease patterns differ for men and women. The leading diseases in mortality of both men and women are cardiovascular diseases, which account for 43% of morbidity-related deaths, and cancer, which accounts for 31% of morbidity-related deaths. Disease patterns are different for men and women, even though both men and women are predominately affected by cardiovascular disease and cancer. Men die from cardiovascular disease at younger ages than women, with higher mortality rates due to cardiovascular disease starting at age 45, whereas mortality rates due to cardiovascular disease peak in women over 75. Seventy-eight percent of deaths due to bronchial or lung cancer are of men (Bank, Mongolia, Featured Indicators, n.d.).

Mongolia performs higher than the EAP average and significantly higher than other lower-middle countries globally in terms of educational achievement, 98.1% of girls and 93.7% of boys completing lower secondary school and an overall adult literacy rate over 99% (Portal). In 2022, boys were 33% more likely than girls to drop out after high school; the majority opt to enter the labor force in low-skilled agriculture, construction, or manufacturing jobs. While the primary reason for dropout among boys is to engage in income-generating activities, they are also twice as likely as girls to report that they dropped out due to a lack of interest in school. Women are relatively well represented in professional and STEM fields of study, comprising 63.7% of all university graduates; 54.7% of graduates in the natural sciences, mathematics, and statistics; 29.9% in engineering, manufacturing, and design; and 27.8% in information and communication technologies (ICT) (Bank, Mongolia Gender Assessment, 2024).

**Food and nutrition security**

Overall, only 35.3% of households were food secure, with 50.2% experiencing moderate or severe food insecurity. A larger percentage of households were food secure in rural (40.7%) than in urban (32.7%) areas and households living in a Ger[37] had the highest prevalence of moderate and severe food insecurity. Household food security was lowest in the poorest wealth quintile, with 75.3% of these households having mild, moderate, or severe food insecurity. Food security was highest in Central, Eastern, and Western regions where about half of households were food secure, though 25% of households in Eastern region had severe food insecurity. Household food security was lowest in Khangai region (19.6%) and Ulaanbaatar (31.6%), with 1 in 4 households in these two regions (24.8% and 27.4% respectively) having severe food insecurity. Female headed households had high food insecurity with 39.1% of these households severely food insecure (Ministry of Health, National Center for Public Health, UNICEF, 2017).

Mongolia's nutrition situation highlighting the specific population groups and geographic areas greater attention is required. The pastoral system in Mongolia is associated with unique food consumption patterns, with high intake of proteins from meat and milk products, but little dietary diversity leaving the population increasingly susceptible to micronutrient deficiencies and excess weight gain. Tackling Mongolia's nutrition challenges requires intersectoral programmes and policies aimed at improving nutrition status through: increasing household food security, promoting year-round consumption of nutritionally-adequate diets, provision of IYCF and family counseling on healthy eating and lifestyles, micronutrient supplementation, and food fortification (Ministry of Health, National Center for Public Health, UNICEF, 2017).

**Poverty**

Women's lower incomes compared to men's are a key driver of poverty among women, and this disparity stems from several interconnected factors:

- Labor Force Participation Rates: Women often participate less in the formal labor market compared to men, especially due to caregiving responsibilities. Which labor force participation ratio while men 61%, then women 50.9%. (Office, Labor force participation data, 2024). This limits their access to full-time, well-paid jobs and results in fewer economic opportunities.
- Wage Gaps: Women typically earn lower average wages than men, even when working in similar positions. Except service division. Occupational segregation, where women are concentrated in lower-paying industries such as healthcare, education, and retail, exacerbates this gap (Office, Labor force participation data, 2024).
- Unpaid Household Work: Women spend a disproportionate amount of time on unpaid household tasks, including childcare and eldercare. This reduces the time available for paid employment, further limiting their income potential (Office, Time Use Survey, 2019).

In Mongolia, it is common for women to retain custody of their children after divorce, leading to an overrepresentation of female-headed households. These households face unique economic challenges and are more exposed to inflation than others, as they often rely on a single income to cover essential expenses, which rise disproportionately with inflation, particularly in areas like food, healthcare, and education. This makes female-headed households especially vulnerable to economic pressures.
In terms of nutrition, children, adolescent girls, pregnant and lactating women were more deficient in micronutrients due to poverty (Ministry of Health, National Center for Public Health, UNICEF, 2017).

**Cultural Context of Gender Roles**

In traditional Mongolian society, women are often expected to prioritize family duties, such as caregiving, household management, and child-rearing. These responsibilities, reinforced through cultural norms, often lead

[37] Mongolian traditional dwelling

to women focusing more on their roles within the home rather than pursuing careers or higher-level employment opportunities.

Historically, Mongolia's nomadic lifestyle required a clear division of labor between men and women. Men were responsible for herding, while women managed domestic tasks, including caring for children, preparing food, and maintaining the household. While modernization has shifted some aspects of this lifestyle, the cultural expectation that women should be primary caregivers persists. Due to these cultural norms, women are often expected to prioritize familial duties over career development, especially after marriage and childbirth. This limits their access to higher education, career advancement, or opportunities to engage in leadership roles in business or politics.

**Gendered Division of Labor**

Considering the working population by occupation, 294.4 thousand (26.1%) are employed in agriculture, forestry, and fishing, 190.8 thousand (16.9%) are specialists, 166.6 thousand (14.7%) work in trade and services, and 110.8 thousand (9.8%) are engaged in production, construction, handicrafts, and related work and services (Office, Labor force participation data, 2024).

In 2022, women were 20.2% points more likely than men to work in services, with a high concentration of women in the education and health sectors. On the other hand, men are more likely to work in industrial jobs, particularly in mining and construction. These differences in sectoral participation have largely remained unchanged since 2019. Between 2019 and 2022, industrial sectors such as construction and manufacturing have seen the highest job growth. These sectors have traditionally been characterized by a high concentration of men, which may point to social barriers or gender stereotypes deterring women from entering these sectors. Given the high concentration of industrial jobs in urban areas, greater labor demand in traditionally male-dominated sectors has contributed to a wider gender gap in sectors of employment in urban areas. (Bank, Mongolia Gender Assessment, 2024).

In 2022, the share of workers in managerial positions was similar between men and women, but women were about 14 percentage points more likely than men to hold professional and technical positions, primarily owing to higher employment in education and health. At the same time, women were twice as likely as men to engage in service and sales occupations, many of which are associated with lower wages. Men, on the other hand, were more than four times as likely as women to work as craft/trade workers or plant operators. These gender disparities have shown little variation in both urban and rural areas between 2019 and 2022, suggesting a persistence of occupational segregation based on gender over time. Such findings underscore the need for continued efforts to identify and address underlying structural barriers that lead to occupational segregation such as gender stereotypes that influence segregated fields of study and discriminatory hiring practices (Bank, Mongolia Gender Assessment, 2024).

**Gender-Based Violence**

In Mongolia, one in three women (35%) report having been subjected to physical, sexual, or economic violence during the last year or in their current relationship, and more than half of all women (59.7%) report experiencing such violence in their lifetime (Portal). Similarly, the share of women who have experienced IPV is nearly the same as the world average, 27% (Bank, 2024). A significant percentage of women in both rural and urban areas hold attitudes that justify violence against women and girls; for example, 62% women in rural areas agree that a husband can hit a wife under any circumstance and 56% of women in urban areas deem marital rape acceptable. Most men consider forms of domestic violence to include not allowing women to work, verbal abuse, forced or unwanted sexual intercourse, and beating or hitting. However, some men did not consider forced sexual intercourse between a man and his wife to be sexual violence. Other views expressed were that pregnant woman cannot be beaten up, at least not severely. It may be acceptable to slap them (UNFPA, 2017). Women in Mongolia who have experienced physical or sexual violence report poor health and symptoms of mental health disorders. Similarly, women who had experienced partner violence were more likely to have children with behavioral problems than those who had not. Many women also don't realize that what they endure constitutes physical or sexual violence (Amarsanaa Khongorzul, 2024).

**Gender Based Power Structures**

Mongolia is actively working to protect women's rights within its legal framework and promote gender equality. However, gender disparities persist in areas such as family roles, education, employment, and decision-making. Despite legislative efforts, women continue to face unequal treatment and opportunities, particularly in leadership positions, wage equity, and balancing work with traditional women responsibilities. These challenges highlight the gap between legal provisions and the realities of gender inequality in various sectors of society.

Women make up 51% of all voters in Mongolia, women are more active in elections than men, but their representation in the Parliament is 17.3% as of 2020, about 8% less than the world average (Committee, 2020). In 2024, the percentage of female members in Mongolia's parliament increased to 25.4%, marking an 8% improvement, a significant historical achievement. This progress is expected to propel Mongolia 27 to 30 places higher in global rankings for women's parliamentary participation, positioning the country between 96th and 99th place. This rise reflects ongoing efforts to enhance gender representation in political decision-making.
Summarizing the data, Mongolian women generally have a higher level of education than men, yet they are predominantly employed in lower-paying sectors such as education, healthcare, and services. Despite working in the same fields, men earn higher salaries than women. As of 2019, the average wage gap was 219,600 MNT, with men earning 16% more than women in equivalent positions. This wage disparity highlights ongoing gender inequality in Mongolia's labor market (Office, Labor force participation data, 2024).

**Gender Legal and National Strategies Context**
Mongolia has established a robust institutional mechanism to promote gender equality issues, led by the National Committee on Gender Equality (NCGE), which could be built upon to promote legal and policy advancements for gender equality. Since 2021, Mongolia has also begun to mainstream principles of gender-responsive budgeting (GRB) within sectoral and provincial policy plans. This practice could be continued and strengthened, for example by ensuring that gender focal points within ministries and aimags are integrated in the policy planning and budgeting process and that gender-disaggregated data is regularly collected to enable monitoring of results (Bank, Mongolia Gender Assessment, 2024).

**Land or Asset Ownership**

Gender-disaggregated data on entrepreneurship and asset ownership remain limited in Mongolia. Available data suggest that female entrepreneurial engagement beyond the agricultural domain remains low. In 2022, only about one-fifth of female workers were self-employed, with more than 40% of these engaged in agricultural activities, primarily herding. Data from the World Bank Enterprise Surveys corroborate low female entrepreneurial engagement, showing that despite slight improvements between 2013 and 2019, most private sector firms continue to be dominated by men in both management and employment roles. In 2019, around 39% of firms were either managed or owned by women, a slight increase from 32% in 2013. Furthermore, a clear divide exists between male- and female-led firms, with women more likely to lead businesses in the retail and hospitality sectors and men more prevalent in construction and ICT.

Compared to male-run firms, female-run firms are 10 percent more likely to be considered a micro or small-sized enterprise. Even after accounting for firm size, women-led firms are 24% more likely than those led by men to cater toward local markets rather than national or international ones. Moreover, access to finance poses a more significant barrier to women than men: in 2019, almost a fifth of women-led firms reported that access to finance was a severe obstacle to business operations, compared to less than 2% of male-led firms (Bank, Mongolia Gender Assessment, 2024).

**Differentiated Climate Change Impacts on Gender**

In Mongolia, rural residents, particularly those reliant on a traditional herding lifestyle, and urban residents in informal ger settlements experiencing the impacts from climate change the most intensely and have the lowest abilities to cope. Research exploring migration and population data at provincial and district levels between 1992–2018 find that there is a correlation between extreme winter events and sizable permanent out-migration from affected provinces for up to two years after an event, and that pastoralist households are most affected by these events (Julian Roeckert, 2022). Ulaanbaatar grew from 650,000 in 1998 to over 1.6 million in 2023, and now hosts almost half of the country’s population. The concentration of migrants from rural areas in Ulaanbaatar brings a

new set of challenges with possible cross-generational impacts. Migrants are often left out of public services, which can exacerbate cyclical poverty. Exclusion from health systems can result in conditions left untreated for months and leave mothers with unsafe and unsanitary childbirth conditions.

A limited number of qualitative studies have explored links between gender and climate. For example, a study on gender and water in Mongolia indicates that men's and women's responsibilities for water collection are much more equitably shared compared to data from other parts of the world where that work is mostly performed by women and girls (Seager, 2010). Regarding energy and heating, analysis shows that women in rural and ger areas are traditionally responsible for the upkeep of fire, which can be a time-consuming daily task and results in being more exposed to air pollution from coal burning stoves. Women are often affected disproportionately by power outages and scarce heating supplies as they need to either find alternative energy sources or spend extra time to complete basic household chores (Tsolmon Begzsuren, 2022). Both studies show that while women primarily make household decisions related to water and heating, they are poorly represented in public decision-making regarding either energy or water resource management. In 2023, the NCGE in collaboration with development partners initiated a study on challenges for herder women-a group which is the most directly impacted by the changing climate and severe weather events-to further refine activities and targets to improve the situation of women and girls in rural areas (Bank, Mongolia Gender Assessment, 2024).

**Gender – Related Issues Raised from Community Consultations**.

Let's analyze the results of the consultation meetings with women's organizations and local women by categorizing them into three groups:

- Decision-Makers and Policy-Makers: This group includes individuals in positions of authority who influence policies affecting women's rights and gender equality.
- Civil Society Organizations: This group encompasses NGOs and community organizations actively working to advocate for women's issues and support gender equality initiatives.
- Local Citizens: This group represents the broader community of women, reflecting their experiences, needs, and perspectives on issues related to gender equality.

This categorization will help us understand the diverse viewpoints and insights gathered during the consultation meetings.

Decision-Makers and Policy-Makers are focusing on enhancing the livelihoods of local communities by adapting to climate change, integrating gender equality into policies, and empowering individuals. Their efforts aim to create sustainable solutions that address both environmental challenges and social and gender equity, ensuring that local populations can thrive in a changing world.

Civil society organizations vary significantly in their focus and scope of activities, each dedicated to providing targeted services to specific groups. They align their efforts with relevant laws and regulations while actively influencing the lives of their target populations in meaningful ways. Through their work, these organizations address pressing needs and contribute to social change in their communities. A common challenge facing civil society organizations is ensuring their own sustainability and capacity for operation. Beyond this fundamental issue, they encounter additional obstacles such as:

- Efforts and Initiatives: Limited resources can hinder the effectiveness of their programs and initiatives.
- Stability and Local Support: Achieving consistent local support is essential for maintaining their impact, yet it can be unpredictable.
- Local and State Management Policies: The stability of local management policies can affect the operational environment and the ability to implement programs effectively.
- Animal Health: Issues related to animal health can pose significant challenges, especially for organizations focused on agricultural or rural development.

- Instability of Livestock Outputs: Fluctuations in animal profits can impact the livelihoods of community members and the organizations that support them.
- Limited Markets: Access to markets is often restricted, hindering economic opportunities for local communities.

Addressing these interconnected challenges is crucial for the resilience and effectiveness of civil society organizations in promoting sustainable development and community well-being.
Local citizens face several interconnected challenges, including:

- Household Size: Larger household sizes can strain resources and complicate daily living.
- Labor Force Shortage: A lack of available labor impacts productivity and economic activities.
- School Schedule and Child Care: The timing of school schedules often does not align with parents' work commitments, making it difficult to manage childcare.
- Price Increases: Rising prices for essential goods and services create financial strain, while livestock product prices often remain stagnant, affecting herders' incomes.

Additionally, there is a limited understanding of the benefits of joining and cooperating in cooperatives. Many citizens struggle to reach consensus on cooperation methods and lack knowledge about effective collaborative practices. There is also a deficiency in the ability to sense and adapt to climate change impacts, which further complicates their ability to cope with these challenges. Addressing these issues is crucial for enhancing the well-being and resilience of local communities.

## ANNEX 8: GENDER SENSITIVE DESIGN CHECKLIST

| | | SMART Herders |
|---|---|---|
| 1 | The project design report contains – and project implementation is based on - gender-disaggregated poverty data and an analysis of gender differences in the activities or sectors concerned, as well as an analysis of each project activity from the gender perspective to address any unintentional barriers to women's participation. | The project design report is grounded in gender-disaggregated poverty data, which indicates that women will represent 40% of direct and indirect beneficiaries, with female-headed households accounting for 10% of total households (approximately 600 based on census estimates). The analysis identifies gender differences in participation across activities, particularly in community decision-making, training programs, and access to resources. Each project activity has been evaluated for gender inclusivity to eliminate barriers to women's participation, ensuring equitable access to benefits |
| 2 | The project design report articulates – or the project implements – actions with aim to:<br>• Expand women's economic empowerment through access to and control over productive and household assets;<br>• Strengthen women's decision-making role in the household and community, and their representation in membership and leadership of local institutions;<br>• Achieve a reduced workload and an equitable workload balance between women and men. | Project implements specific actions aimed at expanding women's economic empowerment and voice and decision-making, such as ensuring that women comprise 50% of the committee center board members and 40% of participants in local community activities. Additionally, women will account for 80% of participants in home goods and dairy processing training and 50% in income diversification training. These initiatives are complemented by family bonds training sessions, where 50% of participants are women and 50% will be men, focusing on equitable workload distribution and decision-making in households. Women will be provided digital literacy training further ensuring their access to financial literacy. Care will be taken to ensure that women's workload is not increased due to any of the interventions. It is anticipated that the introduction of water and solar based pumps will further reduce women's drudgery. |
| **3** | The project design report includes one paragraph in the targeting section that explains what the project will deliver from a gender perspective. | The targeting section of the project design report emphasizes that at least 40% of the beneficiaries will be women, including specific efforts to engage female-headed households and youth, who will constitute 30% of the beneficiaries. The report outlines how project activities, such as scholarships for women and digital literacy training, will be tailored to address the unique challenges faced by women and marginalized groups, enhancing their participation and benefits. |
| **4** | The project design report describes the key elements for operationalizing the gender strategy, with respect to the relevant project components. | The project design report details key elements for operationalizing the gender strategy, including the appointment of a Gender and Social Inclusion Officer within the PMU and the inclusion of NCGE in PSC and regular coordination with existing focal points for women's issues in local governance. Training for PMU staff on gender mainstreaming and Gender Responsive Budgeting will further embed gender considerations in all project components, ensuring that gender equality is prioritized throughout implementation. This is also complemented with training for committee board members on gender equality. |
| **5** | The design document describes - and the project implements - operational measures to ensure gender-equitable participation in, and benefit from, project activities. | The project implements a robust framework to enhance gender-equitable participation and benefits across its activities. A key initiative is the establishment of Collection Center Boards, which will comprise 50% women and at least 30% youth, ensuring that these demographics play a vital role in community decision-making. The project aims to promote active involvement by |

| | | |
|---|---|---|
| | | striving for 40% women and 30% youth participation in local activities. To further strengthen gender awareness, committee board members will undergo gender equality training, promoting gender mainstreaming in all decision-making processes. Additionally, the project emphasizes digital literacy by providing internet access and digital tools, specifically targeting women and youth to improve their digital skills. Youth will also serve as digital experts, facilitating payment and troubleshooting, thereby ensuring sustainable digital operations at community centers.<br><br>Moreover, the project prioritizes women's and youth's involvement in various training and consultation processes. Women will represent 50% of participants in herders' field schools, with 80% of intensive training programs for home goods and dairy processing designed for women, alongside 50% participation in income diversification training. Youth will make up 30% of training attendees, especially in maintenance and sustainability training for water systems. The inclusion of persons with disabilities in community consultations ensures that diverse needs are addressed. The creation of a National Climate Adaptation Stakeholders Database will focus on incorporating women, youth, and marginalized groups, with attention to women-led and youth-led networks. Digital platforms will highlight gender-responsive practices, and social media campaigns will raise awareness of nutrition and WASH practices. Scholarships for women and local symposiums targeting at least 40% women and 30% youth participation will further foster leadership and engagement. Overall, these measures aim to create a more equitable environment where all community members can participate in and benefit from the project's initiatives. |
| **6** | The project's logical framework, M&E, MIS and learning systems specify in design – and project M&E unit collects, analyses and interprets sex- and age- disaggregated performance and impact data, including specific indicators on gender equality and women's empowerment. | The project will implement a robust framework to ensure gender disaggregation in all monitoring and evaluation (M&E) activities. This will involve the collection of gender-disaggregated data across key indicators, allowing for a comprehensive analysis of the differing impacts on women, men, and marginalized groups. Data collection tools, including surveys and interviews, will be designed to capture gender-specific information. Additionally, capacity-building sessions for M&E staff will emphasize the importance of gender sensitivity in data analysis and reporting. By integrating gender disaggregation into all aspects of M&E, the project aims to identify gaps, inform decision-making, and enhance accountability for gender equality outcomes. Adequate attention will be paid to include relevant gender and youth aspects and gender-responsive best practices and lessons learned. Similarly women's organizations, gender equality advocates, youth networks will be included to ensure adequate documentation of their specific concerns. Adequate attention will be paid to include relevant gender and youth aspects and ensure gender-responsive best practices and lessons are documented and communicated to the broader partner and stakeholder spectrum of the Fund (including to encourage peer-to-peer learning) as well as outside of the Fund to encourage replication and uptake. |

# ANNEX 9: GENDER AND YOUTH ACTION PLAN

**Introduction:**

The SMART Herders project, "Sustainable Pasture Management and Adaptation with Resilient Technologies for Herders in Mongolia," aims to reduce the climate vulnerability of Mongolia's herders and pasture landscapes. By increasing the adaptive capacity of herding communities to cope with extreme climate events such as dzuds, prolonged droughts, and pasture degradation, the project will promote climate-resilient livestock and pasture management practices. Integrating advanced technologies like precision grazing and water-efficient irrigation systems, the project will enhance pasture productivity, improve access to climate risk information, and introduce innovative income diversification strategies.

By integrating gender-responsive approaches in climate adaptation initiatives and ensuring the active involvement of women and youth, the project will contribute to improved livelihoods, strengthened community capacities, and informed decision-making. Ultimately, this will lead to more equitable access to resources and opportunities, driving long-term sustainable development in vulnerable communities. Women will constitute 40% of the direct and indirect beneficiaries. Among this group, women headed households will constitute 10% of total HHs (600 FHH) (as per Census estimation of selected areas). Youth will constitute 30% of the direct and indirect beneficiaries. The table below summarises how gender and youth mainstreaming will be prioritised across project components.

| Component | Outcome | Output | Activities | Indicators | Means of Verification | Costs |
|---|---|---|---|---|---|---|
| **Component 1: Implementing Medium-Scale Pilot Project for Capacity Building and Climate-resilient herding practices and technologies** | Outcome 1: Herders and their households are equipped with soum-based infrastructure (e.g. collection centres, wells), digital tools, practical knowledge and skills | Output 1.1 Collecting centres and other investments assembled for climate change resilience | • Establish collection centers with 50% women and 30% youth representation on boards.<br>• Conduct outreach programs to encourage women and youth to participate in community activities, targeting at least 40% women and 30% youth involvement.<br>• Organize gender equality training sessions for committee board | • Percentage of board members at collection centers who are women and youth (target: 50% women, 30% youth).<br>• Number of women and youth participating in community activities (target: at least 40% women and 30% youth).<br>• Number of gender equality training sessions conducted and | • Project M & E reports<br>• Progress reports<br>• Supervision mission reports<br>• AF PPR reports<br>• Final project evaluation | • Built into service provider costs – white gold membership database, quality base payment system (USD 20,000)<br>• Gender equality training for committee board members to come from GAP miscellaneous (USD 115,227) |

**Commented [NV2]:** Not mentioned under new budget

| Component | Outcome | Output | Activities | Indicators | Means of Verification | Costs |
|---|---|---|---|---|---|---|
| | | | members, focusing on gender mainstreaming principles.<br>• Develop digital literacy workshops for women and youth, covering basic internet usage, digital tools, and online safety.<br>• Enroll youth as digital experts to assist with payment systems and internet troubleshooting at collection centers, providing ongoing mentorship.<br>• Implement community planning processes for selecting sites for solar pumping stations and fodder production plots, actively engaging women and youth in the decision-making.<br>• Develop and launch the White Gold membership database app including active involvement of youth and women. | percentage of board members trained.<br>• Number of women and youth attending digital literacy workshops and percentage of participants who report increased confidence in using digital tools.<br>• Number of youth enrolled as digital experts and the number of issues resolved through their assistance.<br>• Number of users registered in the White Gold membership database app and percentage of female and youth users.<br>• Community satisfaction with the site selection process for solar pumping stations and fodder production, particularly among women and youth. | | |

| Component | Outcome | Output | Activities | Indicators | Means of Verification | Costs |
|---|---|---|---|---|---|---|
| | | Output 1.2 Interactive Hands-On Herders' Field School (HFS) and advanced training on strategies for dealing with climate change and enhancing adaptive capacities. | • Establish ~~48~~ 144 Herders Field Schools (HFS) with at least 50% women participation and 30% youth participation over a 10-month duration (February to November).<br>• Conduct 12 intensive training sessions for experts/technicians on sheep shearing ensuring 30% youth participation in this.<br>• Implement 36 intensive home food and dairy processing training sessions, ensuring women comprise 80% of participants.<br>• Organize 36 annual income diversification training sessions, targeting at least 50% female participation and 30% youth participation.<br>• Conduct 12 training sessions on "Strengthening Family Bonds," ensuring 50% of | • Number of HFS established and percentage of participants who are women and youth (target: 50%; 30%).<br>• Number of sheep shearing training sessions conducted and percentage of youth participants.<br>• Number of training sessions conducted on home food and dairy processing skills and percentage of participants who are women (target: 80%).<br>• Number of training sessions conducted on income diversification and percentage of participants who are women (target: 50%) and youth (target: 30%).<br>• Number of training sessions conducted on strengthening family bonds and percentage of | • Project M & E reports<br>• Progress reports<br>• Supervision mission reports<br>• AF PPR reports<br>• Final project evaluations<br>• Training programme<br>• Attendance lists | Built into the following costs:<br>• HFS component (USD 91~~144~~,2~~0~~00)<br>• Sheep shearing training and equipment (USD 42,000)<br>• Home food and dairy processing trainer (USD 36,000)<br>• Income diversification training cost (USD 54,000)<br>• Trainer strengthening family bonds training cost (USD 6000) |

| Component | Outcome | Output | Activities | Indicators | Means of Verification | Costs |
|---|---|---|---|---|---|---|
| | | | participants are women. Include modules on equitable workload distribution and gender equality in the Family Bonds training.<br>• Prioritize youth for maintenance and sustainability training for water systems as technicians. | participants who are women (target: 50%). Number of sessions incorporating these modules and participant feedback on understanding gender equality.<br>• Number of youth trained as technicians and percentage of youth participants in the maintenance training. | | |
| **Component 2: Knowledge Management and Knowledge Sharing** | Outcome 2.1 Strengthening Coordination and Technical Capacity for Climate-Informed Services to Herders | Output 2.1.<br>Strengthening National Networks for Climate-Informed Livestock Information Exchange | • Develop a National Climate Adaptation Stakeholders database, identifying and including 1,000 stakeholders. Ensure representation of women-led, youth-led networks, and persons with disabilities in the database.<br>• Create and launch a Facebook page and YouTube dedicated to climate adaptation initiatives.<br>• Ensure that Facebook, | • Number of stakeholders identified and included in the database (target: 1,000), with a breakdown by gender, youth, and marginalized groups.<br>• Number of subscribers to the YouTube channel and Facebook page and total views on uploaded videos<br>• Number of posts that include gender-sensitive language and highlight the roles | • Project M & E reports<br>• Progress reports<br>• Supervision mission reports<br>• AF PPR reports<br>• Final project evaluations<br>• Members of Facebook page. | Built into:<br>• Contracting service provider to develop the National climate adaptation stakeholders database developed cost (USD 8000)<br>• Training staff for field monitoring of the project activities weekly postings for public awareness (USD 91,905) |

| Component | Outcome | Output | Activities | Indicators | Means of Verification | Costs |
|---|---|---|---|---|---|---|
| | | | YouTube, and newsgroup posts adopt a gender lens in language and content.<br>• Conduct 12 online or on-site visits to 4 soums per year with herder groups for interviews. | of women and youth.<br>• Number of visits conducted and number of interviews completed, with gender and youth representation noted. | | |
| **Output 2.2.** Production of High Quality Climate Adaptation Documentaries. | Outcome 2.2 Established wide-reaching climate change and adaptation awareness among rural and urban populations | Output 2.2. Production of High Quality Climate Adaptation Documentaries. | • Encourage stakeholders to share their stories, data, and information through online platforms, including women and youth.<br>• Produce a 1-hour documentary with 3 segments highlighting climate change and adaptation. Ensure it captures the voices of women and youth and their unique challenges.<br>• Highlight the role of women and youth in livestock development and economic contributions through posts.<br>• Create a series on local nutritious recipes to promote healthy eating | • Number of stories or pieces of data contributed by stakeholders on digital platforms, including by youth and women<br>• Number of posts that emphasize the contributions of women and youth in the area of livestock development, economic contributions, climate change and adaptation etc.<br>• Number of recipes documented and shared on digital platforms.<br>• Number of campaign materials produced and disseminated, and community feedback on | • Documentary<br>• Progress reports<br>• Numbers of likes in social media<br>• Numbers of comments. | Built into:<br>• Contracting the service provider to develop documentary with 3 segments about climate adaptation (USD 90,000)<br>• Budget for Recipes for Change (in case travel and communications cost anticipated to come from GAP misc. cost (USD 115,227) |

**Commented [NV3]:** Not mentioned under new budget

| Component | Outcome | Output | Activities | Indicators | Means of Verification | Costs |
|---|---|---|---|---|---|---|
| | | | (IFAD's Recipes for Change).<br>• Conduct communication campaigns to influence nutrition behaviour change and promote WASH practices.<br>• Document grassroots stories involving youth participation in climate adaptation. | awareness changes on WASH and nutrition behaviour change.<br>• Number of grassroots stories documented and shared, with emphasis on the role of women and youth<br>• Number of collaborations with women's organizations and youth networks, and diversity of content produced | | |
| | Outcome 2.2 Established wide-reaching climate change and adaptation awareness among rural and urban populations | Output 2.3. Knowledge Management and sharing. | • Offer 2 scholarships to Master of Science students for thesis preparation related to climate adaptation projects.<br>• Support the publication and distribution of 60 academic papers related to climate adaptation (30% women authors).<br>• Organize 4 local symposiums in project aimags (2 per aimag) to discuss climate | • Number of scholarships awarded (target: 2), with at least one scholarship awarded to a woman.<br>• Number of papers published and distributed (target: 60), with at least 30% of authors being women.<br>• Number of local symposiums conducted (target: 4) and percentage of participants who are women (target: at least | • Project M & E reports<br>• Progress reports<br>• Supervision mission reports<br>• Attendance list.<br>• AF PPR reports<br>• Final project evaluations | Built into:<br>• Scholarships cost (USD 20,000)<br>• Contracting with the expert to issue 60 papers on coping with the CC (USD 30,000)<br>• 6 Aimag symposiums (1/aimag/year) (USD 30,000 for 3 years~~12,000~~)<br>• 2 National symposiums (USD 4~~2~~0,000) |

| Component | Outcome | Output | Activities | Indicators | Means of Verification | Costs |
|---|---|---|---|---|---|---|
| | | | adaptation research.<br>• Conduct 2 national symposiums focused on climate adaptation and research dissemination.<br>• Document best practices and case stories on the gendered impacts of climate adaptation and mitigation. | 40%) and youth (target: at least 30%).<br>• Number of national symposiums held (target: 2) and percentage of participants who are women (target: at least 40%) and youth (target: at least 30%).<br>• Number of best practices and case stories documented and shared with stakeholders which are gender-responsive | | |
| Overall Project Implementation | Gender Mainstreaming at PMU | | • Appoint a Gender and Social Inclusion Officer within the PMU<br>• Conduct training for PMU staff on gender mainstreaming during the startup phase as well as in an ongoing manner<br>• Offer capacity-building workshops on Gender Responsive Budgeting principles and methods | • Position filled and responsibilities defined for the Gender and Social Inclusion Officer within the PMU.<br>• Number of staff trained in gender mainstreaming and percentage reporting increased understanding of the concepts<br>• Number of capacity-building sessions conducted and | | Built into:<br>• Contracting expert for data collection and reporting, KM and Social Inclusion cost (USD 45,000)<br>• Staff capacity building cost for gender equality to come from GAP misc. (1USD 15,227)<br>• GRB module cost (0) – the project will utilise open source courses and gender equality available |

**Commented [NV4]:** Not mentioned under new budget

| Component | Outcome | Output | Activities | Indicators | Means of Verification | Costs |
|---|---|---|---|---|---|---|
| | | | • Include representatives from the National Committee on Gender Equality (NCGE) as observers in the Project Steering Committee (PSC). | percentage of public officials demonstrating improved knowledge of Gender Responsive Budgeting. | | course developed by National Academy of Governance (NAOG) for this. In case the course needs to be translated/adapted, the misc. GAP cost would be utilised. |
| **ME and Data** | | | • Create surveys, questionnaires, and interview guides that include questions specifically designed to gather gender-disaggregated data.<br>• Utilize gender-disaggregated data to conduct comprehensive analyses, focusing on the differing impacts of the project on various gender groups.<br>• Gender and youth specific empowerment indicators and data capturing in baseline and endline surveys<br>Also see component 2 | • Number of validated data collection tools tailored for gender-specific information.<br>• Baseline and endline surveys capture gender and youth specific data (including through mixed methodology; relevant empowerment indicators etc) | | Cost built into component 2 + Terminal Evaluation of the training programme which includes the impact from the collection centres and KM activities (USD 10,000) + Contracting with service provider to do baseline and endline survey (USD 15,000) |

**Commented [NV5]:** Unsure of which budget line from new budget to use for this

## ANNEX 10: GENDER CONSULTATIONS

At the start of the mission to Mongolia, a list of key agencies dealing with gender issues in Mongolia from within the Government, semi-Government, UN and Development partners, local NGOs and private sector were identified. Most of the key agencies were met physically and some virtually. In addition, meetings were held in five Aimags that were expected to be potential target areas for the project. The design team met at the highest level with the representatives of the Government of Mongolia. This included meetings with the Office of the President, Ministry of Finance, Ministry of Food Agriculture and Light Industry, Ministry of Environment and Climate Change, the Integrated Policy and Planning Department, Ministry of Economy and Development, The mission also met with representatives from agencies who are part of the Government machinery dealing specifically with gender issues. This included meetings with the representative of the National Committee of Gender Equality, Ministry of Family, Social Development and Labor, Ms.Enkhmunkh Otgontogtokh, Senior Specialist, Integrated Policy and Planning Department, Ministry of Economy and Development, Ms. Erdenetsetseg Sugar Senior Analyst, Climate Change Department, MET.

The mission also made it a point to meet women representatives of civil society organizations such as Ms. Altantuya Tseden-Ish, President, National Association of Mongolian Agriculture Cooperatives, Ms Burmaa Dashbal, Mongolian Federation of Pasture User Groups, Ms.S.Enkhtuya, President of the Union of Mongolian Production and Service Cooperatives (UMPSC). The mission also met with financial institutions such as the Khan bank, State Bank and SME fund to discuss special issues regarding women in the country and their access to finance. The mission also met focal points from several development agencies, Ms Tumenjargal Basan from the Climate Change and DRR specialist World Vision, Climate Resilient Communities Project, Ms. Matilda Dimovska, UNDP Resident Representative, Ms. Lin Cao, UNDP Deputy Resident Representative and representatives from the world Bank, Asian Development Bank, JICA and KOICA.

Meetings were organized with a large range of local government and line agency representatives, civil society, local men and women from the community. These meetings were held in Dundgobi Aimag, Ovorkhangai Aimag, Tov Aimag, Darkhan-uul Aimag and Bayanh]khongor Aimag. Meetings were held with Governors, Officers responsible for pastures and crop production, head of Food and Agricultural Departments, Labour and Social Protection Division, head of the State Registration Office, Mongolian Women's Federation, National Association of Mongolian Agricultural Cooperatives at the local level, representatives from the women's council, business organization Ikh-Oni wool washing company, and some herders' cooperatives. Meetings were also held with herders and representatives of women in herding communities. The mission had extensive meetings at the Aimag and Soum level. The stakeholder consultations were focused sharply on gender issues. These meetings were held seperately and jointly with women and men. The main concerns that emerged from the consultation process have been integrated into the project design.

**Concerns raised and consultation findings.**

**Climate change aspects.** Climate change is having a significant impact on Mongolia, with annual weather forecasts, soil analyses, and agricultural reports showing clear evidence of this shift. Mongolia's diverse geographical regions experience climate change differently, affecting herders' lives in unique ways across the country. Consequently, climate adaptation strategies need to be customized for each region to address these distinct local challenges effectively. Tree planting is actively promoted as a strategy for climate change mitigation. While the long-term effects remain uncertain, it is seen as a positive initiative, and efforts like the windbreak tree planting should be included in climate adaptation projects.

**Herder's livelihood.** Mongolian traditional herding is a solitary way of life, where livestock production at the household level requires significant human resources. Typically, a husband and wife working together can produce more. However, recent educational reforms have caused many herder families to separate into two or three groups. Husbands often remain in rural areas to tend livestock, while wives move to soum or aimag centers to care for children attending elementary school. Additionally, older children frequently relocate to Ulaanbaatar or other cities to pursue higher education. This fragmentation of herder families has made them more vulnerable in today's changing climate and social landscape.

Herders have the potential to generate income from the carbon market. Currently, greenhouse gas emissions are measured using the IPCC's 2006 methodology, which is more suited to intensive farming practices and may not accurately capture emissions from traditional livestock herding in rural areas. Recognizing this, the Ministry of Environment and Climate Change is initiating to work together with MOFALI, to develop more appropriate measurement tools for Mongolia. Given Mongolia's significant carbon absorption capacity, herders could benefit financially by earning carbon credits.

**International development agencies**, including the World Bank, Asian Development Bank, KOICA, and JICA, uphold gender policies, ensuring all policies and outcomes are accessible on our website and in reports. These organizations are informed on gender equality and play a leading role in advancing it, while we actively support the Mongolian government in these initiatives.

**Project Implementation Considerations**. To ensure effective and inclusive intervention among rural communities and the environment, integrating participatory methods into decision-making is essential. These methods not only amplify local voices but also help maintain cultural authenticity and responsiveness. Although traditional knowledge remains valuable, it is also evolving and facing risks similar to other traditional practices. This calls for projects that emphasize cultural preservation alongside development.

Political governance plays a significant role in shaping local outcomes, so understanding and addressing these dynamics is crucial. Project teams should build protective measures into their design, ensuring that interventions are sensitive to local political influences and resilient against potential risks. A well-rounded approach includes strategies like community consultations, stakeholder mapping, and regular feedback loops, allowing projects to align closely with community needs and ensure long-term cultural sustainability.

**Table 10.1 Gender Consultation Meeting Participants**

| | Name of participants | Name of organizations | Position | Gender | Age | Reason for meeting |
|---|---|---|---|---|---|---|
| 1 | Kh.Tsendjav | National Committee Gender Equality | Senior Specialist | F | 37 | National Committee Gender Equality |
| 2 | L.Purevtsengel | Khuurkhun Zurkh NGO | Program Specialist | F | 34 | Youth and child protection NGOs representative |
| 3 | B.Tuvshinjargal | Mongolian Women Association | Gender specialist | F | 26 | Women NGO |
| 4 | P.Tumengerel | Mongolian Women Association | Gender specialist | F | 44 | Women NGO |
| 5 | E.Bolormaa | Parliament of Mongolia | Member of Parliament | F | 32 | Female MP |
| 6 | M.Doljinsuren | Ministry of Environment and Climate Change | Senior Specialist for Climate Change | F | 42 | Ministry of Environment and Climate Change |
| 7 | P.Tseveendulam | Local government of Khan-Uul District | Head of Archival Department | F | 52 | Local government |
| 8 | Kh.Baasanjargal | Parliament of Mongolia | Member of Parliament | F | 42 | Female MP |
| 9 | S.Odontuya | Parliament of Mongolia | Member of Parliament | F | 52 | Female MP |
| 10 | Ikhtamir | Agency of Family Youth and Child Development | Head of Agency | F | 47 | Ministry of Family, Labour and Social Protection |

| | Name of participants | Name of organizations | Position | Gender | Age | Reason for meeting |
|---|---|---|---|---|---|---|
| 11 | Tsogtbaatar | Ministry of Family, Labour and Social Protection | Head of Department | M | 46 | Ministry of Family, Labour and Social Protection |
| 12 | Erdene-Ochir | World Bank | Gender specialist | M | 51 | World Bank |
| 13 | Saran | ADB | Gender specialist | F | 51 | ADB |
| 14 | Khishigdavaa | Labor and Social Protection Department of Dundgobi aimag | Head of Department | M | 38 | Labor and Social Protection Department of Dundgobi aimag |
| 15 | Munkhjargal, | Agricultural Department, Dundgovi aimag | Head of Department | M | 47 | Agricultural Department, Dundgovi aimag |
| 16 | Olziijargal | State Registration Department Dundgobi | Head of the department and Women federation branch | F | 46 | Dundgobi aimag Womens' Federation |
| 17 | Ikhbayar, | Ikh Oni Wool washing company | Director General | M | 55 | Dundgobi SME |
| 18 | B.Ganchimeg | Ikh Oni Wool washing company | Manager General | F | 56 | Dundgobi SME |
| 19 | Myagmar | Ikh Oni Wool washing company | Manager of the factory | F | 46 | Dundgobi SME |
| 20 | Otgontsetseg | Herder of the Tegsh bagh, Saintsagaan soum, | Herdswoman | F | 60 | Dundgobi herder |
| 21 | Sh.Batbaatar | Tegsh bagh, Saintsagaan soum, | Head of the Bagh | M | 58 | Head of the Bagh, Dundogbi aimag |
| 22 | A.Tsugdarnamjil | Naran bag, Saintsagaan soum | Herder | M | 45 | Dundgobi herder |
| 23 | Kh.Undarmaa | Naran bag, Saintsagaan soum | Herder | F | 61 | Dundgobi herder |
| 24 | Ch.Tungalag | Naran bag, Saintsagaan soum | Herder | F | 28 | Dundgobi herder |
| 25 | E.Orkhonchimeg | Tegsh bagh, Saintsagaan soum, | Herder | F | 41 | Dundgobi herder |
| 26 | D.Baldan | Tegsh bagh, Saintsagaan soum, | Herder | M | 38 | Dundgobi herder |
| 27 | Tsog-ochir, | 4th bagh, Khuld soum | herder, aimag good herder awarded | M | 62 | Dundgobi herder |
| 28 | Olzbat, | Saikhan Ovoo soum, Ikh Badrakh Khairkhan Cooperative | Head of the cooperative | M | 48 | Dundgobi herder's cooperative |
| 29 | Erdene | Saikhan Ovoo soum, Ikh Badrakh Khairkhan Cooperative | Member of cooperative, director of Bayan-Devshil LLC | M | 61 | Dundgobi herder's cooperative member and SME |

| | Name of participants | Name of organizations | Position | Gender | Age | Reason for meeting |
|---|---|---|---|---|---|---|
| 30 | Munkhbayar | Saikhan Ovoo soum, Ikh Badrakh Khairkhan Cooperative | Member of cooperative, Head of Ongi River movement | M | 58 | Dundgobi herder |
| 31 | Tsedenbaljir | Agricultural Department, Uvurkhangai aimag | Head of Department | M | 47 | Agricultural Department, Uvurkhangai aimag |
| 32 | D.Batzorig | 4th bag, Bayangol soum, Uvurkhangai aimag | Herder | M | 60 | Uvurkhangai herder |
| 33 | A.Ankhbayar | 4th bag, Bayangol soum, Uvurkhangai aimag | Herder | F | 22 | Uvurkhangai herder |
| 34 | B.Janlav | 4th bag, Bayangol soum, Uvurkhangai aimag | Herder | M | 24 | Uvurkhangai herder |
| 35 | Ts.Adya | Agropark, Uvurkhangai aimag | Director | M | 38 | Uvurkhangai SME |

**Annex 11: LIST OF RESOURCE PERSONS MET**

| No | Organization | Name/ position | Email | Phone Contact | Project Bene. | Gender |
|---|---|---|---|---|---|---|
| **ULAANBAATAR** | | | | | | |
| **I. Government Institution** | | | | | | |
| 1 | MOFALI | Mr. Ts. Bolorchuluun, DG Policy Planning Department, Ministry of Food Agriculture and Light Industry | bolorchuluun@mofa.gov.mn bolorchuluun8899@gmail.com | | Yes | Male |
| 2 | MECC | Mr.Batkhishig, Minister's Advisor, Ministry of Environment and Climate Change | batkhishig@met.gov.mn | | Yes | Male |
| 3 | MOF | Mr. Sonor Luvsandorj, DG Financial Policy Department | sonor_l@mof.gov.mn | | Yes | Male |
| 4 | MOF | Ms. Ariuntuul Dashdelger, Financial Policy Department | ariuntuul_d@mof.gov.mn | 99931264 | | Female |
| 5 | Office of the President | Mr. Enkh-Orshikh Khurlee, DG of Policy Planning Department | enkhorshikh@president.mn | | Yes | Male |
| 6 | Ministry of Foreign Affairs | V.Enkhbold, | enkhbold@mfa.gov.mn | 99096022 | | Male |
| 7 | Adaptation Fund | Mr. Z Batjargal, National Focal Point | z_batjargal@yahoo.com | | Yes | Male |
| 8 | Office of the president | Ch.Bat-Erdene | Baterdene@president.mn | 99103339 | Yes | Male |
| 9 | Office of the president | B.Mendbayar, Economic Affairs Officer | mendbayar@president.mn | 99075020 | Yes | Male |
| 10 | Office of the president | Economic Policy Advisor to the President | davaadalai@president.mn | 95907666 | Yes | Male |
| 11 | Ministry of Finance | L.Gantogtokh, head of Debt Management Division, Financial Policy Department | Gantogtokh.l@mof.gov.mn | 51-267338 | | Male |
| 12 | Ministry of Finance | B.Ganzorig, Director of Development Financing Division | Ganzorig_b@mof.gov.mn | 88005775 | | Female |
| 13 | Office of the president | Odonchimeg, Policy Department | Odonchimeg@president.mn | 99115621 | Yes | Female |
| 14 | Office of the president | Agarsaikhan, Policy Department | bagarsaikhan@president.mn | 91107007 | Yes | Male |
| 15 | Office of the president | Amarjargal | amarjargal@president.mn | 99193470 | Yes | Male |
| 16 | MOFA | G.Ulziisaikhan, director general Department of | ulziisaikhan@mfa.gov.mn | 88113145 | | Female |

| No | Organization | Name/ position | Email | Phone Contact | Project Bene. | Gender |
|---|---|---|---|---|---|---|
| | | International Trade and Economic Affairs | | | | |
| 17 | Ministry of Environment and Climate Change | Y.Enkhtaivan, Head of the international Cooperation Department | | 99083351 | Yes | Female |
| 18 | Cabinet of the President | Mr.Batkhuu Nyam-Osor Environment and Green Development Advisor to the President of Mongolia | | | Yes | Male |
| 19 | Integrated Policy and Planning Department, Ministry of Economy and Development | Ms.Enkhmunkh Otgontogtokh Senior Specialist | | | Yes | Female |
| 20 | Animal Genetic Resources Division & Livestock Policy Implementation and Coordination Department, MoFALI | Mr. Munkhnasan Ts. Director & Senior Officer | | | Yes | Male |
| 21 | Climate Change Department, MET | Ms. Erdenetsetseg Sugar Senior Analyst | | | Yes | Female |
| **II. Farmer Organization and civil society** | | | | | | |
| 1 | NAMEM | Mongolia National Agency for Meteorology and Environmental Monitoring | oyunjargal@namem.gov.mn | | | Female |
| 2 | CCRCC | Mr. Enkhbat Altangerel, Advisor, Climate Change Research and Cooperation Center | enkhbat.altangerel@gmail.com | | | Male |
| 3 | NEMA | T.Zorig, Foreign relation department, National Emergency Management Agency | For.rel@nema.gov.mn | 99191052 | | Female |
| 4 | Munkh Alliance | G.Batmend | batmendgan@gmail.com | 88730086 | | Male |
| 5 | Munkh Alliance | Nyamgerel | Gerelee.tum@gmail.com | 99103995 | | Male |
| 6 | Altain Uulsiin Orgil (Altai Mountain Peak) | Mr Altansukh Tumee AUO Cooperative head | | | | Male |
| 7 | ZSL | Ms. Tungalag Ulambayar, Country | Tungalag.Ulambayar@zsl.org | | | Female |

| No | Organization | Name/ position | Email | Phone Contact | Project Bene. | Gender |
|---|---|---|---|---|---|---|
| | | Director, Zoological Society of London | | | | |
| 8 | NAMAC | Ms. Altantuya Tseden-Ish, President, National Association of Mongolian Agriculture Cooperatives | altantuya@namac.coop | 99051810 | Yes | Female |
| 9 | National Federation of Pasture User Groups | Ms Burmaa Dashbal, Mongolian Federation of Pasture User Groups Gantsogt.gg@gmail.com | burmaa.dashbal@greenmongolia.mn | 99939938 | Yes | Female |
| 10 | Altain Uulsiin Orgil (AUO) herders cooperative from Khovd | Mr. Altansukh Tumee, Executive Director | t.altansukh0413@gmail.com | | Yes | Male |
| 11 | SFA | Mr. S. Vandandorj, Director , Sustainable Fibre Alliance | vandandorj.s@sustainablefibre.org | 89121274 | | Male |
| 12 | AVSF | Agronomes & Vétérinaires Sans Frontières | m.lelaege@ausf.org | | | Female |
| 13 | ADRA | Mr. Wilson Maranan, Director, Adventists Development and Relief Agency | director@adra.org.mn | | | Male |
| 14 | OLOLT | Ms Anand Tsog | anand@cccmde.mn | | | Female |
| 15 | OLOLT | Ms. Chuluunkhuu Baatar, Co-founder, Climate Change & Carbon Market Development Center | chuluunkhuu@cccmde.mn | | | Female |
| 15 | National Committee of Gender Equality | Enkhjargal, National Committee on Gender Equality | secretariat@ncge.gov.mn | | Yes | Female |
| 16 | Union of Mongolian Production and Service Cooperatives | Ms.S.Enkhtuya, President of the UMPSC | | 99142898 | Yes | Female |
| 17 | Agricultural Commodity Exchange | Ariunbat, Deputy director | | 99999782 | Yes | Male |
| 18 | DMKNL | B.Erdenebolor, Deputy Team Leader | b.erdenebolor@gmail.com | 99016533 | | Female |
| 19 | IRIMHE | B.Tserenchunt | Bchunt_11@yahoo.com | 99063747 | | Female |

| No | Organization | Name/ position | Email | Phone Contact | Project Bene. | Gender |
|---|---|---|---|---|---|---|
| 20 | Herder cooperative from Arkhangai | Sainbileg Khangai | Sainbileg.kh@gmail.com | 99117358 | Yes | Male |
| 21 | AVSF, EBCN | D.Uranchimeg | info@ebcn-mongoliancashemere.com | 95839359 | | Male |
| 22 | NAMEM | Dr. Batjargal.Z, advisor on Science and International Cooperation | Z_batjargal@yahoo.com | 99086786 | | Male |
| 23 | Zoological Society of London [for wildlife] | Dr Tungalag Ulambayar Country Director | | | | Male |
| 24 | Sustainable Fibre Alliance | Mr. Vandandorj Sumiya Country Coordinator | | | | Male |
| 25 | DCTA Khovd Office | Dr Atarbiold Tsagaan Biodiversity and Adaptation to Climate Change Project [for wildlife] | | | | Female |
| 26 | World Vision, Climate Resilient Communities Project | Ms Tumenjargal Basan Climate Change and DRR specialist | | | | Female |
| **3. UN agency and development partners** | | | | | | |
| 1 | ADB | Mr. Yukitsugu Yanoma, Senior Natural Resources and Agriculture Specialist | yyanoma@adb.org | 94207280 | | Male |
| 2 | WB | Mr. Benjamin Musuku, Senior Financial Sector Specialist, World Bank Mongolia | tmusuku@worldbank.org | | | Male |
| 3 | JICA | Mr. Miyagi Kensuke, Japan International Cooperation Agency (JICA) Representative | miyagi.kensuke@jica.go.jp | | | Male |
| 4 | KOICA | Mr. Kim Junmo, Country Representative, Korea International Cooperation Agency | jmkim@koica.go.kr | | | Male |
| 5 | UNRC | Tapan Mishra, UN Resident Coordinator | tapan.mishra@un.org | | | Male |
| 6 | UNIDO | Munkhbolor Gungaa, UNIDO National Programme Officer | m.gungaa@unido.org | | | Female |
| 7 | UNIDO | Mr. Stephen Karbo, UNIDO Representative | s.karbo@unido.org | | | Male |
| 8 | UNDP | Ms. Matilda Dimovska, UNDP Resident Representative | matilda.dimovska@undp.org | | | Female |

| No | Organization | Name/ position | Email | Phone Contact | Project Bene. | Gender |
|---|---|---|---|---|---|---|
| 9 | UNDP | Ms. Lin Cao, UNDP Deputy Resident Representative | Lin.cao@undp.org | 99119317 | | Female |
| 10 | FAO Mongolia | Munkhuu, Sergelen (FAOMN) Support Programme on Scaling up Climate Ambition on Land Use and Agriculture through NDCs and NAPs (SCALA) | Sergelen.Munkhuu@fao.org | | | Male |
| 11 | UNRCO | Ch.Ariunaa, Head of RCO | Ariunaa.chadraabal@un.org | 94112930 | | Female |
| 12 | UNRCO | Suvd Bold, HAO | Suvd.bold@un.org | 99026892 | | Male |
| 13 | UNDP | Ms. Khishigjargal Project manager Ensuring Sustainability and Resilience (ENSURE) of Green Landscapes in Mongolia | | | | Female |
| 14 | UNDP | Mr. Erdenebat Project manager Improving Adaptive Capacity and Risk Management of Rural Communities | | | | Male |
| 15 | UNDP | Ms. Lin Cao Deputy Country Director | | | | Female |
| 16 | FAO | Ms. Sergelen Munkhuu Project Manager Support Programme on Scaling up Climate Ambition on Land Use and Agriculture through NDCs and NAPs (SCALA) | | | | Female |
| **4. Bank and private sector** | | | | | | |
| 1 | Khan Bank | Gantumur, | gantumur.j@khanbank.com | 99085817 | | Male |
| 2 | State Bank | Enkhtaivan | enkhtaivan.na@statebank.mn | 99002482 | | Male |
| 3 | SME fund | Ya.Erdenesaikhan, head of the SME fund | erdenesaikhan@sme.gov.mn | 99110815 | | Male |
| 4 | SME fund | Ya.Erdenesaikhan, chairman | erdenesaikhan@sme.gov.mn | 99110815 | | Male |
| 5 | SME fund | N.Enkhtur, Head of the Loan and Project Division | | 99624962 | | Female |

| No | Organization | Name/ position | Email | Phone Contact | Project Bene. | Gender |
|---|---|---|---|---|---|---|
| 6 | Khan bank | C.Ganzorig, head of the Credit Policy and Regulation Department | Ganzorig.ch@khanbank.com | 99055527 | | Male |
| 7 | Khan bank | J.Gantumur, senior manager, Credit Policy and Regulation Department | gantumur.j@khanbank.com | | | Male |
| 8 | Khan bank | B.Enkhzaya, Project loan manager, Credit Policy and Regulation Department | Enkhzaya.bat@khanbank.com | 99029963 | | Male |
| 9 | State bank | N.Enkhtaivan, Director, Credit Policy and Administration Division | Enkhtaivan.na@statebank.mn | 99002482 | | Male |
| 10 | State bank | G.Saranzaya, Project loan and Coordination officer, Loan Administration Division | saranzaya@statebank.mn | 88106608 | | Male |
| **DUNDGOVI AIMAG** | | | | | | |
| 1 | Aimag agricultural Department, Dundgovi aimag | Munkhjargal, chairman of the department | | 91915707 | Yes | Female |
| 2 | Labour and Social Protection Division, Dundgovi aimag | Khishigdavaa, chairman of the Division | | | Yes | Female |
| 3 | State registration division | Olziijargal, chairman of the division | | | Yes | Male |
| 4 | Mongolian Women's Federation, Dundgovi aimag | Head of the aimag branch | | | Yes | Female |
| 5 | Ikh Oni wool processing company, Dundgovi aimag | Ikhbayar, Director General | | 99599999 | Yes | Female |
| 6 | Ikh Oni wool processing company, Dundgovi aimag | B.Ganchimeg, General manager | | 99295245 | Yes | Female |
| 7 | Ikh Oni wool processing company, Dundgovi aimag | Myagmar, advisor | | 88019937 | Yes | Female |
| 8 | Research and development Center for Light Industries, MoFALI | Sh.Nansalmaa, analyst | | 91040814 | Yes | Female |
| 9 | Research and development Center for Light Industries, MoFALI | Ts.Ganbold, director of the Center | | 88041913 | Yes | Male |

| No | Organization | Name/ position | Email | Phone Contact | Project Bene. | Gender |
|---|---|---|---|---|---|---|
| 10 | Tevsh bag, Saintsagaan soum | Sh.Batbaatar, herder | | 98622159 | Yes | Male |
| 11 | Tevsh bag, Saintsagaan soum | D.Otgontsetseg, herder | | 93215181 | Yes | Male |
| 12 | Naran bag, Saintsagaan soum | A.Tsugdarnamjil, herder | | 88648746 | Yes | Male |
| 13 | Naran bag, Saintsagaan soum | Kh.Undarmaa, herder | | 89560705 | Yes | Male |
| 14 | Naran bag, Saintsagaan soum | Ch.Tungalag, herder | | 89805955 | Yes | Male |
| 15 | Tevsh bag, Saintsagaan soum | E.Orkhonchimeg, herder | | 99692571 | Yes | Female |
| 16 | Tevsh bag, Saintsagaan soum | D.Baldan, herder | | 96692571 | Yes | Female |
| 17 | 2nd bag | Bat-Amidral, herder | | 94114792 | Yes | Male |
| 18 | Khuld soum, 4th bag, Dundgovi aimag | Tsog-ochir, herder, aimag good herder awarded | | 93121659 | Yes | Male |
| 19 | "Ikhbadrakh khairkhan" cooperative, Saikhan-Ovoo soum | Olzbat, head of the cooperative | | 99004983 | Yes | Female |
| 20 | "Ikhbadrakh khairkhan" cooperative, Saikhan-Ovoo soum | D.Erdene, cooperative member | | 86446691 | Yes | Female |
| 21 | Saikhan-ovoo soum | Monkhbayar, herder and environmental activist | | 99823551 | | Male |
| **OVORKHANGAI AIMAG** | | | | | | |
| 1 | Aimag agricultural Department, Ovorkhangai aimag | Tsedenbaljir, chairman of the department | | 99223393 | | Male |
| 2 | 4th bag, Bayangol soum, Ovorkhangai aimag | D.Batzorig, herder | | 89428595 | | Male |
| 3 | 4th bag, Bayangol soum, Ovorkhangai aimag | A.Ankhbayar, herder | | 86804539 | | Female |
| 4 | 4th bag, Bayangol soum, Ovorkhangai aimag | B.Janlav, herder | | 80198304 | | Male |
| 5 | Agropark, Ovorkhangai aimag | Ts.Adya, Director | | 98117719 | | Female |

| No | Organization | Name/ position | Email | Phone Contact | Project Bene. | Gender |
|---|---|---|---|---|---|---|
| 6 | National Association of Mongolian Agricultural Cooperatives, Ovorkhangai branch | L.Jargalbaatar, head of the aimag branch | | 99329918 | | Female |
| 7 | National Association of Mongolian Agricultural Cooperatives, Ovorkhangai branch | Ts.Tomor-Ochir, Supervising board | | 88325589 | | Female |
| 8 | “Noos ireedui” wool processing factory | Ts.Sukhbaatar, Director General | | 99118590 | Yes | Male |
| 9 | “Noos ireedui” wool processing factory | B.Chimedtseren, director | | 99112847 | Yes | Male |
| **TOV AIMAG** | | | | | | |
| 10 | Bayankhangai soum | Bayarmaa, soum governor | | 88881382 | | Male |
| 11 | “Haramafuji” dairy farming | B.Erdene, manager | | 99400325 | | Male |
| **DARKHAN-UUL AIMAG** | | | | | | |
| 1 | Darkhan nekhii Co.,ltd, hides and skins processing factory | B.Gerelmaa, executive director | | 88114886 | | Male |
| 2 | Yak trade Co.,ltd | B.Chantsal, executive director | | 99372055 | | Female |
| 3 | Darkhan nekhii Co.,ltd, hides and skins processing factory | Ts.Enkhjargal, technologist | | 99225766 | | Male |
| 4 | Darkhan nekhii Co.,ltd, hides and skins processing factory | B.Tsolmon, technologist | | 88072894 | | Male |
| 5 | “Darkhan minj” Co.,ltd, hides and skins processing factory | O.Batmunkh, deputy director | | 88119129 | | Male |
| 6 | “Darkhan minj” Co.,ltd, hides and skins processing factory | A.Enkhtsesteg, technologist | | 88181753 | | Male |
| 7 | Organic Agriculture project, ADRA, Mongolia | S.Altantsetseg, Project manager | | 99374353 | | Male |
| 8 | ADRA, ASIA | Brendon Irvine, Project consultant | | 85520560 | | Female |

| No | Organization | Name/ position | Email | Phone Contact | Project Bene. | Gender |
|---|---|---|---|---|---|---|
| **BAYANKHONGOR AIMAG** | | | | | | |
| 1 | Aimag government office | D.Munkhsaikhan, Governor of the aimag | | | Yes | Male |
| 2 | Aimag government office | D.Enkhjargal, Head of Aimag Governor's office, | | | Yes | Male |
| 3 | Aimag government office | U.Baljinnyam, Head of Food and Agricultural Department, | | | Yes | Male |
| 4 | Aimag government office | E.Ganzorig, Head of Department of Environment and Tourism, | | | Yes | Female |
| 5 | Government office of Bombogor soum, Bayankhongor aimag | M.Bayarsaikhan, soum governor | | | Yes | Male |
| 6 | Government office of Bombogor soum | G.Magnaibayar, speaker of soum parliament | | | Yes | Male |
| 7 | Government office of Bombogor soum | Ts.Munkhjargal, head of Governor's office, | | | Yes | Female |
| 8 | Government office of Bombogor soum | B.Bolortsetseg, Officer in charge of pasture and crop production, Bombogor soum, | | | Yes | Male |
| 9 | Government office of Bombogor soum | L.Otgontuul, Zootechnician, | | | Yes | Male |
| 10 | The Governor of Bombogor soum | M.Bayarsaikhan | | | Yes | Male |
| 11 | Speaker of soum parliament, Bombogor Soum | G.Magnaibayar, | | | Yes | Female |
| 12 | Head of Governor's office | Ts.Munkhjargal, | | | Yes | Female |
| 13 | Officer for pasture and crop production Bombogor Soum | B.Bolortsetseg, | | | Yes | Male |
| 14 | Zootechnician, Bombogor Soum | L.Otgontuu, | | | Yes | Male |

**LIST OF COMMUNITY BENEFICIARIES (HERDERS) CONSULTATION**

| | Location | Name | Gender |
|---|---|---|---|
| 1 | Tegsh bagh, Saintsagaan soum, Dundgobi | Otgontsetseg | Female |
| 2 | Tegsh bagh, Saintsagaan soum, Dundgobi | Sh.Batbaatar | Male |
| 3 | Tegsh bagh, Saintsagaan soum, Dundgobi | D.Otgontsetseg | Male |
| 4 | Naran bag, Saintsagaan soum, Dundgobi | A.Tsugdarnamjil | Male |
| 5 | Naran bag, Saintsagaan soum, Dundgobi | Kh.Undarmaa | Male |
| 6 | Naran bag, Saintsagaan soum, Dundgobi | Ch.Tungalag | Male |
| 7 | Tevsh bag, Saintsagaan soum, Dundgobi | E.Orkhonchimeg | Female |
| 8 | Tevsh bag, Saintsagaan soum, Dundgobi | D.Baldan | Female |
| 9 | Naran bag, Saintsagaan soum, Dundgobi | A.Tsugdarnamjil | Male |
| 10 | Naran bag, Saintsagaan soum, Dundgobi | Kh.Undarmaa | Female |
| 11 | Naran bag, Saintsagaan soum, Dundgobi | Ch.Tungalag | Female |
| 12 | Tegsh bagh, Saintsagaan soum, Dundgobi | E.Orkhonchimeg | Female |
| 13 | Tegsh bagh, Saintsagaan soum, Dundgobi | D.Baldan | Male |
| 14 | 4th bagh, Khuld soum, Dundgobi | Tsog-ochir, | Male |
| 15 | Saikhan Ovoo soum, Dundgobi | Olzbat, | Male |
| 16 | Saikhan Ovoo soum, Dundgobi | Erdene | Male |
| 17 | Saikhan Ovoo soum, Dundgobi | Munkhbayar | Male |
| 18 | Agricultural Department, Uvurkhangai aimag | Tsedenbaljir | Male |
| 19 | 4th bag, Bayangol soum, Uvurkhangai aimag | D.Batzorig | Male |
| 20 | 4th bag, Bayangol soum, Uvurkhangai aimag | A.Ankhbayar | Female |
| 21 | 4th bag, Bayangol soum, Uvurkhangai aimag | B.Janlav | Male |
| 22 | 2nd bag, Dundgobi aimag, | Bat-Amidral, | Male |
| 23 | Khuld soum, 4th bag, Dundgovi aimag | Tsog-ochir, | Male |
| 24 | Saikhan-Ovoo soum, Dundgobi aimag | Olzbat, | Male |
| 25 | Saikhan-Ovoo soum, Dundgobi aimag | D.Erdene, | Male |
| 26 | Saikhan-ovoo soum, Dundgobi aimag | Monkhbayar | Male |
| 27 | Delgertsogt soum | D. Munkhjargal | Female |
| 28 | Saintsagaan | Ts. Oyunchimeg | female |
| 29 | Saintsagaan | Ch. Tserendorj | Male |
| 30 | Saikhan-Ovoo | B. Nansalmaa | Female |
| 31 | Saikhan-Ovoo | N. Gundegmaa | Female |
| 32 | Saikhan-Ovoo | Tserenpagma | Female |
| 33 | Khuld soum | S.Batjargal | Female |
| 34 | Saintsagaan, naran bag | S.Erdenebat | Male |
| 35 | Delgertsogt, Tsahiurt bag, Dundgobi | N.Zagdsuren | Female |
| 36 | Delgertsogt, 2nd bag, Dundgobi | Ts.Ider | Male |
| 37 | Delgertsogt, Emt bag | Ts.Baymba | Female |
| 38 | Gurvansaikhan, Dundgobi aimag | J.Olziibat | Female |
| 39 | Gurvansaikhan soum | D.Erdenechuluun | Male |
| 40 | Erdenedalai soum | Yanjinlkham | Female |

| | Location | Name | Gender |
|---|---|---|---|
| 41 | 4th bag, Bayangol soum, Ovorkhangai aimag | D.Batzorig | Female |
| 42 | 4th bag, Bayangol soum, Ovorkhangai aimag | A.Ankhbayar | Female |
| 43 | 4th bag, Bayangol soum, Ovorkhangai aimag | B.Janlav | Male |
| 44 | Khuld, 1st bag Ovorkhangai aimag | S.Khorloo | Female |
| 45 | Ovorkhangai branch | L.Jargalbaatar, | Male |

## ANNEX 12: GRIEVANCE REDRESS MECHANISM FORMS

### I. Record of Stakeholder Concerns

| No. | Query or Comment | Issue | Parties Making Comments | Reply by the Project |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |

- Provide the summary of the main concerns regarding the project, its environmental and social impacts and risks, and the environmental and social management measures and instruments.
- Descriptive record of the main concerns raised by the parties concerned and other stakeholders of the Project.
- Provide signed attendance, disaggregated by gender and ethnicity.
- Include section on photo-documentation.

### II. Sample Grievance Receipt Form

| RECEIPT FORM | |
|---|---|
| **Indicate Name of the Executing Unit:** | |
| **Indicate Project Name:** | |
| **REGISTRATION OF THE GRIEVANCE** | |
| **Date and Time Received:** | |
| **Place Received:** | |
| **Party Receiving It:** | |
| **Name:** | |
| **Position:** | |
| **Means of Reception:** | a) Verbal<br>b) Telephone<br>c) Written Letter (Registration N°. assigned)<br>d) E-mail<br>e) Office providing Permanent Attention<br>f) [Indicate other means] |

| | |
|---|---|
| **I. PERSONAL DATA** | |
| **Does the person want to identify itself?** | Yes / No |
| **Name and Surnames:** | |
| **Address:** | |
| **District:** | |
| **Tel. #:** | |
| **E-mail:** | |
| **[Add other information]:** | |
| **II. INFORMATION ABOUT THE CASE** | |
| **2.1 Type of Case:** | a. Grievance<br>b. Claim<br>c. Query<br>d. Other |
| **2.2 Subject of the Case:** | a. [Indicate topic, e.g., "Environmental aspects of the Project"]<br>b. [Indicate topic] |
| **2.3 Details of the Grievance:** | |
| **2.4 Request Concerning the Grievance:** | [Indicate] |
| **2.5 Documentation Provided by the Complainant:** | [Indicate reports, photographs, among others] |
| **III. ADDITIONAL REMARKS** | |
| **Name of the Person Responsible for Case:** | **Position:**<br>**Signature:** |
| **Name of the Party Presenting Grievance:** | **Position:**<br>**Signature:** |
| **Note: A copy of this form is given to the person who filed the complaint.** | |
| **Confidentiality Notice:** | The information contained in this form has been provided voluntarily and authorized by the above signer. The institution guarantees the confidentiality of the information registered and its use for the corresponding purposes. |

### III. Case Record Matrix

| Case No | Name | Tel # | E-mail | Address | Anonymous | Issue | Request | Area Forwarded To | Date Registered | Date of Forwarding | Date of Reply from the Area | Issuance of Reply to Complainant | Closure Date | Days for Processing | Amount Executed for Case Processing |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | Yes / No | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | |

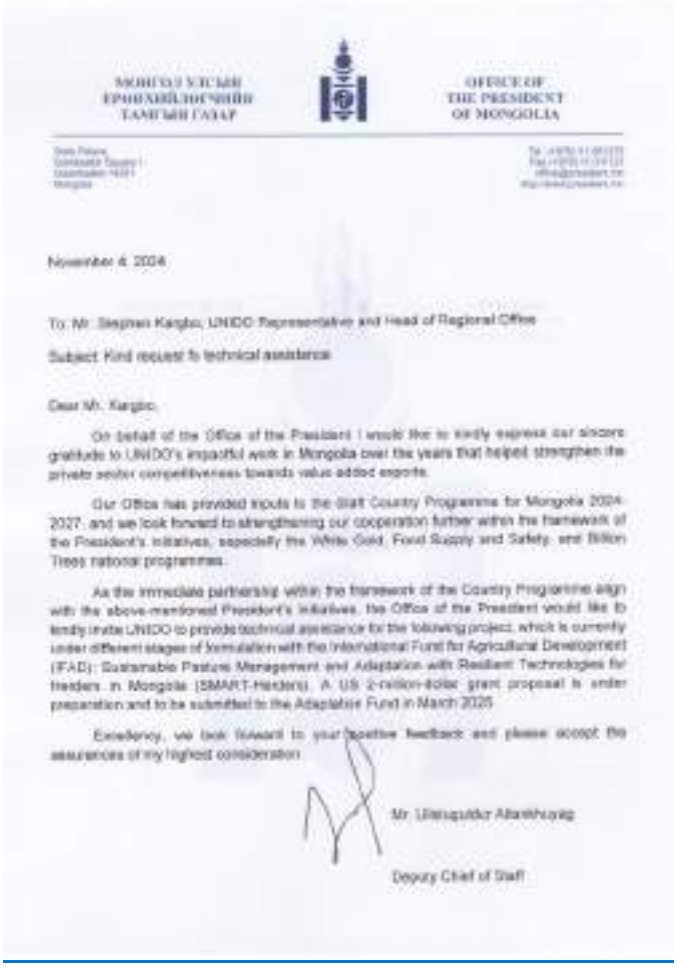
**IV. Sample Reply Format**

| Sample Reply Format to the Complainant | |
|---|---|
| **REPLY FORM TO GRIEVANCE #** | |
| **Executing Unit:** | |
| **Project Name:** | |
| **Date of Reply:** | |
| **I. PERSONAL DATA** | |
| **Name:** | |
| **Address:** | |
| **Email:** | |
| **Phone:** | |
| **II. REPLY TO GRIEVANCE FILED** | |
| **SITUATION 1 - ACCEPTED:** | |
| **We inform you that your grievance has been ACCEPTED, considering that (explain the reasons for the answer):**<br><br>**Therefore, in order to act on what was filed, [Executing Unit] will carry out the following actions (indicate the actions):** | |
| **SITUATION 2 - DECLINED:** | |
| **We inform you that, considering (explain the reasons/support for the answer),Your claim has been DECLINED.** | |
| **Name of the Person Responsible for Case:** | |
| **Position:** | |
| **Signature:** | |
| **Name of the Complainant Who Filed the Grievance:** | |
| **Position:** | |
| **Signature:** | |

### V. Sample Case Closure/Resolution Form

| Sample Case Closure/Resolution Form | |
|---|---|
| **CASE CLOSURE FORM #** | |
| **Indicate Name of the Executing Unit:** | |
| **Indicate Project Name:** | |
| **Delivery Date:** | |
| **I PERSONAL DATA** | |
| **Name and Surnames:** | |
| **Address:** | |
| **District:** | |
| **II GENERAL DESCRIPTION OF THE CASE** | |
| | |
| **III SUMMARY OF MEASURES IMPLEMENTED** | |
| **1.** | |
| **2.** | |
| **3.** | |
| **4.** | |
| **5.** | |
| **Name of the Person Responsible for Case:** | |
| **Position:** | |
| **Signature:** | |
| **Name of the Complainant Who Filed the Grievance:** | |
| **Position:** | |
| **Signature:** | |

## ANNEX 13: UNIDO Letter from Government – Office of the President



МОНГОЛ УЛСЫН ЕРӨНХИЙЛӨГЧИЙН ТАМГЫН ГАЗАР

OFFICE OF THE PRESIDENT OF MONGOLIA

November 4, 2024

To: Mr. Stephen Kargbo, UNIDO Representative and Head of Regional Office

Subject: Kind request to technical assistance

Dear Mr. Kargbo,

On behalf of the Office of the President I would like to kindly express our sincere gratitude to UNIDO's impactful work in Mongolia over the years that helped strengthen the private sector competitiveness towards value added exports.

Our Office has provided inputs to the Draft Country Programme for Mongolia 2024-2027, and we look forward to strengthening our cooperation further within the framework of the President's initiatives, especially the White Gold, Food Supply and Safety, and Billion Trees national programmes.

As the immediate partnership within the framework of the Country Programme align with the above-mentioned President's initiatives, the Office of the President would like to kindly invite UNIDO to provide technical assistance for the following project, which is currently under different stages of formulation with the International Fund for Agricultural Development (IFAD): Sustainable Pasture Management and Adaptation with Resilient Technologies for Herders in Mongolia (SMART-Herders). A US 2-million-dollar grant proposal is under preparation and to be submitted to the Adaptation Fund in March 2025.

Excellency, we look forward to your positive feedback and please accept the assurances of my highest consideration.

Mr. Ulziisuldor Altankhuyag

Deputy Chief of Staff

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